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# COMBINED COURT. 

FIRST SPECIAL SESSION, 1923.

BY THE
Honourable Dr. J. J. Nunan, K.C., LL.D., ON BEHALF OF

## BRITISH GUIANA DEPUTATION T0 THE INDIAN GOVERNMENT.

Printed by the Euthority of Ibis Excellency the Governor. Britisa Guiana. $\quad$ Downing Street,
Sir, $\quad$ 9th April, 1920.

SIR,
$\therefore$ I have the honour to transmit to you the accompanying copy of $D$ J. J. Nunan's Report on the visit of the Deputation to India to advocate a Colonisation Scheme on behalf of the British Guiana Government.
2. I have conveyed to Dr. Nunan an expression of my high appreciation of the able and valuable services which he and his colleagues have rendered to the Colony in face of great difficulties.
3. I have also asked the Governor of Malta for a report upon the result of his investigations in regard to the question of encouraging Maltese emigrants to proceed to British: Guiana, which, as you will observe from the enclosed Report, was discussed durirg Dr. Nunan's visit at Malta on his return voyage.

I have the honour to be,
Sir,
Your most obedient bumble Servant,
Governor
(Signed) MILNER.
Sir Wilered Collé', K.C.M.G., \&c., \&c, " \&c.

## GEORGETOWN, DEMERARA:


No. 11,536.

## REPORT OF HON. DR. NUNAN ON BEHALF OF BRITISH GUIANA DEPUTATION 'IO THE INDIAN GOVERNMENT.

## My Lord,

On behalf of the British Guiana Deputation to India I have the honour to report. as follows:-

Mr. Thomas Greenwood, representative of the West India Committee, and I, arrived in Bombay by the transport "Leicestershire" on the 18th November, 1919, and were joined by the three members of the Indian Section, Messrs. Wharton, Luckhoo and Parbhu Sawì on the 27th November. In the interval, Mr. Greenwood and I interviewed the Bombay Editors and Newspaper Managers, the Secretaries of the Imperial Citizenship Association of India and other Native Associations. We also bad two hours discussion of British Guiana Colonisation matters with Mr. C. F. Andrews on board the steamer, on which he was about to sail for East and South Africa. Mr. Andrews, it will be remembered, was formerly a Church of England clergyman and was a protagonist in the campaign against the Indenture System, basing his viens of it upon the result of two visits to Fiji. He had just issued a second pamphlet directed against the treatment of Indians in $\mathrm{Fij}_{\mathrm{i}}$, and he was regarded in India as the leading champion of the Indians abroad. Mr. Andrews expressed himself in favour of the British Guiana Scheme, and promised, to come out in public in support of it by.writing from East Africa after going mure carefully into the printed documents. He gave us various pieces of advice, which proved of some service, and promised to write to Mahatma Gandhi, recommending the favourable consideration of our proposals. Up to the time I left India on the 12th February, he had not carried out his promise of public support, but Mr. Gandhi informed me that he had received a letter from him.

It became clear at an early stage that the Indian attitude on any question of colonisation would be entirely guided by the publicly expressed opinions of $\mathbf{M r}$ Gandhi and Mr. Andrews, Mr. Gandhi, of course, being much the more important of the two. My main efforts were therefore directed to securing as early as possible a public expression of support from Mr. Gandhi. This 1 only succeeded in securing on Sunday, the 1st February at Lahore.

All matiters relating to colonisation had been entrusted by the Indian Government to Sir George Barnes, K.U.S.I., Secretary to the Government of India in the Department of Industry and Commerce. While waiting for my Indian colleagues, I forwarded a personal letter of introduction from Sir Malcolm Seton (Assistant Under-Secretary of the India Office) to Sir George Barnes at Delhi, and asked him to be good enough to fix adate for the presentation of the letter of introduction from the Secretary of State for India. Sir George, however, before replying, shortly afterwards visited Bombay, and on learning this, Mr. Greeluwood and I on the 26th November secured a personal interview with him at the Bombay Yacht Club, which lasted more than an hour.

Notwithstanding previous correspondence between the Secretary of State for India (Mr. Montagu) and the Indian Government, reference to which was made in the official letter of introduction, *sir George was not at this time acquainted with the nature of our proposals, as may be seen from the letter marked (A) attached to

[^0]this Beport. The Indian Office had forwarded them on 18th September in full, int cluding the reports of our interviews with Lords Milner and Sintia. Personally he regretled that the question of emigration from India should be raised in any form, as the subject was most coutroversial and Indian feeling very strong. He regarded our enterprise as hopeless. Eventually, however, he promised neutrality in the matter, and agreed to receive the Deputation on the 5th December. The Deputation lunched with Sir George Barnes on this date at his residence in Delhi, and was afterwards received by him at his Office in the Government Buildings.

My speech and Sir George's reply were widely circulated through the Official Press Bureau, (Appendix "B") and were ultimately printed by the Deputation in the form of a pamphlet. The report was corrected for the Press by Mr. Grernwood, It will be noted that Sir George Barnes expressed the policy of the Government as follows:-
"I am not willing to express any opinion on your scheme at the present " time, and before it can be considered by the Government of India I must lay "down as a condition that you must have first obtained the support of the
"Province from which you hope to draw your Colonists and of the leaders of "public opinion in the country. The question is one on which the Govern"ment of India will be largely, in fact, I may say, entirely guided by Indian " opinion, and consequently you will have to make it your business to ventilate "the subject with the thinking men of this country and the leaders of public "opinion. When you bave done that and secured their support and the "support also of the local Governmeats I shall be very glad to see you again "and discuss the matter with you. 1 think that it would be well that you
"should meet a representative commiltee of the lmperial Legislative Council.
"You will then have an opportunity of laying your proposals before the
"Committee and of proving that your proposals are to the advantage of the
"Indian people."
I had an interview with His Excellency, the Viceroy, Lord Chelmsford, at the Belvedere, Calcutta, on the 5th January, but be had not as yet had an opportunity of considering the question. Sir Genrge Barnes had not seen him on the subject, but His Excellency told me that he was to do so that very afternooi. His Excellency, however, assured me that the views expressed by Sir George Barnes were also bis own, and that I should consider them as those of the Government. The Viceroy at the same time confrmed the promise that a resolution would be officially moved in the Legislative Council for the appointment of a Select Committee, that this would be done immediately the Council met, that on the passing of the resolution the Committee would be immediately appointed, and that no delay would be allowed which the Indian Govern ment or its officialṣ could prevent.

It will be. seen therefore, that the first task of the Deputation was defined to be that of obtaining the support of the Provincial Governments and of those whom Sir George Barnes described as the leaders of public opinion in India.

Sir George expressed the opinion at which we had already arrived, that the views of Mr. Gandhi would be of the greatest importance in this connection. His Excellency the Viceroy took the same view. Experience of the Indian Leaders pnly confirmed the soundness of this opinion. Mr. Gandhi was their specialist in emigration questions owing to his South African experiences. As tar as unofficial opinion in India is concerned, I did not gather that Mr. Gandhi's influence, bowever respected, affected the Mohammedan element seriously or the Mahrattas at all (whose leader was Mr. Tilak) or Southern India in geaeral; but it was soon made clear that, however friendly to the scheme outstanding and independent Indian leaders like Mr. Srinivasa Sastri might be, public expression of that friendli-
ness would have to wait almost in every case until a lead was given publicly by Mr. Gandhi, however much they might disagree with his views on general ques: tions. Ihis also accounts for the delay in the public expression of support by Mr . Andrews. Mr. Tilak we had seen in London and he was one of our warmest supporters but he was in a dying condition during our stay in India, otherwise he would have taken independent action as indeed the Calcutta Mohammedans actually did.

The Deputation saw Mr. Gandhi in the Great College of St. Stephen at Delhi on the 11th December, again by appointment in the Hindu Temple of Krishna at Amritsar on the 26th December, the day fixed for the opening of the Indian National Congress. We had to motor from Lahore on account of the crowds. Mr. Wharton and Mr. Parbhu Sawh saw him at his house at Ahmedabad on the 5th January, and two Indians who had returned from British Guiana by the "Sutlej" were sent by me to report on the condition of Indians in British Guiana, and interviewed him at Ahmedabad on the 10th. At all these interviews Mr. Gandhi stated that he was not in favour of Indians leaving India, but would not publicly oppose our Scheme. Subject to being satisfied that the political and commercial equality which we claimed as existing in British Guiana was really to be found there, and subject to guarantees for its continuance being forthcoming, he would be inclined to favour or at least not to o ppose a trial of the Scheme, subject to an independent-that is, non-official-report of its working after six months. He offered to place the matter before the Imperial Citizenship Association of Bombay, through Mr. Jehangir Petit, its Secretary, a leading Parsee merchant and Chairman of the Chamber of Commerce of Bombay, whom Mr. Greenwood and I had already interviewed, He also promised to write to me personally his final views. As I did not receive any letter, and as the public expression of his views was of such great importance, I went to Lahore again, and saw him on Sunday, the 1st February, at the house of a Pandit just released from jail in connection with the Punjab outbreak. Mr. Gandhi signed in duplicate for publication a statement of his opinion (Appendix "F") which I had prepared, and which set out that he was satisfied that political and commercial equality existed in British Guiana, that the necessary guarantees could be provided, and that the British Guiana Scheme should be given a fair trial subject to independent report after it had been in operation six months. I sent the original to the Imperial Citizenship Association at Bombay, which, on the 11 th February, passed a unanimous resolution in support of the British Guiana Scheme. The duplicate I took to Sir George Barnes' Office, to be shown to the Viceroy, and had some certified official copies made through the courtesy of Hon. Mr. Ley which I sent to the Press and to other useful quarters. The duplicate I eventually handed to Mr. Surend-Ranath Bannerjee, Leader of the Moderate Party and Chairman of the Select Committee, which was just about to begin its sittings.* On the 7th February, Mr. Gandhi published a statement in similar terms of acceptance in his paper Young India.

I should mention that nobody appeared to believe that it would ever be possible to secure any public support of the kind. The Deputation, however, had paved the way by securing a unanimous resolution of the Central National Mohammedan League at Calcutta in favour of the Scheme, on 9th January, Nawab Chaudhuri, a member of the Indian Legislative Council, in the Chair. This was the first formal expression of support by any representative body, and as publicity was immediately given to it by the Association itself, and a copy of the resolution sent by it to the Viceroy, it was of extreme importance. Messrs. Greenwood, Luckhoo and I were present at the meeting, which lasted over three hours. (It was a body of wealthy merchants and landowners of an exceptionally intelligent kind. They explained their prompt support by the frankness with which we had dealt with the poiuts that seemed to tell against the colony).

- NoTr - It does not appear that Mr. Gandhi has materially altered this attitnde as regarda Britiah Guiana. Subsequens ocourrences in Labt Afriom and Fiji led him to dedare absolute hontility to Fijian emigration (Neptember, 1920) but as regards British Guiana ho made no such deolaration merely etating that he would not favorr emigration. He had never favoured emigration, Hia bbnevolent neutrality was all that was required.

Between our interview with Mr. Gandhi on the 11th of Decomber at Delhi, 'and my own interview with him at Lahore on the 1st February, I visitel Sir, Harcourt Buller, Lieutenant-Governor of the United Provinces at Lucknow, Sir Edward Maclagan, Lieutenant-Governor of the Puajab, at Lahore, His Excellency Lord Willingdon, Governor, at Madras, and His Excellency Sir Goorge Lloyd at Bombay. Messrs. Greenwood and Luckhoo and I saw Lord Ronaldshay at Calcutta, and Mr. Greenwood saw Sir Edward Gate, Lieutenant-Governor of Behar, at Patna. All gave cordial acceptance and promised hearty support to the scheme, as not alone fair but generous, and as likely to be as beneficial to the people of India as to British Guiana and to the food supply of the British Empire. They regarded it to be of some political importance as helping to solve a serious Indian problem as to the relationship of India to the British Colonies, and as giving Indians an opportunity to show what they could accomplish in a Colony where absolute equality and liberal constitutions had long existod. To Lord Ronaldshay and Sir George Lloyd I outlined a scheme of trausportation and lodgment which they approved. The Provincial Governors authorized us to notify the Viceroy and Sir George Burnes of their acceptance, This included the consent to use Bumbay as an additional or alternative port of shipment.

Dr. Wharton left India on the 10 th of January, and, on the same day, Mr. Parbhu Sawh was relieved of any duties in connection with the Dsputation. Mr. Greenwood on the same date left Calcutta io return to England by Ceylon. We thought it advisable to reduce the number of the Doputation in view of the unexpected delay, owing to the necessity of waiting for the meeting of the Indian Legislative Council, and the heavy cost involved by the rise of the rupee from 1 s .4 d . to 2 s .5 J . and eventually to 2s. 11 d . I accompanied Mr. Greenwood as far as Colombo in order to visit some of the estates there in accordance with Mr. Andrews' advice, and Mr. Greenwood and. I en route interviewed the Madras Editors and public men and also the Roman Catholic Bishop of Trichinopjly, who promised his support among his tlock. We had been encouraged by Mr. Andrews to consider the transportation of entire Christian village communities with their pastors to the more congenial theological atmosphere of Guiana. We found this to be feasible and worthy of working out in detail. To Lord Willingdon and Mr. Marjoribanks (Chief Secretary of Madras) I owe special acknowledgment for practical assistance. (At Colombo I was the guest of His Escellency Sir Wm. Manning, G.C.M.G., and studied with Mr. Greenwood the Ceylon emigration system).

With only a couple of exceptions, we secured the active support, or a friendly attitude, of the entire Indian Press, buth English and vernacular. On the fer occasions where attacks were made, detailed replies were published by the Deputation and served a useful purpose. (Mrs. Besant had supported us in London and she repeated in Madras to Mr. Greenwood and myself her promise of support in her paper New India. Her iofluence, however, had largely passed to the extremist leaders). The greatest publicity was secured throughout India, and the pamphlets in English and the vernacular languages, published by the Deputation, received a very wide circulation, especially on the occasions of the Indian National Congress at Amritsar, and the Moderate Congress at Calcutta. I should mention that, for the purpose of propaganda, a British Guiana Tent flying the Colony flag was set up within the grounds of the Congress at Amritsar, and the Indian Section of the Deputation were present, on the days of the Congress, for the purpose of meeting the extremist Leaders and circulating the pamphlets. The Indian Government was made aware of our intention and they stated that they had no objection. Needless to say, this section took no part in the Congress proceedings. At this time, Mr. Greenwood was attending the Moderate Congress.

On the 20th December at Amritsar we saw the Congress Chairman, Pandit Moti Lal Nehru, the ex-Chairman, Pandit Malavia, the ex-Chairman, Hassan -Oniar, and many other prominent members of the Congress, also Mr. Shasperi, of
the Legielative Council, one of the few Moderates who attended the Congress. Some of these gentlemen we had already seen in London during the visit of the British Quiana Deputation. Mr. Shaspori, a man of very considerable influence, told me that, at first, he had Been very suspicious of the British Guiana proposals in view of the general treatment of Indians in the Colonies, that out assurance seemed to be too good to be true, but that he had made inquiries and he was now prepared to support us in or outside the Legislative Cquncil. This, however, would be subject to the views of Mr. Gandhi. Mr. Malavia said that while very suspicions, especially in view of the news from East and Scuth Africa, if Mr. Gandhi approved of it, he would accept the Scheme on trial, provided that ample guarantees were forthcoming. This attitude he subsequently departed from at least temporarily, by opposing single-handedly the appointment of the Select Cormittee in the Legislative Council. He subsequently explained that his attitude on that occasion was owing to a misanderstanding of the British Guiana situation. His temporary opposition, as a matter of fact, was mainly due to our apparent association with the Fijian Deputation, which the Committee was also being asked to deal with. At Amritsar I received a renewed promise of support from Mr. Sastri. T'he political atmosphere was highly surcharged as it was the very month of the hearing of the evidence before the Hunter Commission as to the Jaliannwallabagh shooting but, although probably the only European (except Mrs. Besant and an Irish lady) not on police or magisterial duty in the city at the time, I was treated with courtesy on all oceasions.

The news from East Africa consisted of a cable communication from Mr. Andrews relative to a report by an Economic Commission in that Colony, in which the colonisation of East Africa by Indians was referred to in unfavourable terms, and relative to a resolution of the European Association of East Africa to the like effect. A copy of the document sent to the Congress by Mr. Andrews is attached and marked "C." " This created a sensation, and produced a sceptical, though, fortunately, not a hostile attitude to the Deputation. A little later, Mr. Andrews cabled from South Africa that the position of Indians there was "worse than ever."

The position was by no means improved by the unexpected arrival in-India of the Fijian Deputation, consisting of the Bishop of Polynesia and Mr. Rankine, C.M.G., Receiver-General. They came with a personal introduction to the Viceroy from the Governor of Fiji. They called on me in Calcutta on 5th January and I placed all the dociments and correspondence, affecting the British Guiana Scheme, at their disposal, and then and on all subsequent occasions, gave them every assistance in my power, and the benefit of our dearlybought experience. My colleagues did the same. It did not appear that they had any. Scheme, but they were prepared to follow ours, as far as the circumstances of their Colony permitted. From the evidence which they subsequently placed before the Select Committee it will be seen that they did so in the fullest way. They had the advantage of communication within a few hours, by cable with Fiji, and, although arriving with very limited authority, they were subsequently abld to place a Scheme before the Committee which in nearly all respects, except full equality of Municipal rights, is based upon the British Guiana printed Scheme. I think that they will freely acknowledge the great assistance given them by the British Guiana Deputation, but unfortunately, the unfriendliness to Fiji ${ }_{2}$ due to Mr. Andrews' campaign, and especially to his last pamphlet, published only a few months before, prevented the Fijian Deputation from being unwittingly anything but the greatest hindrance to our own propaganda, which had been so carefully and elaborately prepared, by keavy expenditure and wearisome travelling, and preceded by interviews with the Colonial and India Offices. $\dagger$

[^1]The Viceroy referred to the two Depntations in his speech to the National Congress on the.30th of January. He said that British Guiana had put forward a scheme of free State-aided colonisation and that Fiji desired to enter into new and more satisfactory relations with India. He said he was personally in favour of allowing emigration under proper safeguards. He said that Sir George Barnes would give notice of a resolution for the appointment of Seleat Committee to meet the Deputations.

The Select Committee was moved for, not by Sir George Barnes, but by Mr. Bannerjee, and adopted, Mr. Malavia alone dissonting. Mr. Malavia's opposition, I understand, is not likely to continue as regards British Guiana. He was seriously misled as to the exact position of Indians, who he thought consisted exclusively of $\mathbf{7 0 , 0 0 0}$ day labourers, ascripti glebue.

Such a Committee reports direct to the Viceroy in Council and not to the Iegislative Council. Executive action can therefore be at once taken on any Report.

His Excellency, the Viceroy, at our request graciously waived the 15 days' notice ordinarily required for the consideration of a resolution, and the Select Committee was immediately appointed. On our representing that if the Deputation, now consisting only of Mr. Luckhoo and myself, was unable to leave by a steamer on the 12th February from Bombay, they would be unable to obtain passages until some time in May, owing to the crowded condition of the few steamers available so soon after the War, Mr. Bannerjee summoned the first meeting for Thursday, the 5th. On that day the credentials of the Deputation were examined and verified. An amendment had been carried in the Legislative Council to the resolution for the appointment of the Committee, requiring the Deputations to establish their credentials. Sir George Lowndes, the Legal Member, afterwards assured me that had he known that the British Guiana Deputation had an introduction from the Secretary of State for India, he would have opposed the amendment, and he regretted that he was unaware of the position. As it was, by some oversight, no official intimation was made to the Legislative Council as to the circunstances of our presence in India. The Select Committee, however, subsequently expressed itself perfectly satisfied that we represented the Government and the people of British Guiana, including the East Indian community.

The Select Committee sat for three days-Mr. Luckhno and I being present each day-and on the 10th February unanimously expressed approval of the British Guiana scheme, and its recognition of the fact that Indians were treated on terms of equality with other races in the Colony. It requested the Government, however, "before final acceptance" of the Scheme, to despatch immediately a Committee of "three informed persons" to British Guiana to report by cable, if possible, as to whether, from an agricultural point of view, the scheme was applicable in the Colony. Two at least of these persons are to be skilled agricultarists, and the Inquiry is to be confined to the particular economic question. We accepted this stipulation at once agreeing that the Colony should share any expense except salaries or special remuneration.*

Meanwhile, the British Guiana Propaganda and Organization are to be allowed to proceed, including the enrolment of any intending emigrants, and the individual licences to emigrate are not to be interfered with. $\dagger$

After six months from the end of the Great War, apparently about the 15th July, as peace was celebrated in India on or about 15th January, all restrictions on emigra* tion to British Guiana should cease mechanically. It is, however, possible that the

[^2]postponement of peace with Thirkey may lead to the continuance of the Indian Defence of the Realm Regulations for some time longer. At present the only restriction consists of one of the Defence of the Realm Regulations ( $c$. Appendix " $D$ ") prohibiting for the period of the War and six montho after, the emigration of unskilled labour for work beyond the seas. Sir George Lowndes agreed with me that the Indian Emigration Acts do not appiy to our scheme as it involves no contracts. I received an assurance from the Viceroy that no special legislation. aiming at the prevention of free emigration to British Guiana, would be passed, and that he was concerned only with the safeguarding of the interest of the emigrants.* The despatch of this Committee to British Guiana probably will directly only affeet operations during the next four months, but it will have the powerful political effect of preventing attack upon the scheme by such of the extremist section as may not have been converted. Its prompt acceptance by the Deputation, I believe, has already bad an excellent effect in establishing the bona fides of the Colony, in regard to colonisation from India.

Some of our special difficulties may be briefly mentioned:
(1.) There was at the time serious disappointment at the non-realisation of the hope, entertained in India in some quarters, official and un-official, that East Africa would be handed over entirely to India. There was not the slightest realization of the Colonial Uffice difficulties in that form of solution of the Kenya question.
(2.) I have already referred to the excitenent created by the evidence at the Hunter Commission on the Amritsar shooting.
(3.) Before the Deputation left London, a resolution of the newly-formed British Guiana East-Indiau Association of which Dr. Wharton and Mr. Luckhoo were Honorary President and President respectively, had been cabled on October 1ith by Mr. Clementi, the Officer administering the Government, to the Colonial Office for communication to the India Office. This resolution condemned, as unauthorised by the Association, a pamphlet issued in London by Dr. Wharton and Mr. Luckhoo, attached marked "E." This pamphlet was also unauthorised by the British Guiana Deputation, and expressed merely the personal views on wages and similar questions of two Members of the Iudian Section. This had been pointed out by His Excellency, Sir Wilfred Collet, to the East Indian Parliamentary Committee at a Mesting of the Deputation with thăt Committee in July, Mrs. Besant in the chair. I did not consider (and I do not now consider) that at was necessary to call the special attention of either tie India Office or the Indian Government to a pamphlet which did not contain the official programue of the Deputation to India. The official programme was embodied in the British Guiana pamphlet called "Imperial Colonisation." When leaving London, I did not know that another view had been taken, or I would have arranged by cable for a meeting of the British Guiana East Indian Association for the purpose of establishing the fact that they had not repudiated the Colonisation Scheme to which they had given their approval in April, aud to which, as members of the East India Committee of the Colonisation movement, a large number of them had actually appended their signatures. As bas since been made clear, by Eis Excellency Sir Wilfred Collet, the resolution was merely a personal snub to Messrs. Wharton and Luckhoo, engineered by a disappointed candidate for the Deputation who had tried unsuccessfully to attach himself to the Deputation in London. The Indians of British Guiana have never dissociated themselves from the actual Colcnisation Scheme. The resolition of the Association, cabled to India, was published there and met us on all occasions. It easily lent itself to the

[^3]initerpretation of being a repudiation of our Mission by the East Indians of British Guiana, and it was only when the wording of the Resolution was been carefully perused that the actual facts were made clear.

Such careful perusal could not always be expected, and at the meeting of the Solect Committee it was necessary, after two previous explanations, to make a third, on the last afternoon, owing to the arrival at the last moment of Sir Dinshaw Wacha from Bombay. (Sir Dinshaw, a leading Parsee, originally friendly had under the influence of this Resolution and of the East African news become for the moment fiercely hostile). The incident had also- to be explained a second time to Mr. Gandbi even after my final visit to Lahore. (Letter of Mr. Ghandi in Misceilaneous Appendices). Fortunately, the explanation was in all cases accepted, namely, that no attack was being made upon the Colonisation Scheme, but that the pamphlet of two members of the Deputation was being repudiated as unauthorised and as setting out a Labour rather than a Colonisation Scheme. Copies of the pamphlet were available, and its innocuous character made clear the fact that the attack was a purely personal one. Nothing caused more difficulty than this communication from British Guiana.
(4.) About the 20th of December, the Steamer "Sutlej" arrived at Calcutta with those emigrants who had claimed repatriation under the Indenture System. Unfortunately, the Deputation did not learn of this from any quarter until Mr. Greenwood arrived in Calcutta on the 24th of December, by which time the emigrants had dispersed, leaving no record of their destination. An attack was mads in a Calcutta native paper, "The Amrita Bazar Patrika," on the Colony as a place for Indian emigrants in the light of the alleged condition of this returning shipload. The attack, which was clearly inspired from a British Guiana source, obviously nonIndian, was very exaggerated, and its exaggerations were easily exposed both in the same paper and in the European Press. The actual facts, however, were unfortunate. While nol enough emigrants had returned to fill the steamer, 25 persons had died on the winter voyage, generial health was bad, some persons being removed to bospital immediately on landing, and a large number of very old and sickly people was included. I'his lent colour to a charge that- British Guiana, to save expense, had cleared out its Alms Houses and Hospitals of the Indian emigrants. Of course, it would have been difficult to refuse to repatriate any elderly or sickly persons who claimed to exercise their right, but it was unfortunate for the Deputation that such a number of elderly and decrepit persons should have been landed at this critical moment. Mr. Gandbi requested that a number of the returned emigrants be examined by his son Harilal in Calcutta, and then sent by his son to him for further investigation. This at first seemed impossible to secare owing to the immediate dispersal of the emigrants, but the fortunate accident that two educated British Guiana Indians who had returned by the "Sutlej" were bearers of a letter addressed to me, and found me eventually in Calcutta enabled us to comply in part with Mr. Gondhi's request. They were examined by young Mr. Gandhi, who told me be was satisfied, and despatched to Ahmedabad to see Mahatma Gandhi, who by their account expressed himself to them as perfectly satisfiod with their statement, but he subsequently expressed to me his doubts of their. sincerits, on the ground that their narrative seemed to him too good to be true.
5. I should add that a cablegram, signed by all the members of the Deputation, recommerding the immediate cancellation of the existing lndentures in British Guiana, for the purpose of creating a favourable atmosphere, was despatched on the 12 lh of December, on the advice of Sir George Barnes, Mabatma Gandhi and Mr, C. F. Andrews. A notification by Sir Wilfred Collet to the Government of India stating that this would be done, communicated to tlie Colonial Office by cablegram, dated the 28 th of December, apparently miscarried. An enquiry by Sir George Barnes, dated the 2nd of February, called attention to the fact that ro etatement had been received as to the release of the indentured labourers:When we sent the cablegram, we were aware that pressure was being brought
to bear upon Fiji by the Indian Government to release those Indian labourers indentured in Fiji, and a couple of weeks after our cablegram, the news arrived that Fiji had arranged for their release. It was not until the 9th of February, owing partly to cable delays and partly to telegraphic delays in India, (where telegraphic as well as railway conditions were suffering from the postponement of repairs by the war) that we learned by cablegram from the Colonial Office, dated 17th January, that British Guiana had already taken steps pursuant to our request. Luckily, it arrived in time to remove in the Select Committee the obviously bad impression created by our failure, up to that date, to give any assurances on this question. At that date the quickest telegraphic communication with England was fifteen days for which double rates were charged.

After the Committee had announced their Resolution on the afteruonn of February the 10 th, it was necessary for Mr. Luckhoo and me to leave that night to catch the only available steamer at Bombay on the 12th, otherwise we should have been detained, for lack of accommodation, until some time in May. l had, however, previously interviewed every member of the Viceroy's Fiecutive Council; who all expressed themselves in active sympathy with our proposals, and Sir George Lowndes, the Legal Member, with whom I lunched, promised to see the matter rapidly through its final stage. This final stage means formal consideration by the Viceroy in Council and the appointment of the three informed persons as recommended by the Select Committee. The Members of the Executive Council individually expressed surprise at the success we had achieved, and offered their congratulations at the result. They had watched the struggle against odds with interest. All shared the Viceroy's view that emigration should be allowed under proper safeguards. The view of the Department of the Indian Government concerned may be seen from Sir George Barnes' letter attached, (Appendix "H,") to which I replied from Bombay thanking him and impressing the urgency of the matter in the interests of the Colony, of the Food Supply of the British Empire, and general Trade Relations between India and the West Indian Possessions.

Owing to the Viceroy being engaged that afternoon with His Excellency Sir George Lloyd, I took my farewell of the Private Secretary, Mr. ${ }^{-M a f f e y, * ~ t o ~ w h o m ~}$ I subsequently sent a wireless message, asking him to convey my thanks to the Viceroy and his Staff, and the Delhi Officials, for the many courtesies the Deputation had received, Unfortunately, the necessity of leaving on the 10th prevented me from dining that night with the Viceroy who had sent a kind invitation. (There was nothing I regretted more than the loss of this opportunity of seeing His Excellency the Viceroy agaiu with a view to enlisting his personal interest in a rapid solution as an Imperial Statesman now that the deputation had removed the political difficulty.)

It will be seen that a very great deal of travelling was made necessary for all the Members of the Deputation by the programme of propaganda among Indian Leaders, and by the necessity of securing the cousent of the Indian Provincial Governments. The provincial Governors and Lieutenant-Governors are ex officio members of the Viceroy's Council and it could not be determined beforehand whether we could confine rectuiting to any particular province. I divided up the Deputation on various occasions, assigning in particular the visit to the Moderate Congress to Messrs. Greenwood and Luckhoo, the Amritsar Congress, composed almost entirely of extremists, to Dr. Wharton and Mr. Parbhu Sawh. A preliminary visit, to ascertain Mr. Gandhi's very rapid movements involved a visit by Dr. Wharton and Mr. Parbhu Sawh to the Kashmirian Border, Mr. Luckhoo was sent to Madras at an early stage and considerable pubticity was secured through the Madras Publicity Department. Lord Willingdon later informed me that he had given personal directions in the matter as the Scheme attracted him from the outset. I had myself to visit Lahore twice and to see all the Indian

[^4]Leaders of the various Provinces personally, sometimes more than once. (Mr. Greenwood estimated his railway journeys at ten thousand miles. Mr. Luckhoo's and mine were even much greater).

The desire on the part of the popular Leaders to avoid any direct responsibility in the matter by any public utterance was a great source of difficulty. The question was regarded as highly controversial and there was a general lack of information as to the status of Indians beyond the Seas, except through the Reports of Mr. Andrews, from Fiji and East and South Africa, those of Mr. Gandhi as to South Africa, and those of Mr. Polak, contributed from London to Mr. Gandhi's Paper, "Young India" Mr. Polak is or was hostile to emigration from India in any form. Like Mr. Andrews he is not an East Indian. The fact that British Guiana is willing to accept Indians on equal terms with European and other Colonists seemed to each and all to be too good to be true. The Honourable Srinivasa Sastri, meeting me in Delhi on the evening before the last session of the Select Committee, told me that even he, after having perused many documents, including the Constitution Ordinance, was scarcely able to realise that such equality could exist, in view of the attitude of South and East Africa and the Self-Governing Dominions. In consequence, every expression of approval, from any influential source, was always accompanied by a request for guarantees. We placed a summary of the British.Guiana Scheme, hurriedly prepared and printed the previous night, before the Select Committee at its last meeting, at its . request. (Appendix "G.') "In this, we refer to the possibility of a declaratory Ordinance, pointing out, however, that one Legislature cannot bind its successor, and that the only real security would be the good faith of the Colonial Office. I found it necessary to put forward a draft of an Ordinance forthwith, (Appendix." I.") I submitted this to Sir George Lowndes, who expressed approval, saying that it was merely a statement of the actual legal position of all British subjects in the Colony at the present time. He even accompanied me to the Committee to say so persoually. (A shorter Ordinance would have sufficed but its more elaborate form was, adopted for special reasons, chiefly psychological).

In view of the limited character of the Reference of the proposed Committee of Three, and the certainty of its cabling a favourable reply as to the suitability of British Guiana for Colonisation by Indian Agricultural Families, I regard the immediate work of the Deputation as accomplished. The necessity for engaging upon a much larger field of propaganda than originally contemplated, while involving great personal hardship on all the members of the Deputation, I regard as a blessing in disguise. A degree of publicity was attained for British Guiana and its attitude towards Indians, political, commercial and social, which could never have been otherwise obtained. The matter was threshed out by articles and correspondence in the entire Indian Press, both English and vernacular. All attacks were promptly and conclusively met, and at the close we found the tone of the entire Press exceedingly friendly. We attempted to conceal nothing, and had put forward all the documents on the subject of Colonisation, even where, as in the case of a couple of speeches in British Guiana on health conditions they, at least at first sight, seemed eminently uufavourable or even unfair to that Colony and very injurious to any campaign for colonization. I believe that this frankness on all subjects secured for the Deputation friends in many unexpected quarters.

As far as British Guiana is concerned, I believe we can claim that the Colonisation question is no longer a political one in India. The Indian Government is not likely to be subject to attack from any quarter by permitting free emigration, under proper supervision, to

[^5]a Colony where Indians enjoy equal rights. In case the Viceroy-in-Cunacil has not yet appointed a Committee, it would be advisable to represent the urgency of the matter. To mention only the supply of sugar, India itself is greatly concerned, It does not furnish even one-fourth of its own sugar supply, and there are many reasons for supposing that no matter what efforts may be made to increase its own production, it will continue to be a large importer of sugar.

I am addressing your Lordship independently on the subject of the necessary orgatisation under the new Scheme. The old methods, that is of recruiting by Sub-Agents and Sirdars, will have to be frankly abandoned. I am satisfied, by personal investigation at Benares and elsewhere, that they were subject to serious abuses, and Indian opinion would no longer tolerate them. Propaganda by means of Information Bureaux, Cinema Films, pamphlets and a native staff acquainted with British Guiana will have to be substituted. In the new and friendlier atmosphere now existing, there would be no dificulty in securing the proper complement of Agrizultural Families of a very much better class than those who fornierly came under indenture, of whom 70 per cent. were unskilled labour from the towns. As a slight indication of this, I enclose (Appendix "J") a letter from the Principal of the Khalsa College, in which he indicates the Scheme might be of interest even among the Sikhs, the best agriculturists in Iadia. Needless to say, the new system will impose much heavier work and much greater responsibility upon the representatives of British Guiana in ludia. The correspondence from native sources would have taken a well-equipped secretarial staff to cope with. The Deputation had no clerk or secretary which was a serious omission. The result was exhausting strain.

The Parsee steamer "Loyalty," by which Mr. Luckhoo and I returned to England, called at Malta on the 27 ch of February, where I saw the LieutenantGovernor, pursuant to a request of Colonel Amery (Under Secretary) that I should make inquiries. While I approached the matter with grave doubts as to the possibility of securing suitable Maltese for emigration to British Guiana, I am now satisfied that, although Maltese Labour is out of the question, considerable numbers of Maltese Agricultural Families could bs obtained as s nall pessant proprietors. It seemed that the Colonisation Soheme could easily bs adapted to such a project. The Lieutenant-Governor and his immediate subordinates were in favour of the proposal, and undertook to communicate the matter to the Guvernor, with a copy of our Scheme, and to make all necessary inquiries as to the possibilities. I pointed out that a letter which he had recoived from the Colonial Office, communicating the view of Sir Wilfred Collet, that the Maltese would not, in his opinion, be suitable as labourers for British. Guiana, did not refer to a Maltese peasant proprietary. I believe that, apart from the possibilities of Crown Lands, there are several British Guiana employers who will be glad to settle Maltese Families on their own land, either as proprietors or as lessees for a long term of years on nominal trarm, for the purpose of canefarming. It will be necessary to establish regular settlements and make special provision for the religious worship of the settlers. A steaner load of 300 or 400 families is, in my opinion, within the bounds of possibility.

I have the honour to be,
Your Lorñship's Most Obedient Servant,
JOSEPH. J. NUNAN, March 31st, 1920.

\author{

## Rr. Hon. Lord Milner, <br> <br> H. M. Secretary of State for the Colonies.

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[^6]Note.-In regard to the cost of the Deputation, a sum, pf $£ 5,000$ was allocated by His Excellency out of the Colonisation Fund being the amount of his Estimate. My own Estimate, however, was for an expenditure of only $£ 3,000$ (v. correspondence). This latter Estimate was exceeded by a little over $£ 500$ in consequence of the unespected rise in value of the Rupee, which in most cases, made qur drafts realise only about 50 per cent. of their par value, sometimes even less. "The cost of living in India, especially in Cities like Bombay, Calcutia and Delh, was far ahead of anything we had contemplated, the room alone generally costing 25 Rupeer, or about $\mathcal{E 2} 10$ s. per night. Motor cars, which had sometimes to be employed, were correspondingly expensive, and the amount of travelling, printing and typing necessary was far in excess of my estimate. The printing and typing had generally to be done under circumstances of great urgency and haste and had to be paid for accordingly, the Amritsar printing bill alone working out at about $£ 150$. We all think, however, that a direct.publicity campaign such as that contemplated by the West Indian Committee bofore the scheme was drawn up, would not have secured the same advertisement for the Colony for many times the amount, or produced throughout India a similar aequaintance with Guiana's conditions.
J. J. N.

## SUPPLEMENTARY NOTE TO REPORT. ${ }^{7}$

Dr. Nunan.
The British Guiana Deputation to India was sent on the recommendation of the India Office represented by Lord Sinha, K.G., of Raipur and the Indian Members of Courcil, at a meeting held at the India Office on the 7th August, 1919. Dr. Nunan, K.C., draftsnan of the Colonization Scheme, was nominated by the Governor (His Excellency Sir Wilfred Collet, K.C.M.G.) as Chairman of the Deputation and was specially authorised by the British Guiana Government and the Colonial Office " to enter into negotiations with regard to the conditions under which intending emigrants from East India may be enrolled in India and the terms of their residence in British Guiana." "Any agreement entered into will have to be subject to the approval of the Secretary of State and the Government of British Guiana." (Letter of His Excellency to the Secretary of State for the Colonies 22nd August, 1019). He was provided with letters from the Colonial and India Offices to this effect. As the Colonization Scheme printed in British Guiana and placed before the Colonial and India Offices was the brief of the Deputation, this authorisation referred mainly to any necessary details and supplennentary arrangemenis.*

The Chairman of the Colonization Committee in British Guiana was Mr. Thomas Greenwood, partner of the firm of Messrs. Booker Bros. He accompanied the Deputation to India as the representative of the West India Committee. Its other members were the President and Honorary President of the newly formed East Indian Association in British Guiana and an East Indian Merchant,

During the discussion of the Colonization Scheme at the India Office Lord Sinha and the tbree Indian Mernbers of Council indicated clearly that no support could be expected either from themselves or from the Indian Government and leaders, for anytbing, howerer plausibly put forward and masked by promises of land, which could be interpreted as $\varepsilon$ disguised form of indenture or a mere scheme "to provide labour for sugar planters." The emigrants must come in with the right to choose for themselves the method of earning their livelihood. The. Deputation consequently explained through His Excellency and three other spokesmen that on arrival an emigrant would be free to work either for an employer or on his own account and that if he decided to take advantage at once of the very liberal Crcwn Land Regulations he could do so on the same footing as anybody else in the Colony, viz., by application to the Lands and Mines Department. It was not anticipated that penniless men with families would wish to take up or would be in a position to take up unprepared Crown Land at the moment of their arrival, but they would have in principle the right to do so. The immediate taking up of Crown Land was anticipated only where the emigrant had some means to go on with. This would not often occur. In such a case, howevtr, Sir Wilfred Collet definitely promised assistance by the Crown, but neither in the case of a family having a little means and immedately taking up land, nor in the improbable case of a penniless family electing to do so, was the amount of Government assistance defined. In both cases there was merely a reference to the resources of the Colonization Fund and the Agricultural Loan Banks and subsequently by His Excellency in February, 1922, mentigo of a possible vote of the Combined Court should the necessity arise. (Memorandum 9th March, 1922). No restriction, however, was to be placed upon the right of the individual to take advantage of any privilege open to the present residents of the Colouy. Sir Wilfred Collet emphasised the fact that the Scheme was bused upon free emigration of agricultural families without prelirainary contracts or conditions.

[^7]As Lord Sinha and his colleagues enquired particularly and repeatedly as to the Colony's preliminary acceptance or non-acceptance of the Inter-Departmental Committee's proposals (14th July, 1917) inasmuch as some other Colonies had already rejected them as too expensive, the Deputation replied that its Scheme was based upon them as a starting point but that it went further as regards the freedom of the individual. I'he proposals of the Inter-Departmental Committee involved a special reward of 5 acres of prepared and cultivable land for an emigrant (families not being stipulated for) after throe years' work in the Colony. The land of the Inter-Departmental Scheme was to be made available at once "in the simplest and cheapest manner" and a Department was to be made responsible "for rendering the land suitable for agriculture by adequate clearing, irrigation and drainage where this is considered necessary." The charges might vary according to the position and fertility of the land and it was contemplated in view of the varying conditions of the different colonies that it might be leased instead of sold.

The principle of such a settlement had been indorsed in a printed Mernorandum of the British Guiaua Sugar Planters' Association (paragraph 12) dated 3rd April, 1917, in the report of a British Guiana Committee, 16th August, 1918, in which the planters were represented by Messrs. Garnett, Sherlock and Brassington, in a special resolution of the British Guiana Sugar Planters'. Association in April, 1919, and finally by the Colonization Committee's Report dated 23rd April, 1919.

In the Colonization Scheme a certain sum was to be set aside for empoldering or otherwise preparing in considerable areas, in the most economical and efficient manner, by the use of mechanical trench-diggers and dam-builders, a total of $20,0 \wedge 0$ acres for the purpose of setlling four thousand families. The total of emigrant families aimed at was 2,500 a year for three years but it was calculated that allowing for deaths, returns, preference of some for work under employers or on land leased or bought directly from landowners or on ordinary Crown lands and allowing for drifting to non-agricultural pursuits or town life, no greater number than 4,000 would havo to be provided for in this way. The cost of this empoldering or preparation was to be borne by the Colonization Fund and was estimated not to exceed $\$ 25$ an acre for large areas especially taking into account the fact that some of the suitable land did not require any large expenditure. No conditions were then or subsequently prescribed except those of the Crown Lands Kegulations in force from time to time and no payments other than those therein provided which on the basis of the current payments for the ten acres of the ordinary Crown land grant would work out at about twenty dollars for each reward grant. The cost of preparing the lands was to be the reward of the emigrant family for three years' agricultural work in the colony. On the other band the head of the family would have to occupy beneficially the laud for four years and reduce half of it to cultivation before he could obtain the land in fee. An expert Commission would take charge of the settlement. The Crown land charges would contribute $\$ 80,000$ towards the expenditure. The Colony did not propose to make any direct profit out of the settlement. It is repeatedly stated that the cost was to be borne by the Colony. Its retura would be the increased production and the larger and more widely distributed revenue from an increase of population by probably 30,000 souls or ten per cent. of the present 300,000 .

[^8]for the actual terms by the Select Committee the Deputation mencioned the only terms which would really make the preparation of the reward claims appear as a clear'dut reward, viz., the Crown Land conditions for unprepared land applied proportionately to the five acres. This was justified by the Colonization Scheme which placed the cost of preparation on the Fund but the elasticity for discussion of "reasonable terms" allowed for on page 6 of the Scheme vanished before the peremptory refusal of the Indian Government in its Department of Commerce to discuss any Scheme at a $\$$ on its merits, and a hard and fast offer was all that the leaders or the Select Committee would look at. The Deputation had to propose the Crown Land terms without further discussion.

If full adrantage to the estimated number of 4,000 families is taken of the offer the Fund may have to incur a net expenditure of $\$ 420,000$. The Colony must look outside of rents or purchase moneys for its offset or profits on the transaction.

To meet lncal requirements and political conditions and to unite the whole community on this subject it was provided that if local resident families to a number not exceeding fthat of the new-co:ners in the Colonization Scheme were willing to comply! with like conditions they could also clain reward grants. A sum of money was to be set aside out of the Fund to provide prepared land of a similar acreage, viz., 20,000. Claimants would have to register on the inauguration of the scheme as agricultural tamilies prepared to engage steadily in agricultural pursuits for three years in return at the end of that period for prepared land of five acres on which they will have to live for four years and of which they will have to cultivate half before acquiring title. In the absence of a specific agitation encouraging them to do so, the number of resident families likely so to register was never anticipated to be anything like that number. Probably one hundred at the outside would register such a claim. Families of the class are already for the most part in possession of adequate land of larger area which they would not be tempted in this way to sell or abandon with a view to acquiring a title to other land at so long a distance of time. They would be quite content with assistance for irrigation and drainage of which various projects existed. It rests however with the planters to take precautions to prevent any exodus from their estates by offering counter inducements if necessary.

The Scheme contemplated that the areas of land could be selected by the Lands and Mines Department with the assistance of the Indian Government representative as far as possible in the neighbourhood of the sugar plantations and markets and that no obstacle would be placed in the way of separate arrangements being made by the emigrants for acquiring land from local land-owners. As the word "empoldering" conveys nothing in India and the words " prepared for irrigation and drainage" in the Summary (prepared and printed during the night before the final meeting of the Select Committee at the Committee's request and in. which there were obvious misprints which had to be corrected orally) may require explanation it should be pointed out that what was offered was clearly explained orally and understood to be land suitable for cultivation even if not a penny had been required to be spent on it. The Lands and Mines Department was to select the land and the Indian representative was to be satisfied that it was protected from or not liable to flood and generally suitable whether it consisted of empoldered coast or unempoldered river or North West District land. It was not to be water-logged or covered with forest or bush. The Select Committee's report on the British Guiana and Fijian proposals sets out their understanding of the offer.

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(1)' The miost-satisfactory feature of both schemes is the provision of land for. settlement. But for this part of the' scheme to be'real and not illusory the land proposed to be granted must be of such quality and situation that a new Indian seitler would not find it beyond his power to oultirate it successfully and maintain himself and family thereon. It seems to' the Committee impossibl'e ta form pn opinion on this pait of thé schem'e without local' enquiry."
(2) and (3) relate to wages and hegith conditions.

As to the selection of the lands, the Colonization Scheme stated that it contemplated mainly a coast settlement." Empoldered areas and supetvised water supply will not be easily be arranged for elsewhere in the early stages and in order to be cheap and efficient areas must be large and populous;': 'The Lands' and Mines Department'specified sevien areas, viz.:
(1.) 6,800 acres one the Pomeroon behind Hampton Court Estate, east of the projected water supply canal of that company.
(2.) 8,000 acres on Hog Island on the steamer route to east and west Essequibo.
(3.) 2,108 acres from Philadelphia to Bonasika Creek adjoining the Boerasirié Creek and Warimia Cönservancy.
(4.) 7,500 acres on or adjoining the Canals Polder.
(5.) 32,500 acres on the Manaica.
(6.) 14,854 acres on the West Coast and Abary.
(7.) 7,450 acres'on the Corentyñe' Coas t.

In addition there were the lands of the $N$. W. Distriet which required no empoldering over at least 100,000 acres.

In most of these cases the areas are closely adjoining flourishing sugar plantations and modern factories and are or could easily be mide accessible in regard to such estates.

## Summart.

What was offered in England and India was (1) employment to heads of families at the current rate of wages, confidently stated to be well above the cost of living; (2) the right to work for an employer or for oneself; (3) the right to apply for Crown land at once on the terms open to everybody in the Colony ; (4) the right of a reward claim of five acres in relurn for three years' agricultural work in the Colony subject to beneficial occupation for four years and the payment of whatever sums were being currently charged for Crown land; (5) a promise in any case of some assistance (undefined) in starting a home by the machinery of the Agricultural Loan Banks or Colonization Fund. (The possibility in certain cases and in favourable years of a special vote of the Combined Court was subsequently mentioned by His Excellency Sir Wilfred Collet, 9th March, 1922) ; (6) repatriation under certain conditions but repatriation before seven years to involve forfeiture of the reward grant.

The offer was strictly limited in numbers and expenditure.
The selection of families was to rest with the Colony's Agents in India. Their duty would be to protect the Colony's interests by a careful exercise of their choice. It depended primarily on a regular steamer service being established which would reduce the expense of any undertakings as regards repatriation. The object of these specially generous terms was to induce a regular flow of colonists from India under ordinary conditions of emigration. We asked for special state-aided emigration of 2,500 families a year for three years. We hoped eventually to get at least fifty thousand by means of cheap passages without further state-aid or only a much more limited assistance.

Whether the terms require confirmation or not they require to be repeatedIt is for the Colony to decide whether the scheme accepted in India is too expensive It is clear that no other terms have a chance of acceptance now or in the near future.

Political conditions and Indian psychology have not altered in favour of Indian emigration since February 10th, 1919. The Kenya difficulty still exists.

INDIA.
It may be briefly stated that the solution of the problem in India involved :-
(1.) Mahatma Gandhi's approval or benevolent neutrality expressed in writing. (This was secured at Lahore, 1st February, 1920).
(2.) The absence in the scheme of anything offending the newly born and bighly sensitive nerve of Indian national dignity.
(3.) Equality of political conditions for all races.
(4.) Freedom of choice of .work involving the absence of the remotest suggestion of indentured or contract labour.
(5.) Land Settlement, immediate, at will, or after a term of employment.
(6.) Wages at current rates with a margin for saving.
(7.) Safeguarding of national religion and customs.
(8.) Repatriation if required.

The Colonization Scheme met all these requirements.

## APPENDICES.

# APPENDIX "A." <br> DEPARTMENT OF COMMERCE AND INDUSTRY, INDIA, On taur Bombay, 25th, November, 1919. 

## Dear Sirs,

I am only in Bombay for a very short time, and have got a good many engagements here. I do not gather from the papers which you have sent to me what it is that you wigh. If it is a renewal of indentured emigration, I think that it will be better to teli you at once that the case is quite a hopeless one. There is the strongest feeling in the country against it, and the Government of India certainly cannot support any such system while the feeling in the country remains what it is. I do not think that the Government would assist in any way in any scheme of emigration which was not supported by public opinion in the province from which it is proposed to draw the labourers and supported also by the Indian Members of the Imperial Legislative Council. There is really nothing for your deputation to do at Delhi until the Legislative Council meets in February next, when I shall be quite willing to move that a Committee of the Indian members be appointed to meet you and consult with you.

Yours very truly,
(Signed) G. S. BARNES.
J. J. Nunan, Esquire, LL.D., K.C., Royal Bombay Yacht Club, Bombay.

# APPENDIX " B." <br> Extract from " The Liberal" (Lahore) Monday, December 29, 1919, (Congress Special Number).* <br> <br> BRITTISH GUIANA COLONISATION SCHEME. 

 <br> <br> BRITTISH GUIANA COLONISATION SCHEME.}

## Attractions for Indians:

Sir George Barues, K.C.B., Secretary to the Indian Government in the Department of Industry and Commerce, received the British Guiana Imperial Colonization Deputation on 5th December, 1919, at the Government Buildinge, Delhi. The Deputation was introduced by the Hon. Joseph J. Nunan, K.C., LL.D. (Attorney General) representing the Royal Agriaultural and Commercial Society of British Guiana. It consisted of himself, Mr. Thomas Grpenwood (Representing the West India Committee) and of the Indian Section, Dr. W. Hawley Wharton, (Medical Practitioner), Chairman, Joseph A. Luckhoo, F.R., Member of the British Guiana Legislature, and Parbhu Sawh, Merchant and Planter. In the course of his introductory remarks Dr. J. J. Nunan stated that the colonization scheme which they wished to place before the Indian Government and People had been referred by the British Guiana Lpgislature (in which there was a popularly elected majority in the financial chamber) to a large committee consisting of members of the various representative bodies. This committee divided itself into sections covering all the industries of the colony and reported last April after three months' careful study.

It is not a labour scheme or a project for securing cheap labour. Cheapness does not enter into it at all. The colony in all its races and classes and in all the capital invested, is in favour of it because it is a question of vital importance for a British possession as large as Great Britain and calling out for population.

It is based upon free immigration of Indian Agricultural families. The emigration and settlement will, we hope, be supervised by officers of the Indian Government, at our own expense. We provide free passages, guarantee employment at the locally current rates which are now about two rupees a day fthe cost of living amounting to a little over one-third of the average earnings). We provide free repatriation at any stage whenever required by the officers of the Indian Government and free repatriation at the option of the individual or family after a short period of years. Those who engage in agricultural work either for an employee or on their own behalf for three years will receive reward grants of five acres of

[^10] thereby placed in the hands of the twenty-five thousand Delegates and of handreds of thousands of other readera.

## iv.

land on nominal terms. This land prepared by an expensive process for immediate utilisation at the cost of the colony, is situate in the immediate neighbourhood of markets and factories. Other lands can be bought or leased on easy terms. No contracts of any kind are required. There is to be no trace of the old indenture system. There is no compulsory residence or service or other element of compulsion. Settlers can choose their own employers. Regular steamer communication with two classes of passenger accommodation will be provided by the aid of colonial subsidies between Indian ports and British Guiana. The Indian Government or people will incur no expense. As our population is now about 45 per cent. Indian (145,000). and as our constitution involves political equality of all races we are really offering India a colony of its own on the North Eastern coast of South America, with fertile soil and a healthier climate than that of India or of any large tropical colony.

Our immediate scheme is limited to five thousand adults of both sexes a year. We offer medical supervision, improved sanitation and improved dwellings, families to be housed in good separate cottages. Other details we are prepared to discuss with the Indian Government and Legislatures or any popular representatives of the people. We may add that our principal produces are sugar, rice, coconut, coffee and cattle.

## REPLY BY SIR GEORGE BARNES, K.C.B.

## Gentlemba,

I am very glad to receive you formally on behalf of the Government of India. I understand from what you tell me that your Government has prepared a scheme of colonization for Indians to British Guiana which you hope may tempt them to move to British Guiana, You tell me also of the various inducements which your Government hold out-that there will be ample opportunities of purchasing or leasing land on the part of those who wish to cultivate on their own behalf, and there will be opportunities for work at good wages on the part of those who wish to emigrate as free colonists, accompanied by reward-grants of land on nominal terms after a short period of work either for employers or independently. I understand that your Government is as much against any renewal of the old indentured system as we are here and that you insist that your colonists shall be families and not single individuals. I understand also that your colony guarantees the continuance of the equal political rights and status of all the inhabitants of the colony without discrimination of race. This equality, you tell me, has long existed under your constitution.

I am not willing to express any opinion on your scheme at the present time, and before it can be considered by the Government of India, I must lay down as a condition that you must have first obtained the support of the Province from which you hope to draw your colonists and of the leaders of public opinion in the country. The question is one on which the Government of India will be largely, in fact, I may say, entirely, guided by Indian opinion, and consequently you will have to make it your business to ventilate the subject with the thinking men of this country and the leaders of public opinion. When you have done that and secured their support and the support also of the local Governments, I shall be very glad to see you again and discuss the matter with you. I think that it would be well that you should meet a representative committee of the Imperial Legislative Council.

You will then have an opportunity of laying your proposals before the Committee and of proving that your proposals are to the advantage of the Indian people.

Dr. J. J. Nunan thanked Sir George Barnes, K.C.B., on behalf of the Deputation which then withdrew.

The Congress Special Number also contained the following address:

## AN INDIAN COLONY.

Indian Homes in British Gutana (Suuth America). Status and I'rospects of Indian Settlers in the New World.
In the interests of the Imperial Colonisation of British Guiana we desire to direct theattention of the General Public in India to a few important facts relative to the status and prospects of Indians in that colony.

Indians were first introduced into British Guians in the year 1838 under a system of indenture which came to an end in 1917. For the cessation of this vicious system which existed for 79 years, we feel proud to place on record the excellent patriotio work in this connection of the late revered Mr. Gokhale, Mr. Gandhi and others. We must, however, mention that even under the old system, the treatment bestowed to Indians was better in British Guiana than that given them anywhere else.

We arein a position definitely to state that the Indians now resident in British Guiana comprise about 45 per cent. of the entire population of the Colony, and they are better, safer, happier, and more prosperous there than those residing in other parts of the world, and even we venture to say in India itself. It may be well to mention that in the social and religious aspects Indians enjoy perfect freedom. Their general ideas in these respects are somewhat more westernised than in India. All children in the Colony are entitled to receive free and compulsory education.

No barrier of any kind is erected against Indians in British Guiana-as is the case in Natal, South Africa, etc. Here they enjoy equal rights and privileges in the truest sense of the words-on the principle of "Man and Brother." It proceeds from the colony as a whole represented by its legislature and its various Public bodies, municipal and otherwise. The faciities granted for developing the resources of the colony will be available for Indian capitalists on precisely the same conditions as for others. The constitution of the colony is of ancient date, based upon treaties first of surrender and ultimately of purchase from the Dutch by the British Empire and provides for a popular majority.

Indians and their local-born descendants are to be found in all the professional, industrial, agricultural and commercial ranks and they participate in the municipal and political life of the Colony; We have at the present time an Indian mayor in our second city and an elected Indian representative in the Legislature of the Colony.

There is absolutely no distinction between Indians and the other races of people in British Guiana. In other words the Indians like the rest of the community are treated on a footing of complete equality. There is no race feeling.

We, the Indian representatives of the Imperial Colonisation Deputation of British Guiana, now formally state that it is our desire, aim, and our object, if possible, to induce more Indians from the Motherland to join our ranks, increase our numbers and so help us to make British Guiana an Indian Colony. This is really the Empire's clarion call to India.

The potentialities of British Guiana are immense and the local Government is now prepared to offer such unconditional terms for settlement in the country as would, if properly known to the Indian public in India, make them co-operate with us by coming over to British Guiana, and sharing with us some of the great benefits which we ourselves enjoy. British Guiana is the land of freedom, equality, liberty and prosperity for one and all.

The wonderful resources of the Colony we may incidentally mention, if properly developed and for this capital and labour are required, would in a very short time enable British Guiana alone to defray the Empire's present indebtedness to the United States of America, which was incurred in order to win the World War for freedom and liberty.

The welfare of the Empire really means the Imperial welfare of all its component and inter-dependent parts. Prominent capitalists in England are nowinteresting themselves in the development of the rich resources of British Guiana. The most vital question with us at the moment is that of Indian Settlers. Indian settlers we know by experience are best suited to agricultural conditions existing in the Colony, the settlers' health and general welfare are scrupulously safe-guarded and protected by the Government. Purchase, grants, and leases of land on nominal terms are easily available in close access to factories and markets. The principal crops are sugar-cane, rice and coconuts, which Indians are accustomed to raise. Cattle rearing possibilities are large. The soil is the rich alluvium of the mighty Amazon River.

The Government of British Guiana intend to bridge the seas with a regular line of steamers to India, and so to enable intending Colonists direct opportunities to travel to and fro, to mutually benefit themselves and their brethren. Arrangements have already been made for a two-monthly service but we aim at a monthly service.

Every encouragement is being offered to Indian agricultural families and Indian Capitalists, both large and small, for settlement in the land under an absolutely free and voluntary syrstem of Colonisation, which places the people in a good position from the start and enables them to improve their general condition.

If our Colonisation proposition le disinterestedly approached by the Indian labour reformers in India, we have no doubt that they will approve of our Scheme, and that in the very near future the colony will be in a position by the introduction and utilisation of Indian agriculturists and Indian capitalists to place British Guiana in the front ranks of British Colonial possessions. The vast political and national advantage to India of having an Indian Colony on the South American Continent need not be emphesized.

We would then have hundreds of prosperous villages and thousands of square miles of flourishing crops springing up from the fertile soil of the Colony, and by the exploitation of the Gold, Diamond, Aluminum (bauxite ore) and other mineral and forest wealth of British Guiana, the three century old dream of Sir Walter Raleigh regarding our Magnificent Province, the fabled land of El Dorado, would be realised.

## W. HEWLEY WHARTON, Chairman. PARBHU SAWH, Member. <br> JOSEPH A. LUCKHOO, Secretary,

Indian Section Imperial Colonisation Deputation of British Guiana.

## APPENDIX "C."

## THE IMPERIAL LEGISLATIVE COUNCIL OF INDIA. REPORT OF BRITISH GUIANA AND FIJI COLONISATION COMMITTEE.

We the Committee (1) appointed with reference to the Resolution of the Legislative Council on the 4th February, 1920-
(a) to examine the scheme of colonisation which the deputation from British Guiana desire to putforward and to report thereon and make recommendations to the Government of India;
(b) to meet the deputation from Fiji and to examine any proposals which they put forward, and to report thereon and make recommendations to the Government of India, and
(c) to examine the credentials of the deputations, have the honour to submit the following report.
2. The British Guiana deputation consisted of Dr. J. J. Nunan, LL.D., and Mr. Luckhoo, Barrister-at-Law. The members of the Fiji deputation were His Lordship the Bishop of Polynesia and Mr. R. S. D. Rankine.

We find that Dr. Nunan and Mr. Luckhoo are accredited to the Government of India by the Secretary of State for India on behalf of a representative deputation from British Guiana headed by the Governor of that Colong, which deputation was received by the Secretary of State for the Colonies and was introduced by the Secretary of State for the Colonies to the Secretary of State for India. The object of the deputation was to represent the needs of the Colony both for the maintenance of present industries and for their extension, and to show the advantages which this Colony affords to immigrants from other countries. The scheme of colonization in respect of Indian immigrants is contained in Appendix A. (3) to this Report. This paper was handed to the Conmittee by Dr. Nunan.
3. As regards Fiji, we find that Mr. Rankine is an officer of the Government of Fiji sent by that Government, and that His Lordship the Bishop of Polynesia has been selected by the Government of Fiji at the request of the planting community of that Colony, to visit India and ascertain whether a system of immigration of Indians into Fiji cannot be devised that would satisfy both the Government and public opinion in India. The proposals put forward for Fiji as handed to the Committee are in Appendix B. (4) te this Report.

[^11]4. Before dealing with the details of these schemes, the Committee would in the first place record their opinion that no scheme of emigration of Indians to either of these Colonies chould be approved unless it is certain that the position of the immigrants in their new homes will in all respects be equal to that of any.other class of His Majesty's subjects resident there. Upon this point, therefore, the Committee questioned the deputations at some considerable length. So far as British Guiana is concerned, the deputation assured the Committee that East Indian Immigrants bad now equal rights with all other classes of British subjects in the Colony which was under a liberial constitution giving the people large powers of self-government. Thy Deputation went further and undertook to declare this equality in rights by legislative ordinance and to secure its continuance by obtaining an announcement of the Colonial Office that the maintenance of such status was a settled policy. A draft of the proposed ordinance has been handed to the Committee by Dr. J. J. Nunan, aud is appended to this Report, Appendix " I."
5. In the case of Fiji, the form of Government appears to be less liberal than in Guiana The guarantees, therefore, that the Fiji Government can give regarding equality of political rights are more limited in scope. The Fiji deputation, however, assured us (1) that Indians in Fiji are at present entitled to engage in professions and trade and commerce, and to acquire property, on the same conditions as other residents including Europeans, and that the Government of Fiji will undertake that these rights will not be altered in any way to the detriment of Indians as compared with other residents ; (2) that the Government of Fiji will further undertake that the existing municipal rights enjoyed by Indians will not be altered, except in so far as municipal rights of other residents may be altered in the same direction, and that the political rights now being extended to Indians to elect two Indian representatives to the Legislative Council of Fiji will not be withdrawn.
6. While welcoming these assurances, the experience of the past in other Colonies compels the Committee to recommend further investigations of this aspect of the matter. It is possible that while political and economic conditions render the grant of equal political rights to Indians practicable and expedient at present, there may be (the Committee do not say there are) forces at work calculated to change this happy state of things, which forces may not be easily recognisable save by investigation and enquiries on the spot in British Guiana and Fiji respectively.
7. Coming now to the schemes themselves, the Committee consider, subject to the qualification expressed below, that the terms proposed are in themselves fair and reasonable. The Committee, however, feels that effect of the scheme on the Indian immigrant will depend more on factors that can only be gauged on the spot rather than on written provisions of rules and laws. The committee will endeavour to explain the difficulty it has in the matter by examples:-
(1.) The most satisfactory feature of both schemes is the provision of land for settlement. But for this part of scheme to be real and not illusory, the land proposed to be granted must be of such quality and situation that a ne Indian settler would not find it beyond his power to cultivate it successfully and maintain himself and family thereon. It seems to the Committee impossible to furm an opinion on this part o the scheme without local enquiry.
(2.) Wages are said to be much above the cost of living, but as it is not practicabie to enforce the payment of wages irrespective of the works done, the Committee think that local enquiries into the tasks expected of a worker, the wages paia therefor and the cost of living by persons conversant with the capabilities and needs of Indian agriculturists could alone elucidate whether the prospects of immigrants are really so good as they appear to be on paper. This appears to the Committee to be more particularly necessary in the case of Fiji.
(3.) Health conditions in both colonies are reported to be good: and the Committee sees no reason to doubt this in the case Fiji. In the case of British Guiana, notwithstanding the favourable (in comparison with India) death-rate, the Committee understands the East Indian population has been practically stationary. It is possible that this state of things is due to re-emigration or repatriation, or is explainable on other grounds than bad death and birth rates. But the Committee feel that it would be well to have the matter investigated on the spot.
8. For the reasons set forth in the above paragraphs, the Committee resolves to submit its conclusions in the form of the two following resolutions which have been passed by the. members unanimously.
I.-This Committee having heard Dr. Nunan and Mr. Luckhoo, is inclined to take a favourable view of the scheme of colonization presented by them in view of guarantees and eafeguards which they are prepared to provide by legislation and otherwise, but before recommending definite acceptance of it would advise the appointment of a deputation of three competent persons to proceed to British Guiana, investigate the conditions on the spot and report to the Government of India.
II.-This Committee recommends-
(1.)-(a.) That the Government of Fiji be asked to give guarantees similar to those which the British Guiana deputation declared that their Government was prepared to give.
(b.) That if the Government of Fiji do give these guarantees the Government of India should send a deputation similarly constituted to test the scheme generally and specially as to the question of the adequacy of wages; and
(2.) Subject to the above guarantees being given and to a satisfactory report being made by the deputation, this Committee would recommend a favourable consideration being given to the colonization scheme by the Government of India.
(Sd.) S. SAstri.
N. E. Marjoribanks.
D. E. Wacha.
K. Chanda.

Asad ali Khan.
W. E. Crum.
S. N. Banerjee.
B. N. Sarma.

It seems to me that the British Guiana deputation was on a somewhat better footing than the Fiji one as regards binding their respective Governments. Political conditions in British Guiana also are more favourable than in Fiji as regards Indians, but the climate of British Guiana is not very attractive, and the wages in Fiji are decidedly inadequate as the recent riots indicate. Land scheme seems to be a secondary consideration-in Fiji at any rate-real object is to obtain labour immodiately.

I am not very anxious to give much encouragement to any emigration on a large scale on other grounds also.

However, I agree that definite guarantees being given, the matter should be investigated by a deputation, which we recommend before any definite recommendation be made.

## (Sgd.) KAMINI K. CHANDA.

1. I shall add a few lines by way of explanation. The two deputations have the moral support of the Governments concerned behind them, and the British Guiana deputation has a large body of col onial support, but I do not think that either of them has any authority to bind its Government.
2. It was not clear to me that the wages in Britisih Guiana were adequate, and at the present rate of exchange the wage in Fiji appears to be inadequate. * The wages promised to be guaranteed were not very definite. As regards housing, I believe the existing arrangements and the arrangements promised meet the requirements of those who may engage themselves to work on plantations. Free labourers may be afforded facilities, but it did not seem to be clear that any definite pledges were given.
.3. Guarantees mentioned in the note should be given before any deputation is sent. The deputations were anxious about the importation of labour to work on plantations, and the scheme proper appeared to be a matter of secondary importance at the present moment. There seems to be no clearly planned arrangement already made for land colonisation. I am not in favour of encouraging emigration unless it be for the immediate land colonisation, but the possibilities are so great that if the necessary guarantees are given, deputations should be sent to investigate the problems on the spot.
(Sgd.) B. N. SARMA.

## ix.

## APPENDIX "D."

The following is the Rule No. 16 B. under the Defence of India $R$ egulations :-
"No native of India shall depart by sea out of British India for the purpose of, or " with the intention of labouring for hire in any country beyond the limits of India. "Provided that the prohibition proposed by this Rule shall not extend to an y person or "class of persons permitted so to depart by general or special license gran ted by such " authority as the Governor-General may appoint in this behalf.

Explanatory Note.-Labour in this Rule means unskilled labour, and does not "include any work or other occupation of the nature referred to in Chapter XI. of the " Indian Emigration Act, 1908.'

## APPENDIX "E."

UNOFFICIAL PAMPHLET OF MESSRS. WHARTON AND LUCKHOO REFERRED TO IN REPORT AS REPUDIATED BY BRITISH GUIANA EAST INDIAN ASSOCIATION. CIRCULATED BY THE AUTHORS IN LONDON BEFORE DEPUTATION LEFT ENGLAND.

## SCHEME OF FREE COLONISATION IN BRITISH GUIANA.

## Indian Section.

Free and Voluntary System.-In the interest of the Indian community of the Colony, it is desirable to bring to the notice of their countrymen in India the opportunities now being offered by the Government of British Guiana for the development of the resources of the Colony, and submit to them a scheme of free and voluntary State-aided emigration, which would, it is hoped, be of mutual benefit to those now in the Colony, and as well as to the intending colonists.

The resident Indians in British Guiana would like to embrace the opportunity now offered by the Government to make British Guiana an Indian Colony. They would like to encourage the settlement in the Colony of Indians of every class and trade.


#### Abstract

At present the labouring and agricultural classes can materially improve their general condition by emigrating to the Oolony, and would in a short time be able to amass a sufficient competence to make them fairly independeut.


Means of Communication.-Arrangements will be made for regular and cheap steamship communication between India and British Guiana. Special arrangements will be made for the comfort of the intending Colonists-miz. :-

On Board Ship. :-(1) Open berths for single men ; (2) separate open berths for single women ; (3) screened berths for married couples and their children ; (4) three meals per day for each persen; (5) ship surgeons and assistants to be Indians. Their arrival will be preceded by the appointment of a Protector in Georgetown and Sub-Protectors in the various districts of the Colony of men of Indian nationality. Men who will have a special açuainance with the race, caste, and religions of the new Indian colonists. The Protector's and Sub-Protectors' ${ }^{2}$ appointments are to be made by the Colonial Uffice, with the approval of the Government of India. It would be the duty of the Protector and Sub-Protectors to assist the incoming Colonists to obtain suitable employment with registered employers of labour, and to be satisfied that the general conditions with respect to housing, medical attendance, sanitation and wages are complied with.

Wagis.
For Agricultural Labour.
The following wages are recommended :-
Minimum wage per day of eight hours, including time spent in travelling to and from work place.

[^12]It would, however, be an advantage to the labourer if he were to accept work by the task as is now being done, for in such a case a good worker could earn a good deal more than the minimum wage set out above.

The incoming Indian Colonist will be furnished with free quarters and free medical attendance for himself and family.

Men with families will be specially welcomed, and every consideration for their welfare will be'made.

Cost of Living in British Guiana.-The Indian colonist should be able from the above minimum rate of wages to live comfortably and save about one-third of his earnings.

It is'recommended that employers of Indian Colonists should make provision for the supply of foodstuffs, clothing and agricultural implements to them at reasonable rates. Children of Indian Colonists under five years of age will be given free milk rations during the whole time their parents remain in the employment of a registered employer.

Pregnant and nưrsing women will receive free rations for at least six months.
Children under the age of fourteen years are not to be employed as agrieultural labourers.
A special Board of Indians to be appointed by the Government to fix any increase in the rate of wages as necessity arises.

Medical Attendance. - Medical men of Indian nationality would be appointed in large Indian Settlements, and one in each of the large colonial hospitals. Separate wards in the large hospitals for the treatment of Indian patients are recommended.

Panchiat.-On the same system as now exists in India. This is to obviate the often unnecessary expenses incurred by Indians in legal proceedings upon minor disputes. The Panchiat to consist of a local board of five elected responsible Indian men: These men are elected by the Indians themselves from men resident in the plantations, villages, and towns. A headman, or chairman, is chosen by the five elected men. The work of the Panchiat is Hoporary. The Panchiat have the power to settle minor disputes between Indian and Indian. When the Panchiat fails to arrive at a settlement of the dispute, then the parties affected may seek the aid of the Protector, or may have recourse to courts of law.

Holidays.-Official recognition to be given to some of the important Indian Festive days--one day holiday for each :-For Hindu: Howley, Dewali, and Deshara. For Mahomedan : Ead Fitter, Ead Zohar, and Moharrun.

Religion.-Unrestricted individual rights so far as religion is concerned.
Marriage.-Indian marriage officers to be registered and recognised by law of the Colony. Divorce duly pronounced according to the customs of the religion or caste to which the parties belong shall be held valid if registered.

Education.-Primary education is free and compulsory by the law of the Colony. In Indian settlements a school with Government aid can be established where Indian languages would be taught,

Civil Service.
Indians to be given equal competitive rights for employment in the Civil Service of the Colony, with equal rights for promotion in the Service.

Legislation to be effected in order to protect the Indian Colonist from being called or designated "Coolie." The term "Coolie, "if used by anyone to an Indian to be construed as insulting.

Political Rights.-At present Indians resident in the Colony enjoy all political rights and privileges of British citizenship. Similar rights and privileges will be given to incoming Colonists. Indians who can write any one of their languages, or English, and who possess other necessary qualifications as required by the Constitution Ordinance of the Colony, should have the right to be registered as voters.

Reputriation.-Any intending Indian Colonist wishing to return to India, will be granted for himself and his dependents after three years' residence in the Colony one-half of the passage money, after five years' residence three-fourths of the passage money, and after seven years' residence the whole of the passage money. In lieu of return passage the Indian Colenist may accept land or money.

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## APPENDIX ${ }^{\circ}$ F."

## 3ht. GANDHYS VIEWS.

## Lahore,

lat February, 1920.
From the outset Mr. Gandhi made it perfectly clear that he was not prepared to take any step that could be construed as a personal encouragement by him to findians to leave tndia. He was not in favour of the emigration of Indians. At the same time he realised that mañy held different views on this point and he was equally not in favour of using compulsioni byy legislative or executive action to compel Indians to stay at home. They should be treated as free citizens at home and abroad. They should certainly, however, be protected from mistepresentation. He knew nothing to prevent people emigrating now except a Defence of the Realm Regulation which would expire six months after the war. (This is the regulation preventing the emigration of nuskilled labourers for work abrodd until six thonthe after the war unless under special or general licence).

Once assured that equal rights for Indians existed in regard to political, muxicipal, legal, commercial, and industrial matters in British Guiana, and that they were notalone receiving fair treatment from the administration and the general community but would be guaranteed the continuance of such fair treatment, he would not oppose any scheme of free colonisation by Indian agricultural families.

He was satisfied that the Colony had a liberal tobrstitution, and that Indians colld be and wére elected to membership of the legislature and to municipal office. He was satisted that they had equality of rights with other races, aftd that there were opportunities of atequiting land for settlement. He was in favotor of allotifing a test of the scheme subject to a tepport tait the end of six monthe on its working by Mr. C. F. Andretw of 'some other representative of the Indian popular leaders. The deputation accepted this proposal of a repoit by y popular representative independertly of any supervising officer nominated by the Indian Government and offered to pay all expenses.

Mr. Gandhi agreed that all necessary guarantees for the continuance of equal -treatment could be furnished by the Colonial Office and British Guiana Government through the Government of India to the Indian peöple and its popular leaders.

## M. K. GANDHI.

The above was signed by Mr. Gandhi in duplicate and handed to Dr. Nunan. It was communicated (1) to the Viceroy and Sir George Barnes; (2) to the Imperial Citizenship Association of Bombay, and to the Select Committee ; (3) to the Press. So far as is known it still exprèsés Mahatmà Gandhi's attitude tówards British Gưiana.

## APPENDIX "G."

## NOTE. - THIS GUMMARY AS STATED IN THE REPORT WAS AS AN EMERGENCY MEASURE PREPARED AND PRINTED AT THE REQUEST OF THE CHAIRMAN OF THE SPECIAL COMMITTEE DURING THE NIGHT OF 9-10 FEBRUARY, 1920, AT DELHI FOR THE FINAL MEETING AND CONSEQUENTLY OONTAINS A FEW MISPRINTS WHICH WERE CORRECTED VERBALLY AT the meeting of 10TH february.

## SÜmmary of british guiana cölónization sòième.

The Committee appointed by the Legislative Council of India has been asked to deal with proposals set out in the British Guiana Deputation's pamphlet British Guiara and the Empire, which embodies the resolutions accepted by the Government and Legislature of British Guiana and by the Secretary of State for the Colonies and which is published by authority of the -Guianese Government. As the letter of introduction of the Secretary of State for India shows the Deputation is authorized to deal with any necessary details and supplementary arrangements. The Resolutions and Explanatory Memorandum in the pamphlet with any added details or arrangements form the Scheme.

## Notes.

- 1. British Guiana being a country as large as Great Britain with only three residents

tropical settlers of the agricultural class, basing all settlements on the family. The recent change in Imperial policy as regards preference and the urgent demands for foodscuffs all over the world enable it to incur expenditure and to see a prosperous future for agriculture and pasturage.

2. The Colony has entered into an arrangement which, if necessary, can be carried out as from 15th March, 1920, with the Nourse Section of the P. and O. line (Offices: Calcutta and London) to establish a regular passenger and cargo line of steamers directly between Indian ports and British Guisna, sailing at the outset once in two months and later monthly. Accommodation will include first and third class and later second class.
3. Suitable agricultural families (and if necessary to complete any list a limited number of male and female adults equal in amount) on applying to Official Information Bureaux to be maintained by the Guianese Government under responsible salaried officers in populous districts, will after Medical Examination be given free passages. Not more than five thousand adults per year for three years are contemplated. No recruiters will be employed. No contracts will be allowed. Settlers will receive temporary hospitality, most probably at the hostel now maintained near Calcutta by the Calcutta Municipality for workers going to Burma or in similar open hostels at Budge Budge or near Bombay or Madras.
4. On arriving in British Guiana they can if desirous of working land of their own forthwith obtain land (either agricultural or pastural) on easy terms in small or large holdings. These terms are those of the Crown Regulations of the Colony. For ten agricultural acres (with a right to a second ten), these amount to about one hundred rupees spread over five years, on condition of beneficial occupation. Grants, Leases and Licenses of larger areas are also to be had (vide Compendium of General Information published by the Lands and Mines Department). Aesistance in selecting land will be given by Government Officers and financial assistance will be rendered through the Agricultural Banks and from the Colonisation Fund for the starting of homes and cultivation.
5. If the settler elects to accept employment to begin with whether to gain local experience or because he prefers it to the Guianese Government guarantees him employment at. the local rates of pay which for piece work (e.g., on sugar estates) on a seven hours day amount to about three rupees for males at the present time and for females at lighter work about half of that. He is also provided with housing accommodation and with a garden plot and grazing privileges. Families receive a separate new and improved design of cottages.

## Cost of Living.

6. The Deputation's memorandum on the cost of living shows that it is under 40 per centof the ordinary wages for piece work und enables a male wage-earner to save at least a rupee a day. This can be supplemented by independent work, by cattle grazing and by the work of wife and family. A man can comfortably support a wife and family (non-workers) on his pay.
7. Wages are to be controlled by official Arbitration Boards to prevent variation unfair to the wage-earners. These boards therefore in practice assure a maximum rate.

## Reward Grants.

8. Reward grants of five acres of coast or river land specially protected if necessary by embankments from flood (prepared for irrigation and drainage and for cultivation), will be given to families who have completed three years of residence during which they have been engaged either for themselves or for employers in any form of agicultural work in the Colong. The cost to the Colony of this part of the Colonisation scheme is estimated to be about one and a half million dollars or nearly five million rupees. This land will become the freehold property of the owner if benèficially occupied, on the same terms and conditions as the other Crown Lands. The cost of preparing the land, which may run to fifty rupees ${ }^{*}$ per acre*, will be a free gift to the claimant by the Colony. Further assistance will be given as regards housing accommodation and farming equipment. The necessary lands have been ear-marked by the Government or will be acquired under the Lands Acquisition Ordinance.

[^13]xiii.

SUPERVISION.
10. The Indian Government has been asked to appoint its awn official (at the cost of British Guiana) to watch the interest of the settlers.

The deputation has also welcomed the suggestion of Mahatma Gandhi that after a certuin period, say six month or a year, an independent report should be made by a nominee of the - popular leaders and the deputation offers to pay all his expenses.

The deputation now suggests that a Committee consisting of three persons, viz, an officer appointed by the Indian Government, a nominee of the unofficial section of the Indian Legislative Council, and Mr. C. K. Andrews should report on the working of the scheme. Such a committee could set out in December, viz, about six months from the inauguration of the scheme. Whatever Conmittee is appointed should not consist of less than three.

## Repatriation

11. Any individual or family will be sent back free of charge at any time if the Indian Government's supervising officer so requests. This applies to women or children whose husbands or parents die in the Colony or en route. Should such official's request not be made the individual or family can claim repatriation at half estimated cost to Guiana (such cost to be estimated at beginning of scheme) after three years residence, one quarter cost after five years and free of charge after seven years. Repatriation will not affect any land or other rights fully acquired. Cheap return tickets will be provided for individuals or families desirous of visiting India for family reasons; business, or pleasure. The object of the scheme is to promote a regular flow and reflow of colonists as well as a regular commercial intercourse between the two countries.

## Non-Agricultural Settlers.

As first class accommodation is being provided (eventually also 2nd class) assisted passages or passages at very low rates (about one-third of the present cost of the unassisted journey) will be provided. A limited number of professional men (especially medical men and engineers) and a much larger number of clerks and schoolmasters are required. Applications will be considered on their merits and free passages will be given in some cases, assisted passages in others. One priest or minister of religion for each religious group will be taken free on each voyage with right of repatriation free. Traders and small capitalists will also be given cheap passages.

## Political, Monicipal, Landholding, and Trading Rigets.

Equality of rights of every kind exists in the Colony. There is an elected majority of 14 to 8 in the Legislature. The Franchise is very low. Settlers can obtain the Parliamentary vote after six months residence and holding of the qualifications of the Political Constitution Ordinances of 1891 and 1909 which are easily within the reach of any settler whether working for himself or for an employer. Possession of three acres of cultivated land or the income of the average worker secures a vote.

English law has recently been introduced but Indian marriage law and custom are specially protected.

## Guarantees.

12. Guarantees of the continuance of existing privileges (apart from the best assurance of all viz the existence of liberal institutions dating over a century in a British South American Colony) can be furnished by the Colony and the Colonial Office stating that their definite policy is the continuance of the political and commercial equality of all races.

If necessary a Declaratory Ordinance could be passed in Guiana recording the actual position, but of course one legislature cannot bind another. An official declaration of policy by the Secretary of State is the effective course. The Colonial Office can refuse to approve of legislation attempting to violate the accepted principle even if the Government of the Colony in view of such a policy would allow such a Bill to pass or even to be introduced. The consent of the Governor is necessary for the introduction or passing of legislation. Alteration of our settled working institutions without the consent of the people of the Colony (already nearly half East Indians) and of the Colonial Office is unthinkable to anybody acquainted with the West Indian possessious:

## Healith Conditions.

The climate is a good one but unsuitable for manual labour on the coast lands by Northern Europeans. This is not the case for Southern Europeans. Health ennditions are better in every respect than in India, Ceylon, The Straits Settlements, Mauritius, and most other tropical colonies. Much improvement, however, can be effected, and this is being done now by means of the united sanitary campaign by towns, villages, and estates which is part of our Scheme. Our worst death rate has never come to within 3 the of the Indian rate. Our ordinary rate is about one-balf of the Indian rate.

## NOTE ${ }^{\dagger}{ }^{\prime}{ }^{* \prime}$ DR: NUNAN ON THE REWARD LAND GRANTS AND WAGES PLACED BEFORE THE SELECT COMMITTEE OF THE INDIAN LEGISLATIVE COUNCIL.

The offers of land were contained in the following documents:-
(1) "British Guiana and the Empire" the programme of the deputation ( $v$. Memoranduin by Mr. Mullin Acting Commissioner of Lands and Mines).
(2) The Inter-Departmental Report, 1917; referred to on 6th and 24th pages of theformer.
(3) The Compendium of General Information relating to British Guiana.
(4) Reporta and Pamphlet containing official account of Deputation's interview with Sir George Barnes and also statement of Indian Section.
(5) Reprint of (4), Liberal (Congress Number Lahore in Decr. 29, 1919).
(6) The British Guiana Gruwn Lands Regns. The statements as regards wages were contained in the following documente :
(1) "British Guiana and the Empire."
(2) "Memorandum One week's cost of living for British Guiana Labourers" prepared by Deputation (draft prepared by Messers. Greenwood and Wharton explanatory additions made subsequently (1) by Lr. Nunan ; (2) by Dr. Wharton).
A.-During the three days' examination of Dr. Nunan and Mr. Luckhoo the questions of the value of the British Guiana dollar and the daily variation of the rate of Exchange of English money into rupees were gone into on numerous occasions. A dollar was explaiped to be a dollar of 4 s . 2 d . translated into rupees of their official value $\mathrm{S} .1 / 4$ without reference to questions of exchange. At the date there was no rupee in India except a rupee of 16 annas reckoned officially at $1 / 4$. Questions of exchange only affected persons remitting or purchasing abroad or remitting or purchasing in India. They did not affect the pay of the small farmer or agricultural labourer. The official value of the rupee has since been fixed at 2 shillings.
B.-Neither in the Inter-Departmental Report nor in the Colonization Committee Feport nor in any other document is any proposal made to give lands away. They all refer to terms. The Summary definitely sets out these as the terms of the Crown Lands Regulations. What these were was set out in the Summary and in the typewritten copies of the Regulations in the hands of the'Committee.

## APPENDIX "H." <br> DEPARTMENT OF COMMERCE AND INDUSTRY, INDIA, Delbi, 10th February, 1920.

Dear Dr. Nunan,
I am glad to hear from the Committee that they seem quite satisfied. I feel. sure that you will understand how desirable it was in your interests that the Government should not pre-judge the case, for this question of emigration arouses strong feelings very easily, and two or three jears ago we had excited meetings held iu every town in India. I hope you may have a prosperous journey to British Guiana.

> Yours sincerely,

The Honoursble
Dr. J. J. Nunan, K.C., LL.D., Hotel Cecil, Delhi.

## xy., <br> APPENDIX "I." <br> 11 <br> EXPLANATORY MEMORANDUM.

In riew of the proposed introduction with State-aid of a considerable number of non-European British subjecta it has been deemed advisable to make clear the legal status of all British subjecta within the Colony, which status it should be said has never been questioned locally as equak rights for all races have existed since 1838. It is proposed by His Excellency in Council after the passing of the Declaratory Ordinance to notify the Gavernment, of, India, with the approval of His Majesty's Secretary of State for the, Goloniea that the maintenance of this equality of status is the permanent policy of the Government and pepple of the Colony.

## ORDINANCE NO. OF'1920.

## A BILL ENTITLED "AN ORDINANCE TO MAKE CLEAR THE STATUS OF ALL CLASSES:OE BRITISH SLIBJECTS RESIDENT WITHIN THE COLONY."

WHEREAS under the Immigration Ordinance, 1891, and its amending Ordinances and under various Ordinances now repealed numbers of British subjects of British Indian and other non-European race or origin have at various times been introduced into the Colony under indenture and whereas numbers of such persous have come into the Colony independently of any form of indenture and whereas numbers of such persons -and their descendants are now resident within the Colony; and whereas the Combined Court has provided funds for the colonisation of the Colony by British subjects of British Indian and other non-European race or origin without any form of indenture or other contractual obligation of service or residence ; and whereas in view of such colonisation it is desirable to remove any doubt as to the status of such and of all other British subjects of non-European race or origin within the Colony.

Be it therefore enacted by the Governor of British Guiana with the advice and consent of the Court of Policy :

1. This Ordinance may be cited as the Status of British Subjects (British Guiana) Short Title Declaration Ordinance, 1920.
2.-(1) All Ordinances purporting to confer any franchise, vote, appointing or nominating Declaration power, or any right to be elected, appointed or nominated to any office of honour or emolument within the Oolony whether under the Political Constitution Ordinance, 1891, the Georgetown and New Amsterdam Town Council Ordinances, the Local Government Board Ordinance, the Agricultural Loan Banks Ordinance, the Sea Defence Ordinance, the Elementary Education Ordinance, the Education Ordinance, the Agricultural Board Ordinance, the Polders Ordinance, the Harbour Board Ordinance or under any other Ordinance or under any amendments of any such Ordinances or under any Regulations, Rules or By-laws made thereunder shall be deemed to apply equally to every British subject of every race or origin within the Colony without any distinction whatsoever, and every British subject possessing the qualifications prescribed thereunder (if any) for exercising such power or holding such office shall exercise or hold the same as the case may be independantly of race origin or previous condition of indenture.
(2) Any Ordinance purporting to confer upon British subjects any right of trade, commerce, land holding, land transfer, lease or mortgage of movable or immovable property, or any right of association whether under the Companies Ordinance, Friendly Societies Ordinance, Banking Ordinance or under any other Ordinance, Regulation or By-law or purporting to regulate the exercise thereof shall be deemed to apply to all British subjects resident within the Colony.

## xvi.

## APPENDIX " J."

"Kbalba College,
" 11th December, 1919.

## G. A. Wathen, Esq., M.A., Principal, Khalsa College, <br> Amritsar.

"The Honourable Mr. J. J. Nunan,
"Chailman, British Guiana Deputation:
"c/o Postmaister, Delhi;
. "Sir,
"I have read with interest the account of your meeting with Sir George "Barnes, I believe your scheme might prove attractive to Sikhs from the Punjab and I " would suggest that you might get it well known by coming here to address the students of "this College on the subject. This is the only College where you would have an educated " audience chiefly composed of the agricultural class and my experience is that information is "better conveyed through students and school boys to their families than by any ofthcial ' means ; also news conveyed as I nuggest is more trusted. I should be glad to arrange for "" a lecture any day you care to come befcre December 20th.
"I have, etc.; etc.,
" (Signed) G. A. WATHEN,
Principal


JGritisb Guiana.
COMBINED COURT. 2
FIRST SPECIAL SESSION, 1923.
MISCELLANEOUS APPENDICES
to the report of the
bRITISH GULANA DEPUTATION TO THE INDIAN GOVERNMENT.
(IN. CONTINUATION OF SESSIONAL PAPER No. 12 OF 1923),
Drinted bu the Elutbority of Ibis Excellency the Governor.


[^14]GEORGETOWN, DEMERARA:
"Tge Aggofy" Company, limitid, Printers to the Governuent of Bbitise Gdiana.
No. 11,545.
-" (a) to examine the scheme of colonization which the Deputation from British Guiana "desire to putforward, and to report thereon and make recommendations to the "Government of India:
H(b) to meet the Deputation from Fiji which has arrived in this country and to examine "any proposale which they may put forward, and to report thereon and make "recommendations to the Government of India."
Application was also made last Friday to His Excellency the Viceroy to dispense with the usual term of notice before a Resolution could come on, namely 15 days. The Resolution will be accordingly brought up as soon as it can be by the Legislative Department.

I am to say it will be necessary for you to put before the Committee definite proposals on behalf of the British Guiana Government. Will you kindly provide copies of your proposals for each member of the Committoe?

There are a few questions which will require to be cleared up.
Is the pamphlet compiled by Dr. Hewley Wharton and Joseph A. Luckhoo put forward on behalf of your Government?

This Department has received through the Secretary of State for the Colonies the following telegram from the Officer Administering the Government of British Guiana -
"Am requested by British Guiana East Indian Association to telegraph following message "to you. Message begins. British Guiana East Indian Assuciation disclaim all $"$ connection with pamphlet issued by East Indian Section of Colonisation " Deputation. Request Government of India may be informed. Message ends."
You said some time ago that there would be no difficulty about releasing all the indentured labourera in British Guiana, but we have received no statement that this has been done.

Further.-Is it proposed to employ recruiters?
Would a male immigrant working for an employer get one-tenth of an acre to cultivate as a matter of course?
Would the right of an immigrant to an assisted or free passage be affected in any way by the fact that he moved from one employer to another without the permission of Protector?
Would one such offence invalidate his claim to a grant of Crown land? Attention is invited to the report of the inaugural meeting of the British Guiana East Indian Association held at Georgetown on the 24th April, 1919).
Has the British Guiana Government any more recent Immigration Report than that for the year 1916? That is the latest which we have in this office.

Yours truly,
A. K. SARKAN, Assistant Secretary.

## Honourable

 Dr. J. J. Nunan, K.C., LL.D.,Hotel Cecil, Delhi.

1

Copy of a letter from the Honourable Dr. J. J. Nunan, K. $\boldsymbol{U}_{1,}$ LL.D., Delhi, to the AssistantSecretary to the Government of India, Department of Commerce and Industry, Delhi, dated the Srd February, 1920.
I beg to acknowledge your letter of "Jesterday's date received last evening notifying me of the notice of the notion of Mr. Surendra Nath Banerjee and of an application of last Friday to H . E. the Viceroy for dispensation of the usual 15 days' notice. I am glad to learn of this latter as Mr. Banerjee, the Fijian deputation and mine expressed a wish yesterday to the effect that such an application should be made and the Legislative Secretary (Honourable Mr, Smith) did not know that any application had been made. The deputation cannot obtain passages after 12 th instant carlier than May.

Definite proposals have been made to the Government of India and copies have been supplied to every member of the Legislative Council. Further copies will be supplied to the members of the Committee this morning. No doubt further details will be asked for. My deputation will supply them. It is difficult to anticipate all possible enquiries.

In regard to the questions put in your letter:
The pamphlet* issued in London by Dr. Wharton (Hon. President B G. Indian Association) and by J. A. Luckhoo, F.R.S. (President of same) was not put forward on behulf of the British Guiana Government or on behalf of the deputation. It represents the personal views of two of the four members of the Indian Section and is unofficial and without other authority. H.E. Sir Wilfred Collet, Governor of British Guiana, so stated to the Parliamentary

[^15]Committee of the Indian leaders in London and I have myself so stated to the leaders in London and in India. This was prior to the resolution of the lately formed Indian Absociation in Guiana calling attention to the fact that the pamphlet prepared and issued in London by their leading officers was not anthorized by the Association. The Association's resolution reiterates its approval of an Indian colonization scheme and does not revokethe unanimous approval the Association gave in April to the official and authorized scheme of the deputation now put forward in the name of the Colony, including its Government and the Indian half of its population. It is only fair to state that no criticism of any of the details of those personal views of the two Indian members has been made. They have been attacked merely on the grounds that they have been published by them without authority in a manner which seems to indicate that they came from the newly formed Association.

As regards the 600 labourers still under indenture, my cable of 12th December was acknowledged by the Secretary of State for the Colonies on 24th December, received here 29th (your Department being duly notified the same day), stating that he was communicating with the Governor of British Guiana to whom I had duplicated the original cable. I learned later that the rery unsatisfactory cable to Guiana and Trinidad had broken down. This has appeared in the Indian press. I have not succeeded in getting through to Guiana once in ten weeks.

Our scheme, following the Interdepartmental Committee's scheme in this respect, involves immediate cancellation of existing indentures if accepted. I am authorised by Mr. Thomas Greenwood who represents the West. Indian Committee on my deputation and who signed the cablegram of 12th December along with the rest of us asking for cancellation, immediate and unconditional, to say that the Colony will have unanimously agreed to cancellation on receipt of our cablegram. I feel justified in saying that our Government will have taken the necessary steps without a day's hesitation. I sent a further cablegram from Culcutta 3rd January on this and other subjects. A reply received through the Secretary of State for India dated London 28th indicated that cable communication had not yet been secured with British Guiana. You are also aware that mail difficulties caused by the war and its aftermath are not yet removed by any means.

In regard to jour other enquiries :
No recruiters will be employed. The evils of the old aystem have been impressed on me personally at Benares but our scheme originully contemplated its complete abandonment. Information Bureaus equipped with cinema films under the charge of responsible salaried ,officers will be our form of propaganda. A male immigrant (or female in the chance case of an independent female) will get $1 / 10$ th of an acre if working for an employer, also cattle grazing privileges, The right of an immigrant to an assisted or free return passage will not be affected by unauthorised change of employer. The authority of the supervisor will be merely advisory. The Indian supervising official moreover will have authority to repatriate free any individual or family at any period if so advised. No forfeiture of grant of land will occur for one unsanctioned removal or under any conditions without approval of the Indian supervising official.

No immigration report later than 1917 had been received at the Colonial Office or by me before I left England on 26th October. None has reached me here. The Acting Immigration Agent General came to London with the deputation and I have all information at his disposal up to 25th October, 1919, when I saw him in London. I enclose the 1917 report of which I have only this copy:
P.S.-I do not consider that my deputation 甬 concerned directly with the merits or demerits of the Tate indentured system. General conditions moreover have changed in many respects both as regards work and wages. Four at least out of five of us have always been opposed to it on various grounds. The main point of our scheme is an attempt to remedy such of its legacy as has been evil, viz, the irregularity in number of the sexes which hampers the complete establishment of an ordered family life for our young adult males. Mr. Luckhoo .who is at this moment indisposed has added the following note :- .
' I would like you to insert the following where you think advisable.

- The pamphlet issued by myself and Dr. Wharton was done at the request of Mr. Wadia and other members of the Indian Parliamentary Committee in London in July. Mr. Wadia who is recognised to be a Labour Leader desired to know how the scheme would affect the lowest class. The pamphlet is not inconsistent with the original scheme and also not inconsistent with the views I, as President of the Indian Association in British Guiana, put forward on the 18th June 1919 and which the Members accepted without any alceration or further suggestion.

The name of the Association was affixed to the Pamphlet as a place of address and not as issued by them.

1 have only one copy of the "Daily Argosy" of 19th June, 1919; which reported the meeting of the Association. I quote the latter port of the report :
*At the conclusion of the addrese the audience expressed their complete accord with the u'vews expressed b'y Mr, Luckhoo and a vote of thanks was accorded him for voluntarily com"ing and feárlesely openly expressing his viè ws on' such an important question."

> Letter from Mr. Gandhi.

2 Mozang Road, Lahore, 5th February, 1920.
Dear Dr. Nunan, I enclose . 6 polak. You will see from it that therewith an extract* from the "Daily Argos" sent by Mr. scheme. They evidently consider it to be not a Colonization Scheme but one intended to find labour. Will you please let me know who thilis party is and what exact position is that you wish to reach. I have written for "Young India" on article setting forth $m y$ views, you will have a copy as soon as it is published. This extract from the "Argosy" has certainly unsettled me a bit and it makes me revise even what I have written for "Young India." As soon as I get a moment's leisure I propose to put down my own thoughts of what any Colonization Scheme ghould be if it is to give any satisfaction at all and to receive any countenance even from those who believe in Emigration.

Yours Sincerely,
Note-To this communication Dr. Nanan replied to the satisfaction of Mr. Gandhi.
THE IMPERIAL INDIAN CITIZENSHIP ASSOCIATION,
359, Hornby Row, Fort, Bombay, 4th February, 1920.
Joseph J. Nunan, Esq.,
Cecil Hotels;
Delit.
Dear Sir,
I beg to acknowledge receipt of your telegram dated the 1 st instant from Lahore. I are awaiting Mr. Gaindhi's statements. Our meeting comes off on the 11th instant and your scheme has been circulated-among the members of the Committee. I want also to circalate the "Constitution of British Guiana " for which I have written to you in a separate letter.

Yours faithfully,
JEHANGIR BOMANJI PETTITT:
Note.-A Resolution was passed unanimously in favour of the scheme on 11th February, 1920.
Exitract From The Calcutta "Siätesman" 12th January, 1920.
At a meeting of the Committee of Central National Mahomedan Association held at Calcutta on Friday, the 9th instant, it was resolved that the Association sympathises in principle with the idea of colonisation propounded by the members of the British. Guiana Colonisation Deputation if full and equal rights of citizenship be guaranteed to Indians without reserve.

MEMORANDUM.
one week's cost of living for british guiana lábourer or
SMALL FARMER.


[^16]Note A.-Ground Provisions if grown by the settler will cost 30 per cent. less.
Note B.- In case the settler prefers to provide his own housing accommodation this would cost between one and two shillinge a week extra.

Ordinary daily wage of a healthy man is about one dollar or three rupees. Government Boards of Arbitration are proposed to maintain the due proportion between the wages and the cost of living.*

The above statement was prepared by the British Guiana Colonization Deputation after the matter had been gone into fully (1) in the Colony, ( 2 ) in London at discussions between the Weat India Committee and the British Guiana Official Emigration Authorities and (3) at a conference of the British Guiana Deputation in. Delhi after their first interview with Mahatma Gandhi. It is now submitted on the authority of Hon. Joseph J. Nunan, K.C., LL.D., Chairman of the British. Guiana Deputation, representative of the Royal Agricultural and Commercial Society. (AttorneyGeneral).

Pioneer,
11 th February, 1920,

# BRITISH GUIANA.-COLONISATION SCHEME. Offer of Guarantees. 

(From Our Own Correspondent).
Delai, February 9.
The Committee appointed by the Imperial Legislative Council to discuss the colonisation scheme with the British Guiana and Fiji Deputations re-assembled to-day in the Secretariat, when Dr. Nunan and Mr. Luckhoo of the former deputation presented an analysis of their scheme, which stated that the recent change in the Imperial policy as regards preference and the urgent demand for foodstuffs all over the world made it incumbent upon them to set aside $£ 500,000$ to be offered as inducements to emigrants. The Colony had arranged for a regular passenger and cargo line of steamers between the Indian ports and British Guiana. For the first three years not more than five thousand adults a year would be given free passages. On arriving in British Guiana, they could, if desirous of so doing, obtain land of their omn, either agricultural or pastoral, on easy terms in small or large holdings. If the settlers preferred employment, the Guiana Guvernment guaranteed local rates of pay, which for piece work on a sugar estate on a seven hours' day amounted to three rupees for males and for females at lighter work about half of that. He would also be provided with housing accommodation. The cost of living was under 40 per cent. of the ordinary male wage. The earner could save at least a rupee a day. Wages would be controlled by official arbitration boards to prevent variation unfair to the wage-earner. Reward grants of five acres of coast or river land especially protected by embankment from flood, prepared for irrigation, drainage and cultivation, would be given to families after three years' agricultural work in the Colony. The Indian Government has been asked to appoint its own official, at the cost of the Colony, to watch the interest of the settlers. The deputation welcomed Mr. Gandhi's suggestion that after a certain period an independent report be made by a popular leader at the Colony's expense. The deputation also suggested the constitution of a committee consisting of an Indian Government official, a nominee of the unofficial section of the Indian Legislative Council and Mr C. F. Andrews to report on the working of the scheme.

## Repatbiation.

At the request of the Indian Government's supervising officer, any individual or family would be repatriated free of charge at any time, while if such a request emanated. from the individual or family the Guianese Government would pay half the estimated cost of repatriation at the end of three years' refidence, three-fourth of the cost at the end of five years, and free of charge at the end of seven yeari. Repatriation would not affect any land or other rights fully acquired. Cheapreturn tickets would be provided for those wishing to return on family reasons. This would secure a regular commercial intercourse between two coüntries. A limited number of professional mer such as doctors, engineers clerks, schōal-masters, etc., would be given passages, either free or at very low rates. One priest or minister of religion for each religious group would be taken free on each voyage. Guarantees of the continuance of the existing privileges could be furnished by the Colony and the Colonial Office stating that their definite policy was the continuarce of political and commercial equality of all races. If necessary., a Declaratory Ordinance cuuld be passed in Guiana, recording the actual position, but one legislature could not bind another in regard to this matter.

Before proceeding to examine the scheme, tbe President, Mr. Banerjee, read out the following cablegram received from the Under-Secretary to the Colonial Office to Dr. Nunan:-"Your telegram, 3rd January. A message from the Governor, dated 28th December states the Indian Government has been notified that the existing indentures of East Indian emigrants will be cancelled."

The deputation said that they were perfectly certain that there had been immediate and unconditional cancellation of the indentures for the purpose of creating a favourable atmosphere, and. that thia cancellation was independent of the scheme they were putting forward.

[^17]
## Guarantees

Dealing with the scheme, Mr. Bannerjee asked :-" One of the papers commenting on our work makes the suggestion. What is the guarantee that you can give so that the rights and privileges that now exist will not be taken away at some future time?"-If we are false to our word, we can dodge any guarantee. An Ordinance will be passed declaring that all people are equal before the law in British Guiana, whether they come from outside or not. That is only useful to a limited extent bscause another legislative act might set it aside. The Colonial Office should give to the Indian Government an undertaking that the policy which has been going on for years will not be departed from. That I am prepared to ask the Colonial Office to do.

Will your legislative make a declaration to that effect ?-Yes. On behalf of our Government, I undertase now to get a declaration passed immediately.

The Committee was also informed that at present the Colony was short of medical practitioners and that if some doctors went from this country, they could easily make a thousand pounds a year. At present doctors there made even more money. Clerks were also required and an ordinary clerk in a commercial concern could earn from Rs. 60 to Rs. 120 per mensem. There were large irrigation and drainage schemes which required engineers. A first class engineer would make a thousand pounds a year. There was room also for Indian lawyers, who could earn from three to five hundred pounds annually. English was the court language, and there were qualified interpreters in the courts. Wages had gone up. Indentured labourers had been getting more than unindentured ones. The condition of the Indian population in the Colony was as good as it was in India, and, as a moral safeguard, the deputation suggested that eacb group of emigrants should bring their priests. Temple and mosques could be built for purposes of worship and the State was not going to interfere with their religion.
'Mr. Crum : If at any time say, after ten or fifteen years, the deputation that would go from India should decide that the condition of emigrants is not satisfactory, and that you have not kept up to your present promise, are you prepared to repatriate them?-We are prepared to repatriate any people. That is the recommendation. We have so suggested in our scheme. In Guiana they said, the coinage was English silver, and based on the English gold basis. They were not affected by depreciation in the English pound to the same extent as they were in England. There was ample opening for medical men. The deputation was not sure if an Indian university medical qualification was a bar. If so they undertook to get it removed.*

## Conditions in ter colony.

- Mr. Sarma referred to the decrease of the population, the water-logged condition of several places, and wanted an explanation for the statement that the health of the Colony was better than in India.
, The deputation replied that the decrease of the population was due not to the death-rate which compared more favourably than in other Colonies, but to the fact that there has been a large local emigration from British Guiana to Dutch Guiana for higher wages that were obtainable in Surinam, Trinidad and at the time of the Panama Canal construction. The death-rate was lower than what prevailed in India, and there was no cholera; plague or small-pox; as here. If one thousand.families were to go now to British Guiana, there was house accommodation ready for them, and they would not take any fa nily if they could not provide ready-made accommodation. An average man could earn a dollar, that, is just above Rs. 3. The deputation was not in favour of fixing a minimum wage, because it was not in the interests of the wage-earners themselves. They had only seven hour labour in British Guiana. There was nothing like that in the world, not even among the Bolsheviks (Laughter).

Mr. Chanda elicited ihe information that an agricultural labourer had not to work in the jungles or forests, and that land was already cleared for him to cultivate. The moment a minimum wage was fixed for those in the Colony, the colonisation system was doomed:

Mr. Sinha got from the deputees the promise of submitting to-morrow a written draft of the Declaratory Ordinance declaring equality of race in the Colony, and to Mr. Marjoribanks they. said that the present Asiatic Immigration Ordinance would be so amendedsas to include this and -other guarantees.

Mr. Crum : Are you prepared to sign on behalf of your Government a note of thelproceedings -or at any rate, those points in regard to which you are in a position to give a guarantee?-Yes. Our Government will agree to any other points which we might decide.

The Committee then adjourned till to-morrow.

## Extract from Inter-Departmental Committee's Report of Lord Islington and Arthur Steel Maitland, Esquire, M.P. of 14th July, 1917.

(This report was recommended for trial by a British Guiana Sub-Committee. Its land proposala were accepted by the Colonization Committee as their starting point. They were excepted at a meeting of the Sugar Planters' Association called for that purpose in April, 1919. They had previously been approved of by the Association in 1917 as shown below).

[^18]
## III.-Land Settlement.

Steps will be taken to ensure that land may be made available at once in the simplest and cheapest manner that can be devised for all immigrants who desire it and have completed and qualifying period of three yeara' employment under employers on the Register. To secure this end a Department in each Colony will be responsible for the provision of sufficient land to meet all bona fide applications for rendering it suitable for agriculture by adequate clearing, irrigation and drainage, where this is considered necessary by the Departmant, and for the distribution of it among applicants, and the due control of their management of it subsequently. It will be the duty of this Department to advise immigrants on questions relating to the acquisition of land, to explain fully to them the conditions upon which land can be obtained and to assist them in every possible way to obtain it.

In Fiji these objects will probably be attained by the Land Trust Committee instituted under Ordinance No. 15 of 1916. In British Guiana the Crown lands are in places not cultivable except after a large expenditure on irrigation and drainage than the individual immigrant can afford to incur. In Jumaics it is understood that suitable Crown land is scarce, and land for the settlement of Indians can only be provided by purchase from private owners. In Trinidad, settlement is retarded by the restrictive conditions that the occupancy price must be paid in one lump sum and that the minimum area that can be granted shall be five acres. It will be the business of the responsible Department in each Colony to remove all obstacles of this kind to the free settlement of Indians upon the land.

Land not exceeding five acres in extent will be granted to an immigrant after three yearg' employment under employers on the register subject to a reasonable annual rent in the case of leaseholds. The rent will vary according to the fertility and position of the land and will be subject to revision every 30 years. For ten years after the grant the immigrant will be prohibited from alienating or encumbering his right in the land except with the sanction of the responsible Department, and that Department will have power further to resume any land not brought under cultivation within two years of the grant.

## (Exiract from the Memorandum of the Sugar Planlers Associalion 3rd April, 1917.)

The Association desires to touch on another point not referred to at the (Inter-departmental) Conference. i.e., the question of settlement of contract expired labourers on Colony lands. It recommends that all steps should be taken in British Guiana to facilitate the acquisition of such lands by coolies at the lowest possible cost and also that the sanitary supervision now existing in regard to coolies on estates should, as far as possible, be extended to settlers on such lands.

The Commissioner of Lands and Mines (Mr. F. Fowler) made the following statement before the Committee on Emigration on 8th March 1916.
" There is no available empoldered land belonging to the Government; as far as I know, that. can be utilised for settlement of East Indians. We had some at Winsdor Forest, La Jaloupsie, and Hague, but it has been disposed of. There is no land on the Coast available, but there is a certain amount in the Abary, Mahaica and Mahaicony Creeks, but this land will need empoldering, irrigating and draining. It would mean acquiring land from the estates, on the front of which, both on the East Coast and West Coast, there is a certain amount available. There are about 15,000 to 20,000 acres up the Abary Creek that would not be troubled with sea defence, and this is the nearest land I can think of. There are also 3,000 acres at Abary empoldered-part of 5,000 acres granted to the Abary Rice Company-which can be purchased for about. $\$ 30^{*}$ an acre, and immediately adjoining this area a block of 5,000 acres that can be immediately empoldered. To empolder land the cost is between $\$ 30$ and $\$ 40$ per acre. Giving five (5) acres to each person on the 5,000 acres 900 persons can be accommodated there, and very many more on the 15,000 to 20,000 acres. There is land on the Berbice River with natural drainage, but. it requires. clearing as it is forest. Government lands empoldered, irrigated and drained are leased at $\$ 6$ an acre for 99 yeare, and I find no difficulty in leasing them. The estates are offering the same conditions now. I estimate that an East Indian would reap about 30 bags of paddy a year from an acre of land, and earn, in other words, $\$ 45$ per acre per annum."

The Committee concluded that the area at Abary would probably be the most suitable for making a Government Settlement for East Indians, but that it would be desirable, as far as possible, to induce East-Indians to settle on lands placed at their dispossl by the proprietors of the various estates, in order that labour might be readily available and that land at present lyingfallow on estates should be brought into beneficial use. It was, therefore, decided to write to the Planters' Association and inquire upon what terme estates' proprietors will be willing to settle unindentured East Indian immigrants.

[^19]
# IMPERIAL COLONIZATION.* <br> BRITISH GUIANA AND TILE EMPIRE, 

 GEORGETOWNAPRIL 14TH, 1919.

## COLONIZATION SCHEME.

## Report of Proposals and Finance Sub-Committee.

British Gulana's Position in South America.


#### Abstract

1. British Guiana, often referred to as Demerara from the name of one of the three counties Demerata, Essequibo and Berbice, is neither a West Indian Island nor an island in the South Seas as is sometimes supposed even in well-informed circles. It is the only continental possession of the British Empire in South America, on the north-eastern shoulder of which it is situated, and the rich foreshore which fronts its vast forests and savannahs is enriched by the alluvium of the Amazon from Brazil and the Orinoco from Venezuela. It is the natural outlet for a large area of Northern Brazil, It is the fabled home of Sir Walter Raleigh's El Dorado and if the great writer and soldier did not find the gold he sought or the diamonds he dreamed of, it was not due to the circumstance that they were not there. 2. British Guiana is thrice the size of Scotland and is twice and thrice respectively the size of Surinam (Dutch) and Cayenne (French), the only other possessions of European Powers in South America. It is larger by about one-fourth than the South American republics of Uruguay and Paraguay and only one-fifth smaller than Ecuador. Yet the population of these republics is four or five times as great and although Uruguay's resources and position for trade are less favourable than ours her total imports and exports are about six times those of British Guiana. She is situated at the southern end of the shoulder of the sub-continent corresponding to British Guiana's position on the north-east. Her population like ours is very mixed in race.


## Population.

3. Our population is 311,000 and our area is 90,000 square miles. The population is therefore about three to the square mile and is almost entirely confined to the coast. We cultivate less than 170,000 acres out of about 58 million acres. Of these 75,000 acres are under sugar cultivation. About 134,670 are East Indians of whom a majority are not resident on estates and of whom a large number (exact figures not attainable at this moment) were born in India. Of the rest 118,398 are Blacks, 2,874 Chinese, 9,665 Portuguese (either born in the Colony or in Madeira or the Azores) 3,698 Northern Europeans i.e., British-
4. The reason of the smalless of the population is that the various indenture systems by which it was sought to increase the colony's working power after slavery was abolished in 1832 and the temporary apprenticeship abolished in 1838 looked to the immediate labour requirements without contemplating any system of colonisation. Those brought in under indenture to work had no special inducements to lead them to remain after they had been paid off at the close of their term. They had the provision of a back passage to tempt them to go.
5. A still stronger inducement to leave the colony was the absence of a sufficient number of women of their own race or class. Intermarriage between races bas not been frequent. The East Indian indentured women were only about one-third of the men. Unfortunately the immigrants were only of the agricultural class to the extent of 30 per cent. and most of the women immigrants were recruited from town residents. Their' were circumstances in the case of very many connected with their previous life, local temptations under such special circumstances, and daily work which militated against fecundity.
6. It is now fully recognised that any scheme of colonization to be successful must be based upon the introduction of families and upon the foundation of an ordered family life in all classes of the community.
7. Until the visit of the Royal West India Commission to British Guiana in 1897 the small proprietor was not eccouraged and both Government and employers must be accused of shortsighted views on the subject of the future fortunes of the colony as a whole. As compared with arrivals about 27 per cent. of East Indians returned home. Still greater proportions of Chinese and Portuguese left the colony. Re-indenture was not allowed by law. Negro immigrants were not numerous but a few Congoes and Orubas were settled here as liberated slaves in the fifties. There was no organised attempt to import African families but some thousinds of Barbadians have come in at various times and are useful oitizens particularly in the artisan class.
8. In spite of the failure of the indenture system to solve the problem it must be remembered that the present population so far as it is not the result of the slave trade is almost entirely due to indenture.

Health.
9. The health returns of the colony are more favourable than those of most tropical countries whether in South America or elsewhere and have shown a marked and regular improvement for many years. They certainly are far superior to those of India. No doubt the coming organised campaign of sanitation by co-operation under Government leadership between towns, vilhages and estates will lead to further marked improvement. The Colonization movement has such

[^20]a campaign as a vital part of its programme. A definite effort must be made to remove the erroneous impression that British Guiana is an unhealthy country which impression was created forty years ago befors yellow fever and cholera had vanished. Ordinary tropical diseases such as malaria and hookworm are being grappled with under circumstances that are now more favourabla than ever before. Drainage, sewage disposal, good housing of the working classes and water supply are now to be dealt with on comprehensive lines. The interior is especially healthy as may be shown by the mortality returns of the balata industry and the health record of the European residents.

## GENERAL POSSIBILITIES.

Catthe.
10. It is certain that both on the coast savannahs and the interior beyond the forest belt both very small and very large capitalists can find a profitable investment in raising cattle and many hundreds of the African and Asiatic races can make a handsome living. The stock on the coast ranches doubles itself every four or five years and the death-rate over the last eight years has averaged under three per cent. So far the export has been in practice confined to Surinam and Cayenne and is as yet unimportant. We could, however, in a short time supply Trinidad (which suffers from special Venezuelan imports on West Indian trade). A cattle track has now been cut to the Rupununi Savannahs and will soon be available for the passage of cattle to be fattened on the coast ranches for the market, Brazilian cattle will also find a market.

Balata.
11. The balata industry now employs about 3,000 hands. One firm alone would employ 500 more men of the African race if it could get them. The return of a good bleeder is about $\$ 250$ for a season's work (or $\$ 150$ after repayment of advances for provisions' and wife's allowances) after which he can work on the coast-lands or own farm or elsewhere. Superintendents of course obtain still better pay. Bleeders are almost invariably employees but they work on a commission basis. The death-rate in this industry is even less than one per cent., showing that our forests have none of the dangers to health of African or other South American forests. There are large areas still only partially tapped and the grants held for years by local firms are only partly explored owing to the vast area of territory.

Mining.
12. The scope for the independent expert miner or prospector is enormous. The indications point to magnificent mineral resources in bauxite, gold, iron, other metals and diamonds. There is room for the individual worker and the small capitalist of all races especially white, black and Chinese.

Timber.
13. The lumber industry in this colony is practically in its infancy and owing to the demand for timber for war reconstruction ; paper pulp and other requirements offers great advantages to large capitalists who can command an access to an existing market. Greenheart and Mora andother valuable woods exist in large quantities but cannot be handled without considerable expenditure and a greatly increased labour supply especially of blacks. We have over seventy thousand square miles of accessible virgin primeval forests.

The possibilities for local working men either independently or in employment are countless. The independent woodcutter could vary his employment by taking up coast work at certain seasons. He could also engage in the balata industry.

Coast Industries.
14. As regards sugar we call attention to the following extract from the "Timehri " article (Royal Agricultural and Commercial Society of British Guiana's Magazine) of the Director of Science and Agriculture, Hon. Professor Harrison, C.M.G. (August 1918) :-
"A conservative estimate of the area of lands well suited for sugar cultivation in the districts "from the mouth of the Pomeroon in the North West to the West Bank of the Corentyne river in "the east is 351,000 acres exclusive of the area already empoldered on sugar estates. Sixty-four
"thousand acres of this may be at present beneficially occupied by producte other than sugar
" leaving 467,000 acres available for the extension of sugar cultivation. At the present proportion
"of lands yearly cropped with sugar to the total empoldered area this would give in round figures
${ }^{46} 177,000$ acres to be reaped each year yielding a mean annual crop of 320,000 tons of sugar.
"The possible annual crop of sugar in districts in British Guiana where sugar-cane has been "cultivated could with sufficient capital, labour, progressiveness and enterprise be increased to "446, C 00 tons of sugar as a minimum ; to 563,000 tons if 50 per cent of the land was yearly cropped " or by utilising the highest possible proportion of the suitable lands for cultivation to upwards of " 800,000 tons, which by fully applying modern scientific methods in cultivation and manufacture " might be increased to upwarde of a $1,000,000$ tons.
" The enquiries as to the amount of sugar producable by the existing labour supply are very "difficult to satisfactorily reply to. What proportion of the labour-supply will work on the pro-
"duction of sugar? The present production is largely limited by this. It is also limited by.the
"energy, the enterprise, and the progressiveness of the proprietors, their willingness and ability $\because$ to make use of mechanical cultivation wherever feasible, by their progressiveness, both agri${ }^{6}$ " culturally and mechanically, of the managers of the estates, by their knowledge of, and their " applications of such knowledge to, problems of selection of varieties, manuring of plants and control of fungoid and insect pests.
"I may mention that in forming the estimate of the area of land available for the extension " of sugar-cane planting in the parts of the colony in which the sugar-industry has been carried " on, only alluvial lands to a mean depth of two miles from the coastal and river fa $\varrho$ ades were "taken into account and from the total of these areas which in 1914 were under cultivation " With products other than sugar-cane were deducted."

It should be mentioned that notwithstanding the difficulties caused by the war a considerable quantity of modern machinery has been introduced and much more is on the way. Speaking generally the sugar factories are under a rapid process of modernization. At least three large schemes of central factories are being carried out. Caterpillar tractors for ploughing have already appeared in considerable numbers-the pioneers in regard to motor tractors being two East Indian cultivators. Cane-farming by small owners or lessees has thus new prospects and a brilliant future.

The following extract from the report of the Sugar Section of this movement is important :-
"It was decided that under present conditions and prices the sugar industry could absorb a reasonable number of immigrants annually, say four or five thousand : and the Sub-Committee decided to recommend to the Executive Committee that the most desirable immigrants were East Indians, Mongolians, or Africans, in the order named, and it. was essentially necessary that these should be introduced in families. It was also decided to ask the Statistics Sub-Committee to give the average wages obtaining. So far as present conditions were concerned it was decided to record that an able-bodied man working seven hours per day could earn $\$ 1$, while a woman with lighter class of labour such as weeding, etc., working similarly for seven hours could earn 40c. per day. It was also decided to record that the majority of planters and employers were prepared to provide an improved type of labourers' cottages for the immigrants introduced, each cottage to have an adjoining plot of land for provision cultivation,"

No doubt arrangements can be made to provide employment all the year round at above rates by co-operation of estates or by alteration of system as sugar can, unlike the case of Cuba, be grown all the year round in British Guiana. Even if this is not done co-operation of the sugar interests with the balata, timber and rice interests could secure it for all labourers. There must be unity of action.

## Rice.

15. The rice section of the movement reports that this industry could employ 30,000 more people on the coastlands. The suitable area is great; all that is required is population. Owing to our relation with Canada we could supply a large part of the rice which Canada now obtains from non-British countries and with the proposed increase of the 20 per cent. preference could eventually supply the whole.

Ground Provisions.
16. The peasant farmer will find that his market possibilities will grow with the demand for food by an increasing population. No class is more interested in the future of colonisation. Other Coast Industries.
Time does not allow the Report Council to deal with these, but the prospects of coconuts, cocoa, coffee and other products are excellent.

Water Power.
17. While coal is not at present cheap an fmmense prospect is opened up to the colony by the World's growing realization of the value of water-power. Vast schemes have been formed for he utilization of water-falls not only in India (Madras presidency), Switzerland and Montana where all railways and mines are under an electric system), but also in the United Kingdom (Preliminary Report of the Water-power Committee of the Conjoint Board of Scientific Societies, Juls, 1918). We are in a position to work our existing railways, mines and sugar factoriss by electricity and to increase that quantity of power some fifty fold. We could supply a railway running to Manaos (and its branch lines) without any difficulty. whatever and could cut, haul and ant hundreds of millions of feet of lumber. There is in sight employment for hundreds of thousands of men of all classes by the economic utilization of our water-power. The cataracts which have postponed the exploration and development of the interior by making the navigation of our great rivers so difficult from some sixty miles inland will thus be turned into our greatest source of wealth. His Excellency Sir Wilfred Coilet, K.C.M.G., has already planned the first step in this matteri. (Government Resolution, Combined Court, 16th April, 1919).

How the Movenent Began.
When the attention of the Officers of the Royal Agricultural and Commercial Society and Royal Colonial Institute (British Guiana Branch) had been called in January by Mr. Strang (Chairman, Plunters ${ }^{2}$ Association) to a serious decline in acreage under sugar during 1918 due to labour shortage and to the apparent certainty of a future decline instant action was taken. Such a decline, if continued, means disaster to the Colonial revenue and the throwing of very heavy burdens upon other industries. A smaller population will have to bear unreduced expenditure.

It means widespread unemployment among the present population as sugar can employ not less than one full grown man to an acre and contributes about 65 per cent. to the revenue. There had. been no compensating increase in the acreage under other crops and the situation therefore was menacing in the extreme. It had become a question of Colonisation and Development or Decline.

A conjoint meeting of the members of the Combined Court and of various representatives of Municipal and other public bodies assembled in Gsorgetown on 27th January at the Royal Agricultural and Commercial Society's Rooms, under the chairmanship of the Mayor, Hon. E. G.Woolford, M.C.P. It included also the officers of the British Guiana Farmers' Association and Village Chairmen's Conference and the leading East Indian and Chinese citizens. A programme of work was out lised by the Secretary of the Royal Agricultural and Commercial Society (Dr. Nunan) and unanimously accepled. It included the formation of an Executive Committee consisting of the heads of all the public bodies and of a huge General Colonisation Committee consisting of all members of the Combincd Court and of a full representation of various interests. It contemplated the study of all the facts and figures, the direct investigation of the questions of sanitation; mechancial tillage and factory equipment and the creation of a special Sub-Committee to deal with West Indian and African immigration and labour supply. Finally it proposed the dispatch of a Colonial deputation to England.

The Executive Committee was received that afternoon most sympathetically by His Excellency Sir Wilfred Collet, K.C,M.G.o who has since in person or by his officers afforded every assistance in the ascertainment of all the essential facts.

The Combined Court on 5th February passed the following resolution with a single dissentient vote (The discussion had been initiated by the Senior Unofficial member, Hon. A. B. Brown):-
"Whereas there are in the Colony over nine million acres easily accessible for beneficial occupation and suitable for tropical cultivation.
"And whereas the total area is about fifty-eight million acres ;
"And whereas the actual cultivation is about 200,000 acres:
" And whereas there is in the colony insufficient labour to carry on its various industries.
"And whereas this insufficiency of labour has led to a reduction of the area under sugar-cane and will lead to a further reduction;
"This Court respectfully sequest the Governor to make arrangements to send to the United Kingdom a deputation consisting of members of various races in the colony, with the view of laying before His Majesty's Government a representation of the needs of the colony both for the maintenance of present industries and for their extension; and to show the advantages which this colony affords to immigrants from other countries.
"And this Court pledges itself to provide the funds' necessary for sending such a deputation, the work of which is to be based on the lines to be recommended by the General Colonization Committee appointed at the conjoint meeting held in the Royal Agricultural and Comnercial Society's Rooms on 29th January subject to the acceptance of the same by His Excellency Sir Wilfred Collet, K.C.M.G."

The General Colonisation Committee met next day and appointed numerous Sub-Committees which were invited to report within two months 80 as to enable the entire situation to be reviewed by a Proposals and Finance Sub-Committee of some 30 leading members. This review engaged the Sub-Committee for nearly four hours on Saturday, 5 th April, and the following resolutions were passed unanimously except for a single dissentient in one instance.

Mr. T. Greenwood (Chairman), Hon. F. Dias and Mr. H. E. Murray were charged as a Report Council with the presentation of the resolutions along with an explanatory Report to the General Colonisation Committee on Saturday 12th April. The Secretary of the Royal Agricultural and Commercial Society (Dr. Nunan) acted as drafteman.

Preliminary note on Resolutions.
It will be noticed that the resolutions embraced the undertaking of large schemes of irrigation and drainage :
(1) for the peasant farmers and small proprietors now living on imperfectly drained and irrigated lands on the foreshore of the three counties of Demerara, Essequebo and Berbice.
(2) for any lands to be provided under any scheme of colonisation from outside sources as an inducement to non-residents to come in to settle ;
(3) for any lands provided for local workers who have complied with similar conditions and who desire to settle.

This problem was one which the leaders of the movement stated at the outset to be necessary to solve. Its solution was one which everybody was invited to contribute and the entire body of representative opinion answered the invitation.

General Yrinctple.
The general principle was enunciated as follows :-
No colony funds or Crown lands are to be applied to furnish inducements to work. in connection with any industry, unless such inducements are open on the same terms to the natives of the colony equally with any persons of whatever race) brought into the colony from other countries.

Among the points emphasised were the following.
The undertaking of an organised colonial campaign of sanitation by the united action of all our towns. villages and estates, the recognition of the special engineering difficulties connected with municipal and rural sanitation and the official invitation of expert assistance (such as that of a sanitary engineer or of the. Rockefeller. Board in regard to those diseases like ankye lostomiasis and malaria, in which they specialise).

The creation by the Ordinance of one or more representative Central Committees or Boards (1) to deal with disputes in connection with cane-farming with the assistance of officially appointed
test chemists; (2) to advise in each district in any disputes between capital and labour when in-- voked by either party ; (3) to advise with authority on wages questions after full investigation of the facts and conditions of employment in each trade industry; (4) to watch the interests of both locally born and new workers both as regards pay and land benefits.*

The provision of regular and frequent steamer communications with the British West Indies, British West Africa, India and other countries from which a supply of colonists can be obtained and with which colonial trade may be opened.

## Resolutions.

1. That the Government be respectfully requested to create a Labour Bureau available to incoming colonista or unemployed persons.
2. That the Government be respectfutly requested to place before the Combined Couit a proposal to set aside a sum of not less than $\$ 500,000$, viz., $\$ 100,000$ a year for the five years commencing 1920 for the purpose of carrying out under Government supervision accepted or future schemes of irrigation and drainage of lands throughout the colony, independently of any lands irrigated or drained under any colonization scheme.
3. That the International Health Board should be invited by the Government to continue and extend their work in the colony, and that the Government be requested to secure the services of a competent eanitary engineer.
4. That the Government be respectfully requested to take steps to introduce into the colony in each year for the coming three years, five thousand adults of races suitable for colonisation under local tropical conditions, auch adults to be as far as posible in the families, the sexes being approximately equal.
5. That the present Colonisation or Export Tax which in two years will have accumulated by 1920 , and which is likely to average not less than $\$ 160,000$ per annum, be devoted for raising for this purpose during the next five years a loan or loans, not exceeding in all $£ 500,000$ to be repaid in thirty year.
6. That in case of any scheme of lucal coloniastion being accepted by the Indian or any Government which involves any form of land settlement by persons from outside the colony, similar inducement of land settlement on similar terms of service be offered to locally resident workers.
7. That measures be taken by the Government by legislation in connection with any accepted Colonisation scheme and otherwise that a representative central committee or representative committees be appointed to advise on any disputes in any district between capital and labour, whether cane-farming or wages or otherwise, and to ensure that no person enlitled to any benefit under any scheme shall be arbitrarily deprived of the same.
8. That such part of the proposed loan or loans as may be necessary shall be allocated to the provision of steamers by charter or subsidies to ensure regular communication, if possible, every two 'months alternately via the Panama Canal and the Cape of Good Hope, with West Africa, India, Straits Settlement, Hong-Kong, and the principal West Indian colonies. Provision for 1st, 2nd and 3rd class passengers at lowest possible rates to be made.
9. That the framers of the final report be requested to provide some suggestions for encouraging settlers of the small capitalist and landowner type.
10. That inasmuch as the development for colonisation purposes of the interior of this colony. both forest and savannah, cannot be satisfactorily carried out, without a railway, and that such a railway should: form in the nature of things a northern section of a trunk line extending via Manaos through the Brazils to Buenos Ayres, His Excellency the Governor and the Secretary of State for the Colonies be approached with a view to resuming the consideration of this question where it was left by the report of the Railway Committee in May, 1914, and by the despatch of the Secretary of State-now Viscount Harcourt-which arrived after the presentation of that report, and with a view to the opening of negotiations with our present Ally, the Fedeal Republic. of Brazil, for the purposes of the necessary co-operation and local Customs treaty.

To this the Report Council proposes to add the following as being also. the feeling of the Proposals and Finance Sub-Committee:
11. That the dredging, buoying and lighting and other improvements necessary for making. Geórgetown and New Amsterdam suitable emporia for extended colonial trade be at once proceeded with.
12. That in view of the recommendations of the Demerara Railway Committee of 28th . November, 1918, and the pending negotiations for the Government purchase or control of the Railway (ompany the extension of the Went Coast Railway to the neighbourhood of Bartica should be favourably considered.
13. That the Government be respectfully requested to take special steps to ascertain the possibilites of establishing a Guiana West Indian Inter-Colonial Steamer seryice.

[^21]
## EXPLANATORY MEMORANDUM.

## Labour Bureau.

This is a proposal which can be taken in hand at once and will chiefly affect West Indian black labourers coming to the colony for work without direct recruiting.

Notices in conspicuous letters will be placed at each landing wharf and in the third-class cabins of all steamers directing persons looking for work to apply to the Bureau. The machinery of the unofficial Institute of Mines and Forests might be economically adopted or an inexpensive independent organisation formed. Employers in various industries can be registered and a record from day to day or week to week kept of their requirements as to numbers and class, of the pay and other inducements offered and of the various special conditions. Cheap accommodation for bona fide workmen should be provided at or in the neighbourhood of the Bureau for limited periods. Temporary accommodation might be obtained at the Immigration Depôt provided that the Depot is not required at the moment for coolies in the course of repatriation or otherwise. It is obvious that the Bureau will chiefly be availed of by West Indian natives.

## Irrigation and Drainage.

It should be emphasized tha $t$ the $\$ 500,000$ to be set anide for irrigation and drainage under Resolution II. is entirely independent of any sum to be expended for irrigation and drainage out of the present Colonisation Export Tax. It is to be raised by loan or paid for directly year by year out of the general revenue. The schemes of irrigation already planned are numerous and some are highly advisable. (Vide Appendix by Mr. Mallen on this subject.) For instance, by the completion of the Corentyne, Berbice, Mahaica, West Bank, Demerara, Canals Polder and the Essequibo proposals not only would the present colonial farmers be enormously benefited but thousands of acres of now useless land will be opened up for every form of tropical cultivation. It need hardly be stated that the larger the scheme, the better tilled the land per acre and the more numerous the occupiers the smaller will be the incidence of cost. Ang scale of rate fixed must be fixed as a maximum on the same principle as that of the Sea Defence assessments. It will be remembered that in that case, on the advice of the Sea Defence Commission of 1916, a maximum rate, of $\$ 1.20$ was fixed by the Commission for estates and this was reduced 60 cents maximum for villages and small proprietors on various grounds which all parties considered adequate. The perplexing, varying and rapidly increasing Sea Defence assessments with which the villagers were burdened were thereupon exchanged for a charge with which nobody was or is dissatisfied. The villages obtained an enormous measure of relief and the whole Sea Defence problem was placed in a process of solution

It is quite clear that to enable the rates to be fixed on a moderate and fair basis and to secure the adoption of effective and economical schemes of irrigation and drainage, a skilled representative and impartial Commission for this porpose will have to take charge. If the schemes are large, highly qualified engineers can be employed with economy. All schemes of the kind can more effectively be carried out and worked in unison with the other land settlements proposal of the colonisation movement which will ensure the non-dispersal of the population. It will be necessary for growers of rice and provisions to be near factories and markets and cane farming cannot be remuneratively carried on too far away from the central factory.

It is not contemplated that the expenditure on irrigation and drainage will stop at the three classes in contemplation. These, however, will involve in all as a first start no less than 60,000 acres. It is not contemplated that any lands empoldered under any colonisation requirements are to be given away. They will be leased or sold as the case may be on as moderate terms as possible for the encouragement of settlers. The actual terms must be arranged as early as possible after the acceptance of the principle.

Water Supply.
Water supply can be easily dealt with at the same time as the empoldering. If a sanitary engineer is imported his advice will be valuable in this regard.

## Colonisalion.

With those persons who consider that 90,000 square mile of country are sufficiently populated by an average of three persons to the square mile, while there are many tens of thousands of square miles of forest and savannah without any inhabitants at all except a few nomadic Aboriginal Indians; one cannot argue. The rest of the inhabitants (who are 1,000 to one) must simply attend to the matier on business lines. We must. at the same time protect the interest of the local resident labourer as well as the new families if free immigration is to be encouraged, as it is essential that there ehall not be in consequence a drop in local wages affecting the local worker and bringing down the general standard of living. There is no proposal on foot to flood the market with cheap "or even cheaper labour. The Committee desire strongly to guard against any such eventuality.

It is proposed therefore to limit the assistance given to five thousand adult men and women (in families) a year for three years i.e. about $7,5 \mathrm{CO}$ males. It is further proposed to use for this (in families a year for three years i.e. about 7,5c0 males. It ond and repaid within thirty years by the present Colonisation Export Tax. That is to say, this tax, returning about $\$ 160,005$ por annum of which two years will have accumulated by the end of 1919, will be expended for the purpose
for which it was voted and mainly in the preservation of the coast industries which are paying it from year to year. No fresh or other taxation is contemplated but this sum will be adequate. This sum can raise about $£ 100,000$ a year for five years on the footing of 5 per cent. interest and a sinking fund, even if not more than $3 \frac{1}{2}$ or 4 per cent. return is estimated as a return for the fund. Allowing for steamer passages for the contemplated number from the remotest places contemplated there will remain sufficient to pay for the empoldering of 20,000 acres for the settlement of newcomers and of a similar acreage for local residents fulfiling similar conditions. As before related this is to be quite apart from the local schemes of irrigating and draining the present coastlands in private ownership.
[Note.-Out of a maximum of 7,500 male adults it is calculated that 4,000 wauld apply for land estimaled at five acres as mentioned by Inter-Departmental Report May 1917. The cost of empolderisg \&c., was reckoned by the draftsman at $\$ 25$ per acre. With mechanical trench-dig. gers and dam-builders this might not be exceeded for considerable areas. Present rates, however are much higher for small areas.

In case the Colonial and India Offices Inter-Departmental scheme of May, 1917, (accepted by a local sub-committee in August 1918) is eventually approved of by the Indian Government or in case auy similar Colonisation scheme is initiated, it will be necessary to provide lands on reasonable terms for settlement after any agreed period of voluntary service whether three years or more. As before related it will be necessary in order to secure equality of treatment to provide similar inducements for local workers. It will also be advisable to locate such lands at first as far as possible along the coast while leaving an option to select elsewhere: Empoldered acres and supervised water supply will not easily be arranged for elsewhere in the early stagen and in order to be cheap and efficient empoldered areas must be large and populous. The settlement therefore contemplated is mainly a coast settlement.

Method of Dealing with New Arrivals
While it is impossible to go into various details pending the results of the representative Deputation of local resident colonists which is about to be selected to proceed to England to interview the various Secretaries of States a few suggestions may be made. In view of the hostility with which a great deal of educated and otherwise influential Indian opinion regards the whole former system of indenture its restoration must be regarded as impossible. Any features which Indian criticism can represent as embodying any of the defects will be equally regarded with hostility if proposed for any scheme of colonisation affecting Indians. They must not only be free to come as they have always been, and free to go (as they have always been subject to the completion or redemption of their indentures) but contracts of employment previous to their arrival in the colony are unlikely to be officially encouraged. It is well to face the facts.

On the other hand their arrival should be preceded by that of an Indian official of the Covenanted Civil Service of India seconded for three years of immigration; assisted if necessary by a subordinate who must be a native Indian.

New arrivals will be guided in the selection of employment by officers whom many of them will know personally and who will have a special acquaintance with their race, caste and food prejudices: The Indian Civil Servant will be in a position to investigate the nature and conditions of all employment available and secured and there appears to be a little doubt but that steady and suitable employment by registered employes could be obtained without any impairmemt of the voluntary character of the system, any danger to the health of the immigrant or his family by the encouragement of vagrancy or casual working and to the satisfaction of the Indian Government and of all public-spirited native Indian leaders.

The Inter-Departmental Report contemplated a contribution of part of the cost of return paspages after a certain period and the whole cost after a long period. It is certain that it will only be required for a small minority if the recruiting of adults.and families is carefully carried out and if they are agriculturis's' and not the unskilled workers of the towns. Moreover thes will be recruited with the express object of providing a permanent population and not merely to meet any more urgent demand of the colony for labour. In any case in our calculations the necessary amount is provided for a possible twenty-five per cent, of returning colonists.

Steamer Service Including Inter-Colonial Service.
The provision of constant, regular and cheap communicition with the principal countries involved will prove an immense benefit to the colony both as regards unassisted immigration and general trade. It proposes a call at Jamaica and the British West Indian Islands in the world circuit. It may be possible to supplement this service by arrangements-with the Barbados, Jamaica and other Governments for an Intercolonial service. This apart from securing frade and independent unaided settlers would enable considerable numbers of labourers to be brought down temporarily in crop or other rush seasons in any industry.

Openings for Small Capitalists and Unaided Settlers.
We can only say under this head that while many of the enterprises in the colony must be based on the extensive co-operation of fellow-workers or the investment of large capital in the employment of labour or the provision of machinery (e.g., the sugar and bauxite industries) there is nevertheless an opening in cattle-raising for a considerable number of small capitalists both on the Coast and interior savannahs. To the experienced and well-equipped prospector moreover the colony offers unbounded opportunities in a healthy climate. To the small capitalist there are also openings in rice-growing independently or on some share system with East Indians or blacks:

Proceedings of Deputation.
We recommend the adoption of the following procedure as already suggested. We rely Jargely upon the assistance of the Colonial and India Offices; the Royal Colonial Institute, the West India Committee, the B.E.O.P. and similar patriotic organisations for the wise and prudent guidance of the Deputation.
(a) Invitation to Sir Wm. Goode and Algernon E. Aspinall Esq., C.M.G., to act as Honorary Secretaries. Appointment of Assistant.
(b) Formal visit to Colonial Office to arrange reception by Secretary of State.
(c) Reception of former or present British Guiana colonists now resident temporarily or permanently in the United Kingdom, also of those financially or otherwise interested in the colony.
(d) Interview with East Indian Association in London separately or if advisable jointly with other Indian Associations.
(e) Interview with leading journalists (arranged through Royal Colonial Institute, West India Committee and B.E.O.P.).
(i) Interview with leading members of both Houses of Parliament interested in the colony.
(g) Arrangement by courtesy, of those associations interested in the colonies, of city luncheon and also special dinner Royal Colonial Institute and other bodies, also of evening lectures and receptions at Royal Geographical Society and elsewhere. Display of films.
(h) Meeting with various Secretaries of State, deputation to be introduced if possible by His Excellency.

Joseph J, Núnà,
(Secretary of Royal Agricultural and Commercial Society)
Draftsman to Report Council.

MEMORANDUM ON AREAS OF CROWN LAND SHEWN ON THE PLAN BY THE DEPARTMENT OF LANDS AND MINES AS BEING AVAILABLE FOR FORMING SETTLEMENTS UNDER THE COLONISATION AND IMMIGRATION SCHEMES NOW UNDER DISCUSSION.

## Area No 1-Essequibo-Pomeroon District.

This tract lies in rear of the estates from Hampton Court to Somerset and extends to the Pomeroon river. It is bounded on the East by the new Pomeroon road and on the, West by the line of the Water Supply Canal to be constructed by the Hampton Court Estates Ltd: and comprises an area of about 6,800 acres.

If this. land was empoldered and drained the benefits to the lot holders along the Pomeroon road and the settlers on the Pomeroon river and Essequibo Coast adjoining such empolder would be very great, as they all suffer more or less from inundation by the water which accumulates there in heavy rains. The land could readily be irrigated from the Pomeroon river.

Area No 2.-Hog Island.
There are about 8,900 acres of Crown land still available on Hog tiland. The land is exceedingly fertile and as the island lies approximately midway between the Fssequibo Coasts to the East and West it is within fairly easy reach of two great labour centres.

Regular connection with both Coasts by the Government owned Colonial Steamer Service if contemplated.

The only Crown land available in this locality is that lying in rear of the sparsely populated privnte properties from Philadelphia to the Bonasika Creek.

To render this area available for settlement it would be necessary to complete the existing West Coast and Boerasirie Water Supply Scheme by continuing the Boersarie Water Service Canal to the Bonasika Creek and connecting it with the Warimia Conservancy. Such an extension would effectually link up and make self contained the Boerasirie-Warimia. Schemes which have been constructed at great expense, but which remain incomplete owing to the non-participation in the Scheme of the sparsely populated areas' lying along the river bank frone Philadelphia to the Bonasika Creek and consequent inability of the present contributors to continue the Service Canal and dams to their logical termination at that Creek.

These sparsely populated areas suffer sevemely from flood waters in rear of their holdings and the extepsion of the Canal to the Bonasika Creek would remedy the evil and at the same time make available an area of probably 21,000 acres for settlement between those proparties and the proposed Canal which. would run in rear of them at an average distance of say 950 roods in from the siver. $\because$.

There. is -ample water available for an extension of the present schemes if it was properly conserved. At present the loss of water is considerable owing to their non-completion.

Area No. 4.-Demerara River.
There are considerable areas of land in the Canals Polder and along the left bank of the Demerara River from the upper boundary of the holdings of the Wales Estates, Limited, (ioo:, Plantation Vreedestein) up to the Kamuni River, which if acquired could be made available for settlement purposes. It is estimated that the Canals Polder alone could provide settlement for between 2,000 and 3,000 additional persons if lands at present uncultivated were acquired and lotted out, whilst the land along the river bank above referred to could accommodate a considerable number.

The area of available Crown Land in that locality is approximately 7,500 acres as shewn in pink on the plan and an extension of the Canals Polder Conservancy scheme which is at present incomplete and inadequate for the requirements of the areas assessed for water rates would be necessary to assure a good water supply.

The situation of this settlement would be an advantageous one as regards proximity to labour centres, as it adjoins Plantation Wales and is opposite to Plantation Diamond and other estates on the East Bank of the Demerara River.
area No. 5.-Maraica-East Coast.
All the land along the East Coast from Georgetown to Mahaica has been sold or licensed from the Sea to the East Demerara Water Supply Canal which runs in rear of them. There are at present three Settlements formed on estates which were acguired by the Government for sea Defence debts, namely, Triumph, Clonbrook, and Unity and Lancaster. These were lotted out by the Department of Lands and Mines and all lots have been disposed of to small settlers.

If an additional Settlement area of Crown Land is requisite, the nearest available land is that on the left bank of the Mahaica Creek from Cane Grove to the Maduni Creek and extending back to the East Demerara Water Service Canal, which leads from the Maduni Creek to the distributing Canal running in rear of the East Coast Estates. This land is partially settled along the bank of the Mahaica Creek, but there is an approximate area of 32,500 acres still unoccupied. At present this land is a perpetual swamp and it would be a great benefit to the lot holders and the district generally if it could be drained and cultivated.

Irrigation of this area would have to be provided from the existing water supply scheme and settlement funds could advantageously be applied to the improvement of that scheme, pos sibly by erection of a pumping plant on the Lama or Maduni Creek to compensate for thadditional draw on that scheme, whilst adequate reliel channels might be necessary to relieve the Conservancy in the wet season and so protect the settlers against flood water.

Area No. 6.-West Coast Berbice and Abary.
Apart from the many estates on this Coast which are very partially cultivated and could possibly be acquired for settlement purposes, there is an area of 14,854 acres of Crown Land available in rear of those estates from Rising Sun to Bath which is completely unforested and which, if empoldered, drained and irrigated, would be suitable for settlement.

There is at present a small irrigation scheme which was put in to supply the Bush Lot East Indian Settlement with water from the Abary Creek and this could be enlarged upon at reasonable cost to supply the coast eetates and the Crown Lands in rear of them.

This land could be readily laid out as a Settlement and is well placed for distribution of labour by means of the Demerara Railway to various parts of the Coast.
area No. 7.-Corentyne Coast.
There is a very large area of Crown Land available in rear of the estates from Port Mourant to Skeldon extending back to the Canje River. No general irrigation works exist at present, but extensive surveys and levels were carried out by order of Sir Walter Sendall in 1900 and an irrigation scheme promulgated. So far the only part of that scheme which has been actually tackled is the Canal leading from the Canje Creek to Pln. Skeldon, which is being dug by the proprietors of that estate, but has not yet been completed. An irrigation scheme is badly needed in that district, which is the largest rice-growing part of the Colony, and any settlement scheme should be made to fit in with a general scheme of irrigation for the whole coast:

The area of 7,450 acres shewn on the plan is one that is now being surveyed to meet the demand for land in that locality by small settlers.

NOTE-More detailed information as to No. 6 is given on p. 7 (Mr. Fowler's Evidence.) A farther area in the shape of Pln. Anna Hegina cum annexis can now be said to be available, viz, about nine thousand acres.

## FINAL NOTE BY ATTORNEY GENERAL.

In the absence of any more appropriate opportunity I desire to record here my deep appreciation of the good work performed by Dr. Wharton and Mr. Luckhoo, F.R., of the Indian Section of the deputation in its unusually laborious task. Their devotion to the interests of the colony was beyond all praise. At a few minutes notice, journeys of several days' duration were several times undertaken under every circumstance of discomfort. Without their presence and enoperation tसie task would have been hopeless from the outset.

## REPORT

by

## KUNWAR MAHARAJ SINGH, M.A., C.I.E., Barrister-at-Law, on his deputation to <br> BRITISH GUIANA in 1925.

WITH APPENDICES.

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## Report: by Kunwar Maharaj Singh, M.A., C.I.E., Barrister-at-Law, *on his deputation tog British Guiana in 1925.

1. Terms of reference.-The terms of my deputation, as laid down in the India Office letter E. \& O. $5579 / 25$, dated the 19th September, 1925, were as follows:-
"(A) The progress made in providing suitable land for prospective settlers and existing immigrants, the steps taken to supply them with materials and skilled assistance to put up residential accommodation and with loans for agricultural development, and the measures instituted for improving the sanitary conditions in respect, especially, of drainage and water supply.
"(в) The steps, if any, taken by the Government of British Guiana to provide facilities for the repatriation of resident Indians who are willing to return to India.
"(c) What improvements, if any, have taken place in the political and economic status of the resident Indian community since the earlier Indian deputation visited the Colony in 1922?
"(D) What are the sentiments of Hindu residents in the matter of cremation of their dead, and whether you have any recommendations to make?"
2. Voyage and itinerary.--I left England on the 23rd September, 1925, on the Harrison line steamer Ingoma, and, travelling via Barbados and Trinidad, reached Georgetown, the capital of British Guiana, on the 13th October. I made Georgetown my headquarters, but travelled extensively over most of the coast, covering almost 1,000 miles by motor, steamer, and rail. I visited several sugar estates and many of the lands considered by the Government of British Guiana to be suitable at an early date for prospective settlers. My time was also taken up in public meetings and in interviews. I left British Guiana after a stay of almost five weeks on the 15th November, 1995, and reached London on the 2nd December. On both the outward and return journeys I spent a short time in Trinidad, and was able to meet a number of East Indians (as Indians in the West Indies are called), to gather information about their condition in the Colony, and to make informal recommendations on their behalf to the Government of Trinidad. I am submitting separately -a short report on the subject.
3. Assistance received.-It was unfortunate that the new Governor of British Guiana, His Excellency Sir Cecil Rodwell, had not arrived during my stay in the Colony. It was also regrettable that the two gentlemen largely responsible for the Colonisation Scheme in its recent aspects, viz., Sir Graeme Thomson, the late Governor, and Sir Joseph Nunan, were no longer in British Guiana. I had the advantage, however, of seeing Sir Cecil Rodwell before I left London, and again met him in Trinidad on my return journey to England. I had also several useful conversations with Sir Joseph Nunan, a very able and broadminded officer, who, with the other members of the British Guiana deputation, is well known in India, and to whose united energy and enthusiasm the deputation's success in India was largely due, Mr. Walton, of the India Office, was of great help in supplying me with papers and other information and making suggestions, and I am also indebted to Messrs. Darnley and Wiseman of the Colonial Office. I received valuable assistance from the officials of the Colonial Government. The acting Governors, the Hon. Mr. Popham Lobb and the Hon. Mr. Hampden King, placed all available information at my disposal and helped me in various ways. I am highly indebted to the heads of departments as well as their staffs of all grades, and, in particular, to the officials of the Immigration Department, for furnishing me with replies to the various enquiries made by me. The planters were obliging and helpful, and I had an interesting interview with their Association. Mr. Hill, Immigration Agent, who was instructed by the Colonial Government to accompany me from England to the Colony, was of the greatest assistance to me throughout my tour. He is an officer of ability and wide sympathies. Having resided in India for several years in connection with the past recruitment of Indians for British Guiana, he has the great advantage of a knowledge of conditions in India and of the Indian vernaculars. I very strongly commend this officer's services to the Colonial Government. If Indian immigration is reopened, the Government of British Guiana will be well advised to select him as their recruiting officer.

I am also grateful to the Press for their uniformly helpful and considerate attitude. Both the daily papers of the Colony, viz., the Daily Argosy and the Daily Chronicle, are conducted with ability. I was glad too of having the opportunity of meeting many capable and well-informed gentlemen belonging to the black aud coloured communities. My chief welcome, however, was from the Indian community. Indians of all classes and creeds flocked in their hundreds to see me, to present me with addresses and to show me hospitality. In particular, I am indebted to the president and members of the committee of the British Guiana East Indian Association for several interviews which I had with thein and other leading Indians, for much kindness, and for the useful information which they placed at my disposal.
4. Preliminary observations.-Before reporting on the terms of my reference, I should lide to state that [ have not attempted to cover the ground taken by the deputation of 1922. To avoid repetition I have sometimes contented myself with a mere reference to paragraphs in their report. The present report; therefore, must be taken as subsidiary to that of the last deputation. In quoting figures, the last deputation generally took those for 1919 and 1920, since later statistics were not always available. For comparative purposes I have, as a rule, taken the figures for 1920 or 1921. I have also sometimes quoted figures for 1913 , the year before the war. This has the advantage of showing at a glance what progress, if any, has been niade in the last decade as well as duriug the past three or four years. I found my previous visits to Mauritius and Trinidad, particularly the former, of great help to me, and the fact that I was familiar with many of the districts in the United Provinces, from which most Indians in British Guiana or their forefathers have come, was also very useful.
A.-The progress made in providing suitable land for prospective settlers and existing immigrants, the steps taken to supply them with materials and skilled assistance to put up residential accommodation and with loans for agricultural development, and the measures instituted for improving the sanitary conditions in respect, especially, of drainage and water supply.
5. Prospective settlers.-(i). Cand.-It will be remembered that to the original Colonisation Scheme of 1919 (sometimes called the Nunan-Luckhoo Scheme, a memorandum was attached (see Combined Court No. 58/1924), showing areas of Crown land as available for forming settlements. This land was mentioned to me as being still available. But beyond the fact that it is held in reserve, no progress has been made in providing for its clearance or drainage with the exception of area no. 1 in the Essequibo-Pomeroon district, which, is being empoldered. The later British Guiana deputation of 1923-4 admitted (see appendix A to Sir Joseph Nunan's report, dated the e(th November, 1924, in Combined Court No. 58/1924) that in 1920 there were no large areas of specially prepared land free at that time, but pointed to four separate areas apart from the north-west district, of which Mr. Keatinge wrote so enthusiastically, as immediately available for settlement, viz.:-(1) Anna Regina, Essequibo County; (2) Nismes, Demerara County; (3) Canals Polder, Demerara County ; and (4) Abari, Berbice County.

Of these, I was informed that Abari was no longer open to purchase. Nismes, which I visited, is centrally situated and in the proximity of sugar estates, but has been out of cultivation for a long time and would probably require considerable expenditure before it could be made suitable for settlement. Of the two others, the Canals Polder area, which I also saw, is, like Nismes, on the west bank of the Demerara River and lies within easy reach of sugar estates The drainage has recently been improved and there is a good supply of water. But Indian opinion regarded it as somewhat insanitary, and, certainly, in the past, this area has had an, unhealthy reputation, though drainage may inprove it. I was much more impressed with the Anna Regina estate in county Eissequibo, which was acquired in 1923 by a company, in which Government holds a majority of shares, with the object of encouraging small cane farmers. It has good rice cultivation yielding two crops a year. The water supply is assured and drainage has been and is being improved. Abont 2,000 acres of culturable land are still available for settlement in addition to pasturage and there is a sugar factory on the estate. The only serious defect is that, unless the estate sugar inclustry takes a real turn for the better, there will be little or no work in the immediate neighbourhood for the settler and his family to undertake during their spare time, the nearest sugar estate being 6 or 7 miles away.

Mr. Keatinge, it will be remembered, was very enthusiastic about the north-west district, and, in the absence of Government funds, suggested the formation of a company to finance and develop a Colonisation Scheme. I have no doubt as to the suitability of the land, though I did not see it, but found little enthusiasm in any quarter for the proposal. Personally I do not think that any company would take the risks involved without necessary guarantees, which could not be forthcoming-e.g. as regards. a continuous supply of settlers. Further, a company, unless Government controlled it, would inevitably look first to its own interests. Another objection is that the land is in an isolated position involving a long journey from Georgetown and a rough sea passage. Again, there is little work at present in the immediate neighbourhood for the settler to do in his spare time. On the whole, I think a more central spot is required in the initial stages of the experiment. Subsequently, if immigrants followed in large numbers, the north-west district could be settled very suitably.

Many other areas were also specified as containing land considered by Government to be suitable for immediate settlement. These often consisted of estates which could, no doubt, be purchased by Government, or of existing Crown lands, but in almost every case some work in the way of clearing or irrigation or drainage, or all three, would be necessary before settlers could be placed upon them. In general, it nay be said that, with the exception of the Anna Regina estate, no direct measures have been taken by Government to provide land for possible immigrants, and, even in the case of Anna Regina, the acquiring company aud Government primarily looked to the interests of existing settlers in making the acquisition. The Colonial Government cannot, however, be blamed for not preparing land in advance. In Sir Joseph Nunan's report, dated the 20th November, 1924, it is stated that " apart from the expenditure already approved for the irrigation, drainage, and water supply -of the coast, no expenditure was promised in England or India on any lands in the Colony's possession or on option until the scheme had been accepted and until a suitable number of emigrants were ready to set out. We stated that certain indicated lands suitable for immediate settlement were at our disposal and that all further expenditure to fulfil the obligations entailed by the scheme would be incurred when necessary." This view seems reasonable, as the Colony cannot be expected to incur expenditure in advance on a scheme which may not come into force.
6. (ii) Residential accommodation.-A plan and specification of a standard type of dwelling has been prepared but has not been formally or finally accepted. Beyond this no action las been taken, for practically the same reasons as in the case of land. It is proposed, if immigration is reopened, to advertise for tenders for the supply of houses for erection by the settlers under skilled direction.
7. (iii) Loans.-The Government informed me that nothing had jet been decided as to what advances should be made to settlers to assist them in the early stages or through what channels such advances should be made. A Committee, appointed in September, 1924, to report what preliminary action was necessary in connection with the Colonisation Scheme, construed the colonisation proposals as providing that new settlers would not be entitled to land from Government until they had worked for three years as agriculturists and that there was, therefore, ample -time within which to state details later in respect of the machinery required to be provided in connection with the settling of the immigrants, the making of advances and their supervision. As I hope to show in due course, the construction placed was erroneous, but in any case the amount of advances and the machinery, through which they are to be made, are of less importance than the knowledge that advances will be given and that funds are in existence for the purpose. On both these points the Colonial Government are committed and I found no desire on their part to evade their obligations. The Colonisation Scheme (see page 14 of Sir Juseph Nuuan's report, dated November, 19:4, and appendices A and D) clearly contemplate advances for houses, maintenance, equipment and rent, while, according to the Government, the Colonisation fund, from which such advances will in all probability be made, had $\% \$ 605,440$ to its credit on the 30th June, 1925.
S. Existing settiers. - (i) Land.- In his report (page 16), dated the $\because 0$ th April, 1993, Sir Joseph Nunan made a certain limited provision for reward grants for local resident families to be made under certain cunditions, e.g. registration as agricultural families and work for a certain period in agricultural pursuits.

[^22]In his later report of November, 1924, it was considered that the large expenditure, which is contemplated for coastal schemes of drainage and irrigation, should suffice in general for the claims of existing settlers. In any case, beyond the acquisition of the Anna Regina estate, where over 1,000 East Indians occupy rice and sugar, cultivation, nothing has been done by Government to provide suitable land for resident Indians or others.

On the other hand, there is no doubt that existing settlers are benefiting and will increasingly benefit, by the extensive schemes for drainage and water supply recently initiated by Government. These will be described subsequently under the appropriate heading, but, in addition to being of advantage to the public health, they are expected to free a large amount of land now subject to flooding as well as to render available for cultivation areas which, in view of defective drainage, it has not hitberto been possible to tultivate.
?. (ii) Residential accommodation, and (iii) loans.-No special steps have been taken by Government under either head. On a few sugar estates, however, notably Blairmont and Diamond, new ranges and cottages, amounting in all to 46 and $1 \triangleq 6$ respectively, have been built since 1922. The improved type of range varies in length from ten rooms to four. Each room is 12 feet by 16 feet, married couples being given one or more rooms nccording to the size of the family. The cottages, which are a distinct advance on the ranges, have generally two rooms of equal size ( 10 feet by 12 feet as a rule), one cottage being allotted to each family. But for the financial depression, it is probable that more ranges and cottages of an improved. type would have been built.

One of the disadvantages of life on many sugar estates is the long distance, amounting at times to 3,4 and even 5 miles, that the labourer has to travel to his work. The Blairmont and Port Mourant estates have set an excellent example in constructing light railways for the conveyance of labourers, the Port Mourant railway being opened this year. At Plantation, Bath and Providence, labourers are now taken to their work in specially built boats drawn by mules. It is to be hoped that other estates will provide conveyance for their workers by rail or boat, preferably the former.
10. The improvement of sanitary conditions, especially of drainage and uater supply.-If there is one direction in which the Colonial Goveroment is entitled to great credit since the last deputation visited British Guana, it is in the initiation of measures for improving the water supply and drainage of the Colony. Messrs. Pillai and Tivary had rightly commented on the absence of proper drainage or a pure supply of water in many areas, and made sanitary improvements a condition precedent to immigration. Sir Graeme Thomson took up the matter in 1923, and at the annual session in the same year of the Combined Court, which is the final authority in financial matters, it was unanimously agreed that loan funds to the extent of $\$ 2,426,000$ should be appropriated. Drainage schemes, affecting an area of 65 miles in all in several districts and estimated to cosit $\$ 1,232,450$, have already been prepared, and surveys are being carried out in other districts. When all the schemes are brought into being, about 97 miles of coastal lands will be affected between the Courantyne river and the Pomeroon district, which in all measures orer 150 miles. The actual expenditure on drainage and irrigation schemes to the end of September, 1925 , was $\$ 569,340$. At the present time, according to Mr. Pudsey, the Director of Public Works, 16 miles of the Essequibo coast, 6 miles on the west coast of Demerara, 4 populous villages on the east coast of Demerara, and 2 miles on the Courantyne coast are safe from flooding in the future as a direct result of the works already completed. Altogether, 10 or 12 pumping stations will be erected, and a large number of sluices, weirs, \&c. I myself saw in working order the two pumping stations, so far constructed, and many sluices. It is anticipated by the present Director that the drainage works will be completed by 1927, or, at the latest, 1928.

The work of providing a pure water supply is also being pushed on. Expenditure of over $\$ 431,000$ ) has been sanctioned for the sinking of 60 artesian wells of an average depth of 600 feet, and $\$ 60,000$ approximately have so far been spent. The programme provides for the boring of artesian wells in villages or districts containing from 800 to 3,000 people, two or more wells to be sunk in villages with a population of more than 3,000 people. $\Lambda$ t present five such wells have been constructed. I saw them all and found that they were greatly appreciated by the local residents.

It is estimated that $\mathbf{2} 5$ wells will be built each year and that the whole programme will be finished by 1928.

The acting Surgeon-General, Dr. Ozzard, anticipated very satisfactory results from the schemes in' hand from 'the point of view of public health, and it is obvious that drainage, if properly and adequately carried out, should diminish malaria, while the supply of pure water ought to have a good effect on sickness generally, and, in particular, on bowel complaints.

Some of the larger sugar estates have also sunk artesian wells, and, now that additional boring plants have arrived in the Colony, it is probable that the number of wells on estates will increase. There is certainly room for much improvement, as the general water supply of rural British Guiana, both on and off estates, viz. rain water stored in receptacles, canals, ponds, and bush water, are open to pollution.

Another excellent project started since the last deputation's visit is the Georgetown sewerage scheme, which is being carried out by the municipality with financial assistance from Government. "The existing meihod of sewage disposal, involving open cesspits and the "pail system," will be replaced by an up-to-date installation including internal house connections. The total estimated cost is $\$ 2,000,000$ and the scheme, which was commenced last year, is expected to be finished in 1927. The sanitary conditions of Georgetown, which contains 60,000 inhabitants, should benefit by the projected installation.

The latest vital statistics, viz., for 1924, show a birth rate among East Indians of $34 \cdot 5$ per mille and a death rate of $2 \cdot \cdot 7$. With the exception of. 1920 , which had a somewhat similar record, these figures are the best since 1914. It would be unsafe, however, to rely upon them in proof of any permanent improvement as yet, since vital statistics are notoriously subject to wide fluctuarions due to varying climatic conditions and epidemics.

In 1924 the figure for infantile mortality among East Indiaus was 163 per thousand births. The death rate here also varies from year to year, but it is interesting to note that in Georgetown, which contains a fifth of the Colony's total population, the mortality among infants of all races has shown a progressive decrease from 238 in 1921 to 176 in $19 \% 4$. For this satisfactory result the Infant Welfare and Maternity League, which has increased its staff since 1914 from 7 nurses in the Colony to 38 , is entitled to credit. One musi not, however, be too optimistic and increased and sustained effort is necessary, especially in rural areas both on and off estates.

In comparison with the United Provinces the death rate of adults and infants is lower. At the same time the birth rate is smaller.
B.-What improvements, if any, have taken place in the political and economic status of the resident Indian community since the earlier Indian depatation visited the Colony in 1922?
I.-Political.
11. (i)


Voters for the Legislature and Town Councils.

|  | Legislature: |  | Georgetown Town Conncil. |  | New Amsterdara Town Coun |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Endians. | Non-Indians. | Indians. | Non-Indians. | Indians. Non-Indians. |
| 1913 | 223 | 4,515 | 20 | 499 | Not available. |
| 1921 | 577 | 5,597 | 57 | 920 | $3 \quad 119$ |
| 1925 | 1,022 | 7,825 | 94 | 1,491 | $20-155$ |

The marked increase, absolute and relative, in the number of Indian voters both for the Legislature and town councils is most satisfactory. It is due partly to the good work of individual members of the British Guiana Last Indian Association and partly to the influence of the Pillai deputation, which roused the community from its political lethargy. There are, so far, no political districts in which the number of Indian registered voters is as large or larger than that of non-Indian's, but in three the percentage of Indian voters is now above 20 per cent. At present one Indian, Mr. J, A. Luckhoo, holds a seat in the Combined Court, but at the next elections in 1926 there is every possibility of an increase in the number provided Indians combine as well as organise for the purpose. Unfortunately internal dissensions have often hampered, and still hamper, political progress and united action.
12. (ii) Government service.-The following figures were supplied to me by the Colonial Government. They do not include the police force or subordinate, temporary
or menial establishments, and are confined to clerks and higher officials on the fixed pensionable establishment:-


The figures for 1924 are a great advance on those for 1915 , dut as compared with 1921 there is no appreciable increase in numbers, the difference being due to the salaries of Indian interpreters being incremental. Indians in Government employ, mainly because of their defective education, are still far too few in comparison with the blacks and other communities.
13. (iii) Education.-Major Bain Gray, the Commissioner of Education, supplied me with the following educational statistics :-

Number of pupils on registers of primary schools receiving full grants-in-aid.

| School year ending June. | East Indians. |  |  | Other races. |  |  | Grand total. | Percentage of East Indians. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys. | Girls. | Total. | Boys. | Girls. | Total. |  |  |
| 1913 | Not a | ilable. | 7,148 | Not av | ilable. | 38,965 | 46,113 | $15 \cdot 5$ |
| 1921 | . 8 , 818 | 2,421 | 9,239 | 13,892 | 13,734 | 27,626 | 36,865 | $25 \cdot 06$. |
| 1924 | 7,816 | 2,937 | 10,753 | 15,003 | 14,807 | 29,810 | 40,563 | 26.5 |
| 1934 | 10,042 | 6,417 | 16.459 |  |  |  | 47,811 | $34 \cdot 4$ |

Number of teachers and pupil teachers employed in primary schools receiving full grants-in-aid.

| Year. | East Indians. |  |  | Other races. |  |  | Grand total. | Percentage of East Indians. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men. | Women. | Total. | Men. | Women. | Total. |  |  |
| 1923 | 20 | 1 | 21 | 320 | 598 | 918 | 939 | 2-1.3 |
| 1924 | 37 | 6 | 43 | 406 | 770 | 1,176 | 1,219 | $3 \cdot 52$ |
| The 3 | figu | show | 72 app | le | nce si | 191 | d some | progress | since 1921. The percentage of Last Indian children attending primary schools as compared with the East Indian population of school-going age also rose from $30 \cdot 6$ in 1920 to $38 \cdot 8$ in 1924. If the compulsory education ordinance had been rigidly enforced in the case of Indians the percentage would have been higher.

I was unable to get complete statistics of the number of Indians and non-Indians receiving secondary education. In the principal secondary institution, viz., Queen's College, there has been a satisfactory increase of Indian pupils from 17 in 1923 to 31 in 1925. In the New Amsterdam High School, however, which is also frequented by Indian pupils, there has been a decrease. On the whole there has been a large increase since 1913 and a small rise since 1921 in the number of Indians in secondary schools.

## 1I.-Economic.

14. Wages.-The average all-round earnings on the sugar estates of the Colony since 1920 and the percentage of total absences for all causes are shown in the-following table:-

| Year. | Average earnings per day worked. |  |  | Average percentage of working days lost. | A verage earnings per week. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shovelmen. | Male weeders. | Female weeders. |  | Shovelnien. | Male weeders. | Female weeders. |
|  | $\overline{\mathrm{Cts}}$. | $\overline{\mathrm{Cts}}$. | $\overline{\mathrm{Cts}}$ |  | \$ | \$ |  |
| 1913 | - | 27 | 17 | 25 | - | 1.21 | . 76 |
| 1920 | 81 | 71 | 56 | 25 | 3.64 | 3.19 | 2.52 |
| 1921 | 56 | 50 | 39 | 30 | 2.35 | 2.10 | 1.63 |
| 1922 | 44 | 39 | 32 | 27 | 1.89 | 1.67 | 1.37 |
| 1923 | 50 | 43 | 34 | 25 | 2.25 | 1.93 | 1.53 |
| 1924 | 51 | 44 | 34 | 26 | 2.24 | 1.93 | 1.49 |
| 1925 | 51 | 44 | 33 | 25 | 2.29 | 1.98 | 1.48 |
| 1931 | 45 | 37 | 28 | 3 |  |  |  |
| 1932 | 44 | 38 | 29 |  |  |  |  |
| 1092 | 4.1, | , 9 | 30 |  |  |  |  |

The weekly earnings have been obtained by multiplying the a verage amount of work per day by the number of days worked per week, which is practically $4 \frac{1}{2}$.

At each regular visit to an estate the Immigration Agent also obtains an average of the earnings for the week previous to his visit of the 12 shovelmen who have earned most in that week, and similarly the averages of six male weeders and six female weeders. The averages of these monthly highest averages reduced to earnings per day worked are given below for $19 \% 0-5$ :-

Average highest per day worked.


Both sets of figures were supplied to me by the Immigration Department, from whose annual reports they are taken, and for comparative purposes are adequate. Existing wages, it will be seen, while much higher than before the war, are appreciably lower than in 1920, the year of the great sugar boom. At the same time they are better than the figures for 1922. The latter, however, were for the whole year. The Pillai deputation were in the Colony in the early months of 1922, when wages, though falling, had not reached the lowest point. It may, therefore, safely be stated that wages on estates are much the same as in the early part of 1922, while since 1923 they have been stationary. An average man and an average woman receive at present 8s. 3d. and 6s. $2 d$. respectively per week for $4 \frac{1}{2}$ days worked, though their earnings, however, can be and often are supplemented during the rest of the week hy work on their own fields, by the sale of milk, \&c.

My inquiries showed that the rates paid to labourers working under the Public Works Department have also not changed since the last deputation's visit. East Indian males employed on such works receive 60 to $\mathbf{i} 2$ cents per working day of nine hours, and women and girls from 24 to 36 cents.
15. Cost of living.-In the following figures the scale of living given in appendix VII of Mr. Keatinge's report is used, except that in the morning ration an equivalent of biscuit for bread has been used, as no record, according to the acting Immigration General, has been kept of the price of bread. In place, therefore, of $\$ 2.26$ in appendix VII, $\$ 2.38$ have been substitnted.

It will be seen that the cost of living is unchanged as compared with March, 1922, when the last deputation visited the Colony. In comparison with 1993 and 1994 there has been a slight rise, due, mainly, to the somewhat higher prices of rice and flour. In the following table certain main articles of food, with their prices, are given :-

31 Mar. 1914. 31 Dec. 1920. 31 Dec. 1921. 31 Dec. 1924. 30 June 1925.

| Rice per gall. (8 lbs. 4 ozs.) | $29-30$ | $44-48$ | 24 | $\overline{28}$ | $\overline{32}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Dal (per Ib.) | - | - | $3 \frac{1}{2}-4$ | 16 | 12 | 8 |
| Flour (per lb.) | - | - | 3 | 12 | 8 | 6 |
| Ghee (per lb.) | - | $-28 \frac{1}{2}-30$ | 72 | 72 | 60 | $6 \frac{1}{2}$ |
| Cocoanut oil (per pint) | - | 14 | 16 | 12 | 12 | 16 |

Prices are still high as compared with pre-war rates, but, though there are fluctuations in the cost of individual articles, the general cost of living has remained almost stationary for the last three years.
16. General economic position.-In chapter V of his report Mr. Keatinge gave figures under various heads regarding the economic position of Indians in British Guiana for 1920. I give below, where possible, the figures for 1913, and have
brought his figures up-to-date under the different heads. Some-fresh information regarding the material resources of Indians has also been incorporated.
(a) Trading and other licences taken out bÿ Indians.

|  |  |  | 1913 | 1920 | 1924. |  |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: |
|  |  | - | - | 8 | 8 | 5 |
| Spirit shops | - | - | - | 66 | 46 | 69 |
| Drug shops | - | - | - | 33 | 25 | 26 |
| Cook shops | - | - | - | 5 | 6 | 22 |
| Bread shops | - | - | - | 96 | 64 | 92 |
| Stores - | - | - | - | 600 | 629 | 667 |
| Tphacco - | - | - | - | 1,523 | 1,189 | 1,094 |
| Hucksters | - | - | - | 1 | 90 | 200 |
| Motor cars | - | - | - | 1 | 3 | 8 |
| Motor cycles | - | - | - | 480 | 981 | 949 |
| Cycles - | - | - | - | 4,979 | 7,925 | 7,896 |

(b) Accounts of Indians in savings banks.

1913 : depositors, 9,482 ; deposited 592,905 dollars.

| 1920 : | " | 8,716; | " | 795,180 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1994: |  | 8,515; |  | 855,041 |  |
| 1933 | " | 10,704 | " | 8877078 |  |
| $1934 \mathrm{c})$ | Remit |  |  | 9 the post | fice. |
|  | 1920, | dolla |  | 63 dolla |  |

(d) Value of properties owned and taxes paid by Indians in the municipality of Georgetown.
1913 : appraised value 243,140 dollars. Tax 5,892 dollars.

| $1921:$ | $"$ | $"$ | 560,575 | $"$ | $"$ | 18,835 | $"$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1924:$ | $"$ | $"$ | 581,799 | $"$ | $" 17,453$ | $"$ |  |
| $1976:$ |  |  | 760,120 |  | $" 30,405$ |  |  |

(e) Value of properties owned and taxes paid by Indians in the municipality of New Ansterdam.
1913: appraised value 94,360 dollars. Tax 2,359 dollars. 1925: " $\quad$ " 110,270 " 4,410 " figs: " (f) " $135,865.1$. 5.097
(f) Purchase of land by Indians.

1913 : purchases, 664 ; total value, 60,937 dollars.

| $1920:$ | $"$ | $852 ;$ | 379,949 | $"$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1924:$ | $"$ | $622 ;$ | $"$ | 219,860 | $"$ |
| $124:$ |  | $66 \%$ |  | 206,032 |  |

The drop in 1924 is attributed to the poor rice crops from 1922 onwards, since most of the lands purchased by Indians are in rice-growing areas. I think it probable, however, that there was a good deal of speculation in 1920, when land values owing to the boom in sugar were generally inflated. In any case the value of purchases by non-Indians has fallen to a much larger extent since 1920.
(g) Indians and non-Indians in receipt of poor relief.


As Nessrs. Pillai and $9^{9}$ Is $^{2}$ rivary rightifypointed ont 643 their report, the number of Indians in receipt of relief would undoubtedly be larger but for the periodical repatriation of paupers. Nevertheless, the difference in numbers between Indians and non-Indians, particularly in outdoor relief, is very marked.
(h) Cattle ouned by Indians on estates.

```
1913-13,805 1921 - 17,382 1924 - 16,700
    1935-24.316
```

(i) Licensed cattle pens and byres and milk licences of Indians under the Local Government Board.

| 1913: | ,peus and | byres | 516 ; | milk | licences | s 466 | 1935 calt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920: | " | " | 416; | " | " | 594 |  |
| $1924:$ | , | " | 561; | " | " | 839 |  |
| 435 |  |  | 852 |  |  | 1,132 |  |

(j) Rice cultivation.

Acres reaped. Bags of paddy per acre.
1921 - $-64,100$ 12

1922 - $\quad 60,500 \quad 9$
1924 - - 40,270 17
1925 - - 47,800 (estimated) 15 (estimated)
1934 . 70.95 l
Much of the rice cultivation is in fhdiau hands and there are also many large and small Indian owners of rice lands. The fall in the area reaped is mainly due to the fact that the high prices obtainable for rice during the war and immediately afterwards led cultivators to sacrifice quality for quantity. The increased returns per acre obtained during the last two years prove this. On the other hand, Indians complain (not, I think, without good reason) that the embargo, (since removed), placed after the war on the export of rice by the Government of Sir Wilfred Collet tended to discourage the cultivation of rice.
17. Comments on economic progress.-It is unfortunate that, unlike the Governments of Mauritius and Trinidad, the Government of British Guiana were unable to give figures regarding the extent of land owned or even cultivated by Indians. It is an omission which, one hupes, will be rectified, as nothing could show more clearly the prosperity or the reverse of the various classes which constitute the population of British Guiana. It is not possible for me, therefore, to state what progress, if any, has been made in the ownership and cultivation of land since 1922, but there is little doubt that, at least as compared with 1913, Indian ownership has increased.

The figures, however, given above under the various heads clearly indicate increased prosperity during the last 12 years, though I do not consider that there is any marked difference since the last deputation's visit. The intervening time is too short to expect an appreciable advance, while, further, the last three years have in general been periods of depression. Nevertheless here too the figures, on the whole, show some increase in the material resources of the East Indian community.

## C.-The steps, if any, taken by the Government of British Guiana to provide facilities for the repatriation of resident Indians who are willing to return to British Guiana.

18. Repatriation.-The following figures give the number of repatriations since 1921:-
 $\$ 20, \$ 15$, and $\$ 3$ respectively in 1922 to $\$ 12$, $\$ 7$, and $\$ 2$ in 1925 , and that, mainly as the result of the disappearance of war conditions, the percentage of paupers repatriated is higher than in the years immediately preceding the Pillai deputation, the conditions governing the repatriation of Indians remain unchanged since the last deputation's visit. Nor when I-arrived in the Colony did I find any intention on the part of Government to make concessions. Both Messrs. Pillai and Tivary as well as Mr. Keatinge had pointed out two main grievances requiring early redress.

The first was the greatly increased contribution levied from repatriates as a result of the large rise in the rates of passage since they left India. According to the terms of the contract, one-half of the passage money has to be paid by Government and the other half by the person repatriated. The hardship consists in a male adult
now having to pay $\$ 78$ in place of $\$ 30$ for his passage, with a correspondiug rise in the cost of clothing.

The second was that disability as well as destitution had to be proved before a pauper could be repatriated.

In the pamphlet entitled "Status of Indians in British Guiana," published in Delhi on the 24th February, 1924; the British Guiana deputation, on behalf of the Colony, admitted, among other things, the necessity for " more generous measures as regards repatriation." The question was raised before me by hundreds of Indians and was brought forward in many addresses. I aw in entire agreement with Messrs. Pillai, Tivary and Keatinge on the desirability of an early settlement of both points at issue.

As regards the first grievance, in consultation with members of the Committee of the British Guiana East Indian Association and other leading Indians, I suggested to the Colonial Government, as a reasonable compromise, that 75 per cent. of the enhanced cost of both the return passage and clothing should be borne by Government and 25 per cent. by the person repatriated. According to the strict letter of the contract, the Colonial Government may be right in their present attitude, but 1 am convinced that a more liberal interpretation is necessary. I doubt, even if the concession is made, whether the number of repatriates will be very large, and, in any case, their numbers will annually diminish. I am aware that a nunber of those repatriated to India clamour to be sent back to British Guiana. For instance, I was informed by the Immigration Department that in 1921 and 1922 special arrangements were made for the return, at their request, of 270 and 160 repatriates respectively, and that in October 1.923 over 100 British Guiana Indians in Calcutta were anxious to be sent back to British Guiana. This fact, however, shonld not prevent the Government from being just and even generous in their obligations to Indian immigrants, many of whom look forward in their old age to a return to their country, and I am hopeful that some action will be taken. The Colonial Government are, of course, under no obligation to take repatriated immigrants back to British Guiana.

As to the second point, Mr. Keatinge, in para. 74 of his report, advocated, as did Messrs. Pillai and Tivary, the repatriation of men who were destitute though not permanently incapable of labour. He used the following words in this connection :-
"I do not think that an able-bodied man can ordinarily claim a free return passage on that ground, even though he were possessed of any visible property; but it seems to me that it is straining the interpretation too far to say that, unless a man is pronounced to be permanently incapable of labour, no degree of poverty will entitle him to a free retorn passage. I think that there must be a considerable class of men; more or less broken in health and morale and possessed of no appreciable amount of property, who may be taken to qualify for a free return passage even though they cannot be pronounced to be permanently incapable of labour."

I invited the Colonial Government to accept Mr. Keatinge's interpretation, which strikes me as reasonable, and am glad to state that the Government assured me in writing that his view was accepted.

The only other point that I would urge in connection with repatriation is that any concessions made should be notified and given without delay and irrespertive of whether or not further immigration is allowed. Indian opinion in the Colony is very sore on the subject and it is impolitic from the Government's point of view to allow grievances of this nature to continue.

## D.-What are the sentiments of the Hindu residents in the matter of cremation of their dead, and whether you have any recommendations to make?

19. Cremation.--If I had not visited Mauritius and Trinidad before going to British Guiana, I should, like Messrs. Pillai and Tivary, have been extremely surprised to learn that Hindus buried instead of cremating their dead, since cremation among Hindus is universal in India. My visits, however, to other Colonies have made it clear that Indian customs undergo considerable changes in the Colonies. For instance, among Hindus in British Guiana there are no depressed classes, caste restrictions in respect of marriage as well as food are practically. non-existent, and there is no purdah. Religious friction between Hindus and Muslims is unknown, and I have seen Hindus in mosques and Muslims in temples. In these circumstances, the absence of cremation did not appear so surprising as it otherwise would have done. In reply to enquiries I was informed that, save in Dr. Wharton's
case, which is referred to by Messrs. Pillai and Tivary (para. 125 of their report), no application on the subject of cremation had ever been made to the authorities. What impressed me even more was the fact that in none of the many addresses presented to me, though there were frequent references to grievances in connection with marriages, was any complaint made by Hindus on the subject of the lack of facilities for burning their dead. The fact is that long absence from India, the changed conditions of life in the Colony, the absence of a similar custom among the other communities, and possibly the high price of fuel, have led Hindus to abandon the practice of cremation.

As the law stands at present, I was informed that the Town Council of Georgetown is authorised to establish a crematorium for the disposal of human corpses. But no crematorium has been constructed, nor, so far as I could find out, had any application on the subject been made by Indians to the Council. The local laws in general do not appear to prohibit cremation, but there is no machinery in existence for carrying it out. In the memorandum published by the British Guiana deputation, dated 4th February, 1924, it is stated "that Indians desirous of cremating their dead will have opportunities afforded for so doing. 'There has never been any legislation prohibiting cremation. It is a mere question of arrangements." I think that this is the position to-day. If a demand was made by responsible Indian opinion in the Colony, it is probable that Government would make the necessary arrangements. The matter, however, is not one to which the local Indians attach great importance, and in any case I think it preferable to leave them to deal with the matter. For future immigrants, however, I think that some provision for cremation should be made in the vicinity of the lands on which they will be settled. It would then be seen how far Hindus availed themselves of these facilities.

## CHAPTER II.-General Remarks and Recommendations.

20. General condition of Indians.-The facts and figures which I have quoted in previous paragraphs show, I think, that on the whole, and considering the classes from which the Indians in British Guiana and their forefathers have come, the community thas prospered. Even if statistics are ignored, the ege cannot be deceived.. In great part it is the humblest classes that go to British Guiana. For instance, of the immigrants :arriving there from 1908 to 1913, Chamars formed by far the largest caste. Ahirs, Koris and Kurmis were next in number. To those who are familiar with rural life in the congested districts of the United Provinces and the dificulties in the material and social progress of the lower classes, the change is striking. Educational and medical facilities in British Guiana are superior to those in rural India. There are no caste restrictions or purdah, and the Colonial Indian, man and woman, has a somewhat higher standard of living and is certainly more independent than his confrère in India. There are no political or economic inequalities, such as exist, for instance, in South Africa, no segregation, and no restrictions against the acquisition of land. The general prosperity is not so marked as in Mauritius, where Indians own over 40 per cent. of the sugar cultivation, or as in Trinidad, where 100,000 acres of land are in the hands of Indian proprietors. For this difference, however, two factors are mainly responsible, viz., the natural difficulties of the coast lands involving considerable expenditure on sea defence, drainage, and irrigation as well as co-operative 'effort, and, further, the insanitary condition of considerable areas due to defective drainage. Nevertheless, when one sees many Indian landowners, substantial cultivators, legal and medical practitioners, merchants, shopkeepers, and Government servants, it is impossible not to feel that the community has progressed. As in Mauritius and Trinidad, the main credit for this progress is dae to the eminently laudable qualities of industry and thrift which seem innate in the Indian, and enable him, wherever he goes, successfully to face hardship and competition. The Government and people of the Colony, in which this progress has been made, are also entitled to their fair share of credit. By no means has every Indian made good in the Colony, and Georgetown, in particular, possesses a number of pitiable objects living a hand-to-month existence, but Indian indigents outside Georgetown constitute a small minority, and poverty in: general is not so patent as in most parts of India. Almost every British Guiana Indian who had visited India was positive on this point. Now that the system of indenture has happily been brought to an end, and sanitary measures introduced, I am confident that, in the absence of any severe agricultural calamities, the future progress of Indians will be even more marked.
21. l'urther immigration.-In the resolution of the Government of Iodia in theDepartment of Education, Health, and Lands (Oversens), dated the 7th June, 1924, it is stated that, subject to receipt of the report which I am now writing, the Standing Committee of the present Indian Legislature, after full consideration, and after examining Mr. Tivary, were inclined to view with favour the Colonisation Scheme put forward by the British Guiana deputation of 1923-4.

Thinking Indians in the Colony, though emphatically opposed to anything in the nature of a purely or mainly labour scheme, are all but unanimous in favour of further immigration, subject to certain conditions. Their reasons for desiring the resumption of immigration are threefold. In the first place, they consider that a cessation will bring about a severance from India and from India's interest in Britisli Guiana and, eventually, the denationalisation of the community and its absorption into other faces. Secondly, they feel that, unlike Mauritius, where Indians constitute 70 per cent. of the inhabitants, their existing numbers ( 42 per cent. of the population). are not yet sufficient to enable them to secure their due influence in the Colony. Thirdly, they believe that periodical immigration presents an opportunity to the Indian community for securing preliminary reforms, and that once immigration ceases the opportunity will disappear.

The above reasons are self-explanatory, strike me as being sound and have weighed with me greatly in arriving at my conclusions. For if educated Indian opinion in general had been opposed, as in Mauritius, to a further influx of Indians, I should have been very doubtful about recommending it. I met only two Indian. leaders who were opposed to immigration in any form, viz., Mr. F. Kawall and Mr. Arnold Emmauuel Sreeram. The former, however, signed the British Guiana East Indian Association's petition for immigration less than two years ago, while the latter is a young and recently returned barrister from England and lacks experience.

These gentlemen thought that the long distance from India as well as, to use their own words, the economic and moral deterioration of Indians in British Guiana were decisive factors against further immigration. The point about distance, however, would have more force if there were not already Indians in the Colony. What has now to be considered is the renewal and not the commencement of immigration. As shown in previous paragraphs, I do not think that the charge of general economicdeterioration can for a moment be sustained. On the question of morals I admit that the very high standard of sexual morality prevailing in rural India is not maintained in British Guiana, nor is the Colonial-born Indian as temperate in the use of alcohol as the cultivator or agricultural labourer in India. But for this deterioration the previousgross disproportion between the sexes has been in large part responsible, and it must also be remembered that a substantial proportion of immigrants in former days did not come from rural India. The disparity between the sexes has now almost disappeared, and with the influx of competent religious teachers who, it is hoped, will accompany any future inmigrants, and with the general advance in education, there is reason tobelieve that moral standards will rise.

I also met many persons belonging to the indigent classes, mainly in Georgetown, who were opposed to a fresh ingress of Indians. These persons, mostly illiterate and very poor, naturally judged others by their own experience, and were afraid that a further depression of their condition would result if more Indians were introduced. They had not a single good word to say of anyone in the Colony including the educated leaders of their own community. It was impossible not to sympathise with their misfortunes, but at the same time their opinions, often crude and sometimes illogical, are not safe guides on such an important matter as Indian immigration. On the other side, apart from landowners, who might be thought to be biased in the matter, were many legal and medical practitioners, merchants; shopkeepers, schoolmasters, Government servants, and other educated gentlemen competeut to give considered and independent opinions.

After giving my best thought to the matter and in full consultation with responsible Indians in British Guiana, I consider that the opinion of the Standing Committee of the Indian Legislature is justified, and that, subject to certain conditions, the Colonisation Scheme as elaborated by Sir Joseph Nunan in his report dated the 20th November, 1924, and in the statement of February, 1924, published in India by the British Guiana deputation, should be accepted. Provided certain preliminary conditions, to which I shall presently refer, are fulfilled, and that the schene is fairly and fully carried out, I believe that it is both generous and practicable and at least deserving of a trial. In some respects it is more liberal.
than any scheme that I have seen for European land settlement in Canada, Australia, New Zealand or South Africa, where, for instance, free or assisted repatriation is not provided.
22. Land settlement or labour.-There is, however, one preliminary point of prine importance which, in my opinion, requires to be clearel up and over which $\mathbf{I}$. experienced considerable difficulty in the Colony. The original British Guiana Colonisation Scheme referred to two classes of immigrants, viz. (1) those who would take up land at once and (2) those who would work, in the first instance, for three years on sugar estates before receiving grants of land. Messrs. Pillai and Tivary, while agreeing with Mr. Keatinge that it would be possible to make available large areas of suitable land for the purpose of settlement by Indian agriculturists and that such a: scheme would be desirable, deprecated anything in the nature of a purely or largely labour scheme.

The British Guiana deputation to India of 1923-4 emphasised the land settlement side of the scheme, and pointed to land (see appendix A to Sir Joseph Nunan's report of November, 1924), which could be made suitable for immediate occupation by Indian settlers. From the resolution also of the Government of India of June, 1924, and the terms of my enquiry, it is, I understand, the provision of land which has throughout appealed to the Indian Government and Legislature. On page 12 of Sir Joseph Nunan's report of November, 1924, the following words occur: "The emigrants were to be selected in families of the agricultural classes, to receive free passages and to have an absolutely free choice of occupation on arrival. The Colony's Commissioner would have the sole right of selecting these families. To prevent any undue burden on the Colony's resources and to avoid overweighting any land settlement scheme at the outset, he would naturally take care that no undue proportion of selected families wculd have already made up their minds to refuse offers of agricultural employment. For any settlement in the north-west district no question of employment could arise, but for the coast districts the great majority, probably four-fifths at the outset, should have an open mind as regards their initial occupation. As a preliminary to their arrival a Settlement Commission was to be appointed, which would draw up a land settlement scheme and also plans for the agricultural employment of the newcomers, with due regard to the requirements of the various districts and to the interests of the settlers themselves. Absolute freedom of choice of an employer or employment wonld, however, be strictly adhered to."

I repeatedly told the Colonial Government and the planters that my interpretation of the scheme as put forward in India was that a free and straightforward choice was to be given to the would-be immigrant as to whether at the outset he would prefer landi.e. in the language of appendix A to Sir Joseph Nunan's report, "specially prepared land" under the terms stated therein, or employment for three years on sugar estates. I stated that, in my opinion, provided the choice was unfettered and the land suitable, the great majority of the immigrants would in all probability select land. I added that to the Government and people of India a scheme of immediate land settlement would naturally be more attractive than a labour scheme, even though the latter led to grants of land after three years. The Colomial Government and planters, however, while admitting that my interpretation was feasible, considered that, since Sir Joseph. Nunan expressed a desire to avoid overweighting land settlement, left the selection of immigrants with the Colony's officer, referred to four-tifths as having an open mind till their arrival in British Guiana, and, further, since he estimated in appendir D to his report of November, 1924, which was laid before and passed by the Combined Court, that only one-fifth, or at the most two-fifths, would require land at the -outset, the majority of immigrants were expected to work in the first instance on the estates. Further, according to the Colonial Government, this "very essential difference of opinion", necessitated consultation with the new Gorernor and another reference to the Combined Court.*

In discussions which I had with the planters and Government I replied that the Indian (jovernment could not be bound by what was admittedly a mere opinion orestimate of an officer of the Colonial Government, and, further, that Sir I. Nunan had ouly stated that four-fifths of the inmmigrants would have an open mind on arrival, and not that they would necessarily take employment on the estates. He had also more than ouce declared that absolute freedom of choice of employment was to be adhered. to. I was fortified in my view by a clear and concise note (appendix I), with which I

[^23]agiee, given to me by the hon. Mr. Popham Lobb, acting Governor, who was previonsly: Colonial Secretary, by the written statements (appendices II and III) of Messris. Luckhooand Panday, who were members of the last British Guiana deputation to India, as well: as by Sir Joseph Nunan himself, an extract from whose note I give in appendix III. This last note, while I do not accept the estimate of numbers anxious to take land, makes it clear that there was never any guarantee of labourers and that the scheme was primarily one of land settlement: I would also draw attention to His Excellency; Sir Graeme Thomson's despatch to the Colonial Office, dated the 5th July, 19:3, in which he states that " the emigrants must come in with the right to choose for themselves whether they shall serve registered employers or not, and the Colony, considers it a matter of comparative indifference whether they spend the first three years in agricultural pursuits ou their own behalf or whether they spend them in: working for au employer.". He adds later that "the Colony must begin by frankly accepting and advocating a scheme which is primarily one of colonisation." The leading newspaper in the Colony, the Daily Argosy, supported my interpretation. So did the Indian community, which dislikes the idea of a labour scheme. The representatives of the black and coloured communities also preferred a scheme of land settlement, though, naturally enough, they wished the same terms to be offered to negro immigrants.

I do not believe that an agriculturist, if offered specially prepared land, would. prefer labour to land on arrival in British Guiana, especially when he would beaccompanied in all probability in the same steamer with persons who had already. selected land, and met op his arrival by local Indians. I go further. I am of opinion that an influx of labourers is not desirable. The sugar industry in British Guiana is at present in a depressed condition, the price of sugar, when I was there, being very little above the pre-war figure, while the cost of production is considerably higher. It is probable that if the depression continues a few of the smaller estates may beclosed. Wages are considerably lower at present than those mentioned by the eariier: British Guiana deputation, which contemplated in 1920 a wage of Rs. 3 a day for an adult, and a saving of Re. 1. Indeed, the present daily wage, as I have shown in para. 14, is only just over $2 s$. for the average worker and not $3 s$. as given in the Delhi. statement of February, 1924. The industry is quite unable to offer the counter attractions which, Sir Joseph Nunan thought, would induce immigrants to prefer land talabourbe Lastly, even the planters assured me that in present circumstances they would be satisfied, if they could get the new emigrants to work on their estates during their spare time, though they would, of course, prefer a labour scheme.

Though I am not directly concerned with the financial position of the Colonial Government, I am aware that the, fall in the price of sugar is a source of embarrassment to them. I realise that they may have to 'recast Sir Joseph Nunan's estimates, but it must be remembered that in having given an iminigrant absolute freedom of choice of employment, they were, and are, bound to take risks. Further, most of the expenditure in preparing land, providing loans, \&c., will ultimately have to be undertaken, even if the immigrant first goes to a sugar estate, since, on the expiry of: three years, he will be entitled to a grant of land. Lastly, in either case loans, which form a fair portion of the total expenditure, will eventually be recouped. Before my departure I suggested, subject, of course, to ultimate approval by the Government of India and the Indian Legislature, what seemed to me to be a reasonable compromise, viz., that in place of a large number of families, viz., 7,500, as originally contemplated, to work as labourers at the outset as well as take up land, a far: smaller number should be recruited for immediate land settlement. In fact, I have always held the view, which is strengthened by the present depression of the sugar industry, that the experiment of farther immigration should be started on a small scale. At the outset 500 families, or, say, 1,500 souls in all, should be sufficient. For immigration in general, the Colony has in addition to the Colonisation Fund ( $\$ 605,442$ ), the Immigration Fund ( $\$ 93,623$ ), Return Passages Fund ( $\$ 146,139$ ), and Repatriation Fund ( $\$ 605,442$ ). Both the Colonial and Indian Governments stand to gain by an experiment of this nature. The expenses of the British Guiana Government : would obviously be smaller. If, for instance, the scheme proved a failure, their liabilities in the matter of repatriation would be less. On the other hand, if the scheme was successful the way would be open to further immigration on a larger scale, as contemplated by Sir Joseph Nunan, with in all probability less. expenditure on passages, \&c. The responsibility of the Indian Government would also be correspondingly smaller, if the scheme was not successful.
23. Conditions precedent to, or concurrent with, the resumption of immigration.-On page 15 of his report dated November, 1924, Sir Joseph Nunan makes the following:
quotation from the memorandum of February, 19:4, published in Delhi by the British Guiana deputation :-
"The recommendations of the Pillai-Tivary report comprise-adopting the order' of section 13 of the report:-
"(1) Provision of areas of suitable land for settlement, along with the necessary. organisution for assisting the settlers in their initial difficulties;
"(2) Improvement of sanitary conditions, including the drinking water supply :
"(3) Passing of the Declaratory Ordinance as to status and the adoption of measures for securing fair and adequate representation for Indians in both Courts of the British Guiana Legislature ;
"(4) More rigid enforcement of the present Education Ordinance (to which must be added from other passages of the report: Suitable provision for vernacular education);
"(5) Special provision for marriages of Hindus and Moslems;
"(6) Right of cremation of their dead by the Hindus;
"(7) Improvement of housing arrangements, especially as regards married immigrants ;
"(8) Non-employment of children in 'creole gangs' on estates;
"(9) Independent boards of arbitration as regards wages;
"(10) More generous measures as regards repatriation, iucluding more frequent return ships with improved arrangements;
"(11) Official representation of India in British Guiana.
"The report expressed doubt as to whether the Colony would in the near future be able to find funds necessary for land settlement and the improvement of sanitary conditions. I may say that on this point we are in a position to give satisfactory assurances to the Government, Legislature, and people of India.
"It may be mentioned that every one of the recommendations of the Pillai-Tivary report is included in the original Nunan-Luckhoo scheme and they are therefore included in its reaffirmation. In short, the Colony is prepared to carry them all into effect."

I took this statement to mean that Sir Joseph Nunan, on behalf of the Government of the Colony, had accepted the Pillai-Tivary recommendations as summarised by him, especially as the statement appears in a memordndum issued in India and incorporated in a report which was approved by the Combined Court in December, 1924. Moreover, it has never been challenged by the Colonial Government during the 18 months and more since its publication. The Hon. Mr. Popham Lobb, acting Governor (see appendix 1), accepted my interpretation and the planters raised no objection, except that they considered that more generous measures regarding repatriation should be subject to the reopening of Indian immigration. The Government, however, while not repudiating it, informed me that the Combined Court and the new Governor would have to be referred to before they could give their decision. In consultation with Indian opinion I renture to think that, as a condition precedent to or concurrent with the inauguration of the scheme, the Pillai-Tivary recommendations as summarised above should be carried out, subject to certain modifications and some additions which I shall now consider. I place below my final recommendations, and propose, at the same time, to show how far the main Pillai-Tivary recommendations have been carried out. I take each recommendation in the order given above.

## (1) Provision of areas of suitable land for settlement, along with the necessary organisation for assisting the settlers in their initial difficulties.

24. I have already dealt with these in paras. 5-7. The Anna Regina estate, for instance, has excellent rice land and pasturage, and the drainage schemes now being carried out will open up further areas in the Colony and improve the existing land. An even better method, as pointed out in Mr. Keatinge's report (para. 2*), is for Government to purchase one or more of the smaller sugar estates existing, or recently abandoned, as in such cases the expenses of empoldering are much smaller. The Government have already done this in the case of the successful settlements at Windsor Forest, Hague, and Jalousie, and, according to the list of lands supplied to me, it appears that they are still prepared to do this. Several of these lauds, e.g. Blankenburg and Hope, seem primâ facic suitable. In any case I suggest that the onus of providing and preparing land should be placed on the Colonial Government. It will be entirely in the interests of that Government to see that the Jand is suitable
and the scheme a success. They will, no doubt, be guided in their choice by the Land Settlement Commission and Colonisation Board, aud an officer of the Government of India will also be present, as contemplated under the scheme, to protect the interests of settlers. It is extremely difficult for a visitor without adequate knowledge of local conditions to suggest suitable land. The local authorities are far more competent to deal with the matter. It is sufficient to say that suitable laud for settlement by Indians can be made available within a short time and without excessive cost.

Five acres of land have been promised per family. Nost people were of opinion that this was sutficient, since a larger area would inevitably entail the employment of outside labour, which the newcomer could not afford. Kice growing, with ground provisions and plantains later on, would be the most suitable form of cultivation. It is less expensive than sugar and entails less labour. Moreover, most Indian agriculturists from the middle and eastern districts of the United Yrovinces have an intimate knowledge of rice growing. The prospects of rice are admitted on all sides to be good. Its cultivation, however, even in places such as the Essequibo coast, where two crops can be reaped each year, would only take up a few months (not more than six) of an agriculturist's time, nor would it support him and his family without other work. During his spare time, in accordance with the general practice prevailing in the Colony, the cultivator would be free to take up employment on a sugar estate, Government works, \&c. In fact, it is desirable for this purpose that his land should be in the proximity of sugar estates or Goverument works so that he may not have to go far for his work. It should also be within reasonable reach of markets. Without work, even with five acres of rice land, a family could not maintain itself with any degree of comfort. With work it was universally agreed that a land-owning settier would make a comfortable living and amass considerable savings.' The great majority of rice cultivators in British Guiana at present do not possess five acres. For the first few weeks, as stated by Sir Joseph Nunan on page 13 of his report of November, $19 \div 4$, the newcomers would be maintained free of charge. Advances, as contemplated by the British Guiana deputation, would subsequently have to be made to the settler to enable him to purchase seed, implements, \&c., to loan or buy cattle to maintain himself and his family at the outset, and generally to tide him over the first one or two harvests. Persons recruited should be from agricultural families and should be young, healthy, and active, and there should not be more than one child per family. My experience in Mauritius demonstrated the undesirability of recruiting persons with large families or returned immigrants from other colonies. The Colony's selecting ofticer should be assisted by an officer of the local Government of the province in which recruitment is made, who, among other things, should see that the terms, which should be in writing, are clearly and fairly placed before the would-be immigrant. I attach the greatest importance to this and to the immigrant being an absolutely free agent with an unfettered choice both in India and British Guiaua. Houses would bave to be provided, preferably before the arrival oit the settler, but on not too expensive a scale, since as the money spent on houses will, under the scheme, eventually have to be repaid by the immigrant, it is inexpedient to saddle him with heavy expenditure at the outset. Free hospital provision will have to be given and close and kindly supervision at least for the first year.

It is obvious that to "dump" the Indian immigrant on the land without supervision and assistance would be fatal to the success of the scheme. In fact, many gentlemen, representing planting and other interests, considered that immigrants unfamiliar with local conditions should, in their own interests, first proceed to a sugar estate where free housing and free medical assistance are provided. I do not think, however, that if good and sympathetic supervision is given, there is any obstacle to an energetic Indian settler immediately taking up land and cultivating it successfully. Indians, in particular, thought this was quite feasible. He will be grouped with other immigrants in accessible places, and there will be many colonial-born Indians in the neighbourhood to help him. All the families recruited need not be placed in one area. For experimental purposes this may not be desirable. On the other hand, an excessive scattering is equally objectionable. The Land Settlement Commission, on which I have recommended Indian representation, will be able to decide this and, indeed, all points of detail.

## (2) Improvement of sanitary conditions, including the drinking water supply.

25. I have already dealt with this at length in para. 10 . It is to be hoped that the excellent measures which have been taken up by the Colonial Government to
improve the drainage and water supply of the Colony will be completed before longIt is also to be hoped that those sugar estates, which have no artesian wells, will proceed, as funds permit, to construct them at an early date. The Courantyne coast is admittedly one of the healthiest areas in the Colony; but it requires irrigation as well as drainage. If the Government could provide this a great future awaits this area
(3) Passing of the Declaratory Ordinance as to status and the adoption of measures for
securing fair and adeqaate representation for Indians in both Courts of the British
Gaiana Legislature.
26. The Declarato
force. It sets out the equalinance was passed in November, 1923, and is now in force. It sets out the equality of status of all Rritish subjects, and its provisions also apply to subjects of Indian States. As regards the representation of Indians in the British Guiana Legislature, I have already pointed out (para. 11) the large and satisfactory increase in the number of registered Indian voters during the last few years. Provided learing Indians continue to bestir themselves, it is probable that this increase will be continued. Messrs. Pillai and livary made three main recommendations for the purpose of securing larger lndian representation. In the first place, they considered that it should be the duty of the (lovernment to prepare a preliminary list of all eligible voters. Secondly, the ballot papers should be prepared in such a way as to make it easy for all voters to record their votes. Thirdly, the existing literary test should be abandoned.

As regards the first, no action has so far been taken hy Government. I think that this should be done without delay. Already a similar method prevails in the preparation of the list of jurors. As to the second, the Government have issued orders for the printing of voting papers in Hindi and Urdu as well as English. The third suggestion has not been adopted. Indians, with whon I discussed the subject, admitted that the proposal, if put forward, would meet with streuuous opposition from other communities, and $I$ do not think that there is any chance of its acceptance by Government. In these circumstances, and in view of the fact that any encouragement, however indirect, of illiteracy is to be deprecated, I do not think that it need be pressed.

## (4) More rigid enforcement of the present Education Ordinance.

27. Messrs. Pillai and Tivary recommended that the existing Education Ordinance, which enjoins compulsory education of children up to 14 years in Georgetown and 12 in rural areas, should be rigidly enforced. At present, in the case of Indian children its provisions are often relaxed. This is a point on which local educated Indian opinion feels very strongly, and I consider that the time has come for education to be made compulsory in practice for Indian children (boys and girls) throughout the Colony. A local Education Commission, which has recently submitted a report, has made a similar recommendation, so that there is every likelihood of a stricter enforcement of the Ordinance in future. Among other things, it should stop the leakage which at present takes place after the elementary classes. It will also advance the education of Indian girls, which at present, mainly on account of the scruples of Indians, is in a backward condition. I am glad to say that the Planters' Association told me that they would offer no opposition to compulsion. It is probable that some Indian parents will dislike rigid enforcement, as the employment of children adds to the family income, but the advantages on the other side are so great that I consider that this opposition must be faced. It will probably disappear before long. The Commission have also made some useful proposals in regard to the greater encouragement of vernacular education. Increased grants to primary schools, in which regular and efficient instruction in an Indian language is given to not less than 50 per cent. of the pupils in average attendance, are recommended, as well as instruction in evening classes. These proposals are all to the good. I think, however, that it would be desirable to recruit a.few teachers from India as, at present; the number of Indian teachers with a really satisfactory knowledge of the vernaculars is extremely small.

## (5) Special provision for marriages of Hindus and Muslims.

28. Messrs. Pillai and Tivary went closely into the question of Indian marriages and recommended that marriages celebrated according to Hindu and Muslim rites should be recognised, as in India, without registration, preliminary certificates, \&c. At present, in the case of Indian marriages, Hindu, Muslim, or Christian. a preliminary certificate from the Immigration Department is required in addition
to registration after the ceremony has taken place. Without registration there is no legal recognition. In consultation with leading Indians, I wrote as follows to Governinent:-"Indian opinion in this Colony is anxious for a change both to facilitate the legalisation of Hindu and Muslim marriages and to avoid what, in their view, is an unnecessarily long and cumbrous procedure. The changes suggested are that the preliminary certificate of the Inmigration Department be dispensed with, and that any licensed pundit or maulvi performing a Hindu or Muslim marriage should be compelled by law, under penalty if necessary, to report the marriage for registration within a specified period. The parties before marriage would have to sign a declaration that there was no legal impediment to the union and, if guilty of a false declanation, would be liable to the ordinary processes of the law. May I suggest that the whole question be considered by Government at an early date with a small representative committee of Indians?"

The Goverument informed me that the matter would receive their early attention. It is obviously impossible, under modern conditions, to dispense with registration in the case of one community, nor does Indian opinion press this, but it does seem to me unnecessary that the preliminary certificate of the Immigration Department should be required or that the parties themselves should have to register the marriage. The procedure suggested by me will bring Hindu and Muslim marriages into line with marriages of Christians of other communities. The proposed committee will no doubt also be able to make suggestions about the disposal of property belonging to intestates leaving children. At present such children. are considered illegitimate if their parents' marriages have not been registered.

## (6) Right of cremation of their dead by Hindus.

29. I have already dealt with this in para. 19. I repeat that in regard to new immigrants arrangements should be made for cremation of their dead on or near the settlements on which they reside.

## (7) Improvement of housing arrangements, especially as regards married immigrants.

30. In para. 9 I have shown that some sugar estates have recently put up a better type of house for married persons. The present time is one of financial depression, but it is to be hoped that, in their own interests, estates will keep in view the improvement of their housing accommodation. As in Mauritius, I was struck in British Guiana by the somewhat cramped accommodation often provided for resident labourers and their families. In rural India the houses of the poor, though built of mud and containing little or no furniture, are more roomy and have more privacy.

## (8) Non-employment of children in "creole gangs" on estates.

31. At present children, boys and girls, from the ages of 10 or 11 upwards, are employed on certain duties on estates. The rigid enforcement of compulsory education will, ipso facto, prevent the employment of children of school-going age, but the education authorities should see that no evasion is practised either by employer or parent.

## (9) Independent boards of arbitration as regards wages.

32. A committee appointed to consider the question of a Labour Exchange Bureau submitted a report on the 17 th November, 1924, and at the ensuing session of the Combined Court funds were voted for establishing the Bureau, but delay has occurred in giving effect to the proposals owing, it was stated, to various circumstances, among which was the desire of the Chamber of Commerce and the Lahour Union to be afforded time to meet and discuss the terms of the report. A meeting of these bodies with the committee has now been held, at which it was decided to suspend proceedings until papers on the subject were submitted to the Chairman of the Labour Exchange Bureau Committee by the two former, but the papers have not yet come to hand. This is how the matter stands. Government, however, assured me that the Bureau will play an important part in connection with boards dealing with disputes relating to wages, \&c. I look upon these arbitration boards, if properly constituted, as likely to be useful institutions. They were recommended in the first British Guiana Colonisation Scheme, and I trust they will be brought into being at an early date. It is essential, however, that Indians should be represented on them as well as on the proposed Labour Exchange Bureau.

## (10) More generous measures as regards repatriation, including more frequent return ships with improved arrangements.

33. I have already dealt in para. 18 with the question of repatriation, and made recommendations. The provision of more frequent return ships will inevitably depend upon the reopening of immigration and on the number of immigrants. The existing contract with Messrs. Nourse \& Co. has been in vogue for many years, and no special shipping contract has so far been made.

## (11.) Official representation of India in British Guiana.

34. This is another important matter which awaits the resumption of immigration. Meanwhile, it has been decided to establish a Board of Colonisation and Development, as well as a Settlement Commission: I understand that the Secretary of State has been addressed on both matters. The British Guiana deputation's proposals have always contemplated the appointment of a representative of the Government of India to watch over the interests of Indian settlers. The appointment is very necessary. The officer concerned, who should have a full knowledge of the revenue conditions of those parts of India from which in future the majority of the immigrants may be drawn, should proceed to British Guiana a short time before the settlers, so as to assist the Land Settlement Commission, of which he should be a member, in making arrangements for the reception and disposal of the settlers. He should, I think, be paid by the Indian Government, so as to give him an independent position.
35. Further recommendations.-This completes the recommendations accepted by the British Guiana deputation, though not all those made in the Pillai-Tivary report (e.g. paras. 97, 104, 131, 132, 134). In consultation with Indian opinion, I add a few, most of which have already appeared in the Pillai-Tivary report or in the Colonisation Scheme. Most Indians wisely realised that to burden the scheme with an excessive number of onerous conditions would place it beyond the resources of the Colonial Government, and thus lead to its abandonment. Incidentally, I would observe that the penalty of imprisonment referred to in para. 128 of the Pillai-Tivary report has been abolished.
(12) Claims of existing settlers (paras. 188 and 206 of the Pillai-Tivary report).
36. It is obvious that a good deal of heart-burning will be created among local residents of the various communities if fresh Indians are brought from India to take up land without some concessions being made to the people on the spot. Sir Joseph Nunan foresaw this, and in a note, dated the 30th April, 1923, supplementary to the report of the earlier deputation, stated that local resident families, to a number not exceeding that of the newcomers in the Colonisation Scheme, could also claim reward grauts, provided that on the inauguration of the scheme they registered as agricultural families prepared to engage steadily in agricultural pursuits for three years. At the end of that period they would have to live for four years on the prepared land, half of which would have to be cultivated by them before they could acquire title. Sir Joseph Nunan anticipated only a small registration. Whether his anticipation will prove correct, experience alone can show. Local opinion seemed to think that a larger number would be able to comply with the necessary conditions. In any case the offer must be maintained intact. I agree, however, with Sir Joseph Nunan that the main benefit to existing settlers will be from the large drainage works which the Goverument are undertaking. New land will be brought under cultivation and existing areas will be benefited.

Another way in which Government might help existing settlers thrown out of work through no fault of theirs, e.g. the closing of sugar estates, would be either to form settlements as in the case of Windsor Forest, Hague, and Jalousie, all of which are in a prosperous condition, or by means of the proposed Labour Exchange Bureau to find other employment for them or to give loans to help the grantees to tide over periods of stress.
(13) Indian representation on public boards and committees (para. 124 of the Pillai-Tivary report).
37. The number of Indians on public boards and committees is very small. For example, the Poor Law Board, Excise Board, Board of Agriculture, Local Government Board and Board of Colonial Transport, contain no Indians. Several of these Boards deal with matters intimately connected with Indians and I strongly recommend that members of this community should have adequate representation on them as well as on the proposed Board of Colonisation and Development and the Settlement Commission. There are several Indians in the Colony competent to serve on all such boards.
(14) Immigration Department (para. 106 of the Pillai-Tivary report).
38. At present this important office, which has very close and constant relations. with Indians, has uo Indian in the higher grades. Local Indian opinion is strongly in favour of the appointment of members of their community to important posts in this department. The claims of existing officers cannot, of course, be ignored, but the necessity for making a start in this direction should be impressed upon the Colonial Government. Local Indians would be more suitable in every way; but, if none could be found, an officer could be nominated from India. It would be useful, too, to have an advisory board in connection with this department. There are precedents for such boards in other departments, e.g. the Education Department. I believe that an advisory board of this kind, with, of course, Indian representation thereon, noould be of assistance to the immigration authorities in bringing them intocloser contact with representative Indian opinion. I recommend it accordingly.

## (15) Recognition of certain Hindu and Muslim festivals (para. 125 of the Pillai-Tivary report).

39. Considering that Indians number 42 per cent. of the total population, it would be a graceful act on the part of the Colonial Government to declare one Hindu and one Muslim festival as public holidays, $\boldsymbol{i z}$., Holi and Idulfitr. Even if this is not. possible, no Hindu or Musalman should be compelled to work on these days.

## (16) Fewer liquor shops.

40. These number 274 , as compared with 248 in 1905 and 254 in 1915, or almost one per 1,000 inhabitants. The figures show a progressive increase in spite of the stationary character of the pcpulation. All shades of opinion were in favour of curtailment. Intoxication is far more common in British Guiana than in India, and there is little doubt that a restriction in the supply of liquor would, in the long run, be beneficial to employers and labourers alike. No new liquor shop should in any case be permitted near the new Indian settlements.

## (17) Farm colony for destitutes.

41. Mr. Keatinge, in para. 42 of his report, suggested a farm colony for destitute Indians in Georgetown. I strongly support his recommendation. These men spread discontent among their fellow countrymen, and the Colonial Government would bewell advised in their own interests to assist them in the way suggested. I often urged well-to-do Indians in the Colony to assist their poorer brethren by building a dharmsala in Georgetown.
42. Other suggestions.-I further suggest the removal of the provision in the Municipal Ordinance requiring, in a voter, a knowledge of English (para. 157 of the Pillai-Tivary report), and the employment of Indian doctors on immigrant ships. Full opportunity should also be given to duly authorised pundits and maulvis to give religious ministration in jails on the same conditions as Christian ministers. The original scheme recommended the introduction of a limited number of Indian non-agriculturists, e.g. doctors, schoolmasters, ministers of religion, and small capitalists. Provided the numbers are small, the proposal is a sound one and deserves encouragement, as, among other things, it will give the Colony in general and local Indians in particular the benefit of a new and different type of Indian immigrant.

> Mabaraj Singh.

India Office,
18th December, 1925.


## APPENDIX I.

## Copy of Minute by His Excellency the Officer Administering the Government, dated the 17 th October, 1925.

I discussed the Colonisation Scheme with Mr. Singh and yourself* and Mr. Strang to-day.
My personal view is that the scheme as set out in Sir J. Nunan's Report and Appendix (Sessional Paper 58/24) and adopted by Combined Court (Mr. Dias' motion) is the scheme to which the Colony is formally committed, and that it includes the recommendations made by the PillaiTivary Mission, as summarised by Sir J, Nunan in S.P. 58.

The scheme is primarily and essentially one of land settlement, i.e. for permanent colonists as -opposed to hired labourers. At the same time colonists, like every other member of the community, will be free to follow any occupation they may desire and to work for a registered employer either wholly or in their spare time. The choice will rest with them and no pressure will be brought to bear upon them in its exercise,

The Minute should be referred to the Executive Council for endorsement and a copy may be, given to Mr. Singh, as he requested.

> R. Popham Lobb.

* The Hon. Mr. Hampden King, acting Colonial Secretary.


## APPENDIX II.

As there seems to be some misapprehension in certain quarters as to what is meant by Sir Joseph Nunan in his Report to the Government of this Colony, Combined Court Papers No. 58 of 1924, at page 12 , it is necessary to state my own views on the matter.

The scheme is one primarily for the settlement of Indians on snitable and well-drained lands, and it will be nccessary for the Government, to prepare lands for each emigrant family leaving India under the scheme.

In other words, no alternative proposal will be put to an intending emigrant family leaving India, but on arrival here (British Guiana) such family will be free to choose at the outset the land so prepared or to accept agricultaral employment as provided for in the frst and second paragraphs on page 13.

When Sir Joseph wrote that "probably four-fifths at the outset would have an open mind as regards their initial occupation " it is clear he had in mind this fact, that as the scheme is free from compulsion the emigrant is quite at liberty to choose the land or be engaged in agricultural employment, and his estimate of this number is four-fifths of the arrivals.

10th November, 1925.
When Sir Joseph Nunan and I were examined by the Select Committee on Emigration at Delhi in March, 1924, we made it quite clear that the scheme was one of land settlement, vide Appendix A to Sir Joseph Nanan's Report, and that our Government was quite prepared to finance such a scheme.

We, however, informed the members of that Committee that any emigrant could, if he so desired, work for an employer in agricultural pursuits for three years, which would entitle him to a reward grant of five acres.
J. A. LJckhoo.

12th November, 1925.

## APPENDIX III.

At the Committee appointed by the Legislative Council of India to examine the British Guiana deputation on the Colonisation Scheme at Delhi, a scheme of land settlement, with well-drained and irrigated lands, was put forward by the deputation, and a family of three was to get five acres of land and other necessary assistance to cultivate the same, and lands were to be prepared to the satisfaction of the Indian Commissioner, who will be appointed before the introduction of a single colonist.
(Sd.)
M. Panday.

13th November, 1925.

## APPENDIX IV.

Extract from memorandum, dated December, 1925, for the Right Hon. L. C. M. S. Amery, Secretary of State for the Colonies, on the British Guianc Colonisation Scheme.
Kunwar Maharaj Singh came to see me the day before Jesterday on his arrival ia London. He told me that he was in favour of the scheme, but could get no assurance from the Acting Governor of British Guiana. Mr. Hampden King, as regards the carrsing out of the points of the Pillai-Tivary recommendations summarised by me in my preliminary Report of November 19\%4, and already approved of by Sir Graeme Thomson and his Council and by the Combined Court. The matter was to be left over for the consideration of Sir (Jecil Kod well and the Combined Court.

There is a clear explanation of this hesitation on the part of the Acting Governor, the Hon. J. Hampden King, who had taken over on the departure of the other Acting Governor, the Hon. R. Popham Lobb. At his meeting with the planters in British Guiana, and also in his farewell speech to the East Indian community, Mr. Milarij Singh had expressed the opinion that the great majority of the newnomers would ask for land at the ontset. I quite agree with him if the planters are not able to advance attractive offers of employment. The Colony would in any case have to take the risk. Everything woald depend, first, upon the conditions of employment which the planters could offer, and, second, upon the efficiency of the British recruiting officer in Indiai. I have set the matter ont clearly in my Report, viz., that be ought to be able to be certain that not more than one-fifth of the emigrants were absolutely set upon acquiring land at the outset before he accepted
them. The other four-fifths should have at least an open mind as to whether they would accept employment at the outset or ask for immediate land. If he cannot arrive at approximately this result, his duty would be to apply for instructions as to whether to continue the scheme or todrop it. In the last analysis the who.e thing would depend upon the funds a ailable and the market for sugar.

The planters were taken aback by this expression of opinion of Mr. Maharaj Singh, but only experience can decide the point. I still think that if decent wages are given, conpled with a personal plot of land, grazing rights, good housing, and medical aitendance, the planters will get the great majority of the newcomers. To ensure their doing so would require careful attention to minor: details and the active co-operation of the Indian official who is to be appointed to British Guiana.

So far as I can learn, this is the only outstanding point. The Colony must.decide whether it is willing to take the risk of no single family deciding to go on the sugar estates. That risk is nothing new, although the bad sugar conditions make it more probable.

The Acting Governor, Mr. Popham Lobb, who left the Colony four days after Mr. Maharaj Singh's arrival, gave to the delegate, in writing, his recognition of the scheme as being primarily based upon land settlement. This is how it always has been put forward in the Colony and in India in the plainest language. There is no question of a guarantee of labonrers. India would not bave it Any attempt to introduce the indenture system, however disgaised by promises of land, is impossible. The sugar proprietors, both in the Colony and in London, have had that explained to them again and. again in the last five years, and have accepted the situation.


## $\mathfrak{J B r i t i s b} \mathfrak{G u i a n a}$.

## COMBINED COURT.

FIRST SPECIAL SESSION, 1926.
MEMORANDUM
BY

THE Hon. G. D. BAYLEY, C.B.E., COMMISSIONER OF LANDS AND MINES.

## COLONISATION PROPOSALS.

Printed by the Eluthority of Ibis Excellency the Governor.
MEMO DEALING WITH-(A) THE CHANGES MADE IN THE ORIGINAL COLONISATION PROPOSALS, ( ) THE ESTIMATES OF COSY OF THE COLONISATION SCHEME, AND (©) PROPOSALS FOR FINANCING THE EXPENDITURE INVOLVED.

General Vagdeness of Colonisation Ppoposals.

1. It is a matter of common complaint that the language in which the Colonisation Proposals are in general expressed lacks definiteness; and inde日d the terms are so vaguely and ambiguously worded in some instances as to make it difficult to clearly understand exactly what is intended with the result that serious misunderstanding has urisen regarding the correct interpretation to be placed on certain of the proposals.

## Origin of Colonisation Scheme.

2. The aims and objects of the Colonisation Scheme as first proposed are set out in a Resolution of the Combined Court of the 5th February, 1919, which shows

GEORGBTOWA, DEMERARA:
"The Argobi" Compant, Liyiten, Pbinterg to the Governymet or Beigish Guiana.
that the principal object was to supply the insufficiency of labour which existed to carry on the various industries of the Colony, which insufficiency had led to a reduction of the area under Sugar Cane. It is as well to note this fact for the reason that at a later period the Sugar Planters were derided for ever having supposed that the proposed Scheme was intended to, or would, augment their labour supply, except perhaps iucidentally.

## 'The Original Colonisation Proposals.

3. The original Colonisation Proposals of 1919--known as the Nunan-Luckhoo Schemetare set out in Sessional Paper No. 12 of 1923, at page 17 of which the terms are summarised as follows :-
"(1) Employment to heads of families at the current rates of wages confi"dently stated to be well above the cost of living; (2) the right to work for an " employer or for oneself ; (3) the right to apply for Crown land at once on the terms " open to everybody in the Colony; (4) the right of a Reward Claim of 5 acres in "return for 3 years agricultural work in the Colony subject to beneficial occupation "for 4 years, and the pagment of whatever sums were being currently charged "f for Crown land; (5) a proviso in any case of some assistance (undefined) in start" a home by the machinery of the Agricultural Loan Banks or Colonisation Fund "(6) repatriation under certain conditions but repatriation before 7 years to entail" forfeiture of the Reward Grants."

## Interpretation of the Teims.

4. The only one of these terms that calls for special notice at this period is No. 3 which relates to the offer open to an immigrant who on arrival prefers to take up and work land on his nwo account in preference to working with an emploger. It is important to be clear as to what precisely was contemplated in this connexion because, as will be seen later, an essential difference of opinion has been found to exist in regard to the nature and extent of the Colony's liability in respect of the providing of land for the settlement of immigrants directly on arrival.
5. Sir Joseph Nunan on the occasion of the visit of the second deputation sent to India in 1924 to re-affirm the original proposals, affirmed in behalf of the Colony, as included in the terms of the original offer put forward by British Guiana, the undertaking that an immigrant who desired to purchase or lease land ou arrival in preference to working for wages would have the option of claiming to be provided by Government with "specially prepared land" which meant land suitable for immediate cultivation in contradistinction to "Crown Land" which meant unprepared land (uncleared and undrained).

If there is to be no limit to the number of those to be provided with prepared land at the outset, then, in effect, as will be seen later, this undertaking' placed an entirely new aspect on the Scheme as originally contemplated. It also connoted an increased financial. liability on the Colony, for the giving of prepared land at the outset, instead of in the shape of Meward Grants after three years work with employers, necessitates expenditure under the following heads which is not involved where Reward Grants are given :-*
(a) Loss of interest on advances for-1st year's rent; farming equipment; and 6 months rations; advances for which, free of interest, form part of the option.
(b) Free bospital and medical treatment.
(c) Upkeep of settlements (empolder, etc.).
(d) Salaries of Settlements Inspectors for Ist three years of Scheme.

[^24]
## 6. To examine now what was actually contemp lated under No. 3 of the original terms

The earliest of the basic records relating to the Colonisation Proposals, i.e., the Official Programme drawn up in the Colony in April, 1919 (Vide "Imperial Colonisation" and accompanying Explantatory Memorandum; Sessional Paper No. $58 / 24$, p. 32) shows that as contemplated by the framers of the original Scheme the only option open to the new-comers Was to work with employers, see under the heading "Method of dealing with new arrivals".

Next, in explaining the scheme at the outset to Lord Sinha and his colleagues at the India Office in London, His Excellency Sir Wilfred Collet and the Members of the Deputation stated in this regard:-
"On arrival an emigrant would be free to work either for an employer or on '" his own account and if he decided to take advantage at once of the very liberal "Crown Lands Regulations he could do so on the same footing as anybody else " in the Colony, viz. :-by application to the Lands and Mines Department. It was " not anticipated that perniless men with families would wish to take up or would $"$ be in a position to take up unprepared Crown land at the moment of their arrival "but they would have in principle the right to do so. The immediate taking up " of Crown land was anticipated only where the emigrant had some means to go on "with. This would not often occur. In such a case, however, Sir Wilfred Collet "definitely promised assistance by the Crown but neither in the case of a family "having a little means and immediately taking up land nor in the improbable case " of a penniless family electing to do so was the amount of Government assistance "defined."*

Then we find Sir George Barnes, K.U.B., who was deputed to receive the "Deputation in India thus recording his understanding of the Scheme as explained " to him by Messrs. Nunan and Luckhoo:-
"You tell me also of the various inducements which your Government hold "out-that there will be ample opportunities of purchasing or leasing land on the "part of those who wish to cultivate on their own behalf, and there will be oppor" nities for work at good wages on the part of those who wish to emigrate as free "colonists accompanied by Reward Grants of land on nominal lerms after a short "period of worl either tor employers or independently." $\dagger$

And finally, we find, in the Summary of the Proposals as conditionally accepted by the Indian Legislative Council in February, 1920 (which represent the original terms as put to and accepted by the Government of India), the terms applicable to new-comers on arrival in the Colony are thus set out:-
" On arriving in British Guiana they can if desirous of working land of their -. own forthwith obtain land (either agricultural or pastoral) on easy terms in " small or large holdings. These terms are those of the Crown Lands Regulations " of the Colony . . . . . . Assistance in selecting land will be given by Government "Officers and financial assistance will be rendered through the Agricultural Banks "Or from the Colonisation Fund for the starting of homes and cultivation." $\ddagger$
7. It will be seen that in none of the foregoing extracts-and they comprise the only references to the question of land for the settling of immigrants at the outset-is mention made of any suggestion that prepared land would be provided. As will be shown later it is not until after the visit to India of the Second Deputation that mention of ary such suggestion is to be found. The passages quoted clearly establish that what was contemplated under the Colony's original offer was

[^25]that the new-comers could, as could the immigrants already in the Colony, acquire unprepared Crown land on the ordinary terms prescribed by the Crown Lands; Regulations, but that in the case of new immigrants" who had some means to go on with " assistance (undefined as to amount) through the Agricultural Loan Banks (already equally open to resident workers) or trom the Colonisation Fund (not oper to old immigrants) was promised "for the starting of homes and cultivation." It will, however, have been noted that while newly arrived immigrants would in principle have the right to acquire land it was recognised from the start they would be penniless and therefore would not be in a position to take up unprepared Crown land and that they would consequently have no other alternative but to work with employers; from all of which the clear inference is to be drawn that it was anticipated that the Colony's liability in respect of providing land for settling immigrants on arrival would be negligible. In short, the Scheme as contemplated was one which purported to import immigrants and settle them on the land subsequently, that is, after 3 years work as agriculturists, after which they would be entitled to Reward Grants.

## Visit of Indian Delegation to tere Colony.

8. To trace now what.led up to the changing of the original terms. A Committee of Enquiry consisting of Messrs. Pillai, Tivary and Keatinge appointed by the Indian Government to investigate local conditions and examine on the spot the suitability of the Nunac-Luckhoo Scheme which that Government had conditionally accepted (Sessional Paper No. 58/24, p. 20) visited the Colony for the purpose in February-April, 1922. The Members of this Deputation appear to have all arrived at the conclusion that the Colony's offer of Crown land on easy terms which gave the suggestion that the Scheme was a Colonisation Scheme under which the bulk of the immigrants would be settled directly on the land, was illusory. Mr. Keatinge took the view that there was no practical difference between the Nunan-Luckhoo Scheme regarded as a "Colonisation Scheme" and a" Labour. Scheme" under which the great bulk of the mmigrants would have to work as labourers for the first three years" since investigations have made it clear that there is at present no "unoccupied land available in British Guiana in such a condition and situation " as would offer any prospect of success to Indian immigrants who might attempt "to settle upon it immediately on their arrizal in the Colony as independent " peasant farmers. The Scheme put forward br Mr. Nunan and his colleagues "appears to have been based upon a misapprehension of the physical facts which " govern the agricultural situation and upon m mistaken idea of what the Colony "could afford."

Messrs. Pillai and Tivary were similarly of opinion that while unoocupied Crown land was available to an unlimited extent physical conditions were such that it " was hardly possible for ordinary settlers to take up land and sultivate immediately " on arrival" and they recommended that it should be made a condition precedent to the consideration of any scherve put forward that inter alia, provision should be made for calling into existence the organisation necessary "to "make available large areas of suitable land for the purpose oí settlement by Indian "agriculturists and giving the settlers the assistance which they would need to "overcome their initial difficulties." It is to be remarked that all of the Delegates entertained doubt as to whether the Colony would in the near future be able to find the funds necessary for the kind of land settlement they (the delegates) had in contemplation.

## Visit of Second Colony Depotation to India.

9. On the arrival of Messrs. Pillai, Livary and Keatinge in the Colony, Sir Wilfred Collet had informed them that the Nunan-Luckhoo Scheme was "unauthorised by and unacceptable to the Government and therefore in no way binding on the Colonial Government"-an attitude which it might be remarked in passing, the Delogates regarded as "inexplicable." His Excellency at the same time placed before
them "for examination" a scheme drawn up by himself which differed radically from the repudiated scheme. While the Nunan-Luckhoo Scheme provides for the free immigration of both classes of agricultural settlers; namely, those who would in the first instance commence their careers in the Colony as labourers as well as others who on arrival, instead of seeking employment would straight-away purchase or lease lands to start farming on their own account, the Governor's scheme promised free passages only to those emigrants who undertook to serve under some employer for a period of three years. This substituted scheme Messrs. Pillai and Livary incontinently rejected as a labour scheme for Sugar Planters with which India would bave nothing to do.*

After the return of the Deputation to India, the negotiations would appear to have been treated by the Indian Authorities as being at an end and matters remained in statu quo ante for more than a year when Sir Graeme Thomson, who had meanwhile succeeded Sir Wilfred Collet, took the matter up again and at the urgent request of the Sugar Planters despatched a Second Deputation to India which left the Colony on the 23rd November, 1923. The letter of instructions to Dr. Nunan (who along with Mr. Luckhoo comprised the Deputation), is reproduced at. p. 3 of Sessional Faper No. 58/24. Reference to it will show that the Deputation was specifically limited to re-affirming the original terms set out in the Summary of the original Proposals of 10th February, 1920 accepted by the Indian Legislative Council (p. 20) and that he was further instructed that "for any alternatives proposed by the Indian Government or Legislature which you consider should be accepted you should if possible obtain confirmation by telegram and in other cases only accept subject to confirmation."

## Original Proposals Changed.

10. When the Deputation reached London it was at once challenged by the India and Colonial Offices, and was again challenged immediately on arrival ins India by the Viceroy and by the Department as regards the existence of lacd suitable. for immediate settlement, for the Pillai-Tivary and Keatinge Reports had just been published, and the providing of prepared land for the settlement of immigrants directly on arrival formed one of the conditions recommended by Messrs. Pillai and Tivary. In short, it was made elear that the Government of India regarded the provision of prepared land as an essential.
11. Sir Joseph Nunan dealt with the situation by the publication of a pamphlet "Status of Indians in British Guiana" in which he accepted and adopted all of the Pillai-Tivary recommendations in the following statement:-"Everyone of "the recommendations of the Pillai-Tivary Report is included in the original "Nunan-Luckhoo Scheme, and they are therefore included in its re-affirmation. "In short, the Colony is prepared to carry them all into effect." (p. 11 of Sessional Yaper No. 58/24).
12. By this statement was the Colony committed to the undertaking to pro* vide specially prepared land for immigrants who (whether possessed of means or penniless) might elect to be settled on land at the outset in preference to working with employers; a liability which it will have been seen formed no part of the original Colonisation terms. This liability, as previously explained, carried with it the further obligation on Government to advance the first year's rent, also sufficient funds for housing and farming equipment, and six months rations for the immigrant and his family, which advances were to be free of interest and to be repayable over a period of ten years. And it is to be further noted that the Pillai-Tivary
[^26]Report contains several other recommendations not comprised in the NunanLuckhoo Scheme, to whioh presumably, the Colony was also committed by this comprehensive statement of acceptance.

Effect of Change in Proposals.
13. There can be no manner of doubt that this expansion of the original terms constituted a new and important departure from the original proposals.

And, if this alteration of the terms is to be construed as meaning that the Government is now under the obligation to provide specially prepared land for every immigrant who might elect to take up land on arrival, the change is one which will not only affect the question of cost-it will involve an additional cost of £8 4s. a head-but will put an entirely new complexion on the Scheme. The original scheme which clearly contemplated that the great bulk of the immigrants introduced would work with employers for three years before being settled on the land, would by such a change, be converted into a purely Colonisation scheme, for it is evident that most, if not all, of the new arrivals would elect to take up land on the new and generous terms offered under the altered proposals.

## Difergenog of Viem as to Extent of Government's Liablity Under Changed Proposals.

14. But a rery essential difference of opinion has been found to exist in regard to the extent of the Colony's liability under the altered terms.
15. In his report on the second Colonisation Mission dated November, 1924 (Sessional Paper No. 58/24, p. 12) Sir Joseph Nunan it will be seen explains that "the Colony's Cornmissioner in India will have the sole right of selecting the emi"grants and that in order to prevent any undue burden on the Colony's resources "and to aroid overweighting any land settlement scheme at the outset he would " naturally take care that no undue proportion of families who had already made up "their minds to refuse offers of agricultural employment would be selected," and as further indicating the intention to limit the number for whom specially prepared land would have to be provided on arrival, Sir Joseph Nunan in his Estimates of the cost of the Colonisation Scheme fixes the number of those to be settled on arrival at a total of only 1,500 families out of every 7,500 famili es introduced; 1,000 of which total of 1,500 would be provided for by Government whilst the remaining 500 would take up land from private owners.
16. This selection safeguard or right to limit numbers hereby reserved to the Colony's Commissioner is quoted by Sir Joseph Nunan, it will be observed, as being one of the original terms, but it is evident that the Gavernment of India repudiates the suggestion that it forms part of either the original or of the revised terms, for Kunwar Maharaj Singh, the Indian Delegate who visited the Colony recently to report inter alia on the progress made in providing suitable land for prospective settlers (Sessional Paper No.58,24, Appendix C), stated it as his deliberate opinion that any such limitation of the free option which he contended is given to all under the scheme "is against the scheme as placed before the Governmest of India by "Sir Joseph Nunan and there is no possible chance of its acceptance."*
17. Mr. Singh stressed the point that the scheme gives to an immigrant absolute freedom of oboice from the outset as to taking up prepared land or working with an employer. He explained that the immigrants will be of the same type as those who have come hitherte, that is to say, they will be penniloss and unable to buy Crown land or rent private land and are certain to prefer to take up prepared land from Government on the accompanging terms. Reservation of the right to limit numbers, he protested, is incompatible with this freedom of choice. Uuder. Mr.
[^27]Singh's interpretation of the new terms the Government of India regards the Government of British Guiana as bound to provide prepared land, on the conditions offered, to every immigrant who either in India on on arrival in the Colony may ask for it.
18. This divergence of view it is to be noted in passing is directly attributable to the vagueness and ambiguity complained of in the opening paragraph of this memo as characterising in general the wording of the proposals.
19. In support of his interpretation Mr. Singh cites the fact that both immediately after and preceding the extract quoted above, giving to the Colony's Commissioner in India the right of selection, it is stated that the immigrants will have "absolute treedom of choice of occupation on arrival" and the number of those who will have unfettered choice of selection is estimated at 4/5th of the total. His interpretation of this, he has made it clear, is that the immigrant will be free to exercise his choice either before or after arrival, that is, he is not restricted to exercising it in India; that even where he may maike his choice in India he will not thereby be debarred from, changing his mind on arrival.

Mr. Singh has told us that the Indian Government will expect that the choice should be left entirely to the immigrant. "Inducement or pressure of any kind," he states, "would be fatal." He has quite frankly stated that even if the immigrants were induced in India (which be does not believe to be possible) to come here as labourers on sugar Estates they would change their 'minds on arrival, a view which few will be dispused to dispute, and therefore, bearing in mind that the immigrants will be arriving in large batches it is evident that the Government would be unable to exercise that control over either the immigrants or the expenditure which is contemplated under Sir'Joseph Nunan's safeguard if Mr. Singh's interpretation is to be accepted. Such an interpretation, it will be obvious, would be in conflict with and would render nugatory the right of selection which is vested in the Colony's Commissioner in India.
20. Sir Joseph Nunan on his part has left no room for doubt as to what he intended in this regard. As previously explained, it was not until his return in November, 1924, that people here for the first time became aware of the fact that the Colony had been committed to the liability to provide immigrants on arrival with prepared land and in addition with advances for the 1st year's rent, housing, tools and six months rations. In reply to the uneasiness which was then expressed by the Planters' Association that under such an arrangement the probability was that all of the new-comers would prefer to take up land at the outset he explained*
" On arrival they will have free choice of employment; althaugh selected for " agricultural purposes if they are tempted away on railway, huilding or to the gold "or diamond fields you cannot stop them, but in doing so they abandon their rights " to Reward Grants and back passages. If they want land at the outset Govern" ment in consultation with the Villages and Planters must be prepared to risk a "certain number, say one-fifth, asking for land on arrival. If more than one-fitth "ask for land' on arrival it would mean that our representatives in India "are not doing their duty. With a proper staff-and I have estimated for "a proper ștaff-the Commissioner in'India before he allows any family to come "out here and incur expenses against the Colony ought to know what that family "have in their minds. He should be able to advise them that working for an "employer at the beginning was better than starting pioneering at once. But the "Colony must take the risk that they will have an incompetent staff in India. If "we cannot replace them then we can shut the whole scheme down."

And later, on the same occasion, replying to Mr. Brassington he is recorded as stating:

[^28]"I think Mr. Brassington is under a misapprehension. I stipuiated as an es"sential part of the Scheme that our representatires in India should see that no less than "4/5ths of the people who come should almost certainly go on Sugar.Estates, and "assuming that this is adhered to his objection can only apply to the 1-5th."

"1 must again emphasise the fact that there is no proposal to bring here a large " number of people who would wander about at their own free will or take up land " at the outset. I put the number at 1-5th in order to make the thing as liberal as I "could . . . . The only scheme is the one I bave outlined, in which we take a very " small risk by selecting our people carefully as agricultural families, of whom 4-5ths "would be willing to work tor employers."

Again, shortly afterwards, at the meeting of the Combined Court on the 10 th December, at which the Colonisation Proposals were adopted, he distributed amongst members a " Preliminary Financial Note" in which appears the statement:-


#### Abstract

"The Government was bound under the scheme to supply each family with five " acres of immediately cultivable land either from its own existing resources or from "purchased land, or land furnished by private owners under one or other form of " arrangement. We estimated that immigrants from India would be so selected by the "Colony's Commissioner in India that not more than one-fifth, that is, 1,500 would be " averse to spending their first three years in employment."


21. How the Governor viewed the scheme at that time may be gleaned from the following remarks made by Sir Graeme Thomson in his opening address to the Conference referred to. After remarking that he conld not disguise from himself the fact that feeling on the part of the Planters for the Scheme had "distinctly cooled off" Sir Graeme stated "If it is worth while embarking on this Scheme at all "I do not think a temporary set-back in the price of sugar should influence your " minds . . . . It is quite true this is a Scheme for free imported labour-whether "t they are going to live on the Sugar Estates; purohase or lease land, or go into agri"culture at all-but we all understood at the outset that the bulk of these new im" migrants would be absorbed by the Sugar Estates and if the Sugar Estates do not " want the labour then it is a pure waste of time for Government to put up an ex" pensive scheme the primary object of which is to get labour for the one most important " industry in this Colony."
22. On the other hand however Mr. Singh cites a despatch written by Sir Graeme Thomson in July of the previous jear (No. 287 of $5 / 7 / 23$ ) in which he stated-" The Colony considers it a matter of comparative indifference whether "they (i.e. the immigrants) spend the first three years in agricultutal pursuits on "their own behalf or whether they spend them in working for an employer" .. ." the Scheme is primarily one of Colonisation." (It is to be remarked that at the date this was written (it was drafted by Dr. Nunan) the original terms had not yet been altered and under those terms it was regarded as certain that the immi-. grants would have no other ulternative but to work for emplojers.)

Mr. Singh also cites a minute by Mr. Lobb, then Officer Administering the Government, of 17 th October, 1425 , written following upon an interview he had had with him in which Mr. Lobb states: "The Scheme is primarily and essentially " one of land settlement, i.e., for permanent Colonists as opposed to hired labourers. "At the same time Colonists like every other member of the community will be free " to follow any occupation they may desire and to work for a registered employer " either wholly or in their spare time. The choice will rest with them and no "pressure will be brought to bear upon them in its exercise."
23. It will thus be observed that the position is a very complicated one, and therefore a decision in regard to the differences of view existing in connexion with the points noted above is a matter standing for early action,

## Another Misenderstinding.

24. Some misconception would also appear to exist in regard to the providing of prepared land for local resident workers. It seems to be the popular belief that local workers will be entitled to claim prepared land and on the same terms as newcomers. This is apparently based on the stipulation, which formed one of the original terms, that in the event of any scheme of Colonisation being adopted which iavolved "any form of land settlement by persons outside the Colony, similar in"ducement of land settlement on similar terms of service should be offered to locally "resident workers." But, of course, the original terms, as already explained, did not contemplate the providing of prepared land ; the expression "similar terms of service" bere quoted clearly related to Reward Grants which are earnable only after three years' service as an agriculturist. To make the offor of prepared land with its accompanying generous conditions applicable to local workers would be impracticable as it would inevitably lead to the withdrawal of a proportion at least of the labour (almost wholly East Indian) already settled on the estates and thus the Scheme which was originally planned to augment the supply of labour for the Sugar Plantations would tend to increase the existing shortage. Mr. Singh -whose opinion on the point was specially sought stated that he did not construe the offer of prepared land as being applicable to existing settlers.

## Repatriation.

25. The stipulations in regard to repatriation provide every facility for the immigrants to return to their rative land. Under the stipulated terms in this connexion it is provided that an individual or family must be sent back at any time where the Indian Goveroment's Local Kepresentative so requires, whilst the immigrant himself can claim repatriation on the following footing: -viz.: at half the actual cost to the Colony after 3 years' residence, $\frac{1}{5}$ th the cost after 5 years and free of charge after 7 years, and in addition it is to be noted, Messrs. Pillai and Tivary have pressed for yet " more generous measures including " more frequent return ships with improved arrangements."

It is to be observed in passing that while an immigrant who is provided with prepared land is allowed 10. years within which to repay the advances made him for establishing a home, farming equipment, first year's rent, and 6 months rations, etc., he can under the conditions governing repatriation return to India at the end of 7 years.
26. To many it will no doubt appear anomalous that exigeant repatriation stipulations of this kind, which cannot fail to operate as a direct inducement to settlers to return, should form part of a scheme which the Indian Delegate himself has emphasised is a Colonisation Scheme pare and simple, and which, it might be added, not only concedes very comprehensive and substantial privileges and rights but provides ample safeguards for the protection of the immigrants.
27. To ensure a clear appreciation of the concessions offered and safeguards provided under the Scheme as understood by the Govern nent of India it will be perhaps as well to recapitulate them here.

Under the Scheme as pictured by the Indian Delegate Mr. Singh, every immigrant coming to the Colony (the number has been fixed at 1,875 families a year) will ask for and must be provided by Government on arrival with specially prepared land suitable for immediate cultivation; he must be advanced sufficient funds for establishing a home, for purchase of farm equipment; for rationing himself and family for 6 montbs, and for paying the first year's rent; repayment of these advances to be spread over ten years; and in addition ploughs will be lent tree but subject to a contribation towards upkeep. The lands to be allotted, it is insisted, must be sufficient to support him and his family without recourse to the estates for labour. Improved sanitation, hospital, and free medical attendance
must be provided, also officers to supervise the settlement. At the end of $\mathbf{3}$ years. he will receive a Reward Grant. Guarantees as to equality of rights of every kind must be given and national and religious customs must be safeguarded. Finally, a special Oलficer appointed by the Government of India, but paid byit the Colony, will watch over his interests. In brief, the immigrant is to be wet-nursed and spoonfed at the expense of the Colony. If he proves a failure the local Indian Representative can at any time demand that he be returned to India ar the cost of the Colony and in any event the immigrant can himself claim to be repatriated free of cost after 7 years' residence. In addition the further undertaking has been exacted that if at any time, say 10 or 15 years afterwards, a deputation from India should decide that the condition of the immigrants was not satisfactory, the Colony would be bound to repatriate all of them.

## Estimates of Costs.

28. The Nunan estimates of costs of the Colonisation Scheme are contained in Sessional Paper No. 60 of 1924.
29. Formerly, that is to say, under the old indenture system, the immigrants were introduced under a contract charge per head for passage money. The most recent rate (in 1923, paid for return passages) was $£ 25$ per head. The Nunan estimates are based on a proposal that steamers should be chartered for the running of a Government cargo and passenger service under which it is estimated that the receipts from cargo and passengers (other than immigrants) to accrue to Government will reduce the cost of passage money of immigrants to £16 per' head.

30, In respect of these Estimates the Planters' Association, whilst appreciating that reliable figures could only be obtained by actual experience, has expressed the opinion that "from a cursory examination of the figures the anticipated revenue "appears to be over estimated and the expenditure to be under estimated." The anticipated receipts are of course purely problematical, and it certainly seems exceedingly doubtful whether, at least in the beginning, the revenue anticipations of the estimate are likely to be realised.

## Omissions in Nunan Esticate.

31. It must be noted that the Nunan estimates contain no provision for the following which on the footing of his estimates that $1 / 5$ th of the total number imported each year will receive prepared land will amount to :-
(a) Care and supervision of the immigrants settled on prepared land during the 1st three years preceding the allotment of Reward Grants-
(1) Free bospital and medical treatment during 1st six years of Scheme estimated at ...£
(2) Salaries of Settlements Inspectors during whole period of 15 years

18,000
(3) Upkeep of Settlements during lst six years
at $\$ 3,50$ per acre $\quad . . \quad$... 16,392
22,500
£ 56,892
(b) Reward Grants for local resident workers estimated at $1 / 3 \mathrm{rd}$ the number of new-comers who receive Reward Grants
(c) Repatriation of new-comers 25 per cent. of each year's arrivals (commencing from the end of the 7th year)
32. No reference of any kind is made in the Estimates to the provision necessary under (a) but this espenditure will be essential as it would be quite out of the
question to dump the new immigrants on allotments and leave them to their own devices from the outset, In'any case Government as landlord would ordinarily be responsible for the expenditure under a (3).
33. With regard to (b)-Reward Grants tor Local Workers.-Sir Joseph Nunan's suggestion is (See p. 15 of Sessional Paper No. 28/24) that the Schemes of Drainage and Irrigation now in progress to which Government is contributing $40 \%$ of the cost will in most cases establish equality of treatment as between new-comers and local workers and that the. cases of workers not resident within these areas might be met from the new lands to be made available by the Schemes, but while this suggestion is reasonable and proper in so far as it relates to workers resident within the drainage and irrigation areas, in respect of the others it is to be noted that the only lands embraced by the schemes which are not already owned privately, are :-an area of forest covered swamp land at the Pomeronn end of the Essequebo Coast; and a limited area of savannah land in the rear of certain of the estates on the Courantyne Coast; and that in both these cases the extent of preparation will be limited to a skeleton empolder: In any event, moreover, in computing the costs of the Colonisation Scheme the expense to the Colony of preparing land, allotted as Reward Grants, would have to be included in the statement of the costs of that scheme.

The estimates forming the appendices to this memo have been computed on the basis that for every 100 new-comers receiving Reward Grants $33 \frac{1}{3}$ local resident workers will claim such Grants. In this connexion it appears to be generally supposed that for every new-comer who receives a Reward Grant a local worker will be forthcoming to claim one, a supposition which seems to be based on the erroneous idea that a Reward Grant is something to be had for the mere asking and with whioh the recipient will be free to deal as he pleases. But, what constitutes the reward in the case of a Rexard Grant is the sum representing the differeace between the cost to the Colony of preparing the land. (estimated at £26) and the ordinary charges under the Crown Lands Regulations for a Grant of the same area of unprepared Crown land (£5. 1s. 2d.). Recipients of Reward Grants have to pay these Crown land charges spread over a period of 5 years; also to repay the adrance made for housing; in addition the grant is also subject to conditions requiring permanent residence of the Grantee and beneficial occupation, i.e., cultivation of a specified proportion of the area, failure to comply with which will render the grant liable to forfeiture. It can therefore be reckoned that local workers already settled upon jand of their own, and even a proportion of others already otherwise comfortably settled, are not likely to claim Reward Grants.
34. With respect to (c) Repatriation-Sir Joseph Nunan suggests (see foot of page 5 Sessional Paper No. 60/24) that the annual provision necessary in this connexion, which he puts at a maximum of $£ 2,000$ a year, can be met from existing funds for Back passages ; but firstly, the actual cost--even at the reduced rate of $£ 16$ a head which will not be the current rate when the immigrants are to be repatriated unless the proposed new method of introduction is continued as a permanencyamounts to $£ 18,760$ a year during the 8th to the 11th years inclusive, or a total of $£ 74,040$; and secondly the Immigration Agent General estimates that the existing Back Passage Funds, together, will not suffice to meet ordinary claims on them for more than adother 7 or 8 years.

## 35. Other items of the Nunan estimates calling for comment are:-

Feeding in Depôt-is estimated at $£ 2,000$ while the actual cost at usual rates works out at $£ 7,812$.
36. Cost of prepared land for immigrants on arrival and for Reward GrantsSir Joseph Nunan's estimate of the cost of providing the necessary land in this connection, iṭ will be seen is based on $£ 4$ per acre or $£ 20$ per grant of 5 acres,
notwithstanding that in the Note attached to his report on the Colonisation Scheme (p. 23 of Sessional Paper No. 58/24) he quotes $\$ 25$ (£5. 4s. 2d.) per acre, or $£ 26$ per grant, as the cost. The latter estimate which is considered the more correct has been adopted in computing the comparative estimates forming the Appendices to this memorandum. In this connexion it should be noted that there is available at Anna Regina a couple of thousand acres of already prepared land owned by Government.*
37. Housing-The Nunan estimate of the cost of housing new-comers and local workers is based on $£ 30$ per family but a local Committee which went into the matter after careful consideration adopted a standard type of dwelling estimated to cost $£ 35$ and this figure has been adopted in making the comparative estimates attached hereto.
38. Loss of interest.-Advances for housing, lst year's rent, rations, and equipment are free of interest. The loss of interest is estimated in the Nunan estimates at a total of $£ 15,000$. In the estimates forming the Appendices hereto, which are based on the higher estimated cost of housing noted in the foregoing paragraph and which include the cost of housing local workers for which no provision is roade in the Nunan estimate, the loss under this head aggregates $£ 55 ; 692$ (Appendix C).

Cost of Soheme on the Basis of a Steamer Serviof run by Government.
39. (a) Nunan-Luckhoo Scheme.-It will be seen on reference to the foot of page 5 of Sessional Paper No. 60/24 that Sir Joseph Nunan's estimate of the inclusive cost of his Scheme amrounts to $£ 64,000$ per annum or a total for the 4 years of $£ 256,000$. His estimate, it is to be noted, is on the footing that only $1 / 5$ th of the total arrivals each year will be given prepared land at the outset and that of the total of 7,500 families to be introduced during the four year period covered by the estimate only 4,000 will earn Reward Grants.
(b) But the aggregate cost of the Scheme worked out in detail (on the above basis but including the omissions and higher estimates of charge under the heads noted in paragraphs $31-58$ hereof) amounts to $£ 514,338$ or more than double the total of Sir Joseph Nunan's estimate. (Vide Appendix C).
40. Cost of Singh Scheme.-The estimate of the cost of the Scheme as pictured by Mr. Singh (i.e, on the footing that all of the immigrants arriving each year will be given prepared land, all of whom will receive Reward Grants) worked out on the revised basis referred to in the preceding paragraph totals, it will be seen, $£ 776,450$. (Appendix C).

Cost of Soheme on tee Basis of Passage Money at a Contraot Rate of $£ 25$ Per Head.
41. (a) Nunan-Luckhoo Scheme.-Worked out on the basis noted in paragraph 39 ( 6 ) but on the footing of $£ 25$ per head passage money in place of the hypothetical Government Steamer Service rate on which the costs are computed under the Nunan estimates, the cost of the Nunan-Luckhoo Scheme totals $£ 884,898$. (Vide Appendix E).
(b) Singh Scheme.-Worked out on the basis noted in paragraph 40 but on the footing of passage money at the rate of $£ 25$ per head, the estimated cost of the Singh Scheme totals $£ 1,147,010$. (Vide Appendix E).

[^29]
## Per Caput Costs.

42. The per caput (adult) cost of introduction (inolusive of liability for repatriation, also of cost of providing resident local workers with Reward Grants) works out as follows :-

## (a) On the basis of a steamer service run by Government.

(1) Sir Joseph Nunan's estimate—paragraph 39 (a) $£ 17$ per head
(2) Revised estimate for Nunan-Luckhoo Scheme-
paragraph 39 (b) 34.28
(3) Estimate for Singh Scheme—paragraph $40 \quad 51.76$
"
"
(b) On the basis of passage money at a contract rate of £25 per head
(1) Revised Estimate for Nunan-Luckhoo Scheme-
paragraph 41 (a) 858.99 per head.
(2) Estimate for Singh Scheme paragraph 41 (b) 76.47

It will thus be seen that the per caput cost of the Singh Soheme is £17.48 higher than the Nunan-Luckhoo Scheme and that the per caput cost in the case of both Schemes on the footing of passage money at $£ 25$ per head is $£ 24.7$ more than in the case of a steamer service run by Government.
43. Points affecting reliability of estimates.-It is to be remarked that the Nunan Estimates are based on Sir Joseph Nnnan's supposition that out of a total importation of 7,500 families only 4,000 families or $53 \%$ of the total will claim Reward Grants, but bearing in mind that the Colony's Agent in India is to select only agriculturists, this figure would appear to be an under-estimate as in effect it means that 47 per cent. will prefer to work for employers permanently to taking up land of their own after 3 years work.
(In this connexion it might be mentioned that, in computing the number of Reward Grants to be provided, no reduction has been made on account of deaths amongst the newcomers. In computing the estimates forming the appendices it has been assumed that where the husband dies before the end of the three year period the grant will be made to the wife, for, if this is not done, it is to be presumed that the wife will have to be repatriated at the expense of the Colony at a cost of either £20 (the hypothetical Nunan rate of passage money at $£ 16$ plus expenses) or $£ 29$ (the estimated contract rate of $£ 25$ plus expenses). The cost to the Colony of a Reward Grant may be taken as about £21, i.e, difference between the cost to the Colony of preparing the land (£26) and the amount (£5. 1s. 2d.) to be repaid by the Grantee in the shape of Crown lands charges. It will therefore be cheaper, at least at the contract rates for passage money, to give a Reward Grant than to repatriate.)
44. A further point to be noted as affecting generally the probable accuracy of the estimates of cost is the fact that the estimates are computed on the footing that the whole of the adrances, rents and Crown lands charges, will be repaid in full, - whereas in practice it will probably be found that an appreciabie percentage of these liabilities will not be recovered.

## Finance.

40. Proposal to Finance Scheme from Colonisation Fund supplemented by Colonisation Tax.-It is not very clear what were Sir Joseph Nunan's proposals for financing the cost of the Scheme. He appears to have contemplated that the cost (less the expenditure in connexion with repatriation which he proposed should be paid from the interest from the existing Return Passages and Immigration Funds) should be met by loan, the interest and Sinking Fund charges on which could be provided from the accumulated balances of the Colonisation Fund suppiemented by a Colonisation Tax, and he would seem to have assumed that the renewal of the
suspended Colonisation Tax* for a period of 5 years would provide sufficient funds to finance for the whole period of the loan ( 30 years) the total sum to be raised. Whilst it is possible that the Colonisation Fund so augmented would provide sufficient funds for the comparatively small total of his original estimate, it will be found on going into the figures that to cover the much larger total of this estimate as now revised it would be necessary to supplement the accumulated balances of the Colonisation Fund by a Colonisation Tax of 1\% over a period of 25 years, whilst in the case of the Singh Scheme the Colonisation Fund although augmented each year by a 1\% Colonisation Tax would be exhausted in the 3rd year of the loan.
41. Suggested Alternative Methods of Financing Cost.-Other methods of financing the cost of the Scheme which are worked out in the attached Appendices are :-
(a) by the raising of a loan towards the end of the 1st year for the total sum required less the total of the Colonisation Fund which it is proposed should be realised and applied in reduction of the Capital sum to be raised; the sum to be provided annually for interest and sinking fund to be met by an annual Colonisation Tax ; or
(b) by financing the expenditure from year to year (during the 1st seven year period in the case of the Nunan-Lucktoo Scheme and during the 1st five year period in the case of the Singh Scheme) from advances from surplus revenue where available or advances at current bank rates, from the Crown Agents if obtainable, or from both, and thereafter by raising a loan for the total of such advances, less the amount of the Colonisation Fund the interest and Sinking Fund charges to be met by a Colonisation Tax each year.
42. Sums to be provided by Taxation to meet Cost.-The statement below shows the sums which it would be necessary to provide by taxation (i.e., the provision necessary apart from or in addition to the sums to be provided from the existing Colonisation Fund) under each of the above methods to meet the cost of the Scheme based respectively on-(1) Sir Joseph Nunan's proposed Cargo and Passenger and Steamer Service to be run by Government, and-(b) on passage money at a contract rate per head (£25):-
(1) Provision necessary on the basis of a Government Steamer Service. Method (a)-(Vide Appendix F (1)).

$$
\begin{array}{cc}
\text { Nunan-Luckhoo } & \begin{array}{l}
\text { Singh } \\
\text { Scheme. }
\end{array} \\
\text { Scheme. }
\end{array}
$$

Aggregate sum to be provided by taxation over period of 30 years ... $£ 731,533$ £1,405,645
Sum to be provided by taxation annually :-

| (a) During first 16 years (average) ... | 21,917 | 40,173 |
| :---: | :---: | :---: |
| (b) During 17th to 30th years inclusive. | 27,204 | 54.491 |
| of Colonisation 'lax required annually:- |  |  |
| To meet (a) | -62\% | 1.15\% |
| , (b) | 78\% | 1.56\% |

Method (b)-(Vide Appendix F (2)).
Aggregate sum to be provided by taxation over period of 30 years $\quad \ldots £ 539,873 . £ 1,303,145$
Sum to be provided by taxation annually :-

| (a) During first 7 (5) years | 35,000 | 35,000 |
| :---: | :---: | :---: |
| (b) During 8th (6th-16th years) |  |  |
| (average) | 8,159 |  |

(c) During 17th to 30̈th years inclusive

15,817
53,643

[^30]Rate of Colonisation Tax required annually :-

$$
\begin{array}{rrrr}
\text { To meet }(a) & \cdots & 1 \% & 1 \% \\
" \quad(b) & \cdots & -23 \% & 98 \% \\
",(c) & \cdots & .45 \% & 1.53 \%
\end{array}
$$

(8)

Provision necessary on be basis of passa
Under Method (a)-(Vide Appendix G (1)).
Aggregate sum to be provided by taxation
over period of 30 years $. . . £ 1,427,095 \quad £ 2,101,178$
Sum to be provided by taxation annually :-
(a) During first 16 years (åverage) ...
45,645
63,900
(b) Daring 17 th to 30 th years inclusive. 49,769 77,055
Rate of Colonisation Tax necessary-

| To meet$(a)$ <br> $"(b)$ | $\cdots$ | $1 \cdot 30 \%$ | $1 \cdot 80 \%$ |
| ---: | :--- | :--- | :--- |
| $"$ | $\cdots$ | $1 \cdot 42 \%$ | $2 \cdot 20 \%$ |

Under Method (b)-(Vide Appendix G (2) ).
Aggregate sum to be provided by taxation over period of 30 years ... £1,286,161 £2,019,758
Sum to be provided by taxation annually :-

|  | During first 7 (5 years) |  | 35,000 | 36,417 |
| :---: | :---: | :---: | :---: | :---: |
|  | During 8th (6th)-16th | years |  |  |
|  | (average) |  | 42,971 | 64,162 |
|  | During 17th | clusive | 46,744 | 80,489 |

Rate of Colonisation Tax required-

| To meet $(a)$ |  | $1 \%$ | $1.04 \%$ |
| ---: | ---: | ---: | ---: |
| $"$ | $(b)$ | $\ldots$ | $1 \cdot 23 \%$ |
| $"$ | $(c)$ | $\cdots$ | $1 \cdot 34 \%$ |

48. It is to be borne in mind that the foregoing estimates of the taxation required to meet the expenditure involved are computed on the footing of the annual revenue of the Colony remaining stationary during the thirty year period of the loans.
49. Also, it should not be overlooked thal no count has been taken of the economic value to the Colony of the introduction of the 15,000 adult immigrants. In 1914 the then Comptroller of Customs estimated the contribution to the customs and rum revenue by an adult East Indian worker at not less than $\$ 10$ per annum.
50. Further, it is to be remarked that while thirty years have been taken as the period of the loan it would seem to be quite proper in the case of a loan to be raised for such a purpose as a Colonization Scheme to adopt the longer period of fifty years, thus reducing the amount required to be provided annually. It is probable that Sir Joseph Nunan adopted the shorter period merely because the sum to be provided annnally during that term based on his much smaller estimate of costs, was one which he considered could be met without inconvenience.
51. Finally, in comparing the extent of the financiai liability to the Colony to be incurred by the adoption of the Scheme, it would appear to be advisable to adopt the estimate of costs which is based on passage money at a contract rate per head

- in preference to that based on the problematical development of a trade between the Colony and India via Africa by the running of a Government Steamer Service.


## The Present Position.

52. The revised Colonization Proposals, which are contained in Sessional Paper No. 58 of 1924, together with the estimates of costs, contained in Sessional Paper No. 60/24, were formally approved and adopted by the Combined Court by Resolution No. XLII, of the 10 th December, 1924, and the present position therefore
presumably is that the Colony stands formally committed to the altered terms, subject to the interpretation to be placed on the provision reserving to Government the right to limit the number of iminigrants to be provided with specially prepared land on arrival.
53. It is to be remarked that owing to the shortness of the time elapsing between Sir Joseph Nunan's return to the Colony in November, 1924, and the Annual Session of the Combined Court which opened early in the following month but little time was available for full consideration and discussion of the Scheme. As previously mentioned, it was apparently not until the 24th November that the Planters, for the first timp, learnt that the original terms had been varied, when, at the conference between the Government and the representatives of the Sugar Industry, referred to in paragraph 20, Sir Joseph Nunan explained to them the terms as finally agreed to by him in behalf of the Colony.
54. These revised terms were not made public until the 8th December, on which day Sir Joseph Nunan's printed report was laid on the table of the Combined Court and was formally approved within 48 hours thereafter.
55. At the conference referred to above, the Planters' Association, relying on the definite assurance then given them by Sir Joseph Nunan that "our representa"tive in India should see that not less than four-fifths of the people who came should "almost certainly go on Sugar Estates" acquiesced in the altered terms, but apparently not being altogether free from misgivings as to how this safeguard would work in actual practice the Association stipulated-
(a) That during the first year only 1,000 .families should be introduced.
(b) That the Scheme should not involve any new direct taxation on the industry; and
(c) That Government should reserve the right to suspend or terminate the introduction of Colonists on reasonable notice being given.
56. During Mr. Maharaj Singh's stay in the Colony in October-November last year, the Planters' Association met him (on the 19th October) and discussed the Scheme. While giving it as their opinion generally that the settling of new immigrants on land of their own immediately on arrival would not prove successful for the new-comers, they indicated their willingness that a trial should be given to the Scheme, but urged that "the people should be placed in close proximity to the "Sugar Estates so that they would be free to give the overplus of their labour to "the Sugar Estates when not engaged on labour on their own holdings."
57. At this meeting it would seem no reference was made to the question of the Colony's representative in India having the right to limit the number of immigrants who would be given prepared land on arrival. Apparently the existence of this point of difference did not emerge until the meeting on the 10 th November, 1925, between Mr. Singh and the Committee of which mention has been made in paragraph 16 when, as already explained, Mr. Singh emphatically repudiated the idea that any such right of selection forms part of the terms agreed upon, and stated that it is "against the Scheme as placed before the Government of India by Sir "Joseph Nunan and there is no possible chance of its acceptance."
58. On the eve of his departure from the Colony on the 14 th November, 1925, Mr. Singh was officially notified by the Colonial Secretary of the essential difference of opinion existing between himself and the Government in regard to the interpretation to be placed on the nature and extent of the Colony's liability in respect of the providing of prepared land for the settlement of immigrants on arrival, and told that the question would have to be reconsidered by the Combined Court. There the matter rests for the moment.

GEO. D. BAYLEY.
Lands and Mines Department, 2nd Januarg, 1926.

## COLONISATION SCHEME.

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|  | and raising of loan thereafter ... ... | 27 |

Note.-The Estimates and Financial Statements in each case show the comparative fignres for the Nunan-Lackhoo and Singh Schemes respectively. Under the Nunan-Lucirhoo Scheme only 1/5th of the Immigrantr introduced each year during the four year period of introduction will be provided with prepared land and only 4,000 of the total of 7,500 families to be introduced will receive Reward Grants. Cnder the Singh Scheme all will receive prepared land and Reward Grants. The figures have also been worked out separately on the basis of (a) Sir Joseph Nunan's proposed Government Oargo and Passenger Service and (b) introduction at a contract rate of $£ 25$ per head passage monay.

## APPENDIX A.

Estimate of Cost of Colonisation Scheme.

## Estimated Expenditure

Comparative Estimate of cost of introducing 15,000 immigrants (7,500 families) during 4 jears on the basis of -
A-The Nunan-Luckhoo Scheme under which 1/5th of the total introduced annually will be provided on arrival by Government with' specially prepared land suitable for immediate cultivation, the remainder working with employers; and 4,000 of the total of 7,500 families will receive Reward Grants, and
B—Under the Scheme of Colonisation as pictured by Mr. Maharaj Singh under which all of the immigrants arriving each year will be provided by Government with specially prepared land on arrival, and all will be entitled to Reward Grants.

| Histimated Cost of introduction amnually of 1,875 families or 3,750 adult Immigrants. | A. Nunan. LuckhooScheme. | $\begin{gathered} \text { B. } \\ \text { Schemh } \\ \text { Scheme. } \end{gathered}$ |
| :---: | :---: | :---: |
| First Year. <br> 1. A nnually recurrent charges in India ... |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| (b) Three Settlement Inspectors, say ... ... 1,500 |  |  |
| (c) Ploughs, to be lent ... ... ... 10,000 | 14,600 | 14,500 |
| (o) 6. Free hospital and medical treatment-say $\mathbf{x 2}$ per head for 750 immigrants <br> (d) 7. Advances for |  |  |
|  |  |  |
| (d) Rations for 750 immigrants at 25 ets. for 6 months ... 7,129 | 22,166 | 110,830 |
| 8. Loss of interest on advances under (7) <br> 9. Reward Grants... |  |  |
| (a) For new-comers <br> (b) For looal resident workere |  |  |
| (o) Advanees for housing (a)-new comers not previously provided with pre- |  |  |
| (d) Advances for housing (b)-local resident workers <br> (e) Loss of interest at $5 \%$ on advances under (c) and (d) |  |  |
| 10. Repatriation- |  |  |
| (a) Number repatriated at whole expense of Colony <br> (b) Number repatriated paying t cost |  |  |
| Number repatriated paying oost |  |  |
|  |  |  |
| (e) Expenses-Depot Sargeons, Compounders, etc., etc. |  |  |
| 11. Upkeep of Settlements (dams, kokers, trenches. etc.) during period preceding $\}$ reward grants. <br> 1st y ear lot of 375 families with 5 acres each at $\$ 3.50$ per acro <br> 12. Handling of cargo and passengers traffio-Agents', Consignees', and other expenses! | 1,366 | 6.830 |
|  |  | . 83 |
|  | 7,850 | 7,850 |
|  | £ 151,885 | £ 295.416 |
|  |  |  |
|  |  |  |
|  |  |  |
| 7. Advances as in 1st year |  |  |
|  |  |  |
| 11. Upkeep of Settlementr-1st and 2ad year lots-750 families $=3,750$ acres at $\$ 3.50$ <br> 12. Handling of oargo and passengers-as in previous y arr | 2,732 | 13,666 |
|  | 7,850 | 7,850 |
|  | £ 145,706 | £ 304,678 |
| Third Year. <br> 1.-5. Inclusive) as in previous year <br> 6. Hospitat, etc., for $1 / 3$ ith of $1 \mathrm{st}, 2 \mathrm{nd}$ and 3 rd year arrivals $=2,250$ immigrants at $£ 2$ <br> 7. Advances-as in lst year <br> 8. Loss on interest on advances <br> 11. Upkeep of Settlements-1st, 2nd and Yrd year lots $=\dddot{1}, 125$ families $=\overleftarrow{5} 625$ acres at $\$ 3.00$ <br> 12. Handling of cargo and Passenger traffio-as in previous year |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | £ 149,434 | £ 323,312 |

APPENDIX A. $\rightarrow$ (Cotnd.)
Estimated Cost of introduction annually of 1,875 families or 3,750 adult Immigrants.

Foorth Ygar.

7. Advances-as in first year
(f) 9. Loss of interest on advances made during first 4 years 1,000 less $37 \overline{7}$ previously pro (g)
(a) vided with prepared land on arrival
$)$
(b) for, say, 333t resident looal workers. equivalent to $\frac{3}{3}$ of first year lo
(c) Advances-for hoasing 625 familes of list year lot att egs
(d) Ditto. " 3331 local resident families at $£ 35$
(e) Loss of interest at" $5 \%$ on Advanoes ander (c) and (d)
11. Upkeep of Settlements-2nd, 3rd and 4th year familea $=5,625$ acres at 23.50
12. Handling of Cargo and Passenger Service

## Fiftif Yat.

1. Charges in India-Protectors' fees, say
2. Supervising expenses in Colony. As in previous year $\mathbf{\$ 1 4 , 5 0 0}$ lean $£ 10,000$ f

3. Loss of interest on advances made during 1st four years
4. Reward Grants (a) for 625 second year families
(b) for 3338 resident local workers … $\quad$...
(d) Ditto ... 3331 resident local worlers at $£ 35$
(e) Loss of interest on advances under (c) and (d)
5. Upkeep of Settlements-3rd and 4th year families $=750$ at 5 acres $=3,750$ at $\$ 8.50$

## Sixth Yeab

1. Charges in India
2. Charges in India … in Colony-as in previons year...
3. Hospital, etc.-for 4th year lot of 750 immigrants at $\dddot{\text { § }}$
4. Loss of interest on advances

> (a) for 625 third year families at $£ 26$... (b) for 333 z local resident workers at 226 (c) Advances for honsing 625 families of 3 rd year lot at $£ 35$ (d) Ditto. ". 333 t resident local workers (e) Loss of interest on advances under (c) and (d)
(e) Loss of interest on advances under (o) and (d)

## Sbventi Year

1. Charges in India-as in previous year

Supervising expenses in Colony-as in previous year ${ }^{\text {. }}$
8. Lose of interest on advances made during lst four yeare

Reward Grants (a) for 625 fourth year families at $£ 26$
(c) Advanoes for housing 625 families of 4th year lot at $£ 35$
(d) Loss of interest on $333 \mathrm{~m}_{\text {resident local families } £ 35}$
(e) Loss of interestion advances under (c) and (d)

Eighth Year.

1. Charges in India
2. Supervising expenses in Colony $\ldots$
3. Loss of interest on advances made during 1st four years
4. (e) Reward Grants-Loss of interest on advances under (c) and (d) for housing Rewar
(h) 10. Repatriation-(a) $25 \%$ of 1st year lot of 3,750 immigrants $=938$ at $£ 16$ per head

Do. (e) Expensee- 938 at $£ 4$

Ninth Year.

1. Indian charges

Indian charges ... in colony
Lopervising expenses in colony . $\operatorname{li}$...ing first forer years
9. (e) Loss of interest on advances made during 4th-7th years (inclusive)
10. Repatriation (a) and (b)-25 per cent. of 2nd year lot, including expenses

Tenth Year.

1. Indian charges $\ldots$...
$\tilde{5}$. Supervising expenses colony
2. Supervising expenses in colony $\ldots$....
3. Loss of interest on advances made during first four years
4. (e) Loss of interest on advances made during 4th-7 th years (inclusive)
5. Repatriation (a) and (b) -25 per cent. of 3rd year immigrants including expenses


## APPENDIX A.—(Contr.)



## NOTES.

(a) The Nunan Estimate is $£ 11,000$ for every 680 adults or 340 families including cost of children-Vide Sessional Paper No. 60 of 1924.
(b) Page 3 of Nunan Estimate indicates that of the total of 7,500 to be introduced 1,500 or $1 / 6$ th of the total will take up prepared land, 1,000 taking from Government and 500 from private owners; bat at page 4 (See under "Advances") it is indicated $\$ 8 \$ 10$ en acre it oan be safely assumed that all will rent from Government at \& 4 per aore with accompanying advances for housing rations and first year'a rent.
(c) The cost of free hospital and medical treatment during the indenture period was said to be $\$ 10$ per head per annum.
(d) Advances are repayable without interest in 9 yearly instalments commencing from the end of the first gear. (p. 4 of Nunan Estimate).
(e) Housing.-The standard type of dwelling recommended by a looal Committee last year cost £35.
(f) The cost of prepared land for Reward Grants is estimated at p. 3 of Sessional Paper No. 60 of 1924 at e4 per acre or £20 per Grant but at p. 23 of Sessional Paper No. 58 of 1924 the cost is quoted at $\$ 25$ per acre or $£ 5.2$ an acre= $£ 28$ per ${ }^{\circ}$ grant which latter figure is considered nearer the mark and has been adopted here.
(g) The Nunan Estimate does not include provision for Reward Grants for local resident workers, the suggestion being that the drainage and irrigation schemes now being carried out will meet the cases of local workers. This is however correct only to a certain extent and in any case the cost of preparing any land under these schemes which may be utilized for
the purpose would have to be included in the Estimates of cost of the Colonisation Scheme. Except in the case of the goheme for the Pomeroon end of the Essequebo Coast and of some Second Depth land on the Courantyne Coast the soheme for the Pomeroon end of the Essequebo Coast and of some Second Depth land on the Courantyne coast the for every 100 new immigrants receiving Reward Grants 33 local workers will claim auch grants. Under the Nunan for every 100 new immigrants receiving Reward Granta 33 lacal workers will claim auch grants. Under the Nu
Scheme the number to obtain Reward Grants is estimated at 1,000 families a year or a total of 4,000 in four years.
(h) Repatriation-Under the old indenture system $25 \%$ of the immigrants introduced claimed repatriation. It is to be noted also that the cost of repatriation is here charged at $£ 16$ a head thus pre-supposing that the arrangement on which these estimates are based, Viz.: the exclusive charter of vessels, will be continued after the first 4 year experiment covered
by these Estimates. The last charge per head under previously existing arrangement, of occasional charter, was f25. by these Estimates. The last charge per head under previously existing arrangement, of occasional charter, was 225 . mencing from the 8 th year the expense of repatriation will be more then $50 \%$ greater than is here allowed for, i.e. difference between £25 and £16 per head.
(i) Keward Grants-In allotting Reward Grants it will be observed no allowance has been made for deaths. As these grants are made to the family it is assumed that when the husband dies the grant would be made to the wife and ohildren are thade to the faminy it is assumed that when the husband dies the grant would be made to the wife and children,

## APPENDIX B.

Cólonisation Scheme.
estimated revenue.


## APPENDIX B.-Continued.



NOTES.
(a) Immigration Department's estimate of average number to be provided for annually.
(b) The first year's rent is advanced and is inoluded in re-payment of advances.
(c) In accordance with Nunan Eatimate which limits the number to receive Reward Grants each year to 1,000 families out of 1,875 . This estimate however appears to be decidedly too low as it may be taken for granted that all except a comparative few who may take ap nou-agricultural employment (Timber Industry or Mining Industry) will olaim Reward Grants.
(d) The payments to be made by each immigrant family on account of repayment of advances, rents and Crown Lands
 inclasive.
inger

## APPENDIX C.

SUMMARY of Comparative Estimates of aggregate Expenditure and Revenue over 16 years whan the last instalment of interest would be payable.*

(1) Includes-Charges in India, passages and feeding in dep6t.
(2) Includes-Prepared land on arrival and Reward Grants.
(3) Includes-Cost of local Indian Official and Settlement Inspectors, also plonghs, free hospital and treatment and apkeep Settlements during period of 3 years preeeding sllotting of Reward Grants.
(4) Advanoes to 1/5th of each year's arrivals for rent, housing and rations, also advanoes for housing Reward Grant-holder including local resident workers) repayable in instalments over 9 years commencing from the end of the first year
(5) Sir Joseph Nunan's Estimate.
(6) Last instalment payable in 16 th year, i.e., 9 years after 4 th year arrivals have been allotted Reward Grants.

- For details of totals see Appendices A and B.


## APPENDIX D.

SUMMARY of estimaites of Expenditure and Revenue shewing totals for each year until all advances and Crown lands charges are repaid.

| Year. | NUNAS-LUOKHOO SCHEME. |  |  |  | Singe Scheme. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Expenditure. | Reverrue. | Nett Cost. | Excess of Revenue over Expenditure. | Expenditure. | Revenue. | Nett Cost. | Excess of Revenue over Expenditure. |
| 1 | E 151,855 | £ 58,960 | £ 92,895 | £ ... | 玉 295,416 | E 58,960 | § 236,456 | \$ ... |
| 2 | $\pm \quad 145,706$ | ※ 682,485 | ¢ $\quad 92,8981$ | $\pm \quad \cdots$ | - $\quad 304,478$ | - 79,085 | - 236,456 | - ... |
| 3 | 149,434 | 67,010 | 82,44 | $\cdots$. | 323,312 | 99;208 | 224,104 | ... |
| 4 | 210307 | 70,834 | 139,473 | $\ldots$ | 366,225 | 114,075 | 252,150 | ... |
| 5 | 75,309 | 19,495 | 65,884 | $\ldots$ | 89,609 | 72,413 | 17,196 | ... |
| 6 | 73,254 | 22,951 | 50,303 | ... | 73,667 | - 69,585 | 4,082 |  |
| 7 | 71,013 | 26,476 | 44,537 | 126 | 57,603 | 66,758 | ... | 9,155 |
| 8 | 30,077 | 30,203 | ... | 126 | 35,289 | 69,188 | ... | 33,599 |
| 9 | 28,838 | 28,84\% | ... 120 | 004 | 32,341 | 66,636 | ... | 34,295 |
| 10 | 27,601 | 27,481 | 120 | ... | 29,391 | 64,084 | ... | 34,693 |
| 11 | 26,486 6.735 | 23,657 19,833 | 2,829 | 13.098 | 27,058 6,580 | 49,217 34,352 | $\ldots$ | 28,159 27,778 |
| 12 | 6.735 $\mathbf{5 , 3 6 7}$ | 19,833 17370 | $\cdots$ | 13.098 11,503 | 6,580 $\mathbf{5 , 4 7 8}$ | 34,302 | - $\ldots$ | 27.778 $\mathbf{1 6 , 5 5 9}$ |
| 14 | 5,318 | 11,180 | $\ldots$ | 5,872 | 5,114 | 7,292 | ... | 16,173 |
| 15 | 4,936 | 7,454 | $\ldots$ | 2,518 | 4,871 | 4,861 | 010 |  |
| 16 | ... | 3,727 | ... | 3,727 | ... | 2,431 | ... | 2,431 |
|  | $\begin{array}{r} £ 1012,726 \\ 498,388 \end{array}$ | \& 498,388 | F 551,186 | \$ 36,848 | \& $1,656,632$ | \& 880,182 | \& 959,591 | \& 183,141 |
|  | £ 514,338 | Estimated ne\|tt cost of Schlome. |  |  | S 776,450 | Estimated nejtt cost of Sch eme. |  |  |

## APPENDIX E.

SUMMARY of Estimates of Expenditure and Revenue on the basis of passage money at a contract rate of $£ 25$ per head shewing totals for each year until all advances and Crown Lands charges are repaid.

| Year. | Nunan-Luckhoo Schrme. |  |  |  | Simah Schema. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Expenditure. | Revenue. | Nett Cost. | Excess of Revenue over Expenditure. | Expenditure. | Revenue. | Nett Oost. | Excess of Revenue over Expenditure. |
|  | \& 177,093 |  |  |  |  |  |  |  |
| 1 2 | \& 177,093 |  | £ 177,093 |  | f 320,604 |  | 〔 $\begin{array}{r}320,654 \\ 309791\end{array}$ |  |
| 3 | 174,672 |  | 166,622 |  | 348, 550 | - 40,248 | 308,302 |  |
| 4 | 235,545 |  | 223,671 |  | 391,463 | 55,115 | 336,348 |  |
| 5 | 75,309 |  | 55,884 | ... | 89,609 | 72,413 | 17,196 | ... |
| 6 | 73.254 |  | 50,303 | ... | 73,667 | 69,685 | 4,082 |  |
| 8 | 71,013 $\mathbf{3 8 , 5 1 9}$ |  | 44,637 8,316 | $\ldots$ | 57,603 <br> 43 <br> 8.731 | 66,768 69,188 | $\ldots$ | [ $\begin{array}{r}9,155 \\ 25,457\end{array}$ |
| 9 | 37,280 |  | 8,438 |  | 40,783 | 66,636 | ... | 25,853 |
| 10 | 36,043 |  | 8,562 | - 13009 | 97,833 | 64,084 | ... | 26,251 |
| 11 | 34.928 |  | 11,271 |  | 35,500 | 43, 217 | $\ldots$ | ${ }^{13,717}$ |
| 12 |  |  | .... |  |  | 34,352 22037 | - … |  |
| 13 | 6,867 6,308 |  |  |  | 6,478 5,114 | 22,037 7,292 |  | 16,559$\mathbf{2 , 1 7 8}$ |
| 14 | 6,308 4,936 |  | ... |  | $\mathbf{5 , 1 1 4}$ 4,871 | 7,292 4,861 | $\cdots{ }^{\text {... }} 10$ |  |
| 16 | $\stackrel{1}{ }$ |  | .... | 3,727 |  | 2,431 |  | 2,431 |
|  | $\begin{array}{r} \text { £ } 1,147,446 \\ 262,548 \end{array}$ | $\pm 262,548$ |  | $\begin{array}{cc} \& & 36,718 \\ \text { Scheme] } \\ \text { an-Luckhoo } \end{array}$ | $£ 1,791,352$ | E 644,342 | \& 1,296,383 | \& 149,373 |
|  | £ 884,898 |  |  |  | £ 1,147,010 | Estimated | t cost of Singh | Scheme. |

APPENDIX F.(1).
FINANCING of Colonisation Scheme on the basis of a Government Steamer Service;(a) by raising of loan during 1st year for aggregate of the estimated expenditure less total of Colonisation Fund.

*In this year the portion of the Colonisation Fund invested at $4 \%$ and over ( $£ 68,961$, market value at 31.12 .25 ) is realised Nota.-At 3ist Deoember, 1925, tie Colonisation Fund amounted to £137,049; (face value) made up as follows :- $\mathbf{~} 60.16613 \mathrm{~s} .4 \mathrm{~d}$. invested at $6 \%$; £600 at $4 \frac{1}{2} \%$; £ $£, 000$ at $4 \%$; $£ 300$ at $33 \%$; $£ 71,674$ at $3 \%$ and $£ 1,359$ in oash

## APPENDIX F. (2)

FINANCING cost of Colonisation Scheme on the basis of maintaining a Government Steamer Service, (b) by advances from Crown Agents, at Bank rates, and thereafter by raising a loan (in the case of the Nunan-Luckhoo Scheme at the end of the 7th year and of the Singh Schence at the end of the 5th year) for total of such advances less the total of the Colonisation Fund.


Note.-The interest payments in respect of each year's advances are unavoidably caloctated] as for the full year but: will be less than a full year's interest.

## APPENDIX F. (2);-Continued.)



Note-Interest due Crown. Agents on advances in previous year: has; been added in this year and Colonisation Tax collected in previous year has been deducted.

## - APPENDIX G. (1)

FINANCING of Colonisation Scheme on the basis of a contract of $\mathfrak{E Q 5}$ per head for passags money,-(a) by raising of loan during first year for aggregate of estimated expenditure during opening yeurs less total of Colonisation Fund.


[^31]
## APPENIUIX G. (2)

FINANOING of Colonisation Scheme on the basis of a contract rate of 245 per head for passage money,-(b) by advances to be made by the Crown Agents at bank rates, during the opening years of the Scheme, and thereafter by raising of loan for total of such advances less amount of Colonisation Fund invested at over 4 per cent. (to be realised), the annual Interest and Sinking Fund charges to be met from a Colonisation Tax.


- Interest payments in respeat of each year's advances are unavoidably calculated as for the full year but will be less than a full year'a interest.

APPENDIX G. (2)- (Contd.)

| $\cdots$ | NunanLuckhoo Scheme. |  | Singh Scheme. |
| :---: | :---: | :---: | :---: |
| Total to be raised by loam (Brought forward) ... . . ... | £ 674,555 |  | \& 1,160 298 |
| Less-Fortion of Cclonisation Fund invested at over $4 \%$ to be realised (market value) | £ 66,693 | - | S 66,693 |
| Total to be raised ... ... (At end of 7th ycar) | £ 607,862 | (At end of 5 th | £ 1,093,605 |
| Annual provision for-Interest at $5 \%$ <br> Ditto. I) - Dinking Fund at $2.69 \%$ | $\begin{array}{rr} 30,393 \\ & 16,351 \\ \hline \end{array}$ | at $2 \cdot 36 \%$ | $\begin{array}{ll} \hline \kappa & 64.680 \\ & 25,809 \end{array}$ |
| Sum to be provided annually for Interest anil Siaking. Fuad | \& 46,744 |  | \& 80,489 |



* Interest due Orown Agente on advances during previous year has been addelin this year and Colonisation Tax collacted in previous year has been deducted.



## $\mathfrak{J r i t i s b}$ ©uiana.

SECOND

## LEGISLATIVE COTJNCIL.

THIRD SESSION, 1932.

## R E P ORT

or a
PRELIMINARY AGRICULTURAL SURVEY OF AREAS SUITABLE FOR LAND SETTLEMENT AND. COLONIZATION BY WESI INDIANS,

BY
The Honourable J. MULLIN, M.I.M.M., F.S.I., Com-
missioner of Lands and Mines,
and
Captain F. BURNETTT, M.C., M.A., Deputy Direction of Agriculture.

Drinted by the Eluthouty of 1bis Excellency the Governor.

GEORGETOWN, DEMERARA :
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1933.

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Department of Lands and Mines, Georgetown, Demerara, British Guiana, 25th August, 1932.


#### Abstract

Sir, We have the honour to submit herewith nur report on the preliminary agricultural survey of the areas suitable for Land Settlement and Colonization by West Indians which we were detailed by His Excellency the Governor to carry out on the 13th April, 1932, vide C.S.O. Confidential file 614/32. 2. The scope of the work has been seriously limited by heavy rains and consequent flooding of areas which it was necessary to examine, as for instance, lands on the East Bank of the Demerara River from Craig upwards, and on the East Coast, Essequibo, from Ruby to Parika. Examination of these areas and lands on the Mahaica, Mahaicony and Abary Rivers (all of which are still inundated at the time of writing this report) must necessarily be left over until the rains abate. Further, as neither the Department of Agriculture nor the Government Analyst's Department were able to undertake soil analyses (with the exception of a few samples taken in the Canje Creek Savannah areas, which were done as a special case) this important side of the work had to be abandoned.


3. At an early stage in our investigations it became apparent that the time at our disposal before the Deputy Director of Agriculture was scheduled to go on leave (i.e., the 7th June) would be much too short to enable the investigations to be carried to anything approaching a stage at which conclusions could be reached and application was therefore made to His Excellency the Officer Administering the Government and sanction given for his leave to be postponed until the 29 th August.

## Preliminary Remarks.

4. In order to appreciate the possibilities of Land Settlement and Colonization in this Colony, involving the expansion of agriculture, regard must be bad to the geological and physical conditions which have governed soil deposition and distribution, as they are by no means typical if they cannot be regarded as unique.
5. The fundamental fact to be borne in mind is that the Colony has been marine-planed right up to the Pakaraima Mountains and was, therefore, at one time blanketed with estuarial-marine sands and gravels, except over relatively small areas here and there where the rocks stood above sea-level. With the rising of the Guianas, the sea gradually receded and the shore line is now some 130 miles from the edge of the Pakaraima escarpment at its nearest point.
6. This gradual uplift appears to have been remarkably uniform over the greater portion of the Colony; but the coastal bedrock is tilted seawards at a fairly acute angle from an irregular line averaging from 15 to 30 miles or so inland and dips south-eastwards towards the Courantyne river. This has been levelled off by sands carried down from the elevated portions and by material brought in by the tides, so that the surface slope is now very gradual, being about six to twelve inches a mile; but drillings along the coast through these sedimentaries for artesian. water have disclosed that the bedrock lies at a depth varying from about 300 feet at the extreme north-western end near Punta Playa to over 1,500 feet at the extrene southeastern end near the mouth of the Courantyne river.
7. Following the upheaval there has been, over a long period of time, a gradual washing away by rainfall of the sards which overlay the country. The main outlets
for these sands have been the Courantyne and Essequibo rivers, both of which have sand bottoms right out to their mouths and are still discharging sand in considerable quantities. Most of the other rivers, which run through flatter country (and consequently have a weaker outflow which is checked and turned back by the inflowing tide to such an extent that marine silt enters and deposits for considerable distances upstream) have ceased almost entirely to discharge the sands washed down by their tributaries and are gradually silting up.
8. As might be expected, the wash has been greatest towards the rivers and the coast. Thus we find that the watersheds of the rivers are mainly composed of estuarial-marine sand-plateaux ranging from a few feet on the coastline to 350 feet or so above present sea-level some distance inland, whilst the country between the watersheds and the rivers is mainly composed of slightly elevated sand flats where the original deposit has not yet been comeletely washed off the underiying rocks; of low lateritic and iron-stone-conglomerate hills derived from the weathering of the rocks in situ which were above sea-level originally, or were exposed to weathering when the sand was washed off; and low flats composed of secondary deposits of sand, clay and gravels washed down by the rains from the higher surrounding territory. (Vide "The Mineral Deposits of South America," Miller and Singewald, Jnr., Hill Publishing Co., England, 1919, and "The Gold Resources of the World," XV.-International Geological Congress, South Africa, 1929-(No. 7-The British Guiana Goldfields). Also reports by H. J. C. Conolly and Smith-Bracewell on the Geological Surveys of the Potaro and Ireng Districts, 1927-1928).
9. In addition to the original sand deposits running roughly parallel with and forming the watersheds of the rivers, there are traces of sand dunes running parallel to the'seaboard at varying distances inland and marking the successive positions of the shoreline as the sea receded. These are usually browner in colour and contain more organic matter than the original sand deposits; but are liable to be confused with them, as the latter still occur over considerable areas comparatively near the coast, where they have been protected from complete erosion by forest growthsprincipally "wallaba" trees which grow so luxuriantly on these white sands that they are usually referred to locally as "wallaba sands."
10. The Colony can, then, be divided roughly into three parts:-
(a) The coastal alluvial strip averaging some 15 to 30 miles or so in depth by about 270 miles in length along the seaboard and composed of sedimentaries and marine silts. This belt is, generally speaking, slightly below the level of ordinary spring-tides for varying distances inland, and has tobe protected hy walls and dykes agaiust the inroads of the sea.
(b) An intermediate peneplain rising gradually inland from the point of contact with the sloping frontal belt to an average height of about 350 feet or so above sea-level and comprising clays, sands, gravels, laterites and rocks-the latter but sparsely exposed, except in the rivers.
(c) An upper peneplain, comprising the Pakaraima Sandstone Plateau occupying the western portion of the Colony, ranging from 1,200 feet to 3,500 feet above sea-level (over which Mount Roraima and Mount Kukenaam tower to 9,304 feet above sea-level); the Imataka Mountain Range occupying the north-western portion of the Colony rising from 800 to 1,500 feet above sea-level and consisting mainly of granite, quartzporphyry, felsite, porphyrite and disbase ; and the outlying Kanaku Mountain mass and ranges at the south-western extremity of the Colony ranging up to 2,000 feet in height and of a similar composition to the Imataka Mountains.

## Thr Coastal atlotial Belr.

11. As previously stated, the coastal belt is composed of sedimentary deposits resting on a bedrock which slopes sharply seawards. A noticeable feature of the deposits (as ascertained by artesian well drilling) is the alternating layers at varying
intervals of heavy clay, practically pure sand and a mixture of clay, sand and shell (locally termed "caddy"). The clay sections show no definite relation to the laterites of the interior of this Colony, and are in the nature of a grey-blue silt or "gumbo" of a heavy sticky type.
12. A marked feature of the coast to-day is the occurrence of sudden inrushes of this marine silt (or "sling-mud" as it is called locally) at varying points and at odd times. Deposits, three or four feet in depth, coma in overnight right up to the sea-defences and stop up drainage channels and sluices along sections of the coast; in some cases ouly to be washed a way by succesding tides and, in otiors, to remain and form a more or less permanent blockage to gravity drainage. At other times, large banks of mud appear off the coast, some of which remain and are added to by accretion, whilst others are gradually washed away or moved alongshore by the prevailing wind and alongshore drift.
13. As the Colony's rivers do not carry mud in suspension (other than what is carried in and out by the tides) it is unlikely that the mud or clay along the coastal belt can bave been derived from the interior of this Colony. For the same reason, and in view of the unconformity of the layers, it is improbable that it has been brought down by either the Armazon or the Orinoco rivers ard distributed along our coastline, as is popularly supposed. A more likely explanation is that it has been ejected from time to time at various points by eruptive action along the sea-cast-possibly along the line of upward thrust of the tertiaries against the Brazilian complexand carried in by tides and distributed by alongshors drift. The occurrence of gas under pressure and of lenses of bitumen at varying depths in the artesian wells sunk along the coast and of float pitch near Krunkenal Point, North West District, support this theory.
14. Whatever their derivation, the fact remains that these marine-borne clays of the coastal belt form the most fertile portion of the Colony, where properly drained and irrigated. It is true that in the early days of Dutch Settlement of the Colony the cultivation extended for considerable distances up (and indeed was confined to) the rivers; but this was due to the dangers from privateers and as soon as safety was assured the riparian lands were deserted for the more fertile and healthier coastlands, notwithstanding the enormous expenditure involved in reclaiming, clearing, empoldering and draining them.
15. When the demand for coastal lands set in, the lands bordering the sea from the Pomeroon to the Courantyne river, were laid out by the Dutch in rectangular blocks-generally a mile or so wide by about $2 \frac{1}{2}$ miles deep-and given out under conditional grants of occupancy which required the holder to empolder, drain and cultivate them within a given period, when they became freehold and the right was acquired to lease a second block of equal proportions immediately in rear of the first one and so on. These second and extra depths did not, however, become freehold and are now Crown Land.
16. It was on these blocks that the sugar estates were established, and, at one time, nearly the whole stretch of coast between the points named appears to have been under sugar. Labour troubles following the abolition of slavery, increasing difficulty in maintaining sea-defences and competition of bounty fed sugar froin foreign countries, gradually forced many of the sugar estates out of business. These (freehold) estates were taken over by the freed slaves or small owners, and many of them are now the sites of the coastal villages.
17. With the advent of the East Indians as indentured labourers to the sugar estates, interest in rice growing commenced and on completion of their indentures increasing numbers of these thrifty and industrious people settled on the abandoned estates and developed rice growing to such an extent that it is now second in importance to the sugar industry. Incidentally, this has proved that-given the
necessary water supply and drainage-these clay soils are eminently suited for rice growing.
18. It is a significant fact that-with the exception of the digging of canals in rear of the estates on the East and West Coasts and East Bank, Demerara, in order to secure, conserve and distribute water from the creeks and swamps aback-practically no original work has been done since the days of Dutch occupation and it may be said that, to ail intents and purposes, the present occupants are more or less living on the work done by the Dutch over a century ago. In the case of the existing sugar estates, these works are being maintained more or less efficiently, but the village communities and small owners have found it financially impracticable to do even this, with the consequence that, on most of them, the drainage and irrigation is insufficient and defective and many of them are practically derelict, bui are still privately-owned and incapable of resumption by the Crown under the Crown Lands Resumption Ordinance.
19. Any scheme of settlement along the coastlands to-day, therefore, involves purchase of more or less derelict estates and considerable outlay thereafter in putting the dams, canals, trenches and sluices in order, as the land being flat and below sealevel, drainage is intertidal and drainage canals and sluices have to be opened to full capacity and properly graded, in order to get the water off in heavy rainy seasons and in some cases, pumping has to be resorted to as well.
20. The available Crown Lands immediately in rear of these privatel 5 -owned estates would as a rule, however, require still greater expenditure in empoldering, draining and irrigating them, especially as drainage rights through the front lands have not been reserved, other than along strips between estates (known as "Company Paths" or "Kettings") which were reserved at infrequent intervals to provide for access to these back lands," thus necessitating the digging of long façade canals to lead the drainage water to those points and reduced numbers of drainage outlets; also the construction of roads for ingress and egress. Besides this it is, of course, generally cheaper to re-dig old canals and trenches and to repair existing dams, than to dig new trenches and erect sufficiently high and watertight dams.
21. It would, generally speaking, therefore be more economical in the long run to acquire abandoned estates on which people could be settled in reasonable proximity to the existing road and railway systems and to extend on to the Crown Lands in rear thereof for cultivation purposes as required, rather than to attempt separate settlements on the Crown Lands in rear of privately-owned lands on the coastal belt.
22. That such settlements (on acquired estates and extending into the Crown Lands) can be successfully established and maintained and become entirely selfsupporting if properly supervised, has been demonstrated beyond question in the case of Windsor Horest, La Jalousie and Hague, on the West Coast, Demerara. Those settlements have been favourably commented upon by every Commission or individual enquirer sent to this Colony in connection with immigration and colonization and their success is due entirely to the factor of control. This is proving to be equally the case in regard to the Bush Lot Settlement in Essequibo and it is mainly on the question of control that future settlements on the coastlands will stand or fall.
23. Due apparently to soil advantages, and in spite of the disadvantage of having at great initial and recurring expense to protect the lands by dykes against the sea in front and the flood-waters from the higber land in rear, settlement in the Colony has, for the last century or so, been confined almost entirely to the coastal alluvial belt and along it, practically all the public services-such as road, rail, hospital, general medical, sanitary, police, postal, etc.-are confined; whilst despite the greatly increased facilities which have been afforded for access to the interior since the gold, balata, diamoud and timber industries have been developed, about 90 per cent.
or more of the population of the Colony is still resident on this belt. Notwithstanding this, however, there is ample land along the coast and the lower reaches of the rivers within this coastal alluvial belt to accommodate twice or three tines the present population without overcrowding and with relatively small increase of public services provided that the necessary empoldering, drainage and irrigation works are carried out. The areas of primary and secondary importance in this respect are shown on the attached plan*-coloured red and yellow respectively-and total approximately 800,000 acres.
24. As already pointed out, however, practically the whole of the frontal lands to a depth of $2 \frac{1}{2}$ miles and of the river estuaries to a depth of about $1 \frac{3}{4}$ miles or so, are privately owned and would have to be acquired by purchase before they conld be made available for settlements under Government control.
25. Whilst not decrying the potentialities of the intermediate peneplainespecially for cattle, fruit and vegetables, as will be seen later in this report-we are of opinion that the possibilities in regard to settlement of immigrants on the coastal alluvial belt are of prime importance and should be thoroughly investigated in the first instance with that object in view. In this connection we cannot too strongly stress the necessity for careful soil examination and analyses, agricultural experimentation and engineering levels, as a preliminary to any setthement scheme, especially on hitherto uncultivated lands, as although to the eje the soils may appear suitable for this or that form of cultivation, and the surface levels serm fairly uniform, there are soils, even on existing estates, which have proved economically incapable of cultivation and there are low-lying basins and channels in the underlying clays which have been filled up by peaty deposits and are incapable of being drained by gravity.
26. These peaty deposits (or "pegasse" as it is termed locally) are evidently formed by decayed vegetable matter which gradually filled in former ponds, lagoons and old channels in the clay alluvials and vary in depth from a few inches to 25 feet or more. In same cases they are intermixed with clay presumably brought in in suspension whilst the aquatic growths were gradually filling them np and in others they are composed almost entirely of vegetable matter. Where the pegasse does not exceed six inches or s $\rho$ in depth with a clay subsoil it is usuaily no deterrent to cultivation; whilst if it is over that and even up to two or three feet in depth and is mixed with clay and capable of being drained, it can be used successfully for cultivation of ground provisions and Liberian coffee; but where it is over that depth it is as a rule incapable of growing anything economically. It can often, 'however, be used for rough grazing in the dry weather.
27. Wherever pegasse occurs engineering levels for irrigation and drainage purposes should be accompanied by soundings through the pegasse to the clay underneath, otherwise irrigation water may be led into a huge pegasse sponge, only to be wasted by evaporation in dry weather (when water is scarce); dams will be porous and subject to being burnt flat when grass and bush fires occur and maintenance will be high in cost and wasteful in labour. Similarly, drainage may be seriously impeded and impaired by not locating deep deposits of pegasse and avoiding them where possible, or money wasted by empoldering them only to find that they are of no value and that the dams cannot be kept watertight, as has happened too often in the past.
28. Another direction in which agricultural experimentation should be of value not only on the coastlands but on the intermediate peneplain as well would be in connection with the sand deposits, large areas of which still exist on the Coastal alluvial belt-notably between the Essequibo and Pomeroon river estuaries. It is known that on the low sand dunes (or "sand-reefs" as they are called locally) which contain a certain amount of humus, coconuts, fruit (including pineapples) and certain ground provisions can be grown successtully; but, the white quartz sands have been condemned by Yrofessor (later Sir John) Harrison in the following terms (Sessional Paper No. 11/1925, page 12) :
[^32]
#### Abstract

"The Wallaba and Muri white sands are absolutely barren from an "economic point of view being incapable of producing crops of any pro"duct on a commercial scale. Doubtless there are patches and small areas " of land in the district covered by these white sands where the soil is "heavier in character and situated closer to the water-table underlying "them where provision and fodder crops, especially of a deep-rooted "nature, may be satisfactorily raised, but samples of such were not among "those submitted to me." 29. In this connection the pineapple growing experiments on a commercial scale pow being carried out on similar sands on the left bank of the Demerara River near Christianburg by the British Guiana Fruit and Canning Company, and the Wynne grass trials, at Wauna Experimental Station in the North West District are of great importance as an indicator of the future possibilities of these sands and should be followed up and extended to other similar areas if resalts justify it, as an important part of the investigations in connection with Land Settlement and Colonization.


## Intrrmediate Peneplain.

30. Agriculture.-As aiready indicated, this area comprises the land between the coastal alluvial belt and the Pakaraima Plateau and other mountain ranges in the western section of the Colony, and is composed of clays, sand, gravel, laterite and rocks. It is, with the exception of artificial "savannahs" (or grass-covered open spaces) which will hereafter be referred to, densely afforested and, as might be expected, the soils consist principally of either sand or sand and clay in which sand predominates. In dealing with these soils generally, the late Sir John Harrison, the then Director of Science and Agriculture, in Sessional Paper No. 11/1925, paragraph 20, writes as follows :-
"In 1903 after 24 years' experience in the examination of the soils " of British Guiana, Barbados, Grenada, St. Vincent, and Surinam, I wrote "as follows:-
"The following is a comparison of the average contents in the more "important constituents of plant-food of the allavial soils of the coastlands " of the Coluny deduced from examinations, the details of which it is un"necessary to give in this report, of eighty samples of the sandy, sandy"clay, and clay-soils of that belt with those of the interior which are "directly derived from acidic and basic rocks or are river-alluvial soils. "In these comparisons neither pegass-soils nor blown sands have been "included.

|  | "Soils of the |  | " |
| :--- | :---: | :---: | :---: |
|  | Coastlands. |  | Soils of the |
| Interior. |  |  |  |

"We believe that any person accustomed to the discussion of the " chemical analyses of soils will at once recognise the marked difference in "pntential fertility of the two great divisions of the soils of the Colony.
"The question has been raised as to how it is possible for the soils, if "they are so lacking in fertility as appears from these analyses, to sup"port as they do, a heavy forest-growth. In the case of a forest the " mineral constituents of plant-food are taken up by roots which traverse "a very wide area; in that of cultivated plants, the space occupied by the "roots is comparatively small, hence the trees can draw their necessary "food from a relatively enormous mass of soil compared to that which the "cultivated plants can utilise. The mineral constituents in the case of
"the trees accumulate in the leaves and in the small branchlets, but little "being retained in the wood of the stem, and when the leaves are shed "are in a great part returned to the soil. Similarly, a considerable pro"portion of the plant-food is in the case of certain trees returned by the "fallen flowers. The plant-food thus returned to the soils from which it
" is derived is set free by the decomposition of the leaves, etc., and is
"sgaia utilised by the trees. Thus the plant-food present in the forest-
" soils may be described as circulating and performing its functions in a
"practically endless circuit from soil through the trees to its leaves and
"flowers and with its leaves and flowers to the soil. The tendency in the
"forest is for much of the plant-food gathered by the deeper roots to
"accumulate in the upper layers of the soil. In our tropical forests this
" has taken place in the course of ages to such an extent that the trees
"which now flourish therein are largely surface feeders and their roots
" spread through the thin layers of vegetable debris on the surface soil in
"a wide extending plexus.
"With the majority of cultivated plants the constituents of the " mineral plant-food are largely removed in the products and are thus lost "to future generations of plants raised on the same soil. Hence soils " capable of supporting a long continued forest-growth may and, as repeated " experience here during recent years has amply proved, do when under eco" nomic cultivation fail after very few seasons to produce crops of any value.
"Further forest-trees appear in many cases to flourish on soil"solutions of far lower saline contents than the majority of plants of " economic value can do, and it is a matter of interest to plant-physiolo"gists to ascertain it this power of assimilating soil-solutions of great "diluteness may not be due to the trees growing in symbiosis with some " of the fungoid organisms with which the upper layers of our forest-soils " teem.
"From the results of the many examinations of various soils of the "Colony which we have carried on during the last twelve years, and of " the geological investigations which one of us have undertaken of parts
" of the interior of the Colony in recent years, it appears to us that nature " has divided the country of British Guiana into three belts:-
"1st. An agricultural belt of exceptional fertility-the coastlands " of the Colony.
" 2nd. A forest-belt, having great potential resources in mineral " and forest products, but as a rule of very low agricultural value.
"3rd. A veldt, savannah, or pastoral belt, the potential resources ." of which are practically unknown but its geological structure does " not hold out promise of high fertility.
"We are forced to the conclusion that it is in accordance with these " divisions, laid down by natural agencies over which we cannot exert any "control, that the agricultural development of the country must be " proceeded with."
31. In summarising his investigations of soils samples subsequently collected by an officer of the Department of Agriculture during the survey of the Rupununi Cattle trail, over a strip of country 10 miles wide by 112 miles long from Takama on the Berbice river to Kurupukari on the Essequibo river, Sir John Harrison wrote as follows:-
"The average compositions of the soils of the Cattle Trail Survey "District and of those of the Rupununi Savannahs show that as a whole " the former district is markedly inferior as regards both actual and poten-
"tial fertility to the latter and that by far the greater areas in both "districts must be, for purposes of economic cultivation, hopelessly sterile "and almost practically barren."
32. In dealing with the soils along the Bartica-Potaro Road, and the banks of the Potaro river where the road joins it at Garrawsy's Stream, the officers of the Department of Agrieulture who were recently detailed to examine and report on the possibilities on each side of the road and of the banks of the Potaro River adjoinipg the present terminus of the road, state, "tbat the soils from Bartica to "the 73rd mile post consists very largely of a moderately coarse sand, white in "colour, apparently poor in organic matter and supporting a wallaba association. "Owing to fallen leaves and other decayed vegetable matter the surface layer (one "inch or frequently less in depth) is usually light to dark brown in colour but "immediately below a stratum of white sand of some considerable depth is found.
"Interspersed, in comparatively small patches and frequently at great dis"tances apart, are areas of red sand and less frequently areas of red clay loam. On "these red soils greenheart was invariably found while on the lowlying areas of red "sand or red loam the mora association was observed."
33. Mr. J. D. Gillespie, B.Sc. (one of the officers referred to), further states that having driven over the whole length of the road on six occasions, he is of opinion that although the most favourable agricultural soil exists in the clays beyond the 72 mile limit, the road follows the ridge (or watershed) so exactly that the cultivable area alongside the road (after exclading the 50 rods on each side of the road now reserved by the Public Works Department) is either very limited or negligible as the land falls away steeply and rapidly to the creek levels where usually the soil is a pure sand. Referring to the lands along the banks of the Potaro River he states that from the point where the road meets the river at "Garraway's Stream" to "Greenheart Stream "-a distance of about 5 miles-the soil is a friable yellow brown clay for a distance varging in width up to 30 rods inward and is very probably fertile, and will yield agricultural crops. The soil on the left bank of the Potaro river, he states, for approximately 3 rods in width inwards is the same as the opposite bank but the soil where it dips down to creek level changes to sand.

An area of 1,000 acres was topographically surveyed (and contoured) under our direction in the vicinity of the bridge at $71 \frac{3}{4}$ miles on the road in order to enable selection of a site for Government headquarters and an experimental station. Over 50 soil samples were taken but up-to-date these have not been analysed.
34. From all the data accumulated over a long period of years it is evident that soils on which to place settlers on the intermediate peneplain are fow and far between and we are of opinion that settlements would best be placed in the vicinity of mineral deposits, such as gold and diamonds which can be worked by hand methods, whereby the settlers could divide their time between the working of minerals and attention to their crops. We would again emphasise, however, the necessity of careful soil examinations and analyses and contour surveys as a preliminary to such settlements. We would also draw attention to the extracts from Dr. O. F. Cook's paper on the primitive system of agriculture termed by him "Milpa Agriculture" which was published in the Annual Report of the Smitbsonian Institution for 1919 and reproduced by the late Sir John Harrison in Sessional Paper No. 11/1925 as follows:-
"It is usual to write of the Tropics as a world of teeming, inexhaus"tible fertility, a rich storehouse of food and raw materials waiting only "to be drawn upon to support the ever-growing populations and industries " of temperate regions. The reality is very far from this traditional idea. "Tropical lands in general are neither more fertile nor more continuously "productive than those of temperate regions. Though tropical tempera"tures make it possible for plants to grow for 12 months in the year
" instead of for the short summer season of temperate countries continuous "all-year production of foods or other important crop requires specialized "intensive systems of agriculture, which as yet have been developed and " sapplied in only a few regions.
". Under the primitive system followed in most tropical countries, pro"duction not only is less continuous than in temperate regions, bui may "decline rapidly and even cease altogether. Regions that supported large "populations and were the scenes of great activity in former times are now "uncultivated. Primitive civilizations destroyed the very basis of their own "existence. Nations may pass without history and yet leave marks of "devastation. Instead of the natural resources of production being still "untouched most of the tropical world is far from a virgin state, a fact " too often overlooked in tropical undertakings. The woody vegetation of " many tropical regions is 'bush' or secondary growth instead of original " virgin forest. Very old bush approximates the original forest, but it is "possible to distinguish many stages of reforestation and to estimate "roughly the period that has elapsed since the land was used for agricul"tural purposes whether decades or centuries ago.
"The Milpa eystem of agriculture is charactized by the planting of "crops in temporary clearings. Instend of keeping the same land under "cultivation, new clearings are cut and burnt for planting, while clearings " of previous years are abandoned to the wild vegetation. Doubtless the " utter simplicity of the system has tended to keep it from being " recognised or studied as a factor of tropical life, though of world-wide "distribution.
" How little attention has been given to the relations of agriculture " and tropical vegetation may be inferred from the fact that English and "other European languages have had no recognised names for this primi" tive system of crop production which is general in hot countries, although " such a term is necessary for the simplest purposes of definition and dis"cussion. Milpa Agriculture would be a convenient designation, the "native word ' Milpa' having been adopted by the Spanish-speaking " people of Central america in the sense of a maize field, or a clearing in " the forest cut and burned for planting maize.
" Milpa Agriculture appears well adapted to the needs of very primi" tive peoples, since only a minimum of labour and equipment is required. "Tbe axe or the cutlass is the only tool that is necessary.
" Though the cutting and burning of a tract of tangled tropical forest " is hard work, even with steel tools, other forms of agricultural labour are " avoided by the Milpa system. If a 'good burn' is secured the soil is " left clean and in excellent condition. Plowing, hoeing and weeding are "unnecessary.
${ }^{6}$ In typical Milpa Agriculture no labour is given to the working of the "soil, either before or after planting. The crop simply is planted and "allowed to grow. In some regions the system is varied by pulling or "hoeing out weeds. The land also may be cleared once or twice with io es or cutlasses for planting a second or a third 'crop' before the field 's abandoned to the growth of 'bush.'
© Even European settlers in the tropics usually follow the native " method of clearing the land by cutting and buruing in spite of the fact " that large amounts of valuable laaf litter and humus may be destroyed.
" The rapid renewal of the jungle in forest clearings gives a vivid
"impression of exuberance that many travellers and arcbæologists have " remarked, while few have taken account of the Milpa system. Repeated "burning of the forest for agricultural purposes produces an effect entirely "different from the clearing for purposes of study of a group of forest"covered ruins, like those of Palenque. The woody growth is restorend
"Jess rapidly after each agricultural clearing, and a state of complete
"denudation and exhaustion of the soil may be reached if the burnings "continue. A region that has been exploited thoroughly by the Milpa "system may require many decades, and even centuries, before the fertility " of the soil is fully restored.
"In a virgin-forest clearing the wild vegetation may begin to assert "itself even in advance of the maturity of the crop. Sprouts may come up "from the stumps or from plants with underground rootstocks that are "not killed by the fire and rank weeds appear. With a moist climate and "a rich soil the growth of woody plants may be sufficient in a few months "to permit the same land to be burned and planted again in the second or "third year, but this is true ouly of clearings of old or virgin forest. A "longer period of renewal is required after the second burning, before "there is enough 'bush' to burn again, and the interval lengthens "gradually to the fifth, seventh, or tenth year, depending upon the soil " and other local conditions but also very largely upon the length of time "that the district has been occupied since the original forest growth was "destroyed.
"'That the ' bush' takes longer to renew itself after each successive "cutting and burning means, of course, that the soil is becoming less "fertile. The genuine forest growth gives place to other plants that are "adapted to the more open and exposed conditions of the burnt-over lands, " and eventually some of the large perennial grasses become established.
"Though grass burns readily in the dry season, the roots and rootstocks "are not injured and continue to occupy the soil to the exclusion of other " plants. The method of cutting and burning serves to clear land of woody " vegetation, but becomes ineffective when the land is occupied with grasses "that resist fire. Accumulations of dry grass make fires hot enough to "destroy seedlings of other plants, or even to kill large trees when the heat " is carried by wind.

[^33]3j. This should serve as a warning against permitting any uncontrolled attempts at agriculture in the interior, particularly along lines of important communications such as the Bartica-Potaro Road, as such attempts may lead to the destruction of the forests and subsequent abandonment, or the creation of infertile areas of barren and scrub-covered sand over which it would be difficult, if not impossible, to maintain a natural road surface. Striking examples of this can be seen on the road in question, where it passes through areas swept by forest fires and every precaution should be taken to prevent similar occurrenoes in the future. We are of opinion, therefore, that settlement on the quartz sand areas along natural surface roads in the interior should be absolutely prohibited, at any rate until such time as agricultural experimentation has proved that these sands can be permaneatly cultivated to advantage. Even in the clay sections, such settlements should be rigidly controlled. The investigations in regard to possible future settlements of this type might, we consider, be commenced in the Potaro District as this would
appear to be the most likely area reasonably accessible from the coast and in close proximity to mineral workings. Moreover, it has been, more or less, favourably reported on by the late Sir John Harrison, who carried out the analyses of a considerable number of soils obtained from this district. Full details of these soils analyses are given on page 30, Part III. "Some British Guiana Soils"一Annual Report of the Department of Science and Agriculture, 1896-1902.
36. Cattle Grazing.-The question of cattle-grazing on a large scale with a view of providing beef cattle for the West Indian market (principally Trinidad) has come into prominence recently and we paid some attention to the possibilities of the artificial savannahs referred to under para. 30 supra. The savannah lands (of any extent) which are suitable and nearest the coast are those extending from the Courantyne to the Abary river, comprising some thousands of square miles. Our investigations indicate that the best of these savanmah lands are situated hetween the Courantyne and the Berbice river along a belt some 8 miles wide and 25 miles in length lying between the coastal alluvial belt and the white sands. This belt consists of undulating downs slightly above flood-level with a light brown arenaceous top soil to a depth of 12 to 18 inches resting on a red *lateritic clay. Samples of these top soils taken by us, which were analysed by the Department of Agriculture gave the following analyses :-

|  |  | $\stackrel{(1)}{\text { B. } 88}$ | $\begin{gathered} \text { B. } 89 \end{gathered}$ | $\text { R }^{(3)}$ |
| :---: | :---: | :---: | :---: | :---: |
| Normal reaction pH . | $\cdots$ | 4.86 | 5.59 | 4.72 |
| Exchange reaction pH. | $\ldots$ | 4.06 | 4.55 | 4.06 |
| Moisture at sticky point | ... | 35.6 | 28.2 | 34.4 |
| Sand \% ... | .. | 16.0 | 31.5 | 20.2 |
| Index of Texture | ... | 32.0 | 22.0 | 30.0 |
| Organic Matter \% | ... | 3.41 | 0.29 | 1.57 |
| Nitrogen \% | ... | . 100 | . 025 | . 062 |
| $\mathbf{C}: \mathbf{N}$ Katio | ... | 19.80 | 6.84 | 14.66 |
| \% Soluble Salts | ... | . 040 | . 019 | . 056 |
| Rate of soln. 7 days increase | ... | 13.0 | 48.0 | 3.0 |
| Available $\mathrm{P}_{2} \mathrm{O}_{5}$ (1\% citrio acid) | ... | . 0008 | . 0010 | . 0011 |
| Available $\mathrm{K}_{2} 0$ ( $1 \%$ critric acid) | ... | . 0019 | . 0029 | .0024 |

37. These results indicate that these savannabs are of low fertility and deficient in plant nutrients and at the time of our visit were principally supporting flora which were identified later by the Government Botanist from specimens taken by us as:

## Dichromena Ciliata; <br> Tephrosia brexipes; Axonopus Aureus; Borreria sp.; <br> Tibouchina Aspera; <br> Cassia sp.; Axonopus attenuatus; <br> Andropogon bicornis.

The growth of these was, however, most luxuriant, which may be accounted for by the favourable rains and heavy dews; but we noticed that deer were living and breeding there in considerable numbers, which indicutes that the present grasses have a potential feeding value. The late Sir John Harrison referring to the Canje savannahs remarks that they are "good ranching lands" but we have been unable to ascertain where the soil samples referred to by him were taken or to reconcile them with the analyses of the soil samples taken by us. This indicates that further examination of this belt is necessary and justifiable, and experimentation with better types of grasses than the present indigenous ones growing there might be productive of valuable results. At present there are no cattle being grazed on these particular savannabs.
38. On the Ahary River there are low lying swampy savannahs, between the coastal alluvial belt and the white sands, on which considerable herds of beef cattle

[^34]are now being grazed. The difficulty in this area is one of control of drainage and irrigation ss they are inundated in the wet weather and become arid in times of drought. To the west of these two areas the type of soil is white quartz sand and the grasses become sparser and poorer in quality the further west one goes, until it merges into the muri scrub sands condemned by Sir John Harrison as mentioned in para. 28 supra.

## Upper Peneplain.

39. This section of the Colony, as already stated, comprises the Pakaraima Sandstone Plateat and the Imataka and Kanuku Mountain Ranges. Owing to their situation and consequent difficulty of communication there is little likelihood of this peneplain becoming of any economic interest from an agricultural point of view in the near future, and we are not in a position or prepared to make any recommendation in regard to them, as tiney were outside the scope of the hurried preliminary examination which we undertook.

## General Recommendations.

40. In view of the foregoing it was decided to devote our energies primarily. and principally to investigations of the coastal alluvial belt. On these lands the agricultural industries which have already proved of potential value (including the low eaud reefs and pegassy clays) are :-

Major Crops: Sugar, Rice, Coconuts and Coffee.
Minor Crops: Ground provisions (a term used collectively for plantains, bananas, cassava, corn, sweet potatoes, tannias. yams, eddoes, peas and beans, etc.), fruit, etc.
41. Of these crops sugar is the most important and our investigations have been directed towards the possibilities of settling West Indian immigrants in such areas and under such conditions as would enable them to devote their energies principally to the cultivation of this crop, with financial benefit to themselves and to the Colony. The most decisive factor, however, is that the sugar estate proprietors are the only oues who own and operate sugar factories in the Colony-there being no central co-operative or custonu factories to which farmers' canes could be conveyed. Consequently, without the co-operation of the sugar interests (or alternative enormous outlay in provision of new factories) no system of cane-farming or extension of cultivation of sugar-cane can be inaugurated.
42. It was therefore decided, at the commencement, to make an inspection of sugar estates and lands adjoining them, with the object of ascertaining the possibilities of settlement along these lines.
43. This programme was carried out in its entirety, every sugar estate being visited and the lands inspected. At the same time the question of cane-farming was discussed with each manager. In addition, a questionnaire was sent to the town agents of the estates and arrangements were made for a meeting with the B.G. Sugar Producers' Association, as directed by His Excellency the Governor, in order that the situation could be fully discussed and their interest and co-operation in drawing up schemes for settlement of West Indians be secured.
44. At our first meeting, the general objects of our investigations and of the questionnaire were explaingd (as per minutes of the meeting held on 18th July, included under Appendix I). At that meating our proposals were very favourably received and full co-operation promised, and a special sub-committee appointed to draw up specific schemes. Subsequently, adverse influences appear to have been brought to bear and at later meetings of the Sub-Committee the effects of this were regrettably noticeable. We have since been assured, however, that the whole question was being re-considered and that as soon as certain necessary information (which is being obtained in the form of replies to a second questionnaire which we
drew up at their request) is available, a rnemorandum setting forth their suggestions would be forwarded to us. The general impressions we formed as a result of these preliminary consultations with the planters may be summarized as follows :-
(1) The estates with few exceptions would welcome more canes for grinding, but were not prepared, at this juncture, to incur further capital expenditure on extension of cultivation or enlargement of factory capacity.
(2) Those estates with available factory capacity would welcome the estab. lishment of cane-farming on lands adjoining or in close proximity to estates and would co-operate as regards general supervision and adrise, but were not prepared to commit themselves to any permanent liability in establish. ing such settlements-beyond possibly joining in the cost of transport facilities to their factories.
(3) No estats was prepared to consider the lease of estate lands for canefarming on terms which would lead to a peasant proprietary system. Eren as regards renting estate lands for cane-farming, the fear was expressed that if this was done in the case of immigrants, it might lead to discontent amongst their local resident labour force.
(4) Estate authorities were not prepared, at this juncture, to incur large capital expenditure for the erection of housing accommodation for immigrants from estate funds; but some would be prepared to consider doing so on a moderate scale if granted a loan by Government repayable in instalments.
(5) They were in favour of the establishment of labour bureaux in the West Indian Islands for recruitment of seasonal labour.
45. In order to emphasise the importance of this phase of our proposals we would point out that in considering any scheme of colonisation and land settlement by West Indians on the coastal alluvial kelt, regard must be had to the position of the sugar industry, and, in our opinion, their full co-operation is essential if a full measure of success is to be achieved.
46. Despite the present depressed state of the sugar market-which has, however, recently been materially improved by the preference granted to sugar entering the United Kingdom-sugar and its by-products are still the most valuable export products produced agriculturally in this Colony and sugar-cane is the crop which (except rice) the clay soils of the coastal alluvial belt are best suited to. Moreover, there is more capital invested in that industry and the returns from it to the public revenue are far in excess of any other industry, whether agricultural or otherwise; whilst the industry is still directly or indirectly responsible for over 60 per cent. in value of the Colony's imporis and exports.
47. Again, this industry has in the past borne the greater' proportion of the cost of introducing labourers to the Colony-from the days of slavery through the varying phases of experimentation with indentured labour from various sources, but principally from India-and the present population is composed principally of those so introduced and their descendants. The proportion of those labourers so introduced, trained and cared for by the sugar planters who have remained and settied down as permanent colonists, is no mean tribute to the ability of the planters to handle immigrants.
48. Although indentured immigration ceased in 1917, many of the estates are still equipped with hospital and other conveniences such as artesian water, sanitary arrangements, etc., essential to the welfare of immigrants, and their organisation generally is more suited to the supervision and care of immigrants, than any other at present in being in this Colony-sare and except the Demerara Bausite Company whose arrangements for housing and care of their labourers are a model of what is the best possible and have proved most acceptable and beneficial to labourers from the West Indiss, of whom a considerable number is employed.
49. We are convinced, therefore, that unless arrangements can be made whereby the uncultivated lands on sugar estates (not likely otherwise to be taken into cane), and those immediately adjoining sugar estates or reasonably capable of being connected up to them for conveyance of canes to the factory, can be made available for oune-farmers, immigration of settlers from the West Indies will be seriously restricted and retarded.
50. On the other hand, we are equally convinced that unless there is a gradual obange of policy in the sugar industry, whereby cane-farming is establisbed and encourdged to the fullest possible extent, in cu-operation with and complementary to the present purely proprietary system, the changing sociological conditions and other factors will result in serious shortage of labour and restriction of output. The extent to which seasonal labour can be introduced from outside sources and used to offset this is likely to be limited by political, sociological and sentimental forces here and abroad, as was the case with the indenture system.
51. The rice, bauxite, diamond, gold, balata, timber and other industries are likely increasingly to attract labour away from the sugar estates and were it not for the fact that depressed prices in those industries have coincided with that of sugar, the estates would not have been able to secure a full quota of labour at the present rates of pay, and more estates would have gone out of cultivation during the past few years. Similarly, revival of the other industries before the problem of regulation of the world's sugar market is solved, may find the sugar industry of this Colony unprepared to meet the situation and to retain, except at competitive rates of pay, the services of the hired labour no which they now depend entirely for their existence. Tables showing the wages, hours of work, cost of living, etc., on sugar estates, as supplied by the Immigration Department, are attached as Appendix X.
52. Many of the estates are endeavouring to meet the situation by giving out small plots of estate lands for rice cultivation, in order to preserve a resident labour force. This has been successful to a certain degree, but cannot be regarded as a permanent solution to the problem, as rice cultivation is attractive only to the East Indian and even they cannot be held indefinitely by such a system in view of the changing sociological conditions which tend to stimulate their inherent belief-due possibly to the indenture systern under which they were introduced-that advancement lies in quitting the estate.
53. The argument has been advanced that factory capacity is limited; but it is admitted that there is not a single factory working at full capacity day and night for the fullest possible period or that could, if so operated, not produce a great deal more sugar at a smaller cost per ton than they are now doing, if additional cane was available.
54. We urge most earnestly, that Government and the sugar interests should combine forces and ingenuity before it is too late and devise some system of canefarming by which the fullest possible supply of came can be assured to the existing factories and the industry be consolidated and developed to its full capacity with benefit to the industry and to the Colony.
55. Apart from settlements based on cane-farming, we now propose to refer to possibilities of land settlement based on other agricultural crops capable of cultivation in this Colony. A list of these crops, the average gield per acre and the period between planting in the field and harvesting was published as a popular guide to local farmers in the Agricultural Journal of British Guiana, Vol, III. No. 2, for 1930, whilst the prices obtainable iu Georgetown have been obtained by us at the time of writing this report. This list is attached as Appendix II.
56. Rice cultivation may generally be ruled out where immigrauts from the West Indies are concerned, but for the cultivation of orher crops there are large areas of suitable lands available, as will be indicated later when dealing with the
various districts where settlements might be established, if markets are made available.
57. The question might be rightly asked what agricultural crops should be grown to make such settlements self-supporting and the extent of land required by each settler. This is primarily a question for the Department of Agriculture, but it may be laid down as a general axiom that an organised settlement should aim at establishing:-
(1) A food crop, e.g., rice, maize, yams, tannias, etc.
(2) A money crop, e.g., rice, muize, coffee, tobacco, etc., and in addition, livestock (poultry, pigs, etc.), milch cows and working oxen.
(3) A semi-permanent crop, e.g., plantains, bananas, etc.
(4) A permanent crop in order to bring in continual revenue, e.g., coconuts, rice, coffee, cocoa, fruit, etc.
58. If this system is adopted, the settlers would be able to live on the produce of the land and make sufficient money to cover their ordinary requirements.
59. As regards the milch cows and oxen, it has been found advantageous in this Colony to allocate a defivite area of land as a communal grazing ground for settlers ${ }^{\prime}$ cattle, rather than to allocate to each settler sufficient area of land for accommodation of his cattle and oxen. Conditions here would appear to be more suitable to such a practice.

## Essequibo Coonty.

60. This County, in addition to the lands along the East and West Banks of the Essequibo river and the West Coast, Essequibo, comprises the North Western District of the Colony. This latter district was not included in our investigations for the reason that the section of the coast from the mouth of the Moruca river to the mouth of the Waini river has not yet been empoldered or tested from an agricultural point of view. The only settlements are relatively small areas on the lower reaches of the Moruca and Barima rivers.
61. With the exception of the relatively small elevated area bounded by the Barima, Aruka and Amakura river (the latter forming the boundary between this Colony and Venezuela) the whole frontal portion of the North Western District can be described as an estuarial swamp, for a distance of 30 or 40 miles inland at any rate.
62. The elevated portion previously referred to has already been topographically mapped and examined in detail by survey, forestal, geological and agricultural officers, aud the report of these investigations is attached hereto as Appendices III., 1V., V. and VA.
63. These reports show that the previous optimistic opinions expressed in regard to the possibilities of settlement in that area were far from justified. It was not considered therefore that any good purpose could be served by further preliminary examinations over an area which had already received such detailed and considered attention.
64. The areas which received our main attention, consequently, were the Pomeroon river lands and those along the West Bank and the West Coast of the - Essequibo river estuary.
65. Pomeroon River.-The Pomeroon river lands are low lying and consist mainly of mixed pegasse and slay. These soils are best suited to Liberian Coffee cultivation and cannot be recommended for other permanent crops. It is customary locally to plant such lands with ground provisions for the first two or three years and to interplant with coffee. The varisty of coffee which grows on this type of soil is low grade and has a low-priced and uncertain market.
66. We do not recomoend this district for settlement as it is unhealthy and lacking in communications, whilst the present condition of the coffee market does not warrant any extension of the cultivation of this particular crop.
67. West Coast, Essequibo.-This district bas certain natural advantages in regard to potential water supply, which have been recently and are still being developed by means of dams and canals designed to conserve the available water to a higher level and to distribute it to the coastal areas where cultivation already exists and can by this means be further developed and extended.
68. At one time this portion of the Colong was essentially a sugar-producing area, there being several thriving sugar estates in being; hut with the decline of the sugar industry and the increasing interest in rice cultivation, these sugar estates and the adjoining lands are now almost entirely devoted to rice, with the exception of one estate, Pln. Hampton Court cum annexis. This estate, however, is in a bad way and unless early measures are taken to save the situation it is bound to go out of sugar cultivation before long.
69. It so happens that Hampton Court is situated practically in the middle of the block which will be most beneficially affected by the works recently undertaken and now being continued for the improvement of the water supply. We consider, t:erefore, that this block of land should receive first attention in regard to investigation of the possibilities of settling West Indian agriculturists in that county. This block comprises the estates from Little Alliance to Somerset and Berks, and comprises in all about 36,000 acres, 12,600 acres of which are privately owned and 23,400 acres C.own and (Yolony Land.
70. This area is already empoldered on the northern side by the Somerset and Berks Canal and dams dug by Government under the Coastal Druinage Schemes. On the West it is naturally empoldered by a continuous sand reef or plateau, and the amount of construction work which would be required on the southeru or Little Alliance side in order to complete the empolder is very small.
71. So far as can be ascertained, the drainage facilities, though at present inadequate, are capable of improvement at reasonable cost, and if this is done the block of land in question should be one of the best irrigated and drained areas in the Colony.
72. The soils throughout this block bave been proved to be fertile alluvial clavs eminently suitable to sugar and rice cultivation wherever these have been tried; but surveys and soil examination of a detailed nature are advisable before definite schemes for layout of settlements are undertaken, if full success is to be assured.
73. As regards sugar cane cultivation the possibilities of this would be entirely dependent on re-conditioning the existing sugar factory at Hampton Court, ur the erection of an entirely new factory at an equally central site. Of these two alternatives, we consider the re-conditioning of Hampton Court factory the most practical solution, if economical terms can be arranged.
74. Provided the necesssry factory accommodation is made available there should be no difficulty in connecting up considerable areas of privately owned and Crown and Colony Lands to it by means of a canal or canals in extension of the existing navigation canal system constructed in the days of the sugar industry.
75. The Colony-owned lands in this block which have been already referred to, represent the abandoned sugar estates of Bush Lot, Anna Regina, Henrietta, Richmond und La Belle Alliance which were acquired by Government when the proprietors (Messrs. Curtis, Campbell \& Co., Ltd.) abandoned them as a sugar estate. In an attempt to preserve sugar-cane growing ou cane-farming lines a company was formed-The Essequebo Land Settlement, Limited-but owing
principally to lack of control of monetary advances to cane-farmers and general bad management (aggravated by poor fantory results) the venture was not a success and Government eventually re-acquired the land with a view to laying it out as settlements for local residents and immigrants who required lands for rice and ground provision cultivation. So far, the only success which has been achieved has been in regard to rice-the Bush Lot Settlement having been laid out as a model settlement for rice farmers and all taken promptly. The attempts to inaugurate settlements based on ground provision cultivation on Anna Regina have not so far been successful ; but what work has been done has shown that the lands are eminently suited for that purpose.
76. Notwithstanding the failure of the Eissequibo Land Settlement Scheme as a cane-farming experiment and the lack of response to the efforts of the proprietors of Hampton Court to inaugurate such a scheme on their estates (as per leaflet attached marked VI), it is our opinion that, given efficient factory accommodation and necessary transport facilities, this area holds out exceptional possibilities for inauguration of settlements based mainly on cane-farming.
77. A few of the present proprietors are still growing cane which is transported to Hampton Court, notwithstanding the inefficiency of the existing factory, which only gives about a sixty per cent. recovery. We were assured that if efficient factory accommodation was available this cultivation would be extended.
78. We are not suggesting that the rice cultivation in this area should be supplanted by sugar as therg is ample accommodation for both; but we are convinced that it would be disastrous to permit the last remaining sugar estate on this Coast to go out of commission, and that sugar-cane growing under a peasant-proprietary system would be of inestimable value to the existing population, to any immigrants introduced and to the Colony as a whole.
79. The block of privately owned estates, along the remaining section of the Coast and the bank of the river from Little Alliance to the mouth of the Supenaam river and the Crown Lands in rear thereof, can be regarded as available for extension of settlement schemes based on other than sugar cane cultivation when such extension is justified. A large section of the Crown Lands at the extreme southerd end of this block and abutting on the Supenaam river were investigated last year by forest and agricultural officers (cide C.S.O. File 1333/31) and their conclusions are as follows :-
"The brown sand soil ( 41 square miles) is suited to the cultivation of " pineapples and possibly citrus and coconuts. The red loam soil type " (7 square miles) will support citrus and possibly pineapples.
"The area seems to be more suited to the establishment of a large "scale undertaking. It would perhaps be advisable to await the experi"ence gained in the project which is shortly to be commenced in the " Demerara River.
"The possibility of peasant settlement of the area depends upon (a) " the evolution of an agricultural system suited to the sandy soils of the "interior; (b) the results of experiments of feeding stock with pasture "grasses grown upon the sandy soils of the interior."
80. Essequibo Islands and Banks.-We considered the question of utilisation of the islands in the Essequibo river (i.e., Wakenaam, Leguan and Hog Islands) ; but are of the opinion that no attempt to create settlements for West Indians on these islands should be considered unless and until accommodation on the mainland is no longer available.
81. The soils of these islands possess no advantages as compared to the mainland, whilst irrigation and drinking water is dependent on rainiall and sea-defence problems are economically incapable of permanent solution. Referenoe to the Sea-

Defence records will show that large sums of money expended on sea defences had to be written off as irrecoverable and the work, which was far from complete, abandoned.
82. The soils on both sides of the river consist mainly of clay lands with a gravelly bottom which, as the existing small holdings at intervals (especially on the left bank) show, are suited for general cultivation but particularly for frnit such as bananas and citrus. The land is undulating but is very densely forested, which involves expensive clearing and no irrigation schemes have jet been in augurated. There àre, however, vast areas of such land available aud these would have to be taken into account in any large scheme of small settlements, or for fruit cultivation on capitalistic lines.
83. East Bank and East Coast, Essequibo.-The position in regard to the private holdings and Crown Land in rear thereof along the section of river and coast lying between the Bonasika and Boerasirie rivers is dealt with in a memorandum by the Commissioner of Lands and Mines in C.S.O File 455/29 a copy of which is attached hereto, as Appendix VII.
84. The position set out in that memorandum is, briefly, that if the Boerasirie Water Conservancy is made watertight the present privately owned lands, aggregating about 25 square miles, and an additional area of Crown Land aggregating about 43 square miles, which are now inundated whenever the water in the Conservancy rises above a certain low level, would be made available for cultivation and settlement. We cannot too strongly urge that early steps be taken to bring about a similar arrangement with the controlling authorities of this Conservancy to that made with the Lamaba and East Demerara Water Conservancy Commissioners in regard to the Conservancy on the otter side of the Demerara river.
85. In regard to cane-farming, the possibilities at the eastern ond of this area are decidedly good as the privately owned lands (i.e., Vergenoegen, Barnwell, Greenwich Park and Good Hope) which were at one time under cane are now only partially cultivated with rice and there are large areas available which could be put under cane and connected up to Uitvlugt factory. Further particulars in regard to these lands, which are in the market at a low price, can be found in Appendix VIII. dealing with separate estates under "Vergenoegen." The proprietors of Pln. Uitvlugt sugar estate immediately adjoining Vergenoegen are keen to get additional cane and are, at our request, preparing a scheme to be included among those to be submitted to Government by the B G. Sugar Producers' Association, which latter report, if received in time, will be attached as au Appendix hereto.

## Demerara Countr.

86. West Coast.-This district comprises the area from Vreed-en-Hoop to the Boerasirie river.
87. With the exception of about 275 acres on the Government settlement at, Pln. Hague, which are at present under water and will be examined later, there is no land available for settlement on this coust, as it is all cultivated under sugar and rice to the fullest extent.
88. The sugar estates in this area (i.e., Plns. Leonora and Uitvlugt) were inspected and were found to be fully cultivated, and the labour supply ample for ordinary requirements.
89. Demerara River, East Bank.-The estuary of the Demerara river from Coverden downwards has at one time been much wider and shallower than it is at present. As its width decreased and its depth increased, banks of marine silt were left along each bank for varying distances inland. Un the East Bank this deposit extends inland (between Coverden and Pln. Diamond) for varying distances, behind which is a pegasse swamp. The soil along this bank is extremely fertile.
90. So impervious is this rim or bank that, except in cases where it has been sut through for artificial drainage to the Demerara river, the water in the swamps behind it have to find an outlet via the Mahaica river or evaporate. Thus, natural creeks which would normally have emptied into the Demerara river have to turn in their course and flow back again towards the Mahaica. This is especially noticeable in the case of the Badawarin creek which heads straight for the Demerara river and then does a hairpin bend at the edge of this rim back to the Mahaica, a distance of $\mathbf{3 0}$ miles or $\mathbf{s o}$.
91. The water supply canal which was dug by the Lamaha Conservancy authorities in rear of the estates on the East Bank, Demerara, runs at au average distance of five miles in from the river bank. From the back of Pln. Craig it ran into deep pegasse and was not continued to connect with the high land; when the water in the Conservancy is at a high level, therefore, seepage takes place through the pegasse dams, and the flood waters pass around the end of the incomplete dam and inundate the lands bordering on the Demerara river.
92. With a view to improving the Lamaha Conservancy and maintaining a. larger supply of water than is now possible, a scheme is under consideration for changing the course of the Canal as shown in red on the accompanying plan* in order to conserve the water which now escapes over the lowlands through and around the dam.
93. As will be seen by the map,* it is proposed to start the new dam from the Lamaha Canal at the south-west corner of Pln. Oraig and carry it along in a southwesterly direction to approximately the back of the first depths of the East Bank estates and thence in a southerly direction to the back of Pln. Caledonia, then in a south-easterly direction until it reaches the high lands behind Huis t'Coverden.
94. This proposed scheme would, if carried out, have the effect of bringing in an area of 1,182 acres of Crown Land in rear of Plns. Craig and New Hope.
95. The top soil at the bacik of these estates is composed of a layer of one to four feet of pegasse mixed with clay, and though not first class agricultural land, is an area on which settlers might be placed. The Manager of Pln. Diamond is preparing an estimate of cost of putting this area in condition for cane-farming and for connecting it up to Pln. Diamond where there is ample factory accommodation for dealing with the caue.
96. In addition, the proprietors of "Garden of Eden" comprising 1,151 acres, are willing to dispose of the estate for the sum of $\$ 10,000$ and this is worthy of consideration as a settlement area, in view of its close proximity to Pln. Diamond, where work can be obtained, or cane grown by settlers could be ground. It was under water at the time of our visit, however, and needs further examination.
97. It must be emphasised that none of the above lands will be fit for agricultural purposes until the scheme for changing the course of the Lamaha Conservancy canal has been completed.
98. The remainder of the estate lands from Diamond to Georgetown, are under cane cultivation and there are no uncultivated lands which are available or considered suitable for Colonization purposes.
99. We may mention that the road beyond New Hope is in a deplorable condition and would need re-conditioning before any Colonisation scheme could be established.
100. Demerara River, West Bank.-The same remarks in regard to soils apply to lands on the West Bank of the Demerara river from Vreed-en-Hoop to Vried-enStein as ın the East Bank, see paras. 89 and 90 except that the swamps at the back find an outlet to the Demerara river.

[^35]101. From Vreed-en-Hoop to Wales there are no suitable lands available for settlement purposes, excepting lands in the Canals Polder, which we cannot recommend for settlement purposes on account of the present unsatisfactory drainage conditions.
102. Commencing from Good Intent and Sisters Villages and the Wales sugar estate, there are thousands of acres of very fertile uncultivated lands available and suitable for settlement. Full particulars of these lands are given under Pln. Wales in Appendices VIII. and IX. It would not be possible to irrigate these lands if cane or rice farming was anticipated ; but the Wales Estate authorities are proposing to out an irrigation canal from the Kamuni river and, if this is carried out, the question of irrigation would not be difficult. The greatest drawback to settling immigrants on these lauds is malaria, but if sections are taken in systematically and the lands so taken properly cleared and drained, the incidence of this disease should be correspondingly reduced.
103. As on the East Bank, road re-conditioning would be an essential coroldary to any settlement scheme.
104. East Coast, Demerara.-This district comprises the area from Georgefown to the Abary river ; but we propose to deal, in the first instance, with the section from Georgetown to Mahaica, which is bounded on the south by the East Demerara Water Supply Canal situate at an average distance inland of from 6 to 7 miles from the coast, and limits agricultural expansion in that section.
105. All the estates were inspected and there is no land available for settlement schemes other than what would have to be acquired by purchase. The sugar estates in this area are cultivated to the fullest extent possible, except in cases where drainage water is pumped on to front lands to reliepe the position in regard to drainage of the cultivat ed areas in rear thereof. As pointed out by Mr. G. O. Case, in Sessional Paper No. 7/32, this practice of maintaining pumps at considerable distances in rear of the sea defences and pumping water on to the intervening lands is no longer necessary or justifiable, now that permanent sea defences have been erected, and there is no possibility of pumping plants erected near to the sea outlet being destroyed by breaches in the sea dam. These pumps should, therefore, be removed to a point at or near the permanent sea defences and the land now flooded be made available for cultivation or pasturage. Apart from the question of rendering the land available for beneficial occupation this is necessary and should be insisted on in the interests of sanitation.
106. The only property on this coast which is favourably placed in regard to the settlement of West Indians is Cove and John. 'Ihis estate is approximately 17 miles from Georgetown and four miles from the Enmore Sugar Estates, the factory on which is not operated nearly up to full capacity.
107. The total area of Cove and John Estates is 1,682 acres, the first depth of 500 acres being owned by Messrs. Percy C. Wight, C. O. Roberts (present Manager), and the Royal Bank of Canada, whilst the remainder-1,182 acres are Crown Lands licensed to the estate during His Majesty's Pleasure.
108. The cultivation of cane on the estate has ceased and the mill has been partially dismantled. The proprietors were heavily indebted for drainage rates to Government up to 31st December, 1931, to the extent of nearly $\$ 16,000$ which will be increased by this jear's assessment.
109. At the time of our inspection 250-300 acres were leased out for plantain and ground provision cultivation.
110. The soil varies from a heavy clay to a light loam, but in places pegasse swamps occur. The low lying, parts of the estate are subject to inundations during heavy rains, and before cane cultivation could be recommended the drainage would have to be put in order.
111. During the periods 1917 to 1920 the estate returns show that an average of 855 acres only were cultivated in cane with an average output of 1 ton 4 cwts . of first sugar per acre, or a maximum of 919 acres in 1918 and a yield of 1.02 tons of first sugar per acre. The poor juice extraction can be accounted for by the out-of-date milling plant then in use, and it is probably due to the above reasons that all the land was not planted. It will be necessary to bave soil samples taken on the various sections, to indicate its suitability for cultivation.
112. The Manager of Pln. Enmore stated that he would undertake to grind all cane grown on Cove and John. The two estates are not connected up by a waierway, but transport could be arranged by the construction of a canal with aqueducts, across the intervening land. The Enmore Estate authorities are anxious to receive the cane and they might assist in the construction of the canal and aqueducts.
113. There is ample accommodation near the old estate factory for the erection of housing accommodation.
114. Before any proposals in regard to acquisition of this estate for land settlement purposes can be considered, however, it will be necessary to have the irrigation and drainage arrangements thoroughly investigated and an estimate of cost prepared for putting them in proper order, as the drainage appears to be in a bad way. At the same time an estimate might be made of the cost of connecting the estate up to Enmore.
115. An alternative to the acquisition of the estate for land settlement purposes would be to acquire it for the purpose of a Government Stock Farm, proposals for the creation of which are under consideration and were supported by Mr. Montgomery, M.R.C.V.S., Veterinary Adviser on Animal Health, on his recent visit. This would not only meet the requirements for accommodation of a Govercment Stock Farm, but would serve to demonstrate the possibilities of converting abandoned sugar estates into stock and dairy farms on modern organised lines, which might prove to be an important alternative to sugar cane cultivation in areas where the sugar industry fails to survive. The District Commissioner, East Coast, informs us, however, that this land would be taken up for cane-farming if made cultivable by good irrigation and drainage and connected to Pln. Enmore.


#### Abstract

116. Hope.-We inspected Hope Estate which has about 500 acres of land at present uncultivated, but could see no possibilities in regard to this property other than for the accommodation of local farmers-and the present proprietor is gradually working along these lines. 117. The question of pasturage for villagers' cattle along this coast is an acute one and suggestions have been made for rendering areas of Crown Land, between the cultivated areas and the Conservancy Canal, available for this purpose. We have examined these lands and found them to be composed of deep pegasse carrying a rank growth of rushes and scrub bush of little or no value for grazing purposes. It is also either completely inundated in the wet season by seepage through the pegasse dam of the Conservancy Canal, or bone dry and liable to become ignited in prolonged dry weather. 118. Extensive empoldering drainage and irrigation work would be necessary before these lands could be improved even sufficiently to provide rough pasturage. In this connection, we noticed that, even in its present stage, cattle appeared to be able to obtain a certain amount of nourishment from the young shoots of the rushes and other aquatic growths which provide a maintenance food supply over short periods. Experimentation would be necessary to determine what improvement could be effected by empoldering and draining these lands before any expenditure is incurred.


119. Suggestions have also been made for rendering lands between the Mahaica and Mahaicony creeks available for communal grazing of cattle belonging to villag-
ers and others living on the East Coast. In this connection, we would point out that there is a very considerable area of unoccupied land on the West Bank of the Mahaica river lying between that river aud the East Demerara Water Supply Canal which is at present flooded by seepage water through the totally inadequate dam erected by the Conservancy authorities-a state of aftairs which is further aggravated in wet weather by the practice of the Conservancy authorities of making cuts in the dam for relieving the excess water from the Conservancy.
120. We were unable to examine this land as it was several feet under water at the time of our visit, and is still in that condition; but we advise that early steps be taken to investigate the grazing possibilities of this tract of land and if it is oapable of being utilised for grazing, then require the Conservancy authorities to make their dam watertight and to construct alternative reliefs for flood water to the present pernicious practice of cutting the dains.
121. This area could be made readily accessible by a short extension of the existing public road along the West Bank of the Mahaica river across Pln. Cane Grove to the Conservancy dam at "Cane Grove Corner," at which point the cattle could be turned on to the land in question. The possibility of further extension southwards by bridging the Lama and Maduni rivers are almost unlimited and would enable cattle to retire to the higher lands in heavy wet season.
122. The area between the Mahaica and Abary rivers is at present very badly drained and has no irrigation facilities. The problem of drainage is aggravated by the fact that these rivers are narrow and winding and their banks so low that immediately there is heavy and prolonged rainfall the lands become flooded, where unempoldered, to such an extent that the flood water of the three rivers overflow the low watersheds between them, and it is possible to travel overland by boat from one to the other in certain places.
123. There appears to be little doubt that at one time there was a huge lagoon or series of lagoons there, the overflow from which drained out to sea along the channels which are now known as the Mahaica, Mahaicony and Abary rivers through the coastal rim of sand, mud and shell (known locally as "caddy"). With the gradual rising of the Guianas already referred to, aided by the decay and deposition of aquatic growths which have gradually filled in the lagoons along the coastlands in that and other localities, forming deep deposits of pegasse, the former lagoons dried out in each dry season leaving only the three drainage channels as evidence of the former inlets from the higher lands behind, and outlets to the sea. With each wet season, however, the spongy matter which filled the lagoons quickly absorbed the water and it was not until this became so waterlogged that it could take no more that the overflow to the sea increased perceptibly. Thus it can be imagined that, by the filling up of the lagoons with absorbent material, the outflow of water diminished and the period during which the tidal water which carries large quantities of silt in suspension, ebbed and flowed, and the distance to which it penetrated inland became greater and greater with consequent gradual silting up of those outlets.
124. This silting up has been aggravated by dense growths of courida and mangrove trees along each bank, for ever increasing distances up the rivers, the roots of which not only act as collectors of silt and floating weeds, but gradually creep out from the bank (if unchecked by being cut back) and eveutually close the channels altogether, as has obviously happened time and again along our coast.
125. In the Mabaica river, which is the worst of the three, silting up has undoubtedly been encouraged by the artificial impounding of water over a very large area, formerly drained by that river, in order to create the East Demerara Water Conservancy which now supplies the estates along the coast from Mahaica to Georgetown with irrigation water. Similarly, the flooding which periodically takes
place is undoubtedly aggravated by the heavy discharge through the Lama relief sluice into the silted Mahaica river of surplus water from the Couservancy at times when that river is wholly unable to cope with it.
126. In view of the enormous expenditure which would be necessary to irrigate and drain these sections of the coastal belt, we do not recommend that they be taken into consideration at all in regard to establishment of settlements for West Indian immigrants.

## Berbion County.

127. This county extends from the Abary river to the Courantyne river and is unquestionably the most fertile section of the Colony, in so far as the coastal alluvial belt is concerned-which is wider here than at any other point of the coastlands. The riparian lands, especially of the Berbice river, are also more fertile than the average and were at one time intensively cultivated ; but are now almost entirely abandoned.
128. The possibilities in regard to initiation of irrigation schemes are also greater in Berbice than in other parts of the constlands which have been better served in that respect, and the result of this is reflected in the high yields obtained on all Berbice estates. It is hard to understand, therefore, why so little attention has been given to drainage and irrigation works in this County as compared to those in East and West Deruerara and the Essequibo Coast.
129. As regards the possibilities for colonization and land settlement there is no question that the coastlands of this County offer by far the greatest advantages and the best prospects of success, both from the point of view of agricultural possibilities and of health.
130. West Coast.-This district comprises the area between the Abary and Berbice rivers. It is exceptionally well situate with regard to the possibilities of irrigation, as the Abary river flows roughly parallel to the coast, and where estates have been connected up to it iy canals and pamps installed, an assured and ample water supply is obtained. The drainage, however, is very defective except in the cases of the organised estates from Plns. Bath to Blairmont.
131. The soils are generally lighter in texture than those of the East Coast, Demerara, but are suitable for general cultivation, if properly drained and irrigated. The principal crops at present are rice and coconuts; but very large areas remain uncultivated and are only partially used for cattle-grazing. The whole coastline is privately owned up to the first depth (an average distance of $2 \frac{1}{2}$ miles inland) but there are extensive areas of Crown Land between the private properties and the river which could be made available for settlement if the necessary sea defence, drainage and irrigation works were undertaken. We recommend survey and agricultural examination of this section of the coast, in order to ascertain its full possibilities and the probable cost of such works as are necessary to render these very large areas of unoccupied, fertile and uncultivated land available for beneficial occupation.
132. West Bank --'This area was examined from Blairmont to the end of the existing road and the soils along that stretch were obviously of high fertility and were being cultivated here and there with mized crops which showed good growth. These conditions extend to a considerable distance up the river and though no irrigation scheme has been inaugurated there should be no difficulty in tapping the Abary river which runs at the back of these lands and would provide an abundant water supply. If this was dons, the lands would become suitable for cane-farming and in view of their close proximity to Blairmont factory, are of importance for settlement.
133. In rear of Blairmont estate, which is situate along this bank, there are very large areas of land which, if empoldered, drained and irrigated, would be
suitable for agricultural extension purposes. These lands consist of low sand reefs and clay soils, extending from the back of the present empoldered areas to the Abary river between the existing Water Supply Canals and comprise approximately: 15,000 acres, now being used to a limited extent for grazing purposes, but would, if empoldered and drained, make excellent lands for cane-farming, as irrigation water can be made readily available from the existing system of canals and pumps. On this estate, favourable conditions for settlement and cane-farming could easily be created and success achieved with the minimum amount of expenditure.
134. East Bank.-The coastal alluvial lands along the East Bank of the Berbice river from New Amsterdam to Mara are considered to be amongst the most fertile lands in the Colony: Unfortunately, these lands, with the exception of Pla. Friends cum annexis, Mara and other small disconnected areas; are uncultivated at present. The reason for this is not apparent as good communication exists both by road and river, and natural drainage is also obtainable to the river. Possibly it may be partly due to the absence of any irrigation scheme, although a considerable quantity of water appears to acumulate in the rear of these properties which is used for irrigation, but is unreliable.
135. In most of the areas there is now a secondary growth of forest, and malaria is very prevalent-more especially at the Mara end-consequently it is not attractive under present conditions from the point of view of settling West Indian immigrants, but might be of considerable importance, if cleared and suitably grassed, as fattening grounds for cattle from the less fertile coastal and interior savannabs, prior to export.
136. The possibilities in regard to irrigation are good as abundant water could be obtained from the Canje river (probably by gravity) if the necessary supply canal was constructed.
137. East Coast, Berbice and Courantyne Coast.-This section of the coastlands contains vast areas of fertile land between the coastal road and the Canje river which runs parallel to the road at an average distance of 17 miles inland, the greater portion of which is still uncultivated. As in other parts of the Colony, the tringe is owned privately to a depth of about $2 \frac{1}{2}$ miles from the sea, but with the exception of the sugar estates (Plns. Albion, Port Mourant, Springlands and Skelion) no serious attempt has been made to cultivate the Orown Lands in rear thereof, other than in rice. With the exception of these estates the drainage is in a very bad condition, but has been recently improved in the section from Kilmarnock to Springlands (a distance of 14 miles) by the erection of a dam between those two points on Crown Land at an average distance of 7 miles inland.
138. Kilmarnock Empolder.-This area, which comprises approximately 30,000 acres, is divided, according to the District Engineer, Berbice, into three main soil types, namely :-

139. We inspected this area from Kilmarnock Ketting sluice on the publicroad to the back of the empoldered area and the soils in the Baboon reef and water savannahs were examined. Such of the water savanoah soils as were taken within the empolder were composed of a thin layer of pegasse $2^{\prime \prime}$ to $3^{\prime \prime}$ in depth with a heavy blue-clay sub-soil but we were unable to proceed further as the southern canal was blocked with weeds and the savannah was so deep in water as to render passage over it, or soil examination, impossible.
140. The late Sir John Harrison examined a number of soil samples from this area at an average distance of five miles from the coast-line and the reports of his -analyses are as follows:-

141. His conclusions were as follows:-
"These soils are typical of the alluvial coastlands and vary in charac"ter from very heavy clays to sandy clays. All are low in line and "deficient in phosphuric acid; they contain from fair to bigh proportion " of total potash, which with the exception of Nos. 8 and 14 appear to be, " as a rule, in a state of low immediate availability. The nitrogen content " in the case of No. 14 is very low, somewhat low in those of 8 and 13 and "satisfactory in the remainder."
142. The Chemist-Ecologist of the Departnent of Agriculture visited this empolder during February, 1931, and his report on his inspection is submitted in
C.S.O. File $5980 / 30$. In dealing with the samples of soil collected the ChemistEcologist states, inter alia:
"Sample No. B. 39 is a topsoil sample 0-9." It consists of a brown " sandy loam and appears to be typical of the topsoil of other sand reefs"which occur within the coastland area of the Colony. The sample was " obtained from the middle of Baboon reef, some four miles south of the " main road and 50 yards east of the Kilmarnock Ketting.
"Sample No. B. 40 is the subsoil of the last sample from 9 inches to " 21 inches. It consists of an orange sandy loam, similar to the subsoil of "other coastland sand reefs.
" Sample No. B. 41 is a sample collected to a depth of 6 inches. The" top 3 inches consist of pegasse while the next three inches consist of a " blue-black heavy clay. The sample was obtained from a large expanse of " water savannah and the spot was just south of Round Bush reef, some "seven miles south of the main road and about 50 yards east of the "empolder dam. The soil supports a covering of bizzy-bizzy and fine "grass. The area at the time of inspection was covered with some two or "three inches of water. Inspection of a number of holes, dug in the" vicinity, indicated that the pegasse topsoil was of an average depth of "three inches. Whether this depth of pegasse topsoil is general for the "soil type throughout the area may only be decided by a detailed survey."

He further states that " the sand reef soil of the area appears to be "suited to the cultivation of such permanent crops as coconuts, citrus, " pineapples and other plants usually grown upon the coastland sand reefs " of the Colony. Given a controlled water supply and adequate drainage "facilities, the water savannah soil type appears to be well suited to support "the growth of rice. The utilisation of the area for rice depends on " whether the pegasse layer is uniformly thin enough to allow of the con-. "struction of meres. Deep layers of pegasse do not, as a rule, occur on the"water savannah soil type. The question can, however, only be settled " definitely if a detailed soil survey is carried out."
14.3. Tie Agricultural Superintendent, Berbice, reports on the 29th July (ride C.S.O. File $2138 / 32$ ) that he visited the land in the second depths at the back of the villages Philippi to Macedouia within the Kilmarnock Empolder and followed this line eastwards until about the middle of Tarlogie. From that point he crossed the savannah to Macedonia and on to the Baboon Reef where he emerged and examined the savannah on each side. He states the conditions were similar to other parts of the empolder which he had visited and that the soil consists of clay with a thin overlying layer of pegasse, not more than 3 inches thick and very often less than that. In his opinion the entire area which he visited is suitable for rice, with the exception, of course, of the sand reefs. He states he had not encountered any difference in the appearance of the savannah soils and did not consider it necessary to obtain soil samples.
144. This area would appear to be ideally suited for East Indian settlement, as the water savannahs, given adequate irrigation and drainage, is suitable for rice and ground provision cultivation and grazing; and selected sections of it at the Springlands end might be suitable for West Indians.
14.5. This is one of the cases where empoldering of virgin Crown Land in preference to the acquisition of privately uwned lands can be regarded as justifiable owing to the fact that the Crown Land was unforested and a comparatively small amount of empoldering was necessary.
146. Moreover, the back (or southern) canal of this area, if widened, deepened and connected up to the Skeldon Water Supply Canal could be utilised as a. main conduit for irrigation water along the coast and might, with advantage, be-
extended to the back of Port Mourant. This would assist in keeping flood waters cff the sectiou from Philippi to Bloomfield whilst providing irrigation water for that section also.
147. The estates of Springlands and Skeldon are exceptionally well situated for -extension of their cultivation to almost an unlimited extent. The Springlands factory is, however, out-of-date and the Skeldon factory which has recently undertaken the grinding of the cane from Springlands is at present regarded as being up to its full capacity and is making about 11,000 tons of sugar a year. Any extension of cane cultivation in this area, therefore, would involve increase of factory accommodation which the proprietors do not appear to be disposed to provide unaided in view of the present depressed state of the sugar market. If any scheme can be evolved whereby Government assistance could be obtained for this purpose there is no reason so far as land is concerned why this factory output could not be increased to 25,000 to 50,000 tons of sugar a year, if the vecessary cane-farming settlements where established around it, to supplement estate production. Points greatly in favour of this locality are that it is remarkably healthy and has good artesian water supply, and has already established a small colony of West Indians on the estates under conditions which appear to have met with their approval, as it is gradually increasing.

## Establisement of Labour Bubeati.

148. The question of establishing bureaux for the recruitment of labour in the chief West Indian Islands was discussed with the estate managers and the Sugar Producers' Association. The general opinion was that such labour recruitment bureaux could be established with advantage and should receive early attention.
149. The view was expressed that if they can be successfully established, the estate authorities would be able to apply, through a central bureau in Georgetown, for either a permanent or seasonal labour supply given full details of number reçuired and wages payable.
150. We are of opinion, however, that until the estate authorities or the Sugar Producers' Association can satisfy Government that every possible means have been adopted to utilise the unemployed of this Colony no steps should be taken to introduce outside labour merely as such; but there is much to be said for a system of infiltration leading to settlement.
151. As previousily stated, however, we are of opinion that judicious introduction of skilled cultivators from the West Indian Islands, preferably for cane-farming but also for cultivation of general crops to which they are accustomed, would act as a stimulus and an example to the local population to take to the land.
152. It is possible that the introduction of West Indians as seasonal labourers on sugar estates at crop time, might be justifiable, and that if settleruents, either for cane-farmers or general agriculturists, were prepared in advance so that good settlers might be selected from these labourers and induced to remain.
153. Whatever system is adopted for recruiting settlers, rigid selection is essential as agriculture is a sikilled vocation, a fact too lightly recognised, and the chances of success or failure will rest very largely on initial selection.

Scmmary of Conolusions.
154. The Colony is divided into three sections-
(a) The coastal alluvial belt, comprised principally of alluvial clays (and marine silt) of high fertility, particularly suited for sugar and rice cultivation, interspersed with sand and pegasse soils more or less suitable for the cultivation of the general run of crops grown in the Colony. This belt is by far the most densely populated part of the Colony and to it practioally all the road, rail and other public services, and established industries are confined. As there is ample land available we consider that colonization
and land settlements should, if the first instance at any rate, be restricted to this belt.
(b) The intermediate peneplain, consisting of sands, gravels, clays, lateriter and rocks-most densely forested-and apparently, as a rule, of low agricultural value.
We recommend that in this area attention should be directed chiefly to the possibilities of the savannah lands for cattle-grazing, and to the improvement of pasture gzasses with that object in view and to the clay or clay sand and gravel areas ip the vicinity of mineral deposits, where settlers could engage in agriculture as an accessory to mining and vice versa. The Potaro river area is one which might first be considered in this latter connection.
(c) An elevated peneplain which does not appear to warrant investigation for the moment or until the development of internal communications. renders this desirable.
155. We consider that attention should first be given to the possibilities of settling immigrants on and in the vicinity of the existing sugar estates, and every effort should be made to develop cane-farming as an integral part of any settlement scheme. In this connection we are of opinion that there should be a gradual change of policy from the present entirely large-proprietary system dependent solely on hired labour, to one whereby cane-farming will be an essential part of the sugar industry. We are convinced that unless this is done, or the price of sugar rises: considerably in the near future, and remains at that increased price the future prospects will not be adequately safeguarded.
156. Notwithstanding the importance of co-operation by the sugar industry in any scheme of colonisation by West Indians we are of opinion that there are somewhat limited possibilities of settling such immigrants on the coastlands as general agriculturists, if suitable lands are acquired and put in order. In this connection we have expressed the view that it is (generally) far more economical to acquire abandoned estates where these can be secured at reasonable cost and to extend on to the Crown Lands in rear thereof as circumstances warrant, rather than to attempt to empolder, drain and irrigate virgin Crown Lands for that purpose.
157. We cannot too strongly emphasize the necessity for detailed agricultural inspections and engineering surveys over any selected sites on which it is proposed to estallish settlements before any expenditure is incurred by way of purchase or otherwise.
158. We are firmly of the opinion that an introduction of settlers, whether by way of labour in the first instance, or as cane-farmers, can best be done through the sugar estates and settlement schemes should be designed (if possible) to expand from the estates outwards. The sugar industry is the life-blood of this Colony and there is nothing in sight that can adequately take its place. Until the vacaut unoccupied lands on sugar estates are fully utilised and adjoining lands suitable for the purpose are cultivated with sugar cane to the full capacity of the factories working day and night, the sugar industries cannot be regarded as being on a safe economic basis at present prices; and any scheme of settlement which does not bring this about but may, on the contrary, accentuate the present difficulty of a full supply of cane for existing factories, will fall very much short of requirements. Moreover, we consider that settlement schemes worked in conjunction with the estates can be more economically initiated, and would be more likely to be a permanent success than settlements attempted independently.
159. In this connection, it should be borne in mind that results from settlementsin conjunction with sugar estates would give immediate results, whereas results. from independent settlement would be largely dependent on types of cultivation. which would require five or six years to mature.
160. We strongly advocate the extension of experiments with all crops, both rotational and manurial, likely to be of economic importance from a permanent land settlement point of view, as Government should not only be in a position to allocate the land to settlers, but should be equally able to indicate what crops can best be grown on the particular lands allocated and for which a market can be found.
161. As regards labour supply pure and simple the information we have received at various times from the same sources have been so conflicting that we advise caution in this respect, but are of opinion that it might be advantageous to bring in agricultural labourers in judicious numbers with a view to those who prove themseives efficient agriculturists being drafted into prepared settlements in conjunction with sugar estates. So far as we could ascertain, the method of selection which has given the best result has been by sending reliable men from the Islands already domiciled here to select labourers personally known to them from their own Islands.
162. With regard to cattle grazing on a large scale we are of the opinion that there is very large accommodation for this on the coastal savannahs, particularly in the Berbice County and we advise rapid topographical surveys accompanied by soil examination and subsequent experimentation to determine the carrying capacity of these various soil types with the present grasses and what can be economically done to improve them. We are in some doubt, however, of the possibilities of improving these savannahs sufficiently for fattening cattle for outside markets and we, therefore, consider it desirable to conduct similar experiments on the more fertile soils along the Berbice river from Mara downwards with a view of providing fattening areas for cattle prior to export.
133. Although somewhat outside the scope of our investigations we would emphasise the necessity for a pure and reliable water supply in connection with all settlements. This has been particularly stressed in regrd to Barbadian immigrants as they are accustomed to a good water supply and will expect to find it in whatever area they are transplanted to. We have no doubt this applies to immigrants from some of the other Islands also. In any case it is so desirable from all points of view that it should be a sine qua non of any settlement scheme. One of the points in favour of establishing settlements on or in conjunction with sugar estates is that a supply of artesian water is usually available.
164. Another matter of great importance to successful land settlement is sanitation, and particularly anti-malarial measures, as the West Indians are peculiarly susceptible to malaria and any serious outbreak amongst them would certainly act as a deterrent to others coming and might result in those already brought over having to be repatriated. The history of past attempts at settlement has demonstrated the vital part malaria plays in determining the success or otherwise of settlement schemes in this Colouy.
165. We desire, in conclusion, to express our thanks to all those who have assisted us in our investigations and particularly to the Estates' Managers and the District Commissioners, who have shown keen interest in the objects of our investigation and a genuine desire to assist wherever possible.

We have the honour to be,

> Sir,
> Your obedient Servants,
> J. MULLIN,
> Commissioner of Lands and Mines.
> F. BURNETT,
> Deputy Director of Agriculture.

## APPENDIX I.

REPORT OF A CONFERENCE WITH TIIE B.G. SUGAR PRODUCERS' ASSOCIATION ON MONDAY, 18ti JULY, 1932.

- The Commissioner of Lands and Mines and the Deputy Direçtor of Agriculture attended a meeting of the B.G. Sugar Producers' Association, which was held in the Assembly Rooms, Georgetown, on Monday, the 18th July, 1932.

There were present:-
Hon. F. J. Seaford, Chairman,
Hon. G. E. Anderson,
Hon. R. E. Brassington,
Hon. C. Farrar,
Mr. F. A. Mackey,
Mr. J. C. Gibson,
Mr. H. G. Seaford, .
Mr. C. Howard,
Mr. W. S. Jones,
Mr. R. E. Rhodes,
Mr. H. F. Chapman, with the Secretary, Mr. B. H. Bayley.
At the request of the Chairman, the Commissioner of Lands and Mines explained the object of the questionnaire and of the investigations being carried out by the Deputy Director of Agriculture and himself.

As those present were no doubt aware, there was a considerable surplus population in some of the West Indian Islands and there had been in past years migration of West Indians to such places as Cuba, Porto Rico, Venezuela, Panama, Brazil, etc. Those countries were no longer receiving West Indians and in some cases were repatriating them, consequently it was a matter of concern both for the Governments of the islands concerned and Imperially that either work should be found for this surplus in their own islands or that alternative outlets for migration should be found. So far as could be judged, the movement-seasonal and other-wiso-was about 70,000 a year and it was therefore a matter of considerable importance to place these people.

As this Colony had been for many years clamouring for ssttlers and labourers in connection with the Sugar Industry and had been offering very attractive terms to settlers from India, attention had naturally turned to British Guiana as a place to which such migration might be diverted with beuefit to themselves and to this Colony.

The first question to be decided, therefore, was what lands were available for settlement and what were the most suitable crops for them to grow with reasonable prospect of success. Also what openings there were for seasonal labour,

It had been stated that the only two "money crops" which could be grown in this Colony were sugar and rice. So far as the West Indians were concerned rice was uusuitable; but cane-farming, both proprietary and as a peasant industry, had been in vogue in the West Indies for generations and there were a great many who were expert and industrious at that class of work. In many cases the sugar industry in those islands had collapsed owing to low prices-as also limes and other -cuitivation-and there must be a great many good and industrious farmers who would be only too glad to take up cane-farming here if reasonable facilities. Were offered.

There was another point and that was that sugar, no matter how the price might fluctuate up or down, could always be sold at once; whereas the market for rice not only fluctuated as regards price, but was uncertain as regards sales. Very -fter when there was a glut in the market, as at present, rice had to be held in store for long periods before a sale could bs obtained, whereas sugar could be disposed of immediately.

It was clear that this Colony must make some response to the suggestion that this surplus West Indian population, or part of it-preferably that part best suited to this Colony's requirements-might be absorbed by British Guiana. Otherwise we should look rather ridiculous after all the representations we had made as to the dire necessity for more population here, and our chances of getting settlers in the future would be minimised.

The matter was one not only of local but of Imperial interest and we should endeavour to meet it imperially and at the same time turn it to our own advantage.

What Mr. Burnett and be desired now was that the planters here, or the Sugar Producers' Association, would be so good as to give them the benefit of their advice and assistance-based on their knowledge and experience-in drawing up a scheme whereby suitable settlers could be placed in such a way as to ensure their earning a living and being happy and comfortable even if they did not make their fortunes.

Their view (that of Mr. Burnett and himself)-and the more they had gone about the more strengthened it has become-was that the interests of the sugar mndustry were bound up with any sfstem of immigration to the Colony, and that the sugar estates should be the pivot on which any schemes of immigration turned and its requirements bo satisfied and its position safeguarded and assured in the first instance. Immigration could best be expanded outwards from the estates and should not be a drain on them. The Sugar Industry had been the great employers of labour from the beginning. The first form of labour was that of slavery. Then, with the abolition of slavery, came the system of indentured labour for the sugar estates-which was also a form of compulsory labour-and this continued until comparatively recently. But the present position was that the industry was entirely dependent on the goodwill of the labourer here to carry on cultivatiou. Now, that goodwill had been secured at considerable expenditure on such things as free housing, fiee rice lands, free land for cattle-grazing, free medical attention, otc.-all of which cost money to provide. It also meant in some cases that large areas of land on sugar estates which were suitable for cane cultivation were now under rice or set aside for cattle-grazing with a consequent reduction of cane available for the mill. Had the land been given out for cane-farming instead of rice and the cultivation of cane encouraged, possibly much land on estates that was now underrice would be under cane. There was, however, they had found, plenty of suitable land in and around certain estates-notably in Berbice and Essequibo-where canecultivation could be expanded; but in some cases this would require enlargement of factory capacity.
(In reply to Mr. Gibson, the Commissioner stated that he was not advocating that lands on estates now given out to rice should be taken away and given to cane* farmers; but it was conceivable that if West Indian cane-farmers were able to demonstrate that more money could be made out of cane than out of rice the rice farmers would, of their own accord, turn to cane-farming and, after all, what a sugar estate wanted was cane and the more they got the less the overhead charges per ton would be. Moreover, the gross value of the cane crop was more than three times that of the rice crop per acre).

In going around they had found that despite the advantages offered to ricegrowers on sugar estates there was an ever-growing tendency on the part of EastIndians to acquire their own rice lands and this would of course be accentuated by any large schemes for making additional lands available for rice such as the Kilmar-nock-Springlands empolder where about 20,000 acres would be made suitable and available for rice. It is possible, therefore, that estates may not in future bo able to hold labourers by granting rice lands unless additional East Indian settlers were secured.

Mr. Burnett and he were aware that cane-farming had not been successful here in the past; but it had to be remembered that in this Colony there were counter-
attractions such as the gold, diamond and balata fields and the rice industry. In the islands the labour was of a different type and, if we could get the right peopla here, there was no apparent reason why the sugar estates could not take them in hand and settle them on the land under their control, help aud gaidanoe and make a success of it as had been done in other countries. In Trinidad, Mauritius, South Africa and elsewhere cane-farmers were now the mainstay of the industry and what the planters in those countries could do he was sure the planters of this Colony could do also.

There were two systems by which this could bs done-the leasing of land by estates to settlers and provision for housing, or the formation of settlements along side or in rear of sugar estates with a vies to eventual acquisition of their holdings by the settlers. It was not expected that every estate would be able to assist in all the ways suggested in the questionnaire, but some might be able to help in one or more directions, and some in others.

Mr. Burnett and he had asked for this interview, not only to make clear the intention behind the questionnaire, but to ask if possible that the Association would themselves consider-or appoint a Sub.Cornmittee to consider-what schemes were possible in regard to settlement on or in the immediate vicinity of sugar estates and under sugar estate control, or for supply of seasonal labour and what financial assistance would be required in regard to preparatiou of land, provision of housing, increase of milling capncity, etc.

Both he and Mr. Burnett were convinced that there was a great deal at stake and they would be extremely grateful for any practical suggestions or information the Association could give them. At the same time he desired to make it clear that they were not setting up as final arbiters in the matter, but were endeavouring to put up as much and as sound information as possible and would therefore welcome assistance at this stage. It would be no use their putting up schemes to Government with which the planting fraternity were not in agreement and which however thoughtfully drawn up, might be shot to pieces by criticisms of planters who bad information and practical experience not at their disposal.

They felt, however, that opportunity was knocking at the door and that it would be a fatal thing to disregard it and not take full advantage of that opportunity. The position now was more favourable than it had ever been, as instead of baving to go to India begging for this and that concession and having impossible proposals put to us as the terms on which emigration might be allowed, we now had a ready supply of labourers and settlers at our front door and anxious to come in.
'Ibere was one thing he wished to add; which was that as a result of their visits and enquiries they were satisfied that there was already a serious shortage of labour on some estates, which if not remedied, might prove fatal to continuance of cultivation and he earnestly asized that early consideration be given to the possibilities of augmenting the supply-preferably by resident settlers or where necessary by seasonal recruitment.

The outlook and attitude of labour had changed vers much in this Colony in recent years and the writing was on the wall for everyone to see. Alroady there were Labour Unions and there was talk of a Workman's Compensation Act and other signs of awakening consciousness. He (the speaker) remembered when Laboul Unions were laughed at in England but to-day they were a force in the land. This had all happened in his time and he was not an old man by any means. He had also seen very considerable change in outlook here and felt that unless cune-farming was introduced and fostered many estates would go out of cultivation before long.

It was not only a calamity for a sugar estate to go out of cultivation, but il might almost be regarded as a crime, as there was nothing which could replace it in
value to the community as a whole and once abandoned an estate never came back into cultivation.

Mr. F. Burnett, Deputy Director of Agriculture, added that he had been around the estates and would like to thank all the managers concerned for their very kind hospitality. He had discussed these questions with the managers and would like to bring forward one point that might also be taken into consideration-the class of labour they would have to deal with would be West Indians who were, as they knew, admirably suited for cane cultivation and which they understood. He desired to endorse what had been said by Mr. Mullin and did not think there was much he could add to what had been said at that stage.

The Chairman, Mr. F. J. Seaford, then addressed the meeting. They all appreciated, he said, the points made by Mr. Mullin and they knew that in the past there had been a shortage of labour and he believed that there would be a shortage again. He thought that it would be to the benefit of the sugar industry and the Colony in general if the industry could be enlarged. The position of the sugar iudustry would be different if the output of sugar was double what it was at present.

Mr. Mullin had disclosed a very peculiar position and had opened vary big questions indeed and they were not in a position that day to give any definite promise one way or another except to say that they would assist, and to assure himself and Mr. Burnett that Government always had their goodwill in conuection with their plans for the improvement of the industry.

He stated that the question of seasonal and permanent labour would be gone into.

He would like to propose, if they were agreeable, that a small committee be appointed to go into those questions that required to be gone into and that Mr . Mullin and Mr. Burnett be asked to give their assistance when it was required. The questions were too big for them to go into that day. It could better be gone into by a small conmittee; but of course be would like to hear the views of members.

After some discussion it was decided to appoint a Committee consisting of Messrs, Gibson, Andersun, Farrar, Seaford, Murison and Brassington to go into the matter, Messrs. Mullin and Burnett having expressed their willingness to assist at any time.

## APPENDIX II.

UROP TABLE.

CROP TABLE.


## APPENDIX III.

REPORT ON GEOLOGICAL SURVEY OF PART OF THE NORTHWEST :Dis'CRICT by Mr. W. T. Lord, Government Surveyor.

Grologigal and Mineralogigal Brange, Department of Lands and Mines,<br>7th June, 1929.

Sir,
I have the honour to submit the following report on the geological survey of a pari of the North Western District, car ried out during the months of March and April, 1929.
2. The country examined, approximately 156 square miles in area, extended from the left bank Barima river, from a point opposite Morawhanna, north-west for three miles, and south-west to the Yarakita river and portage, the eastern and southern limits being the Aruka river up to its tributary the Aruau, thence up the Aruau and its tributary the Bunsika, back to the portage to Yarakita. This area is depicted on a map prepared under the direction of the Deputy Conservator of Forests and Superintendent of Surveys, Forestry Department.
3. The object of the survey was to determine whether any minerals of an economic value were to be found in the lands falling within the area proposed for a land settlement scheme. To this end, lines were cut along a main traverse line, to south-east and north-west for a distance of 3 miles each way, at distances on the main line of 2,500 feet apart, and exposures of rocks examined along such lines. The lines were cut by compass, and barometric readings taken.

## Physioal Conditions.

4. The area examined consists of an alluvial plain extending from the northern limits of the survey up to the Wauna creek. This is broken by steep isolated hills which attain to a height of over 170 feet in the Mabaruma and Attibani hills, and to over 300 feet in the Issororo-Waikerebi-Wanaina range. Between the Koriabo and its tributary the Arukamai, the hills of the latter name stand out to a height of over 500 feet. From the Wauna creek south-west to the Yarakita, the country consists of a succession of low sand hills forming the watershed between the tributaries of the Amakura and Aruka rivers. These sand hills are generally flat-topped with steep gullies but this topographic expression is altered by a range of hills of basic rocks capped by red lateritic clay and having rather sharper outlines, which extends from Arukamai west by south to Yarakita, and culminates in Tiger Hill, 667 feet high.
5. The main streams are all tidal, and this influence is felt up to the lower end of the portage to Yarakita. The streams in the low-lying pegass swamp are tidal practically up to their source. The whole area is forested, the types of forest varying with the different soils met with on the survey. Exposures of rocks are in fair numbers on the hills, where in some instances they form huge masses about 30 to 40 feet high, with steep precipitous faces.

## Geologic Conditions.

6. The oldest rocks seen are the gueisses, which extend inland from Wauna creek to the south-west limits of the survey. These form the country rock, and as the result of their in situ decomposition, give rise to the sand hills of the area. The gneiss is intruded into by dykes of granite and a basic schistose rook, the latter of which can be traced, trending roughly east by north to west by south, as a narrow belt between Arukamai and Tiger Hills. To the north and north-east of Wauna creek, the schists form hills which stand out as islands in the surrounding swamp, and are exemplified in the Mabaruma, Attibani, Kumaka, and Barabina hills, as well as the other smaller hills seen in this area. Arukamai and Tiger hills are also of this formation. which is characterised by the hills being covered with red lateritic clay, and limonite in the form of concretionary ironstone and pebbles.
7. Examination of the gneiss disclosed the effects of its having been subjected to the considerable regional metamorphism which took place over the area; the foliation strike is roughly east-by-north to west-by-south, which agrees with that observed in the schists. In places the gneiss is intersected by veins of pegmatite and surface crystalization of the quartz element of the rock. In the vicinity of the creek at Camp 6, it appears to have been intruded into by a granite, which differs from the surrounding gneiss in having a pinkish colour, and is apparently aplitic. The masses of granite at this point are much contorted and break into square pieces. The gieiss is generally grey in colour, and in some exposures very fine-grained.
8. The dykes and bosses of intrusive platonic rocks forming the Mabaruma, Attibani and isolated hills in the north-east part of the area are composed of crystallize hornblende-schist which in places stand out as steep cliffs over 50 feet high. The hills are capped by a red lateritic.clay, the decomposition product of the sclist, with pebbles of linoonite and concretionary ironstone. The schists are fairly rich in pyrites and have been found on assay to be slightly auriferous, ${ }^{\left({ }^{*}\right)}$ and evidences of old gold workings were seen at Mabaruma hill.

The same conditions are ubserved at Arukamai, and the range of hills running west-by-south to Tiger Hill. In the creeks around one of the bills of this range near to Camp 6, the gravels consisted of lonally derived quartz and pebbles of limonite, and proved on panning to be auriferous.
9. On the western face of Issororo Hill an exposure of dark compact finegrained rock is seen. This has not the foliation or fissile texture of the schist and appears to be an epidiorite. It was found by the late Sir John Harrison to be auriferous (") matite, but gold was not found in the gravels washed at the foot of the hill. The upper part of the hill is covered in places by a hard reddish-brown porous laterite or concretionary ironstone, and with red lateritic clay and pebbles of limonite.

In a cutting in the road which runs along the top of this hill-in process of disintegration of the rock-the interstices in the limonite are filled with a pinkish mineral, probably gibbsite, and crystals of quartz, and flakes of mica up to about 2 inches across are seen embedded in the rock.
10. At the lower end of the Portage to Yarakita there is an exposure of tongh dark-coloured rock which does not extibit the fissile texture of hornblende-schist, and is apparently an epidiorite. The outcrop was quite small, and the hills in the vicinity did not appear to be covered with the characteristic red clays observed at Issoruro.
11. On the Maridawa hill and the eastern base of Tiger hill, quartzite was exposed in association with the schist. The specimens examined were darkchocolate coloured, and showed pyrite and magnetite.
12. A small picce of hematite was found near the Morokuina creek, but its association with the gneissose-granitic rock found in this vicinity has not been ascertained.
13. A black micaceous rock was found on Arukamai hill near to its southern slope. It is somewhat decomposed and is perhaps associated with the schists found on this hill.
14. The gneissose and granitic rocks, as well as the schists are penetrated by reefs of yuartz-seen massive and in veins-and the denudation of these has given rise to the angular and sub-angular gravels found in the creek beds and flats. No gold was observed in the quartz on same being broken, but pyrites is sometimes present. The concentrates from these gravels show black sands-ilmenite and

[^36]rutile, and in some instances crystals of a red colour, and very small, probably garnett. The gravel which seemed most auriferous was found at shallow depths near to the contact between the schists and gneissose rocks, and in no case was there evidence of the gravels having undergone much natural concentration, as the quartz was for the most part angular to sub-angular.

## Conolusions.

15. From observations made on the survey it would appear that the rocks in the district from which gold may be derived are the epidiorites and hornblende schists, and the gravels derived therefrom. Opportunity did not permit of more detailed examination than was undertaken-examination of hand specimens of rociks and panning the gravels in creeks and flats-but the general indications point to the most likely existence of auriferous areas near the contact between the gneisses and hornblende schists. The rocks in the district are quite suitable for road metal, but the prospections did not disclose the presence of other minerals in economic quantities.
16. $\Delta$ list giving the numbers of the specimens collected with their locations, is attached, the rocks are stored in this Branch, and samples of soils collected have been forwarded to the Director of Agriculture.

Respectfully submitted.
I have the honour to be,
Sir,
Your obedient Servant,

The Honourable<br>The Colonial Shoretart.

W. T. LORD,<br>Government Survejor.

LIST OF ROCK SPECIMENS COLLECTED ON TEE COLONIZATION SCHEME SURVEY, NORTH

| $\begin{aligned} & \text { No. nf } \\ & \text { R"olic. } \end{aligned}$ | Looality whence obtained. |  |  | Specific. Gravity. | Name of Rock. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | At 7.300 ft. on S.E. line from peg No. 6 | ... | ... | 3.0 | Hornblende-sohist. |
| 2 | At 9,300 ft. on S.E. line from peg 6 . ${ }^{\text {a }}$, | ... |  |  | de. |
| 3 |  | ... |  | ${ }^{3125}$ |  |
| 5 |  | ... |  | 2.95 | Epidiorite. do. |
| 6 |  | $\cdots$ |  | 2.72 | Pegmatite. |
| 7 | Do. w do. 15 do. | ... |  | 3.13 |  |
| 8 | At $15,000 \mathrm{ft.on} \mathrm{~N} . \mathrm{W}$. line from peg 15 do | $\ldots$ |  | 303 |  |
|  | Ir du'ting Do. Roal on Issororo hill near 11 miles | $\ldots$ |  | 3.03 2.38 | Hornblendc-mohist. |
| 11 | At $11,000 \mathrm{ft}$. on N.W. line f.om peg 17 ... | $\ldots$ | .. | 2.9 | Quartz. |
| 12 | At $11,700 \mathrm{ft}$ on N.W. line from jeg 17 ... | ... |  | 2.9 . |  |
| 13 | At Kammarta creek |  |  | 2.45 . | Gneisp. |
| 14 15 |  | $\ldots$ | $\cdots$ | 2.59 | do. with pegmatite. |
| 15 | Near Mr.roknina creek on S.E. line from peg 24 On Arukamai hill, about 14,00 ft. on S. W. line from peg 30 | . | $\cdots$ | $\stackrel{1}{6.0}$ | Hematite. <br> Horublende-schist. |
| 17 | At creek at Camp 6 ... | ... |  | 2.72 |  |
| 18 | Do. | $\ldots$ | ... | 2.60 |  |
| 19 | At $11,000 \mathrm{ft}$, on $\mathrm{N} . \mathrm{W} .1 \mathrm{line}$ from peg 31 ... | ... |  | 2.65 | Granite. |
| ${ }_{21}^{20}$ | At 12,000 ft. ou N.W. line frum peg 31 ... |  | $\ldots$ | 2.66 | Gneisa. |
| 22 | At 12.500 ft . on N.W. line from peg 31 | $\ldots$ | $\ldots$ | 2.62 |  |
| 23 | At 400 ft . on S. S. line from peg 34 |  | $\cdots$ | 2.54 |  |
| 24 |  |  | $\cdots$ | 2.62 2.68 |  |
| 25 26 | At $15,200 \mathrm{ft}$. on s . E. line from peg 34 |  |  | 2.68 |  |
| ${ }_{27}^{26}$ | At 12.700 ft , un N . W. line from peg 37 l ... |  |  | 2.63 | Gneise |
| ${ }_{28}^{27}$ | at $5,000 \mathrm{ft}$. on N.W. line from peg 41 | $\ldots$ |  | 3.0 | Hounblende-sebist. |
| 29 | it 12000 ft . on N.W. lide from peg 41. | $\cdots$ | $\ldots$ | ${ }_{3}^{2.63}$ | Gneise. |
| 30 | In pit about 000 ti. Se. Fe, mm reg $399^{\circ}$ | . |  | 3.03 |  |
| 31 38 | At $10,000 \mathrm{ft}$. on $\mathrm{N} . \mathrm{W}$. lme from peg 45 |  |  | 2.67 |  |
| 33 | Do. ${ }^{\text {a }}$,.. | $\ldots$ |  | 3.12 | Hornblende-schist. |
| 34 | at low r eud of Yarakita Portage $\quad$... |  |  | 3.03 |  |
| 35 | dt foot of Tiger Hill 3,500 fi. S.E from Parsley's peg 49 | $\cdots$ | $\cdots$ | - $3 \times 8$ | Quartzite. |
| 37 <br> 1 | In ereek nuar 13,000 ft. on S.E. line from peg 34 |  |  | 2.62 | Gneisp. |
| $3{ }^{\text {\% }}$ | At S.E. toe of Maridawa hill, K.B. Koriabo | $\ldots$ | $\cdots$ | 2.76 | Quartzit |
| 39 | On Maridawa hill, L. B., Knriabo river |  |  | 3.12 | Hornblende-schist. |
| 40 | )n Arakamai hill, on S.E. line frem peg 31 (a) | ... |  | 2.90 | Mioa. |

## APPENDIX IV.

geport on the north west district colonisation scheme SURVEY by Mr. L. S. Hoeeneeri, M.B.E., Deptty Conserfator of Forests.

# Foregtry Drpartirbet, Georgetown, Demerara; 

 11th June, 1929.Sir,
The following is a report of the survey made in connection with the Colonisation Scheme of the Area in the North West District bounded by Barima, Aruka, Aruau and Yarakita Rivers.
2. Explanatory.-The survey was divided into 2 sections, viz.: The survey of 3 main and 8 tie lines and of Yarakita, Aruau aud part of Aruka rivers to form the frame-work of the map;'and a grid of cross lines at right angles to, and between, the main lines for mapping the details.

Along alternate cross lines trees were enumerated for the valuation of the foreste. The land level was obtained by Abney level on the main survey and by aneroid barometers along the cross lines and heights are given to the datum of low water in Barima River at the road stelling. A tide gauge has been erected by the Commissioner of the District at Kumaka Stelling in Aruka River and a Benchmark on Mr. P. C. Pierre's house at Kumaka Hill was connected by levelling and was determined as 78.86 feet above the 5 foot mark on the gauge.
3. Map.-The accompanying map, which has been drawn by Mr. G. G. Brinsley, Forest Surveyor, is plotted to a natural scale of $1 / 62,500$, or approximately, 1 mile to an inch. The map shows the area covered by the survey and also an outlying area, compiled from plans on record in the Lands and Mines Department, up to the boundary of the Colony.
4. Frame-work Survey.-Messrs. V: Roth and C. H. Parsley, Government :Surveyors in the Lands and Mines Department, were entrusted with the framework survey and they left Headquarters on 5th February.
5. Mr. Roth made the following surveys :-Main Line 1 from the Barima terminus of the Road on a S.W. magnetic bearing for 119,090 feet to its termination, to the West of the portage at Yarakita Creek; Tie Lines 4 and 5 to the S.E. for 3 miles each; Main Line 2 from Aruau River N.E. for 51,091 feet to Koriabo River near its junction with the Aruka; and Tie Line 8 from Main Line 2 S.E. for 19,800 feet to Aruka River.

Mr. Parsley surveyed the following:-Tie Line 1 from a point 5,000 feet in Main Line 1 to the N.W. for 3 miles; thence Main Line 3 (which forms the back line of the area mapped) S.W. for 120,713 feet to its termination at Yarakita Creek : 'Tie Lines 2, 3 and 7, the last to the junction of the Yarakita and Amakura Rivers; Tie Line 6 S.E. from Main' Line 2 for $\mathbf{1 5}, 800$ feet to Aruka-River; and compass and float line traverses of Yarakita Creek and Aruau and Aruka Kivers down to Tie Line 8.
6. Nature of the Survey.-No. 3 Main Line had to be offsetted to the S.E. at two places to avoid crossing Mururuma Creek which forms part of the Colony's boundary.

These framework lines were surveyed by priscatic compass, Abney Level and band chain, and pegs similarly numbered were placed on éach Main Line at intervals of 2,500 feet horizontal measure.
7. Permanent Marks.-Permanent Marks, made of iron paals embedded in concrete, wers placed at 22 different points aloug the Main Lines and at the ends of the Tie Lines.


#### Abstract

8. Tie Lines.-The Tie Lines between Main Lines were run with the object of determining and correcting any deviation from parallellism of the Main Lines. It was found at Tie Line 2 ; in a leagth of line of 60,000 feet, that Main Lines 1 and 3 had converged 126 feet and the difference in chainage was 48 feet. These errors were halved for each; line and correction made on the ground. At Tie Line 3, Main Lines 1 and 3 had diverged 432 feet in a distance of 50,000 feet but this greater difference is partly explained by an accident occurring to the compass used on Main Line 3 at Suwarrikuru Creek which made it read incorrectly. The difference in chainage of the 2 Main Lines was only 12 feet, as shown by the survey. One half of this error was allowed for on Main Line 3. Similarly, Tie Line 4 disclosed that Main Line 2 had converged 161 feet towards Main Line 1 and correction was made on the ground fon the whole error at P.M. 9.


9. Float Line Survey.-It may be of interest to note that, on my instructions, Mr. Parsley surveyed the rivers with a float line made from "Mamuri" bush rope. This is a well-known climbing palm (Carludorica sp.) the thin round stems of which are commonly used by the Aborigines for cordage and basket work. The stems were peeled and joined together to make a line 300 feet long and this was stretched and suitably marked. The line proved to be entirely satisfactory as, after the preliminary stretching, it showed very little difference during the survey in its measured length. I had previously used such a line on a 50 mile river survey with good results.
10. Forestry Party.-The Forestry Party consisting of Messrs. T. A. W. Davis and J. B. Aitken, Assistant Conservators, A. G. S. Davenport, F. W. D. Pratt and G. G. Brinsley', Forest Surveyors, W. T. Lord, Geological Surveyor in the Landsand Mines Department, and myself, left Georgetown on 5th March to make a topographical map iof the area, to value the forests and to make a geological and soil inspection of the country covered by the survey.
11. Cross Lines.-The area was mapped by running a grid of cross lines from the pegs on Main Line 1 at right angles on each side; those to the S.E. being run out to the road or river and later to Main Line 2, and those to N.W. to Main line3. Similarly, cross lines were run out to the S.E. from Main Lino 2. These cross lines were run by hand cómpass and their deviation from the pruper direction was obtained by tieing them on to the pegs on the adjoining Main Lines; their lengths. were obtained by band chain and the surface measure was reduced to horizontal measure by the percentage of error discovered in their total lengths. The aneroid. was read at each peg and at points along the lines and heights were determined by reduction for change of pressure shown by a barograph situated in camp.
12. Porest Valuation.-The Forest Valuation Survey, which was' carried out by the first 4 officers named in paragraph 10, consisted in marking out a strip 100 . feet wide along the cross line and in this strip enumerating all trees having a diameter of 16 inches and over at breast height above bark. The cross lines used for this valuation were the aiternate lines having even numbers' to the N.W. and odd numbers to the S.E. and there were therefore 5,000 feet apart on each side of ${ }^{-}$ the Main Line.

Truli palms (manicaria saccifera) were enumerated in a few sample plots and some of the palms felled and their leaves counted, in order to form an estimate of the number of leaves to be obtained for thatching houses, as they are used in thedistricts where they grow for this purpose. In tho swamps, trees of 16 inches diameter were scarce and very scattered. On the brown sand hills Kakeralli (Lecythis and other Spp.) were fairly numerous and 61 of these trees were felled and measured for their timber content. A number of different kinds of other trees. were felled and botanioal and wood specimens obtained for identification of their species.
13. Tuuli Thatching.-Truli leaves if cut at the eorrect' time and properly. placed will last on a roof for 7 years or longer. The pitch of the roof must be high, above five-eighths of the span, and the leaves have to be tied or laced on to the thin round spars used as rafters. The leaves are also used for the side walls of houses. The cost of cutting, transpcrting (where the palms ars within reasonable distance from the building) and tieing in place is very small, about $\$ 15$ per thousand, and on account of their good qualities and low cost their use, where possible, is recommended for thatching the settlers' houses.
14. Triangulation.-Messrs. Brinsley and Lord ran the intervening cross lines on which information was noted only in regard to topography, geology and soils. These officers also made a prismatic compass triangulation from a few suitable bills, on all of which, with one exception, the forest had to be cleared to give the view required. The triangulation has been of much use as it fixed the approximate limits of certain hills and placed on the map 3 other isolated hills which rise abruptly from the swamp and were too small in area to be disclosed by the ground survey.
15. Geology.-Mr. Lord made a geological examination of the country, and rock specimens obtaiued on all of the lines were turned over to him. Change of soil was noted on all lines. This Officer also made prospections of creeks by panning and obtained traces of gold in the creek gravels in the neighbourhood of Camp 6 Soil samples collected were handen over to the Chemist Ecologist.
16. Return.-The whole party returned to Georgetown on 26th April, the work having occupied a period of 79 days for the two main line Survegors and 52 days for the Forestry Party.

The Survey was completed in a shorter period than at first estimated and the cost has been about two-thirds of that of the estimate. This was due chiefly to the prevailing rather severe dry season and the consequent deyness of the swamp areas which permitted work to be accelerated. The rains fortunately for the party, held off until we had left the distriet.
17. Chemist Ecologist.-Mr, R. R. Follett-Smith, B.Sc., Chemist Ecologist attached to the Department of Agriculture, joined the party at Camp 7 at Yarakita portage on 14th April. He continued with the party until the close of the survey and was giren equipment and men and remained in the district after we had left to examine the soils over the brown sand hill area between Wauna and Yarikita.
18. Total Wark done.-The mileage and area covered by the survey are as follows:-

| Mait and Tio Lines by |  | 78 miles. |  |
| :---: | :---: | :---: | :---: |
| Rivers by float line ... | ... 17 | 171 ${ }^{1}$ |  |
| Cross Lines by hand compass |  |  |  |
| Area mapped by the survey... | 156 |  | ailes. |
| Whole area shown on the map up to the Colony's Boundary | 215 | " | ' |

The total cost of the survey is $\$ 8,046.13$ which is at the rate of $\$ 51.58$ per square mile. The estimated cost was $\$ 12,500$, and the saving made on the estimate is therefore $\$ \mathbf{4}, \mathbf{4 5 3} .87$.

## Desoription of the Country.

## Block 1.-Barima to Wauna Creek-

19. Swamp Area.-The country covered by the survey will be described in 3 blocks: The first block of 533 square miles is bourded by the Barima, Aruka and Koriabo Rivers and Wauna Creek and Main Line 3. With the exception of the hills, which are to be noted later, this is an extensive aren of swamp with a surface layer, over 6 ft . in depth of pegass, or peat. I'he swamp is deeply innndated during the rains and at the time of survey, at the end of a long dry period, it was
moist to swampy in parts and heavy going underfoot all through. The level of the swamp is not much higher than high tide level and the creeks flowing through it are tidal for long distances in. From the Barima River to near Barabina Hill and further S.W. adjoining the streams and hills, the swamp is covered with forest in which the Truli palm largely predominates and with scattered swamp trees, nuch as: Mani (Simphonia globulifera) Warakuri or White Cedar (Tabebuia longipes) and Kirikowa (not identified). Large portions of the interior of this swamp are covered with a type of low forest in which Kirikowa predominates and other smaller areas carry a markedly lower type with small trees, such as Kwako and Madaburi and a few Ite Palms (Mausitia flexuosa). In the low forest the Truli palm was almost absent and in parts entirely so. At. the source of Mururuma Creek there is a small swampy savannah with grass and Ité Palms. The area of the swamp is 48 square miles.
20. Lateritic Hills.-Near to the Aruka and Koriabo Rivers there are two ranges of hills. The northerly, or Mabaruma range lies between Mabaruma and Kumaka Creeks and comprises Mabaruma, Hobo, Kokerital, Attibanni and Kumaka. It is separated by an area of swamp between Kumaka and Himahana Creeks from the southerly or Issororo range which runs westwards to Wanaina Creek and comprises Issororo, Wikerebi and Wanaina Hills. The total area of these two ranges is 4 square miles.

To the west of the above there are 3 isolated hills with names, Barabina, Kobarino and Sibatoro, and about 6 other unnamed, which, as already stated, rise abruptly from the swamp and are small in area. The aggregate area of all these hills, including the two ranges, is $5 \frac{3}{4}$ square miles. All are composed of rock with a capping of a lateritic, reddish brown clay.
21. The Koad.-The Government Lioad starts at the stelling on the left bank of the Barima River nearly opposite to Morawhanna. It has been constructed for $3 \frac{1}{2}$ miles across the swamp and over Mabaruma range, passing through the Government Compound on Attibani Hill known as "Mabaruma," at $5 \frac{1}{2}$ miles and descending to swamp level again at Kumaka Creek where there is a short connecting road to Kumaka Stelling on the Aruka Kiver. Continuing southwards it crossed about $1 \frac{1}{1}$ miles of swamp to the Issororo range, gradually winds its way to the top of these hills and descends to Wanaina Creek, where it terminates at about $11 \frac{1}{8}$ miles.
22. Alienated Land.-The greater portion of the Mabaruma and Issororo ranges are already occupied by freehold grants and long term leases and by the Government Agricultural Experimental Station at Issororo. Isolated grants, or blocks of grants and leases are scattered along the banks of Barima and Aruka Rivers to about half a mile above Barimanobo Creek from which point the whole frontage along Aruka and Koriabo Rivers up to Wanaina Creek is already occupied.

The right bank of Koriabo River is occupied nearly up to the same point and also the left bank between Wauni and Mauru Creeks, and there are three other small grants, one up Mauru Creek and two on the Arukamai River. The left bank of the Aruka River has been granted for nearly $2 \frac{1}{2}$ miles above Koriabo River.
23. Not suitable for Settlement.-The area of Crown Land remaining unoccupied along the banks of the rivers Barima, Aruka and Koriabo in this block and on the western slopes of the two ranges would be too scattered and too small in the aggregate for any land settlement scheme such as proposed. Most of the remaining high land comprising, as it does, separate solitary bills would be both dificult of access and too small in area, and nearly all of the pegass swamp, I consider, would be found quite unsuitable for settlement or cultivation on account of the serious difficulties in the way of building roads to give access to the interior portions, but Oiefly on account of the impracticability of drainiug the swamp.

This first block of $53 \frac{3}{4}$ square miles up to Wauna creek can therefore definitely be ruled out of diecussion for this Colonisation Scheme. In giving this opinion, however, I do not wish it to be understood that the whole area is unsuited for settle ment or cultivation. On the contrary, I am of opinion that in the natural course of the growth of this district and considering the great strides which have been made in the growing of coffee and other crops, all of the remaining high land on Mabaruma and Issororo ranges, possibly some of the nearer isolated hills and most of the swampy river bank now unoccupied will eventually, owing to their nearness to the Administrative and shipping. centres, be taken up by small farmers within comparatively few years.
24. Second Block, between Koriabo and Aruka Rivers.-The second block to be considered totals $30 \frac{1}{3}$ square miles and is bounded by the Aruka, Aruau and Koriabo Rivers and by Bakerawari and Whana Creeks and Koriabo Itabo. This area is also an extensive Truli and pegass swamp which is also deeply inundated during the rains. The swamp land totals 30 square miles. The only high land disclosed by the survey consists of Maridawa hill and a small rocky hill near to Hotasanuka creek on the Koriabo, which together total about $\frac{1}{3}$ of a square mile. For reasons similar to those given in the last paragraph this block of country is also unsuitable for the Colonisation Scheme.
25. Thivd Block, Waunce to Yavikita.-The third block has an area of 72 square miles and is bounded by the Wauna, Koriabo, Aruau and Yarikita Rivers and Main Line 3. This tract comprises, for the most part, hilly country of brown sand which is intersected by numerous streams, with deep pegass swamp bordering the main streams and with two high rock and clay hills. The brown sands rise to a maximum elevation in the centre of about 229 feet. All of the Creeks are tidal through the swamp.

Arukamai Hill lying near to the junction of a river of that name and the Koriabo rises to about 600 feet and liger Hill at the S.W. corner of the block, near to the Yarikita-Amakura junction, has an elevation of 667 feet at its highest point. Both of these hills are composed of rock and a reddish brown clay and they are connected by a narrow clay belt which quite definitely cuts through the sand country in an East and West direction.

The areas of these differing portions of this block are:-

| Clay land | ... | ... | $7 \frac{1}{2}$. square miles. |
| :---: | :---: | :---: | :---: |
| Brown Sand hills | ... | .. | 39.6 square miles. |
| Pegass swamp | ... | ... | 24.9 square miles. |

## Outcrops of rock occur both on the brown sands and in the clay lands.

26. Aboriginal Settlements.-Along the northern edge of the brown sand hills from Wauna Creek to about $1 \frac{1}{2}$ miles S.W. there are a number of Aboriginal Indian Settlements, fields and old clearings and the evidence of old secondary forest growth indicates that this area was, in the past, occupied by a fairly large Indian population. This portion of the block about 4 to 5 square miles in extent, on account of the present Indian occupation, would have to be excluded from any settlement scheme. Along other portions of the block there are a few scattered Indian dwellings and fields and (also the grants noted under paragraph 2\%), but up Parakwa creek there are now two settlements and some large fields in cultivation and around the sources of Aruau River evidence of previous Indian occupation.
27. Navigable .Streams.-Access to the high lauds in this block can be had by means of the larger streams flowing through or near to it. Aruka and Aruau Rivers are large streams which are navigable for small steamers up to about Yurukaikuru Creek. Beyond that point the Aruau is navigable for launches up to Bonasika Creek and the latter for small boats only at high tide up to the portage.

This land crossing is $\frac{3}{4}$ mile long and rises to an elevation of about 50 feet near the eastern end. Cralt are hauled over to the Yarikita and thus gain access to Amakura River.

Koribo River is navigable for lannches up to its Itabo. At this point it is about 30 feet wide and 13 feet deep; at Arukamai it is nearly 100 feet wide and 16 feet deep, at Wauna about 130 and 30 feet and near to its mouth it is somewhat wider but bas the same depth. An Itabo, or channel connects the upper Koriabo with Whana Creek leading into Bakerawari and Aruau. Whana and Bakerawari are navigable for launches and the Itabo might also be made navigable if cleared of overhanging bush, fallen trees and snags. Arukamai Hiver is navigable for launches to the second westerly liranch, about $4 \frac{1}{4}$ miles up; at its mouth it is 90 feet : wide and 26 feet deep and at the second branch 40 by 12 feèt. It and its westerly branches could be made navigable for small boats for some distance further.

Mauru Creek for about 1 mile up and Kamwatta creek for about $\frac{1}{2}$ mile are only navigable at high tide for very small draft.
28. Access to the hill lands.-Arukamai River, it will be observed is the most suitable stream for giving access to the high land in the center of the block and also on the eastern side of it. Access to the south-westerly portion of the block could be by Bakerawari Creek and Aruau River.

In both places the belt of pegass swamp bordering the streams would have to be crossed by a comparatively short length of road from near the iimits of water navigation to the high land.
29. Range of Iide and Drainage of the Swamp.-This pegass swamp is of varying width and from evidences on the trees it is inundated during the rains to a depth of over 2 feet. During the course of the survey, in dry weather be it noted, these swamps near to the creeks were under water for depths varying from a few inches to more than a foot, according to the state of the tide.

The range of the tide up these streams does not average as much as, and is perhaps much less than, about 3 feet. By the tide gauge at Kumaka Stelling the average range of the tide from 11th Febiuary, when the guage was erected, to 6th June, was only 3.33 feet, while the lowest and bighest ranges, respectively, were 1 ft . 3 ins., on 3.4 .29 and 4 ft .9 ins. on 21.4.29.

Drainage of the swamp area would therefore be a matter of extreme difficulty and great cost, and might be found to be altogether impracticable. On the gounds herein given, and apart from the question of suitability of the pegass soil for cultivation this raises a doubt as to whether the pegass land now being discussed is adapted for cultivation of any kind, including rice, and this doubt could only be settled by a further inspection and levels taken in conjunction with the tide gauge readings, both during and after the rains.
30. Drinking Water Supply.-As regards supplies for drinking water, the Aruka, Aruau and Kuriabo Rivers and their main tributaries branches and also Yarikita creek are salt to "brackish" and quite unfit for drinking almost, if not quite up, to their tidal limits during the dry seascn. I have been informed that wich a dry period of only one week the water in Aruka River becomes salt to above Kumaka Stelling and the salt water reaches higher and bigher up the streams with a continuation of dry weather. It is a fact that towards the termination of our survey, at the ond of a prolonged dry season, all of the tidal creeks were salt or " brackish" up to points where their beds were above tidal limits. Along Main Line 2 the party had to send for supplies from small streams rising in the clay hills.

The distance from the watershed to swamps and tidal points in the creeks of the two river systems, Aruka and Amakura, is so short that the streams in the hills are very small. While some of the larger ones were giving a continous flow at the
end of this dry period, other smaller streams were, more or less, dry being seasonal streams which flow only after rainfall. The only stream which appeared to be - suitable for the formation of a reservoir of any size is the upper Aruau. But I fear there will be some difficulty in finding a suitable drinking supply for a large community.
31. Rainfall-The rainfall registered at Mabaruma for the past 4 months was as follows:-

| February | - | ... | 2 incher 50 parts. |
| :---: | :---: | :---: | :---: |
| March . | ... | ... | 1 inch 48 parts. |
| April | ... | .. | 6 inches 94 parts. |
| May ... | ... | ... | 19 inches 70 parts. |

32. Suitabilily of high land in Block 3.-The area under consideration extends from about $1 \frac{1}{2}$ miles S.W. of Wauna Creek to near Yarikita and Aruau and from the edge of the swamp on the Eust and South to main line 3. For reasons given under paragraph 29 the Maurn and Arukamai and other swamps are excluded and the eastern faces of Arukamai and Tiger Hills will also have to be left out of consideration as they will probably be found too steep and rocky for cultivation. The area remaining would be under 40 square miles, comprising some 30 to 35 square miles of sand and the remainder of clay.

As will be seen by the map the area is very much intersected by creeks. The hill slopes at the sides and at the sources of these streams are generally rather steep and the lay-out of a colouisation unit would therefore be somewhat difficult, but this could only be determined after a further surveg and the resulting large scale map have been made. The settlers' houses wou'd have to be located on their farins.
33. Brown sands tor cultivation.-The question of suitahility of the brown sands for cultivation is one which I cannot answer. The aborigines livo on and grow crops in small fields on these brown sands. As they do no tilling of the soil nor any real cultivation the fact that they reap 2 , or at most only 3 crops, chiefly of cassava, from the same area before abandonment gives little or no indication of the suitability of these soils for economic crops. The question therefore will have to be answered by the Director of Agriculture from the report of the Chemist Ecologist who has examined the whole area.
34. Photographs.-I attach 18 photographs taken during the course of the survey to illustrate the country which has been examined and particularly the hills.
35. Summary of Conclusions.-In conclusion, the following are the results of the survey:-
(a) The area covered by the survey comprises:-
(1) Lateritic Hills $\quad .$. 5.7 square miles.
(2) Brown clay hills and clay belt
$\begin{array}{lrr}\ldots & 7.8 & " \\ \cdots & 3.6 & " \\ \cdots & 102.9 & "\end{array}$
(3) Brown sand hills
(4) Deep pegass swamps
156.0 square miles.
or a total area surveyed of
(b) The lateritic hills extending up to Wanaina creek which are suitable for settlement and cultivation have nearly all been already alienated and the small areas left and also the other similar hills aback are too small in area and too difficult of access for this settlement scheme;
(c) The pegass swamps aback of the rivers and hills in block one and similar swamps in blocks 2 and 3, on account of dificulty of drainage and depth of pegass are unsuitable.
(d) The brown clay hills and clay belt in block 3 may be suitable except the eastern sides of Arukamai and Tiger Hills which may be too steep and rocky;
(e) The brown sand hills may be suitable for settlement, but this could only be determined after survey, and their suitability for cultivation will have t. $n$ he determined from the report of the Chemist Ecologist.

I have the honour to be,
Sir,
Your obedient servant,
L. S. HOHENKERK,

Deputy Conservator and Superintendent of Forest Surveys.

## APPENDIX V.

THE REPORI OF A SOIL SURVEY OF AN AREA OF THE NORTHWESI DISTRIUT OF BRIT['H GUIANA, by R. R. FollettĖmith, B.Sc., A.R.C.S., Chemisi'-Ecologist, British Guiana.
(1) Introduetion.

A detailed soil survey of a certain area of the North-West Distriot of British Guiana has been carried out in connection with a scheme for the agricultural development of particular regions of the colony. The observations made, the results of the laboratory examination of the samples obtained, and the deductions drawn therefrom are here described.

The principal objects of the survey were:-
(a) The inspection of the chief soil types and of their distribution within the area survejed.
(b) The examination of the coils with a view to ascertaining their suitubility or otherwise to the establishment of permanent economic crops.
(c) The detailed survey of the soils of Hosororo Experiment Station in order to determine to what extent results obtained at that Station might be applicable to the soils of the area surveyed.

## Meteoroloat.

The average annual rainfall over a period of ten years for the North-West District is 120.5 inches. The monthly distributions for the jears 1927 and 1928 are given in Table I. The mean maximum shade temperature is $85.0^{\circ}$, the corresponding figure for the minimum temperature is $73.6^{\circ}$. The figures given for the shade temperatures were obtained at the Georgetown and Mazaruni Meteorological. Stations, approximately 140 miles distant. The rainfall, however, has been measured in the district.

TABLE I .
RAINFALL DATA.


While the topographical and geological description of the area under consideration bas been fully dealt with elsewhere, ${ }^{1-}$ it is thought that a short description of these aspects should be added to this report for the sake of completeness.
(2) The Topography and Geology of the Distriot.

The geographical position of the district is longitude $60^{\circ} \mathrm{W}$. and latitude $8^{\circ} \mathrm{N}$. An examination of Map No. 1 attached ${ }^{2}$ will show that the area covered by the topographical survey is bounded by the Barima, Arvka, Aruau and Yarakita Rivers. The district surveyed (approximately 156 square miles), may, for the purpose of this description, be conveniently divided into three blocks:-
(a) Block I.-An area of 53s $\frac{3}{4}$ sq. miles, bounded by the Barima, Aruka, and Koriabo Rivers, by Wauna Creek and by main line No. 3. It consists of a flat

[^37]stwamp of pegasse. The area is little higher than high-tide level and is periodically inundated. Rising from the swamp, are dykes and bosses of intrusive plutonic rocks some $200-300 \mathrm{ft}$. in height. They are covered with a blanket of red lateritic clay mixed with nodules of concretionary ironstone. The total area of these hills is small ( 5 s. sq . miles) and the land is for the most part already occupied. The Hosororo Experiment Station is situated in this block. The detailed surveg of the station will be discussed later.
(b) Block II.-An area of $30 \frac{1}{3}$ sq. miles, is bounded by the Aruka, Aruau and Koriabo Rivers, by the Bakerawari and Whana Creeks and by the Koriabo Itabo. The area consists of 30 sq . miles of pegasse swamp, periodically inundated. An isolated hill, Maridowa Hill, of basic rock, $\frac{1}{3}$ sq. mile in area, rises from the swamp to a height of 275 ft .
(c) Block III.-An area of 72 sq. miles, is bounded by the Wauna, Koriabo, Aruau and Yarakita Rivers and by Main Line No, 3. It consists for the most part of flat-topped hills, 200 ft . in height, intersected by steep gullies, with pegasse swamps bordering the main streams. The hills consist of gneissose rock, covered with a blanket of quartz sand. A narrow belt of basic schistose rock cuts through the area from north to south, from Tiger Hill ( 660 ft .) to Arukami Hill ( 600 ft .) The in situ decomposition of this rock gives rise to a covering of lateritic clay. One isolated area of lateritic clay also occurs to the north of Bakerawari Creek.

The widespread settlement of the pegasse soils occurring in the area depends upon the feasibility of draining these swamps. The results of the topographical survey, carried out by the Deputy Conservator of Forests, indicated that the drainage of the swamp area would be a matter of extreme difficulty and great cost. In cousequence the soil survey was confined, for the most part, to the examination of elevated areas occurring in Block III. It should be clearly understood that there are limited areas of unoccupied pegasse soil aloug the river banks where drainage is relatively easy. These small areas will probably be settled in the course of normal expansion of the district.

## (3) Drsomiption of Soll Types.

Inspection has shown that three very distinct soil types occur within the area. The differences between these soils are so apparent that members of the Forestry Party were able to make an accurate soil map by mere inspection. The three soil types may be described as follows:-
(a) The Pegasse Type.-This type occurring in the flat permanently inundated areas, consists of a covering of pegasse in thickness varying from one to six feet or more. It is composed of an accumulation of plant residues very slowly undergoing anaerobic decomposition. It may consist almost entirely of organic material, or it may be admixed with the heavy clay which underlies it, at varying depths. Seen in the field it appears to be a moist spongy mass, black, or dark brown in colour. It was noted in the laboratory that these soils greatly decreased in volume upon air drying and permanently lost the property of swelling. The use of various deflocculating agents failed to reeestablish the colloid properties of the pegasse. This point deserves consideration in the agricultural treatment of these soils, for when they are empoldered and drained, the surface layers tend to dry out and lose capacity for the retention of plant nutrients and moisture.

A profile of this type, representative of the soil after a prolonged period of cultivation, is shown in diagram. The samples were obtained from an area of pegasse at the Hosororo Experiment Station which had been drained and planted to rubber in 1909. Results of the laboratory examination of this profile are appended in Table II.

Table II.
PEGASSE PROFILE,

| Sample No. | Depth. |  |  |  |  | \% OVEN DRY WT. |  |  |  |  |  |  | 蓲 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 寄 |  |  |  |  |  |  |  |  |
| N.W. 261 | 0-12u | 3.25 | 3.28 | 47.2 | 39.0 |  |  |  |  |  |  |  |  |  |  |  |
| N.W. ${ }^{\text {N.W. }} 263$ | $\left\lvert\, \frac{12^{\prime \prime}-18^{\prime \prime}}{18^{\prime \prime}-3 p^{\prime \prime}}\right.$ | ${ }_{2.75}^{2.25}$ | ${ }_{2.75}^{2.23}$ | 58.6 33.0 | 52.6 24.1 | 8.0 8.9 | 15.8 19.9 | ${ }_{40}{ }_{40} 3^{\text {a }}$ | $\stackrel{\text { … }}{ } 12$ | $12.1^{10}$ | $\stackrel{\text { … }}{\text { Traos* }}$ | $\stackrel{\square}{\square}$ | 23.2 | $\cdots$ | - $\begin{aligned} & \text { >5.0. } \\ & >5.0 \\ & >8.0\end{aligned}$ | 3 |
| N.W. 264 | $30^{\prime \prime}-36^{\prime \prime}$ | 2.28 | 2.28 | 20.0 | 13.5 | 6.5 | 8.3 | ${ }^{52.1}{ }^{\text {a }}$ | $16.8{ }^{\text {²}}$ | 8.6 | Trace* | ${ }_{45.7}$ | 36.4 | 38.4 | -5.0 | 3.35 3.98 |

- I am indebted for these and foz anbsequent ultimate analyses to Mr, C. L. O. Bourne

The profile consists essentially of an accumulation of organic material to a depth of eighteen inches. The shallowness of this layer of pegasse is probably. due to the effect of twenty successive dry seasons on the exposed topsoil. The pegasse is imposed on a belt of highly acid alluvial clay, blue-black in colour and of six inches depth. Below this clay is a highly acid fine silt subsoil, slate-grey in colour.

All horizons are extremely acid and it is to be noted that the exchange reactions are identical with the normal reactions. The topsoil is slightly less acid than the subsoil. The soils possess a very high lime requirement, that of the topsoils being lower than those of the subsoils.

Qualitative tests performed on the water extract of the soils of this profile show that there is no soluble iron and but a trace of the sulphate-ion in the first horizon. The water extract of the second horizon contains a fair amount of iron in the ferrous and ferric forms and a considerable amount of sulphate. A large amount of ferrousion and the sulphate-ion were extracted from horizons three and four. No trace of sulphide was found in any of the samples. Due to the large amount of organic matter in these soils the figures for the loss on ignition are high. It will be seen that the organic matter content of the second horizon is higher than that of the first horizon, and this appears to be a characteristic of the pegasse soils of the area: The figures for the combined water obtained from the values of loss on ignition and organic matter by subtraction are of an average value. The figure for the third horizon, a clay, is greater than that for the fourth horizon which is a fine silt. All samples retain a large amount of water when in the air-dry condition, especially the two horizons of pegasse.

Having regard to the highly organio nature of the soils of the first two horizons it was deemed unnecessary to examine them as to texture or in regard to their content of silica, iron and aluminium.
(b) Red Clay Type.-This type occurs as a capping to the bosses and dykes of busic rock which intrude themselves at various points in the area.* In some cases the soil is being formed in situ from the rocks and is particularly shallow ( $0-6$ ins.) Where the area has been exposed to the action of rain and sun, a considerable amount of erosion has taken place and nodules of concretionary ironstone predominate. At other points detrital accumulations of this lateritic clay having a depth of at least six feet occur.

The appearance of this red clay as seen in a profile of five-foot depth is depicted in diagram II. The samples were obtained in the vicinity of Camp No. 6 on the

[^38]red clay belt running between Tiger Hill and Arukami Hill. Rasults of the laboratory examination of these profile samples are appended in Table III.

TABLII III.
RED OLAY PROFIIEE.


Inspection of diagram II. and of the results shown in Table III. indicates that there is little variation between the horizons of this profile. The soil profile as a whole is only slightly acid. A small difference in reaction between the topsoil and the lower horizons is to be noted. The figuies for the loss on ignition do not vary throughout the profile. There is a marked decrease in the organic matter content with depth. Although it is a characteristic of lateritic soils that the content of organic matter is small, yet for a virgin soil the figure obtained ( $2.2 \%$ ) for the first horizon must be considered low. There is a gradual but marked increase in the amount of combined water in successive horizons, and this coincides with the increase in textural heaviness. The amounts of combined water must be considered as low, having regard to the lateritic nature of the soil. The moisture content of the air-dry samples are characteristically low. There is a marked decrease in the silica content with depth, and this is accompanied by a reverse gradient in the case of the aluminium content. It would appear that the soil has been subjected to a certain amount of leaching since its deposition, a suggestion which is confirmed by the data obtained for the indices of texture.

The large amount of titanium, present in the form of ilmenite, shows an accumulation of this element in the topsoil and little variation in the subsequent horizons. The soils of the profile contain neither calcium nor magnesium. There is a marked increase in textural heaviness with increasing depth, and this fact may be explained as being the outcome of soil leaching effects. The soils contain very small amounts of stones and gravel when compared with othar samples of this soil type. The lime requirements of the horizons are low and show little variation. It is a matter of question whether the soils of the.profile examined are the ontcome of in situ decomposition of the parent rock or are a detrital accumulation of lateritio clay, due to the effects of hill wash. Absence of a marked variation in colour and of nodulc's of concretionary inonstone and the relatively small content of stones and gravel indicate that the soil has been transported.
(c) The Sand Hill Type.-The sand hill type is a sedentary soil, its topsoil consistung of a quartz sand with varying amounts of organic matter. The subsoil is slightly heavier, and contains markedly less organic matter.

Opportunity for examining this soil type in profile occurred at two, sites, one in the neigbbourhood of Camp No. 4, and the other at Camp No. 7. The appearance of the soil profiles is represented in diagrams IIIa. and IIIb., while the results of laboratory examination of the samples appear in Tables 1Va, and IVb.

TABLE IVA.
sand hill profile (a).

|  |  | N.W. 227 | N.W. 228 | N.W. 229 | N.W. 230 | N.W. 231 | N.W. 232 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth | .. | 0-3" | $3^{\prime \prime}-11^{\prime \prime}$ | $11^{\prime \prime}-18^{\prime \prime}$ | $18^{\prime \prime}-32^{\prime \prime}$ | $32^{\prime \prime}-55^{\prime \prime}$ |  |
| Normal Reaction pH. | - | $\stackrel{4.23}{ }$ | 4.35 | 4.37 | 4.80 | ${ }^{32}+4.82$ |  |
| Loss on Ignition | . | 3.90 4.17 | 4.10 4.92 | 4.20 5.12 | 4.37 6.20 | 4.37 <br> 8.38 | 4.40 |
| Organic Matter | . | 2.00 | 1.36 | ${ }_{0} .74$ | 6.48 0.48 | 7.63 0.30 | ${ }_{0}^{7.74}$ |
| Combined Water (\% oven dry soil) |  | 2.17 | 3.56 | 4.38 | 5.72 | 7.33 | 0.17 |
| Moieture in airdry ooil | $\ldots$ | 2.30 | 2.60 | 2.80 | 1.90 | 2.80 | ${ }^{7.57}$ |
| Silion (\% oven dry WT.) ... | ... | 89.93 | 84.11 | 81.78 | 76.38 | 69.45 | 68.73 |
| Ferrio Oxide do. $\quad$ do. |  | 2.87 <br> 1.54 | ${ }_{1}^{6.35}$ | 9.17 | 12.61 | 17.35 | 17.72 |
| Titaniam Oxide do. ... | ... | 0.20 | ${ }_{0} 1.54$ | ${ }_{0}^{2.44}$ | 2.99 0.45 | ${ }^{3.74}$ | 3.49 |
| Calcium and Magnesiam Oxidea WT. | $\ldots$ | nii | nil | nii ${ }^{\text {a }}$ | nii ${ }^{\text {a }}$ | ${ }_{\text {nil }}^{0.61}$ | 0.49 |
| Moisture at point of atiokiness ... | . | 27.9 | 24.4 | 26.5 | 30.1 | ${ }_{35.2}^{\text {nit }}$ | ${ }_{43,2}$ |
| Sand ( 1.000 .4 mm .) ... | $\cdots$ | 81.3 | 70.1 | 63.7 | 56.7 | 43.8 | 4 |
| Index of Texture ( Stones | ... | 12 | 10 | 14. | 19 | 26 | 34 |
| Limes requirement \% Soil | $\cdots$ | ${ }_{0}^{7.5}$ | ${ }_{0}{ }_{019}$ | ${ }_{0.80}$ | ${ }^{2.4}$ |  |  |
| $\mathrm{Si}^{\text {O }} \mathrm{O}_{2}$ M Molecular Ratio | ... |  | 18.8 | 13.0 | 0.17 | 0.14 | 0.15 |
| $\overline{\mathrm{Al}_{2} \mathrm{O}_{\mathbf{2}}+\mathrm{Fe}_{2} \mathrm{O}_{3}}{ }^{\text {M }}$ | . | 39.6 | 18.8 | 13.0 | 8,90 | 5.96 | 5.84 |

TABLE IVB.
gAND HILL PROFILE (B).

|  |  | N.W. 109 | N.W. 110 | N.W. 111 | [N.W. 112 | N.W. 113 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth ... | -0 | $0-2^{n}$ | 20-20" | 20"-23* | 23"-28" | $28^{\prime \prime}-76^{\prime \prime}$ |
| Normal Reaotion pH. | ... | 4.48 | 4.60 | 4.68 | 4.57 | 4,78 |
| Rxohange Reaotios | ..- | 3.82 | 4.15 | 4.13 | 4.12 | 4.18 |
| Loss on Ignition | ... | 5.20 | 4.93 | 6.21 | 8.50 | 8.70 |
| Organio Matter \% ... | ... | 2.57 | 1.39 | 0.87 | -0.66 | 0.15 |
| Combined Water \% oven dry WT. | ... | 2.63 | 3.54 | 5.34 | 7.84 | 8.55 |
| Silion do. | ... | 88.86 | 85.05 | 76.50 | 66.98 | 63.67 |
| Aluming ${ }_{\text {Ferris Ofide }}$ Ofo. | $\cdots$ | 410 100 | 7.34 | 13.48 | 20.62 | 23.40 |
| Titanium Oxide do. | -.. | 0.19 | 0.21 | 0.64 | 3.10 0.28 | 3.31 0.81 |
| Osloium and Magnesium Oxide do. | ... | nil | nil | nil | nil | nil ${ }^{\text {d }}$ |
| Moisture at point of stickiness | $\ldots$ | 23.2 | 22.8 | 29.6 | 39.9 | 38.2 |
| Sand (1,0-0.4mm.) ... | ... | 74.8 | 65.9 | 51.2 | 37.5 | 36.2 |
| Index of Texture | ** | 8 | 10 | 19 | 32 | 31 |
| Stones and Gravel ( >lmm.)... | - | nil | 10.1 | 40.8 | 33.2 | 16.2 |
| Lime requirement \% Soil ... $\frac{\mathrm{Si} \mathrm{O}_{2}}{\text { Molecular Ratio }}$ | ... | 0.39 31.8 | 0.37 15.6 | 0.24 8.27 | 0.24 | 0.18 |
| $\overline{\mathrm{Al}_{2} \mathrm{O}_{2}+\mathrm{F}_{2} \mathrm{O}_{2}}$ | ** |  | 1.6 |  |  | 4.25 |

The two profiles are essentially similar. The parent rock was not reached at 6 ft . depth in either case. There is a slight but definite decrease in the acidity of both normal and exchange reactions with increasing depth. There is also a marked increase in the loss on ignition from above downwards. The organic matter content decreases with depth, and below the second horizon the amount is negligible. The amount of combined water increases with depth, and this gradient coincides with an increase in the aluminium oxide content. The moisture content of the air-dry soil is low, and varies but little throughout the profile. The content of silica decreases markedly in successive horizons, and a reverse gradient in the case of iron oxide and alumina content is noted. The amount of titanium present is low and increases gradually' with increasing depth. Calcium and magnesium are absent from the soils of the profile. There is a progressive increase in textural heaviness' throughout the profile, the first horizon being a sand, while the lowest horizon is a fine silt.

The uppermost layer of the sand hill type of profile consists of a root mat of thickness from two to three inches, containing quartz sand, and having a rather low content of organic matter. This mat overles a highly leached topsoil of depth eighteen to twenty inches, consisting largely of quartz sand, and possessing a markedly lower organic matter content. Little weathering has been experienced below a depth of twenty inches, and these horizons may be regarded as consisting of decomposing parent rock. The evolution of this soil type under the existing environmental conditions is briefly considered in the following paragraph.

The figures for the distribution of rainfall throughout the year presented in Table I. indicate that two dry seasons and two wet seasons cecur annually. The temperature to which the soil is subjected is somewhat modified by the protected covering of natural forest. The hymidity of the air under the forest canopy is high and evaporation of the soil moisture is retarded. Under these circumstances the soil never experiences intense drying out and upward percolation of dissolved salts rarely takes place. The accumulation of salts in the topsoil, a characteristic of the semi-arid regions, does not occur under these conditions of humidity. The ferric oxide and alumina of the surface horizon, uader the action of water containing acidic humus, are rendered mobile and are leached out of the soil, leaving a bleached topsoil of white sand coloured grey by varying quantities of humus. Analytical examination of the horizons of these profiles fail, however, to demonstrate the existence of an accumulation of humus and the sesquiosides in a lower horizon which characterizes most true podsols. This soil type is perhaps representative of the Tropical Bleached Earths described by Ramann.*

The description, in the preceding paragraph of the climatic conditions under which the sand hill type of soil is evolved, applies equally to the lateritic clay type which occurs in close proximity and supports an identical flora.

It would seem, then, that a broad classification of soils based on the prevailing climatic conditions will bring into the same class such widely divergent types as the lateritic clay and the sand hill soils here encountered.

The occurrence of the main soil types within the area is depicted in Map I. A similar but more detailed map (II) $\dagger$ of the Hosororo Experiment Station is attached.

It will be seen that the distribution of soil types follows very closely the geological and topographical features of the areas. The pegasse type occurs in the lowlying swampy areas ; the sand hill type occurs as à blanket of residual quartz sand covering the acidic gneissose rocks, while the lateritic clay is found as a capping to the decomposing schistose rocks. The two latter types are both the products of intense leaching.
(4) Method of Survet.

It has already been mentioned that the area surveyed was confined almost entirely to Block III. Traverses were made on foot along the grid lines cut by members of the Forestry Party and topsoil ( $0-1 \mathrm{ft}$.) and subsoil samples ( $1 \mathrm{ft}-2 \mathrm{ft}$.) were taken by the spade and trowel method. Descriptions of each location were noted at the time of sampling. ${ }^{1}$

The actual sites of the samples are shown on Map I. Map II. gives the location of the samples taken at Hosororo Experiment Station. In all 270 samples of soil were obtained.

## (5) Ter Distribution of Vegetation.

The plant distribution, throughout the area survejed, appears to be largely controlled by the question of water supply. In areas almost permanently inundated, a characteristic association of Truli palm (Manicaria saccitera), manicole palm (Euterpe edulis), White Cedar (Tabebuia spp.) and Corkwood (Pterocarpus Draco) is to be found.

That flooding is the chief factor may be averred from the fact that the Truli palm association occurs not only in the pegasse swamp but also on the banks of streams in the elevated sandhill area where the soil is heary clay.

Three distinct plant associations were noted on the virgin pegasse lands of the area surveyed. Areas, where 'Iruli palm and Corkwood predominate, are recognised by the local agriculturist as being fertile land. Other areas, where Swamp Lily

[^39](Aemerocallis tubiflora) and White Cedar are in evidence; prove to be relatively poor when brought into cultivation.

A considerable area of the pegasse swamp is covered by a type of low bush in which Kirikowa (Myristica macrophylla), Kwako (Marlierea obtusa) and Madisburi (Clausia spp.) predominate. Only one opportunity of sampling such an area occurred, and the sample of pegasse obtained possessed a more acid reaction $\left({ }_{p} H 4.3\right)$ than did a sample of pegasse ( ${ }_{p} H 4.9$ ) bearing the Truli palm association. Indians of the neighbourhood state that the low bush is primary growth and that the soil water is stagnant, while, on the neighbouring Truli palm area, the water drains away. A certain amount of doubt is cast upon this assertion in that, at the time of sampling, the water table was not reached at a depth of two feet in the low bush area, while it was found to be at twenty inçhes in the neighbouring Truli palm area. In connection with this problem, the methods elaborated by Waksman and Stevens for the examination of peat profiles might be usefully applied. ${ }^{1}$ The line of work indicated is, however, outside the scope of an investigation primarily devoted to the examination of hill soils.

The elevated lands of the area are covered by forest trees, chief among. which are the Kakeralli (Lecythis and Eschweilera spp., ) Kautaballi (Licania mollis), Haiariballi (Alesaimperatricis), Marishiballi (Rosaceae), Baromalli (Catootemma tragrans), Kokoritoballi (Sideroxylon sp.), Balata (Mimusops spp.), Peroki. There is little or no undergrowth and the soil surface is covered with a mat of fallen leaves. The trees themselves carry a considerable amount of epiphytic and lianoid vegetation. In abandoned clearings the undergrowth is fairly thick and Pumpwood (Cecropia peltata), Bloodwood (Vismia macrophylla) and to a lesser extent Cashew (Anacardium occidentale) predominate.

The possible view that this alteration in flora might be due to the fact that the ashes resulting from the burning of forest trees had rendered the soil less acid in reaction cannot be maintained, for comparison of the figures in 'rable V., which gives the reactions of soils of cleared areas and of virgin land, shows that the soils of the cleared areas have a slightly greater acidity.
table $v$.
TOPSOILS.

| Sample No. | Location | $p H$ | Exchange pH |
| :---: | :---: | :---: | :---: |
| N.W. 17 | ...Wauna Experiment Plot. |  |  |
|  | Cleared 18 months. | 4.42 | 4.18 |
| N.W. 47 | ...House clearing, under |  |  |
|  | Coffee for 3 years. | 4.78 | 4.28 |
| N.W. 49 | ...New mynappe | 4.31 | 4.15 |
| Average of | all samples of the type. | 4.74 | 4.21 |

It is a matter of some surprise that no diferences in plant population were noted between the sand hill type of soil and the red clay type.

## (6) Laboratory Examination.

The fine earth fractions (less than 1 mm . diameter) of the air-dried soils were examined as to reaction and exchange reaction by means of the quinhydrone electrode, except in the cases of the lateritic soils. These soils exhibited a characteristic potential drift which in some cases could not be ascribed to the presence of manganese dioxide in the soil. ${ }^{2}$ The reactions in such cases were determined by means of indicators. ${ }^{3}$ All figures obtained were checked by means of Comber's reagent.

1. WAKSMAN and ©TEVENS, Soil Scionoe XXV Ip. 113,
. MoGEORGE. Soil Science XXVII, 83
2. GADD, J. Agrio. Soi. XVIII, 206.

The 'Index of Texture' suggested by Hardy ${ }^{1}$ as a rapid means of textural examination was determined on each sample ${ }^{2}$ (with the exception of pegasse soils). The individual samples were grouped into forty composite samples representing topsoils and subsoils of the various soil types. The segregation of the individual samples is given in an appendix.

These composite samples were examined in more detail as to their lime requirement, content of organic matter, and available potash and phosphate. Information as to the potential supply of potash and phosphate was obtained by extracting the soil with $10 \%$ HCL at $100^{\circ} \mathrm{C}$. for three hours. Recognised methods of analysis were used and it is deemed unnecessary to include a description of these methods here. The results obtained from examination of these composite samples are appended in Tables VI., VII., VIII. and IX.

## (7) Discussion of Results.

(a) Pegasse Soils.-The individual samples of pegasse soil have been grouped into eight composites. The samples N.W.C.P.I-V. represent topsoils while the remaining three (VI.-VIII.) represent the subsoils. The samples were segregated according to their normal reaction valuen.
N.W.C.P. I-consists of samples of virgin pegasse having a normal reaction value greater than pH 4.5 .
N.W.C.P. II-The corresponding soils obtained from the Hosororo Experiment Station.
N.W.U.P. III-may be considered typical of the topsoil of the virgin pegasse existing in the area surveyed. The reaction is from pH 3.5-4.5.
N.W.C.P. IV-is the corresponding sample obtained from the Hosororo Experiment Station.
N.W.C.P. V-represents the topsoil of an area of pegasse situated at the Hosororo Experiment Station. It has been cultivated for the last 20 years and is comparatively shallow (about 18 inches deep).
N.W.C.P. VI-the subsoil corresponding to N.W.C.P. I.
N.W.C.P. VII-the subsoil corresponding to N.W.C.P. III.
N.W.C.P. VIII—the subsoil corresponding to N.W.C.P. V.

TABLE FI.
REPRESENTATIVE PEGASSE SOILS.

|  | NWCP | $\begin{gathered} \text { NWCP } \\ \text { II. } \end{gathered}$ | NWOP III. | NWCP IV. | $\begin{gathered} \text { NWCP } \\ \mathbf{V} . \end{gathered}$ | $\begin{aligned} & \text { NWOP } \\ & \text { VI. } \end{aligned}$ | NWCP VII. | $\begin{aligned} & \text { NWOP } \\ & \text { VIII. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Normal Reaction | 4.82 | 6.32 | 3.98 | 3.95 | 2.98 | 4.88 | 4.05 | 2.37 |
| Exahange Reaction | 4.38 | 5.05 | 3.67 | 3.82 | 2.92 | 4.23 | 3.49 | 2.35 |
| Moisture in air-dry soil | 8.69 | 11.19 | 10.70 | 15.46 | 11.45 | 15.64 | 16.76 | 13.77 |
| Losp on Ignition | 35.7 | 34.9 | 78.8 | 46.3 | 45.9 | 64.2 | 95.1 | 61.5 |
| Organio Matter | 3.40 | 23.1 | 66.4 | 34.1 | 41.5 | 61.4 | 95.8 | 40.2 |
| Ratio ( $\frac{\text { Loss on Ignition: }}{\text { \% carbon }}$ ) | 1.81 | 2.60 | 2.05 | 2,34 | 1.91 | 1.80 | 1.72 | 2.20 |
| Lime requirement \% | 0.85 | 0.42 | 2.68 | 1.29 | 3.38 | 1.21 | 3.49 | 5.0 |
| $\mathrm{P}_{2} \mathrm{O}_{5}$ (Sol. in $10 \%$ HOL) | 0.088 | 0.078 | 0.084 | 0.081 | 0.050 | 0.051 | 0.037 | 0.028 |
| $\mathrm{F}^{1} \mathrm{O}_{4}$ (Sol. in $1 \%$ oitric moid) | 0.0027 | 0.0066 | 0.0033 | 0.0044 | 0.0022 | 0.0039 | 0.0087 | 0.0012 |
| K, ${ }^{\circ}$ (Sol. in $10 \%$ HCL) | 0.059 | 0.129 | 0.061 | 0.064 | 0.060 | 0.046 | 0.077 | 0.046 |
| $\mathrm{K}_{\mathbf{2}} \mathrm{O}$ (Sol. in $1 \%$ oitric acid) | 0.016 | 0.040 | 0.069 | 0.030 | 0.009 | 0.027 | 0.064 | 0,011 |

The samples III. and VII. may be regarded as typical of the topsoil and subsoil of the virgin pegasse lands of the area. They are bighly acid, consist essentially of organic matter, and possess a large lime requirement. The content of available

[^40]phosphate is low, that of potash is adequate. The total potentially available phosphate is rather below that characterising a good soil, the corresponding potash content may be described as low.

The samples I., II., and Vl. differ essentially from a typical pegasse in that their reaction values are somewhat higher. Their content of organic matter is lower and their lime requirements are considerably less. They exhibit little difference in other respects from a typical pegasse soil, except in respect to their content of available potash which, while still adequate, is considerably lower than that met with in the average samples. These samples represent the pegasse soils occurring at the foot of the red clay hills and it is possible that their reaction, lime requirements, and organic matter content, are influenced by the leachings of the ouly slightly acid lateritic clay.

Samples V. and VIII. represent the topsoil and subsoil of an area of pegasse occurring at the Hosororo Experiment Station. It has been cultivated for the last twenty years and is now described by the agriculturist as possessing little fertility. Consideration of the results obtained in the examination of these samples will confirm these views. The soil differs but slightly from the other samples in its content of organic matter.' The topsoil and subsoil, however, are exceptionally acidic in reaction and they possess a very large lime requirement. Their contents of available polash and phosphate are lower than those of the other samples. While the amount of potentially available potash compares with that of the other samples, the corresponding figure for the phosphate content is markedly lower. In addition the layer of pegasse is here comparatively very shallow ( 18 inches deep), and is underlain by a very highly acidic (p.H 2.3) impervious blue clay. The shallowness of this pegasse layer is probably due to subjection to successive drying out periods and subsequent failure to reassert its colloidal behaviour, and, as a direct consequence of this ageing of the colloids, a considerable proportion of the available plant nutrients may have been leached out. Evidence in favour of this view is obtained when the figures for total potash content of the clay subsoil of this area (samples N.W.C.P. XXXIII. and XL. Table VII.) are compared with the figures obtained for the subsoils of virgin pegasse land.

Qualitative tests performed on the water extract from composite samples of pegasse indicate the presence of ferrous and of sulphate-ions in the soils of the cultivated area of pegasse at the Experiment Station. No tests for these radicals were obtained from the samples of virgin pegasse. Ferrous iron is considered to have a toxic effect upon the plant. It seems probable; therefore, that the crops grown upon the area of cultivated pegasse at the Station will suffer the harmful effects caused by high concentration of ferrous salt.

It is evident, therefore, that the area of pegasse at present under cultvation at the Hosororo Experiment Station is by no means typical of the pegasse lands in the vicinity. Comparison of the results obtained from samples I. and III. with those from samples 1I, and. IV. shows that the particular area surrounding the Waikerabi creek at the Experiment Station approximates to certain areas of virgin pegasse in the district examined.

The topsoils of this type possess a lower content of organic matter and a lower lime requirement than do their correspouding subsoils.

A fair amount of experience as to the agricultural potentialities of the pegasse soils has been accumulated. Liberian coffee appears to be a permanent crop of value; nor is this surprising, for recent work ${ }^{1}$ has shown that the coffee plant

[^41]thrives best in media having a reaction between pH 4.2 and pH 5.1. The normal reaction of the pegasse soils of the vicinity lies within this range. The soils also support good crops of Cassava, Yam, and Tannia. Their gradual but marked decrease in fertility under crops of this kind may be in part due to a combination of factors already mentioned, namely, the gradual accumulation of toxic quantities of ferrous iron, the ageing of the colloidal material of the surface layers and the consequent loss of plant nutrients by leaching. A further effect of this drying out is the progressive shrinking of the pegasse layer until the proximity of the highly acid impervious clay subsoil causes it to become a detrimental factor. Cultivation should be so adopted as to prevent the drying out of the surface of these soils.

The nutrient status of the pegasse soils is superior to that of either the sandhill type or the lateritic clay type. The somewhat arduous task of empoldering the pegasse soils has perhaps influenced the aboriginal in his choice of the less fertile hill soils.
-A system of agricultural practice peculiar to these soils has been evolved. The area is first empoldered and drained and the trees are felled and allowed to dry. The burning of the felled timber is an operation which calls for the exercise of a certain amount of caution so that the pegasse layer itself is not destroyed by fire. One or two crops of maize are first taken from the land, a ront crop of oassava or tannia follows, and the area is finally planted to Liberian coffee. While the latter crop may be grown very successfully on this type of soil, yet it is obvious that a search for other suitable crops should be pursued. In this connection the pegasse soil occurring at the Hosororo Experiment Station might be utilised, but it is apparent that results obtained on the pegasse area at present in cultivation at the Station will have little bearing upon those likely to be secured on areas of virgin pegasse.

It has been noted in Florida ${ }^{1}$ that plant response on soils of this type, may be stimulated by a treatment with copper sulphate or manganese sulphate. Work on these lines might be carried out at the Station.

A certain number of samples of the clay subsoil of the pagasse were o btained In certain limited areas the overlying pegasse layers have disappeared and the clay has been left exposed. The soils are agriculturally important only in so far as they form in some cases immediate subsoil of the pegasse. They have been grouped into five composite samples in consideration of their texture and reaction. The results of laboratory examination of these samples are appended in Table VII

TABLE VII.
PEGASSE TYPE-CLAX SUBSOILS.

|  | $\begin{aligned} & \text { NWOP } \\ & \mathbf{X X X V I} \end{aligned}$ | $\begin{gathered} \text { NWOP } \\ \mathbf{X X X V I I . ~} \end{gathered}$ | $\begin{aligned} & \text { NWCP } \\ & \mathbf{X X X V I I} . \end{aligned}$ | $\begin{aligned} & \text { NWOP. } \\ & \text { XXXIX. } \end{aligned}$ | $\begin{gathered} \text { NWOP } \\ \mathbf{X L} . \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Normal Reaction | 4.65 | 4.75 | 2.47 | 4.68 | 8.27 |
| Exchange Reaction | 4.29 | 4.18 | 2.35 | 4.17 | 2.28 |
| Moisture at point of stioliness. | 65.1 | 68.5 | 48.8 | 45.3 | 45.7 |
| Band (1.0.0.4mm.) .... | 10.8 | 85.4 | 43.6 | 36.1 | 36.4 |
| Index of Texture ... | 62.9 | 45.4 | 40.1 | 38.1 | 38.4 |
| Organic Matter - ... | 22.1 | 4.6 | 18.9 | 4.7 | 13.5 |
| Lime requirement \% so. | 0.66 | 0.37 | 5.0 | 0.29 | 5.0 |
| P, $\mathrm{O}^{-}$(sol. in $10 \%$ HOL) | 0.029 | 0.019 | 0.018 | 0.018 | 0.010 |
| $\mathrm{P}_{2} \mathrm{O}_{4}$ (sol. in $1 \%$ citrio aoid) $\cdots$ | 0.0029 | 0.0014 | 0.0017 | 0.0016 | 0.0011 |
| $\mathrm{K}_{2} \mathrm{O}$ (sol, in $\left.10 \% \mathrm{HOL}\right)$ | 0.066 | 0.035 | 0.143 | 0.035 | 0.147 |
|  | 0.022 | 0.013 . | 0.007 | 0.010 | 0.007 |
| Stones \& Gravel ( 21 mm .) ${ }^{\text {a }}$... | 8.7 |  | nil | nil |  |

[^42]The content of potentially available and of available phosphate in all samples is low.

Sample N.W.C.P. XXXVI. represents the soil occurring at the base of the lateritic clay hills. The soil is an acid heavy clay with a large amount of organic matter. The available potash content is high, while the potential supply of potash present is low. Sample XXXVII. is representative of the topsoil of an exposed area of the clay in the upper reaches of the Aruau River. It is an acid clay of average organic matter content. While the total amount of potash present is small, yet a large proportion of it is available. Sample XXXVIII. is typical of the clay subsoil underlying the area of cultivated pegasse at the Experiment Station. This soil has already been referred to in the discussion of the pegasse profile. The content of potash, both total and available, is high. Sample XXXIX. is typical of the subsoil corresponding to Sample XXXVII. It is an acid fine silt of average organic matter content and possesses a low lime requirement. The available potash content is high, that of total potash is low. It is characteristic of these soils that the surface layer is a clay, while the lower horizon is a fine silt. Sample XL. is identical with N.W. 264, which, as the fourth horizon of the pegasse profile, has already been discussed. The content of potash, both total and available, is high.
(b) The Lateritic Clay Soils.-The individual samples of this soil type have been segregated into eleven composite samples (N.W.C.P. XXV.-N.W.C.P. XXXV.). The isamples represent the fine earth fraction of the soils occurring on areas of intruded plutonic rock. The results of their laboratory examination are given in Table VIII.

|  | Table VIII.-Iateritio Clat Typrg. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \mathbf{N W O P} \\ & \mathbf{X X V .} \end{aligned}$ | $\begin{aligned} & \mathrm{NWCP} \\ & \mathrm{XX} \mathrm{I} . \end{aligned}$ | $\begin{aligned} & \text { NWOP } \\ & \mathbf{X X V I I .} \end{aligned}$ | NWCP XXVIII | $\begin{aligned} & \text { NWCP } \\ & \text { XXIX. } \end{aligned}$ | $\begin{aligned} & \mathrm{NWCP} \\ & \mathbf{X X X .} \end{aligned}$ | $\begin{aligned} & \text { NWCP } \\ & \text { XXXI. } \end{aligned}$ | $\begin{aligned} & \text { NWCP } \\ & \text { XXXII } \end{aligned}$ | $\left\lvert\, \begin{aligned} & \text { NWOP } \\ & \text { XXXIII } \end{aligned}\right.$ | $\begin{aligned} & \mathbf{N W C P} \\ & \mathbf{X X X I V} \end{aligned}$ | $\begin{aligned} & \mathbf{X W C P} \\ & \mathbf{X X X V .} \end{aligned}$ |
| Reaction | 6.0 | 6.1 | 6.1 | 6.1 | 6.0 | 5.9 | 5.9 | 5.9 | 6.3 | 6.2 | 6.3 |
| Moisture at point of atiokiness. | 43.4 | 49.2 | 46.9 | 49.1 | 31.2 | 43.2 | 44.4 | 52.8 | 49.5 | 57.1 | 55.5 |
| Gand (1.0-0.4 mm.) ... | 28.6 | 16.4 | 45.9 | 44.3 | 57.0 | 38.2 | 20.6 | 24.5 | 31.9 | 39.4 | 13.1 |
| Inder of Texture | 37.7 | 45.9 | 37.7 | 40.2 | 19.8 | 35.6 | 40.3 | 47.9 | 43.1 | 39.3 | 62.9 |
| Organic Matter | 2.6 | 2.4 | 2.4 | 1.8 | 2.3 | 2.3 | 1.8 | 1.1 | 1.2 | 1.6 | 1.4 |
| Lime requirement \% | 0.32 | 0.22 | 0.23 | 0.26 | 0.25 | 0.24 | 0.28 | 0.26 | 0.24 | 0.23 | 0.27 |
| $\mathrm{P}_{2} \mathrm{O}_{5}$ ( (\%ol. in $10 \% \mathrm{HCL}$ ) | 0.021 | 0.015 | 0.009 | 0.010 | 0.007 | 0.008 | 0.019 | 0.008 | 0.009 | 0.005 | 0.010 |
| $\mathrm{P}_{8} \mathrm{O}_{5}$ (sol. in $1 \%$ citric acid) ... | 0.0014 | 0.0005 | 0.0003 | 0.0005 | 0.0008 | 0.0008 | 0.0011 | 0.0003 | 0.0002 | 0.0003 | 0.0003 |
| $\mathrm{K}^{8}, \mathrm{O}^{\circ}$ (sol. in $10 \% \mathrm{HCL}$ ) | 0.015 | 0.012 | 0.012 | 0.015 | 0.012 | 0.015 | 0.012 | 0.012 | 0.012 | 0.015 | 0.015 |
| $\mathrm{K}, \mathrm{O}$ (sol. in $1 \%$ citric acid)... Stones and Gravel ( $>1 \mathrm{~mm}$.) | ${ }^{0.0 .58}$ | ${ }^{0.006}$ | 0.008 40.2 | 0.008 32.0 | ${ }_{26.8}^{0.008}$ | ${ }_{\text {19.0 }}^{0.006}$ | ${ }_{67.2}^{0.006}$ | 38.006 | ${ }^{0.007}$ | 28.008 | ${ }_{14.0}^{0.008}$ |

These soils contain a fairly high percentage of stones and gravel, largely nodules of concretionary ironstone. The fine earth fraction varies in texture from a clay (Maridowa subsoil) to a light loam (Bakerwari creek topsoil). The soils are slightly acidic, and have a rather low organic matter content when considered as virgin soils. The lime requirements of these soils are low. It is of interest to note that the soil of the Hosororo Experiment Station contains by far the largest amount of stones and gravel. The soil of this area is admittedly shallow and on account of its accessibility has, in time past, probably been cultivated without precaution to prevent soil erosion, which fact may. largely explain the gravelly nature of the red clay soil at the Station.

The soils are deficient both in total and available phosphate. (The soil of the two hills in cultivation, Hosororo and Kobarino, contains a greater amount of total phosphate, possibly derived from wood ashes). The total potash content of all the samples is low while the content of available potash is high.

Agricultural experience of the red clay has shown that the type is well suited to the cultivation of citrus. It is obvious, however, from the results in evidence at Hosororo Experiment Station, that soil of this type requires careful handling when it is brought into cultivation. It is a characteristic of lateritic soils that the soil organic matter content is low, and every effort should be made to increase and preserve this componeut. Another consideration of weight is the necessity for
taking suitable precautions to check soil erosion. In this connection the digging of silt pits or contour drains, the preservation of strips of natural growth across the slope, and the establishment of the suitable soil covering, a grass or preferably a legume, are all points which should be thoroughly investigated at the Experiment Station.

Consideration of the results of laboratory examination of the sand hill soils and the lateritic soils suggests that there is little difference in the nutrient supply of the two soils. It has already been said that no difference in the flora supported by the two soil types could be noted, and it may well be that crops found suitable to the lateritic clay type may also be successfully cultivated on the sand hill soils.
(c) The Sand Hill Soil Type.-The composite samples of this soil type have been obtained by segregating individual samples into groups upon consideration of their texture and reaction. Samples XXII. is representative of the topsoil ( $0-18^{\prime \prime}$ ) of the Wauna experimental plot, sample XXIII. is the corresponding subsoil. The results obtained from a laboratory examination of these composite samples are set out in Table IX.

TABLE IX.
SAND HILL TYPE sOILS.


The soil type has been generally described in a previous paragraph (sye pagg 8). The soils are acid sands of low organic matter content overlying a slightly fivavier acid subsoil which contains a smaller amount of organic matter, All samples are markedly deficient in lime, and in both available and total phosphoric acid. The available potash supply of the topsoils is fair, that of the subsoils low. The potential supply of potash in all cases is low.

Previous soil investigators have examined similar soils of the colony and have pronounced them to be infertile. ${ }^{1}$ The results here reported tend to confirm their assertions. Aboriginal Indians of the neighbourhood practice upon this soil type a system of shifting cultivation. Their apparent preference in this area for the sand hill type of soil in contradistinction to the red clay. soil is not governed by any essential difference in the fertility of the two types but rather by the relative accessibility of the sand hill type of soil. For a period of two or three years fair crops are obtained by this type of cultivation. The behaviour of the soil under a permanent crop is, however, a matter of conjecture.

It is obvious under these circumstances that organised seltlement of this area must be postponed until it has been demonstrated that a permanent economic crop may be successfully establisbed, and until a suitable scheme of general agricultural practice has been worked out. To attempt to establish an agricultural community under such unfavourable circumstances, without performing the preparatory work above outlined, would be but to court disaster.

[^43]It is not the aim of the present report to represent the soils of the sand hill type as being anything but relatively infertile. At the same time, in view of the existence of large tracts of similar soil within the culony, it is suggested that an experimental plot, representative of this soil type, should be established, and endeavours made to discover a suitable permanent crop and evolve an appropriate system of agricultural practice.

It is pertinent in this connection to quote the opinion of Sir John Harrison ${ }^{2}$. who, in discussing somewhat similar soils from Berbice and Rupununi, said :-
" In connection with the sandy savannahs it must be remembered that modern "agricultural science has changed and greatly improved certain methods "of cultivation and introduced new methods with the result that to-day is "the day of the sandy soils. We may, therefore look forward to a time "when the sarannah soils of Berbice and of the Rupununi may produce "crops of kinds that at present I am unable to indicate."
Observations made, and the results of laboratory examination, show that the soil of the Wauna Experimental Plot is typical of the sand hill type. This plot, comparatively accessible, might be retained for the purpose outlined.

It is generally known that permanent crops are successfully raised upon sandy soils in other countries. The two types of sandy soils are, however, essentially different. Those sandy soils which have been evolved in semi-arid regions of Northern America contain an adequate supply of plant nutrients, brought up from the subsoil by the upward percolation of soil waters during drought periods, or concentrated in the upper layers of the soil as the result of evaporation of lakes. Such areas only require the provision of an adequate water supply to render them capable of successfully supporting crops. The soils of the sand hill type, occurring in the area surveyed, are highly leached. While pretected by a forest covering, they are seldom subjected to that intensity of evaporation which tends towards an accumulation of salls within the topsoil. Such soils would require for their immediate successful exploitation not only a controlled water supply, but also heary manurial applications.

It is assumed that the economic application of artificial manures is out of the question. The problem of the reclamation of this soil is, then, the formulation of some system of agriculture which will allow of the continued removal of crops without the replacement of plant food supplies by treatment with artificial fertilisers.

In this connection it may be pointed out that the problem of the maintenance of fertility on sandy soils by rotational green manuring has received a considerable amount of attention in Nigeria and results obtained since $1922^{2}$ indicate that, with the introduction of cover crops and a suitable rotation, continuous cropping may be substituted for shifting cultivation. Under these conditions a crop of maize is followed by a green dressing of Mucuna utilis or Dolichos lablab. It is also reported that under a four year rotation of maize, yams, ground nuts and cotton interspersed with four green aressings, the fertility of the soil does not appear to decrease.

The removal of the present forest covering from the area will markedly affect the environmental conditions and consequen tly tend to change the nature of the soil. Due to desiccation during the dry season, bacterial activity will be temporarily suspended, and there will be a slight bias towards the accumulation of organic matteri." Confirmatory evidence of this effect is presented in Table XI. where the.

[^44]organic matter content of soils obtained from clearings is compared with ab prerfge value for all samples from the forest covrred sands.


While this augmentation of the soil organic matter is to be desired, yet drought conditions sufficiently severe to retard bacterial activity will probably adversely affect the growth of plants. Incrensed evaporation will tend to draw up the subsoil water, and an increase in the saline content of the topsoil may be expected during the dry season, but subsequent rains will probably remove such accumulations.

The clearing and preparation of such areas for cultivation calls for great consideration. Apart from the dearth of large supplies of the essential plant nutrients, the principal drawback of this type of soil is its incoherence and lack of retaining capacity for water and plant nutrients. One of the main objects should: be the conservation and augmentation of the soil content of organic matter.

The burning of the existing forest covering, when clearing, is to be strongly deprecated. Not only are large quantities of potentially available organic matterlost in this way, but the nutrient salts present in the plant material are rendered soluble and are, to a large extent, leached away. The quantity of soil organisms is also greatly diminished and the physical properties of the soil are impaired. Attempts should be made to evolve sn alternative procedure.

Critioal experiments designed to compare the efficacy of various systems of cultivation should be established, and at the same time plots of suitable permanent crops should be laid down. In this connection one may attempt to indicate a few possible permanent crops, though the choice of those likely to be successful is. necessarily limited.

It may be suggested that a trial plot of coconuts should be planted. The land. is well drained and such a crop might be established. A considerable period must elapse, however, before a pronouncoment as to the success of such a venture can bemade. The crop is not particularly suitable from the point of view of the small bolder who must wait for a pumber of years before he begins to receive the reward of his endeavour.

It is an established fact that this type of soil will support pineapples whoushifting cultivation is practised. It is, however, very doubtful whether the soil is. sufficiently fertile permanently to support this crop. Experience in Cuba and Hawaii suggests the necessity for heavg manurial treatments if pineapples are tobe successfully cultivated.

Well developed Coffee and Orange trees have been seen in the house clearings: of the Aborigiual Indians. One clearing of Coffea arabica, growing under shade, was noted. At the tiine of inspection (duriog a period of incipient drought) the crop appeared to be suffering from lack of moisture. Trials with deep rooting: tarieties of citrus might be inaugurated. The introduction of fibre crops such as sisal might be attempted, An indigenous plant of this type, known to the $e^{\text {I }}$ Indians.
as Wild Pineapple ( $A$. Sativa) was encountered in some of the olearings. The economic possibilities of such crops should be defined. Experiments with Indian fish poisons might be attempted in view of their possible application as insecticides.

## (8) Tar Hosororo Experiment Station.

A detailed sail survey of the Hosororo Experiment Station was carried out with -the view of determining to what degree the soils of the station were typical of those of the neighbourhood.

A soil map of the area (Map II.) has been prepared. It will be seen that the - station is rectangular and is situated between the Aruka River and the Hosororo Range. Three soil types occur within the area and their approximate areas are -given in Table XI.

TABLE XI.

| Latèritic red clay ... |  | ... | $\ldots$ | 243 | acres. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pegasse |  | ... | ... | 152 |  |
| Yellow Clay | ... | ... | ... | 25 | , |

Method of Surrey.-Five traverses from equally spaced points on the western boundary were made to the eastern boundary, and regularly spaced samples were taken during the traverses. Their position is indicated in Map II. The figures in brackets are the percentage stones and gravel (greater than 1 mm . diameter) in each sample. Thirty-eight samples of this area were obtained.

Individual samples were grouped into eight composite samples (N.W.C.P. II., IV., V., VIII., XXV., XXXI., XXXVIII. and XL.) and the results of their laboratory examination appear in the Tables VI., VII. and VIII.

Discussion of Results.-The lateritic fine silt, which occurs as a shallow covering to the Hosororo Hill and extends as a wide belt across the centre of the station, is typical of similar areas occurring in the area surveyed. It contains more organic matter, more available and total phosphate, and possesses a higher lime requirement, which differences are presumably due to previnus cultivation. It has already been pointed out that a considerable amount of erosion has taken place on the hill slopes, and at many points in the area so little fine earth remains that cultivation is precluded. It is apparent, then, that expansion of clearings at the station must be judiciously undertaken. The most promising areat for extensiod would appear to be situated on the eastorn slope of the hill, facing Waikerabi Creek.

The pegasse soil of the Station is situated between the Hosororo Hill and the Aruka River. The northern half of this strip has been drained and planted to rubber during the last twenty years. Of this area only a small portion, situated between Hosororo Creek and the northern boundary, is still in cultivation. Subsequent to the failure of the rubber, crops of Maize, Cassara, Bananas, Yams, and Tannias have been planted. It has already been pointed out that this area of pegasse is by no means typical of the virgin pegasse of the vicinity.

Small areas of two types of virgin pegasse occur at the Station. The pegasse, situated between the Waikerabi Creek and the eastern slope of Hosororo Hill, supports the Truli palm-Corkwood association and from local experience may be judged as fertile. It is typical of the pegasse which occurs at the foot of the lateritic clay hills. The area situated to the south-east of the Waikerabi Creek supports Swamp Lily and White Cedar and is typical of the poorer pegasse of the area.

The yellow clay soil occurring in a depression between the western boundary and Hosororo Hill is relatively small in area, and is typical of a very limited region of the country covered by the colonization survey. It has therefore not
been examined in detail. The results of an examination of a sample of the topsoil is shown in Table XII.


This soil is possibly the outwash from the lateritic clay of the sorrounding hills.
The Hosororo Experiment Station was founded at' a time when there was every reason to suppose that the soils occurring there were typical of the large area bounded by the Aruka, Aruau and Yarakita Rivers. The results of the survey of this area have shown that lateritic clay occurs to a very limited extent withirthis area. Furthermore, there is, at present, little indication that large tracts of lateritic clay do, in fact, occur in the colony, and it would seem that the results of agricultural experiments on this type of soil at the station will have very littleapplication elsewhere.
(9) Stumary.

A detailed soil surveg of the area has disclosed the existence of three main soil types, pegasse swamps having an area of 103 square miles, sand hills covering an area of 40 square miles, and lateritic clay soils extending over an area of 13 squaremiles.

On the score of drainage difficulties, the pegasse soils may be rulsd out of consideration as far as widespread settlement is concerned. The lateritic clay type, which might have proved suitable in the light of agricultural experience, occurs toa very limited extent and a considerable area is already in occupation. A large proportion of the remaining regions of this type occurs on the hillsides where the soil is so shallow and the slope so precipitous that cultivation is out of the question.

There remains the sand hill area, and examiation of this soil type shows: that the immeriate settlement of an agricultural community within this district is impcssible. The soil is an acid sand of low humus content, and experience has shown that under continuous cropping its fertility is lost within two or three years. The successful substitution for this system of shifting cultivation of a system. possibly involving rotational green manuring, under which indefinitely continuons cropping may be carried on withont loss of soil fertility, must be demonstrated, and further, a suitable economic crop must be found before the settlement of such areas can be contemplated. The reported existence of large areas of this soil type within the colony make it imperative that some attempt should be made in this direction, and it is suggested that a typical experimental area should be retained. On this area such permanent crops as suggest themselves should be planted and. critical experiments, designed to compare various systems of cultivation, should be carried out. Such experiments must of necessity be continued for a number of years in order that the effects of climatic variation may be assessed.

Experience of the potentialities of the two other soil types shows that the - pegasse will support Liberian coffee, while Citrus may be successfully cultivated upon the lateritic clay soils. Attempts to discover other permanent crops of value should le maintained. It must be borne in mind, however, that the existence of large tracts of lateritic clay within the colony has yet to be established. Of primary importance therefore is the formulation of a system of cultivation suited to the continued cropping of the sand hill type of soil.

A detailed survey of the soils of the Hosororo Experiment Station disclosed the fact that there exist two small areas of virgin pegasse, the one typical of the poor pegasse which supports the Swamp-Lily-White Cedar flora, the other representative of the virgin pegasse occurring at the foot of the lateritic clay hills. The type of good pegasse which supports the Truli palm-Corkwood flora, and which is the most widely occurring within the area surveyed, is not represented at the Hosororo Experiment Station. The area now in cultivation there, which bas been drained for the last twenty years, is by no means typical of the virgin pegasse of the vicinity, Experimental evidence tends to show that this cultivated area, subjected to successive desiccations, has lost a considerable amount of its plant nutrients through the effects of leaching.

Examination of the lateritic clay soil, occurring at the Experiment Station, shows it to be typical of the lateritic clays of the area surveyed. Due to the effeets of soil erosion, however, a considerable proportion of this area is of such a gravelly nature as to be agriculturally useless.

## ACKNOWLEDGMENT.

It would not be out of place at this stage to record my indebtedness to Mr . C. I. C. Bourne, for the considerable assistance rendered me in the laboratory examination of the samples. Without his aid this phase of the investigation could not have been so expeditiously completed.
22.8.29.
arkangement of composite eimpiks.


## APPENDIX $\mathbf{V A .}_{\text {A. }}$

REPORT OF THE CHIEF COLONIZATION OFFICER ON IVVESTIGATION INTO SUITABILITY OF NORTH WESTERN DISTRICT FOR COLONIZATION-GOVERNOR'S MEMORANDUM No. 2 OF 1928.
(Extracted from printed Report of Chief Colonization Officer for 1929).

## Department of Agbicultube, Georgetown, Demerara, March 1, 1330.

Sir,


Noeth West Distriot.-Investigation into suitability for Oolonization. (Governor's Memorandum No. 2).
3. Reconnaissance, torest valuation, soil and geological surveys.-On February 5, 1929, an advance survey pariy consisting of two surveyors of the Lands and Mines Department, left Georgetown for the North West District for the purpose of-
(a) examining the country between Barima, Aruka, Aruau and Yarakita Rivers, as to its suitability for Colonization on the principles laid down in Governor's Memorandum No. 1 ;
(b) selecting a definite area for the establishment of the first experimental settlement.
About a month later, this party was joined by a main survey party consisting of five Forestry Officers from the Forestry Department and a Geological Survejor from the Lands and Mines Department together with Mr. L. S. Hobenkerk, Depuly Conservator of Forests and Superintendent of Forest.Surveys, who was placed in charge of the survey.
4. Progress Reports on Survey.-Both these parties started work immediately on their arrival in the District and satisfactory progress was made and maintained throughout the survey. During the survey, progress reports were drawn up and submitted to the Colonization Committee for its information. The Committee was thus kept continuously in touch with the progress of the whole survey.
5. Cost of Surveys.-It is noteworthy that the survey was finished ahead of programme time at a cost considerably less than that estimated. This was due to efficient work, good organisation and favourable weather, particularly when the work was being carried out in the swamp areas of the district. The estimated cost of the survey was $\$ 12,500$ and the actual cost $\$ 8,046.13$.
6. Reports on result of 'Surveys,-Reports by the Officer in charge of the survey and the Government Survejor on the Geological Survey have been submitted and were laid at the last Session of the l,egislative Council along with the report of the Chemist-Ecologist who conducted an investigation into the suitability of the soils in that part of the district under survey and at the Hosororo Experiment Station. The printing of these reports with the necessary maps accompanying them, is still under consideration.
7. Decision of Colonization Committee on result of Surveys.-These reports were laid at a Meeting of the Colonization Committee held ou the 25th June, 1929, and the Committee. after carefu! consideration, decided to inform Government that the investigation showed the nature of the country as disclosed by the survey was unsuitable for any organised settlement scheme. Further, any scheme as contemplated, was entirely out of the question at least for the present and until it could be definitely ascertained with greater detail whether it was practicable from an agricultural point of view.
8. Proposuls with regard to future Settlement of District.-The Cominittee nevertheless thought that no objection should be offered to the settling of the district as
hitherto by small farmers and others, it being understood, however, that all applications for grants and tracts of land in the district, Exclusive Permissions, etc., would be laid before the Committee for its consideration, as decided by His Excellency the Governor, Moreover, any, scheme of land settlement formulated other than on Government lines should be submitted for the views of the Committee.

At the same time the Committee considered that there was still much to be doue agriculturally along the Mabaruma range and in this connexion steps were being taken by the Agriculture Department to initiate experiments at Wauna, a station which has recently been opened through the efforts of the North West District Farmers' Association under the guidance of the Commissioner of the District and which is situated near the Wauna creek, a tributary of the Koriabo River.

Investigations conducted by the Chemist-Ecologist showed that similar sandy soil to that of Wauna comprised a large area of the district covered by the survey. Results of these experiments at Wauna will be of interest not only to this particular locality, but in other unsettled parts of the Colony where such sandy areas exist.

I have the honour to be,
Sir,
Your obedient Servant,
J. SYDNEY DASH,

Chief Colonization Officer.

[^45]APPENDIX VI.
$-\infty$
LEAFLET ADVERTISING PARTICULARS OF LAND SETTLEMENT AT PLANTATION HAMPTON COURT, ESSEQU1BO.

## LAND SETTLEMENT AT PLN. HAMPTON COURT.

## Free Lands for Rice, Cane Farms and House Lots.

Settlers are invited to settle at Pln. Hampton Court, Essequibo, where the following inducements are offered :-

One acre of well irrigated and drained Rice land, and
One acre of well irrigated and drained Cane land
OR
Two acres of either cane or rice lands free of rental for a period of three years. Canes to be purchased by the Estate on the same basis as presently paid to our cane-farmers.
One House Lot for a period of three years.
The lands for cultivation and for House Lot will be sold to the settler, at his option, after three years of beneficial occupation and intersive cultivation at a reasonable price which will be fixed at the start on easy terms of payment.

If necessary, the settler will be assisted by advances to build his own house.
The settler and his family will be given free medical attendance and free pasturage for oattle.

In return for the above benefits, the Company will require the settler to work on the property at current rates of wages when be is not actively engaged in the planting and reaping of his own crops on the lands so occupied.

Should the settler become objectionable in his behaviour, or be convicted of any serious oriminal offence, the Company reserves the right to give him three months' notice to quit the property, and allow him to sell or transfer his interest to another party.

For further particulars please apply to

THE MANAGER,<br>Pln. Hampton Court.

Hampton Court Plantation, Ltd.,
R. E. BRASSINGTON, Cbairman.

Georgetown,
2nd January, 1929.

## APPENDIX VII.

MEMORANDUM ON THE EAST BANK ESSEQUIBO RIVER by Mr. J. Mullin, Commissioner of Lands and Mines.

## THE EAS'l BANK ESSEQUIBO.

The area of immediate interest in that locality is the one lying between the Boerasirie and Bonasika rivers, a distance of about 17 miles with a depth inland of about 4 miles to the Dourabana river which runs roughly parallel with the bank of the Essequibo river and is one of the tributary systems of the Bonasika river.
2. The gross area is about 68 square miles Of this about 25 square miles along the bank of the Essequibo river was laid out as "estates" or "plantations" during the Dutch occupation to an average depth of 750 roods (about $1 \frac{1}{4}$ miles) and -became private property. . In this strip the Government owns only one sectionPlantation Ruby-which was acquired by the Local Government Board at Execution Sale and lotted out for re-sale by instalments at $\$ 15$ an acre to settlers, all of whom failed to complete their purchase owing to failure of crops due to flooding; thus necessitating recent re-acquisition by the Board.
3. The other estates laid out as above, from Ruby to the Bonasika river, are in $\ddot{a}$ more or less abạndoned condition and subject to flooding in wet weather. Yet the old Dutch and French plans on record in the Lands and Mines Department show that these estates were at that time intensively cultivated with sugar, coffee, cocoa, cotton and other crops.
4. The present owners attribute their troubles to the creation of the BoerasirieWarimia Conservancy, by damming the Boerasirie river at the one end and the Dourabanna and Warimia rivers at the other end, resulting in the raising of the average water levels in the swampy areas formerly drained by those rivers and consëquent quicker flouding and slower discharge in wet weather.
5. The Boerasirie Commissioners maintain that they have provided adequate alternative relief and blame the owners for not maintaining their backdams to a sufficient height and strength to keep out the swamp waters aback, which they contend reach no higher level than they did before the Boerasirie-Warimia -Conservancy was formed.
6. The old plans referred to show swampy land behind the estates at that period; but no levels are recorded, consequently it is not possible to prove either contenlion. The backdams are, however, now in a deplorable state and in some cases practically non-existent; but even when the onus of maintaining these backdams rested on the Boerasirie Commissioners themselves (which they uadertook voluntarily as an agreed alternative to construction of a wing dam from the B'oerasirie to alleged "high land " in rear of the estates, as required by the Boerasirie Ordinance and which they claim was faithfully observed) there were, over a long period of years, constant leakages by percolation and even entire breaches, which the Commissioners found so difficult and expensive to repair that they reverted to the original scheme for construction of a wing dam a few years ago. This is shewn on the tracing hereto attached as the "Kent Dam."
7. Thus there has been, for a long period of years, a direct conflict of opinion between the owners of the lands in question and the Water Conservancy Commissioners, the arbitrators in which are by law the Governor in Council. But an essential preliminary to arbitration is a properly directed survey with levels and calculation of the natural discharges and the artificial ones which have been created in their stead.
8. A few lines of levels have been run across portions of the area, some by the Commissioners and some by Government. These are shewn on the plan accompanying this Memorandum; but are reduced in value by the fact that they have either ing this Memorandum; taken to the clay below.
9. Although this is one of the areas mentioned in the "Memorandum on areas " of Crown Land available for forming Settlements under the Colonisation and Immi"gration Schemes" attached to the report on the 1919 Colonisation Scheme (copy attached*-ride page 7, area No. 3) and was later incorporated in the Coastal Drainage Scheme and a sum of $\$ 80,000$ earmarked therefor; no serious attempi has been made to ascertnin what works are required to protect from flooding this large area of Crown Land and private property and to drain it and make it productive once more.
10. There is therefore no reliable data available even now on which estimates could $\backslash$ be based and the $\$ 80,000$ set aside under the Coastal Drainage Scheme was. obviously a "shot in the dark." Moreover, it would appear that the money raised has been used to offset over-expenditure on other Drainage schemes.
11. In accordance with the directions of His Excellency the Governor to theColonisation Committee in C.S. file No. $455 / 29$ and the Committee's reguest that I would, along with the Director of Public Works, see the Conservancy Boards toaiscertain what they can do with regard to such relief canals and dams as may benecessary, a meeting was held on the 21st instant at which Messra. R. Strang, A. E. Bratt, A. R. Murison, the present Boerasirie Commissioners, and Mr. G. E. Anderson of Pln. Diamond, a former Commissioner, were present.
12. To make clear the discussion which took place it is necessary briefly toreview matters concerning the creation of the Boerasirie and Warimia Conservancies.
13. The Boerasirie Conservancy was formed under Ordinance 7 of 1889 which was amended by Ordinance 11 of 1906 and Ordinance 16 of 1914. Under these Ordinances the Boerasirie Commissioners assumed control of the old Dutch canar running in rear of the estates from the Boerasirie river to the back of the estates abutting on the Demerara river; also of the Boerasirie river itself from that point upwards.
14. The Ordinances empowered the Commissioners to do the following works:-

To construct and maintain-
(a) a canal from the Boerasirie to Versailles on the West Bank of the river Demerara:
(b) a canal from the Boerasirie to Philadelphia:
(c) a dam from Philadelphia to the rising ground aback of the said plantation:
(d) a lock in the Boerasirie: and
(e) any works which the Governor in Council may direct to be constructed and maintained as necessary works, in addition to or in substitution for any of the foregoing works.
15. The Commissioners claim that they have complied with that Ordinance in. full except the placing of a lock in the Boerasirie river, which they claim would be of no value for navigation purposes for other than very small craft, owing to the construction of the railway bridge which effectually blocks navigation. The river was therefore damned off and a relief sluice about 15 feet wide and a boat haul-overhave been ereeted instead of the lock.
16. The Boerasirie river proved insufficient in itself to supply all the irrigation water required by the estates drawiag from it and the Commissioners therefore conceived the idea of digging a connecting canal from the Boerasirie river to the tributaries of the Bonasika river. This was sanctioned under Ordinance No. 7 of 1889; but nu preliminary levels were run and when the Boerasirie Extension canal was completed it was found that the water flowed from the Boerasirie to the

[^46]Bonasika instead of rice rersa. This necessitated the damning back of the Bonasika tributaries which was done by erecting a stop-off across the Warimia river at a point below the Dourabanna river and close to the Bunasika river itself. Cunsiderable trouble was experienced in making this stop-off hold owing to the great pressure of water and large sums of money were spent on it and on constructing a wing-dam to keep back the overflow. Eventually a sluice about 15 feet wide was erected some little distance to one side of the stop-off and this the Commissioners claim provides adequate relief of flood waters.
17. The owners of properties in the vicinity assert however that they are being constantily flooded out by overflow from the Warimia and Dourabanna rivers due to the damming off of these rivers and the alleged inadequate relief afforded by the sluice. Here again there is a direct conflict of opinion between the owners of property and the Boerasirie Commissioners.
18. At the Boerasirie end of the conservancy the Commissioners constructed a wing-dam which is known as the Kent Dam which it is alleged joins up to the "high land" indicated on the plan by an engineer named Kent who was employed by the Boerasirie Commissioners to make certain survess and levels in that locality. This dam they assert was solidly constructed and was passed as satisfactory by the then Director of Public Works, Mr. Paton Auld. The surveyor who ran the levels along this dam (Mr. J. Phang, Surveyor of the Lands and Mines Department, lent for that purpose) asserts that when he got to the end of the dam where it was supposed to connect with the alleged "high land" he was unable to bottom the pegass with a ten-foot ranging rod. It would appear possible therefore that this "high land" is merely. a pegass sponge through which the conservancy water escapes round the end of the dam.
19. The Commissioners assert however that the wing-dam and the "high land". to which they state it connects effectively holds back the water at the Boerasirie end of the conservancy. As regards the Warimia end of the conservancy, the Commissioners whilst emphatically expressing the view that there was no escape of conservancy water there, admitted that if it was proved by survey and levels that water was escaping they would be liable for the construction of a wing-dam at that end from the Warimia stop-off to the " high land" supposed to exist between the end of the Kent Dam and the Warimia. The Commissioners expressed the view, however, that in order to render the Crown Land lying in rear of the estates from Ruby to the Bonasika river available for land settlement it would be necessary to extend the sideline dam of Ruby inland to the Kent Dam and to continue the Kent Dam right through to the Warimia stop-off so as properly to empolder the area and at the same time effectively prevent any seepage or overflow from the Conservancy.
20. The Commissioners were quite decided on the point that any separation of the Boerasirie and Warimia conservancies would mean ruination to the sugar and rice estates lying between the Boerasirie river and the Demerara river which now draw from the combined conservancies along the Boerasirie Service Canal, as the Boerasinie river is not in itself sufficient to supply their needs.
21. The Commissioners agreed as to the dcsirability of a properly conducted survey with levels over the lands bounded by the Dourabanna and Warimia rivers and the Bonasika and Essequibo rivers; but expressed no desire or intention of joining in the cost of doing so. It seems desirable that a decision be come to at an carly date as to what surveys and levels are required and an estimate of cost be got out, including counding through the pegass to the clay beneath along all the lines of levels. A question as to what proportion of the cost should be borne by the Botiasirie Ccmmissioners and by the owners of private property along the bank of the Essequibo river could then be considered.
22. When these surveys and levels have been carried out a scheme for (a) retaining additional water in the Boerasirie-Warimia conservancies;
(b) for protecting the private properties along the bank of the Essequibo river ; and
(c) for empoldering, irrigating and draining the Crown Land lying between those private properties and the conservancy
could be drawn up and the question of allocation of cost as between the Boerasirie Commissioners, the owners of private property and the Colonisation Fund be gone into.
23. The Boerasirie Service Canal along the section from Leonora to the back of Versailles runs parallel with the " $A$ " line irrigation canal of the Canals Polder. The Boerasirie Service Canal ends in a cul-de-sac at the back of Versailles; but the "A" line has been extended on to the Demerara river where a twelve-foot sluice has been erected by the Canals Polder Authority in an atlempt to relieve the flooding which occurrod in the Canals Polder when the " $A$ " line also ended in a cul-de-sac at the back of Schoon Ord. Although this has given considerable relief flooding is still taking place and is attributed to leakage by percolation and overfiow of the Boerasirie Service Canal.
24. The question was therefore discussed with the Boerasirie Commissioners of putting a check sluice in their Service Canal at the back of Leonora and of continuing their canal from the back of Versailles to the Demerara river and erecting a relief sluice there in order to regulate the height of water in the Buerasirie Service Canal in such manner as would effectually prevent any percolation or overflow into the Canals Polder.
25. The Commissioners expressed the view that such flooding as occurred was due entirely to the breaking down of their canal dam by cattle from the Canals Polder which sought a resting and grazing place on that dam in wet weather. They expressed the view that a relief canal to the Demerara river was unnecessary and that they were not prepared to incur the heavy cost of doing so. They offered, however, to fence off their dam along the section from Leonora to Versailles (a distance of a little over four miles) in order to keep the cattle off. They were informed in reply that if their proposal to fence the dam to prevent cattle from straying thereon did not have the desired effect they might have to give effect to the alternative proposal to continue their canal out to the Demerara river.
26. The Polder Conservancy canal runs at right angles to the Boerasirie Service canal from the back of Leonora but is disconnected from it by the width of the Boerasirie dam. The question of joining the Boerasirie and Polder Conservancy canals by cutting this dam was discussed. The Boerasirie Commissioners were opposed to this joining up on the grounds that the Polder Conservancy is utterly insufficient for Yolder requirements and that consequently the Boerasirie Conservancy would be supplying the deficiency, which they are unable to do as the Boerasirie Conservancy is at present insufficient for their own needs in dry weather. Possibly the completion of the Boerasirie-Warimia conservancies by the continuation of the Kent dam to the Warimia stop-off would result in impounding sufficient additional water to enable the joining up of the Boerasirio and Polder Conservancies. If so, this should be done as the water belongs to the Crown and Government is no less concerned with the productivity of the sugar estates and small holdings in the Canals Polder Scheme than in the sugar estates and small holdings attached to the Boerasirie Scheme.
J. MULLIN.

## APPENDIX VIII.

PARTICULARS REGARDING SUGAK ESTATES OF BRITISH qUIANA.

## PLANTATION DIAMOND.

## Plantation Diakond (Inoluding Preer's Hall, Providrnue, Ecolegs, Aroadia and

 Muовa).This estate is situated on the East Bank, Demerara, approximately 7 miles from Georgetown. The agents are Messrs. Sandbach, Parker \& Co., whilst the proprietors are the Demerara Company, Limited.

The position on this estate has been very kindly summarized by the Manager, Mr. G. E. Anderson, in reply to our questionnaire, as follows :-
" We have about 1,000 acres of land uncultivated which will eventually " be suitable for growing canes. Navigation and drainage canals will, how"ever, have to be constructed. Work in this direction goes on steadily, "if slowly, and provides employment for resident labourers during slack " seasons.
"We cannot afford to part with any of this land. In fact, we are " getting near the end of our tether as regards expansion.
"In 1905 the area under canes was 5,156 acres, which produced " 13,400 tons of sugar, whereas last year the area under canes was 7,900 " acres and the crop was 18,400 tons of sugar.
" There is a further 1,000 acres of land at present uncultivated which " is probably too low for growing canes unless at some future date the price " of sugar will justify purnping. It is my intention to utilize such portions " of this area which are not actually swamp for rice-growing and pasturage " as opportunity offers.
"The estate is not prepared to lease any portion of these lands to "cane-farmers or settlers.
" I think the above disposes of the first three pages of the questionnaire. * As regards paragraph 10, there are anout 200 acres of land between the "public road and the Demerara River which could be converted into " house lots of say $\frac{1}{4}$ acrs each and it appears to me that a plan whereby " immigrant famiiies, used to agricultural labour, would be settled on this " land offers some prospect of success. My idea is that cottages would be " erected on each plot and offered to immigrants rent free, with free " hospital and medical attention, provided they undertook to work for the "estate at standard rates for a minimum of four days in each week. They "would be "Tenants at Will" and liable to be turned off the estate ${ }^{6}$ without notice if they broke the agreement. Perhaps twenty families .c could be dealt with each year under the plan.
«The cottages might be put up with funds provided by Government " to be repaid by the proprietors of the estate over a period of, say, five or ${ }^{6}$ ten years, in the same way as the old indenture fees were treated. On 's the other hand, the proprietors might be prepared to bear the whole cost - from the beginning. In any case, the houses must belong to the estate "as it would be objectionable to have another man's property on our land.
"There are periods of the year, say May June, and October-Decem"ber when more labour could be employed to advantage, but, generally "speaking, $I$ am of the opinion that there is no necessity at present for ." any large addition to the labour available for working this estate.

[^47]Recommendations.-This estate and all sections were inspected by us and only approximately 1,000 acres are suitable for cane cultivation and even this area could only be brought under cultivation by the use of machinery and organised estatelabour.

## PLANTATIONS HODSTON AND RUIMVELDT.

Plantations Houston and Ruimveldt are situated on the East Bank, Demerara, approximately 1 to $1 \frac{1}{2}$ miles from Georgetown. The former is owned by Messrs. M. Vieira and Percy. C. Wight and the latter by the Demerara Company, Limited.

There are no lands available for leasing to cane-farmers, but at Plantation Houston, during harvesting operations there is a scarcity of labour and an additional 100 labourers could be given work if they could be obtained. There is ample high land on the estate along the main road for housing accommodation for stach labour, but the estate management are not prepared to erect any buildings. without assistance from Government.

## PLANTATIONS VERSAILLES.

This estate is situated on the West Bank, Demerara, approximately one milefrom Vreed-en-Hoop; owned by the Versailles Estates, Ltd.

- Cultivations.-There is no available land on this estate, all cultivable land being taken up. The estate extends to the Boeraserie Conservancy Canal and the back lands are deep pegasse. Canes have been tried on such lands but with very little success. Fires in the past have destroyed large patches of pegasse and the subsoil. underneath the present topsoil in many places is burnt brick.

The factory is not up to its full working capacity, and could take more canes if: obtainable. Labour supply is reported to be sufficient.

## CANALS POLDER.

Inspected selected areas of unoccupied lands in the Canals Polder with a view of settlement. These unoccupied blocks of lands are scattered throughout the Canals Polder and exceed in all 4,000 acres. At the present time due to bad drainage only a limited number and parts of such holdings can be successfully cultivated. The main drainage canals near the sea are gradually becoming silted up and the façades side-lines of each holding, between the connecting four-foots, are far too long, i.e., 750 rods, and the gradient insufficient for good drainage.

These questions were discussed at length with the Commissioner and are receiving the attention of Government.

These lands are not recommended for any organised colonization scheme.
There is, however, an area of land owned by Pln. Wales, comprised of parts of five old estates, Mon Desir, The Commons, Endeavour, Rosetta and the Buff, which the estate authorities are willing to seli for settlement purposes. This land is situated along the southern area of No. 2 Canal and is approximately 1,050 acres.

Due to floods this area has not been inspected, but with a view of beneficially occupying this land the estate manager has addressed us as follows:-
"That to make this land available a dam be thrown up from a point "at the Wales Crown dam, known as the Casey dam, to join up with the "dam running west from the burial ground trench to the western Con"servancy dam. This dam will have to be built up to the same level as " the western boundary dam, and as it is sure to settle, we would suggest " that it be built one foot higher than that now. This will empolder an " area of about 450 rods north to south, by 700 rods east to west=1,050 " acres.
" Owing to the undulation of the land it will not be necessary in all "places to dig both trenches 5 ft . deep to get the required height, but in "others it will be necessary to dig deeper, and in some parts the dam will " have to be made up to the required height by creoles. Where a top layer " of pegasse is met with, we suggest that the site of the trench and dam be " parapetted to whatever depth is required to meet clay.
"The existing dam is low at its eastern and western conservancy dam, "it will be possible to dam off the burial ground trench' and prevent any "water from the Hubabu basin going into No. 2 Canal. The Hampa "Stop-oft in the bed of the old Hubabu can then be cut and left open, or an" " box koker put in to retain water when needed.
"If these suggestions are carried out and the empolder dams properly " maintained, there will be a tremendous improvement in the drainage of "this canal.
"We would also suggest that the proposed work be carried out by an "experienced shovel gang overseer. We do not consider the Canals "Polder Kanger will have the time available to give this work sufficient " supervision, and the success of our proposals depends on the dam being "properly built. The estimated cost of throwing dam south section No. "'2 Canal is $\$ 11,500$."
This area would appear to be worthy of inspection for colonization purposes.

## PLANTATIUN WALES.

This estate is situated on the West Bank, Demerara; nine miles from Vreed-enHoop; the agents are Messrs. Booker Bros., McConnell \& Co., Ltd., and the Proprietors are the West Bank Estates, Ltd.

Adjoining this estate on the Vreed-en-Hoop side and along the West Bank of the Demerara River from Wales to Vried-en-Stein there are large areas of excellent uncultivated fertile clay lands, as follows :-


These lands can be easily drained, but a controlled irrigation system will be necessary before systematic cultivation of crops, especially cane, can be resommended.

The estate management has applied for permission to construct a private canal from the Kamuni river to the estate for irrigation purposes to enable them to - extend their cultivations along the West Bank of the Demerara River and to vacate, gradually, their existing cultivations in the Canals Polder. The construction of this canal would enable the additional lands referred to above to be irrigated and taken in for cultivation. The Estate Authorities have consented-as soon as a water supply is available-to make the Hermitage and Reynestein areas (approximately 900 acres) available for cane-farmers for colonization purposes. The greatest drawback to colonization in this area is malaria.

The road along the front of these lands will also need early attention, as; at present it is impassable within a short distance of Pln. Wales.

This area should be fully exploited, surveyed and soils analysed, as in our opinion, such lands offer great possibilities for future colonization schemes, especially in view of their close proximity to Georgetown.

[^48]vergenoegen (inoluding, Philadeiphia, Barnwell, Greinwiof Pabi and
These estates are situated on the West Coast, Demerara, 16-18 miles from Vreed-en-Hoop.
-The approximate area of each estate is as follows :-

| Vergenoegen | $\ldots$ | $\ldots$ |
| :--- | :--- | :--- |
| Philadelphia | $\ldots$. | 1,279 acres. |
| Barnwell | $\ldots$ | 280 acres. |
| Greenwich Park | $\ldots$. | $\ldots$. |
| Good Hope | $\ldots$. | $\ldots 90$ acres. |
| Goces. |  |  |

These estates, are privately owned by a Mrs. Rahiman, and I was informed by the Manager, Mr. Bacchus, that the properties are for sale, as the proprietrix had insufficient capital for their proper development.

At the time of inspection approximately 500 acres were under rice caltivation and 700 acres under coconuts. The area under coconut cultivation is badly drained and very little revenue is being obtained from this crop. 1 was informed that excellent crops of rice were obtained, and the front lands are certainly most suitable for rice cultivation.

The soils vary from heavy olays to pegasse and are specially suitable for cane cultivation. Drainage has been recently improved but all the side-lines still require cleaning and deepening. The greatest problem is one of irrigation, and unless the neighbouring estates of Tuschen de Vrienden or Vitvlugt could guarantee the loan of a pump, cane cultivation would suffer, over a prolonged drought, on account of
(1) The lands being too high for natural irrigation ; and
(2) An indifferent and irregular water supply.

The Management of Pln. Uitrlugt would gladly take the cane grown on these lands and supply the necessary planting material.

In view of their proximity to the Uitvlugt cane factory, all these properties including Ruby Estate, are worthy of further investigation in connection with land settlemont for West Indians.

## PLANTATION DITVLUGT.

Pln. Uitvlugt is situated on the $\overline{\text { West }}$ Coast, Demerara, 12 miles from Vreed-en-Hoop; the proprietors are Messrs. Booker Bros., MoConnell \& Co., Ltd.

Cultivations.-All the estate lands are under caltivation or grazing, and there is no reserve land available for extension.

The sugar factory is not working up to its full capacity and the management would willingly take cane grown under auy land settlement or colonization scheme in the Ruby Country District.
lt was further considered that the establishment of labour bureaux would be helpful to them during the harvesting periods.

## RUBY ESTATE

Ruhy is situated on the West Coast; Demerara, and is approximately 18 miles from Vreed-en-Hoop.

I'he total area is approximately 275 acres, but of this only 136 acres, are considered suitable for cultivation, the remainder of the area being is deep pegasse swamp. At the time of this inspection all the estate lands were under water and the irrigation trenches and side-line drainage trenches will require reconditioning before apy cultivation is. possible.

The District Commissioner stated that there would be no difficulty in leasing these lands locally if good drainage is provided. The soil, which is a pegasse-clay combination, would then be suitable for the cultivation of general agricultural crops and cane growing. The latter requires an assured water supply and the present irrigation system and water supply is unsatisfactory.

Adjoining Ruby are the estates of Vergennegen, New Hope, Greenwich Park, Philadelphia and Barnwell, where approximately 2,828 acres are available for cultivation, and these estates with Ruby should be considered together in the establishment of any colonizstion scheme for the Ruby Country District. Taere is fimple Crown Land in rear of these estates for expansion of cultivation.

Further details of these estates are given under the Vergenoegen Estates.

## anNa REGINA ESTATES, ESSEQUIBO, (inoluding Bosa Lot, Henbietta, Richuond and La Belle allanoz).

The area of uncultivated lands on the Anna Kegina properties are as follows:-

| Estate. |  |  | Empoldered. | Unempolderod. |
| :---: | :---: | :---: | :---: | :---: |
| Bush I.ot <br> Anna Regina Do. <br> Henriett <br> Richmond <br> La Belle Alliance |  | $\ldots$ <br> $\cdots \cdots$ <br> $\cdots \cdots$ <br> $\cdots \cdots$ <br> $\ldots$ | 60 acres | 160 agrea |
|  |  | $\underline{270} 3$ | \$400. |
|  |  | $100 \%$ | 160 ". |
|  |  | - $170 \%$ | 340 |
|  |  |  |  |
|  |  |  | 1,400 acres |
| Nand Reef - all properties Residential area ... |  |  |  | 10 acres. |
|  |  |  |  | 20 acres. |

These lands are chiefly old cane lands but are suitable for general cultivation and ground provision growing. It is of special attention to note that although appraximately 200 acres were cleared for ground provision growing, frcm Government funds (over 1,000 applications were made for such lands), it was not taken up. The reason given was, that there was no market available for ground provisions, etc.

These lands are suited to the cultivation of general agricultural crops, especially cane, but as regards the latter the nearest factory is Hampton Court. It is a question, therefure, whether or not a small central factory should be built at Anna Hegina, or the estate linked up with the Hampton Court factory,

The question is further discussed under Hampton Court Estate.

PLaNTATION HAMPTON COURT (inolóding Windsor Castle, Devonshire Castle and Walton Hall).
This estate is situated on the Essequibo Coast and is a private property owned by the Hampton Court Plantation, Limited, of which Mr. R. E. Brassington is Chairman.

The total area of the estate is 2,915 acres and cultivated as follows:-

| Estate. |  | Coconats. | Cane. | Coffee. | Rice. | Plantains. | Unoulivated. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Windsor Castle H.mpton Court Devonshire Castle Walton Hall |  |  | 126 |  | 150 | 5 | 396 |
|  |  | 397 | 194 | 2 | 180 | -. | 122 |
|  |  | ... | 304 162 | $\cdots$ | 32 | ... | 507 |
|  |  | ... | 162 | ... | ... | ... | 338 |
|  |  | 397 | 786 | 2 | 362 | 5 | 1,363 |

This is the last existing sugar estate on the Essequibo Coast and is now in the market for sals. A land settlement scheme was advertised in connection with this estate in 1929 as per Appendix VI. attached, but was unsuccessful. The factory is out-of-date, although excellent cane yields are obtained from the estate.

In our opinion, every. effort should be made to keep at least one sugar factory on the Coast especially as there are thousands of acres of suitable land for cane cultivation in this district. The local "Black" population are well suited to cane cultivation and consideration might be giveu to the purchase of this estate, or the erection of a factory at the most central point.

This question is also discussed under the Anna Regina Estates.

## PLANTATION AFFIANCE.

Plantation Affiance is situated on the Essequibo Coast and owned by Mr. S. H. Seymour, Taymouth Manor, Essequibo.

The total area of this estate including Crown lands is 1,990 acres.
The estate lands are principally cultivated with rice and a small area with coconuts.

The irrigation and drainage is being maintained in good order and good crops of rice are obtained.
'This estate is now in the market for sale, but acquisition is not recommended.

## PLANTATION ROSEHALL.

This estate is situated approximately 4 miles from New Amsterdam; owned by Demerara Sugar Estates in London, agents being Messrs. Booker Bros., McConnell \& Co., Ltd.

There are approximately 2,000 acres of uncultivated lands on this estate suitable for cane or rice cultivation. These lands are situated in separate blocks-
(1) Along the roadside at Prospect and Smithson's Place (two sections) ;
(2) An old estate section (New Forest) on the banks of the Canje River and now in bush.

The total area given above does not include a large block of 3,000 acres adjoining the present cultivations and now used for grazing purposes. Strips of this land could be easily taken in, if the estates approve.

The factory is not up to its full working capacity and it is estimated could make another 500 tons of sugar.

The estate is in close prosimity to New Amsterdam and is well situated for labour supply.

## HICKEN'S CATTLE RANCH.

This ranch is situated approximately 10-12 miles from New Amsterdam and is owned by Mr. E. Hicken.

In view of the importance of the Trinidad market for beef cattle, I visited this estate and discussed the question with him.

He is not interested in the export trade and relies on the local market for the disposal of his cattle. I'here is no pedigree stock or line breeding carried on and he was unable to give details of the carrying capacity, on an acreage basis, of his estate. Experiments had been made a considerable time back with Holstein cattle and Shropshire sheep but were unsuccessful and no further efforts are contemplated by him.

## PLANTATION ALBION.

This estate is situated approximately 12 miles from New Amsterdam, owned by the Corentyne Sugar Co., Ltd.; the agents being Messrs. Curtis, Campbell \& Co.

There are approximately 10,000 acres of uncultivated land on this estate; 3,000 of which are situated at the back and 7,000 acres along the front of the estate. The lands, more especially the back area, is excellent cane land, but would require systematic irrigation and drainage. The front lands are used principally as a relief area for pumping drainage water in emergency. The estate is leasing lands from a neighbouring estate, and until the price of sugar becomes more stabilized do not anticipate taking in any of their back lands at present. This management is not in favour of leasing lands for cane-farming and considers that immigrants should, in the first instance, come as labourers and take up cane-farming later. Further, this estate appears to have had considerable difficulties with Barbadian labour immigrants in the past, and East Indian labour or local labour is much preferred.

The factory, it is estimated, could manufacture another 500 tons of sugar, if canes were available.

## PLANTATION PORT MOURANT.

This sugar estate is approximately 14 miles from New Amsterdam ; the proprietors being the Port Mourant Co., Ltd., whilst the agents are Messrs. Booker Bros., McConnell \& Co., Ltd.

On this estate new lands are gradually being taken in, whilst there are approximately 3,000 acres situated at the back of the estate uncultivated and suitable for cane cultivation. These lands are considered too inaccessible at the present time for cane farming, and could be best taken in by organised estate labour.

The factory is not up to its full working capacity and it is estimated could manufacture another 500 tons of sugar.

The labour supply is considered sufficient for the estate's requirements.

## PLANTATION SPRINGLANDS.

This estate is situated on the Courantyne Coast and is approximately 47 roiles from New Amsterdam ; the proprietors are the Pln. Springlands, Ltd., whilst the agents are Messrs. Booker Bros., McConnell \& Co., Ltd.

There are approximately 2,000 acres of excellent cane land available for cultivation purposes. This area is in the rear of the estate back-dam and would make excellent cane and rice lands. The only difficulty would be the irrigation of these lands, but the Skeldon estate water-path from the Canje river passes within a short distance of this area and if this land was given out to cane-farming, arrangements might be made with the Skeldon authorities to irrigate these lands when necessary. I understand there is an ample supply of water always available.

There are ideal front lands available for house and garden lots.
This estate has no factory and canes are taken to Skeldon factory for grinding.
(1) FRIENDS and cum annexis, Lonsdale, Bruthers, Sisters and Enfield.
(2) MARA and cum annexis, Germania, Vryburg, Sohepmoed, La Enterprise and Maretraite.

These two groups of estates (the property of Mr. M. Vieira and syndicateMr . Vieira being chiefly interested) are situated on the East Bank of the Berbice River, the Friends group being 6-7 miles and the Mara group 16-18 miles from New Apsterdam.

All these estates are old sugar estates and the areas empoldered and uncultivated are as follows:-
(1) Friends cum annexis:-

| Estate. |  |  | Empoldered. | Uncultivated. |
| :---: | :---: | :---: | :---: | :---: |
| Friends | ... | ... | 1,091 acres. | 1,091 acres. |
| Lonsdale | ... | ... | 500 " | 464 \% |
| Brathers | ... | $\cdots$ | 625 " | 205 ", |
| Siaters | ... | ... | 472 " | 262 " |
| Enfield | ... | ... | 479 " | 479 " |
|  |  |  | 3,167 Acrep. | 2,501 acres. |

(2) Mara cum annexis :-

| Estate. |  |  |  | Empoldered. | Uncultivated. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mara | $\cdots$ | $\ldots$ | $\ldots$ | 536 sares. | 340 acres. |
| Germania | ... | ... | $\ldots$ | 615 " | 445 , |
| Vrybarg | $\ldots$ | $\cdots$ | $\cdots$ | 548 | 548 " |
| Sahepmoed | $\ldots$ |  | $\ldots$ | ${ }_{747}^{555}$ | ${ }^{555}$ |
| Ma Retraite | ... | $\ldots$ | $\ldots$ | 622 :" | 657 " |
|  |  |  |  | 3,623 aores. | 3,176 acres. |

As will be seen by the above figures these estates are semi-abandoned. The cane under cultivation at Mara is now being cropped, and the sugar factory dismantled. The owner intends to improve his sugar factory at Friends and to extend gradually his cultivations on the first group of estates mentioned above.

Agriculturally, the soil in both groups is very fertile for either cane or rice cultivation, whilst there are ample suitable lands for ground provision growing and grazing purposes. The irrigation and drainage trenches are overgrown, with the exception of certain sections of Mara, Brothers and Nisters, and the areas uncultivated are reverting to bush.

The greatest hindrance to the development of this area is the prevalence of malaria which is reported as being specially rampant at Mara and this is undoubtedly one of the reasons for closing down the estate.

These estates might also be considered in connection with grazing of cattie coming from the Rupununi, and early fattening experiments with such cattle might be carried out with advantage.

The fact remains, however, that there are large areas of very fertile land being abandoned and available all along the East Bank of the Berbice river, and consideration should be given to bringing these lands under one major Colonization Scheme, commencing from the first group of estates upwards. At present, the irrigation system is unsatisfactory and investigations should be made into the economic possibilities of tapping the Canje Creek or the Berbice River, above Mara, for an assured water supply. This trench should run along the back of the present estates.

At the commencement all the cane grown could be taken by the Blairmont or Friends factories, provided the latter mill is brought up-to-date. The question of a central factory would not immediately arise, especially if rice cultivation is also undertaken.

## PLANTATION BLAIRMONT.

Plantation Blairmont is situated on the West Bank, Berbice river, 70 miles from Georgetown : the proprietors and agents being Messrs. S. Davson \& Co., Ltd.

There are approximately 10,000 acres of uncultivated land suitable for cane cultivation on this estate, in addition to a large area of sand reef, suitable for housing accommodiation and ground provision growing.

The management informed me that the estate was very short of labour and would gladly settle 300 families immediately if available. New Amsterdam provides part of the labour supply, the labourers being transported to and fro daiiy by the Company's launch.

The East Indian labourers are provided with accommodation on the estate inclading garden plots and rice land. The question of providing the West Indians with similar facilities-i.e, cane land instead of rice land-was discussed, kut no conclusion arrived at, as this would be a considerable chauge in policy and could only be carried out by consent of the propriators (S. Davson \& Co., Ltd.) resident in England.

The factory which is owned by a separate Company, is well below its full grinding capacity and the management would gladly accept canes from any settlement scheme established on either of the banks of the Berbice River. (Please see Mara and Cruysburg). The estate is a malarial one.

## Ithaca to adgsberg, west bank, berbice.

These lands which are privately owned extend along the West Bank of the Berbice River from Blairmont estate. All the cultivations, generally of plantain and ground provisions, are neglected and a luxuriant growth of jungle, abounds everywhere.

Commencing from Cruysburg there are large tracts of uncultivated land of a heavy clay texture, which are suitable for rice, cane or general cultivation. The drainage trenches are overgrown, and the jungle growth is dense. The road stops at Augsberg.

Melaria is prevalent but the inhabitants made no complaint of this and were, on the whole, fairly healthy. Their chief employment is growing foodstuffs for the New Amsterdam market. When asked why they did not work on Blairmont estate they replied that "they could only earn from 6s, to 8s. a week and preferred to cultivate their village lands."

The colonization of this area is also discussed under Plantation Blairmont.

## plantation la bonne mere.

This estate is situate on the East Coast, Demerara, adjoining Cane Grove estate and is owned by Mr. Azeez Rohoman.

The total area of the estate is 2,153 acres of which 800 acres are cultivated with the following : -


The total area empoldered is approximately 1,400 acres, leaving 600 acres available for cultivation. This estate had an excellent reputation as a sugar estate, hut the best lands have undoubtedly since been taken up for rice cultivation. At present the uncultivated lands are-leased out for pasturage purposes and grazing for 300 head is provided. Although Cane Grove could take all the cane grown on this estate, the unculivated aren would require extensive re-digging and grading of drainage and irrigation trenches and re-conditioning of dams, etc., before it could be brought under cultivation. In addition, the area adjoining the Conservancy is deep pegasse and is considered unsuitable for cultiva tion.

The owner wishes to sell the property, including his rice mill, for $\$ 50,000$.
Acquisition is not recommended as the latter portion of this land is already being beneficially occupied and the balance is not worth the cost which would be involved.

## LUUSIGNAN, MON REPOS, GOOD HOPE AND ANNANDALE.

These estates are situated on the East Coast, Demerara, approximately 10 miles from Georgetown. The local agents are Messrs. Booiser Bros., McConnell \& Co., Ltd., the proprietors being the Enmore Estates, Ltd.

I'te total area is $\mathbf{7 , 9 4 4}$ acres, of which 2,188 are uncultivated and residential. 'There is very little land available for extension, excepting on the front lands, which could be cultivated with cine and rice, if well flooded and the "soluble salts" which are inimical to cane cultivation, drained off.

The cultivation of these lands depends on -
(1) The future price of sugar ; and
(2) The available labour supply.

The estate authorities do not wish to lease these lands, as they fear it might interfere with their present labour supply, but if labour bureaux could be success'fully established in the Caribbean Islands for the supply of labour as requirad, consideration would be given to the cultivation of these lands with either cans or rice.

The back lands, which are heavy pegasse, become swamps during rainy seasons and are only used to a limited extent for grazing during dry periods.

## PLANTATIONS ENMORE AND NON PAREIL.

These estates are situated on the East Coast, Demerara, approximately 14-10 miles from Georgetown. The agents are Messrs. Curtis, Uampbell \& Co., and the proprietors the Enmore Eistates, Ltd.

Enmore estate is fully developed as regards cane cultivation, whilst at Non Pareil there is very little land for further extension for any settlement soheme. The uncultivated land, owing to its position and the nature of the soil, can only be satisfactorily taken in by organised estate labour.

The management of Enmore would willingly take all the cane grown at Cove and John, as their factory is not working up to its full capacity and could turn out another 1,000 tons of sugar.

The labour supply is sufficient, but the establishment of labour bureaux in the West Indian Islands for the recruitment of labour when dosired would be welcomed.

LA BONNE INTENTON and adjoining estates of Chateac Margot, Sudeess, Le Ressodvenir, Felioity, Montrose, Brothers, Veyfeid's Lust, and Bettur Hope.

These groups of estates are situated on the East Coast, Denerara, seven to nine miles from Georgetown ; the agents are Messrs. Booker Bros., McConnell \& Co., Ltd., the proprietors being the Ressouvenir Estates, Ltd.

Culitivation.-The total acreage is 8,996 acres.

| Cane. | Rioe. | Cattle |
| :---: | :---: | :---: |
| sores. | a ores. | scres. |
| $\begin{array}{r} 517.082 \\ \mathbf{4 , 7 5 3 . 0 5 6} \end{array}$ |  | $\begin{gathered} 1,204 \\ \ldots \end{gathered}$ |
| 5,270.138 | 2,520 | 1,204 |

All the lands suitable for cane cultivation are taken up.
The heavy pegasse swamps at the back of the estates which are unsuitable for cultivation purposes are used for grazing purposes during the dry seasons.

Labour supply generally sufficient, although the establishment of labour bureaux was considered a very useful proposition.

## PLANTATION OGLE.

This estate is situated on the East Coast, Demerara, approximately six miles from Georgetown. The agents are Messrs. Curtis, Campbell \& Co., whilst the proprietors are the Ugle Company, Limited.

Cultivations.-All the available cane lands on this estate are being gradually taken in for cane cultivation.

Approximately 2,000 acres, which consist of heavy pegasse unsuitable for cultivation, are used for grazing during the dry weather. This area is empoldered, but the pegasse banks are occasionally burnt away during very dry weather. Approximately 450 acres and 900 acres are cultivated with ground provisions and rice respectively.

Labour supply is reported to be sufficient.

APPENDIX IX.

## RETCRN OF AGRICULTURAL PRODUCTS, BRITISH GUIANA.

return of agricultural prodeots siewn on acreage tax retorns of sugar metates por

| Name of Estate. |  |  |  | $\begin{gathered} \stackrel{\circ}{\dot{\circ}} \\ \text { (acree) } \end{gathered}$ |  |  | $\begin{gathered} \dot{\oplus} \\ \stackrel{ \pm}{\overleftarrow{3}} \\ \text { (aores) } \end{gathered}$ |  | $\underset{\text { (aores) }}{\stackrel{\dot{\omega}}{\dot{\omega}}}$ |  |  <br> (acres) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cane Grove | $\ldots$ | 1,730 |  | 63 | 21 | 61 | $\ldots$ | 5 |  | 1,109 | 2,989 |
| Enmore | $\cdots$ | 1.681 | ... | 505 | 655 | 139 | ... | 11 |  | 1,838 | 4,829 |
| Non Pareil | ... | 1.769 |  | 659 | 180 | 284 |  | 5 | 18 | 3,421 | 6,336 |
| Luaignan | ... |  | $\cdots$ | 804 | 460 | 302 | $\cdots$ | 25 | ... | 3,203 | 8397 |
| Le Rebsouvenir Estales | $\cdots$ | 2,912 | $\ldots$ | 419 | 349 | 89 | ... | ..- | $\ldots$ | 4,368 | 8,127 |
| Ogle | ... | 1,413 | $\cdots$ | 943 | 30 | 547 | $\ldots$ | $\cdots$ | ... | 1,272 | 4,204 |
| Rnimveldt | $\cdots$ | 770 | 52 |  | ${ }_{30}^{16}$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 1 | 1,196 |
| Houston | $\cdots$ | 795 7,358 | 52 | 22 | + 190 | ... | ... |  | .... | 1,079 | -11,394 |
| - ${ }_{\text {Diamond }}$ | ... | 2,276 | $\cdots$ | $\cdots$ | 195 | 32 | ... | $\ldots$ | .... | 7.500 | 9,808 |
| Sohoon Ord | $\cdots$ | 834 | $\ldots$ |  |  | ... | $\ldots$ | ... | $\cdots$ | 982 | 1,816 |
| Vermaillea | $\cdots$ | 948 | $\ldots$ | 82 | $\stackrel{21}{9}$ | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | ${ }_{3} 894$ | 1,945 |
| Leonore | ... | 3,980 | $\cdots$ | 382 616 616 | 91 86 | 135 | $\cdots$ | 49 8 | $\ldots$ | 3,427 | 7,941 |
|  | $\cdots$ | $\begin{array}{r}\text { 4,527 } \\ \hline 670\end{array}$ | $\ldots$ | 616 116 | 86 49 | 135 | 3 | 311 | $\cdots$ | $\xrightarrow{3,681}$ | $\mathbf{9} \mathbf{9} \mathbf{2} \mathbf{6 5 1}$ |
| Hampton Oourt | $\cdots$ | 827 | $\ldots$ | 351 | 418 | 5 | 2 | ... | ... | 1,434 | 3,067 |
| Skeldon | ... | 2,465 |  |  | 309 | ... | ... | $\cdots$ | $\cdots$ | 1,698 | 4,372 |
| Springlands | $\cdots$ | 9.94 | 21 | 105 | ${ }_{2}^{284}$ | 37 | $\cdots$ | $\cdots$ | $\cdots$ | 2,14 3,176 | 3,388 |
| Port Mourant | $\cdots$ |  | $\cdots$ | ${ }^{1,680}$ | 26 26 | 16 16 |  |  | $\ldots$ | 2,038 <br> 186 | 8,578 7707 |
| ${ }_{\text {Alone }}^{\text {Albion }}$ | $\ldots$ | 4,466 | 335 | 1,161 | 26 | 16 | $\ldots$ | $\cdots$ | $\cdots$ | 5,189 | 11,177 |
| Providence | ... | 1,011 | ... | ... |  | 16 | ... | $\ldots$ | 443 | 2,241 | 3,711 |
| Friends | $\ldots$ | 678 | ... | ... | 11 | 11 | $\ldots$ | ... | $\ldots$ | 3, ${ }^{2,631}$ | 3,331 $\mathbf{3 8 1}$ |
| Mara ${ }_{\text {Blairmont }}$ | $\because$ |  | $\cdots$ | $\cdots$ | $\cdots$ | 171 | $\ldots$ | $\ldots$ | .... | 3,481 | 5,724 $\mathbf{7}, \mathbf{2}$ |
| $\begin{aligned} & \text { Blairmont } \\ & \text { Bath } \end{aligned}$ |  | 2,072 <br> 2,273 | 74 | .. | ... | 17 | … | $\ldots$ | ... | 5,478 | 7,825 |
|  |  | 58,355 | 482 | 9,410 | 3,257 | 1,868 | 5 | 408 | 461 | 70,945 | 145,181 |

APPENDIX X.

TABLE GIVING DETAILS OF WAGES, HOURS OF WORK COST OF LIVING, ETC., ON SUGAR ESTATES IN BRIIISH GUIANA, AS SUPPLIED BY THE IMMIGRATIÓN DEPARTMENT.

## CONDITIONS AT THE PRESENT TIME.

Question.-What are the current rates of wages in your Colony for persons of the following classes:-


Cane Cutting, Plenting, Oane-hole Digging, Same task rate as men, bat they seldom, Trenchiug, Draining and Hue-Plonghiug. $\} \begin{aligned} & \text { if ever, do this sort of work. }\end{aligned}$
Question.-With reference to Agricultural Labourers, how many hours a day are they expected to work to earn the maximum rate of wages?

Answer -From 8 to $9 \frac{1}{2}$ hours a day, but much depends on the ekill of the individual.
Question.-When the work is paid by task what may be the probable earnings of able-bodied labourers, men and women working 9 hours a day ?
(Pleaes see Table II. attached).
Question.-What are the statutory or usual sizes of the tasks of each kind mentioned, etc.?
Answer.-Varies so that this is virtually unanswerable.
Question.-Please state generally whether there is a demand in your Colony for emigrant artisans, labourers and others of the classes described under bead I?

Answer.-There is no demand at present for artisans. There is plenty of work for all other classes of labourers, but especially for steady field labourers. Good domestic servants can always find employment. Demand for unskilled labour is decidedly on the increase.

Question.-Can persons of the labouring classes, with or without a little capital, acquire small holdings of arable land, cleared or uncleardd, and on what terms?

Answer.-On nearly all sugar Estates and elsewhere, labourers can get land on lease for terms of 2 and 3 years, the first 10 months being given free of rent. Rent as a rule is $\$ 1$ an acre per month. Land can be obtained from the Government at $\$ 2.40$ per acre freehold, or leased at 20 cents an acre, subject to Crown Lands Regulations; this latter sort of land is of curse ancleared, the former is as a rule cleared and is also, if on an estate, properly drained. Village lots can also be obtained but the taxation is somewhat heavy,

Question.-What is the probable cost of living of persons of the labouring class in your Jolony per head per day, including house rent, board and clothing, the diet being pickled and salted fish, meal, rice, sweet potatoes, etc. ?

Answer.-Good labourers can generally get house rent free on estates, failing this, rental in villages costs about from 4 c . to 8 c . per day, food 18 c . to 24 c .

Clothing would depend a good deal on labourer, but say from $\$ 1.20$ to $\$ 2.00$ per month would be ample for ordinary wear, 4 c . to $6 \frac{1}{2} \mathrm{c}$. per day or altogether 26 c . to $38 \frac{1}{2} \mathrm{c}$. would amply cover all ordinary expenses. The calculation for food in above is very ample and in case of married people, the house rent per head would be much less. Besides this good labourers living on estates get the benefit of estate's hospital, free.

Question.-Please give any further information at 'your disposal on the subject of Creole Emigration, generally, to your Colony, and the chances of success that probably await industrious labourers there?

Answer.-There is a very large field for the industrious labourer and he can invariably find work to do of some class or other; the chief fault with black labourers is that they are apt to make a speciality of work, for instance a man who is a cane-cutter will do nothing else and consequently when there are no canes to be cut, he remains idle. A man who will turn his hand to any work can almost invariably find plenty of work to do, the only exception being when there is very dry weather. The demand for labour is likely to increase with the growth in the Timber, Diamond and Gold Industries. Apart from actual wages, a ateady labourer can easily obtain land for growing provisions, and as the land gives very good returns living is made very cheap to those who are moderately industrious. Fish is to be had for the catching either in the fresh water canals or in the sea, and food being so easily obtainable there is a tendency amongst the black labourers generally, to get into idle habits unless their ambition is roused for some special purpose. For a hard-working industrious man accustomed to a tropical climate, this Colony is equal to any in the world.

TABLE 1.

|  | Name of Estate. | Name of Ertate. | Name of Estate, | Name of Estate. | Name of Estate. | Name of Estate. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hampton Oourt, Eseequibo. | Leonora, W.O., Demerara. 81 hours. | Uitvlugt, W.U., Demerara. 9 hours. | De Kinderen, W.O., Demerara. 8 hours, | Verdailles, W.O., Demerara, 8 hours. | Schoonord, W.O., Demerara. 8 hours. |
| Cane cutting men per dag... | 440 to 72c 400 to 560 | 81.08 .66 | 800 68 c | 800 to $\$ 1.20$ <br> 60 o to .800 | 600 to 720 | 48 a to 640 |
| $\begin{array}{ll}\text { Cane planting } & \text { do. } \\ \text { Cane hole digging } & \text { do. } \\ \end{array}$ | 400 to 560 | . 56 | 68 c | 600 to .800 | 40c to 48c | $36 \mathrm{c}, 40 \mathrm{c}, 440.480$. |
| Trenching snd draining do. ${ }^{\text {a }}$-.. | .... | . 56 | 600 | 81.00 | ... | 40c to 48c |
| Forking do. ... | 400 to 56c | . 56 | 66c | 600 to 80c | 480 to 60 c | 440 tn 560 360 to 48 c |
| Hoe ploughing do. | - | ... | - | 600 | ... | not done. |
|  |  | Men ${ }^{\text {- Women }}$ | Men Women | Men Women |  | Men Women |
| Weeding menand women per day | 340 to 120 | $440 \quad 400$ | $440 \quad 440$ | 600360 |  | 36 c 28c |
| Moulding do. do. ... | 340 to 420 | $440 \quad 400$ | 440 440 | 60a 36e | 280 to 320 | 32 c 240 |
| $\begin{array}{llll}\text { Road making } & \text { do. } & \text { do. } & \text {... } \\ \text { Other labour } & \text { do. } & \text { do. } & \text {... }\end{array}$ |  | 640320 |  | - |  | 480 440 |
| Other labour do. do. ... | 260 to 320 | 640 320 | $360,400240,280$ | ... ... | 240 to 480 | 440 280 |

TABLE II.

|  | Name of Estate. | Name of Estate. | Name of Estate. | Name of Eatate | Name of Estate. | Name of Estate. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agrioultural Labourera-Men. | Hampton Court | Leonora, W.O., Demerara. | Uitvlugt, W.C., Demerara. | $\begin{gathered} \text { De Kinderen, } \\ \text { W.C. } \\ \text { Demerarat. } \end{gathered}$ | Vereaillee, W.O., <br> Demerara. | Schoonord, W.C., Demerara. |
| Cutting canes | ... | Varies according to weight of | 80a | be to 120 per 3-rod bed. | 600 to 72s | By task. |
| Do. ...per acre | 38.28 | Roughiy 280 per ton of cane. | \$6.15 | \$5 to \$10 | 22 ato 24 o per ton | \$6.34 (28 tons of onne). |
|  | ... | ... | 680 | 8 c to 10 c per 3-rod bed. | 400 to 480 | By task. |
|  | 4.24 | $\$ 3.50$ to $\$ 12$ $1 \frac{1}{2} 0$ to $2 \mathrm{c} p$. ft. per rod. | $\$ 9.00$ | $\$ 9$ to $\$ 11$ 240 to 3c per 3-rod bed. | \$6 to $\mathbf{\$ 7}$ | $\$ 7.25$. 240 per rod. |
| Forking . ...per day | $\cdots$ | 20 to $3 \frac{2}{2} 0$ per 3-rod bed. | $\cdots$ | $24 \mathrm{oto} 4 \mathrm{to}$.per 3 -rod bed. | 48c to 600 | Ry task. |
| Do. | 2.40 |  | \$3.00 | \$2.50 to \$4.00 | \$2 to \$5 | \$3.94. |
| Hoeing, ploughing, weeding Do do. per day do. | 1.20 | \$2 to $\$ 3.50$ | \$2.00 | tiza to |  | By tagk. \$1.12. |
| Moulding $\quad$...per day | 1.20 | $\begin{aligned} & \text { 10 per 3-rod bed } \\ & 81.25 \end{aligned}$ | \$2.30 | $\begin{gathered} 1 \text { no to } 2 \mathrm{oger} \text { bed } \\ \$ 1.50 \text { to } \$ 2.00 \end{gathered}$ | $\begin{gathered} 40 \mathrm{c} \text { to } 48 \mathrm{c} \\ \$ 3.00 \end{gathered}$ | By tark. |
| Road making  <br> Other labour ...per day <br> ..per day  | 36a to 44c | 480 to 720 | 36c to 40c | $\cdots$ | 320 to 360 | 400 to 48c 32 c to 44a |
| Agricultural Labourers-Women. |  |  |  |  |  |  |
| Cane outting, planting, cane- <br> hole digging, trenching, draining and hoe ploughing. Weeding per day |  |  |  | 300 to 360 | 280 to 320 | $\begin{aligned} & \text { \$6.34 (approx.' } 28 \\ & \text { tong of eane). } \\ & \text { By task. } \end{aligned}$ |
| Weeding -..per day | ... | 1 30 tod bed. | ... | 300 150 | 200 20 |  |
| $\xrightarrow[\text { Do. }]{\text { Dolding }}$ | \$ 1.20 |  |  |  | $\begin{gathered} \$ 2.00 \text { to } \$ 2.50 \\ 280 \text { to } 320 \end{gathered}$ | ${ }_{\text {By }}^{\text {\$1.12 }}$ tabk. |
| Moulding Do. $^{\text {a }}$-..per more | 1.20 | \$ 1.25 | \$ 2.30 | \$1.50 to \$3.00 | \$2.00 to \$2.50 |  |
| Road making Other labour | 200 to 240 | 240 to 280 | 240 to 280 | ... | 240 | 240 to 280 |
| Other Ohildren | 160 to 200 | 180 to 240 | 160, 200, 24c | 200 to $\mathbf{2 4 0}$ | 120 to 160 | 160, 200, 240 |

## APPENDIX XI.

## LETTER FROM B.G. SUGAR PRODUCERS' ASSOCIATION REPORTING FINDINGS OF SUB-COMMITTEE APPOINTED TO CONSIDER GOVERNMENTS LAND SETTLEMENT AND COLONIZATION PROPOSALS AND FORWARDING ESTIMATES of COSt from Plns. Wales, Philadelphia, Vergenoggen and Diamond.

(Received after the completion of the Report).

# Britisi Guiana Sugar Producers' Absociation, <br> La Penitence, Demerara, British Guiana, <br> 3rd September, 1932 

 Gentlemen,With reference to the discussions that have taken place between yourselves and the Committee of this Association appointed to deal with the question of the introduction of agricultural families from the Islauds for settlement on the sugar estates and adjacent lands, I am directed to say that my Committee has now fully considered this matter and is firmly of the opinion that the Government should move slowly at first and make a commencement by introducing suitable agricultural labourers for the estates for a year or tro. From these the most' satisfactory could be selected for-settlement in the Colony. Labour Bureaux should be established in two or three of the principal Islands fiom which it is proposed that the settlers should coüe, These Bureaux would ensure a rigid selection of the immigrants to be brought in-a very necessary desideratum-and would also serve as centres to which indents for labourers could be forwarded.

Settlers from the Islands coming here without any knowledge of the special questions of drainage and irrigation could not make a success of cane-farming or any other kind of farming without first being taught, and a knowledge of these subjects could best be obtained by first working on the estates.

As regards the housing of the labourers, the estates-would be prepared to erect the necessary cottages if Government advanced the required funds, which the estates would repay over a period of, say, five years.

With respect to the settlement of agricultural families on lands adjacent to the estates, owing to the present position of the Sugar Industry the estates could not empolder new areas for farmers without financial assistance from the Government. The cost would be great as the enclosed estimates from Wales, Diamond and Vergenoegen will show. The estates are prepared to encourage cane-farming, but cannot at present undertake any peasant farming on their lands.

I am to add that the Planters agree with the principle of introdacing agricultural families for the benefit of the Colony as a whole, and are prepared cordially to co-operate in, and assist in estimating costs of, any scheme the Government may lecide upon with respect to lands outside the estates which may be available and suitable for the purpose. But until it is definitely known when settlers will be arriving, the estates will be unable to say exactly what numbers would be required sither as seasonal or permanent labour on the plantations.

# I have the honour to be, Gentlemen, 

Tour obedient Servant, B. H. BAYLEY,

Hon. J. Mullin.
Captain F. Bornett.

| Pln. WALES. <br> Summary of Total Cost. |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1. Cost of Water supply from Kamuni to Pln. Wales | $\cdots$ | ... | 71,000 |
| 2. Connection trench to transport canes to Pln "Wales" | ... | ... | 18,000 |
| 3. Settlers cottages, Water supply, etc. | .** | . $\cdot$ | 109,200 |
| 4. Water-path connecting Estate to supply trench | ... | ... | 7,020 |
| 5. Yreparing 850 acres of land for cane | ... | ... | 85,000 |
| 6. Equipment necessary to transport cane | ... | ... | 43,130 |
|  |  | ... 8 | 333,350 |

24.8.32.
R. H. PAYNE.

No. 1.
PROPOSED WATER-PATH FROM A POINT AT THE SOUTH WESTERN END OF PLN. POTOSI TO THE KAMUNI.


This is the first work that will have to be done. With a water supply, the following abandoned Plantations can be put into cane:-


Plantation Potosi can be put into cane by this Company, and Plns. Reinstein and Hermitage leased out to the Government on terms to be settled later. Should this be done, Plantations Reinstein and Hermitage will have to pay a water rate to the Company, as in times of drought we will only be able to supply them with water by pumping. Mr. Seaford informs me that the Government is enquiring into the cost of this Water-path, with the idea of assisting-as financially. Should the Directors entertain this, I suggest that there be no ambiguity about Plantation Wales having the absolute control of the water supply trench, as it represents nothing short of the life blood of this Plantation.
24.8.32.
R. H. PAYNE,

No. 2.
CONNECTION TRENCH TO TRANSPORT CANE FROM PlNs. REINSTEIN HERMITAGE AND POTOSI TO PLN. WALES FACTORY.


The making of the connection trench presents no dificulty, nor do the aqueducts across the draining trenches of the Estates; but the aqueduct across the Potosi Diversion Canal, which is the main relief of the flood water of the Canals Polder in heavy weather does. The trench here is about 36 ft . wide by 10 ft . deep, feeding a 16 ft . Sluice, and in heavy weather the current is fierce, so the aqueduct will have to be a large and substantial structure. Permission will have to be obtained from the Canals Polder Authority to erect this.

The estimate for the connection treuch to Reinstein is based on the presumption that the Government will obtain for us a right of way through "Free and Easy," which is an undivided property owned by blacks. If this is not possible the connecting trench after -reaching the Southern boundary of Potosi, will have to turn west to the end of that Plantation, and then across through Crown Land at back of Free and Easy. If it is necessarg to do this, the amount required will be about $\$ 18,000$ not $\$ 6,000$ as estimated.

## PLANTATION "DIAMOND."

## Colonization or Land Settlement Inducements.

- LANDS ON ESTATES :
(a) Are you prepared to lease suitable, unoultivated or
(b) If so, approximate aoreages, on what terma and for period?
(c) Is this area immediately available for cultivation ? d) If the land is not irrigated or drained what would be the approximate cost of such work?
(c) Are you prepared to bear the whole cont of the above

Tho Estate is not in a position to lease land to Immigrants. It has only about 1,000 acres suitable for oane growing not
under oultivation. This erea will be sbsorbed duriug the next fow years, meanwhile providing work for resident labourers during non-grinding seasons.
work, or what proportion?
2. LANDS ADJOINING ESTATES:
(a) Are there any uncultivated lands adjoining jour eatate) Yes, a block of land behind Oraig adjoining the Golden Grove
auitable for cane cultivation?
(b) If so, approximnte acreage Are auch lands immediately available for cultivation ?
Same as 1 (a) above ... section of this Estate, the greater portion of
I helieve, prove suitable for growing canes. I believe, pres. .... No.
..I estimate the approximate cost of olearing the land, digging navigation trenohes, draining and planting would be $\$ 50,000$ to $\$ 60,000$.
(e) Are these lands connected with the Estates by cansls; Not oonnected. A donble iron and concrete aqueduct costing
(f) Same pap (e) above ing of agang canals or aqueducts ?
is possible the proprietors would consider the building of the aqueduct if there was a prospect of sufficient cane being grown to justify the expenditure. Or they might
congider the matter if they were asaured the blook of land would be handed over to them in the event of the CaneFarming venture proving a failure.
(g) If the lands are disconnected from the Estate at present would this involve any additional expenditure on exiating estate drainage, such as enlarging or supplementing estates drainage trenohes, kokera, pumping plant, evo. bear the cost of this or monld expect aseistence, and if so, in what form and to what extent?
. FAOTORY:
(a) Is your factory up to its full working capacity or are) The factory is capable of dealing with an additional 2,000 you able to ts ke oanen grown on lands under headings Nor. 1 and 2 ? If not, please give eastimated cost of additional plant and extensiona required.
(b) Are you prepared to carry out such additions, at your expense? If not, what assistance do yon require?
4. PERMANENT AND SEASONAL LABOUR SUPPLY
(a) Is your permanent labour aupply suffioient for your) Speaking generally it is, under present conditions. In faot requirements?

The north half of the block of land could be drained through this Estate at would would be дecessary. tons of canes withont adding to the existing maohinory. This extra capaoity ia gradually being overtaken by oane grown by the Estate. To re-model the Faotory would cost about $\$ 100,000$.
during slack seasons it is sometimes difficult to find
(b) Is your seasonal number required at the present time. employ went for all the labour ofering. areas april-May Is your season
requirements?

More isbour could be employed during crop seascns April-May and October-December.
(d) If not, additional nomber required, and for what $\begin{aligned} & 100 \text { additional labourers could uaually be employed by this } \\ & \text { Feriods. }\end{aligned}$
6. HOUSING ACCOMMODATION ON ESTATES:
(a) Have you gufficient acoommodation at the present time, for sach additional permanent or seasonal labour requirements, as mentioned above?
(b) If not, are you prepared to provide scoommodation at your expense, or alternatively, Government to provide eaid nocommodation, costs being repayable over a nomber of years.
(c) For both permanent or measonal labour requirementa
hat facilitien would you provide?
(1) Would the house be provided free or at what $\}$ Free.
rental?
 houses, the cost being repagable over a number of yearr.

No. 3.
SETTLERS COTTAGES, WATER SUPPLY, GENERAL SANITATION AND
Negro Yard.
300 Cottages at $\$ 300$ each ... ... ... ... $\$ 90,000$
Levelling, draining and cleaning 50 acres for Negro yard $\quad . . . \quad$.... 190,000
Foot Bridges and Latrines ...
.. $\quad . . \quad \begin{array}{r}6,000 \\ \hline\end{array}$
Artesian Well water supply...
Total $\ldots \quad \overline{\$ 109,200}$

I have estimated for three hundred families, each family to have a cottage and three acres of cane land. The yard to be laid out according to the latest sanitary ideas.

I suggest that the northern section of Keinstein be used for this, as the land is very high and can be cleared down to the river's edge.

No. 4.
WATER-PATH CONNECTION PLN. REINSTEIN AND HERMITACE WITH PLN Wales water supply trench from kamuni creek.


Two trenches to be dug from the Crown dam on these properties to connect up with our water supply trench, and each controlled by a small sluice there.

No. 5.
PREPARING 850 aCRES OF FOREST LAND REȦDY FOR PLANTING WITH CANE.


The suggested land is in my opinion good cane land. It is high and easily drained.
Plantation Reinstein has an old 12 ft . Dutch sluice, which is in perfect condition, and quite able to drain the two properties.

No. 6.

## EXTRA TRANSPORT EQUIPMENT.

25 Mules at $\$ 300$ each
100 Punts at $\$ 300$ each 600 cane slings at $\$ 9$ each ...
10 sets of harness at $\$ 23$..

| $\ldots$ | $\ldots$ | $\ldots$ | $\$ 7,500$ |
| :---: | :---: | :---: | ---: |
| $\ldots$ | $\ldots$ | $\ldots$ | 30,000 |
| $\ldots$. | $\ldots$ | $\ldots$ | 5,400 |
| $\ldots$ | $\ldots$ | $\ldots$ | 230 |
|  | Total | $\ldots \$ 43,130$ |  |

... \$7,500
... ... 30,000

Total $\quad .$. \$43,130

I attach estimate of extrs transport equipment necessary to enable us to handle this additional tonnage of cane.

## Pin. Uitvluat,

Demerara, 29tb August, 1932.
f. A. Mackey, Esq.

Director,
Messrs. Booker Bros., McConnell \& Co., Ltd., Georgetown.
Dear Sir,
I visited Vergenoegen and Philadelphia in connection with cane-farming and in my opinion there are 800 acres at Vergenoegen suitable for cane cultivation, including 300 acres now in rice, and I give below the approximate cost of digging drainage and navigation trenches and also the cost of a floating irrigator and the construction of two aqueducts.

Two aqueducts
... ... ... ... \$ 1,800
Floating Irrigator ... ... ... .. 4,000
Digging Drainage trenches, 2,000 rods at 48 cents ... 960
Digging Navigation trenches, 1,600 rods at 48 cents ... 768
In addition to this $I$ estimate the cost of grass-banking; planting, digging drains and oes canale, weeding, tilling and manuring, etc., at $\$ 55$ per acre.
At " Philadelphia" there are 450 to 500 acree suitable for cane cultivation and if this land is taken in it will be necessary to construct two aqueducts and all navigation and drainage trenches will have to be dug.

Yours faithfully,
A. MITRISON.

LEGISLATIVE COUNCIL No. 16. C.S.O. No. $1492 / 35$.

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Y: 5825.7
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$\mathfrak{J B r i t i s b}$ Guiana.

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THIRD

## LEGISLATIVE COUNCIL, FIRST SESSION, 1935.

## REPORT

of the

## ESSEQUIB0 COAST COMMISSION

APPOINTED BY

# HIS EXCELLENCY THE OFFICER ADMINISTERING THE GOVERNMENI, DECEMBER 31, 1934. 

$\qquad$
[Printed by the Eluthority of lbis Excellency the Governor.

GEORGETOWN, DEMERARA:
"the argosy" company, limited, printers to the government of britisl guiana, 1935.

No. 16,433.

# REPORT OF THE ESSEQUIBO COAST COMMISSION APPOINTED BY HIS EXCELLENCY THE OFHICER ADMINISTERING THE GOVERNMENT, DECEMBER 31, 1934. 

Commissioners :
Professor the Honourable J. S. Dash, B.S.A., (Director of Agriculture), -Cbairman.

Major the Honourable J. C. Craig, D.S.O., (Director of Public Works).
The Honourable T. T. Smellie, O.B.E.
The Honourable F. J. Seaford.
The Honourable K. V. Evan Wong, B.Sc.
The Honourable E. A. Luckhoo.
G. M. Eccles, Esq.

Abdool Rayman, Esq., J.P.
With
F. Barnett, Esq. M.C., M.A. (Oxon.)-Secretary.
H. D. Huggins, Esq., M.Sc. (Cornell), Dip. Agr.-Secretary.

# REPORT OF THE ESSEQUIBO COAST COMMISSION. 

## Your Excellenoy,

By letter dated December 31, 1934, the Honourable the Colonial Secretary informed us that His Excellency the Officer Administering the Government had been pleased to appoint a Commission with the following terms of reference :-
(1) To enquire into the position which will be created in the Essequibo District if Hampton Court were abandoned as a sugar estate.
(2) Whether other sugar estates would be prepared to give employment to labourers resident on the Essequibo Coast who will be thrown out of employment if Hampton Court is abandoned;
(a) in approximately what numbers per annum and the seasons during which the labour will be required;
(b) whether other estates would be prepared to establish families from the Essequibo Coast on their estates;
(c) the rates of wages which should be paid for seasonal labour having regard to the fact that the labourer from Essequibo or elsewhere not resident on an estate will have to be able to maintain himself and his family wherever their home may be.
(3) What assistance, financial or otherwise, Government should give to enable estates to erect the necessary buildings:-
(a) to accommodate seasonal labour,
(b) cottages for families.
(4) In what manner Government could assist, financially or otherwise, in the cost of transporting labourers from the Essequibo District or elsewhere in the Colony to the estates.
(5) To examine and report upon the effect any considerable emigration from the Essequibo District will have on the interests of proprietors in that district and whether their ability to pay
(i) capital cost of drainage and irrigation schemes,
(ii) wharges for maintenance of these schemes,
(iii) sea defence rates, will be affected, and if so, to advise whether in this connection relief, and if so to what extent, should be given to the proprietors and others in the district.
(6) To examine and advise upon any other matters of importance which may arise during the course of the enquiry.
2. We shall present our findings and conclusions without extensively quoting the evidence upon which they are based. In addition to the evidence we have had access to various memoranda and reports supplied by the Department of Agrioulture.
3. Meetings of the Commission were held at Georgetown on January 28, February 21, March 1, March 6; at Suddie from March 21 to 23 and again at Georgetown on May 4 and 29, June 14, 18, 21, 27, July 1 and 8, 1935. The following witnesses were examined on oath :-

Hon, R. E. Brassington.<br>Hon. P. C. Wight, O.B.E.<br>Mr. W. W. Brassington.<br>Mr. C. J. Maggs.<br>Mr. John Dodds.<br>Mr. C. R. Jacob.<br>Mr. Sase Narayan.

Mr. C. R. Chan.<br>Mr. S. B. Seymour.<br>Mr. J. W. Gallienne.<br>Mr. Deoroop Mahraj.<br>Mr. ©. H. Taylor.<br>Mr. A. P. Singh.<br>Mr. S. B. Chan-A-Shing<br>Mr. A. H. Moore.<br>Mr. George Bacchus.<br>Mr. Cheddy.<br>Mr. I. G. Mebeiro.<br>Mr. D. N. Williams.<br>Mr. L. M. Nightingale.

TERM OF REFERENCE (1).
To enquire into the position which will be created in the Essequibo District if Hampton Court were abondoned as a sugar estate.
4. From our own observations and from evidence obtained, it appears definite that unless sugar is cultivated rioe will become the sole important industry on the Coast. At existing prices ( $\$ 1$ per bag of padi), the rice industry cannot adequately maintain the population and provide the Essequibo proprietors with the means of paying rates and taxes.
5. The cultivation of other staple crops was considered bat none appears to offer any solution of the problem. Ground provisions can be, and are, grown for personal use, but apparently would not be remunerative if grown on a large scale owing primarily to the lack of markets in the neighbourhood. 'Che distance and cost of transport render competition difficult in the 'lown markets which are generally glutted at harvest seasons.
6. On account of the distance of the Coast from a big consuming centre, a milk trade is unlikely to develop but, with land thrown out of cultivation, expansion of the beef industry is possible. We believe, however, that a livestock industry must be considered only as an adjunct to some other industry or industries providing more employment and putting more money into circulation.
7. The existence of Hampton Court as a sugar estate, especially in recent years, has mainly affected residents from Coffee Grove and vicinity to the Pomeroon River. The middle section of the Essequibo Coast and the southern extremity are not so intimately affected. Despite this, if Hampton Court be abandoned, the position of the whole Coast will become materially worse. With the estate entirely out of operation, with no hope of finding new avenues of emplogment to sapplement the diminishing revenue from rice, the situation on the Coast in the next few years is not difficult to visualise. Already commercial business on the Coast is in parlous straits and migration of the able-bodied will follow inevitably; with a depleted population, acreages cultivated in rice and other crops will of necessity decline; with smaller areas cultivated and diminished revenue to proprietors, charges payable to Government for sea defence, drainage and irrigation works will not be met.
8. Rice has almost entirely supplanted sugar on the Essequibo Coast. Economic equilibrium was more or less maintained so long भs padi prices did not fall below $\$ 1.50$ per bag ; labour tended to desert sugar for rice and the population became still further "rice-minded", especially as the outlook for sugar appeared particularly unfavourable in the years before the Qlivier Commission reported in 1930 and Colonial preferences were re-imposed. With the greater independence of the rice-farmer who could at that time obtain for his padi an attractive price and because of the discipline exercised on sugar estate labour, the difficulty experienced
by the Hampton Court management was not to provide employment for the district but to secure labour even for routine operations. It is on record that in recent years when Hampton Court had 900 acres in cane and when no other sugar estate existed on the Coast, Jabour had to be transported from Aurora and Wakenaam in order to undertake ordinary cultural operations. As long as rice remained above the marginal figure, the commercial interests and farmers were generally content. As soon, however, as rice prices fell, and in addition unfavourable weather conditions had untoward effects upon production, the district suffered privation, and universal clamour was made for the return of sugar-a crop which, even when embarrassed by low prices, places relatively large sums of money in circulation.

## TERM OF REFERENCE (2).

Whether other sugar estates would be prepared to give employment to labourers resident on the Essequibo Coast who will be thrown out of employment if Hampton Court is abandoned.
9. In considering this point we desire first to remove any illusion in regard to the attitude of the estates in other parts of the Colony. Sugar prices are already so low, and economies exercised so stringent, that there is no reasonable likelihood of the estates taking any steps solely to provide employment for labour from Essequibo or elsewhere. We, therefore, regard this term as instructing us to enquire into the amount of additional labour which the sugar industry is likely to absorb under existing conditions. The estimates submitted (paragraph 10) are based on the assumption that sugar prices will drop no lower; if prices rise appreciably the estimates may be found to be conservative. Those migrating will have to be considered, and provided for, in two categories-those in search of permanent employment and those in search of seasonal employment.
: 10. In regard to permanent labour, sugar estates in other parts of the Colony can, at the present time, absorb about 700 families of those thrown out of work on the Essequibo Coast-if dwellings be provided. In three years about 2,000 families could be absorbed.
11. Attention must be drawn to the fact that a large percentage of the labourers on the Essequibo Coast is unlikely to be amenable to work on sugar estates; the jounger geveration has become accustometto independent peasant farming and is unwilling to submit to the discipline which work on a sugar estatd entails. This section of the community finds employment in groving rice, either on rented or owned lands, in keeping stock and bas, in the off-seasons in the past, obtained casual earnings due to money put into circulation by sugar. Therefore, it is probable that only the resident working population of Hampton Court, about 650, out of a total population on the Coast of about 17,000 is likely to be readily employed by other sugar estates. Labourers from Essequibo have for some time been seeking employment on sugar estates in various parts of the Colony, and, in general, have been reported on unfavourably.
12. In short, the position is that only the physically fit and tractable can oad will easily obtain permanent employment on sugar estates.
13. In regard to seasonal labour, the young married or family men are those most likely to leave the district in search of employment. For moral reasons this practice is regarded as deplorable, tending as it does to aggravate the social problem. Those who have ventured forth in search of seasonal employment have in most cases been dissatisfied with the attempts made, since employment, even when obtained, did not compensate for the increased expenditure of maintaining two homes.

TERM OF REFERENCE (2) (a).
In approximately what numbers per annum and the seasons during which the labour will be required.


#### Abstract

14. For several years now there has been a tendency for the crops of sugar estates in the Colony to increase. To some degree, increased yields and modified cultural operations have resulted in a reduction in the quantity of labour employed but, on the other hand, the extra tonnage of cane has demanded a considerable increase in labour supply for reaping, loading, transporting and manufacture. In many coses, this labour has had to be drawn from gangs which would otherwise have been employed in rontine cultivation works and, consequently, the demand for casual labour is, on the whole, generally increasing during crop periods. 15. Grinding seasons are to a great extent controlled by weather conditions, and there are certain months in the year when the purity of the juice is definitely unfavourable. It follows, therefore, that with increased crops the factories have heen compelled to work for longer hours throughout the year. Some of the more fortunate estates have been able to introduce continuous grinding, but there are several where this has been found impossible owing to a shortage of labour and, consequently, these have been compelled to lengthen the grinding period.


16. As a general rule, the crop season begins early in September and con-tinues-with a shut-down for rice cutting in November-until mid-December. Operations are resumed again in about mid-January and continue until the end of April. During those months, therefore, the estates should be able to employ a considerable number of casual labourere. As the resident population is occupied with rice cultivation in June and early July, when all estates are anxious to give attention to their ratoon crops, there is also at that time casual employment offering. During late July and August, however, all cultivation works on estates are well up-to-date and, with no factories grinding, there is a minimum of work available; in fact, during those two months, difficulty is sometimes experienced in finding employment for resident labourers.
17. There are many factors which influence the supply of and demand for labour on a sugar estate, e.g., weather conditions, crop results, acreage planted in rice in the vicinity, etc., and the Commission, therefore, find it impossible to put forward an estimate as to what numbers per annum will be required.

## TERM OF REFERENCE (2) (b).

Whether other estates would be prepared to established families from the Essequibo Coast on their Estates.
18. There is, at present, accommodation for about 100 families on the sugar estates. As stated above, about 700 families can be absorbed so that in the first year it will be necessary to build 600 cottages. Families will be established on the estates on au extensive scale only if the cost of building these cottages be met by Government.

TERM OF REFERENCE (2) (c).
The rates of wages which should be paid for seasonal labour having regard to the fact that the labourer from Essequibo or elsewhere not resident on an estate will have to be able to maintain himself and his family wherever their home may be.
19. We do not consider that any useful purpose can be served by endeavouring to ascertain what seasonal labour should be paid "having regard to the fact that the labourer not resident on the estate will have to maintain himself and his family wherever their home may be." No sugar estate or other employer can be expected to pay higher wages solely for the reason that the employee has two homes to maintain. The basis for payment is work done.

TERMS OF REFERENCE (3) AND (4).
(3) What assistance, financial or otherwise, Government should give to enable estates to erect the necessary buildings:-(a) to accommodate seasonal labour ; (b) cottages for families.
(4) In what manner Government could assist, financially or otherwise, in the cost of transporting labourers from the Essequibo District or elsewhere in the Colony to the estates.
20. Should it be considered that there is no alternative to migrationwhich has to some extent already begun-then the Commission consider that the cost of erecting cottages and of transportation will have to be borne by Government. It is estimated that the cost of housing is about $\$ 300$, and of transportation, $\$ 10$ per family. If 1,500 families leave Essequibo, the cost to Government will therefore be approximately $\$ 465,000$. The Commission are therefore of opinion that it will be in Government's interest to give sympathetic thought to, and, with as little delay as possible, adopt some course calculated to obviate the necessity for migration. Our view is that any appreciable financial outlay should be made within and not without the district. It seems a more advisable course to expend the sum envisaged in order to re-habilitate the economic position of the Essequibo rather than merely to provide for migration expenses.

## TERM OF REFERENCE (5).

To examine and report upon the effect any considerable emigration from the Essequibo District will have on the interests of proprietors in that district and whether their ability to pay (i) capital cost of drainage and irrigation schemes, (ii) charges for maintenance of these schemes, (iii) sea defence rates, will be affected, and if so, to advise whether in this connection relief, and if so to what extent, should be given to the proprietors and others in the distriet.
21. After careful examination of conditions, we have come to the conclusion that if considerable emigration from the Essequibo Coast take place, proprietors will find themselves unable to pay (i) capital costs of existing drainage and irrigation schemes (ii) charges for maintenance of these schemes (iii) sea defence rates. These total charges amount to about $\$ 136,000$ and are made up as shown below :-

| Drainage and Irrigation Rates | $\ldots$ | $\ldots$ | $\$$ | $\mathbf{1 9 , 2 9 3}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Sea Defence Rates | $\ldots$ | $\ldots$ | $\ldots$ | $\mathbf{6 , 6 9 6}$ |

Loans outstanding on Drainage and Irrigation (proportion chargeable to proprietors) Capital and Interest ... 96,262
Loans on Sea Defences ... ... 14,000
22. In regard to the question of relief, if nc considerable migration take place, we are of opinion that, while some proprietors are capable of paying outstanding rates and charges due to Governmeat, there are many who are unable to meet their obligations in this respect. We therefore recommend that proprietors be allowed to pay such rates in ten equal annual instalmeals. Current rates, however, should be collected when due and, to ensure this, we are of opinion that any proprietor failing to meet one instalment of the funded rates or current rates in full should be called on by Government to pas immediately all outstanding rates or be put in suit.

TERM OF REFERENCE (6).
To examine and advise upon any other matters of importance which may arise during the course of the enquiry.
23. All those who gave evidence agree and the Commission concur that conditions in Essequibo at the present time are serious, that the position is consistently
becoming worse through the failure of recent padi crops, low prices and the absence of employment. The position was acute in 1933 and 1934. In 1933, emergency agricultural loans were made in the district from Unemployment Relief Funds. In 1934 further loans were made to farmers in the Pomeroon district for the special purpose of replanting cultivations destroyed by floods. From the figures given below, it will be seen that the number of licences issued in the Essequibo Fiscal District has decreased substantially; in the case of spirit shops, the number in 1934 being 76 per cent. of that in 1932 and in the case of other shops, the number in 1934 being 85 per cent, of that in 1032.

| Description of Licence. |  | 1932. | 1933. | 1934. | 93 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ketail Spirit Shops |  | 29 | 27 | 22 | 18 |
| Shops Rural |  | 182 | 180 | 145 | 128 |

The following statement of the business done in the case of two shops in different localities of the Coast tends to confirm the fears in regard to the true situation in the district:-

Volome of Business Done.

| Year. | First Slop. | Second Shop. |
| :--- | :---: | :---: |
| 1931 | $\$ 22,393$ | $\$ 6,563$ |
| 1932 | 16,907 | 6,916 |
| 1933 | 7,309 | 9,64 |
| 1934 | 3,001 | $\mathbf{4 , 8 6 6}$ |

From figures furnished by the District Commissioner of the collection of village rates, with the exception of the two villages of Adventure and Suddie which are at the south end of the Coast, there has been a decided drop in rates collected in 1934 as against 1933 and 1932.
24. Two factors contributing to this generally unsatisfactory condition were the unusual weather conditions of 1934 (torrential rains in the early part of the year, drought conditions during the normally rainy mid-year) and the low prices received for padi.
25. The situation which arose in 1934 in regard to rice has, without doubt, occurred previously; hence, it must be that some compensating factor, which maintained stability in those adverse years of the past, no longer contributes to the same extent to the economic well-being of the district. That factor, we consider, was the sugar industry. The reauction of expenditure at Pln. Hampton Court has markedly reduced the spending power in the immediate vicinity of the estate and repercussions have been felt throughout the Coast, extending from Aurora to the Pomeroon and even to the Essequibo Islands.
26. Rice does not create that economic stability necessary to provide the district with a dependable livelihood for the present together with any assurance for the future; on the one haud, any year's production is apt to be affected materially by weather conditions and, on the other, prices are prone to undergo marked change. It is evident therefore that during high rice prices sugar production will be embarrassed and that at such periods sugar ventures in the district will suffer. In the absence of sugar, there will take place periodically, a collapse of the economic structure of the district as soon as rice prices fall below a certain level and/or weather conditions materially reduce crop returns.
27. This is the cycle of events which may be expected to occur. If rice cultivation be attractive, two crops per annum will be planted and sugar production will be rendered difficult through labour problems. In the opinion of the Commission an adjustment in the production of sugar and rice can only take place if Essequibo is induced, either by firm persuasion or, if necessary, by legislation, to cultivate one crop of rice per annum instead of two as at present. Should this occur and sugar
be once more revived, there are certain compensating factors. which appear to make
up for, if not justify, the proposed change. The main considerations are:-
(i) if one rice crop per annum is cultivated, sugar should survive. With two crops per annum, sugar will disappear. The most prosperous districts of the Colony are those where sugar and rice production has been adjusted to permit one crop of rice per annum;
(2) the present system of growing two crops of rice per annum is already causing anxiety on account of the steadily falling yields. The average gield now obtained in Essequibo for two crops per annum is very little greater than that obtained on some areas of the Colony for one. It is therefore possible that the County's total annual output will not be affected ultimately by the change to one crop per annum ;
(3) the livestock, and more particularly the beef, industry may be extended. The rested rice lands will provide suitable pasturage and will be improved in fertility ;
(4) cane-farming where İand is available, might be gradually introduced.

## SUMMARY AND RECOMMENDATION'S.

28. There appear to be three courses from which Government must select :-
(1) to allow matters to drift without taking definite action to right the situation which bas given rise to this enquiry;
(2) to provide facilities for the migration and the settlement in other parts of the Colony of labour from Essquebo:
(3) to resuscitate the sugar industry.
29. If the first course is pursued, the Essequibo sugar industry, which is in the last stages of collapse, will completely disappear. It has been pointed out above that, in the absence of sugar, rice and such supplementary sources of income as may be obtainable cannot provide the district with an adequate means of livelihood.
30. In spite of the inevitable hardships which will be experienced, many of those residents who have purchased holdings, who own their own their own cottages and have lived in the locality all their lives, will not leave the district. For the section of the population remaining, Government must provide public services. It is probable that with a discontented population, having only a precarious means of livelihood, it will not be easy to maintain law and order. It is unlikely that Government will provide the same public health services as at present; this will combine with other factors, such as malnutrition etc., to make health conditions deteriorate rapidly. Apart from these considerations, which may be regarded as affecting only the district, Government reveuve will be lost through decreased business ; the collection of monies already spent on drainage, irrigation and sea defence works will become extremely difficult and well nigh impossible. Further, we believe that the time will arrive when Government will be compelled to provide relief of some kind for the unemployed in the district.
31. We do not recommend the first course, which, if adopted, will have consequences such as we have indicated above. Indeed, should it be adopted the second course becomes a bighly probable corollary. Although it is likely that the majority of residents will remain on the Coast there are many who will migrate to other parts of the Colony in search of a livelihood. In the event of migration, it will, in our opinion, serve no useful purpose to encourage labour to settle save on sugar estates or on land adjacent to sugar estates. We do not consider it likely that the average Essequibo labourer will migrate to the interior.

[^49]33. The third course is the re-habilitation of the sugar industry in the district.
34. At the beginning of the present century there were eight actively operating sugar estates on the Essequibo Coast-Hampton Court, Anna Regina, Reliance, Taymonth Manor, L'Union, Perseverance, Golden Fleece and Aurora. These have been abandoned as such until there remains only Hampton Court-which itself will shortly cease to operate unless financial aid be provided.
35. Some explanation may be sought of the causes for the failure of so many sugar ventures in Essequibo. From the evidence it would be extremely difficult to attribute such failure to any one particular cause, but rather to a combination of circumstances which occurred in the years closely following the Great War when sugar prices soared and sudàenly fell. The uneconorsic size of the factory units, lack of centralization and the increasing cultivation of rice are also factors which appear to have had some bearing on the decision to abandoc sugar. Suitability of the soil for sugar was never in question although there does not appear to have been sufficient land to permit worn out fields to be rested. The problem of restoring fertility has now been overcume throughout the Colony by the practice of flood fallowing, but Essequibo, with the exception of Hampton Court, had almost ceased to be cultivated to sugar before the possibilities of flood fallowing were realised.
36. Despite the depressing history of sugar on the Coast, the Commission are of opinion that at least one sugar estate can and should be maintained in the district. In this connection, various proposals were considered, e.g., the financing of the company which at present owns Hampton Court, or alternatively, the forming of a new company to purchase and keep the estate in operation. The former proposal we do not recommend and the second we consider impracticable. There are, however, two schemes which it is intended to discuss in detail. The one is the erection of a sugar factory at Plantation Affiance and the other, the purchase of Hampton Court cum annexis by Government; the former was proposed by Mr. S. H. Seymour, A.M.I. Mech. E., proprietor of Plantation Affiance, and the scheme as outlined by him, in evidence before the Commission, together with his estimates (amended and submitted at a later date) for erecting and operating the factory, is shown in Appendix I attached.
37. The Commission have considered but are unable to recommend the proposals put forward by Mr. Seymour. The reasons are:-
(1) the submitted estimates for the cost of erection of a factory are not accepted;
(2) the estimates for operating the factory are considered too low;
(3) a factory of the proposed size is too small to provide the employment required in Essequibo or to be operated as un economic unit;
(4) the cost of a new factory of the required size would be prohibitive. Likewise, the capital expenditure necessary for field equipment, the layout of site, reconditioning of rice lands and canals, etc., would proye uneconomic with the existing sugar prices;
(5) it is recognised us uneconomic and hazardous to operate a sugar factory dependent entirely on small farmers for cane as suggested;
(6) the proposed suggestion to pay labourers part of their earnings in shares is not practicable.
38. The second scheme is that Government should purchase Hampton Court cum annexis and take steps to maintain the estate as an actively operating concern. A report on this property by Mr. C. H. Palmer, Manager of the Le Ressouvenir Estates, East Coast, Demerara, is attached (Appendix II) and gives an estimate of capital expenditure together with estimated current expenditure and revenue for a period of five years. On the basis of these estimates, if the working loss for the first three years is included in the capital expenditure, interest at 4 per cent. allowed, and provision made for the amortisation of the capital in 40 years, Government would incurr a loss of approximately $\$ 17,420$ per annum.
39. There is attached (Appendix III) a statement showing, on the one band, the probable expenditure to be made by Government if Hampton Court is abandoned with the subsequent desertion of Essequibo by a part of the population, and on the other hand, the estimated cost if Hampton Court is maintained. It is shown (Appendix III) that the annual deficit is estimated at approximately $\$ 17,420$ if Hampton Court is maintained on the lines recommended in the Palmer report. If sugar does not survive, migration follows and the estimated cost is shown to be about $\$ 601,251$. Interest at 4 per cent. on this sum amounts to approximately $\$ 24,060$ per annum. Hence, on the figures submitted there is a difference of $\$ 6,000-\$ 7,000$ per annum in favour of carrying on the estate. These figures are based on the assumption that sugar, together with its by-products, will nett about $\$ 45$ per ton and that it will be necessary to remove and provide accommodation for 1,500 families or about 7,000 people. Any variation in the sugar market will naturally affect the figures given, but we do not consider the price of sugar to the local manufacturer likely to reach a much lower level; if it did, the collapse of the Colony's.economic structure would seem inevitable.
40. The Commission are prepared to accept Mr. Palmer's figures and recommendations. Therefore, provided Government consider that they owe an obligation to the people of Essequibo, we recommend that Government purchase Hampton Court cum annexis to be maintained as a sugar estate. We recommend that the estate be bought, but make the following provisos:-
(1) that the maximum purchase price for the whole property as it existed at the time of Mr. Palmer's report be $\$ 100,000$;
(2) that all monies due to Government by the present Company be deducted from the purchase price ;
(3) that the property should be placed under the management of one of the four big sugar interests of the Colony, the assignee Company to be empowered to manage the estate on exactly the same business lines as other properties already owned by the Company;
(4) that Government should appoint a Board of Control. The Board should consist of not more than three persons, viz., a Government Official, a member of the firm that manages the property and a third appointee who may be either a merchant or a planter and who should be Chairman of the Board. Meetings should be held at least once a month and a nominal fee paid for each attendance;
(5) that the size of the sugar cultivation should be limited to 1,500 acres as recommended in Appendix II. paragraph 73. This size it is considered will provide adequate relief for the district;
(6) that cane-farming should be encouraged but limited to 30 per cent. of the factory's output;
(7) that Government take steps from the outset to limit the cultivation of rice to one crop per annum.
41. We are aware that any measure adopted to restrict the planting of rice to one crop per annum is likely to meet with some popular opposition on the grounds that an encroachment is being made on the liberty of the subject. Nevertheless, measures of this kind have been, and are, adopted where the eventual benefits to be derived by an agricultural community justify. We may instance, for example :-
(1) in Java, the Sugar Producers are prohibited from growing two successive crops of cane on the same lands;
(2) in the United States of America the Agricultural Adjustment Act definitely restricts the areas in each district to be planted to certain crops by the individual ;
(3) on the basis of the Chadbourne plan, Cuba and other countries placed a limit on the output of individual local sugar-producing companies;
(4) the essential feature of the Marketing Act, recently introduced in Great Britain, is that where the majority of producers of a commodity desire to
market a product collectively, the minority may be compelled by law to do likewise;
(5) in those West Indian islands where cotton production is important there is a definite period of the year-the closed season-when the cultivation not ouly of cotton but of related plants such as sorrel and okra is prohibited. Recently, the cultivation of cotton in Barbados was prohibited for 12 months. In some instances similar restrictions are placed on the planting of corn and related crops in the vicinity of sugar-cane.
42. We recommend, further, that, if some time must elapse before any decision can be made, Government take immediate steps to lease the property with the option of purchase. The present owners have ceased all cultural operations and the longer the time elapsing before work is renewed the greater will be the cost of bringing the estate back into cultivation. Such factors as the scarcity of planting material will also greatly retard the rate at which extension can be made.
43. Attached, as Appendix IV., are the conditions recommended to be embodied in the proposed lease.
44. It is our opinion that no private enterprise will undertake the speculation of running Hampton Court as a sugar estate, Iu principle, we are unanimously opposed to Government's entering upon commercial ventures; yet, under the circumstances indicated in this report, we recommend that Government accept the responsibility provided Government is of opinion that obligation to the people of Essequibo makes it incumbent to pursue such a course.
45. In a letter dated February 8,1935 , we were instructed by the Honourable the Colonial Secretary that Wakenaam and Leguan were to be included in the scope of this enquiry. In Wakenaam and Leguan, apart from rice, the sale of milk and vegetables is the only important source from which supplementary earnings are obtained. It has been brought to our notice that the ruilk trade of these islands is at a disadvantage on account of the relatively high freight rates. We are aware that handling expenses of produce shipped from Wakenaam and Leguan to Georgetown are necessarily high on account of transhipment charges. Nevertheless, we recommend that the question of transport costs be brought to the attention of the Transport and Harbours Department with a request from Government for favourable consideration. The residents in Wakenaam will be benefited by better communication with Georgetown ; if practicable, attention should be given to this point but we desire to point out that if employment is provided in Essequibo, Wakenaam will also share the benefits. With the present economic outlook it is net recommended that heavy expenditure be incurred by Government in either of these islands.
46. The Commission desire to sound a note of warning. Some time may elapse before Government decide on the course to be taken. Should market conditions change in the meanwhile-which may be caused, almost suddenly, by prolonged drouglt or some other adverse weather conditions, say in competing rice couvtriesand rice prices rise, a quick reaction is likely to take place in Essequibo and fears for the district will be temporarily allayed. We consider that the assumption, which is then likely to be generally made, that the Essequibo problem will have been solved will be erroneous. In the absence of sugar it would be only a question of time before existing conditions recur.
47. Certain other points emerged from the enquiry and we consider it desirable to make reference to the more important.
48. In connection with the suggestion that the livestock industry be extended, it is recommended that Government give consideration to the placing of beef bulls at stud in the district. We are aware that similar encouragement has already been provided for milk production.
49. It was drawn to our attention that much difficulty was experienced because the main drainage outlets of the Coast were not cleared expeditiously by proprietors. The Director of Public Works is of opinion that considerable improvement would be effected by the use of a self-propelled mud barge 22 ft . $x 6 \mathrm{ft} .6 \mathrm{ins}$. x 3 ft . deep, equipped with one 14 ins. Gill Propulsion unit and one 14 ins. Gill Pump to deliver 3,000 gallons per minute, estimated to cost $£ 1,200$ c.i.f. The proprietors should be encouraged to combine with a view to purchasing this unit and Government might then consider rendering some financial assistance for the project.
50. In paragraph 23 reference is made to loans granted to certain proprietors and we recommend that every effort should be made to collect such loans when due.
51. The position in regard to Anna Regina also arose for consideration. We were informed by the Director of Agriculture that a decision in regard to future policy and financing of the activities associated with the properties is urgently required. More recently, the estate has been leased in an eftort to solve the difficulties which have arisen, but others are likely to arise in connection with the satisfactory mainten. ance of the properties under a lease. If sugar is resuscitated, the condition of the tenants will, without doubt, improve. On the other hand, we are convinced that, in general, the estate is a burden to Governmant which is not constituted to undertake commercial ventures. We therefore recommend that all the properties, including Bush Lot, be sold, especially as we feel assured that Government has already secured all the information likely to be obtained from the experiment for which they were purchased.
52. We desire to place on record our appreciation of the services rea lered by Mr . F. Burnett, Deputy Director of Agriculture, Secretary during the early stages of the Commission, and by Mr. H. D. Huggins, Agricultural Superintendent, Secretary during the later stages.
We have the honour to be,
Sir,
Your Exceilency's obedient servants,

| (Sgd.) | J. SYDNEY DA |  |
| :---: | :---: | :---: |
|  | JOHN C. CRAIG, | Member. |
| " | 'THOS. I. SMELLIE, | " |
| ", | F. J. SEAFORD, | " |
| " | R. V. EVAN WONG, | " |
| , | G. M. ECCLES, | " |
| " | E. A. LUCKHOO, | " |
|  | A. RAYMAN. |  |

## H. D. Hugarns,

Secretary, July 8, 1935.

## APPENDICES.

APPENDIX I.-Proposals for the erection and operation of a Sugar Factory at Pln. Affiance, Essequibo, by S. H. Seymour, A.M.I., Mech. E,

APPENDIX II.-Report on the possibilities for sugar production of Pln. Hampton Court cum annexis by C. H. Palmer, Manager, Pln. La Bonne Intention.

APPENDIX III.-Estimates of (A) Comparative Costs of resuscitating the Sugar Iudustry in Essequibo and (B) abandoning sugar with consequent migration.

APPENDIX IV.-Recommendations in regard to the terms on which Pln. Hampton Court should be leased.

## APPENDIX I.

## PROPOSALS FOR THE ERECTION AND OPERATION OF A SUGAR FACTORY AT PLN, AFFIANCE, ESSEQUIBO. <br> By S. H. Sexmour A.M.I. Mreh. E.

My proposals for the future are that a New Modern Cane Sugar Factory be erected in Essequibo, situated at Pln. Affiance, which is exactly half way from Supenasm to Charity. The Scheme, a co-opera tive one, to be partly sponsored by the State, and machinery purchased through the Trade Facilicies Act or other avenues open to Government. Interest and Sinking Fund to be provided for in drafting detailed plan of operation. The cost will be $\$ 140,000$ of which $\$ 110,000$ will be required for purchase of machinery and $\$ 30,000$ for erection of Factory and installation of machinery. Under separate head I will give other details. Capital $\$ 140,000$ by issuing of Shares at $\$ 1$ to be raised by Share Certificate of one dollar denomination- $\$ 110,000$ be guaranteed by Government; the remaining $\$ 30,000$ to be raised by the Essequibo people and throughout the Colony. Possibly the Colonial Development Fund would be available, and interest charge free say for the first three or more years Factory.
To be erected using Green Heart materials from Essequibo sawyers, a minimum parb payment will be Share Certificate for every $\$ 100$ worth of materials.

Lab0ur.
Ali labour employment in erecting Factory and installation of machinery to be paid at reduced rates, and minimum part payment be made in Share Certificates.

Trangport of Machinery.
From Georgetown by Essequibo punts at reduced rates, and part payment be by Share Certificates.

Supgrision of Erection.
To be carried out by Mr. S. H. Seymour free, other than ont of pocket expenses.
Lrgal Work.
To be carried out by Mr. W. I. Souza, Solicitor, voluntarily.
Factory Site and Available Land.
To be given free by the Taymouth Manor Trading Co. Ltd. cost of Transport of same to be borne by the Sugar Company.

Farmers' Canes.
A maximum tonnage by eazh farmer to be paid for by Share Certificates, extending over a period of years.

Factory Staff.
A minimum of weekly or monthly earnings be deducted, and paid for by Share Certificates.

> Factory Capacity

Fifteen tons cane per hour, grinding night and day could produce annually 5,000 tons sugar. It is proposed to produce a minimum of 500 tons Sugar for the first crop.

Transport.
First by road, farmers cultivating all available lands around home lots and nearby areas, proprietors their available Estate lands. As cultivation is extended the navigation canal extending from Pln. La Belle Alliance in the north to Pln. Jobanos-Cecilia in the south would be utilised, first by concentrating on the near points, and gradually extending.

Crop Financing.
Operated by the existing Co-operative Credit Bank or better still special funds for the purpose, at a lower interest rate. Proprietors of Estate to guarantee all loans to their farmers and villagers by a small committee set up for Cane Farming purposes. The Committee of management to be responsible to inspect all work done, and advances not to exceed 50 por cent. of the actual work based on a definite scale, for each part or portion of the work.

Patment of Canes.

| Total Share Capital. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issued at one dollar denomination face value ... ... ... \$ 140,000 |  |  |  |  |  |  |  |
| Cost of erecting Factor page 24) | at | running <br> ... | ... |  | 118,877 |  |  |
| Onforeseen expenditare |  | ... | . |  | 118,8123 |  |  |
| Working Capital | ... | ... | ... |  | 16,000 |  |  |
|  |  |  |  |  | 140,000 |  | \$ 140,000 |

## Factory Profit and Loss account.




## Machinhry for Proposkd Sugar Fagtory Designed to Crush abodt 10 Tons of Cane per Hodr and to Prodoce $96^{\circ}$ Raw Sugar.

ITEM 1.-ONE CANE CARRIEB 36 ins, wide $x 0$ ft, long with mild steel Framing roller type Chains, corrugated overlapping steel Slats, Friction Driving Clutch, and Driving Chains and Sprockets for driving from the Crusher,

WILL COSI ..
ITEM 2.-ONE SET OF HIGH SPEED HEAVY DUTY REVOLVING CANE KNIVES to suit above Carrier having straight unded tempered steel Knives secured to cast steel Hubs, two Blades per Hub, mounted on mild steel Shaft runoing in self-aligning ring. oiled Bearings.

MILU STEEL COVERING HOOD over the above Knives with hinged flap doors.
ONE VERTICAL STEAM ENGINE directly coupled through Flexible Coupling to the above Knives and euitable for developing 40 B.H.P. when running at 500. R.P.M. Engine provided with all usual fittings and mountings including Steam and Exhaust Valves, Crankshaft Governor, forced Lubrication, Steam Separator, Foundation Bolts, etc.

WILL COST
ITEM 3.-ONE CANE CRUSHER having three rollers 23 ins. dia. $\mathbf{x} 36$ ins. long of our special bard coarse grained cast iron secured to mild steel Shafts. All Rollers to have deep intermeshing circumferential grooves and front and top Rollers also to have longitudinal chevron grooves. Top Roller to have loose Flanges of steel mixture secured by steel Tap Bolts. Pinions of cast steel, Pinion Guard and Grease Trough of sheet steel, Bedplate of cast iron, Headstocks und Side Covers of stoel mixture, Through Bolts of high tensile steel, Bushes of hard gunmetal with screw Adjustment to the Side Rollers. Heavy cast-steel Trashbar of our adjustable rigid type with renewable Trashknife, Scraper Gear for top and back Rollers, Lubricators, Foundation Bolts, etc.

TWO CANE MILLS each having three Rollers $22 \frac{1}{2}$ ins. dia. x 36 ins. long and similar to the Crusher apecified above, but without chevron grooves.

THREE SETS OF HYDRAULIO PRESSURE REGULITIN A GEAR for the top Rollers of the above Crusher and Mills, comprising cast steel Top Caps with Bayonet type Covers and steel pressure Pads and Plungers, Hydraulic Leathers, etc.

THREE DIF FERENTIAL SUSPENDED TYPE HY DRAULIC ACCUMOLATORS with mild steel Framing and cast iron weights.

ONE HAND OPERATED HYDRAULIC PUMP with the necessary Connecting Piping and Valves.

ONE SET OF COMPOUND SPUR GEARING for driving the above Crusher and Mills from one Engine, having cast steel Wheels and Pinions with machiue cut teeth to the first motion and machine moulded teeth to the second motion. Mild steel Gear Shafts carried in heavy cast iron white metal lined Plummer Blocks, all supported on the Gearing Frame built up from rolled steel sectious. Tail-bars and mild steel, Coupling Boxes of steel mixture with reinforcing Rings shrunk on, Lnbricators, foundation Bolts, etc.

ONE HORIZONTAL STEAM ENGINE having Cylinder 18 ins. dia. x 30 ins, stroke firted with Piston Valve and Link Motion Reversing Gear. Engine provided with heavy Flywheel turned on rim, and all usual fittings and mountings including Steam and Exhaust Valves, High Speed Governor, Lubricators, Drain Cocks, Escape Valve, foundation Bolts, etc. Cylinder lagged and covered with planished sheet steel : handrailing rcund crankend of Engine and Flywheel.

TWO INTERMEDIATE CARRIERS between the above Crusher and Mills of the Scraper type with mild steel Troughs, malleable cast iron Chains with Steel Scrapers, Sprocket Wheels, Shafts and Bearings, Friction Driving Clutch, and Driving Chaius and Sprockets for driving from Mills.

IRONWORK for Megass Elevator 24 ins, wide $x$, about 30 fr . centres comprising two strands of Chain, Sprocket Wheels with Shafts and Bearings, Disengaging Driving Clutch, and Driviug Chain with Sprockets for driving from last Mill, Wood Framework and Scrapers to be provided by purchasers at site.

ONE OVERHEAD TRAVELLING CRANE for Mill House with a lifting capacity 4 tons and a span of about 40 ft . and arranged for all Motions to be operated by hand Chains from Floor Level. Gantry to be provided by purchaser with Buildings.

> Brought forward ... ... .. ... \$2,976

ONE MILD STEEL RAW JUICE RECEIVING TANK 8 ft . $\times 4 \mathrm{ft}$. $\times 4 \mathrm{ft}$ divided into two compartments and fitted with two perforated brass Strainers.

ONE HORJZONTAL DUPLEX RETCRN JUICE PUMP having brass fitted Pump Ends and all usual fittings and mountings.

ONE HORIZONTAL DUPLEX MAIN JUICE PUMP having brass fitted pump ends and all usual fittings and mountings. WILL COST
ITEM 4.-TWO MILD STEEL JUICE LIMING TANKS 5 ft . dia. x 5 ft .6 ins . deep with perforated Coils for Air Agitation.

ONE STEAM DRIVEN AIR COMPRESSOR with Air Receiver for supplying compressed air to the Liming Tnnks.

ONE MILD STEEL LIMED JUICE RECEIVING TANK 7 ft x 4 ft . x 4 ft .
ONE HURIZONTAL DUPLEX JUICE HEATER PUMP having brass fitted Pump Ends with all usual fittings and mountings.

ONE HORIZONTAL JUICE HEATER having Heating Surface of 400 sq . ft . having mild steel Body, steel mixture Headers and Tubeplates, steel mixture hinged doors and solid drawn brass !'ubes $1 \frac{5}{8}$ ins. o/d. x 16 W.G. thick expanded in place. Heater provided with Steam and Exhaust Valves, Escape Valve, Steam Trap, Air Cocks, and Thermometer, also lagging of hair felt covered with varnished pine strips.

ONE MILD STEEL VAPOUR SEPARATOR.
TWO MILD STEEL ELIMINATORS eaci 5 ft . 6 ins. square x 4 ft . deep with Gutters round top; Heating Coils of solid drawn copper tubing, Steam Valves, Run-off Cocks etc.

FIVE MILD STEEL SUBSIDERS each 7 ft . 5 ft x 5 ft ., with Decanting Cocks, Bottom Run-off Plugs, etc.

ONE MILD STEEL CLEAR JUICE RECEIVING 'LANK $7 \mathrm{ft} . \mathrm{x} 4 \mathrm{ft} . \mathrm{x} 4 \mathrm{ft}$.
ONE HORIZONTAL DUPLEX CLFAR JUICE PUMP having brass fitted Pump End with usual fittings and mountings. WILL COST
ITEM 5.-UNF MIRRLEES SPECIAL TRIPLE EFFECT EVAPORATOR and VESSELS 4 ft .6 ins. dia, with a total heating surface of $2,990 \mathrm{sq}$. ft . Evaporator Vessels constructed of cast iron and Calandrias fitted with solid drawn brass Tubes expanded into mild steel Tubeplates. Evaporator provided with all usual fittings and mountings including High and Low Pressure Steam Stop Valves, Steam Trap, Pressure Gauge for first Calandria, Vacuum Gauges, Thermometers, Juice and Syrup Regulating Cocks, Syrup Tester, Hinged Mandoors, Sight and Light Glasses with brass Frames and I.R. Joint Rings, Steaming Connections for Glasses, Steam_out Valves, Wush_out Cocks, Incondensible Gas Connections, etc. Evaporator Bodies lagged with hair felt and covered with varnished pine strips.

ONE VAPOUR ISOLATING VALVE for last Vessel.
TWO HORIZONTAL DUPLEX POMPS for Condensate and Syrup Extraction having brass fitted Pump Ends with water sealed Glands and all usual fittings and mountings. WILL COST
\$7,584
ITEM 6.-THREE MILD STEEL VACUUM PAN SFRUP SUPPLY TANKS each 6 ft . x 5 ft . x 5 ft . in one Nest.

THREE MILD STEEL MOLASSES BLOW-DP TANKS each 6 ft . 5 ft . 55 ft . in one Nest, fitted with perforated Blow-up Coils, Steam Stop Valves, etc.

ONE CAST IRON COIL TYPE VACUUM PAN 7 ft . dia, with a total heating surface of 288 sq . ft. and a maximum strike capacity of about $10 \frac{1}{2}$ tons of massecuite. Coils of solid rawn copper tubing supported by brass Clips from mild steol Stay Bars. Pan provided with all usual fittings and mountings including High and Low Fressure Steam Stop Valves, Steam Trap and Pressure Gauge, for each Coil: Charging and Discharge Valves, Vacuum Gauge Thormometer, Proofstick, Test Cock, Hinged Mandoor, Sight and Light Glasses with brass Frames and I.R. Joint Rings, Steaming Connections to Glasses, Steamout Valves, Wash-out and Air Cocks, etc. Pan Body and Gavgall ragged with hair felt and covered with varnished pine strips.

ONE CAST IRON CALANDRIA TYPE VACUUM PAN 7 ft. dia. with a total heating surface of 384 sq . ft . and a maximum strike capacity of about $10 \frac{1}{2}$ tons of massecuite. Calandria fitted with solid drawn brass Evaporating Tubes, expanded into mild steel Tubeplates, and mild steel Central Circulating Tube. Pan provided with all usaal fittings and mountings generally as specified in tho Coil Pan above.

TWO VAPOUR ISOLATING VALVES fitted in Savealls of the above Pans.
CUT-OVER CONNECTIUNS with Valves between the above two Pans.
WILL COST
ITEM 7.-ONE CAST IRON CENTRAL BAROMETRIC CONDENSER for dealing with the vapour from the last vessel of the Evaporator and from the two Pans, with Barometric Column, Internal Baffes, external Separator, and Injection Sluice Valve,

THE NECESSARY CAST IRON FLANGED VAPOUR, AIR and WATER PIPING
ONE HORIZONTAL DRY AIR PCMP having steam Oylinder 12 ins. dia. and slide Valve type Pump Cylinder 17 ins. dia. $x 16$ ins. stroke provided with all usual fittings and mountings including Steam and Exhaust Valves, High Speed Governor, Lubricators, Drain Cocks, foundation Bolts, etc., Steam Cylinder lagged and covered with planished sheet steel. Pump Cylinder water jacketed and connecting Piping and Cocks.

ONE MIRRLEES HORIZONTAL SPINDLE SPLIT CASING INJECTION WATEK PUMP capacity 85,000 gallons per hour constructed with cast iron Casing, gun. metal Impeller and mild steel Spindle. Pump mounted on Combination bedplate and direct coupled to Vertical High. Speed Enclosed Forced Lubricated Steam Engine with all usial fittings and mountings.

WILL COST .
ITEM 8.-SIX MILD STEEL UNJACKETED " $\|$ "TYPE CRYSTALLIZERS each having a capacity to tuke a full strike of one of the Vacuum Pans with Stirrer Gear, Worm and Worm Wheel Driving Gear, Discharge Valves, Supporting Cradles, etc.

FOUR SEIS OF GRID TYPE WATER COOLING COILS for four of the above Cry stalizers with Supporting Stays, Manifold Pipes, Water Cocks, etc.

EIGHT 30 ins. dia. x 18 ins. deep BELT DRIVEN SUSPENDED TYPE CENTRIFCGAL MACHINES arranged in two batteries of three and five machines respectively. Contrifugals to have mild steel Framing, Distributing Mixers, Steaming Apparatus, Molasses Gatters, Pumps and Tanks, Sugar Conveyors and Elevators, etc.

ONE ROTARY SUGAR DRYER 3 ft. dia. $x 20$ ft. long with Feed Gear, steam heated Air Heater, Centrifugal Air Extraction Fan, Driving Gear, etc.

ONE HORIZONTAL STEAM ENGINE for driving the Crystallizers, Centrifugals and Sugar Dryer and all usual fittings and mountings, also the necessary countershafting with Brackets, Bearings, Pulleys and Belts.

WILL COST
\$14,112
ITEM 9.-TWO MILD STEEL SCUM BLOW-UP TANKS each $4 \mathrm{ft} . \times 4 \mathrm{ft} . \times 4 \mathrm{ft}$. in one Nest with perforated Blow-up Coils and Steam Stop Valves.

ONE HORIZONTAL DUPLEX SCUM PUMP having brass fitted Yump Ends with Ball Valves, and all usual fittings and mountings.

THREE FILTER PRESSES of the Plate and Frame type each having 30 chambers $31 \frac{7}{2}$ ins. square giving a filtering surface of 366 sq . ft . per press. Presses provided with all usual fittings and mountings including Scum Inlet Valves, Clear Juice Kun-off Cocks, Receiving Gutters, Drip Trays, Steam-out Valves, Air Cocks, etc.

ONE SET CLOTHS for each Filter Press.
ONE MILD STEEL PRESS WASHING IANK $4 \mathrm{ft}, \mathrm{x} 4 \mathrm{ft} . \mathrm{x} 4 \mathrm{ft}$.
ONE HURIZON IAL DUPLEX.PRESS WASHING PUMP having brass fitted Pump Ends with all usuul fittings and mountings WILL COST ... $\$ 3,216$

ITEM 10.-ONE MILD STEEL CLOSED BOILER FEED TANK 4 ft. 6 ins. dia. $z 11 \mathrm{ft}$. long with usual fittings and mountings.

TWO VERTICAL SINGLEX BOILER FEED PUMPS $8 \frac{1}{2}$ ins. x 6 ins. $x 13$ ins having brass fitted Pump Ends and all usual fittings and mountings.

ONE MLLD STEEL HOT WATER TANK $6 \mathrm{ft} . \times 5 \mathrm{ft} . \times 5 \mathrm{ft}$.
ONE MILD STEEL COLD WATER TANK 6 ft . $\times 5 . \mathrm{ft} \cdot \mathrm{x} 5 \mathrm{ft}$.
ONE HORIZONTAL DUPLEX WATER SERVICE PUMP having brass fitted Pump Ends and all usual fittings and mountings. WILL COST

ITEM 11.-NECESSARY PIPING, VALVES, COCKS, GOTTERS, ETC. for factory for Steam, Exhaust, Juice, Syrup, Water, ete., also non-conducting Composition for covering the Steam and Exhaust Pipes.

WILL COST
ITEM 12,-NECESSARY MILU STEEL STAGING for the above Plant comprising rolled steel Columns and Beams with Baseplates, Angle Brackets, foundation and other Bolts, etc., also steel Staircases and Balusters with doublo Handrailing. Wood Flooring for Platforms to be provided by purchaser at site

WILL COST
ITEM 13.-ONE ELECTRIC LIGHTING PLANT for factory comprising $12 \mathrm{~K}, \mathrm{~W}$. Generator for 220 Volts D.C., mounted on combination Bedplate and direct coupled to vertical high speed enclosed forced lubricated Steam Engine with all usual fittingg and mountings, also Main Switch Board, Wiring, Brackets, Lamps, etc. WILL COST
TOTAL COST OF ABOVE PLANT ... $\$ 87,456$

Approx. EXTRA for Insurance and Freight GEORGETOWN ... ... 9,792



## APPENDIX $1 I$.

## REPORT ON THE POSSIBILITIES FOR SUGAR PRODUCTION OF PLANTATION HAMPTION COURT, CUM ANNEXIS.

By C. H. Palmer, Manager, Pln. La Bonne Intention.

This Estate has an area of 5,249 acres of empoldered land of which 2,917 , the first depth, is freehold and the second depth, 2,332 acres, is Crown land leased at a rental of 20 cents an acre. The empoldered area is well and conveniently laid out for the purpose of sugar cultivation. Immediately aback of the second depth, and running the exact width of the Estate, is an area of 2,631 acres of virgin land conveniently situated for empoldering. This area is higher at the Windsor Castle and running down to a lower level at the Walton Hall side of the Estate. Adjoining and behind the Walton Hall (McNab) section is a further area of 5,700 acres of good virgin land suitable for sugar cultivation.
2. The land of Hampton Court cum annexis is fertile cane land as good as that of most of the best Sugar Estates in the Colony and possibly superior to some. Together with the two areas of nearby virgin land there is a sufficient area of good land to make Hampton Court the largest sugar estate at present in the Colony.
3. At present there are :-

346 acres of the empoldered land under rice cultivation.
381 acres ander coconuts.
$2 \frac{1}{2}$ acres under coffee.
$693 \frac{1}{2}$ acres used for pasturage.
226 acres occupied by the Factory, Staff houses, Jabourers' yards, etc.

$$
1,649
$$

leaving $\mathbf{3 , 6 0 0}$ acres for cane cultivation.
4. The level of the land rises steadily from 53.65 E.D. in front of the Estate to 57.70 half way and then falls to 56 at the Crown dam.
5. A considerable portion of the estate land is overrun with a rank growth of Para Grass. The coconut cultivation looks fairly well considering it has not had much attention, but disease is beginning to appear in the Hampton Court section.
6. I regret I was unable to ascertain the exact number of coconut trees on the cultivation but this could be got at any time if required.

## II. Drainage.

7. The drainage of the Estate is into the Atlantic Ocean through two concrete drainage Kokers of 12 and 14 feet width respectively, placed one on either side of a $16^{\prime}$ concrete shipping sluice and navigation release. The side lines drained by these Kokers are connected under the shipping trench, and drainage can thus be maintained should one koker be temporarily out of action for a short time. The short sea channel is kept open by taking in tides, when shipping sugar, up to a check sluice door at the Factory, and by the subsequent release of the water. The sea punts in their passage through the channel also doubtless help to keep it open. The channel, up to the present, has been kept sufficiently open to allow of fair drainage, but it would be improved if it were possible to maintain it at a greater depth.
8. There is also always the possibility of the foreshore making up and as an insurance against this and as a means of scouring out a better depth in the channel and thereby maintaining perfect drainage, an oil-driven pumping plant in two units capable of a united output of 200 tons of water per minute would put the supremely important question of drainage beyond doubt. The position for this pump would be well up to the sea dam.

## III. Water Supply.

9. It is impossible to judge or estimate the water available for the estate in dry weather until the "Dredged Trench" and dam recently thrown up by the Goverrment from the Manikuru Creek to Bush Hog Point to prevent seepage from the Tapacooma Lake, has had a chance to prove what additional water is conserved.
10. The Commissioner of Essequibo District informed me that there is now no leakage from the lake and its level is at present higher than is usual at this time of the year.
11. It should be borne in mind, however, that the Estate has not used very much water this year.
12. The main water supply up to the present time is by the service trench from the Tapacooma Lake to the Windsor Castle intake koker. This supply is regulated by the Drainage Board and is fairly good except in extremely dry weather.
13. There is a small sand reef between the Lima and Coffee Grove Intake Kokers which must refeive regular attention for Hampton Court to get its fair supply of water from this source, as the Estate Intake Koker is at the extreme end of the service trench and is the last to draw water. It is possible that the dredged canal dam referred to later has improved this water supply.
14. There is also a small trench running into the savannah aback of Hampton Court which supplies a little water for a short time after rain has stopped.
15. The McNab water supply trench dug by the Estate at the northern boundary of the property to bring water from the far savannahs around the Kaiaboury Creek has now great possibilities through the digging of the dredged canals.
16. From the back of the estate the McNab trench runs 12,500 feet to the point where it passes the first dredged canal (unnamed as yet) and the area enclosed by this dredged canal and the one running from the Manikuru Creek to Bush Hog point is very large.
17. This area holds the seepage and overflow from the Tapacooma Lake. By cutting a stop-off, the McNab trench can tap this area at 12,500 feet aback of the Estate through the first Dredged Canal. The McNab trench itself also runs into the Conservancy for some miles.
18. It is a subject for further information but it would seem possible that if the size of Hampton Court ever warranted it a pumping plant at the Manikuru Creek could supply abundant fresh water into the estate through the second Dredged Canal into the first Dredged Canal and thence into the McNab trench 12,500 feet from the Estate.
19. In this event this length of the McNab trench would require widening and a dam being thrown upon the south side-a very simple matter. This whole matter would need to be the subject of a survey.
20. It must be remembered that Hampton Court has never gone in for heavy irrigation and flood fallowing and if resuscitated, the Estate would use very much more water than has been required so far.
21. It seems probable that the present water supply if strictly conserved would, like the Boerasirie Conservancy which serves the West Demerara Estates, be reasonably effective for a limited cultivation except at the end of a prolonged dry season.
22. With care, a medium-sized cultivation could te undertaken with the present water supply and if extension to a large size was found to be possible from a labour point of view, a pumping station could probably be put down at the Manikuru Creek and an ample supply of water secured. A survey of the water now conserved by the Dredged Canals should be. undertaken with special attention to the possibility of erecting a pumping station on the Manikuru Creek, and the exact point for erection.
23. As it is, the present water supply could be helped in several ways.
24. The water now controlled by the weir in the second Dredged Caual could be conserved at a higher level as explained to me by the District Commissioner.
25. The Estate navigation trenches which are very shallow must be dredged. This should be started in the back lands first or the water would run too quickly to the front of the Estate.
26. A navigation check sluice 12 feet wide should be put in the main navigation canal at the first cross dam to prevent water running down too quickly from the backlands to the front, and being wasted.
27. It would also be possible, with the proposed draining engine in front of the Estate to pump sideline water back to the navigation trenches in dry weather. The cultivation should also be taken up section by section which would result in a great saving of water. At present the cultivation is scattered over most of the Estate, a field here and a field there, resulting in extravagant use of water for navigation purposes.
28. With these things done, a medium sized cultivation could be confidently carried on as far as the present water supply is concerned. The higher level of the back lands ofters no unsurmountable difficulty to proper flood fallowing and irrigation.

## IV.-Labour.

29. In the event of Hampton Court being brought back into cultivation and worked as a modern Sugar Estate labour would be the real difficultu and the limitino size factor.
30. In 1932 the resident population of the Fstate was 960 paople. To-day the number is 742 as follows :-

178 male East Indians.
158 female,
54 male Blacks.
56 female "
446 eflectives, 162 male non-effectives, and 134 female noneffectives $=742$. These figures are shown by the Estate books though the proportion of effectives seems higher than is usually the case elsewhere in the Colony. If the figures are correct, the number of children must be unduly small.
31. From Zorg 9 miles to the south of Hampton Court to Better Success 4 miles to the north, the area from which transient labour is mostly drawn, the population (exclusive of the Estate) is 9,211 people.
32. Of these villages Danielstown, Dartmouth, and Better Success, with a total population of 1,432 , the nearest to the Estate, are the most reliable source of Task Gang Labour. All the people on the Coast, estate resident labour included, plant and reap two crops of rice a year, but Dartmouth and Better Success, population 691, seldom get a second crop as they are almost dependent on the rainfall for a water supply.
33. These two small villages supply by far the most reliable and best village labour on the Coast.
34. Of the 9,211 people resident between Zorg and Better Success it is reasonable to assume that 25 per cent. would be effective Estate labourers. The practice prevalent on the whole Essequibo Coast, of planting and reaping two crops of rice yearly takes up a lot of their time and in the comparatively short time in which they are free for Estate work, sickness and disinclination must be taken into account. It must also be realised that a geueration is growing up on the Coast that will soon have had no experience of the steady disciplined routine of Sugar Estate work.
35. In the circumstances it will be readily seen that the amount of labour available for vigorously working a Sugar Estate at Hampton Court is very small.
36. In 1932 when the Estate had 900 acres in cane cultivation labour had to be transported from Golden Fleece and Wakenaam at times to get through the cultivation work.
37. On the other hand, if the estate was resuscitated, some labour which has left it in recent years would doubtless return and those village labourers who have left the Coast would also come. back. Labour as in the past could also be transported from the south end of the Coast and from Wakenaam.
38. In regard to this important question I give my considered opinion that with 2 rice crops grown yearly on the Essequibo Coast, labour would be insuficient to work Hampton Court, to even the small size of 4,000 tons of sugar per annum.
39. To bring back the Estate to this size which has been found by exporience to be really almost too small to run a Sugar Factory economically, legislation would need to be effected to limit rice planting to one crop a year which is the practice in the most prosperous parts of the Colony.
40. I have quietly sounded some of the most intelligent rice Estate proprietors, and, among them and some of the people, the view is growing that one rice crop a year and a Sugar Estate in operation would be the best and only thing to save the Essequibo Coast.
41. Some of the proprietors told me that they attributed the decreasing rice yields on the Ooast to planting two crops, and unless checked the yield would eventually become negligible, and cause wider distress if not ruin.
42. It can easily be seen that the rice lands now never have a chance to rest or become aerated through drying out. In fact they are continually water-logged. I do not say all the proprietors and people would take this long-sighted view, but the fact remains that if it was found financially sound to bring back: Hampton Court it could not be successfully carrierl on withont limiting rice to one crop yearly and the work resultant on the recultivation of the Estate would supply the reason for the necessary legislation.

## V.-Cane Farming.

43. Hampton Court has for some years leased out good cane londs for cane-farming at a rental of $\$ 1$ an acre per annum to anyone who would take them up. In 1932 and 1933 thirty-five acres were cultivated by farmers and this is the largest acreage recorded except that the proprietor of Sparta also at some time recently grew canes for the Estate.
44. Cane-farming in the villages adjacent to Hampton Court on the south would be an entirely different proposition to cane-farming on the East Coast of Demerara where populous
villages with a 200 rod façade or slightly more next to the grinding estate have cultivated lands going 4 or 5 miles aback owned by villagers.
45. The Estates close to Hampton Court are owned by individual proprietors and the villagers merely own house lots along the road or rent them. If cane were to be transported to Hampton Court the trenches of these neighbouring estates would have to be opened assumedly by Government. This would entail a large outlay and would probably benefit the estate's owners rather than the people.
46. For instance, a trench opened from La Belle Alliance to Hampton Court, 650 rods, would require 12 Aqueducts to carry it over the drainage sidelines. These alone would cost $\$ 15,000$ and the amount of land put by farmers into canes though a matter of speculation, would most likely prove negligible.
47. The simplest way for came farmers to acquire well-drained cane lands would be for Hampton Court, if kept on, to continue to rent out land in the Windsor Castlo section at a small yearly rental just to keep control. This section would be as near the farmers of Danielstown, Fear Not, Cuffee Grove, Lima and La Belle Alliance as one could wish for and would be a shorter distance from their house lots than are the back lands cultivated by the people of Beterverwagting-Triumph on the East Coast.
48. La Belle Alliance has a very small population and can boast of probably not more than 20 able-bodied men.
49. These Windsor Castle lands should be cultivated on the block system which could be easily done and for not more than 4 years at a time, farmers leaving one field at the expiration of this time and moving to another flood fallowed field. Thus they would farm under the best conditions and would be assured of good yields if they cultivated properly

## VI.-Cane Cultivation.

50. At preseat there is at Hampton Court:-
69 acres of 1st ratoon canes cut ... ...Feb. 1935.
14 acres of 1 st ratoon canes cut

14 acres of 1st ratoon canes cut ... ...Dec 1934.
83 acres of 1st ratoon canes.
32 acres of 2nd ratoon canes cut ... ...Feb. 1935.
23 acres of 4th ratoon canes cut ... ...Nov. 1934.
14 acres of 4th ratoon canes cut ... ...Dec. 1934.
45 acres of 4th ratoon canes cut ... ...Mar. 1935.
82 acres of 4th ratoon canes.
24 acres of 5 th ratoon canes cut
... ...Nov. 1934.
42 acres of 5 th ratoon canes cut .... ...Dec. 1934.
66 acres of 5 th ratoon canes.
51. In all, 263 acres of young canes, none of which have had any work since they were cut, are rapidly being taken over with rank grass.
52. Some of the fields are already almost past cultivating but others could be worked up to be of some value jot.
53. There are to be cut in May-June-

52 acres of plants estimated to yield 138 tons Y.C. Sugar.

54. On the oft-chance of the Estate being carried on, I would like to recommend that $\$ 1,800$ be granted Hampton Court by Government immediately. The money to be devoted to weeding and mouiding the 263 acres (more or less) of young canes and for purchasing and applying 2 coxt. Sulphate of Ammonia per acre for them.
55. In the event of the Estate being kept going this money would have kept an acreage in canes that could later be drawn down for planting and the surplus reaped.
56. A further sum of $\$ 7-8$ per acre could be granted when the May-June canes are reaped. It will be noted that 52 acres of these are plant canes.
57. This money would be invaluable for the purpose of keeping the necessary planting material at hand if the Estate was worked and in the event of the property being abandoned could be considered as unemployment relief. It would also help to keep the Estate resident labour from scattering.

## VII.-Revende.

58. The miscellaneous revenue from Hampton Court in 1934 was :-

59. If the estate should be continued under new conditions rice land rents should be reduced. Other revenue might show a small increase.
VIII.--Equipment.
60. The equipment and machinery in the Factory and Distillery are fully described in the Engineer's report. Also included in the Engineer's report is :-

A Fairbanks Morse oil engine and 15 ins. irrigation pump in poor condition.
Not included in engineer's report is:-
1 Tangye oil engine and 15 ins. irrigation pump in fair order.

## Other equipment includes :-

4 Seapunts 3 of 20 tons sugar capacity, 1 of 22 tons. They have been kept in repair and 3 are in good order. The Sparta neede a complete overhaul.
80 Cane punts easily put in fair order.
8 Cane punts capable of being rebottomed.
513 cane punts slings in fair order.
20 mules. No new males received for 7 years and three are very old. all are in good condition.

3 Oxen.
2 Buffaloes.
1 Horse, old.
21 Head of cattle.

## Housing.

1 Manager's House with electric lighting needs early repairs.
1 Deputy Manager's house.
Overseers' house for 5 men. A good building but very badly situated. Electrically lit. Needs some repairs.

Foreman engineer's cottage.
Head driver's cottage.
Engineer's cottage.
Rum shop.
2 small provision shops.
28 labourers' ranges of a total of 273 rooms. 3 of these ranges near the road have trash roofs and together with 2 more near the road are very dilapidated. The remainder in the yard proper, are, generally speaking, as good as the ranges on the average estates in the Colony.

61 single family labourers' cottages.
These are not very strongly built being erected on planted Wallaba uprights, but are comfortable and convenient and most of them are in fairly good order.

## Hospital.

Strong and well built. Needs outside repairs and inside painting.
IX.-Estimate of Expenditure for the first five pears if the Estate were to be
wored and put on a sound footing.
61. Making a five-year estimate of expenditure and revenue of this sort where unknown
weather conditions for the full period, labour conditions, growth or otherwise of cane farming
and cost of supplies etc., have to be taken into account can best be described as speculation
based on experience. and cost of supplies etc., have to be taken into account can best be described as speculation based on experience.
62. The great difficulty is to know whether labour will be available to carry out some of the items of expenditure, otherwise I have confidence in the figures given.
63. The expense side is divided into capital and current expenditure. The capital to be undertaken immediately on starting to work the property. Any part of this not spent in the first year to be continued under Capital expenditure into the second year.
64. Current expenditure to be considered as 12 month expenditure from the time of starting. The Capital expenditure figures dealing with reconditioning the Factory and Distilltry are by the Hon. F. J. Seaford who has allowed them to be included here for the sake of having the full expenditure in one report. They are shown below under the heading (a)

Capital Expenditure.
Purchase of Pln. Hampton Court cum annexis with all stationary and movable Field and Factory equipments thereun and all water and Crown land rights and licences ... ... \$100,000
(a) Necessary expenditure on Factory and Distillery ... ... 200,000
(b) Other equipment.

1. Drainage plant ... ... ... 35,000
2. Irrigation pumps (2) ... ... ... 8,000
3. 25 Labourers' Cottages ... ... ... 7,750

There are empty cottages available on the Estate but it
would be necessary to prepare for additional labour in an impressive manner.
4. 10 steel bottomed cane-punts, (could be purchased in 2nd year) ... ... ... ...
5. 100 Punt slings, (could be purchased in 2nd year) ... $\quad 3,500$
6. A' 2 door navigation lock chamber ... ... 3,000
7. Repairs to Sea Punts ... ... ... 1,000
8. Re-bottoming 8 cane punta now without bottom ... 800
9. Re-roofing, painting and repairing Manager's House ... 4,500
10. Repairing and painting Overseer's House ... 1,500
11. Repairing und painting Hospital ... ... 1,500
12. Erecting Factory Orerseer's House ... ... 3,000
13. Six new mules at $\$ 300$ each ... .. 1,800
14. Dutch Dredge as recently acquired by !Pln. Uitvlugt ... 10,000
15. Repairing ranges and cottages ... ... 3,000
16. Repairs ta drainage sluice doors ... ... 500
$\$ 385,450$

## X.-Current Expenditure for First Five Working Years.

65. This includes all rates and taxes except any that may be owned by the present proprietors.
66. I have estimated to plant 500 acres of cane a year for the first 3 years and then to maintain 1,500 acres in cultivation.

## XI.-Notes on Revenue.

67. The Chairman of the Essequibo Commission instructed me to estimate D.C. Sugar at $\$ 45$ per ton sugar for tho next five years. This has made estimating revenue very simple. The price of sugar, however, is the corner stone of the whole estimate, and should, the price of sugar drop to say $\$ 40$ per ton where it has recently been and remain there for some time no sugar estates could be carried on.
68. I have estimated under revenue to make 10 gallons coloured rum per ton first sugar for the 1st and 2nd years. In the 3rd', 4th and 5th years rum to be made is estimated at 5 gallons per ton sugar as the rum market is so restricted.
69. The shipment of molasses from Hampton Court would present some difficulty, but it could be overcome, Under the head Capital Expenditure, I have estimated for a large molasses storage tank.
70. Your Commission may rightly consider the loss on the first three working years shown under "Current Expenditure for the first five working years" below as Capital Expenditure. It is actually routine expenditure which the small crops turn into loss and for which, of course, capital must be provided.
71. I have not estimated under Capital Expenditure the cost of erecting a pumping plant if found necessary for irrigation purposes at the Manikuru Creek. As I have pointed out, such expenditure should only be undertaken if warranted after a survey to determine whether the water of the Manikuru Creek is always fresh and of sufficient quantity in dry weather to supply a pumping station of the necessary size, the possibility of pumping the water through the Dredged Canals into the McNab trench; and the size and cost of connecting trenches, etc.
72. It is possible that the Public Works Department, together with the Lands and Mines Department, may have sufficient data on hand to say if this scheme is feasible and, if so, to give a complete estimate of expenditure for it.
73. In conclusion I must stress the point that this estimate is entirely dependent on sufficient labour being available to plant 500 acres of cane per annum and keep a cultivation of 1,500 acres in first class order with work done at the right time and that, in my opinion, this labour would not be available if 2 crops of rice were planted yearly on the Essequibo Coast.

CURRENT EXPENDITURE FOR FIRST FIVE WOREING YEA\&S.

|  | 1at Year. | 2nd Year. | 3rd Year. | 4th Year. | 6th Year. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Current Expenditure <br> Cost per ton estimated Sugar ... <br> Estimated crop D.C. Sugar ... | \$ 105,000 255 tons | $\begin{gathered} 133,000 \\ 1,565 \text { tons } \end{gathered}$ | $\begin{gathered} 160,1(2 \\ \$ 5+64 \\ 2.930 \text { tons } \end{gathered}$ | $\begin{gathered} 187,586 \\ 44: 98 \\ 4,170 \text { tons } \end{gathered}$ | $\begin{gathered} 187,586 \\ 44 \cdot 98 \\ 4,170 \text { tons } \end{gathered}$ |
| Estimated Yearly Revenae- <br> 1st Year- <br> 255 tons sugar at $\$ 45$ per ton -25 Puncheons colonred rum at $\$ 45$. 7,800 gallonf molasses at 2c. per gal. $\begin{array}{lr}\text { Miscellaneous } & \text { revenue } \\ \mathbf{\$ 1 , 4 0 0} & \text {... }\end{array}$ | \$ 14,156 |  |  |  |  |
| 2nd Year- <br> 1,565 tons sugar at $\$ 45$ cer ton-156 Puncheons coloured rum at $\$ 45.47,100$ gallons molasses at 2c, per gal. Miscellaneous $\$ 1,400$ $\$ 1,400$ | - | 79,787 |  |  |  |
| 3rd Year- <br> 2,930 tons sugar at $\$ 45$ per ton-146 Puncheons ooloured ram at $\$ 45$. 132, C 00 gallons molasser at 2 c . per gal. $\begin{array}{ll}\text { Miscellaneous revenue } \\ 81,400 & . . .\end{array}$ | ... | ... | 142,460 | - - |  |
| 4th Year- <br> 4,170 tons sugar at $\$ 45$ per ton-208 Puncheons coloured ram at \$45. 187,800 gallons molarses at 2c. per gal. Miscellaneons revenue <br> \$1,400 | ." | ... | ... | 202,166 |  |
| 5th Year- <br> 4,170 tons sugar at $\$ 45$ per ton-208 Puncheons coloured rum at $\$ 45$. 187,800 gallone molasses at 2c. per gal. Miscellaneous revenue $\$ 1,400$ | - ${ }^{\text {c }}$ | ** | ..* | *** | 202,166 |
| Estimated working loes ... ... | 90,844 | 53,213 | 17,642 | - |  |
| Estimated working profit ... ... ... | - | ... | .. | 14,580 | 14,580 |

## APPENDIX III

FATIMATES OF (A) COMPARATIVE COBTS OF RESUSCITATING THQ SUGAR INDUSTRY IN ESBEQUIBO AND
(B) ABANDONING SUGAR WITH CONSEQUENT MIGRATION.


## APPENDIX IV.

## RECOMMENDATIONS IN REGARD TO THE TERMS ON WHICH PLN. HAMPTON . COURT SHOULD BE LEASED.

1. That Hampton Court be leased by Government from August 1, 1935, or from the earliest subsequent date convenient to Government.
2. That the lessee be given the option of purchase for a sum not exceeding $\$ 100,000$ within a period of 12 months.
3. That a rental, based on $5 \%$ of the agreed purchase price, be paid quarterly in advance.
4. That stores on hand, if required by the lessee, be paid for at cost.
5. That if the estate be not purchased, machinery, plant, etc., be handed over to lessor in same condition as received by lessee.
6. That stocks of sugar and by-products on hand be sold for the benefit of the lessors and that all rents, etc. due at the commencement of lease be the property of the lessors.
7. That debts incurred, prior to, and outstanding at the time of the lease, be paid by the lessor.

COMBINED COURT No. 5.
1927.

$\mathfrak{J B r i t i s b}$ ©
F7

# \% <br> <br> COMBINED COURT. 

 <br> <br> COMBINED COURT.}

FIRST SPECIAL SESSION, 1927.

## DESPATCH

FROM
THE SECRETARY OF STATE FOR THE COLONIES,
DATED 25TH MAY, 1927,

ON THE REPORT OF THE

## BRITISH GUIANA COMMISSION

Printed by the Eluthority of Ibis Ercellency the Governor.

GEORGETOWN, DEMERARA:
"tel argosy" company, limited, printers to the government of beitisa clian. 1927.

No. $\cdot 14,096$.

Downing Street, 25th May, 1927.

In my despatch* of the 29th April, I informed you that in my opinion the recommendations of the Report of the British Guiana Commission merited the most serious consideration. I have now the bonour to inform you of the conclusions which I have reached, afier mature deliberation, upon the most important recommendation of this Report. I refer, of course, to the recommendation that the constitution should be modified so as to confer power upjn the Governor to carry into effect measures which he and the Secretary of State consider essential for the well-being of the Colony.
2. The first and most pressing of the grounds on which the Commission recommend this change in the constitution is the financial situation, which they consider to be such as, without ultimate financial control by the Government, will maks it difficult and expensive, if not actually impossible, for the Colony to raise a loan in London to repay its indebtedness to the Crown Agents. On this question I have to refer you to my despatch $\dagger$ of the 14th May, enclosing a letter from the Crown Agents, who, as jou are aware, have requested that early steps should be taken to refund the advances which they have made from the funds of other Colonies. From this letter it will be seen that the Crown Agents are now advised that with the Report of the British Guiana Commission before the public it would be impossible for the Colony to raise a loan on less than a 6 per cent. basis; that even on these terms it is uncertain whether the money could be obtained; and that such a loan would tend to depress permanently the level of the C.lony's credit. On the nther hand, in the event of the constitution being amended so as to secure the ultimate financial control to the Government, they are advised that they could raise a loan on approximately the same terms as those which they command for the other Colonies for which they act, though the immediate financial position revealed in the report would no doubt have some effect in lowering the issue price.
3. The financial position itself is ascribed by the Commission largely to a financial system which they describe and condemn as fundamentally unsound. They state that "band to mouth finance and haphazard and ill-considered taxation are the inevitable outcome of a system under which the responsibility for the finances rests with a Government who cannot enforce their policy aud the financial power with the elected meinbers who have no real responsibility." The working and results of this system have since been illustrated, if not parodied, by the recent proceedings of the Combined Court in Committee of Ways and Means and the measures taken by the Court to meet the present critical financial situation. The Governor's proposals were rejected en bloc, the substantial adverse balance was ignored, the abnormal arrears of revenue short-collected in 1926 were used to defray part of the anticipated shortage for 1927 , and the budget was finally balanced, in spite of the warnings of the Government, by diseriminatory export duties on sugar and on the new bauxite in lustry. Having regard to the financial and economic situation of British Guiana, the inminent necessity of floating a loan in London and the importance of doing uothing to discourage the introduction of capital, I find it difficule to conceive of any conbination of measures more calculated in principle to damage the credit and development of the Colony.
4. The Commission further observe that the unsatisfactory position of public officers under the present constitution is not an inducement to officials from otber services to enter that of British Guanna and might quite conceivably prove to be of great prejudice to the interests of the Colony. The truth of this statement has now

[^50]been strikingly demonstrated by the decision of the Conservator of Forests to take advantage of his option of reverting to the Indian Service in preference to accepting permanent employment in the Colony. Mr. Wood gives as his reason that, though the forests offer the Conservator probably unequalled opportunities, yet the difficulties and uncertainties of the position are so great that he has been reluctantly forced to the conclusion that no married officer in his position would bo justified in giving up the certainties of a career in India in exchange for employment on the permanent establishment in British Guiana. This pronouncement speaks for itself and I shall only obserse that, as matters stand, it is likely to make it most difficult to obtain a suitable successor to a post which I regard as of the first importance to the future of the Colony.
5. I now come to political conditions and their effect upon the development and reputation of the Colong. Their leading features, according to the Commission, are extensive malpractices at elections, numerous and well-founded petitions against the elected candidatez, the virtual exclusion from public life of a large proportion of those best qualified to enter it, and relations between the Executive and the elected members "not tending to inspire respect or promote efficiency and highly detrimental to morale." I do not propose to dwell on the unfortunate effects which this state of affairs must have upon the reputation of the Colony but I àm compelled to refer to a recent example of its reactions upon important development schemes. During the last few montbs the difficulties over the Georgetown Improvement Schemes, which have been giving me much anxiety, bave been materially increased by the decision of the Consulting Engineers to withdraw from all further work for the Colony other than the main drainage contract, which, at my request, they have reluctantly consented to complete. The ground which they give for this decision is that political conditions in Georgetown are such as cannot be tolerated by any self-respecting professional firm accustomed to dealing with ordinary Colonial Governments. I have already informed you that owing to the circumstances which have led to the withdrawal of the Consulting Engineers it is unlikely that another firm of similar standing in London would consent to act as technical advizers to the Government of British Guiana in this matter. It remains for me to add that I am informed by the Crown Agents that the firm in question have anted as their advisers in connection with a number of important works in various Colonies during the last twenty jears and that they cannot remember a single case where similar difficulties have occurred.
6. This prompt and complete corroboration of the Commission, on matters of major importance, leaves me no alternative but to accept the conclusion which they draw. A change in the constitution is already unavoidable, if only on stern financial facts, aggravated by the serious repercussions of the Report on the credit of the Colony. But it is not merely or mainly on these grounds that I would base the need for the reform of the constitution. In my deliberate judgment, in that of the Commission, and in that of financial and of business circles, a sustained and successful policy of development is impossible under the present system. Nor could His Majesty's Government remain indifferent to the prolongation of a state of affairs which has been publicly shown to impede the development, reflect on the good name and even endanger the solvency of a British Colony. I have no doubt that these considerations carry no less weight in the Colony itself, and that the necessary reform of the constitution will be effected with the goodwill and co-operation of all classes of the community.
7. The Commission recommend that the precise nature of the constitutional modification required to secure ultimate control to the Government, together with the question of what other improvements, suoh as those suggested in their report, could be effected in the constitution, should be referred in the first instance to a local commission. I concur in this recommendation, but Ifeel it necessary to state that the terms of the report and the facts of the situation make it essential that the general character of the proposed constitutional changes should
be laid down without controversy at the outset for the guidance of the local commission. As regards the precise methods to be employed; it appears to me that there are two main avenues which the local commission could profitably explore. Either the ultimate and adequate control indispensable to a policy of development could be conferred upon the Government by means of an alteration in the relative powers and in the composition of the Court of Policy and the Combined Court, thus preserving the structure of the old constitution. Or the two Courts might be replaced by a new Legislative Council on the ordinary model in which the Crown would possess effective control. As to the relative merits of these alternatives I shall neither express nor form a definite opinion until I have received the report of the local commission.
8. I have accordingly to request you to proceed forthwith with the appointment of a local commission, which should consist of not more than five members, including the Colonial Secretary as Chairman and two unoficial persons of standing, with the following terms of reference:-
"To advise upon the steps which should be taken to confer power upon the Governor to carry into effect measures which he and the Secretary of State consider essential for the well-being of the Colony, whether by an alteration in the relative powers and in the composition of the Court of Policy and the Combined Court, or by the substitution of a new Legislative Council in which the Crown would possess powers of effective control over financial as well as other matters; and generally upon any other improvements, such as those suggested by the British Guiana Commission, which might be effected in the constitution."

I have, \&c.,
L. S. AMERY.

Governor
Sife C. H. Rodwell, K.C.M.G.,
$\& \& c ., \quad \& c ., \quad \& c$.

## Appendix 1.

(Despatch from the Secretary of State to the Governor dated 29th April, 1927).

## Downing Street, 29th April, 1927.

Sir,
I have the honour to transmit to you, copies of the Report of the British Guiana Commission which has been laid before Parliament and published.
2. The recommendations of the Commission merit, in my opinion, the most serious consideration. by the Colonial Government.

## I have, etc.,

L. S. AMERY.

Governor<br>Sil C. H. Rodwrla, K.C.M.G.,<br>$\& c ., \quad \& ., \quad \& c$.

Appendix 1 I .
(Despatch from the Secretary of State for the Colonies to the Govermor dated 14th May, 1927, together with its enclosure).

Downing Street,
14th May, 1927.
SIR,
I have the bonour to transmit to you, for your information, a copy of the paper noted below on the subject of the proposed British Guiana loan.

> I have, etc.,

The Officer Administering
I'lue Government of British Guiana.
Date.
1927.

21 April. From the Crown agents.
[Enclosure.]
(Letter from Crown Agents dated 21st April, 1927).
Important.
21 st April, 1927.
Sir,
In our letter of the 1 st April in view of the heavy advances which we have made to British Guiana we pressed for the issue of the contemplated loan without further delay. We were not aware at the time of writing this letter that a report by the Commissioners sent by H.M. Government to the Colony was ahout to be published which would have a most important bearing on the question of the issue of the loan. Accurding to the extracts published in "The Times" of yesterday the financial position of the Colony is painted in this Report in the gloomiest colours, and it is even suggested that there is no guarantee that a deadlock between the Government and the Combined Court might not result in a stoppage of supplies and consequently in an inability to provide on the due dates for the interest and sinking fund on the Colony's public debt.
2. We are advised that with this report before the public it would be impossible for the Colony to raise a loan at present on less than a $6 \%$ basis and we cannot regard it as certain that even on these terms the money would be obtained. Moreover if the loan could be raised on these terms it would tend permanently to depress the level of the Colony's credit. On the other hand in the event of the constitution being amended so as to secure the ultimate financial control to the Executive we are advised that we could raise a loan on approximately the same terms as those which we command for the other Colonics for which we act, although no doubt the immediate financial position revealed in the report would have some effect in lowering the issue price.

I have, etc.,
HENRY LAMBERT.
The Under Secretary of State,
Colonial Office, S.W.1.

COMBINED COURT No. 17. 1927.


O,S.O. No. 4877/27.

JEritisb Guiana.
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$\qquad$ Fl

## COMBINED COURT.

ANNUAL SESSION, 1927.

## REPORT

OF THE

# BRITISH GUIANA CONSTITUTIION COMMISSION. 

(IN COONTINUATION OF SESSIONAL PAPER No. 5 OF 1927).

Printed by the Authority of This Excellency the Governor.

GEORGETOWN, DEMERARA :
"vie argosy" company, limited, printers to the government of british guiana.

No. 15,174.":

# REPORT OF THE BRITISH GUIANA CONSTITUTION COMMISSION. 

To His Excellency Sir Cecil HuNter RODWELL, Kniget Commander of the Most Distinguished Order of Saint Michael and Saint George; Governor and Commander-inChief in and over trie Colony of British Guiana, Vice apmiral of tele same, \&c., \&c., \&c.

Your Exomllency,
We have the honour to submit the following report :-
I.

## Introdection.

1. As the result of a recommendation made by the British Guiana Commission*, and in accordance with the instructions conveyed to Your Excellency by tiae Secretary of State for the Colonies in his despatch of the 25th May, 1927, twe were appointed by you on the 12th July, 1927, "to advise upon the steps which "should be taken to confer" power upon the Governor to carry into effect measures "' which he and the Secretary ot State consider essential for the well-being of the "Colony, whether by an alteration in the relative powers and in the composition of " the Court of Policy and the Combined Court, or by the substitution of a new Legis"lative Council in which the Crown would possess powers of effective control over " financial as well as other mattei's ; and generally upon any other improvements, "such as those suggested by the Birtish Guiana Commission, which might be "effected in the Constitution."
2. We began our sittings on the 15th July and have had 15 meetings in all. Every member has been present at these meetings except on three occasions, the Attorney-General being absent from two on account of illness, and Mr. Shields being unavoidably absent from another.
3. At the outset we considered it our duty to ascertain the views of the general public on the subjects mentioned in our terms of reference and, by means of an advertisement in the local Press, we invited any person or persons who desired to do so to submit to us his or their opinions either orally or in writing. In reply to this, representatives of nine bodies and organisations, and nine individuals, appeared before us while 18 individuals and 14 bodies submitted their views to us in writing. In some instances both oral and written evidence was given by the same individual or body.

## The Eaisting Constitution.

4. A complete exposition of the Constitution of the Colony as it exists to-day, would include an account of its origins and its growth, especially the developiont of that "dull complexity of checks and balances" which one writer selects as one of its most characteristic features. $\ddagger$. We do not consider it necessary to write such a history nor even to approach our task from a purely historical point of view. For couvenience of reference, however, we consider it desirable to include here a brief description of the main features of the Constitution, quoted from the report of the British Guiana Commission§ :-
"The distinctive feature cf the constitution is its division of the legislative power between two bodies, the Court of Policy and the Combined Court. To the Court of Policy consisting of the Governor, seven officials
and eight elected unofficial members, and constituted with the Governor's casting vote to secure an official majority, belongs the power of legislation in matters not fiscal ; to the Combined Court, that is to say the Court of Policy combined with six more elected members known as Financial Representatives, belongs the power of imposing taxes and in practice the right to control the appropriation of public moneys. In the Court of Policy the Government majority is subject to a potential veto which can be exercised by the elected members inasmuch as if seven of them abstain from attending they can prevent the formation of the quorum required. In the Combined Court, on the other hand, and consequently in matters of taxation or involving expenditure, the elected members possess a majority, and the only limitation to their powers is that they cannot increase, though they can reduce or reject, any item on the annual estimates which are prepared hy the Governor in Executive Council. Thus this nominally two-chamber system is in fact merely a method of dividing the subjects of legislation into two classes, financial, in which the elected members possess a majority, and non-financial, over which they can only exercise a negative control."
5. To this we may add that the Executive Council was created in 1891, and took over from the Court of Policy the executive duties which the latter bad hitherto performed. The Executive Council is constituted by Letters Patent* to advise the Governor. It consists of two ex-officio members--the Colonial Secretary and the Attorney General-and such other persons as may be appointed by His Majesty the King or provisionally appointed by the Governor subject to confirmation by His Majesty. The present Executive Council includes, besides the two ex-officio members, two official and two unofficial members but no unofficial member is a member of the Legislature. Prior to 1916 it was the practice for one or more of the Elected members to be appointed to the Executive Council. In the execution of the powers and authorities granted to him, the Governor is bound to consult the Executive Council, except "in cases which are of such a nature that in his judgment His Majesty's service would sustain material prejudice by consulting the said Council thereupon, or when the matters to be decided are too unimportant to require their advice, or tou urgent to admit of their advice being given by the time within which it may be necessary for him to act in respect to any such matters." $\dagger$
6. There is also reserved to the Governor the power of acting in opposition to the advice given him by the members of the Council if he shall in any case deem it right to do so ; but in any such case he shall report fully to the Secretary of State. $\ddagger$

## II.

7. Under our terms of reference we have two main duties to perform, the first being "to advise upon the steps which should be taken to confer power upon the Governor to carry into effect measures which he and the Secretary of State consider essential for the well-being of the Colony. . . ."

## The Legislature.

The present
The present
8. The views expressed to us, both orally and in writing, differed very considerably as to the form which the necessary change should take but nevertheless the preponderance of evidence was in favour of the abolition of the existing Court of Policy and Combined Court, and the substitution therefor of a single legislative body.

[^51]9. The retention of the existing Chambers was recommended mainly on grounds of sentiment, or on the ground that the position of Financial Representative provided a useful training ground for a potential legislator who would afterwards seek election to the Court of Policy.
10. While attaching due weight to these considerations we are of opinion that Sabstitation a single Chamber, possessing full legislative powers, would be more officient than of a aingle the two Chambers which exist at present. We consider that the plan of dividing legislative public business into financial and non-financial matters is not a satisfactory basis on Connoil. which to frame a"constitution, especially as in all the major problems which face a government financial and non-financial considerations are closely interworen. We recommend therefore that the existing two-chamber legislature should be abolished, and a single Legislative Council substituted.
11. We are of opinion that the Legislative Council should consist of :-

Composition of Legislative Conacil.

Ex-Officio members
Nominated official members Nominated unoficial members Elected members.

The first, second and fourth classes of members already exist, and the desirability of introducing a nominated unofficial element has been pointed out by the British Guiana Commissioners. It is our opinion, and the opinion of every witness who came before us, that the introduction into the legislature of such an element would be an improvement.
12. In considering the question of how many mombers there should be in Elected the Legislative Council, we have first considered how many elected members membersthere should be. The total number in the Court of Policy and the Combined Court present at present is 14 and, as pointed out by the British Guiana Cummission, the average nambers. constituency is less than 800 (the last registered electorate being 11,000). Although this quota seems small in comparison with that which exists in many Colonies, we are satisfied that it is very desirable that the suggested new Legislative Council should contain the same number of elected members as the present Combined Court, viz., 14.
13. Having decided to recommend 14 as the most suitable number of elected Number of members, it remained for us to consider the number of ex-officio and nominated other members. We consider that (excluding the Governor) the total number of ex-officio and nominated members should be at least 15. In accordance with the usual practice in other Colonies, the ex-officio members should be the Colonial Secretary and the Attorney General, and we recommend that 8 nominated members should be officials, the remaining 5 being unofficial persons of standing in the community; but that no person in receipt of any emolument from the Crown or the Government of the Colony should be a nominated unofficial member.

The total membership of the Legisiative Council being 29 we consider that the quoram an quorum should be 10 members excluding the Governor who would have a casting casting voti vote only.
14. We have received various suggestions as to the manner in which the nominated unofficial members should be selected, including one which would nominated make them "co-opted" rather than nominated members. Practically all these pro- nominioial make posals are open to the fatal objection that they would limit in one direction or another the prerogative of the Crown, usually exercised through the Governor, to select such members. We have no reason to doubt that in making his recommendations to the Secretary of State the Governor would give full and due consideration to the importance and desirability of including in the legislature representatives of any interest or element of particular importasce in the community: At the same
time, however, we recommend that in view of the peculiar place which they occupy in the economic life of the community, the sugar planting and major commercial interests should receive special consideration when nominated members are being selected, particularly if they should not already have secured adequate representation among the elected members. We hope, however, that under a new constitution they will secure such representation.

Selection of
nominated official nembers.

## Attendance

of officials
of onfials
who are not
members.

Period of nomination.
15. So far as nominated official members are concerned, the Governor is the best judge as to which of his officers should be nominated. It might, however, bs an advantage to the public service if it were possible to vary the personnel of nominated official members on occasions when the Governor considers it desirable to have a particular officer present in the legislature for a specific purpose during a particular period. It is also desirable that it should be a recognised practice for officials who are not members of the legislature to attend for the purpose of giving information.
16. We recommend that, as is usual in such cases, the nominated members shonld retain their seats until the next dissolution of the Legislature after their appointment, unless previously removed under instructions from the Crown. They should, of course, be eligible for re-appointment.

## The Exeoutive Council.

17. In paragraph 5 above we have set out the existing composition of the Executive Council. As already stated, the Council consists of two ex-officio members and "such persons as may be appointed by the King or provisionally appointed by the Governor subject to confirmation or disallowance."*

All members
of Execative members of Legislativa Conncil.
18. The British Guiana Commission has advanced reasons why there should be admitted to this Council one or more of the elected members of the legislature "with a view to promoting greater mutual confidence and co-operation." We go further and strongly recommend that all members of the Executive Council should be members of the Legislative Council. This principle should apply to all persons who may be temporarily appointed to the Executive Council.

Composition of Executive
19. We are of opinion that the Executive Council (exclusive of the Governor) Council. should consist in all of eleven members, the majority of whom should be officials, and we accordingly recommend that the Council should be constituted as follows :-

> Two ex-officio members
> (the Colonial Secretary and the Attorney-General) ;
> Four nominated official members;
> Three nominated unofficial members ;
> I'wo elected members of the legislature.

The normal proportion of three unofficial to two elected members need not be strictly adhered to. The total membership being 11, we consider that 5 members

## Governor's Reserve Power.

Composition of Legislative Conncil -unofficial and elected members in memority.
20. Our recommendations regarding the constitution of a Legislative Council, which would include nominated unofficial members, would, if adopted, mean that the nominated official and unofficial members combined would have a bare majority of one over the elected section, whereas the official section would be in a minority of nine compared with the unofficial section of nominated and elected members.

[^52]21. The inclusion among the Executive Council of three nominated unofficial Government and two elected members of the legislature would we think normally ensure $a^{2}$ noramally in majority to the Government in the legislature.
22. Whilst we are of opinion that the composition of the legislature which we Possibility have recommended would, save under exceptional circumstances, fulfil the require of deadlock. ments of our terms of reference, there is, however, the possibility of a deadlock occurring, and the Governor finding himself in the position of being unable to carry some measure which he and the Secretiry of State consider to be essential to the good government of the Colony.
23. Having regard to the absolute necessity of safeguarding at the present Necesity for time the credit and financial stability of the Colony, we think that the mere possi- giving Govbility of a deadlock, although, we believe, a remote one, might have the effect of to reserve making it difficult to float the Colon's loans on advantageous terms and might also matters. give rise to doubt in the minds of capitalists and others who would otherwise be prepared to engage in commercial undertakings in the Colony. On these grounds we recommend that the Governor should be given power to reserve, for his own decision, any matter which he and the Secretary of State consider essential to the good government of the Colony but that this power should not be exercised without a previous reference to the Secretary of State (should such be possible), and in any event the Governor's action in this respect should be reviewed by the Secretary of State at the earliest possible moment.
24. We consider it essential that in matters of great importance, especially those Reservepowinvolving finance the unofficial section of the legislature should not be in a position to ${ }^{\text {er wanke }}$ for render the executive impotent, and that the lines of responsibility should be defined agreement. as clearly as possible. The fact that such a situation could be prevented, and that the Governor had this power to reserve matters would, we think, naturally tend to the exercise on both sides of those qualities which make for agreement. The necessary power could we suggest be conferred by an appropriate clause, on the lines of the draft which follows, and it might be a. direction to the Governor that if, on any occasion, he should deem it necessary to exercise this reserved power he should, if possible, before taking final action, refer the matter to the Secretary of State:
"Any matter requiring a vote or enactument of the Legislative Council Draft clanse may be decided by the Governor according to his own deliberate judgment notwithstanding that such decision may be contrary to the vote of a majority of the Council ; provided that he shall by writing under his hand declare such decisici to be in his opinion necessary in the interests of public order, public faith or other first essentials of good government including the responsibilities of the Colony as a component part of the British Empire; and provided further that effect shall not be given to any such decision until the Governor shall have reported fully to one of His Majesty's Principal Secretaries of State all the circumstances of every case in which he shall make any such declaration of opinion and the approval of a Secretary of State first obtained save in cases of urgency where in the opinion of the Governor delay would be contrary to the public interests in which cases such decision shall nevertheless be subject to review by a Secretary of State after considering the report of the Governor ; and provided further that the Governor shall forward to the Secretary of State any statements or representations which any member or members of the Council may desire to make on the matter if made within fourteen days of the making of such declaration of opinion."
25. Further, we think that it should not be necessary for the Governor in giving Personal reeffect to any decision he may arrive at to invoke the support of the official vote aponsibility in the Legislature.
III.
26. The second duty imposed on us is to advise "generally upon any other improvements such as those suggested by the British Guiana Commission which might be effected in the constitution."

## The Legislature.

Life of the legislature.
27. Many different opinions as to the life of the legislature exist among those who have expressed their views to us. The argument advanced by those who favour a reduction from five to three years is based primarily on the ground that a legislature elected every three jears would provide opportunity for more frequent changes of representatives who might prove "unsatisfactory."

Period of five years re-
28. To dissolve the legislature every three years would mean throwing the country into a condition of political excitement, with its consequent disturbing effects on industry and commerce, at too frequent intervals and with no obvious advantage. We consider that the life of the Legislative Council should be five years.

Qualifica-
tions of elect.
ed members
of present
legislature.
29. It is our opinion that the existing qualifications required of elected mem. bers need considerable revision. In the case of a candidate for the Court of Policy certain property qualification is required, whereas in the case of a Financial Representative there is an income qualification only. The manner in which the property qualification is defined has led in the past to much ambiguity and has opened the door to abuse.
30. We consider that the qualifications of a candidate for election to the Legislative Council should be based on (a) income or salary or (b) property, and that no person should ke capable of being elected a member of the Legislative Council or having been so elected of sitting or voting therein who :-
(i.) is not entitled to vote at the election of a member of the Legislative Council; or
(ii.) is a Minister of Religion; or
(iii.) is the holder of an office of emolument under the Crown or under the Government of this Colony; or
(iv.) does not possess in the Colony one of the following qualifications namely :-
(a) receipt of a clear annual income of not less than two thousand four hundred dollars;
(b) possession in his own right of immovable property of the value of not less than five thousand dollars over and above the amount of any mortgage ; or
(c) ownership, under a lease for twenty-one years or upwards, of any house or house and land the annual rental whereof is not less than twelve hundred dollars.

Qualifica- 31. Under the British Guiana Constitution Ordinance, 1891, Amendment Ordition by own-nance, 1909, (No. 24) it is provided that a shareholder in a. Company
ership of ership of
whares. $\quad$ owning immovable property, etc., shall in certain circumstances be deemed to have the property qualification for an elected member of the Court of Policy. Having regard to the fact that an income qualification is now suggested for all elected members of the legislature, we see no neceesity for retaining this provision and would recommend that it be discontinued.

Candidates
Candidates 32. In order to avoid vexatious nominations we are of opinion that a candidate deposit. deposit. to make a deposit of cash (or its equivalent) to the value of not less than $\$ 240$

[^53](£50) which would be forfeited in the event of his not securing a minimum number of votes, say $15 \%$ of the total number of votes polled at the election in which he stood as a capididate.
33. We recommend that statutory provision be made limiting the election Candidates? expenses of a candidate who should be required to make after the poll a statutory expenses. return of his expenses. The maximum of such expenses should be fixed at $\$ 720$ (£150). This would place candidates on a more equal footing. We are satisfied that as a result there would be less likelihood of "treating"' before and 'during elections.
34. We are of opinion that it is desirable that all elections should be held on All elections the same day. We can foresee no difficulty in arranging for this to be done. to be heldon
35. Certain events at recent elections have brought to public notice the need Scratiny of for some machinery to scrutinise the qualifications in respect of which members qualificahave offered themselves for election. We consider that the procedure with respect elected to election petitions should be more precisely stated in the law than it is at membernpresent.

## The Eleotorate.

36. The franchise has undergone little change since 1849 except that the Qaalificaincome qualification-which was then $\$ 600(£ 125)$ per annum-was reduced in $1891 \begin{aligned} & \text { tions on vot- }\end{aligned}$ to $\$ 480$ (£100) per annum and again in 1909 to $\$ 300$ ( $£ 6210$ s.) per annum, exactly $1849 \cdot$ one-half of what it was almost eighty years ago.
37. The existing franchise, which is set out in sections 53 to 57 of the British Existing Guiana Constitution Ordinance, 1891 (No. 1) as amended by Ordinance No. 24 of qualifica 1909, provides that every male person having attained the age of 21 years, being under no legal incapacity, and being a British subject by birth or naturalisation shall be entitled to be registered as a voter, and, when registered, to vote at the election of the members of the legislature for bis electoral district or division provided that he possesses within such district or division one of the qualifications prescribed.

## The qualifications are :-

(a) For a County Voter* -
(1) Ownership during the six months previous to registration of not less than three acres of land actually under cultivation; or
(2) Ownership during the six months previous to registration of a house, or house and land, of the annual rental or value of not less than $\$ 96$ ( $£ 20$ ) ; or
(3) Occupancy or tenancy during the six months previous to registration of not less than six acres of land, actually in cultivation, under a lease for three years or more; or
(4) Occupancy or tenancy during the six months previous to registration of a house, or house and land of the annual rental or value of not less than $\$ 192(\$ 40)$ under a lease for one year or more; or
(5) Income or salary which (together with any sum paid or allowed for board or lodging or board and lodging) amounts to not less than $\$ 300$ ( $£ 62$ 10s.) per annum coupled with at least six months' residence in the district; or
(6) Payments during twelve months prior to registration, of direct taxes to the colonial revenue of $\$ 20$ ( $£ 4$ 3s. 4d.) or upwards, coupled with at least six months residence in the district.

[^54](b) For City or Town Voter*-
(1.) Ownership during the six months previous to registration of a house, or land, or of land with a house or other erections thereon, of the value of not less than $\$ 500$ ( $£ 104$ 3s. 4d.) as appraised for local taxation; or
(2.) Occupancy or tenancy during the six months previous to registration under lease for one year or more of a house or land, or of land with a house or other erections thereon of the annual rental or value of not less than $\$ 120$ (£25); or
(3.) The fifth or the sixth qualifications prescribed for a County Voter.
(c) Where any land, or house, or house and land, or house and land or appurtetances in any electoral district is or are jointly owned or occupied by more persons than one as owners or tenants each of such joint owners or tenants is entitled to be registered as a voter for such district, if the area of the land actually under cultivation, or the value of the land, etc., is such as, when divided by the number of owners or tenants, gives a qualification for each and every such owner or tenant, but not otberwise. $\dagger$
(d) Similarly, where any land, or bouse, or house and land, or house and land or appurtenances in any electoral district is owned or occupied by any Company, every shareholder in such Company is entitled to be registered as a voter for such district, if the area of land actually under cultivation or the value of such land, etc., is such as, when divided by the number of shares into which the capital of the Company is divided and multipled by the number of shares held by such shareholder gives a qualification for such shareholder. $\ddagger$
(e) Finally, it is provided§ that no person shall be entitled to be registered as a voter, who-
(1) cannot read and write some language, provided always that any person who knows how to read and write, but is incapacitated by blindness or other physical cause from reading or writing, shall not be disqualified from being a voter; or
(2) has, within the twelve months previous to registration received any relief from public or parochial funds; or
(3) has been sentenced in any part of His Majesty's Dominions to death, or penal servitude, or imprisonment with hard labour, or for any term exceeding twelve months, and has not either suffered the punishment to which he was sentenced or such other punishment as by competent authority may have been substituted, or received a free pardon from His Majesty.

Che income pualificaion.
38. The reduction in the income qualification in 1909 from $\$ 490$ (£100) to $\$ 300$ ( $£ 6210 \mathrm{~s}$.) per annum was made in order to extend the franchise to various classes of persons. But, since that amount was fixed there has been an appreciable fall in the purchasing power of money, and for this reason we have given special consideration to the question whether the amount of income required should be increased. After considering all the fact and opinions available, we are agreed that there should be no change in the existing income qualification.

The present registers of voters.
39. It is generally admitted that the present registers of voters contain the names of a considerable number of persons who do not possess the necessary qualifications but whose names remain on the registers because of a general disinclination to take steps to have the names of such persons struck off the registers. The exist-

[^55]ing law provides machinery for questioning the right of any porson to have his name entered on the list of voters but this is seldom used.
40. $\dot{W} e$ are satisfied that the root of the evil lies in the existing system of Failureof registration or to speak more accurately in the failure of the system. This system existing reg. is set out in sections 58 to 79 of the British Guiana Constitution Ordinance, 1891 system (No. 1) as amended by Ordinance No. 24 of 1909. Theugh not altogether up to date, this provides for an investigation into the claims of persons who desire to be registered. That the system is unsatisfactory is due mainly to the fact that the Registering Officers appointed are almost invariably Stipendiary Magistrates. Owing to the pressure of their Magisterial duties, they are unable to give to the work of registration the amount of attention necessary to ensure adequate investigation of the claims for registration, and of the right of persons to remain on the list.
41. To assist the process of registration and to minimise the number of bogus Need for claims we are of opinion that a claimant should support his claim by a statutory deatataration declaration. Ample facilitits should be provided for making such declarations, declaration. and it may be found necessary to increase the number of persons empowered to take declarations which should for this purpose be free of any duty.
42. Our opinion is that new registers should be prepared. Thereafter the Need fornew annual registers snould be compiled with the greatest care and diligence. We registers. recommend therefore that every person whose name is on an existing register should be required to file a fresh claim supported by a statutory declaration setting out his qualifications. We recommend further that persons appointed to be Rogistering Officers should have ample time to devote to this work.
43. With regard to other qualifications of voters in respect of which it may qualitica. safely be assumed that very little misrepresentation occurs, we recommend that tions of votthese be fixed as follows:-
(a)-(1) Ownership, during the six months previous to registration, of not less than six acres of land; or
(2) Occupation or tenancy, during the six months previous to registration, of not less than six acres of land secured by lease or some document in writing for three years or upwards, such lease or document to be recorded or deposited in the Deeds Registry; or
(3). Ownership, during the six months provious to registration, of a house or land or land with a house or other erections thereon of the value of not less than five hundred dollars; or
(4) Occupation or tenancy, during the six months previous to registration; of a house or land or land with a house or other erections thereon of the annual rental of not less than one hundred dollars, secured by lease or any document in writing for one year or upwards deposited or recorded in the Deeds Registry; or
(5) Payment during the twelve months previous to registration, of direct taxes to the Colonial Revenue of twenty dollars or upwards, coupled with residence in the District or Division during the six months previous to registration :. Provided that no licence duty of any kind shall be deemed to be within the meaning of the term " direct taxes."
(b) Where any land, or house, or house and land, or house and land or appurtenances in any electoral district or division is or are jointly owned or occupied by more persons than one as owners or tenants, each of such joint owners or tenants shall be entitled to be registered as a voter for such electoral district or division in respect of such land, or house, or house and land, or house and land or appurtenances in case the value of such land or house, or house and land, or house and land or appurtenances is such as when divided by the number of such owners or tenants gives a qualification for each and every such owner or tenant, but not otherwise.

Disqualifica- 44. We further recommend that the disqualifications for being a voter should :
ing a voter.

Literacy
test. Ballot
test. Ballot
papers
printed in
Printed in
Urdu and
Nagri.
Ertension of
franchise to women.

Electoral districts.
45. A number of witnesses have questiongd the advisability of retaining the present literacy test for voters. We have considered the matter and do not recommend any change in the law except that the ballot papers should be printed also in Urdp and Nagri characters, in order to meet the needs of the East Indian population.
46. We are of opinion that a woman who, in her own right, possesses the requisite qualifications should have the right to exercise the franchise. The extension of the franchisa to qualified women would have the important advantage of increasing considerably the number of electors in each constituency.
47. In view of the proposed constitution of the Legislative Council it will be, necessary to establish new Electoral Districts, and for this purpose we advise the appointment of a Commission.
48. Several witnesses have expressed the opinion that the distance between Polling Stations is in some areas so great as to preclude many voters from exercising the franchise. Ample provision for polling stations should be made in future.
49. We desire to record our appreciation of the services of our Secretary, Mr. G. C. Green, M.B.E. The careful and accurate manner in which he has discharged his duties has been of great assistance to us.
C. DOUGĹAS-JONES, Chairman.

HECTOR JOSEPHS. J. HAMPDEN KING. WILLIAM M. B. SHIELDS. W: BAIN GRAY. EUSTACE G. WOOLFORD. R. E. BRASSINGTON.

Geo. C. Green,
Secretary.

Georgetown, British Guiana, 12th September, 1927.

## Note by Mr. Woolford.

I have signed the above Report but I have, dope so subject to the reservations that follow :-

When invited by His Excellency the Governor to serve on the Commission If then indicated to him that while I was most ready and willing to do so, I did not approve of the terms of reference as settled by the Secretary of State-restricted as they were-nor did $I$ consider that. any real necessity had arisen for recom. mending the changes in the Constitution suggested by him in his despatch.

I cannot help being opposed to the very drastic changes in our Constitution foreshadowed by him, and cannot conscientiously agree ta any limitation or curtailment of any of the Constitutional privileges the Colony now enjoys: If I did so I should be squandering all the experience I have gained and the knowledge, I believe I possess of public affairs in this Colony; No such control as is being advocated will, I feel certain, habilitate the Colony's fortunes-the present financial position being due to our economic, and not to our political difficulties. If our expenditure, though I admit necessary, had been properly controlled we should have been able to balance ' our budgets quite readily and quite easily. I am, moreover, strongly of the opinion that twe shall recover our position in a few years' time and that we should be allowed an opportunity of doing this. We shall then have profited by our experiences.

Notwithstanding, however, the views I entertain, I shonld have been ready and willing at once to consent to the proposal that the Governor of the Colony after consultation with the Secretary of State should be given a reserved power of control in the last instance, if I were satisfied that some immediate material beuefit would be gained thereby: If the Secretary of State had given any assurances, or even hinted, that if this power were given substantial financial assistance might be expected from the Imperial Government, I should have deemed it my duty in the best interests of the Colony to agree to such control being taken and preserved until the loan-if it took such $\exists$ form-had been repaid by the Colony. No such prospect, however, is being held out to the Colony.

If, however, it is finally settled and determined that the Governor of the Colony should be invested, with power to carry into effect such measures which the Secretary of State and himself consider essential to the welfare of the Colony then I am of opinion that the recommendations contained in the Roport, both with respect to the composition of the Executive and Legislative Councils and otherwise are calculated to prevent any such arbitrary and/or capricious exercise of authority on the part of an Administrator, in opposition to the wishes of public opinion, as is being generally anticipated will take place.

My assent, too, to the proposal that there should be one Legislative: Council is conditional upon any member of that body having the right to move the deletion either as a whole, or in part, of any item on the estimates of expenditure submitted to the Council : and that, generally speaking, there should be allowed the fullest opportunities for such unreserved discussion and criticism therein of Government policy whether in relation to expenditure or otherwise as any member may desire to make.

The Standing Rules and Orders should, I suggest, be'su framed as to permit of this being done.

EUSTACE G. WOOLFORD.

## JBritisb Guiana.



SECOND

## LEGISLATIVE COUNCIL,

 FIFTH SESSION, 1934.

## REPORT

of taE

## BRITISH GUIANA FRANCHISE COMMISSION.

Printed by the Eluthority of 1 bis Excellency the Goveruor.

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1935.

No. 16,338.

# To His Excellengy SIR URAWFORD DOUGLaS DOUGLaS-JONES, Knight, Companion of they Most Distingdished Order of Saint Mrohael and Saint Grorge, Officer administening tre Gorernment of Britise Guiana and adting as Commander.in-Chief and Vioe-Admiral of the same, eto., <br> <br> Your Excellenat, 

 <br> <br> Your Excellenat,}

We have the honour to submit the following report:-

## Introduction

We were appointed by the late Governor Sir Edward Denham, K.C.M.G., K.B.E., under commissions issued on the 1st November, 1933, and the 12th April, 1934, "to enquire into the qualifications which entitle persons to be registered as voters and to vote at the election of Members of the Legislative Council in electoral districts under Article 25 of the British Guiana (Constitution) Order in Council, 1928, and the disqualifications for registration under Article 26 of the Order, and to report whether it is desirable that there should be any alterations of such qualifications and disqualifications; and, if so, to report what is recommended should be the qualifications and disqualifications as aforesaid.'
2. The Honourable the Attorney-General ( Mr . Hector Josephs) left the Colony on leave on the 10th March, 1934, and the second commission dated the 12th April, 1934, issued appointing Percy William King, Esquire, Official Receiver, Crown Solicitor and Public Trustee, to be a Commissioner and Chairman of the Commissioners in place of the Honourable the Attorney-General,
3. The Honourable J. B. Singh and the late Mr. Edmund Fitzgerald Fredericks, Ll.B., who were appointed under the first commission dated the 1st November, 1933, did not attend any of the meetings or take the oath required by the Commissions of Enquiry Ordinance, 1933, (No. 5) under and by virtue of which the commissions are issued.
4. Mr. Edmund Fitzgerald Fredericks died on the 9th April, 1934.
5. We held our first meeting on the 13th November, 1933, on the eve of the annual session of the Legislative Cunncil. As we were then constituted, the majority of us were also members of the Legislative Council, and, therefore, there was considerable delay between that meeting and the next. We held in all six sittings.
6. We were directed that our Inquiry should not be held in public and accordingly the only members of the public admitted to our meetings were those who attended to give evidence.
7. We were also directed to hold our Inquiry in Georgetown and in such other places as we might think fit. All of our meetings, however, were held in Georgetown as we were of the opinion that the expense of travelling to hold meetings at -other places would not be justified by the response from the general public. We decided that the same results would be achieved by inserting notices in the three -daily papers inviting persons who desired to express their views to the Commissioners to submit them either in writing or orally on a day ta be fixed. This was accordingly done and in the same notices the existing qualifications and oisqualifications of voters were set out for the benefit of those members of the public who either were not familiar with or did not have ready access to them.
8. The replies which we received were, to say the least, disappointing and went to confirm our opinion that the response from the public would not
justify the expense of travelling out of Georgetown. Two persons submittcd their views in writing,-one of them styled himself a commercial agent and journalist, and the other was unknown to us. 'Three persons offered to give oral evidence-Mr. W. M. Minshall, the editor of a daily newspaper, Mr. H. A. Britton, the editor of a weekly newspaper, and Mr. H. L. Palmer. On» organisation, the Labour Union, also offered to give oral evidence through four of its members, one of whom was the editor of the daily newspaper mentioned above. His Honour Mr. Justice Savary, at the invitation of the Chairman, also attended to give his views, based partly on his experience in a recent election petition in which 23 voters gave evideuce, and partly on his 7 years' residence in the Colony, coupled with previous residence in I'rinidad.

## The Existing Qualifionifons and Disqualifioations.

9. The existing qualifications and disqualifications of voters are set out in Articles 25 aud 26 of the British Guiana (Constitution) Order in Council.
A. Qualifications of voters-

Article 25-Subject to the provisions hereinafter contained, every persou shall be entitled to be registered as a voter in any one electoral district, and when registered, to vote at the election of a Member or Members of the Council for such district who is qualified as follows :-
(a) has attained the age of 21 years;
(b) is under no legal incapacity;
(c) is a British subject by birth or naturalization and possesses withinthe electoral district in which, be claims to be registered one or more of the following qualifications, namely :-
(i) Ownership, during the six months previous to registration, of not less than six acres of land; or
(ii) Occupation or tenancy, during the six months previous to registration, of not less than six acres of land secured by lease or some document in writing for three years or upwards, such lease or document to be recorded or deposited in the Deeds Registry ; or
(iii) Ownership, during the siz months previous to registration, of a house or land, or land with a house or other erections thereon, of the value of not less than five hundred dollars; or
(iv) Occupation or tenancy, during the six months previous to registration, of a bouse or land, or land with a house or other erections thereon, of the annual rental of not less than one hundred dollars, secured by lease or any document in writing for one year or upwards deposited or recorded in the Deeds Registry ; or
(v) Possession or enjoyment of an annual income or salary which. (together with any sum paid or allowed to him or on his behalf for board or lodging or board and lodging) amounts to not less than Zhree hundred dollars, coupled with residence in the district, such possession or enjoyment and residence having subsisted during the six months previous to registration ; or
(vi) Payment, during the twelve months previous to registration, of direct taxes to the Colonial Revenue of twenty dollars or upwards, coupled with residence in the district during the six months previous to registratration : Provided that no licence duty of any kind shall be deemed to be within the meaning of the term "direct taxes."

Provided that where any land, or house, or house and land, or houseand land or appurtenances in any electoral district is or are jointly owned or occuped by more persons than one ás owners or tenants, each of such joint owners or tenants shall be entitled to be registered as a voter for such electoral district in respect of such land, or house, or house and tand, or house and land or appurtenances, in case the value of such land, or
house, or house and land, or house and land or appurtenances, is sioch as when divided by the number of such owners or tenants gives a qualification for each and every such owner or tenant, but not otherwise.
B.-Disqualifications for being a voter-

Article 26.-No person shall be entitled to be registered as a voter if he
(i) Cannot read and write some language : provided always that any person who knows how to read and write, but is incapacitated by blindness or other physical cause from reading or writing, shall not be disqualified from being a voter; or
(ii) Has, within the twelve months previous to registration received any relief from public funds or funds of any local authority; or
(iii) Has been sentenced in any part of His Majesty's dominions to death, or penal servitude, or imprisonment with hard labour, or for any term exceeding twelve montbs, and has not either suffered the punishment to which he was sentenced or such other punishment as by competent authority may have been substituted, or received a free pardon from His Majesty.
10. Prior to 1928 the electorate was divided into two classes of voters, the county voter and the town or city voter to correspond with the electoral districts of that time; but under the authority of Article 20 of the 1928 Order in Council the Colony was divided into new electoral districts to fit in with the new constitution of the Legislative Council which took the place of the Court of Policy and the Combined Court.
11. This change both as regards the form of the Legislature and the nature of the Electorate resulted in a variation of the qualifications of Members and voters. The qualification for a financial representative was lower than that for a member of the Court of Policy and in the change an average was struck in order to provide the qualification for members of the Legislative Council. In the case of the Electorate the variation was more complicated owing to the several different kinds of qualifications but only the property qualifications were affected by the Order and the changes were on the whole an increase in respect of the county voter, except in one instance. The effect of the principal changes are set out below-
(a) Land owned or occupied is not now required to be under cultivation but the acreage is increased from three acres to six and in the case of occupation the tenancy must be evidenced by a lease or some document in writing recorded in the Deeds Registry.
(b) Occupation of a house or house and land is no longer based on value or rental, iout on rental alone and the amount is reduced from $\$ 192(£ 40)$ in the case of a county voter and from $\$ 120$ (£25) in the case of a town or city voter to $\$ 100$ ( $£ 2016 s .4 \mathrm{~d}$.). The qualification now includes occupancy of land alone which was formerly confined to a town or city voter.
(c) Owuership of a hcuse or house and land of the annual rental or value of not less than $\$ 96$ (£20) for a county voter was merged in the ownership of a house or land or land with a house or other erections thereon of the value of not less than $\$ 500$ ( $£ 104$ 3s. 4 d .) as appraised for local taxation which was the qualification for a town or city voter. This is the present. qualification under Article 25 , the method of valuation being omitted.
12. The present disqualifications are exactly the same as prior to the Order.

## The Evidence and Recommendations.

I.
13. Our first duty was to decide whether there should be any alterations in the present qualifications and disqualifications and if we should decide on any alteration to make the necessary recommendations. To this end we proposed to examine the views submitted to us.
14. These covered a wide field and embraced the two extremes-complete abolition and wholesale retention of the existing qualifications and disqualifications. They are summarised below with the reasons advanced in support of the various suggestions.
(a) The complete abolition of the existing qualifications and disqualifications and the substitution of universal suffrage on a literary basis at the age of 21 years.
This suggestion was advanced for the following reasous:-
(i) The requirement of any qualitication tends to disfranchise many who should have a voice in the affairs of government-those who are either unemployed or earn low wages are more in need of representation than others.
(ii) The loss of a qualification at the crucial time-namely within six months of registration-works a great hardship on men who are both willing and able to exercise the franchise.
(iii) Universal suffrage wonld ensure a wider electorate and so remove or minimise the opportunities for corrupt practices.
(b) Reduction of the income and salary qualification to figures ranging from $\$ 36$ to $\$ 200$ per annum and the elimination of the requirement of the statutory declaration by the employer or some responsible person in his employ. (Registration of Voters Regulations, 1929, Reg. 3 (2) ).
This suggestion was made-
(i) As a temporary measure to meet the present economic position.
(ii) As a permanent alteration whereby the franchise will be extended to include the masses of domestic workers and smaller class artisans and persons in casual employment who, although they may earn wages, from the very nature of their employment can never reach the required figure.
As regards the elimination of the statutory declaration by an employer, this was suggested.
(i) on account of the paucity in the country districts of commissioners of oaths.
(ii) Because of the reluctance of employers, where the employment has not been wholly in their service, to make the declaration.
(c) A general reduction of the property qualification by $50 \%$ and the elimination of the $r \in q u i r e m e n t$ that the tenancy qualification should be evidenced by a lease or document in writing recorded in the Deeds Registry.
The first part of this suggestion is based on economic considerations either as a permanent or temporary measure; the second part on the practice of village authorities not to enter into contracts in respect of land leased by them which prevents any record of such tenancies in the Deeds Registry.
(d) The addition of a new subsection to Articie 25 to enable persons to vote or to be registered as voters who were, at the date of the last election, in receipt of an income or salary of $\$ 300$ or more but who are, at the date of the next or any subsequent election, without income or salary or receiving an attenuated income or salary, on the production of a testimonial from one of the following persons-his last employer, an approved legal practitioner, a minister of a recognised religious body in the colony-attesting his integrity and the annual value of his salary or income up to the time he became unemployed.
This suggestion was based on the present economic depression.
(e) The abolition, on account of the present economic situation, of the disqualification coutained in paragraph (ii) of Article 26.
(f) On the other hand, there was the proposal that there should be no reduc-
tion whatsoever of the qualifications'or removal of any disqualification. ...

This suggestion was made because of the many persons on the present voters' lists who were known to be open to extraneous influences and who lacked independence in exercising their vote. A lowering of the fracchise and especially of the income qualification would tend to let in persons who by their lack of education (moral as well as mental) would be still more open to these extraneous influences and less likely to exercise an independent judgment.

## II.

15. We have considered carefully the various views submitted but we are of opinion that we cannot recommend certain of them even in principle because of the impracticability apparent in them, e.g., the introduction of universal suffrage on a literary basis would either mean disfranchising the majority of East Indians who read or write only their own language, or the appointment at all points of registration of capable Eindi scholars who can test the literacy of claimants for registration, and there would be the further difficulty of deciding what should be the standard of literacy and of the testing of each claimant individually. We regard this as an impractical suggestion for this Colony with a mixed population and a comparatively illiterate proletariat. There are still very many persons whose only claim to literacy is the ability to sign their name. Again to insert the new qualification suggested in sub-paragraph ( $d$ ) of the preceding paragraph would mean legislating in favour of a select minority who have not even established their rights by some form of national service or otherwise to such favour.
16. Although we were impressed by the almost unanimous urge for the reduction of the income and salary qualifications to some reasonable amount, we feel that the suggested figure of $\$ 36$ per annum is altogetber too low and we cannot therefore recommend any reduction of these qualifications. We have had no evidence, which we could consider, of a reduction in the wages or salaries paid throughout the Colony, and the present voters' lists disclose that out of a total of 9,314 registered voters some 2,893 are registered on the salary qualification and some 3,703 on the income qualification, making a total of 6,596 or about $70 \%$ of the whole electorate-a very generous proportion which tends to show that the present figure is already sufficiently low. Indeed we rather incline towards an increase on the figure of $\$ 300$ in the hope that higher income and salary qualifications would tend to secure a purer electorate by excluding persons of a low educational standard (moral and mental) ; but we do not feel that the present economic conditions would jüstify any such recommendation and we, therefore, are of opinion that this qualification should remain at its present figure. This is the figure in Trinidad, whilst in Jamaica it is only slightly lower.
17. We have considered the position of the occupier of rice-growing lands who enjoys both possession and occupation of such lands for a term of years payirg in respect thereof an annual rent varying from $\$ 6$ to $\$ 12$ per acre per annum but who do not enjoy such possession and occupation uader any lease or document in writing. It has been suggested that such persons should be allowed to register, but whilst sympathising with this view we regret that we are unable to recommend that such possession and oocupation should be a further qualification under Article 25.
18. With regard ta the property qualifications we recommend that the following amendments be made to paragraph (c) of Article 25 for the reasons here given.
(a) To sub-paragraphs (ii) and (iv) the addition of the words or in the
$\therefore$ Department of Lands and Mines" after the words "Deeds Registry" ix the fifth and seventh lines thereof respectively:

$$
\because x^{2}
$$

We are satisfied that tenancies of Crown Lands swhere registered in the Department of Lands and Mines were unintentionally omitted from thése .qualifica-
tions and should now be included. This will enable a large number of persons to be put on the register if they so desire.
(b) In sub-paragraph (iii) the substitution of the words "three hundred and filty" for the words "five hundred" in the fourth line thereof.
(c) In suh-paragraph (iv) the substitution of the words " ninety-six" for the words " one hundred" in the fourth line thereof.
19. In addition to the reasons given in paragraph 18 for the alterations suggested therein, it is a fact that the small property owner or small peasant farmer is a solid type of individual. In the acquisition of bis property he necessarily develops, if be did not already possess, industry and thrift and is more likely to have that independence of thought and action in the exercise of his vote, which is so desirable, and to take adyantage of the privileges which the franchise confers.
20. We are also of the opinion that the recommendations in paragraph 18 will enable many persons of the old county voter class who may have been disfranchised by the introduction of the present qualifications to have their names put on the voters ${ }^{2}$ lists, if they so desire.
21. We cannol recommend that the employer's statutory declaratiun be dispensed with as this requirement was inserted in the Registration of Voters Regulations, 1929, made under the 1928 Order in Council, to meet the then practice of persons registering in respect of the salary qualification when they did not possess it. It is within out knowledge that this practice still persists even with this requirement, though it is less general.
22. We recommend that the present disqualifications remain. As far as we have been able to ascertain they are the same in the neighbouring Colonies and we have had no good reaspn advanced, nor do we curselves know of any, why they should be altered.

## Conolusion.

23. In the course of our deliberations our attention bas been directed to certain defects in the machinery for registration. This is not strictly within the terms of our reference but we consider it our duty to mention them in this report in order that steps, so far as possible, may be taken to effect their repair unless this has already been done.
24. Complaints were made that the public was not sufficiently informed of the places from which registration forms may be obtained, of the indifferent supply of these forms, and of the lack of suitable notices in advance of the visits of Kevising Ufficers to the various districts. We trust that steps will be taken to facilitate registration in these respects.
25. We do not feel that we should close this report without making some comment on the apathy and indifference of the public to the exercise of the franchise. We do so because we feel that to a very great extent it accounts for the present small electorate.
26. As stated in paragraph - we inserted in three issues of the three daily newspapers lengthy notices, to which prominence was given in those papers, inviting persone to submit to us their views on the present qualifications and disqualifications and what alterations, if any, they suggest. The number of answers we received was, to say the least, disappointing. History has repeated itself througbout the whole investigation of the constitutional question on various occasions and we find the same expression of disappointment at the lack of interest on the part of the public in the proceedings of the British Guiana Constitution Commission made by the Colonial Secretary during a debate on the motion expressing dissatisfaction with the new constitution as introduced by the new

Order in Council. Indeed the history of that motion is in itself eloquent of this indifference. Notice of the motion was given as early as January, 1931, and on the day previous to the debate, members were informed that it would be taken next day, yet out of 14 elected members only 6 were in their seats and we know that of the public only 15 persons were in the gallery of the Council to support, by their silent presence, the motion.
27. We are satisfied from our knowledge that persons who are qualified do not take sufficient interest to see that their names are put on the voters' lists, not even those of the more responsible section of the community, and we are convinced that until people are educated to value the franchise and are awakened to their political responsibility, until they are aroused from their lethargic indifference even universal suffrage would have little effect on the voters' lists. They have acquired the habit of excusing their indifference by saying that representation in the Legislative Council is "a farce." The proper type of nember can, we think, still exercise a considerable influence on the Government in the representation of matters affecting the public interest.
28. We desire to record our appreciation of the services of our Secretary, Miss Iris de Freitas. The careful and accurate manner in which she has discharged her duties has been of great assistance to us.
PERCY W. KING,
FRANCIS DIAS.
ERASTACE G. WOOLFORD.
H. G. SEAFURD.
R. V. EVAN WONG.
EDWARD K. LUCKHOO.
J. WATERTON JACKSON.

Ibis de Freitas,
Secretary.
Georaetown,
: British Guiana, 1st Marcb, 1935.


## $\mathfrak{J B r i t i s b} \mathfrak{G u i a n a}$.

## $\sum_{\text {third }} \times 1-\frac{1-2, N}{2}$ LEGISLATIVE COUNCIL, <br> FIRST SESSION, 1935.

## GENERAL REVIEW

$\neq$

BY THE
SECRETARY OF STATE
OF THE
ECONOMIC POSITION AND PROSPECTS OF THE COLONIAL EMPIRE AT JUNE 30TH, 1935.

Printed bu the Eluthority of This Excellency the Governor.

GEORGETOWN, DEMERARA:
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No, 16,441.

One of the most important pieces of evidence to be taken into consideration in this connection is the trend of prices of the principal Colonial export products. One of the first duties undertaken by the Economic Department of the Colonial Office was the compilation of a list of such products for which daily price quotations were obtainable, and the regular. weekly circulation through the Office of a list of such quotations. I attach as an appendix (to this despatch) the full list of commodities for which prices are so circulated, together with the highest and lowest prices recorded for each commodity in each half month of the last six months. A study of this table will, I think, prove of considerable interest, and it should be read in conjunction with the remarks on individual products contained below.

It will, of course, be appreciated that there are one or two important Colonial products, such as tobacco, for which no daily price quotations are available; and that in the case of a few other products, like coffee, where values depend upon the particular qualities of individual parcels in consignments, it is only possible to give the general trend of prices within fairly wide limits.

Turning first to the review of conditions in various countries I am happy to be able to inform you that after a slight hesitation in the early part of the year the economic progress in the United Kingdom has regained its previous momentum. At the present time more workpeople are in employment than at any previous time in the history of the United Kingdom. A comparison between the statistics of employment this year and last shows that the improvement is accounted for largely by an increase in the demand for cupital goods in this country, particularly buildings, and an increase in exports; also principally in the capital goods class. There has apparently been an increase in the internal consumption of goods, but this does not appear to have resulted in additional employment, the productivity of labour having been increased by technical improvements and a diminution of short time working.

This conclusion is supported by an examination of such statistics as those relating to the volume of industrial production, retail trade, currency circulation and, particularly, external trade. Daring the first six months of this year the total exports of domestic produce and manufactures were valued at nearly $£ 206,500,000$ as compared with $£ 189,700,000$ in the same period in 1934 and $£ 175,300,000$ in the same period in 1933. The values of re-exports for the same periods were $£ 28,800,000, £ 29,000,000$ and $£ 25,200,000$ respectively. Turning now to imports, which are of more immediate interest to the Colonial Empire, since an increase of those kinds of imports which are Colonial products means an enlargement of the market for its own products, the total value in the first six months of the current year was $£ 359,400,000$ as compared with $£ 362,200,000$ in the same period of 1934 and $£ 320,300,000$ in the same period of 1933. The total values of imports of Class I. (food, drink and tobacco), a class of substantial Colonial interest, were $£ 166,300,000, £ 167,300,000$ and $£ 164,200,000$ in the three periods respectively, and the total values of imports of Class II. (raw materials), the other class of Colonial interest, were $£ 103,000,000$, $£ 108,500,000$, and $£ 83,700,000$ in the three periods. It will be seen that in Class I. the total value of imports, though slightly below last year's, is above the value in 1933, and that the value of imports of Class II. this year is very sabstantially above the value of imports in 1933 but somewhat below that of 1934 . The reduction is, however, principally attributable to a fall of about $£ \overline{5}, 650,000$ in the value of imports of wool a commodity of no importance to any part of the Colonial Empire, except the Falkland Islands and, in a minor degree, Kenya and Cyprus, which offsets a definite rise in the value of nearly all imports of Colonial
importance. So far as the United Kingdom market is, concerned, therefore, I think that the Colonial Empire has good cause for confidence in the future.

In the Dominions and India also I am happy to be able to report that there is steady progress. It has been perhaps particularly marked in the Union of South Africa, owing to the great increase in the value of her gold exports since she abandoned the gold standard, but there are no appreciable signs of a setback in any Dominion.

Turning to individual commodities, gold remains, as previously, the one Colonial product of whose future it is possible to speak with real confidence. During the last six months the London value of gold per standard ounce has risen to a high point of nearly 150s. and has never been below 140s., though at the present time it is nearer the latter than the former figure.

As regards the future, a crisis in the gold bloc might for a time produce confusion in the gold market, and even lead to some reduction in the sterling price of gold. I do not, however, think that this reduction could be more than temporary. If I may venture to prophesy in a difficult market, I should be disposed to think that the price of gold is more likely to increase than to decrease, and that it might even rise to as much as 160 s., if the gold currencies were devalued, while $I$ should be much surprised if it ever dropped as low as 130s. for more than a very short period.

There bas been a continued contraction in the stocks of actual tin, and those stocks which remain have been very tightly held, with the result that speculators who have endeavoured to depress the market by forward sales of tin not in their possession have found themselves severely squeezed. On the other hand, for some reason which it is difficult to understand, there seems to be a general belief that the price of tin is likely to go down rather than up, with the result that there has been a certain amount of pressure to sell forward tin and consequently a high "backwardation" in the London market, that is to say the price of three months' tin has been much below that of "spot" tin." In the third week of June this backwardation rose to as much as $£ 12.10 \mathrm{~s}$. 0d. a ton, but it dropped to less than half that amount when the price of spot tin rose to $£ 230$ a ton, and fairly substantial quantities were released from the Buffer Stock, which is by far the largest individual holding of actual tin but can only be released at certain price levels. There was a further sudden rise to $£ 245$ a ton for spot tid, with a backwardation of $£ 20$, in the third week of July, but the market has since settled down again. While considerable attention has been called to these fluctuations in London, financial and Metal Market circles it is important not to exaggerate their significance. The forward price of tin has been very steady during the last two years and even the price of spot tin which is somewhat artificial, has fluctuated very much less than was considered quite normal before the introduction of the Tin Control Scheme. The consumption of tine has been satisfactory, and the quota of permissible production for the third quarter of this year has been increased to 50 per cent. of the standard tonnages; it is probable that a further increase will soon be necessary if consumption continues at its present rate. So far, therefore, it can be said that the present Regulation Scheme has worked successfully and has achieved its object; but the present scheme expires at the end of 1936, and considerable difficulties may be experienced in the negotiations for its continuation.

The Copper Regulation Scheme has now come into effect, and as you will see from the table in the appendix its conclusion was followed by a substantial rise in the price of copper from a low point of $£ 265 \mathrm{~s}$. Od. per ton in February to a high point of nearly $£ 35$ in May. Unfortunately the judgment of the Supreme Court of the Duited States, rendered it doubtful whether the American producers and refiners will be able to carry out the obligations wlich they accepted under that scheme, and under the influence of that uncertainty there was a substantial
fall in price. Part of the loss has since been recovered and there is now a greater measure of confidence that it will be possible to operate the scheme successfully. Obviously, the scheme loses a great part of its attraction if the curtailment of production of 20 per cent. is not accompanied by a compensatory rise in the price of copper, and the future of the industry is at present somewhat uncertain.

As regards other metals, the prospects for iron ore, particularly in the United Kingdom, seem to be decidedly better, and the much improved position in the metallurgical industries has been accompanied by an increased demand for ferroalloy metals, notably chronium, manganese, tungsten and cobalt. Some interest has recently been shown in the Empire supplies of columbite, and there have been a number of enquiries for aluminium phosphate of the Redonda type.

The International Rubber Regulation Scheme continues to operate satisfactorily. There was a marked increase in the price of rubber, as soon as it appeared probable that a scheme would be introduced, and this increase continued for some little time after its actual introduction. Thereafter, as often occurs in such cases, there was a certain measure of disillusionment and a fairly substantial fall in price. However, there has siuce been a slow recovery to a price of about 6d. a pound, and, though there has since been a sunall relapse, there is no present indication of any material decline below that figure. On the other hand, in view of the difficulty of maintaining control over Netherlinds East Indies native rubber and of the fact that at any price above 6 d . there is a substantial inducement to use reclaimed rubber, it is improbable that there will be any appreciable rise above that figure. Although this price is substantially below that which was anticipated in certain quarters, there can be no doubt that it is very much above the price which would prevail if there were no scheme at all.

The International Tea Scheme continues to operate with reasonable success, and prices for Empire teas remain not unsatisfactory although they have not remained at the level which was reached in the first year of the scheme. There has, however, recently been a fall in the price in the lower qualities of foreign teas, which is perhaps an indication that restriction is at any rate not excessive at the present time. What is most required at the moment is some expansion in demand, and the industry is launching a vigorous advertising campaign with that end in view.

As regards oil-seeds and nuts and vegetable oils, there was quite a marked increase in prices in the early part of the present year. This increase, however, was not maintained, and in March there was some recession which was probably due to the speed of the previous advance. This was followed by a recovery in May which carried the price almost, but not quite, back to the high levels reached in the early part of the year. In recent weeks, however, there has been another fall, which is apparently traceable partly to the natural reaction of the market and partly to unsettlement in America caused by the decision of the Supreme Court. There are, however, I fear, more fundamental causes at work. The principal causes of the rise in prices last autumn were the widespread drought and the destruction of the Philippine copra crop. These causes have now to a large extent worked themselves out, and the only remaining obviously favourable feature is the small size of the present Indian groundnut crop. In these circumstances, I fear that, in the absence of some unexpected favourable developmênt, there may be a slow but steady fall in prices.

In these circumstances it is satisfactory to record the fact that the West African groundnut crop was sold during a period of favourable prices, and it is to be hoped that the imposition of a duty on soja beans in this country may do something to help the sale of Colonial oil-seeds in this market.

As regards cocoa, prices have been extraordinarily steady during the last six
months, having never risen above 24 s . 9 d . uor fallen below 21 s . 9 d . per cwt . for Accra, good fermented, main crop c.i.f. United Kingdom, and it can, I think, be taken as certain that the West African crop, though it was one of exceptional magnitude, has been sold at prices satisfactory to the producers. There are indications of a genuine increase in consumption in the United Stales and in certain European countries, including the United Kingdou, although imports into Germany are running at a lower level than last year, and I think that little change may be anticipated in the immediate future. There is, however, I fear, no indication that any substantial rise in the present general level of cocoa prices is to be expected, and I can hold out little hope to those producers who are not able to market their cocoa to advantage at about the present level. The present price, which is some 30 per cent. above the lowest levels reached, is sufficiently attractive to the lowest cost producers to give some inducement to further planting, and taking a really long view, it is difficult to see how it will be possible to maintain cocoa prices at a level in excess of that which is satisfactory to these lowest cost producers.

As regards sugar, there was a substantial recovery in prices in the early months of this year, from the record low level reached in October, 1934, and for a time the view was held in some quarters that the prospects were decidedly brighter than they had been for some time past. There has since been a certain recession, which is due principally to the failure to reach any agreement which will afford a guarantee against the continued increase in State-aided production. Thanks to a decline in the production in some of the largest exporting countries world stocks are now somewhat lower than they were a few years ago, but the free market also continues to contract. The principal exporting countries have not yet composed their differences sufficiently to render it possible to call an international conference to discuss the continuation of the Chadbourne plan, and until this is possible the future course of the markets must remain uncertain. Nevertheless, it remains true that the sugar producers of the Colonial Empire are shielded from the worst effects of the present depression by the large preferences which they enjoy in the United Kingdom and Canada.

As regards the fruit industries of the Colonial Empire, there has recently been some increase in the prices paid for bananas in Jamaica, and satisfactory long-term arrangements have been made for marketing the supplies which are to be anticipated from the new banaua plantations in various West Indian Colonies. Banana prices in the United Kingdom are reasonably steady.

The future of the orange market, however, gives cause for growing anxiety: There was a large increase in exports from Palestine during the recent season, and prices which averaged 11s. 6d. a box in the $1933-34$ season are said to have dropped to an average of about 10 s . a box in the season which is just concluded, There was a certain re-distribution of markets during the season. In the first five months of the current year, which may be taken roughly as covering the Palestine season, the total imports of oranges into the United Kingdom were actually lower than they had been during the first five months of 1934, and substantially lower than those in the first five months of 1933, the total imports being $5,200,000$ cwt., $5,300,000 \mathrm{cwt}$., and $6,500,000 \mathrm{cwt}$ respectively. On the other hand, imports of oranges from Palestinc increased from 1,600,000 cwt. in 1933 and $1,700,000 \mathrm{cwt}$. in 1934 to $2,600,000 \mathrm{cwt}$ : in 1935. This increase was offset by a decrease of imports from Spain from 4,500,000 cwt. to 3,100,000 cwt. and 2,100,000 cwt. Exports from Palestine to the Continent remained in 1935 at about the same level as in 1934, a substantial decrease in exports to Germany being offset by increased exports to other countries. The decrease in Spanish exports to this country was offset by a substantial increase in exports to Contineutal countries, but owing to unfavourable climatic conditions Spauish exports during the season just concluded are substantially below the highest level reached in previous seasons. The normal crop in the Valencia district is 20-21
million half-cases (equivalent to $30-31 \frac{1}{2}$ million Palestine boxes) but it was only 17-18 million in this season. It might normally have been expected that Palestine exports in the next season would be substantially above the level reached in the present season, but I anderstand that, climatic conditions during the growing period have been unfavourable, and the present prospect is that the orange crop will amount to some $6 \frac{3}{4}$ million boxes, which is not greatly in excess of last season's. The prospects in Spain are unfavourable, and a crop of about a million half-cases less than last season's is anticipated. In the circumstances next season's crop may be disposed of without any greater difficulty than was experienced during the last season, but it is hardly possible to look forward to a satisfactory outcome for the 1936-37 season, when prodaction in Palestine will have increased very considerably and it is reasonable to suppose that the Spanish crop will be something nearer the normal.

As regards grapefruit, consumption in the United Kingdom, which is still the principal importer, continues to increase at a satisfactory rate, imports rising from 300,000 cwt. in the first five months of 1933 to $440,000 \mathrm{cwt}$. in the first five months of 1934 and $536,000 \mathrm{cwt}$. in the first five months of 1935. The increase in imports has come principally from Palestine and certain Colonies, principally West Indiau. Imports from these sources were 120,000 cwt. in 1933, $2 \tilde{51}, 000$ cwt. in 1934 and 406,000 cwt. in 1935 , this increase being offset by a decrease in imports from the United States of America from $157,000 \mathrm{cwt}$ to $138,000 \mathrm{cwt}$. and $91,000 \mathrm{cwt}$. Nevertheless, this increase in consumption has not offset the great increase in production, and prices of Palestine grapefruit fell to an unprecedentally low level in the course of the present season, the price of a box of grapefruit on some occasions being even lower than the price of a box of oranges. So far as Colonial fruit is concerned, the substantial measure of preference is a considerable saieguard, and I see no present reason for alarm regarding the price, though it will probably be lower than it has been in the past, but there seem to be serious grounds for apprehension regarding the anticipated increasing crop from Palestine which does not enjoy the benefits of this preference.

As regards coffee, the position has on the whole deteriorated during the last six months. Very satisfactory prices for the best qualities were obtained during the early months of the present year, but there has been a large volume of imports into the United Kingdom of Colonial coffees of somewhat indifferent quality, which it has been very difficult to dispose of, and the total stock of Colonial coffees in the United Kingdom was recently nearly 100,000 bags, a figure substantially in excess of any previously reported. Sales on the Continent have not been satisfactory, and one of the results of the present quota and barter arrangements has been that foreign producing countries have been able, by using their bargaining power, to obtain a larger share of the Continental markets than Colonial competitors. Even so, their operations have not been entirely successful, and the exchange value of the currency of Costa Rica, the principal competitor of the Colonial Empire in the coffee market, has dropped by about 50 per cent. in the course of last year, largely owing to difficulties in disposing of her coffee. In these circumstances it is necessary again to emphasize the fact that, while there is still room in the United Kingdom market for more Colonial coffee of high quality than has reached it during the past year, there is likely to be increasing difficulty in disposing of the lower grades. It is, therefore, more than ever important to make such marketing arrangements as will ensure that only qualities of coffee saleable in the London market are sent here, and that other arrangements are made to dispose of the lower qualities.

As regards cotton, there are serious grounds for apprehension in the fature. On the other hand, it is satisfactory to record that the Uganda and Nyasaland cotton crops for 1934-35 have been disposed of in a period of satisfactory prices. The position of Sea Island cotton is also particularly satisfactory. There has
been a genuine increase in demand, and the advertising campaign which has recently been launched in this country shows every sign of being successful.

As regards tobacco, at my predecessor's request the Imperial Economic Committee have appointed a sub-committee to consider the whole question of marketing Empire tobaccos. The Committee has commenced its examination of the subject, and I hope that it will make useful suggestions for increasing the sale, and possibly raising the price, of Colouial tobaccos, but the present indications are that the improvement, if it is to be steady, must be slow.

There has been a substantial improvemeut in the price of fibres generally during the last six months. The improvement bas been greatest in the case of flax and true hemp, where there has almost been a boom owing to shortage of supplies ; but there has also been a slow but steady increase in the price of hard fibres, including African sisal, the No. 1 quality of which has risen from a low point of a little over £14 a-ton in January to a high point of nearly £17 a ton in June and as much as $£ 18$ in the present month.

As the principal demand for sisal is for the manufacture of binder-twine, the present level should be maintained for some months to come if, as is now anticipated, the harvest is satisfactory or even abundant in North America and Europe.

One particular factor in this market is the fact there is nowhere any large accumulation of stocks awaiting a purchaser; nor is there any evidence that there are at present any large unutilized sources of supply.

To sum up the present position of the principal Colonial staples, while the outlook is unfavourable in some cases, notably oil-seeds and nuts and vegetable oils, coffee, and perhaps cotton, it is on the whole satisfactory in most other cases, in the sense that the present level of prices is likely to be maintained. On the other hand, there is nothing whatever to indicate the probability of any widespread rise, even of modest dimensions, in the general level of Colonial commodity prices; and the best which it would be reasonable to anticipate is that, with the possibility of a few favourable exceptions, they may remain more or less at the present level, until there is some radical change in world economic conditions.

It appears to me that, if this diagnosis of the situation is correct, certain conclusions must be drawn.

The first is that it can no longer be assumed that the principal opportunities for the further development of the Colonial Empire lie in the direction of a further development of the main staples of trade. An examination of the preceding paragraphs discloses the fact that (apart, as always, from gold) several important Colonial products regarding the future of which it is possible to speak with a certain degree of confidence are those which are subject to regulation schemes (tin, tea, rubber, copper), while some others are in a satisfactory state only because of the substantial preference which they enjoy in Empire markets. It must be remembered that the essence of regulation schemes is to prevent further increases in production, and even the full utilization of existing sources of supply, while preference is of full value only so long as the preferential market is larger than the volume of goods entitled to preference in that market. So far, therefore, as these two classes of products are concerned, the possibilities of further expansion are strictly limited.

At the same time it would be possible, if there were sufficient space to deal with the very large number of minor products which are produced in the Colonial Empire, to point to a number of such products which show signs of yielding modest but useful profits to their producers. Examples which have recently come to my attention are pyrethrum and certain essential oils in East Africa, gum arabic in Nigeria, and cohune nuts in British Honduras. In several cases these
nesw minor products provide the raw material, not for the great staples of consumption, but: for articles of a luxury pature. Cohune nuts, for instapce, produce one of the basic ingredients of certain types of face gream. Naturally a- Jarge increase of supplies of any of these compodities would jo dangeraus, for in almost every case the market is a strictly limited one, but in the aggregate there are probably substantial possibilities of developing the export of minor products as a class. In this respect the experience of the Colonial Empire is similar to that of the United Kingdom and other fully-developed countries.' In the United Kingdom, for instance, while most of the great staple industries are still only slowly recovering from the depression, some of the newer:industries, particularly those which produce the luxuries rather than the necessities of life, such as motor-cars, wireless sets, and cosmetics are enjoyiug abounding prosperity.

In these circumstances it appears to me that in the inmediate future the Colonial Empire is likely to benefit more by the development of these numerous side-lines, which are none of them important in themselves, but in the aggregate represent a considerable volume of trade, than by an exclusive attachment to the development of the main staples by which its prosperity was originally built up.

Another conclusiou which must, I think, be drawn is that it is no louger possible to regard the depression which started in 1929 (and in the case of certain Colonial products at an even earlier date) as a merely temporary phenomenon.

When the general fall of prices began, it was believed by many people that the movement was part of a so-called "trade cycle," and that in course of time there would be a corresponding general rise, which would restore prices to the level which prevailed before that general fall occurred. However, so far as this theory was based on the assumption that the pre-depression level of prices was "normal," there cau now be no doubt that it was a complete misapprehension and that it would be idle to base any plans on the probability of so large a general rise of commodity prices. Now that it is possible to view the course of events during the post-war years in a certain perspective it is not difficult to see that it is not the present position which is abnormal, but that the whole economic structure and price level of the post-war period was highly abnormal. During the war almost every form of productive activity was devoted to military ends, and it was only a natural consequence that there should be a great shortage of all ordinary consumption goods and that prices should rise to unprecedented heights. Even after what is often called the post-war slump the position remained abnormal, and the rise in prices which ensued during the period from 1924 to 1929 was due to very special circumstances which are unlikely to recur.

When the slump came there was a precipitate fall of prices which was no doubt overdone. In the case of most commodities, the lowest price levels were reached in 1933 and the first half of 1934, and there has been a substantial recovery, amounting in some cases to as much as 30 or 40 per cent., above the lowest points reached. It may be that, if there were a general world revival, there would even be some further general rise. Meanwhile costs of production -have been adjusted so as to conform with the new conditions, and though there are probably few Colonial products (excepting always gold) which are yielding the average producer substantial profits, there are also few products which do not yield some measure of profit to the most efficient producer. It is true that in some cases, for example sugar, profit is secured to Colonial producers only by the preferential advantages which they enjoy, and that it would not be available if they had to sell at world prices.

Moreover in alnost every industry the efficiency of production is steadily increasing. This is particularly true of those manufacturing industries which employ elaborate machinery, but it is hardly less true of agricultural production. Increased knowledge regarding soil treatment, increased skill in methods of culti-
vation, improved machinery, plant breeding, the control of pests and diseases and the other discoveries founded on the research work of the scientist and the inventor, now enable the primary producer to produce larger crops with less expenditure of money or labour and to bring them to the market in a better condition.

There has therefore been an almost spectacular increase in supplies of every kind of commodity; meanwhile demand is at the best increasing slowly and at the worst, particularly in the case of those commodities which are the victims of economic nationalism, still declining. In these circumstances it is idle to look forward to any great advance in prices. So long as the efficient producer can continue to adapt himself to the new level of prices, there is nothing to provoke a rise above that level, and in any case he has no particular ground for complaint and no need for governmental assistance.

## APPENDIX TO CILCULAR DESFATCH

PRICES OF THE PRINCIPAL COLONIAL PRODOCTS
The two columns under each month show prices in the first and second half of the month respectively and cotton and palm oil, the prices are those quoted in Liverpool,


DATED 29TH. WULY, 1935.
during the first six months of 1935.
the two prices in each column show the highest and lowest price of the commodity in question. In the case of
and in other cases those quoted in London.

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{March.} \& \multicolumn{2}{|l|}{April.} \& \multicolumn{2}{|l|}{May.} \& \multicolumn{2}{|c|}{June.} \\
\hline  \& 1479. 2jd, \& \[
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\& \text { 1438. } 6 \mathrm{~d} .
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\hline 15
\end{tabular} \& 217
20810
10 \& \begin{tabular}{l}
227 \\
21610 \\
\hline 10
\end{tabular} \& \begin{tabular}{l}
227 \\
223 \\
\hline 100 \\
50
\end{tabular} \& \(\begin{array}{rl}227 \\ 220 \\ \mathbf{0} \& 0 \\ 0\end{array}\) \&  \& 22810
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28 \&  <br>
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212150 \& \begin{tabular}{l}
22310 <br>
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21810 <br>
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222850 <br>
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\hline 1415
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| :--- | :--- | :--- | :--- |
| 11 | 6 | \& ${ }^{12} 12{ }^{12} 8$ \& | 121616 |
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\hline $\begin{array}{llll}13 & 0 \\ 11 & 0 & 0 \\ 10\end{array}$ \&  \& $\begin{array}{r}12 \\ 1169 \\ \hline 16\end{array}$ \& 12
12
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12 \& 1215
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150 \& | 127 |
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\hline 4. 7. 4 da . \& 4s. 104 fd , 4s. 84. \& 5. 17d. 4s. 9tad. \&  \&  \& 5s.08d. \&  \&  <br>

\hline  \& 88.69d. \& $$
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\hline Gs. to 8s. 68. to 7s. \& 6s. 6d, to 7s. 6d. 68. to 7s 6d. \& 78. to 8 s . 68. to 7s. 6d. \& 6s. 6d. to 83. 6s. to 6s. 6 d . \& 6s. 6d. to 7s. 6d. 6s. to 7 s . \& 6s. 6d. to 7s. 6d. 6s. to 6s, 6d. \& 6. to 7s. 6. to 6s, 6d. \&  <br>
\hline 12s. to 15 s . 98. to 15s, \& ... \& ... \& ... \& … \& 155. 6d. \& ... \& ... <br>

\hline  \& 12 s to 15 s . 68. to 10s, 9d. \& | 11s. to 15s. |
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| 11s. to 108. 18 s . | \& 12 s , to 15 s . 7 s . to 12s. \& 120.to 178, \& 120-6d. to 179, \& $\cdots$ \& ... <br>


\hline  \& | 13s. to 18s. |
| :--- |
| 7 s . to 15 s .9 d . | \& 7s. 6d. to 178.3n. 7s. to 15s. 9d. \& 12s. to 18 s . 9a. to 178. \& 149. ${ }_{\text {103. }}^{\text {10, } 6 .}$ \&  \& ... \& ... <br>

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| :--- |
| 6.32 d. | \& 6.6.83d. \& 6.80d. \& \% 7.06 d . ${ }^{\text {6.93d. }}$ \& 6.588d. \& ${ }_{6}^{6.737 d}$. <br>

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\hline 7.95d. 7.26d. \& $$
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\hline 121. 64s, to 863. 6d. \& 78s, to 113s, 618. to 76s: \& 578. to 1198. \& $$
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\end{tabular}

## PRICES OF THE PRINCIPAL

| Article. |  |  |  | Unit. | January |  |  | February. |  |
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COLONIAL PRODUCTS-(Continued).

| March. |  | April. |  | May. |  | June. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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C.S.O. 4399/31.

SECOND

## LEGISLATIVE COUNCIL. 10 SECOND SESSION, I93I.

# HEALTH, SANITATION AND VITAL STATISTICS ON SUGAR ESTATES, 

AS REPORTED ON BY THE SURGEON-GENERAL AND THE GOVERNMENT MEDICAL OFFICER OF HEALTH TO HIS EXCELLENCY THE GOVERNOR, IN 1931.

Printed by the Eluthority of Tbis Excellency the Governor.

## Introductory.-

A detailed report on every sugar estate in the Colony, inspected during the months of April and May, 1931, by the Surgeon-General and the Government Medical Officer of Health on instructions issued by His Excellency the Governor, has beeu submitted to Government. This report was the outcome of a visit to the Colony of Sir Wilfred Beveridge who submitted to His Exceilency a special "Memorandum on Health Conditions of East Indian Employees of Sugar Estates." The Memorandum was subsequently forwarded by the Honourable Colonial Secretary to the Secretary of the Sugar Producers' Association.

The report furnished by the Surgeon-General and the Government Medical Officer of Health is divided into three sections, as follows:-

Part I. comprises reports on individual sugar estates with estates' vital statistics attached thereto.
"The Abgosy" Mompant, Limited, Piinters to the Govfrnhent of Bbitish Guiana.
No. 15,871.
. Part II. deals collectively with the vital statistics of estates during thedeceunial period 1921-1930.

Part III. furniehes a review and general summary of existing sanitary conditions on sugar estates, with recommendations for the improvement thereof.

The report also furnishes in Appendix A. a statement of hospital expenditure in relation to the recent census population of each estate.

Finally, there is an Appendix B. which furnishes a statement of existing types of housing on sugar estates together with the projected programme of housing extension during the year 1931.

On the instructions of His Excellency the Governor copies of the reports and vital statistics of each, individual estate have been forwarded to the Secretary of the Sugar Producers' Association for distribution.

The report which follows is an extract from that part of the original report, i.e., Pairt III., which reviews and summarises health and sanitary conditions on sugar estates and submits recommendations for their improvement. It includes also a general summary of the vital statisties relating to these estates.

## (a.) Housing. -

As is observed from the inspection of housing on individual estates the survival of ground ranges of ten, twelve and even twenty rooms which were accepted as suitable models in the earlier days of estate housing systems now furnishes oneof the worst features in relation to the health and well-being of estate labourers. As Sir Wilfred Beveridge says in his report, "it is not so much a question of light or ventilation as of the possibility of the spread of infectious disease in these ranges where ten or more families are herded together in close proximity." It is true, as the Sugar Producers' Association asserts, that all these ranges were originally passed by the then Medical Authorities, but since that time housing in relation to siting, proximity from the point of view of infection, lighting and ventilation hasmade vast strides. It is also true that within recent years some of the more prosperous and enlightened estates have substituted the cottage system of housing for the old range eystem and due credit must be given for the progress made in this. direction, and a further feature in relation to housing on these estates has been that more thought bas been given to the selection of building sites so that a twofold improvement is now being effected.

On the other hand the majority of estates appear to have been content with the-old-fashioned range erections and in only a few instances in recent years have ranges. been demolished, and then only when they had become irreparable; and, in place of the demolished ranges, uew ranges and even cottages have been erected without any thought of improving the siting.

As regards the control of housing and sanitation, sugar estates under the Local Government Ordinance, Chapter 84, Section 9, Sub-section (2), are defined as Rural Sanitary Districts, and as such they are subject to the administration of the Local Government Board. This control, however, has never been enforced in the past in view of the fact that estate housing and general sanitation were supervised by an officer holding the title of Medical Inspector, and, subsequently, when that office was abolished, by District Medical Officers. As the result of insufficient consideration beinggiven to the trend of progress in matters relating to housing, a conservative and objectionable system has continued to be perpetuated; and following the abolition of the office of Medical Inspector and the practical disappearance of the IndentureSystem, the Regulations made under the Immigration Ordinance have become more or less moribund and more honoured in the breach than in the observance. And this
has been the position for several years past. At the same time, in manv instances improvements suggested by the Medical and. Public Health Authorities have been carried out.

To rectify and control the system of housing in future it is recommended that no buildings should be erected on any site or of any type except as approved by the Government Public Health Department in consultation with the estates' authorities.

It is further recommended that Suger Estates should accept as their future policy in regard to bousing that only cottages sheltering one or two families should be erected. If this policy is foliowed and it is agreed that in place of reconditioning the older and badly sited ranges these be demolished, the range system in course of time will disappear. Further, in order that the best results may be achieved it is essential that there should be active and close co-operation between Estate, Medical and Public Health Authorities. After all, the object being aimed at is to improve by every means possible the healin and comfort of estate labourers and their dependents, it always being understood that unreasonable and uneconomic requirements will not be insisted on, especially in times of financial depression.

## (b.) Water Supplies.-

It is observed from the report on individual estates that in the majority of instances the water supplies of estate labourers are provided by open, unprotected trenches fed from water conservancies aback. In many instances, too, the freshwater trenches are used as navigation canals for sugar punts and are thus liable to contamination by labourers and animals. Moreover, there are estates where water is not made sufficiently accessible to the dwellers in ranges and cottages.

Quite a number of estates have in the past and more recently provided Artesian Wells for the use of their labourers and, in a few instances, the outflow from the wells has been piped for distribution and use of occupants in the various yards.

In the various yards there is no doubt that this system of water supply musi be regarded as the ideal to be aimed at, and a policy of putting down additiona Artesian Wells and reconditioning those in existence must ultimately reflect beneficially on the reduction of the incidence of diseases due to defective water supplies. This, however, will involve considerable expenditure, and it is unfortunate in the light of the experience of the past that the scheme has proved not ar unqualified success due to defective strainers and other causes, and the more pro gressive estates having already expended considerable sums in the furtherance o this scheme are naturally disinclined to spend more moneg in a similar direction.

In some quarters it has been contested that estate labourers do not take readil] to Artesian Well water, it being alleged that preference is still shown for trencl water; experience, however, has not supported this view, for, in practice, it i found that East Indians and other labourers quickly adopt the well water habit, and when wells fail as they have done, there are lamentations.

Outside the provision of Artesian Wells the problem of maintaining pure wate :supplies by open trenches is a difficult one especially in a country where the physi cal conformation of the land necessitates in times of drought that water should $b$ conserved in a more or less stagnant condition. A further complication arises is .a drought period when water supplies on some estates give out, or become almos unpotable on account of the suspension of excess vegetable matter.

It is true that the majority of estates have been happily free from the grave forms of water-borne disease but so long as the open canal system exists and wate supplies remain unguarded or are liable to contamination by use as narigation canals the possibility of more serious epidemic disease must always be borne it mind.

Assuming that for financial or other reasons a general substitution of Artesian for open canal and trench water is impracticable, it would appear that greater attention should be given to the protection of these supplies from contamination, especially in the more accessible inhabited areas. Reservoirs or ponds supplied from these sources should be fenced in as a protection against animal contamination. In other directions the water supply system generally might be improved by increased accessibility thus obviating the risk of labourers obtaining water from nearer and more doubtful sources.
$\backslash$ Finally in some instances at least drinking water might be collected in large enclosed reservoirs supplied from factory roofs, and also the feasibility of filtration and chlorination might be considered in relation to canal and trench water supplies.

One of the greatest abuses in relation to water supply is the prevalence of barrels and other water receptacles in the vicinity of the dwellings, fed usually by the roof gutters. These in most instances are unscreened or defectively screened and as a result breed mosquitos prolifically at the very doors of babitations. Experience has proved that it is almost impossible to maintain screening effectively, and the only solution appears to be a total prohibition of the collecting of water from roof gutters in the type of receptacles mentioned. It wight in this connection be tuentioned that the resort to barrels for collecting roof water is most prevalent on estates where water distribution is defective and water supplies inaccessible.

## (c.) Drainage.--

In the majority of instances within recent years the main estate drainage has been considerably improved by the putting down of pumps which prevent the flooding of inhabited and other lands.

The most defective system of drainage is, however, to be found in the jards in the vicinity of ranges. This yard drainage system was designed at a time when the relationskip between mosquitos and malaria was unknown. The intention, of course, was to provide for the drainage and collection of surface and subsoil water from range surroundings.

It would appear though that in course of time many of the drains have become not only too deep but, in instances, ill-graded, and the result is they are liable to hold stagrant water which otherwise might be disposed of by evaporation and percolation.

As a general recommendation, therefore, it appears that a campaign of eliminating unnecessary minor drains and regrading and reducing the depths of the deeper ones should be undertaken. The shallow saucer-shaped depression from the mos-quito-hreeding point of view is the best means of effecting surface drainage, for it permits, besides the removal of storm water, the easy percolation and evaporation of stagnant residual water.

In connection with the general yard drainage it is noted that in some instances the larger trenches were covered with aquatic weeds and the smaller drains were overgrown with rank grass and both these conditions are farourable to the bréeding of anophelines and other species of mosquitos.

There is no doubt that improvement of the drainage of the yards and ranges will result in a very material improvement in the health of estate labourers and corresponding saving in labour efficiency; also, bearing' in mind the heavy annual mortality of infants on estates; there should be resultant improvement in. those statistics.

## (d.) Trees, bush and rice cultitation. -

On some estates the free circulation of air is prevented by the unnecessarily large number of 'trees in the vicinity of dwellings, and bush both in the yards and in the vicinity of the yards and ranges is prevalent. Also on other estates rice cultivation is permitted to exist in far too close proximity to inhabited dwellings.

It is recommended that a general campaign of clearing away unnecessary unproductive trees and bush should be undertaken, and further that domestic gardens in the vicinity of dwellings should only be permitted for.ground provisions. Not infrequently shrubs and arbors with vegetable creepers exist in immediate fronts or backs of ranges. These harbour mosquitos and shut out air and light and encourage damp and moisture, and should also be prohibited.

## (e.) Latrines.-

These in the vast majority of instances are the standard type of over-trench latrine common to practically every estate. This type of latrine, though satisfactory when placed over the larger tidal trenches, is apt to be dangerous when situated ovei narrow trenches in the vicinity of dwellings, as in times of drought when water distribution is limited regular flushing becomes impossible and the latrine trenches either dry up or become quagmires.

Leaving out of consideration the fact that in many instances latrines have become dilapidated through want of proper maintenance, it is recommended that wherever possible the septic tank system of conservancy should be substituted for the present system. This system was started by some of the more progressive estates several years ago and has given thorough satisfaction, and with further improvements in design the substitution of this system in lieu of the over-treach system has proved both efficient and economical and should be extended, especially now that the cottage dwellings often removed from drainage trenches are being erected. The provision of conveniently situated septic tanks in the vicinity of cottages would add considerably to the amenities of life and health in the new estate cottage settlement areas.

Regarded on general principles the defects of trench conservancy systems must be apparent. In the first place there is water and subsoil pollution which might affect the health of residents in their vicinity and in localities more distant from the estate. These conservancy trenches must always afford potentialities for the spread of infective diseases-syphoid fever, ancylostome and other intestinal infections.

## (f.) Hospitals.-

This aspect of estate medical aid represents the best feature of estate policy in respect to the care of its labour forces.

In the majority of instances hospitals are commodious and well staffed and equipped, and funds are generously provided for the supply of drugs and other necessities of the sick.

In recent years, however, there has in some instances been a falling off as regards the maintenance and upkeep of these institutions, and in the experditure involved in the care of patients, and of hospital surroundings.

The weak point in most of the hospitals relates to the poor accommodation afforded for maternity cases, with the result that little encouragement is given to wowen to resort to the hospital wards for their confinement where general conditions are considerably better than in the ranges. In order to overcome this it is very desirable that the maternity section of hospitals should be made as private and attractive as possible.

On some few estates the large majority of confinements take place in the estate hospital, but in most the reverse is the case.

In this connection the attitude of the Manager appears to have a very direct bearing on the success or otherwise of the hospital maternity ward.

Bearing in mind the generally unsatisfactory position in regard to infant mortality it appears to be highly desirable that Estates' Authorities should take a more active and intimate interest in popularising the maternity section of the hospital by offering every facility to the mother and the child during the early days of infant life.

Gradually it will be found that ignorant racial prajudices and customs will be broken down and from that point of view the maternity section of the hospital will act as an educative centre.

## (g.) Ante-natal, Maternal, Infant and Child Welfare.-

On all estates ante-natal, maternal and infant clinics are reguiarly conducted by the Medical Officer in charge, and on a few estates crèches exist where children are cared for and are provided free with milk and other foods. On other estates a free issue of milk is made to deserving nothers. In view of the heavy infant and preschool age mortality of estates' children, it would appear that still more is needed to be dpne in order to cope with the situation. A livelier interest in the health and welfare of mothers, infants and children in their homes will probably in time beneficially react on the general bealth of the estate.

Leaving apart mortality due to malaria and other acute diseases there is no doubt that defective feeding and food have a very direct influence both on maternal and infant mortality and disability.

To improve the present state of things, it is recommended that all estates should join in with the Infant Welfare and Maternity League of British Guiana and establish committees and otberwise take a more active part in the welfare and wellbeing of estate mothers, infants and children. On the !arger estates it should be quite possible for a Health Visitor to be appointed to supplement the midwife to help in the education of mothers by house-to-house visits. Provided that wellequipped maternity wards are established in estate hospitals the Estate Authorities should, with their Committees, Midwives and Health Visitors, encourage all expectant mothers to go into hospital for their confinements. There is no doubt that a considerable amount of infant and maternal mortality can be attributed to the unhygienic conditions under which mother and child exist during the puerperium in the ranges. Further, and with a view to standardising maternity arrangements on estates, a uniform system of payment of salaries and allowances to midwives might be established. At present, the systems in vogue vary on almost every estate.

[^56]
## COMBINED VI''AL STATISTICS OF SUGAR ESTATES.

A. These statistics bave been compiled from the vital statistics attached to the reports on individual sugar estates which have been submitted to Government and subsequently forwarded to Estate Authorities and they are in the nature of a summary of these statistics.

For the purpose of greater uniforimity in compiling the statistics it is thought best to include only the figures relating to East Indians which appear to be most suitable for comments and comparative deductions. This will serve to eliminate to a large extent casual factors such as "non-residents" which might otherwise influence statistical data.

In every case the figures given are average annual rates or totals based on the ten year period, 1921-1930, this being considered of more comparative value than a review of only the previous year.

The average population (East Indians) of twenty-six sugar estates is 2,014 per estate, of which ten estates have populations greater than the average, and sixteen less than the average.

A comparison between the Birth and Death-rates (averages) and Infantile mortality of these ten larger and sixteen smaller estates is interesting as reflecting to some extent the expenditure on housing and sanitation and preventive measares adopted by the Estates' Authorities.

|  | Birth-rate. |  | Death-rate. | Infantile Mortality. |
| :--- | :---: | :---: | :---: | :---: |
| Whole Colony (all races) | $\ldots$ | 32.0 | 26.4 | 167 |
| Ten larger estates | $\ldots$ | 30.2 | 18.9 | 146 |
| Sixteen smaller estates | $\ldots$ | 31.4 | 25.9 | 169 |

It is thus seen that whereas the Birth-rate is slightly better on the smaller estates the Death-rate is considerably higher, and this increased mortality is manifestly accounted for in large measure by the greater number of deaths of infants under one year of age. The figures would suggest that the greater medical and sanitary economy generally practised on some of the smaller estates is ultimately a false one.

The average ( 10 year) Birth-rate for East Indians in the Colony as a whole was 35 (to nearest whole number) per 1,000 of the East Indian population, that for Estates being 31. The Deatb-rate for the same period and race was 29, that for Estates being 23.

The Infantile mortality sn the same basis averaged 168 per 1,000 East Indian births in the Colony as a whole as against 161 on Estates.

While these figures would superficially suggest somewhat healthier conditions prevailing on estates, the Death-rate thereon being 6 per 1,000 of the East Indian population lower, it must be remembered that the comparison is one that requires qualifying in that estates are fortunate in having a population living under uniform conditions as against employed and unemployed, housed and houseless, paupers and vagrants, which are included in the Colony figures.

Separate figures for villages are not obtainable but it is certain that the rates of many villages would be more sati sfactory than the rates for the Colony es a whole.

It is, however, fully realised what beneficial effects an organised and extensive industry can have on the health of a Colony and credit must be given for what has already been done. The causes of Infantile mortality on estates have from time to
time been dealt with in other reports and it suffices here to state that the accumulated evidence points to the necessity of preventive measures in relation to (1) land bonification from the point of view of malaria, (2) pure drinking water, as regards intestinal diseases, and (3) better housing conditions as regards the Mother and Infant, if real reduction in the infantile mortality, and so of the general death rate, is to be effected in the sugar estates of the Colony. The same, of course, also applies in the villages and country districts.

Turning now to the number of deaths on estates as occurring at the varying age periods of life, the following significant figures are revealed :-

| Total Deaths (E.I. only) 10 years (1921-1930) | ... |  |  | 11,101 |
| :---: | :---: | :---: | :---: | :---: |
| Up to one year ( 10 years) ... | ... | 2,511 | ... |  |
| 1 up to 5 years (10 years) ... | ... | 833 |  |  |
| 5 up to 15 years (10 years)... | ... | 574 |  |  |
| 15 up to 50 years (10 yeurs) ... | ... | 4,506 |  |  |
| 50 and over (10 years) | ... | 2,677 |  |  |
| Total deaths, East Indians during | 10 y |  | ... | 11,101 |

These age periods represent fairly closely the various stages of life as occurring in this Colony, viz.:

Up to one year-Infantile period. 1 to 5 years -The pre-school child.
5 to 15 years --The School child and adolescent.
15 to 50 years - Active employed life.
50 upwards -Comparative retirement and old age.
The figures are apt to be misleading owing to the different number of years included in each group. 'Taking the average number of deaths per year' of each age group the full significance of the figures becomes apparent:-

|  | 10 years. |  | Average one year. 251 |
| :---: | :---: | :---: | :---: |
| Period up to one year (12 months) | $\cdots$ | 2,511 |  |
| Average per year of life- |  |  |  |
| $1-5$ group (5 years) | $\ldots$ | 167 | 17 |
| 5-15 group ( 10 years) | ... | 57 | 6 |
| 15-50 group (35) years) | .. | 129 | 13 |
| 50 upwards (say 30 years) |  | 89 | 9 |

The answer to the question as to how best the Death-rate on Sugar Estates (and indeed of the Colony) may most effectively be reduced is manifest.

On closer analysis of these infant deaths-i.e., deaths occurring during the first year of life-it is found that nearly fifty per cent. of them occur in the first month of life.

That is to say, the cause of death is referable less to the child than to the mother.

Infant Welfare and Maternity Clinics are thus revealed in their full importance in this Colony, as being the best practical means of combating sickness and death of the infant, and of the mother at and approaching the time of her child-bearig.;

But this is only part of the story, and in all probability not the greater part. The general health of the mother (and, as regards Venereal diseases, that of the father) during the whole of her child-bearing period, is of paramount importance, and this in turn brings one back to the elementary rules of sanitation and the prevention of diseases such as malaria and hookworm, diseases which debilitate the mother before ever the child is conceived. Supplementing these
are diseases dependent more closely on general education and economic factorspneumonia and gastro-enteritis and the problems of personal hygiene, housing, pure food and water supplies.

Comparing the deaths of East Indians on estates at the various age periods with those for East Indians in the Colony as a whole, further light is thrown on the infant, labour and other conditions obtaining on the estates.

Owing to the different age periods employed it is not possible to compare the same age periods throughout as will be seen ; but by including the 5-10 and 1020 periods (in the case of the Colony) in a composite 5-50 group, and similarly the $5-15$ period in the case of estates also in a composite 5-50 group, comparable results will be obtained. I'his is conveniently possible owing to the 5 -10 (Colony) and $5-15$ (Estates) groups being responsible for the smallest number of deaths in each case. The average ( 10 year) number of deaths on estates is compared with the deaths of East Indians in the Colony as a whole for 1930:-


It will be noticed that on the average of East Indians on estates, there is a smaller percentage of infant deaths, a slightly greater percentage of deaths of preschool childreu, a higher occupational percentage of death, and a lower percentage of death in the declining years, as compared with East Indians in the Colony as a whole.

While the Estate 10 year average comparison with the Colony 1930 figures is not strictly accurate it is unlikely that there would be much change in the deaths at the various age periods over the decade in the Colony, considering that the Colony's figures include Histate figures, and the East Indians of estates comprise roughly one-third those of the Colony.

It is thus seen that the initial saving of infant life on estates due to the community being an organised and an employed one is to some extent counter-balanced by the greater average loss of life during the pre-school period 1-5 and the important occupational period 15 - 50 years (the loss of life is small between 5-15 years as compared with the $15-50$ period):

This should not lessen the significant fact that nearly a quarter of the total deaths of East Indians, both on Estates and in the Colony as a whole occurring year by year, takes place in the first twelve months of life.

Turning now to the more important causes of death of East Indians on Sugar Estates at various age periods (up to 1 year, $1-5$ and 5 upwards), the foilowing diseases are revealed as the chief canses of death :-
anNUAL AVERAGE (10 YEARS).

| Up to 1 year- |  |  |
| :---: | :---: | :---: |
| Infantile Debility | ... | 61.7 |
| Premature Birlh | ... | 54.5 |
| Diarrhoea and Enteritis | ... | 29.6 |
| Malaria ... |  | 26.2 |
| Pneumonia | ... | 17.5 |
| Other causes | 2 | 61.6 |
|  |  | 251.1 |
| 1 to 5 years- |  |  |
| Malaria | ... | 31.0 |
| Diarrhea and Enterilis | ... | 10.2 |
| Pneumonia ... | ... | 9.7 |
| Nephritis ... | ... | 2.9 |
| Enteric Fever ... | ... | 1.5 |
| Dysentery ... | ... | 1.1 |
| Pulmonary Tuberculosis | ... | 1.1 |
| Other causes | ... | 25.8 |
|  |  | 83,3 |
| 5 upwards- |  |  |
| Pneumonia ... | ... | 137.7 |
| Nephritis ... | ... | 93.6 |
| Malaria ... | ... | 78.9 |
| Diarrhœa and Enteritis | ... | 59.4 |
| Dysentery ... | ... | 22.1 |
| Pulmonary Tuberculosis | ... | 18.8 |
| Enteria Fever ... | ... | 11.8 |
| Other causes ... | . | 354.4 |
|  |  | 775.7 |
| Grand Total ... | ... | 1,110.1 |

A noticeable feature of this list of prominent causes of death at the several ago periods is that within the first four of each and every group are placed the diseases of Malaria and the composite group of diseases under the general heading "Diarrhœa and Enteritis," the position varying according to age period.

This fact is significant and points again to the necessity. (1) in the case of malaria to land bonifioation, and (2) in the case of diarrboea and enteritis to a pure drinking water supply and milk supplies, as stated in an earlier paragraph noder this heading of Vital Statistics.

That Infantile Debility and Premature Birth :(etiologically probably closely associated) should together comprise over $46 \%$ of the total average deaths of infants under twelve months is corroborative of the statement tbat nearly half of those that die under one year of age die within the first month.

It is generally admitted that the incidence of syphilis amongst East Indians is on the whole less than in other races, though figures with any accuracy in support of this are difficult to obtain, and the chief sources of this high infantile death-rate must therefore bs sought elsewhere.

It can be shown that the East Indian maternal mortality of the Colony rises appreciably during and following an epidemic of malaria sucb, for example, as that which followed the $1925-1926$ drought, whereas the number of those mothers of

African descent who die from causes associated with childbirth is not appreciably affected. The inference follows that many unnecessary maternal deaths and much preventable maternal morbidity occur as a direct result of the normal endemic incidence of this mosquito-borne disease.

It has been said that "if you get rid of Malaria you get rid of a number of other diseases with ft." If it is true of any tropical country it will certainly be found to be true of British Guiana.

Pueumonia loorss largely in the forefront of death-dealing diseases not only on sugar estates but in the Colouy as a whole. In the three age periods given its place is fifth, third and first respectively. That is to say, with increasing age comes an increased chance of succumbing to this respiratory condition.

It has been observed in many previous and recent leports that in a Colony with a diurnal variation of only 12 degrees or, in plain English, with a night te'mperature only slightly lower than the day temperature, chills, colds, bronchitis and pneumonia are unduly common, and other causes are probably accountable for this high incidence and mortality. Nor can it be said that the prevalent custom of waiting till the last moments before seeking medical or hospital aid accounts for the whole story. This is common to most tropical communities.

Nephritis, however, is not infrequently a sequela of Malaria and reduction in the incidence of the latter will probably reflect advantageously on the incidence of the former.

Nephritis comes fourth in the $1-5$ age period list and second in the ensuing period of 5 years old and upwards. During childhood the condition is almost entirely that known as the parenchymatous or "wet" variety, while as age progresses the interstitial or "dry" type becomes increasingly common. It is this latter type twich may be associated with an antecedent history of Malaria.

A general review of the mortality from these salient diseases as occurring on the variolis estates may now be given. The conclusion arrived at is that mortality rates are higher on those estates where general sanitation is poor, or which are disadvantagédusly located.

Thus, with an average (ten year) estate population of the ten larger estates of 3,317 persons there were in ten years only 322 deaths of premature infants, 'representing a'per annum per estate percentage of . 97 ; whereas on the sixteen smaller ,estates with an average estate population of 1,199 there were, in ten years, 223 deaths of premature infants, representing a per anaum per estate percentage of 1.86 , or almost exactly double the mortality rate. Again, in the age period of 5 'yedrs and tupwátds the'percentage for Malaria on the larger estates was' $1: 39$ whereas that for the smaller estates amounted to 2.72 per cent. per annum per estate.

Similirly also the figures 'for Diarrhœea and Enteritis were for the larger and smaller estates respectively 89 and 1.41 per cent.

In both these instances'the mortality for the smaller estates is again little short of double that obtaining for the larger estates.

As these two groups of estates are unselected topographically the inference is strong that the prime cause of such a wide variation in the mortality figures is to be found in the comparative attention paid by authorities to the crude sanitation of their estates. In both groups, however, there are marked exceptions to this statement in respect to certain individual estates.

The estates with the highest average ( 10 years) death rates-that is to say with death rates of 25 per 1,000 of the average ( 10 years) population and over, are:-

| Mara | ..0 | . 0 | ... | 43 per 1,000. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wales |  | . 0 | ... | 39 |  |  |
| Providence, | Berbice | ... | ... | 38 | ", |  |
| Blairmont | ... | ... | ... | 31 | " | " |
| De Kinderen | ... | ... | ... | 28 | " | " |
| Ogle | ... | ... | ... | 26 | ", | ", |
| Leonora | ... | ... |  | 25 | , | " |

Those estates with average ( 10 years) death rate of less than 20 per 1,000 are:-

| Diamord | ... | ... | 13 per 1,000. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Port Mourant | ... | ... | 15 | " |  |
| Non Pareil | ... | .. | 15 | " | " |
| Springlands | .. | .. | 16 | " | " |
| Albion | ... | - | 17 | , | " |
| Uitvlugt | ... | ... | 17 | " |  |
| Bath | ... | ... | 19 | " | " |
| Hampton Court.. | ... | ... | 19 | " | " |

Closer analysis of the reasons for this wide difference in the death rates of these two extreme groups is interesting.

Taking first the seven estates with death rates ( 10 year average) of 25 and over per 1,000 of the population, the infantile mortality rates are as follows:-

Whole Colony (all races)
Death Rate. Infantile Mortality.

| Mara |  | $\ldots$ | 43 | 128 |
| :---: | :---: | :---: | :---: | :---: |
| Wales |  | ... | 39 | 202 |
| Providence, Berbice .. |  | ... | 38 | 241 |
| Blairmont |  | $\ldots$ | 31 | 208 |
| De Kinderen |  | $\ldots$ | 28 | 154 |
| Ogle |  | ... | 26 | 209 |
| Leonora |  | ... | \%5 | 169 |
|  | Average ${ }^{\text {- }}$ | ... | 32.9 | 187 |

It may be noticed, in passing, that six out of the seven of these estates fall under the previous group taken of the sixteen smaller estates, Leonora, with an average population ( 10 years) of 3,102 , being the exception.

The eight estates with the lowest death rates (under 20 per 1,000) on the other hand, bave the following infantile mortality rates :-

|  |  | Death Rate. |  | Infantile Mor |
| :---: | :---: | :---: | :---: | :---: |
| Diamond |  |  | 13 | 115 |
| Port Mourant | ... | $\ldots$ | 15 | 94 |
| Non Pareil | ... | ... | 15 | 140 |
| Springlands | ... | ... | 16 | 126 |
| Albion | . | ... | 17 | 132 |
| Ditvlugt |  | ... | 17 | 169 |
| Bath ... | ... | $\ldots$ | 19 | 104 |
| Hampton Court | ... | ... | 19 | 81 |
|  |  | - | 16.4 | 120 |

In passing, again, it may be noted here that five out of eight of these estate fall under the group of the ten largest estates previously referred to.

There is thus little doubt, as may be shown also by the Colony figures as a whole, that the infantile mortality decides the death-rate on estates. Whereas those estates with the highest death-rates have an average infantile mortality of 187, those with the lowest death-rates have an average infantile mortality of only 120 , an average difference of sixty-seven deaths per 1,000 births of infants under one year of age: and further, that the largest estates tend to have lower infantile mortalities, and conversely that the smaller estates average higher infantile mortalities.

As has previously been stated, so dependent in the ultimate is the degree of infantile mortality on general elementary measures of sanitation (especially as concerns Malaria and intestinal diseases in the mother) that it may be assumed that where a high infantile mortality is shown for any estate, that estate has fallen short in respect to those elementary sanitary measures.

The ten estates with the highest ( 10 year average) iafantile mortality rates in descending order are :-

| Providence, | Berbice... | $\ldots$ | 241 |
| :--- | ---: | :---: | :---: |
| Farm | $\ldots$ | $\ldots$ | 241 |
| Mon Repos | $\ldots$ | $\ldots$ | 228 |
| Ogle | $\ldots$ | $\ldots$ | 209 |
| Blairmont | $\ldots$ | $\ldots$ | 208 |
| Wales | $\ldots$ | $\ldots$ | 202 |
| La Bonne Intention... | $\ldots$ | 191 |  |
| Lusignan | $\ldots$ | $\ldots$ | 179 |
| Leonora | $\ldots$ | $\ldots$ | 169 |
| Uitvlugt | $\ldots$ | $\ldots$ | 169 |

In drawing up these vital statistics it is possible that in some instances there may be minor discrepancies in the figures but every endeavour has been made to base the statistics on accurate information. In this connection questionnaires have been circulated to be filled in by Estate Medical Officers. It is possible, too, that in other instances methods of keeping statistical records may vary in some of the estates which have been circularised.


Jbritisb Guiana.

## COMBINED COURT.

FIRST SPECIAL SESSION, 1925.
$\qquad$

## REPORT

of

## THE EDUCATION COMMMISSION,

1924-25.


Drinted by the Eluthority of Whis Excellency the Governor:

GEORGETOWN, DEMERARA:
"Tele Abcogy" Company, Limithi, Pbinthrs to tha Govirnmbint of bbitibi Guiana.
No. 11,960.

## TABLE OF CONTENTS.



Note.—Appendix C.-Report of Evidence-Not printed.

## COMMISSION.

## BRITISH GUIANA.

Kb. This Excellency Sir GRAEME THOMSON, Knight ${ }^{\text {Com- }}$ mander of the Most Honourable Order of L.s. the Bath, Governor and Commander-in-Chief in and over the Colony of British Guiana, Vice-Admiral of the same, \&c., \&c., \&c.

## Graeme Thomson,

 Governor.To

| His Honour Sir Charles Major, Knight Bachelor, Chief Justice of British Guiana. |
| :---: |
| The Honourable Robert Edtard Brassington. |
| The Honourable Eustaor Gordon Woolford, K.C. |
| The Honourable Philip Nathaniel Browne, K.C. |
| The Honourable Andrew Benjamin Brown. |
| Joseph Alexander Luckioo, Esquire, K.C., F.B. |
| Major William Bain Gray, Commissioner of Education. |
| Einest Wynn-Williams, Esqüire, His Majesty's Inspector of Schools. |
| Edfin Riofard Dennys Modlder, Esquire, M.A., Principal of Queen's College. |
| Edgar Beokett, Esquire, F.L.S., Superintendent of Onderneeming Industrial School. |
| The Reverend Canon Oliver Haydock Wilson. |
| The Reverend Faiher Bernard Franois Kiluon, S.J. |
| Ralpe Hamilton Cakr, Esquire. |
| Grorge Rodhodse Reid, Esquire, a Justice of the Peace. |
| Miss Louisa Bovell Hampden King. |
| Miss Emily Jank Baskett, Principal, Girls' High School. |

## GRERTIVG!

Whereas it is desirable that enquiry should be made into the circumstances and requirements of education in this Colony:

Now therefore know ye that I, Sir Graeme Thomson, Governor as aforesaid, reposing full trust and confidence in your zeal, ability and discretion, do hereby appoint you the said Sir Charles Major, Robert Edward Brassington, Eustace Gordon Woolford, Philip Nathaniel Browne, Andrew Benjamin Brown, Joseph Alexander Luckhoo, William Bain Gray, Ernest Wynn-Williams, Edwin Richard Dennys Moulder, Edgar Beckett, Oliver Haydock Wilson, Bernard Francis Killion, Ralph Hamilton Carr, George Rodhouse Reid, Louisa Bovell Hampden King and Emily Jane Baskett to be Commissioners to enquire into all matters fiaancial and
otberwise relating to primary, secondary and technical education in the Colony, and to make recommendations, in particular as to the system of education best suited to local conditions and requirements, as to the training of Teachers and the expediency of establishing Government schools, and with regard to the desirability or otherwise of granting assistance from puilic funds to secondary schools:

And for the due execution of this my Commission, I do hereby empower you the said Commissioners to do all such things and exercise all such powers as may be 'necessary 'for'the ptrodse'aforesaid :
${ }^{-}$And I do hereby further declare that you the said Sir Charles Major shall bo Chairman of the said Commission :

And I do hereby further declare that any six or more of you the said Commissioners may from time to time proceed in the execution of this my Commission, and in every matter and thing herein contained.

Given under my Hand and the Public Seal of the Colony at the Guiana Public Buildings, Georgetown, Demerara, this 14th day of November, 1924, and in the Fifteenth year of His Majesty's reign.

By His Excellency's Command,

## R. POPHAM LOBB, Colonial Secretary.

## AN ADDITIONAL APPOINTMENT,

## British Guiana.

No. 5707.
Government House,
British Guiana,
17th November, 1924.
Sir,
With reference to Your Honour's letter of to-day's date, I have the honour to inform you that I have appointed Mr. A. A. Thorne, M.A., to be a Member of the Education Commission,
2. A copy of the Commission issued to Mr. Thorne is enclosed for Your Honour's information.

I have the honour to be,
Sir,
Your obedient Servant,
GRAEME THOMSON,
Governor.
His Honour
Sir Charles Major,' Kt.,
Chief Justice.

> To His Excellenoy Sir GRaEME THOMSON, Kniaft Commander of thi Most Honourable Order of the Bate, Governor and Commander-in-Chief in and over The Colony of British Guiana, Vioe-Admiral of the same, \&C., \&o., \&o.

We, the Commissioners" appointed by Your Excellency "to enquire into all "matters financial and otherwise relating to primary, secondary and technical ${ }^{* i}$ education in the colony, and to make recommendations, in particular as to the " system of education best suited to local conditions and requirements, as to the "training of teachers and the expedieney of establishing Government schools and "with regard to the desirability or otherwise of granting assistance from publia "funds to secondary schools," have the honour to submit the following report.

We have held 28 meetings on the dates and with the attendances appearing in Appendix A. Minutes of those meetings will be found in Appendix B.

## We took evidence-

(a) writtten, in answer to a series of questions, and

- (b) oral, either original, or supplemental to their answers in writing, from the following witnesses :-
The Principal of Queen's College ;
The Superintendent of Onderneeming Industrial School ;
Members
The Principal of the Bishop's High School for Girls;
of the
Mr. Thorne;
Mr. Carr ;
Mr. Reid ;
Mr. Manoel Louis Ramas Andrade, for the Portuguese community ;
Messrs. Arno and Bunyan, for the Teachers' Association;
Mr. Mudhollall Bhose, for the Hindoo community ;
Mr. Edward Ernest Stanislaus Blackman, Principal of St. Joseph's Seminary:
The Rev. Joseph Barnett Brindley, Chairman and General Superintendent of the Wesleyan Church;
The Rev. W. Hawley Bryant, Secretary of the Primary School Managers' Union;
The Rev. John Dingwall, Chairman, Moravian Governing Board;
Mr. M. A. Edan, for the Mohammedan community;
The Right Rev. Compton Theodore Galton, D.D., Roman Catholio Bishop in British Guiana;
The Rev. John Meikle Gray, M.A., Moderator of the Presbytery, Church of Scotland;
The Rev. Harlow Edgar Haas, A.B., B.D., of the Lutheran Church, New Amsterdam;
The Rev. Arthur Mordaunt Hale, M.A. ;
Sir John Harrison, C.M.G., M.A., Director of Science ànd Agriculture;
Dr. Percy James Kelly, M.B., Ch.B., Surgeon General ;
Mr. Frederick Orlando Low, for the Chinese Community:
The Right Rev. Oswald Hutton Parry, M.A., Bishop of Guiana;
The Rev. James Persaud, for the East Indian community ;
Mr. Edward Oliver Pilgrim, B. Sc. Queen's College Staff;
Mr. Fawcett Pudsey, A.M. Inst. C.E.; A.M. Inst, Mech.E., Director of Public Works;
The Rev. Father Purcell, Priest in charge of the Roman Gatholic Church at Victoria, East Coast, Demerara;
The Rev. James Amos. Scrimgeour, M.A., Chairman of the Canadian Presbyterian Mission Council;
Mr. Robert Strang, Manager of Plantation Uitvlugt ;

Mr. William Alexander Walker, A,M. Inst. Mech. E., Chief Mechanical Engineer of Sprostons, Ltdi. ;
The Rev. George Weld, M.A., Principal of St. Stanislaus College.
The written evidence forms Part 1, the oral evidence Part 2, of Appendix C.*
In preparing this report we bave not thought it necessary to state at length the reasons for each recommendation put forward. To do so would be to go over practically the same ground as Mr. Wynn-Williams has covered in the memorandum which we attach as Appendix D. We have, therefore, relied for destructive criticism majnly upon his memorandum, supplemented where necessary by the evidence of witnesses, and have addressed ourselves to the constructive aspect of our task by putting forward a series of recommendations which, we hope, will remedy the defects which have been pointed out. It may also be added here that, although the Commission as a whole concurs generally in Mr. Wynn-Williams' memorandum, individual members are not committed to a full endorsement of his criticisms and conclusions, and several have expressed their dissent from his remarks on the subject of secondary education.

We are fully aware that many of the recommendations which we are now making have been put forward by various Commissions in the past. As, however, these recommendations have not been acted upon, and are, moreover, scattered throughout a number of documents which are not readily accessible, we have incorporated in our report all our conclusions, irrespective of their previous history.

It should also be understood that our recommendations are not intended to meet every contingency which may arise in connection with a particular part of our subject. They deal mainly with general principles, in accordance with which new regulations, or amendments to existing ones, should be framed.

For the sake of convenience we have divided our report into the following chapters :-II, Primary Education; II, Higher Education (Secondary and Technical) ; III, Training of Teachers ; IV, Administration; and V, Finance. This grouping is, of course, logical and formal, and does not correspond to any hard and fast division of the educational functions of the State. On the contrary, we wish to make it clear at the outset; that in our opinion those who direct the educational policy of the Colony should deal with the problem of education as a whole, and that those who administer any part of the educational system should be familiar with all the other branches of $i t$.

## I.

## Primary Eddoation.

1. The first problem which arises in connection with primary education is the supply of schools. It seems to be impossible to make any general statement as to the sufficiency or insufficiency of schools which will be true of all parts of the Colony. There are, however, undoubtedly too many schools in the main centres of population-Georgetown, New Amsterdam, and Buxton with Friendship. In these centres, as elsewhere in the Colony it would be difficult, if not impossible, to find even one school which is properly staffed and equipped, and in a thoroughly satisfactory condition in respect of sanitation and water supply. We are of opinion that the dissipation of educational energy over a large number of small, insanitary, ill-equipped, and inadequately staffed schools will continue in a greater or less degree, so long as the State relies upon competing denominations to provide schools for the people.
2. While fully acknowledging the great services which the Churches bave rendered to education in the past, we are of opinion that the time has now arrived to initiate a bold and comprehensive policy which will replace the existing denomina-

[^57]tional schools by government or colonial schools. With this in view, we recommend :-
(a) that three colonial primary schools, adequately staffed and equipped (to be used as demonstration schools for teachers in training) be established forthwith in Georgetown, to be followed by one central school for boys who have attained the age of 12 years, and one central school for girls of the same age;
(b) that two colonial primary schools be establisbed forthwith in New Amsterdam, and two in the village of Buxton with Friendship;
(c) that a similar policy be adopted gradually in urban and rural districts served by more than one school, and that a schedule of those districts be prepared immediately and sites secured; and
(d) that no grants-in aid be given to denominational schools in districts adequately served by colonial schools.

In the main centres of population the colonial schools should each contaia accommodation for about 750 pupils. This figure should be regarded as the maximum, and should not be exceeded except for very good reasons, e.g., where a slight inorease in accommodation would save the erection of another school. In other aress, the accommodation of the colonial schools would probably not exceed 400600 , but we wish to make it clear that the concentration of the school population ${ }^{*}$ in larger schools than exist at present is an integral part of the policy we recommend.
4. In all schemes for the establishment of colonial schools, or the re-organisation of existing schools, every effort should be made to provide separate premises (or at least separate departments) for boys and girls beyond the infant school age. We recommend this as mnch in the interest of efficiency as of public morals. It will be necessary to introduce as soon as possible a curriculum in which practical instruction will play a very large part. There will be a considerable gulf between the course for boys and the course for girls during the later years of school life, and it will greatly simplify the task of introducing and working the new curriculum if the boys and girls are housed in separate schools or departments.
5. A special problem arises as to the sites of the first three colonial schools in Georgetown. This appears to be a matter for the consideration of the Government Departments concerned, but we are of opinion that priority should be given to the claims of the most densely populated parts of the city, in which the present schools are least satisfactory in respect of sanitation and equipment.
6. It is obvious that even under the most favourable conditions it will be some years before the Colony is supplied with adequate and sanitary colonial schools. In the meantime it is essential that steps be taken to remedy the deplorable conditions which exist in many primary schools. Dilapidated, dirty, and insanitary schools are the rule rather than the exception. In the past the responsibility for keeping school buildings in repair, has rested on the denominations, who have received from the Government a maintenance grant. In most instances, however, this has been found insufficient for the purpose, even when supplemented by voluntary effort. The maintenance grants have been very much reduced in recent years, and unless immediate and drastic action be taken, a large proportion of children of the Colony will continue to be educated amid surroundings of the worst kind. There are obvious objections to spending public money on private buildings, but the question is so pressing that we consider that these objections must be over-ruled in the interests of the children concerned.
7. If our recommendations for the establishment of colonial schools be adopted, it will clearly be unnecessary to attempt to put the premises of all the existing schools of the Colony into a satisfactory state of repair. Some will be ear-marked for early absorption into one of the colonial schools. To meet the most pressing needs of the others we recommend :-
(a) that in 1926, (and so long thereafter as may be necessary) increased funds be provided for the purpose of putting into a reasonable state of repair (especially in respect of cleanliness and sanitation) the buildings, out-houses, and surroundings of state-aided primary schools, which, in the opinion of the Governing Body concerned and of the Commissioner of Education, will necessarily be used as schools for at least five years thereafter; and
(b) that, if the Governing Body and the Commissioner of Education fail to agree as to the eligibility of any school to receive a portion of this grant, the matter be referred to the Consultative Council,* whose decision will
1 be final.
8. The same principle should be adopted in the matter of school equipment. The present lack of suitable desks and benches in the schools constitutes a serious danger to public health, as the pupils are required to work in a variety of unsuitable postures during the critical period of bodily growth. We realise, however, that the question of sanitation must take precedence of equipment. On the other hand, the objection to spending public funds on private property does not arise in the matter of school furniture which, if provided now, would remain public property and be moved from the present denominational schools to the colonial schools which, we hope, will replace them in due course.
9. The question of playing fields also calls for special mention. Even the premier educational institution of the Colong-Queen's College-is not sufficiently provided for in this respect, aud practically uothing bas been done for the primary schools. The provision of proper facilities for physical exercises and organised games is an essential part of a sound educational policy, and must be regarded as an important factor in dealing with the question of sites for the proposed colonial schools.
10. Having provided well built and sanitary schools, and equipment of a type suitable for growing children, it is clear that machinery will be necessary to ensure that the schools and their surroundings remain at the high standard required, and that the physical welfare of the children is safeguarded. All the evidence available points to the urgent need for the regular medical inspection of schools and school children. We recommend therefore:-
(a) that the premises of all schools, which are supported wholly or in part by public funds, be inspected and reported on from time by a medical officer appointed for the purpose by the Surgeon General ;
(b) that all pupils be required to undergo medical and dental inspection;
(c) that proper records be kept of the inspections and filed at the Education Office; and
(d) that it be left to the discretion of the Commissioner of Education to take any action that he may think fit in the case of any child whose presence at school jeopardizes the health of other children,
11. The Surgeon General has suggested that the work of inspecting schools and school children is eminently suitable for a fully qualifed woman-an opinion which we endorse, and to which we bope full consideration will be given in dealing with this important matter. $\dagger$
12. The curriculum actually carried out in the primary schoois clearly calls for reconsideration and reform in two directions-greater emphasis should be placed

[^58]on the formation of character than on the imparting of knowledge, and the work of the sohools should be brought into close touch with the life of the community, With these aims in view we recommend:-
(a) that proper attention be given to physical exercises and organised games;
(b) that personal hygiene and public health be treated as matters of prime importance throughout the whole curriculum;
(c) that practical work be an integral part of the curriculum at every stage, but more especially at the infant school stage, and beyond the age of 11 years;
(d) that there be greater variety in the courses of instruction provided for the elder propils, differentiation being made according to the sex of the pupil and to the type of school (urban, rural or riverside); and
(e) that there be included, in the curriculum for girls, instruction in domestic subjects, including the care of children.
Beyond these general recommendations (any one of which, if carried into full effect, would radically alter the work of the schools) we are not prepared to go. The task of arranging details is obviously one for the department concerned, and we understand that the Department of Education, with the co-operation of school managers and teachers, is already preparing syllabuses in accordance with these principles. Their introduction into the schools must obviously depend upon the supply of qualified teachers and of the necessary equipment.
13. It will haye been noticed that three of the recommendations in the foregoing paragraph refer chiefly to children beyond the age of 11 years. In the past the work of these children has, in primary schools, been regarded mainly as a continuation of the education previously given. This does not meet the needs of the present day, and the period from 12 to 14 years calls for special organization and methods. With this in view we recommend that all children in the primary schools who are between the ages of 11 and 12, and of normal attainments, should undergo a test in English and Arithmetic up to, and including, the work of the Fifth Standard (now Upper Division (a) ). This, in conjunction with the regular inspections by the officers of the Education 'Department, would help to keep the schools up to a uniformly high standard of efficiency, and would, to a large extent, decide the educational future of each child.
14. As a result of this test one group of children should be selected for a course of higher education at secondary schools, another for a course of higher education at the junior technical school. The third group should proceed to the advanced :divisions of their own schools or, if resident in Georgetown, to central schools.
15. The curriculum for the pupils in advanced divisions or in central schools should be framed in accordance with the principles laid down in paragraph 12. It should not be definitely "vocational" in the sense of attempting to fit each pupil for a particular occupation. But the curriculum should have a practical bias; and have, as its main objective, the directing of the children's ioterests and activities towards the agricultural or industrial life of the community in which they will soon be called upon to take their place. At least $50 \%$ of the pupils' time should therefore be spent in practical instruction-Gardening, Wood or Matal Work, or (in the case of girls) Domestic Science.
16. The interests of the Colony are so bound up with agriculture that the question immediately arises-how is this fact to be reflected in the work of the 'schools? This will be considered fully in the chapter of our report dealing with higher education. So far as the primary schools are concerned their function will be to give elementary instruction in Nature, Study and to develop a sound system of practical' work in's school gardens.
17. There is no doubt from the evidence of the teachers and others that ther working of the educational system is greatly hampered by the general failure of
pupils to attend regularly. The average attendance for the last statistical jear was $.65 \%$ Irregularity of attendance at once reduces the efficiency of the educational machinery by more than a third. There are, of course, climatic causes which seriously interfere with attendance in many areas, but after making due allowance for these we are convinced that the figure representing the average attendance in many districts, and in the Colony as a whole, can be greatly increased by putting the existing law into general operation, and by strengthening it in certain directions. We recommend, therefore :-
(a) that all circulars tending to discriminate between East Indians and other races be withdrawn; and
(b) that the operation of Ordinance No. 3 of 1876 be strengthened towards (i) defining "efficient elementary instruction" as attendance at every elementary school session; (ii) increasing the pecuniary penalties for nonattendance; and (iii) making proof of the cause or causes for the absence of a child from school lie on the person alleging the same.
18. These amendments would leave untouched the present age limits for compulsory attendance ( 6 to 14 years in Georgetown and New Amsterdam, and 6 to 12 elsewhere). We are, however, of opinion that as soon as practicable the age for compulsory attendance at school should be fixed by law at from 6 to 14 years for all parts of the colony. If this is not done, the children of all areas except Georgetown and New Amsterdam, will be withrawn from school at the very age when they are most likely to becefit from the contemplated changes in the curriculum.
19. It has been brought to our notice that in Georgetown a large number of children are educated in private schools. Many of these schools are loosely described as "secondary" schools although they exist for the purpose of giving primary education to children whose parents do not desire them to attend the stateaided primary schools. In the interests of parents and children alike, we consider that the time has come to bring private schools under some supervision, and we therefore recommend :-
(a) that it be the duty of the secretary of the Governing Body, or, if there is no Governing Body, of the head teacher, of every school not in receipt of grants from public funds, to furnish to the Commissioner of Education such particulars concerning the school as may from time to time be deemed necessary by the Commissioner ;
(b) that, in respect of schools existing if and when a regulation to the above effect comes into force, the required particulars be furnished within three months thereafter :
(c) that, in respect of schools that may be opened thereafter, the required particulars be furnished not less than three months before they are opened;
(d) that the Commissioner of Education, or the Surgeon General, or officers of their Departments, be empowered to inspect these schools from time to time and to report thereon; and
(e) that, as a result of the reports, the Department of Education publish annually a list of private schools which have been certified as efficient during the previous year.
(In addition to the private schools giving general education of a primary or secondary type, we consider that the same principles should be applied to schools giving instruction in Typewriting and Shorthand).
20. During our sittings we have been asked to express an opinion on the proposal to establish an Industrial Home for Girls. We recommend that the report, dated 24th June, 1924, of the Committee which dealt with this subject be approved, subject to provision being made for the general control of the Home by a Governing Body of three members, nominated by His Excellency the Governor. We consider also that an orphanage or similar institution is required, which, by housing and educating homeless children, will bring them under beneficial influences and so prevent their becoming subject to legal penalties of any kind.

## II.

## Higher Edvoation-Sbcojdary and Techincal.

1. The first question which arises in connection with higher oducation is the future of Queen's College. There is an obvious need for the development of higher education on the technical side, and we have had to consider whether the, present organisation of Queen's College should be 'so radically altered as to make the College the centre of technical, as well as of secondary education. Our opinion is that it would be well to continue in the colony an institution which provides for boys a sound general education of a definitely secondary type: There should be some revision of the present curriculum in order that it may conform more closely to modern requirements, particularly in regard to the teaching of Módern Languages and Drawing, We also consider that the oourses in Science might very well be revised. With these objects iṇ view we recommend :-
(a) that Queen's College continue as a Government Institution as at present organised; the number of places open to pupils from primary seliools, entitled to free tuition, to be not less than five nor more than eight in any one year;
(b) that, in order that the Principal may have ample time for supervision, an additional master be appointed, qualified to teach at least one foreignt language;
(c) that provision also be made for the teaching of Drawing to the lower forms; and
(d) that class-room accommodation and the vote for the upkeep of grounds, at present inadequate, be increased.
2. To meet new requirements, it will be necessary to strengthen the staff, and we therefore recommend :-
(a) that there be (i) five assistant masters qualified to take higher work in either Classics, Modern Studies, Mathematics or Science, of whom, if proved efficient, three shall receive $£ 450$ per, annum for two years, rising after that by annual increments of $£ 25$ to $£ 600$, and two £450 per:annum for two years, rising by annual increments of $£ 25$ to £550; and (ii) three assistant masters, one of whom sball be qualified to give oral instrnction in at least one foreign language, and one qualified to teach Drawing-at a salary of $£ 300$ per annum for two years, rising after that by increments of $£ 15$ to $£ 350$, if proved efficient; and
(b) that the post of Deputy-Principal be abolished, and the Principal be empowered to nominate one of the senior masters to act as Principal during his absence.
3. Our attention has been drawn to the questiou of making arrangements at the College to accommodate boarders from the country. We consider that this is a matter for the Department concerned. The emoluments of the Principal of Queen's College and the question of the provision of free quarters for that officer came under our notice during debate and were the subject, in the circumstanoes, of a : separate communication to Your Excellency from our Chairman. It seems un. inecessary, therefore, to make further reference to those matters, other than to reiteg.: : ate the statement that the Commission as a whole is of opinion that the emoluments of the Principal should be substantially increased; one element in increase 'being -entire freedom from paymeat of rent for his quarters:
4. In 1922 a committee recommended that a Government Secondary Sehool ifor Girls should be established in Georgetown. In view of the recommendations -which we make below with reference to the grants to the girls' secondary schools -already in existence, and to the establishment of a technical school; we do not think it necessary to endorse that recommendation. Should, however, our recommendations not be acted apon, then it' will be absolutely necessary to establis4
a Government Secondary School for Girls: In any event, the present method of giving grants-in-aid to the girls' secondary schools and the mixed schools which already exist should be re-considered. It is not based on any system, and should at once be made definite and uniform. Our proposals will be found in Chapter V.' Finance.'
5. With reference to the curriculum of scbools receiving grants in aid of higher education, we are of opinion that most of them adhere too strictly to the secondary type, the course consisting normally of English Lauguage and Literature, Geography and History, Mathematics, and at least one language other than Kinglish. We consider that our system of higher education, to suit the needs of the colony, should ${ }^{\circ}$ emphasise the practical side at the expense of the literary side, e.g., all schools should teach Science (including Hygiene) and Physical Training. The curriculum for girls should include a course of domestic subjects such as Cookery, Laundry, Needlework and Housekeeping, and the course for boys, manual training in wood or metal.
6. There remains the question of technical education. Practically no provision exists at present, although it is generally recognised, that so far as the interests of the colony are concerned, technical education is as important as, it not more important than, higher education of the purely literary type. To meet this urgent need we recommend that there be established forthwith in Georgetown a Technical School which, in addition to providing instruction in English and Mathematics, shall cater for the special need of boys and girls who will enter skilled trades (including agriculture) either as apprentices or otherwise; and shall provide suitable and adequate training for boys and girls who intend to adopt a commercial career, and for girls, training which will fit them to discharge domestic duties.
7. The school we have in mind is what is generally known as a "junior" technical school, which trains pupils between the ages of 12 and 15. It may be possible in the future to build on this foundation a senior technical school for older and more advanced pupils, who will undertake courses similar to those given in the technical colleges of Great Britain. The work of the local school would fall intofour main departments:-
(i) a general course (consisting of English, Mathematics, Physical Training and Hygiene) which would be taken by all pupils; (ii) an agricultural course, in which the main subjects would be Natural Science and Agriculture, Manual Work and Book-keeping; (iii) an industrial course in which the main subjects would be Manual Work (in wood and metal) Physical Science (chiefly Mechanics and Electricity), Building Construction and Book-keeping ; and (iv) a commercial course in which the main subjects would be Shorthand, Typewriting, Book-keeping, Geography and a modern language. All girls would receive instruction in Domestic Subjects, and in addition, there would be a more intensive course in these subjecte for girls intending to become housekeepers, sick nurses, or qualified. nurses of children.
8. From these courses more advanced and specialised ones would, no doubt, branch out as occasion arose, especially in the direction of Agriculture, Engineering and other forms of applied science, but it is essential, in the interest of efficiency and economy, to establish a certain number of full-time day courses on a firm basis before attempting too ambitious a programme.
9. The same limitation would not necessarily apply to evening continuation. classes for adolescents and adults already engaged in industry. A wider field could be covered in these courses, both in general and in vocational training. "The staff of. the day school would, where necessary, be augmented by part-time iteachers actually engaged in the occupation concerned.
10. In regard to technical education outside Georgetown the firsi step is to establish the advanced divisions of the colonial schools referred to in Chapter 1. paragraph 15. Along with these should be inaugurated a system of evening.
continuation classes, providing, together with the necessary general education in English and Arithmetic, practical instruction in various occupations suitable for the district. These advanced divisions and evening classes would form the nuclei of the rural technical schools suggested by Mr. Thorne in his memorandum.*
11. The question of agricultural training is so important in this colong that it calls for special mention. In framing our recommendations under this head we have been guided largely by the evidence of Sir. John Harrison.* In the primary schools, agriculture must be approached through Nature Stưdy and School Gardening. An essential preliminary to success is a supply of interested teachers trained on sound lines. The experience of the past shows that any attempt to make sohool gardens universal without full preparation in this important respect is doomed to failure. We recommend therefore :-
(a) that in all courses of training for teachers due attention be given to Nature Study, and that as soon as qualified teachers are available, the subject be taught as an integral part of the curriculum in all state-aided primary sohools;
(b) that selected teachers (men or women) who show special aptitude receive a course in practical gardening suitable to the Colony and be placed in charge of gardens, which shall be accessible to groups of schools in districts which are not served by the existing district gardens; and
(c) 'that school gardens may, with the approval of the Commissioner of Education, be established in connection with isolated schools if a qualified teacher and other requirements are available.
12. We consider that the science taught in the secondary schools should be mainly तatural Scierice. The general intention is to train the pupils in habits of observation and accuracy, and in scientific method in relation to phenomena which are part of their environment. With this in view, we recommend that in secondary -schools the science course for boys and girls should include the study of plant and animal life, together with such instruction in Botany, Chemistry and Physies as is necessary thereto, to be followed (where required) by a specialised course in -one or more of those subjects.
13. In the Technical School there should be a more definite approach to Agricultural Science, but it must be remembered that the pupils are still between the ages of 12 and 15, and that their education in other subjects is being coutinued on the lines indicated in paragraph 7 of this chapter. We recommend, therefore, in respect of the Technical School :-
(a) that the science course for pupils who propose to take up agricultural pursuits, consist of a general course on lines similar to that in the secondary schools, with greater attention to the agricultural or horticultural application of the scientific principles taught; and
(b) that technical instruction be given in the following occupations :-

Poultry farming, dairying, pig-rearing, bee-keeping.
14. We have been asked to express an opinion on the subject of the education of medical students, with reference to the proposal to establish a Medical College at Jamaica. (See Appendix E.) We concur in the views of the Surgeon-General, and recommend that no subsidy be paid to the proposed Medical College at Jamaica, but that, in order to meet the needs of intending students of Medicine and Science, there be, in at least one institution in the Colony, courses in Physics and Chemistry up to the standard of the Higher Certificate of the Oxford and Cambridge Joint Board, and that in addition, provision be made for a course in elementary Biology, which shall be recognised by one or more of the bodies in Great Britain which license medical practitioners.

[^59]15. In addition to maintaining, wholly or in part, the institutions for higher education, the Government has in the past encouraged higher education by means of scholarships. We consider that this system should continue, snbject to the general proviso that the number of examinations for scholarships be reduced to aminimum, and that in both primary schools and secondary schools, the preparation 'of candidates for scholarships be not allowed to prejudice in any way the general training of the majority of pupils.
16. We have already recommended that, from the pupils of the primary schools, there should be selected the children between the ages of 11 and 12 who are considered likely to benefit by a course of higher education. The means of selection should, if possible, be the general written tests in English and Arithmetic, (referred to in paragraph 13 of chapter I.), supplemented by an oral test. If the holding of this oral test is not practicable on account of numbers, there should at least be an interview of the candidates who have qualified in the written test. On the results of these tests, the Blair Scholarship and the Government Primary Scholarships should be awarded.*
17. The number of Government Primary Sicholarships appears to be sufficientto meet present requirements. Five are provided for Demerara, four for Berbice and three for Essequibo-twelve in all. For these there qualified in 1424, two boys and three girls in Demerara, only one girl in Essequibo and no boy or girl in Berbice-a total of six. We hope that when it has become possible, by means of a training college, to supply qualified teachers for the primary schools the number of pupils who reach the scholarship standard will be considerably increased.
18. Although it appears from the figures quoted that no increase in the total number of these scholarships is required at present, the scholarships for which there is no qualified candidate in the county concerned should become available for a qualified candidate in another part of the colony, who should, of course, be allowed to attend a recognised school in his own county. The need of this is illustrated by the fact that in 1923 there were seven qualified candidates in Demerara whoreceived no scholarship, although in the same year three schlarsh!ps lapsed in Berbice. No scholarship had at that time been estallished for Essequibo.
19. As coon as the Technical School is established any Government Scholarship should be tenable there. As the school will be providing a form of education which is new in the colony, the advantages of whioh may not be generally recognised for some time, we recommend that up to 60 free places ( 30 for boys and 30 for girls) be awarded annually to candidates who qualify at the primary school test. Fee-paying pupils should also be admitted, subject, of course, to their satisfying the headmaster that they are sufficiently advanced to benefit by the course they desireto take.
20. To meet the needs of pupils who have already begun a course of higher education the Government Junior Scholarship has been established. We recommend that the Mitchell Scholarships, which occupy an ambiguous position at present, should be definitely placed in the same category by awarding them on the results of the same examination. As candidates will in course of time be forthcoming from. the Technical School as well as the secondary schools, we recommend :-
I. (a) that the Mitchell and Government Junior' Scholarships be awarded onthe results of an examination in English, History (or Geography), Mathematics, and at least two additional subjects selected from the following :Latin, French, Greek, German, Spanish, Portuguese, Drawing, Gereral Science, Manual Work, Domestic. Science, Book-Keeping, and Shorthand with Typing-the standard to be that of the papers for lower forms set by the Oxford and Cambridge Joint Board (No. 4); and

[^60](b) that entries be restricted to candidates who satisfy the Commissioner of Education that they have been undergoing an approved course of higher education.
21. There already exists another form of state aid to technical education-the apprenticeship schemes under the Board of Industrial Training and the Agricultural Department respectively. These should be consolidated with a view to their being more successful in the future than they have been in the past. We recommend, that when the Technical School has heen established, as many as possible of the apprentices be recruited from it, and that they be required to attend the school as part-time students during the period of their apprenticeship.
22. The need for apprentices in the building trades is particuarly urgent, in order that a supply of craftsmen with a reasonable standard of skill may be maintained in the Colony. We recommend that the arrangements for the training of apprentices in an approved works under the supervision of the Director of Pablic Works, be made similar to those in force for the training of agricultural apprentices. under the Director of Science and Agriculture, The chief difference at present between the two schemes is that the Department of Agriculture arranges for the housing and general supervision of the apprentices. We recommend that thismethod be adopted in respect of industrial apprentices also. We.do not, however, consider that the apprentices under either scheme should be confined to Government Departments. Some should be placed with private employers who are willing toaccept them, and who have the necessary staff and equipment to give them a thorough training in their trade.
23. Neither of the existing schemes provides for the training of young women. The number of skilled callings open to women is at present very small, being practically limited to the dressmaking trades. We anticipate, however, that it will be increased in the comparatively near future by the employment of more women in such occupations as tailoring, printing, book-binding and dispensing, in which large. numbers are employed in other countries. There are also certain employments in agriculture for which women are eminently suited, e.g., the cultivation of fruit and vegetables. We recommend that a scheme for the training of girls in suitahle occupations be instituted on lines similar to those in force for the training of boys. as agricultural and industrial apprentices. During the initial and experimental stage the scheme should be as elastic as possible, and should cover the widest possi-. ble range of skilled occupations.
24. Both the existing schemes compel the apprentice to save a part of his pay. We consider that this should be continued and encouraged. As Sir Johy Harrison has pointed out, however, the tatal amonnt which even the most thrifty apprenticecan save is very small. We recommend, therefore, that agricultural and industrial apprentices (including girls). who satisfactarily complete their course of training, be given a grant in money or in kind, equal in value to the sum they have saved during their apprenticeship, for the purpose of enabling them to take up, within the Colony, any agricultural or industrial pursuit approved by the authority administering the scheme under which they have been trained.
25. We have considered the question of revising the regulations which at present govern the award of the Guiana Scholarship. The regulations have been criticised, chiefly on the following grounds:-
(a) that they. do not, sufficiently encourage the study of applied sciences, especially Agriculture; and
(b) that girls, although nominally eligible, have in fact, little or no chance of winning the scholarship.
We are of opinion that these defects, although serious, are not sufficient to justify the abolition of the scholarship or any radical alteration in the present regulations. There is nothing in them to prevent a candidate who wins the scholarship on
account of his attainments in Mathematics or Science from taking up the . study of applied Science. We feel, however, that Agriculture and other sciences are so closely linked up with the welfa re of the Colony, that this fact should be definitely recognised in the echolarship system, and we recommend :-
(a) that a scholarship be established for the purpose of enabling one boy or girl, between the ages of 16 and 20 , to undergo a course of study in Agriculture, or any other branch of applied science, at an institution of university rank within the British Empire, the successful candidate to be selected by a. committee appointed for the purpose by His Excellency the Governor, and the proposed course and the institution selected to be approved by His Excellency; and
(b) that a sum be voted annually, to defray the cost of the student's fees for the approved course and other necessary expenses.
26. We are satisfied that at present girls are very seriously handicapped in competing with boys for the Guiana Scholarship. There is no organised teaching of girls beyond the school certificate, and there is no scbool for girls providing a course in Science (one of the branches in which the scholarship may be awarded) even up to the standard of this certificate. We hope that in due course these defects will be remedied, but so long as they exist we consider that there should be a university scholarship open to girls only. We recommend therefore :-
(a) that a scholarship be established which shall be open to public competition, under regulations to be made later, for the purpose of enabling one girl, between the ages of 16 and 19, to undergo a course of study at an institution of University rank within the British Empire, the proposed course and the institution selected to be approved by Bis Excellency the Governor ; and
(b) that a sum be roted annually, to defray the cost of the student's fees for the approved course and other necessary expenses.
27. In regard to the Guiana Scholarship itself, we consider one minor change necessary in order to prevent frivolous entries. Entries should be restricted to candidates undergoing a course of higber education approved by the Consultative Council.

## III.

## The Training of Teadrers.

1. The problem of providing a supply of adequately trained teachers is so important that we have decided to deal with it in a separate chapter, instead of including it uader Higher Education, the division of the subject to which it naturally belongs. It is probably not realised by the Government or the community that the primary schools are at present staffed almost entirely by teachers who have not been trained for their work. Out of a total of 1219 teachers in the colony, only 64 have attended a Training College for Teachers. There are also 281 other certificated teachers who have qualified for their certificates of competency by examination, but without training of any kind beyond the pupil teacher stage. The rest are uncertificated teachers, who have not been trained and have passed no examination, and young pupil teachers. Whatever merits the pupil teacher system may possess as part of an organised eystem of training, it is thoroughly unsatisfactory when it stands alone, depending as it does, solely upon the knowledge and skill of the individual head teacher under whom the pupil teacher happens to serve. When these head teachers have themselves had no general education beyond what is provided in an elementary :school, it is clear that the standard of education among teachers will tend to fall very rapidly. It is essential, therefore, that we should encourage in every possible way the employment of trained and certifioated teachers.
2. Our general aims are to propide the pupil teachers with a better general education, and to establish a central institution in which the future teachers of the

Colony will undergo an organised course of training which will fit them for their work We recommend therefore:-
(a) that in order to obtain entrants of suitabie type for the teaching profession, every effort be made to recruit as many pupil teachers as possible from the secondary schools, or from the technical school when established; or, if a sufficient number be not forthcoming from these sources, that, between the ages of 14 and 16, all pupil teachers in Georgetown, New Amsterdam, (and any other area in which arrangements can be made) receive full-time education of a secondary or technical type in an approved central institution ;
(b) that, between the ages of 16 and 18 , all pupil teachers in the areas mentioned in paragraph (a), receive part-time education of a similar type, the rest of their time being spent in teaching practice in selected primary schools; and
(c) that, between the ages of 18 and 20 , all candidates who intend to become teachers attend a full time course of instruction in the central training college (attached to, and forming a separate and advanced branch of, the proposed technical school) which shall provide an appropriate course of training, both academic and professional, for all candidates who have satisfied the Commissioner of Education of their personal fitness in every respect.
3. It is unfortunately true that these arrangements will not completely solve the problem, especially in rural districts, the source from which every country of the world draws a large proportion of the most successful teachers. We hope, however, that it may be found possible to collect the rural pupil teachers at convenient centres for corporate instruction during at least a part of each year.
4. Closelp connected with the question of training is the question of teachers' certificates. Three grades are issued at present-First, Second, and Third Class. A teacher may gain a First Class Cortificate at the very outset of his career, before any one in authority has had a reasonable opportunity to gauge his true value. In practice the three grades do not correspond to any real difference in efficiency. To remedy these defects we propose to reduce the number of grades to two, and to attach greater importance to practical skill in teaching, in awarding certificates and eventually in appointing head teachers. We recommend therefore:-
(a) that after 1st January, 1930, there be issued only two classes of teachers' certificates, to be called the Lower Certificate and the Higher Certificate, respectively;
(b) that the Lower Certificate be issued to candidates who satisfactorily complete a course of training, or, until a Training Institute is in full working order, pass an examination in general and professional subjects, including a practical test in teaching, and that this certificate (or an equivalent approved by the Commissioner of Education) be one of the qualifications. required for employment as a certificated assistant teacher in a state-aided primary school in the colony;
(c) that the Higber Certificate be issued to certificated teachers who-
(i) have satisfactorily completed at least seven years' service in a primary school in the colony, or produce evidence of having completed a. similar period in such other schools or countries as the Commissioner of Education shall consider equivalent thereto ; and
(ii) pass a test in professional subjects, in which credit will be given for proficiency in one general subject on a higher standard than that required for the Lower Certificate; and
(d) that, as soon as practicable, the Higher Cerlificate be mude un essential qualification for appointment as head teacher in a state-aided primary sohool in the colony:
5. If these regulations come into force, it will be necessary for the Commissioner of Education to frame a scale of equivalents, in accordance with which the teachers :already employed will be granted complete or partial exemption from the examination for the new certificates, according to the class of certificate they hold at present and the length of their service.
6. The examination of teachers for certificates of proficiency raises the question of the method of cond ucting public examinations in general. We are satisfied that the number of qualifie d examiners in the Colony is too small to meet requirements. Moreover, in the past, the duties of an examiner, never attractive, have been made less so by the very small fees paid-the figures for 1924 giving an average of .6 cents per paper for the Pupil Teachers' Examination, and 15 cents for the Teachers' Certificate Examination. An increase in fees will certainly have to be made, but it will not solve the question of the supply. The area of choice must be widened, either by co-operation with the West Indies, or by appointing examiners in Great Britain. We strongly favour the first solution, and recommend that steps be taken by the Governments of the Colonies concerned, to establish an inter-colonial Board of Examiners which will undertake this and similar examinatious.

## IV.

## Administration.

1. When a definite policy bas been adopted in each branch of education, its :success or failure will depend to a large extent pon the administration which directs and controls it. It is probably not generally realised that, in addition to the two officers who are occupied solely with educational duties-the Commissioner of Education and the Principal of Queen's College-several other departments deal with educational matters. The Colonial Secretary is responsible for the conduct of the London Matriculation Examination. Onderneeming is a separate department, except that the farm comes under the Director of Science and Agriculture. A Board of Industrial Training (which has no connection with either of the existing Education Departments) is responsible for the training of industrial apprentices. 'The Surgeon General controls a small vote for education in matters of Public Health. We are of opinion that there would be a great gain in efficiency if all the educational activities of the State were directed by one department. We recommend, there-' fore:-
(a) that all educational administration be henceforth undertaken by, and concentrated in, the Department of Education; and
(b) that the Commissioner of Education be the chief executive officer for all types of education in the colony, except in respect of Queen's College during the tenure of office of the present Principal.
2. With reference to the relationship between the Board of Education and the Commissioner of Education, we consider that the present position is ambiguous and unsatisfactory. Opinion is divided as to whether the Board is executive or advisory, and it is difficult, if not impossible, to fix responsibility on either party. We accept the conclusions of Mr, Wynn-Williams, who has treated this subject at length, and we consider that the Board should be advisory both in name and character.: We recommend, therefore, that as part of the re-organised Department - of Education, there be nominated by His Excellency the Governor, a Consultative Council whose function will be to consider, and to advise the Commissioner of Education upon:-
(a) the needs of the Education Department and the preparation of the Eiducation estimates:

[^61](b) the expenditure of all public moneys voted for educational purposes by the Combined Court, and all the necessary audits relating thereto;
(c) any legal difficulties that may arise in connection with the supply of ney schools, or the removal of any school from the annual grant list;
(d) any alterations that may from time to time be found desirable in the code for primary schools, and the regulations for secondary, technical, agricultural schools or institutions, and for the training of teachers, before they are submitted to the Government for legal confirmation;
(e) the conditions under which scholarships of all kinds are awarded, the need for, or desirability of holding, any external examinations, the kind of examination that would appear to be most suitable and appropriate the general conduct and |result of such examinations, and their effect upon educational policy; and
(f) any questions, educational or otherwise, upon which the Commissioner may wish to seek advice.
3. We recommend also that the Commissioner of Education be ex-officio Chairman of the Council, that the Surgeon General be ex-officio a member, that two members be members of the Combined (Yourt, and that in selecting the remaining members due regard be paid to their experience of, and their interest in, education.
4. The strengthening of the inspecting staff must be an essential part of any scheme of educational reform which is to prove effective. It will be the task of these officials to disseminate new ideas, as well as to carry out the work of inspection in the strict sense. We consider that the distribution of the inspectorate on a county basis will establish a definite tie between the schools and the inspectorate, which will emphasise the constructive side of the inspector's duties, and lead to the raising of the general standard of efficiency. We recommend therefore :-
(a) that four competent and qualified inspectors (of whom one shall be a woman with qualifications in Domestic Economy and Hygiene), be appointed to the permanent Civil Service with as little delay as possible, -one to be resident in each county area-who, in addition to performing all the duties connected with the inspection of primary schools, shall be competent to inspect at least one branch of secondary or technical education, and shall be at the service of the Commissioner to discharge any other function, administrative or otherwise, that he may consider necessary; ** and
(b) that in the case of secondary, technical, agricultural schools or any other institution where higher or specialised education is given, the Commissioner be empowered, where no officer of the department has the necessary qualifications, to enrol a panel of inspectors who are qualified to perform the duties connected with the inspection of such schools.

In view of the very great importance of securing suitable inspectors from the outset, we consider that it would be a great advantage, if the services of Mr. Wynn-Williams could be utilised for the purpose of interviewing likely candidates who offer themselves in Great Britain.
5. At present, the duties of the inspectorate and the duties of the clerical staff overlap in respect of two posts-
(i) the Assistant Inspector of Schools and Secretary, Education Board; and
(ii) the Assistant Inspector of Schools and District Educational Oficer.

- The distribution of personnel is a matter for the Department, but the following is auggested : -

Senior Inspector, resident in Georgetown, responsible for Demerara;
Second Inspector, resident in New Amsterdem, responsible for Berbice;
Third Inspector, resident in, and responsible for, Essequibo;
Fourth Inspector, (woman), resident in Georgetown, to assist where required.

When the four inspectors have been appointed, assistant inspectors will beno longer required, and the two part-time posts of, Secretary," Education Board, and District Educational Officer, should be merged into one, that of "Administrative Officer." This officer would act as Secretary of the Consultative Council and as District Educational Officer, and be responsible to the Commissioner of Education for other duties of the same kind, which, although necessary and important, do not require the personal attention of an officer of high educational qualifications and long experience, e.g.; the' secretarial work in connection with examinations, the custody of teachers' records, and the assessment of pay and pensions. This would have the great advantage of allowing the Commissioner of Education and the inspectors to detote most of their time and energy to the task which will occupy them fully for many years to come-improving the efficiency of the educational system. 'We recommend, therefore, that, in addition to the Commissioner and the inspectors, the permanent establishment of the Department of Education coñsist of the following :-

1 administrative officer (2nd class).
1 financial and statistical clerk (2nd class).
1 of each of the following grades :-
4th class clerk.
5 th class clerk.
6 th class clerk.
3 school attendance officers.
6. The establishment of clerks and attendance officers indicated above already exists in the Department. It may have to be increased as the clerical work of the Department grows, but we consider that this question can be more satisfactorily dealt with by the Commissioner of Education, after the duties of the inspectorateand of the clerical 'stafl have been separated as suggested in the foregoing paragraphs, and the:Department has been running under the new conditions for some time.
7. The experience of the past has shown that it is necessary to define the powers of the Governing Bodies and of the Education Department, in respect of the appointment and control of teachers and pupil teachers in state-aided primary schools. At present, the powers of the Governing Bodies, who are the legal employers, are not subject to any real control by the Department. We recommend that the powers of the Commissioner of Education be strengthened in the following directions:-
(a) that the appointment and promotion of all teachers and pupil teachers. in state-aided primary schools be subject to the approval of the Cormissioner.
(b) that the Conmissioner be empowered to require the Governing Body concerned to suspend from duty any teacher or pupil teacher, and toinvestigate any complaint made ágainst him or her ;
(c) that the decision of the Governing Body in respect of any complaint against any uncertificated teacher or pupil teacher be subject to confirmation by the Commissioner of Education, who may modify at his discretion the penalty proposed. Should the Commissioner require the dismissal of the uncertificated teacher or pupil teacher, and the Governing Body (or a majority thereof) not concur in this penalty, the Governing Body may appeal to the Consultative Council, whose decision will be final;:
(d) that the decision of the Governing Body in respect of any complaint against a certificated teacher be subject to confirmation by the Commissioner of Education, who may modify at his discretion the penalty proposed. Should either the Governing Body or the Commissioner be of opinion that the certificated teacher should be dismissed; or that his or her certificate should be cancelled, the matter will be investigated by the Consultative Council, whose decision will be final ; and
(e) that any decision of the Oonsultative Council under paragraph (o) or (d) be an executive act of the whole Copncil, and not of the Commissioner alone,
8. We consider that the present mathod of disciplining teachers by fines hads proved ineffective. It is impossible to measure in terms of money the harm which some offences do to the efficiency of the school, and to the reputation of the teachers as a whole. We recommend, therefore:-
(a) that the practice of fining teachers be discontinued;
(b) that for minor breaches of the regulations, teachers be reprimanded and the offence recorded on the teacher's certificate or record of service ; and
(c) that repeated or serious offences be punished by dismissial, or by thé cancellation of the teacher's' certificate.

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## Finanor.

1. An important problem of financial administration is the method of making grants to primary schools. The present method of giving a number of small gegants to each school under separate heads is very cumbrous, and carries with it ma guarantee of efficiency even in respect of the particular services for which grants are given.

We recommend :-
(a) that the present system of giving separate grants for. salaries, latrines, otc. . be abolished; and
(b) that in future, block grants be made to primary sohoolsufulfilling the conditions of the Code in force for the time being, special importance being attached to-
(i) the maintenance of an efficient standard of education;
(ii) the payment of an approved scale of salaries for teachers :
(iii) the supply and maintenance of adequate and sanitary buildings, and suitable furniture and apparstus; and
(iv) the keoping of accurate accounts' and records.
2. We consider it desirable that the Department should be in a position to reward financially schools : which rise above the general level of efficiency in onte or more respects. We recommend therefore:
(a) that in addition to the block grants made to all schools which reach a "satisfactory" standard of efficiency, añ additional grant be made tó schools which the officers of the Education Department consider "excellent" or "good"; and
(b) that the purposes to which this grant is applied by the managers of the schools be specially approved by the Commissioner of Education.
3. As the primary schools exist for the purpose of giving primary educationg they do not usually possess the staft or the equipment which would enable them to undertake successfully' any branch of higher education. An autémpt is frequently -made to do so for the benefit of a few pupils, with the result that the instruction given to the majority of the children suffers, as it is, naturally the most highly qualified and most experienced members of the staff who undertake the higher work. We recommend, therefore, that schools receiving grants in aid of primary education be not allowed to undertake higher eduoation, unless they are -specially recognised by the Commissioner of Education for that purpose.
4. We do not intend this to apply to instruction in Hindustani; the uise of which $/$ should, we think, be encouraged among the East Indian population The grants made in the past for this purpose have been negligible in ; amopnt and, there has been little, or no vitality in the instruction given For some time to come there will continue to be difficulties (owing to the lack of qualified instructors), unless the East

Indians bestir themselves in the matter. There are only 43 East Indian teachers and pupil teachers among the total of 1,219 teachers and pupil teachers employed in our primary schools, and the number of teachers of other races who qualify in an Indian language is necessarily small.

We recommend that an increased grant be made to primary schools in which regular and efficient instruction in one of the vernacular languages of India, is given to not less than 50 per cont. of the pupils in average attendance.

We consider also that instruction in Hindustani might very well be given in evening classes, in districts where East Indians are numerous. Une of the practical difficulties of teaching it in the primary schools, is that the pupils are trying to learn two new languages at the same time-English and Hindustani-an undertaking which is beyond the powers of most children under 11 years. Another is that the East Indian children attend school very irregularly, and frequently leave before making any real progress in either language. These difficulties would not be so acute among voluntary students in evening classes, who would presumably have a desire to learn the langunge.
5. We have already pointed out (Chapter II. paragraph 3) the need for methodand order in the grant-in-aid system as applied to schools providing higher education. We recommend:-
(a) that all grants in aid of bigher education be administered by the Education Department, and calculated as a capitation grant for each pupil over the age of ten attending an approved course of higher education, a bonus being given to the sckool in respect of each pupil satisfactorily completing a four years' course, and an increased grant to schools carrying out an approved course beyond that stage;
(b) that, wherever the number of pupils is less than 50 , a block grant, not exceeding the maximum capitation grant for 50 , be given to schools where a qualified staff and adequate buildings have been provided; and
(c) that it be one of the conditions on which a grant is given in aid of higher education, that every school so aided shall reserve a proportion of places for pupils selected by the Education Department, whose fees shall be paid, wholly or in part, from public funds.
6. We have considered the present method of calculating the salaries of teachersin primary schools. It is lacking in simplicity and certainty, the rate depending very largely upon a variable factor-the average attendance of the school. Wehave already stated (in Chapter III.) that we consider it essential to encourage in every way the employment of trained and certificated teachers, and this policy must be reflected in the method of payment. On the other hand, so long as the State permits the schools to employ unqualified teachers and pupil teachers in largenumbers (at present they number about $70 \%$ of the whole personnel) it is clearly the duty of the State to ensure that a living wage is provided for those employed: under its auspices. We recommend, therefore :-
(a) that pupil teachers of ages 14 to 18 receive an allowance, in respect of which only one increase shall be granted (on passing an appropriate test. about the age of 16);
(b) that' teachers in training, of ages 18 to 20, be grauted a fixed allowance. peturiable by those who do not carry out their undertaking to teach in a pripary school in the colony for at least two years immediately after the period of training ;and
(c) that uncertificated teachers be paid at fixed rates (not subject to añnual increment) calculated: with general reference to the current cost of living.

- 7. 'Teáchers who have qualified for certificates' of competency by undergoing a. course of training or by examination, must be placed in a different category from those referred to above. Certificated teachers have definitely taken up their life's
work, and it is desirable to reward financially the increased efficiency which we expect from those of higher qualifications and longer experience. We recommend therefore :-
(a) that an adequate initial salary be fixed for the lowest grade of certificated assistant teacher without experience, and annual increments up to 15 in all be granted, the first accruing after two years efficient service ; and (b) that an additional sum be granted to-
(i) the holder of a higher grade of certificate, or other special qualification ; ${ }^{*}$
(ii) the first assistant in a school in which the Commissioner is satisfied that an appointment of this kind is necossary; and
(iii) the holder of any.other post which, in the opinion of the Consultative Council, involves special responsibility; e.g., the instructor of pupil teacbers in an area where there is no pupil teachors' contre.

8. In regard to the salaries of head teachers, we have considered the teachers ${ }^{*}$ recommendation that no part of the head teacher's salary should depend in any way on the average attendance. While fully sympathising with the intention of that recommendation, we cannot see any equitable means of eliminating this factor altogether. We agree that there should be no mechanical connection between the number of pupils in a school and the head master's salary, but some regard must be paid to the increased responsibility attached to the headship of a large school. We recommend, therefore" that the salaries of head teachers be paid according to an approved scale, in which the rates shall rise by fifteen annual inciements granted for efficient service, and which shall take into account the class of certificate held by the teacher (Lower or Higher), and the grade of the school.

The Commissioner of Education would, every three years, place each school in one cf three grades, the average attendance, the authorised accommodation, and the number of teachers employed, being three of the factors to be taken into consideration by him.
9. We have considered the representations of the teachers regarding their disabilities under the Teachers' Pension Ordinance, and recommend that the present limit of $50 \%$ of last salary drawn (imposed by section 3 (e) of the Ordinance) be cancelled, and the pension calculated according to length of service and class of certificate.
10. It will have been observed that we have not at any stage of this report indicated the probable cost of introducing our proposals. We have not considered it our duty to do so, as the first step, we submit, is for the Government to determine an educational policy and then to consider its cost. We realise, of course, that financial conditions will prevent the simultaneous introduction of all the necessary raforms. Like Mr. Wrnn-Williams, we anticipate that the changes will necessarily be spread over a considerable period which, we hope, will not exceed four years.
11. It is difficult to make a choice on grounds of urgency among so many necessary reforms, but radical changes in primary education are clearly dependent upon attracting suitable teachers by improved pay and prospects, and upon training them properly for their duties; and the maintensace of reasonable sanitary conditions in the schools is dependent on the provision of suibable buildings and outhouses in the first instance. In higher education the most obvious gap is the lack of a technical school, and in general, it is clear that the State must assume more direct responsibility for the education of its future citizens than it has done at any period in the past.
12. In conclusion, we wish to draw attention to the necessity of awakening the public conscience to the importance of a sound system of education, and to represent as strongly as lies in our power the need for "root and branch" reform. Tine

[^62]chief lesson of the past is that half-hearted measures are useless, and mean waste of both money and energy. We recommend to the special attention of the Government and the community the following passage in Mr. Wynn-Williams' memorandum :"No tinkering with the present machine can possibly be effective; reconstruction alone will serve the very necessary purpose of bringing the Colony abreast of modern conditions and development."

\author{

* (Signed) CHARLES MAJOR, Chairman. <br> R. E. BRASSINGTON. <br> EUSTACE G, WOOLFORD. <br> PHILIP N. BROWNE. <br> A. B. BROWN. <br> JOSEPH A. LUOKHOO. <br> W. BAIN GRAY, Major. <br> E. R. D. MOULDER. <br> EDGAR BECKETT. <br> O. HAYDOCK WILSON. <br> B. KILLION. <br> R. H. CARR. <br> LOOISA B. HAMPDEN KING. <br> EMILY J. BASKETT. <br> A. A. THORNE.
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1st May, 1925.
*This report contains the opinions of the Commission as a whole, which, in a number of instances, have been arrived at by a vote of the members present. The signatures of members have therefore been appended subject to the reservations regarding particular points which are contained in the following notes.

## DENOMINATIONAL SCHOOLS.

We, the undersigoed, members of the Education Commission recently appointed, conversant with school problems after many years of experience, while approving of the greater number of recommendations mentioned in the report, wish to record our disapproval :-
(a) of the proposal to destroy the denominational system altogether, as baing unjust to a large number of parents who desire their children to be educated under certain religious influences.
(b) of the proposal to erect Colonial Schools in large numbers which it will be difficult to conduct in fair competition with the Denominational Schools. The expense for sites, materials, and labour will be enormous, and we think unjustifiable in the present impoverished state of the Colony. A fraction of the cost, spent upon the Schools already in existence, will render them efficient for years to come.
We may mention that in Trinidad, these Colonial Schools, if we are rightly informed, have not justified their existence in competition with the Denominational Schools.
(c) of the proposal to reduce the Governing Body of the Denominational Schools to a cipher.
We suggest the erection of ONE Colonial School to be put in fair competition. with the Schools already existing, with equal scale of salaries for teachers, same hours, etc., before embarking on a costly venture which we cannot at present afford.

We heartily favour all that can be done for the training of teachers, and for the trade and technical schools contemplated.

## A. B. BROWN. <br> O. HAYDOOK WILSON. B. KILLION. <br> EMILY J. BASKETT.

28th April, 1925.

## 2.

## THE CONSULTATIVE COUNOLL.

(A)

I dissent from the report of the Commission on the subject of the ConsultativeCouncil which is to replace the existing Board of Education. (Vide Chapter IV, paragraphs 2 and 3 et passim.)

1. It is really the same body under another name-the advisory nature of its functions being illusory. There is a long and formidable list of matters which the Commissioner of Education is bound to refer to the Consultative Council, and concorning which, in practice, he will be bound to accept their opinion, unless he is prepared to be continually making appeals to higher authority.
2. In my opinion, the function of a strictly "Consultative" Council should be toconsider, and advise the Commissioner of Education upon, any question, educational or otherwise, concerning which he may wish to seek their advice. The personnel of such a Committee should consist of not more than seven members. No member of the Combined Court should be included in that capacity, as new Codes, and other documents requiring legislation, would come before the Court in the ordinary course. It. should contain representatives of agriculture, of other industries, of the school managers, and of the teachers, but not officers of the Education Department, nor Heads of Departments whom the Commissioner can consult in the usual course of his official.
duties. It is clearly unnecessary to set up a Consultative Council to ensure that the head of the Education Department will consult the Dirgctor of Public Works when a new school is to be built, or on any other occasiou when the latter has special knowledge of the problem in hand. If, as proposed in the report, the Couucil is to direct the policy of the Education Department and deal with administrative matters, such as the dismissal of teachers, the Commissioner of Education becomes definitely subordinated to the heads of other Departments-a situation bristling with difficulties for the Commissioner, and highly undesirable from the point of view of the others,
3. I wish, however, to make it clear that I consider it quite unnecessary to create a committee of any kind to direct the Education Department. The Education Code for primary schools, and any similar general regulations affecting higher education, should receive the sanction of the Legislature, not merely of an Education Board. The estimates of the Department are subject to approval in the ordiniry way, its accounts are subject to the usual audits, and the Commissioner of Education is not Jess responsible to the Combined Court than is the head of any other Department.
4. Any impartial person who reads the history of Edncation Boards in British Guiana, as set forth in Mr. Wynn-Williams' meunorandum or elsewhere, must realise that the record of these Boards is not a happy one. The attempt, in the present report, to compromise between an executive and an advisory Board is open to all the objections which have arisen in the past. Boards and Committees have been the home of cross-grained conservatism and laissez-faire. Either of these policies (if they can be so called) would be equally fatal at the present juncture.
5. I suggest to the Government and the community that the time has come to show more imagination in their administrative arrangements, to cease playing for safety, and to take a little risk for the sake of a greater gain. The Commissioner of Education should be given a free hand (subject to the normal safeguards which apply to all Departments) for at least five years, while the system is being reorganised. If he is to be called upon to convince a Consultative Council (in addition to the Government and the Combined Court) of the wisdom of every step he takes, then two Commissioners will be required, one to do the propaganda, and one to do the constructive work of the Department. No doubt a Commissioner entrusted with full powers would make mistakes, but I am convinced that at least something would be done, and that his mistakes would not be more numerous or more serious than those of a committee, however well intentioned. It does not require the gift of prophecy to foretell that to continue the Board of Education under any name whatsoever, is to ensure, as far as is humanly possible, that in 1945 the educational system of the Colony will be where it is in 1925.

30th April, 1925.

> W. BAIN GRAY, Major.
(B)

We are of opinion that the Consultative Council should be executive and not advisory. Advisory boards had been tried in the past ; they were most unsatisfactory and proved failures in the end. Members of a board should see questions st different angles and after discussion if the majority came to a decision it should be given effect to. It is the only conceivable way in my opinion any Board or Council will work with any success. I thick some high Official as the Colonial Secretary, or one of the Judges of the Supreme Court or the Attorney General should be appointed Chairman of the Council.

Mr. Wynn-Williams discussed this question with his usual ability and energy in his report, and he came to the decision which he did with some hesitation, viz. :That the Consultative Council should be advisory.

He says an Administrator is born, nevertheless he recommends the Commissioner to be Chairman of this Advisory Council forgetting that a Legislature never legislates for a born Administrator but for ordinary individuals possessed of ordinary intelligence.

It should be borne in mind that Advisory Boàrds tailed in the past where they had to deal with one branch of education only, and it is now sought to bring into correlation all the various branches of education so that they should co-operate and harmnnise as a whole, such a Council would require men of long experience, intelligence, and sound judgment to take part in its deliberations, and such men would not be willing to take part in the detiberations of an Advisory Council.
A. B. BROWN.

JOSEPH A. LUCKHOO.
29 th April, 1925.
(C)

I do not agree that there should be a Consultative Council, whose functions would be to advise the Commissioner of Education. I consiáer the Commissioner should be unfettered-without any Board or Council whatever; advisory or consul-tative-in the same manner in which the Hon. the Surgeon General, the Inspector General of Police, and other Heads of Departments are responsible to no Bdards or Councils, but direct to His Excellency and the Honourable the Colonial Secretary. So too, the Commissioner of Education should owe his responsibility direct to the Government. In the past, the Head of the Education Department was the Inspector of Schools, not, as at present, Commissioner of Education.

## EDGAR BECKETT.

28th May, 1925.

## 3.

TRAINED AND UNTRAINED TEACHERS.
With reference to Chapter V, paragraph 7 (b) (i) and footnote, we dissent from the view of the majority of the Commission, that teachers now in employment, who have gained their certificates after a course of training in Jamaica or Barbados, should be regarded as holding a higher qualification than those who have gained their certificates by local examination.

1. Like our colleagues, we hold that in future, every possible means should be taken to train our teachers properly, and to differentiate in salary between trained and untrained teachers. In the past, however, the State has made very inadequate provision for the training of teachers (by sending a very small number each year to colleges in Jamaica and Barbados), and there is, in our opinion, no justification for putting such a high premium on a teacher's certificate gained after a course of training, at a period when the normal method of obtaining one was by examination. To make this distinction after the State has for many years recognised the main body of teachers as certificated teachers for all purposes, appears to us a piece of retrospective legislation of a very undesirable kind. It would benefit a small number of teachers, ( 64 certificated teachers have been trained, and 281 have not been trained) without raising the general standard of efficiency; on the contrary, by creating an invidious distinction and dividing the ranks of the teachers, it would tend to lessen the efficiency of the whole body.
2. We consider, therefore, that the certificated teachers who have been trained, and desire to obtain higher status and salary under the new arrangements, should qualify for them in exactly the same way as teachers of the same service, who hold certificates of the same class.

29th April, 1925.

## 4.

## COMPULSORY ATTENDANCE.

If any change is made in the age-limits of compulsory attendance at school, the upper limit should not exceed 13 years, except in Georgetown or New Amsterdam.

R, H. CARR.
1st May, 1925.

## 5.

## TECHNICAL EDUCATION.

I see a danger that the Technical School may place too great a stress upon the scientific side of training rather than the practical. In short, at the present time, a Jechnical School is required to train boys as well-equipped workmen. 'To accomplish this, we should have to import certain master-workmen from abroad.

The point to be emphasised is, that a boy or girl can 'make' or 'create,' something, rather than possess a mere rabble of words. (yirls could be taught watchrepairing, printing, book-binding, the keeping of bees, house-keeping, nursing the sick, the qualifications for a nurse for children, the making of plain and aseful clothes, making of panama and other hats, basket-making, dispensing of medicine.

We should aim at turning out boys as skilled carpenters, plumbers, enginedrivers, blacksmiths, saddlers, electricians, etc.

The particularly clever boy, who is going to be something higher, will soon climb the "topmost rung," and if he can use his hands at any trade, or any 'gentle manufacture," he will prove all the more valuable whatever his profession may be.

Paragraph 21.-With respect to the apprenticeship scheme for industrial training, I should like to see a vigorous and rigorous system of apprenticeship (somewhat on the lines of the old apprenticeship system in England) in this Colony, not only in connexion with the Public Works Department, büt also with private employers.

Paragraph 23.-In addition to the cultivation of fruit and vegetables, I would include poultry raising.

## 6.

## ADMINISTRATION.

I consider that all educational matters should be administered by the Commissioner of Education. All matters connected with agricultural education should, however, be under the control of the Director of Science and Agriculture.

I see no reason at all why Queen's College should be exempted during the tenure of office of the present Principal. If the principle is correct, it should be adhered to, irrespective of individuals.
7.

## INDUSTRIȦL HOME FOR GIRLS.

As to the proposal to establish an Industrial Home for Girls I am of opinion, that the whole control of such a Home, should be entirely in the hands of the Government.

EDGAR BECKETT.
28th May, 1925.

## APPENDIX A

## EDUCATION COMMISSION.

Dates of Meetings and Attendance of Members.

## APPENDIX A. <br> Dates of Meetings.

1924. 

November. 17 th, $18 \mathrm{th}, 21$ st, 24 th, and 25 th to the 28 th (both inclusive) December. 8th, 10th, 11th, 1ăth, 18th, 19th, 23rd, 30th, and 31st.
1925.

February. 23rd to the 26th (both inclusive).
March. 4th, 11th, 12 th , and 18th.
April. 15th, 16 th, and 17 th.
attendance of Members.
No. of meetings ... 28

|  | No. of attendances |
| :---: | :---: |
| Sir Oharles Major, Kt., Chief Justice | 28 |
| The Hon. R. E. Brassington | 11 |
| The Hon. E. G. Woolford | 17 |
| The Hon. P. N. Browne, K.C. | 11 |
| The Hon. A. B. Brown | 15 |
| Mr. J. A. Luckhoo, K.C., F.R. | 22 |
| Major W. Bain Gray, Commissioner of Education | 28 |
| Mr. E. Wynn-Williams, His Majesty's Inspector of Schools (left Colony on 8th Jaunary, 1625) ... | the ... l7 |
| The Principal of Queen's College | 28 |
| Mr. E, Beckett, Superintendent, Onderneeming Industrial Sohool | 14 |
| The Rev. Canon O. Haydock Wilson | 23 |
| The Rev. Father B. F. Killion | 24 |
| Mr. R. H. Carr. (left the Colony on 22nd March, 1925) | 17 |
| Mr. G. R. Reid. ( $\quad$, ${ }^{\text {a }}$, 24th February, 1925) | 11 |
| Miss L. B. Hampden King | 28 |
| Mise E. J. Baskett, Principal, Girls' High School | 24 |
| Mr, A. A. Thorne ... | 20 |

# EDUCATION COMMISSION. 

$\qquad$
Minutes of Meetings.

MINUTES of the First Meeting of the Education Commission held at the Court of Policy Hall on the 17 th November; 1924, at 9.30 a,m.

## Present:

Sir Charles Major, Kt., Chairman.
The Honourable R. E. Brasisington.
The Honourable E. G. Woolford, K.C.
The Honourable P. N. Browne, K,C.
The Honourable A. B. Brown.
Mr. J. A. Luorioo, K.C., F.R.
Major W. B. Grar, Commissioner of Education.
Mr. E. Wynn-Williams, His Majesty's Inspector of Stchools,
Mr. E. R. D. Moulder, Principal, Queen's College.
Mr. E. Beokett, Superintendent, Onderneeming Industrial School.
The Reverend Canon O. Hardocr Wilson.
The Reverend Father B. F. Kiluion, S.J.
Mr. R. H. Carr.
Mr. G. R. Reid.
Miss L. B. Hampden King.
Miss E. J. Baskett, Principal, Bishop's High School for 'Girls.

## I.-The Commission.

The appointment of the Commission was read as gazetted "Official Gazette " No. 20 dated 15th November, 1924.)

> II.-Documents.

The following documents were handed to évery Commissioner :-
(1) A Memorandum by the late Commissioner of Education dated 5/5/24 with a list of matters suggested for consideration.
(2) Annual Report, Eduoation Department, for the jear 1923.
(3) The draft of a Press Notice for invitation of witnesses from the Public.
(4) A draft list of special witnesses.
(5) Copy of Education Code as amended to date.
(6) Diagram showing the Roadside and Riverside Schools of the Colony.

## 1II.-Special List of Witnesses.

The Chairman inquired whether in view of the very definite instructions which the Commission had received from the Governor to proceed with and to conclude its deliberations as expeditiously as possible in view of the forthcoming Session of the Combined Court, and so as to permit of Mr. Wynn-Williams returning to England shortly, the Commission would add or take away from the list of suggested witnesses.

It was decided to add to the list the Surgeon General or a responsible officer of .his department; Mr. M. L. R. Andrade; as suggested by Mr. Woolford; Mr. F. O.
iv.

Low, President of the Chinese Association, as suggested by Mr. Luckhoo; Ker. Haas, as suggested by Mr. Moulder; Rev. A. M. Hale, M.A., as suggested by Mr. Woolford.

It was further decided to defer the question of selecting a witness from the Bast Indian Association.

Removed from the list-Principal, Berbice High Schaql.
As regards the Cummission it was agreed on the suggestion of the Honourable P. N. Browne to ask His Excellency to add Mr. A. A. Thorne, M.A., to the Commission. Later the Chairman intimated that His Excellency had consented to do so.

## IV.-Opening of the Commission by the Governor.

His Excellency Sir Graeme Thomson, K,C,B., then made his appearance and opened the Commission speaking as follows :-
" Mr. Chairman : In opening this Commission I desire to say how mach we welcome in our midst the new Commissioner of Education who is a gentleman of high scholastic education, and Mr. Wynn-Williams who, as one of His Majesty's. Inspectors of Schools, has been specially selected to assist the Commission in its deliberations. I thank also most heartily the very busy gentlemen who have consented to serve on this Commission. I make no apology in asking them to join in our deliberations because the question of education is of such great importance.

At the outset I may say that there is no purpose in the colony for which it is easier to get funds than for education. The Combined Court never grudges money for this purpose. I think that everybody in the colony who has devoted any attention to this subject has the conviction that the money bas not been spent to the best advantage. Even assuming that the curriculum is as perfect as it can be, the results are not satisfactory. Take this year for instance, in the last Primary Scholarship Examination lass than 10\% secured a bare pass in what can only be described as a very simple examination. At the moment our record is not more encouraging in the Secondary School. I am not imputing blame to anybody, but we have not found a single scholar even from Queen's College closely approximating to scholarship standard.

In the result we have not been able to award the Guiana Scholarship and several Primary Scholarships have lapsed. I do not think the colony can be proud of that record. I am convinced, and my colleagues also, that the curriculum is not
 colony, and that some $90 \%$ of the boys and girls have to work with the hands and that very little is done to educate the youth of the colony for the future. On the contrary ; I have found when speaking to parents that their ambition is to turn theirchildren into lawyers, doctors, or Civil servants. These professions are already overcrowded. I have in mind what has happened in India or the East where education is too bookish and scholastic in form. The result is that a great many semioducated, and highly educated youths are being turned out in India, Ceylon, and other oolonies without prospect of employment in their chosen line. The only alternative is emigration or a thoroughly discontented class who develop into political rgitators, which is very undesirable in this colony.

I do not pose as an educational expert, but I think we must concentrate our efforts more on what boys and girls will have to do in the future, In the Primary Schools nothing is done to encourge agricultural pursuits. When I came here I found the school gardens abandoned and grants had to be withdrawn. Take the case of the girls. Apart from fancy work and embroidery, there is urgent need for progress in plain needlework. We offered exhibitions for this branch, but because of the bad results no awards could be made and the Exhibitions are withdrawn, The results were so bad that it seemed to us we were wasting money. On the industrial side, no industries exist. Basket-making aud hat-making are carried on, but it is easy to import foreign hats of far superior workmanship to any done here at less than a third of the local price, and this is not due so much to the enormous cost of the labour as to lack of proper instruction.

Mr. Howard Humphreys remarked to me that he had never been to a place where there was less adequate skilled labour than here. Some form of industrial training is absolutely hecessaxy.

Commercial education should not be-entirely neglected. Some provision should be made for teaching shorthand writing and type writing. I do not say that some of these matters are not dealt with, but some prominence' should be given to them in the Code.

In addressing educational meetings at which parentes wore present, those parents showed their appreciation when praise was given for such subjects as music, elocution, etc., but not for anything agricultural or industrial. We haver been concentrating in the wrong direction for years. In short, I think our teaching in the schools has been too academic and too little practioal. You have now a new Commissioner of Education who should be quite up-to-date, and His Majesty's Inspector of Schools, and by the result of your deliberations it should be possible to lay down a foundation which will have beneficial effect on the future prosperity of the colony, and if you are able to de that you will earn our undying gratitude."
(Mr. Brown observed to be absent from the meeting).

> V._The way of business.

The Chairman presented tiwo modes of procedure to be adopted, one to carry their deliberations to a conclusion by 1 st December and send in an interim report, or leave Mr. Wynn-Williams to pursue his invéstigations and defer a report for a later date.

## V1.-Method of securing evidence.

Mr. Carr suggested that a short precis of evidence should be sent in writing by each witness, to be supplemented if necessary, by oral evidence.

The Chairman was in favour of a series of questions to be supplemented, if: necessary, by oral evidence.

VII:-A draft Agenda drawn up by the Commissioner of Education was then brdught up and discussion of it was deferred until to-morrow so as to give the members the opportunity of considering and revising, if necessary, the business indicated thereon.

## VIII.-Adjournment.

The Chairman decided to adjourn the meeting untillto-morrow at $8.30 \mathrm{a} . \mathrm{m}$. $8.30-12$ was agreed to as the most suitable poriod for future meetings.

Confirmed-18.11.24.
Signed-21.11.24.
CHARLES MAJOR,
Chairman.

# EDUCATION COMMISSION.-MINUTES OF MEETINGS. Sioond Day. 

 Toesday; 18th November, 1924.In the Court of Policy Hall, Guiana Public Buildings at 8.30 a.m.
With the exoeption of Mr. Brown who regretted his absence in writing all the members of the Oommission were present.

> 1.-Minutes.

Paragraph 2 of the Minutes of yesterday's meeting was amended as follows :-
On page 2 item 3, after the words " as expeditiously as possible" the following words were added "in view of the forthcoming Session of the Combined Court," and on page 6 item VI, after the words "each witness" were added the words "to be supplemented, if necessary, by oral evidence."

The Minutes as amended were then confirned.
On the suggestion of Mr. Carr it was then ordered that in future every Commissioner shall be sent a typed copy of the day's Minutes before the sitting of the next meeting.

## II.-Verbatim Reports.

With a view of obtaining a verbatim report of the proceedings and deliberations of the Commission, Messrs. P. N. Browne and J. A. Luckhoo suggested that it was desirable to requisition the services of Mr. McDougall, the official Shorthand Reporter, as the Secretary of the Commission, Mr. Mathews, would be fully engaged in performing the duties of a secretary and should not be expected to report verbatim at the same time.

The Chairman expressed the opinion that the Secretary had given evidence of good reporting work in his report of the Governor's opening address to the Commission, jet he would in all the circumstances apply for the services of Mr . MoDougall aftor first speaking with that gentleman.

## III.-Mode of Addressing the Chair.

The Chairman intimated that the Commission should conduct their deliberations and make their remarks sitting.
IV.-The Draft Agenda.

The Chairman suggested that as the question of administration 1 (a) was governed largely by the question of Policy involving controversial matters regarding the status of the Education Board in its relationship to the Commissioner of Education, it should be deferred. The second and third paragraphs of (b) and (c). should also be deferred.

The Chairman after suggesting the consideration of Head II "Future Policy," said that the best method would be to proceed by way of resolution, so as to expedite matters. He then enquired whether anyone desired to offer any observations and make suggestions under this head.

Mr. Woolford then said that he was prepared to move a resolution as to 2 (a). but thought that some of the members would prefer deferring the resolution until evidence was taken from the witnesses who were to come before the Commission. To proceed now with a resolution would be equivalent to putting the cart before the horse.

The Chairman expressed his appreciation of Mr. Woolford's view and suggested that a series of questions be drawn up to be sent to members who would supplement their evidence also in writing. The Chairman also suggested the appointment of gub-committees for the purpose of settling the form of questions; and in answer toMr. Carr replied that each witness would not necessarily have the same set of questions to answer.

## vii.

Consideration of the Agenda still proceeding, Mr. Wynn-Williams pointed to an ambiguity in paragraph 2 as referring partly to supply and partly to policy. "At present", Mr. Wynn-Williams said "one does not know whether you are referring to questions of supply or dealing purely with educational policy."

After remarks and suggestions by Messrs. Moulder and Browne it was further proposed from the Chair that:-
(1) Two Sub-Commitiees be formed, one for the purpose of considering the question of actual detailed statements in each head of the agenda and to frame questions for the witnesses.
(2) A second Sub-Committee to deal with the rest of the agenda paper.

In reply to a question by Mr, Browne, the Ohairman stated that the form only of the agenda and the series of proposed questions to witnesses would be dealt with by the Sub-Committees.

Mr. Moulder then said that if there were to be sub-committees the Commission should separate Primary and Secondary, and Technical Education, as you might get a member who was able in Secundary or 'Sechnical subjects, but whose time would be wasted on matters relating to Primary Education and the Training of teachers.

Mr. Wynn-Williams here expressed his opinion that Primary Education should be dealt with from two points of view-supply and aim.

On the matter of supply such definite questions as the following should be fully weighed and considered : -
(1) Is the supply in the Primary Schools of the Colony sufficient to meet present needs or in excess of it, or suitable?
(2) Is it desirable in the interests of Primary Education that Colonial schools should be established?
(3) Is the Denominational system a satisfactory solution of the problem of Primary Education?
At this stage Mr. Thorne entered the meeting and apologised for being unavoidably late.

## $V_{0}-A p p o i n t m e n t ~ o f ~ S u b-C o m m i t t e e s . ~$

Sub-Committee 1.
To deal with Primary Education-including (a) training of teachers (b) the Inspectorate, together with the suggestions from Mr. Wynn-Williams.

Mr. Woolford, Commissioner of Education, Messrs. Brassington and Wynn-Williams and Canon Wilson.

## Committee 2.

Secondary Education and Technical Education Mr. Moulder, Miss Baskett, Mr. Carr, Mr: Beokett and Miss King.

## Committee 3.

To deal with the matter named in (a) and to discuss the co-ordination of all educational bodies receiving grants from public funds. Public Examinations in all grades, and salaries of teachers.

Messrs, Thorne, Moulder, Browne, Luckhoo, and Father Killion.
The terms of reference to the above Sub-Committee were given as follows:-
Settling the terms of the Agenda paper and for preparing the series of questions previously referred to; the first named member on each of the Committees to act as Chairman.
The Chairman having pointed to the need for urgency each Committee engaged to have its report ready for Friday next.

$$
\therefore \quad V I \text {-Adjournmient. }
$$

Next meeting Friday 21 st instant at 8.30 a,m. at the Court of Policy Hall.
Confirmed-21.11.24.
$\because \because$
CHARLES MAJOR, Chairman.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS.

Third Day.
Fifday, 21 st November, 1924.
In the Court of Policy Hall, Guiana Public Buildings at 8.30 a.m.
With the exception of Mr. R, E. Brassington all the Commissioners were present.

## I.-Confirmation of Minutes.

The Minutes of the two previous meetings of the 17 th and 18th instant respeotively, were signed after circulation to the Commission.

> II.-A, Questionnaire.

A list of questions to witnesses to be invited to give evidence was received and approved from each of the sub-committees appointed at the last meeting to prepare them.

Question 10 under the sub-head of Technical Education to be transferred to head "Training of Teachers."

It was decided to add to head 3-Administration-the following-
"What modification, if any, do you suggest of the method of assessing and paying Grants-in-aid to Primary and Secondary Schools?"
III.-Second Draft Agenda.

On this new Agenda the last head "'reachers" Salaries" was amended to read "Emoluments of Teachers in all grades of Sóhools."

## 17.-Draft Letter of Invitation to Witnesses.

The above draft letter was then read and the following paragraph added thereto-
"Should you however desire to give oral evidence in place of written answers, will you be good enough to inform me of the fact not later than Monday next at noon and you will be notified when your presence is required."

Messrs. Carr, Reid and Canon Wilson were not in favour of oral evidence being taken in addition to written evidence, unless the Commission asked for oral: evidence.
V.-Policy.

Mr. Wynn-Williams outlined a scheme of policy to be submitted as a special memorandum which he undertook to prepare and circulate to the Commission.

The Chairman on behalf of the Commission thanked Mr. Wynn-Williams for the highly valuable views he had expressed.
VI.-D Dstribution of Questions.

It was agreed to send the questionnaire to all the persons named on the list of witnesses, including Mr. E. O. Pilgrim, B.So., a Master of Queen's College; Mr: Pilgrim to appear before the Commissioners at any time chosen by the Principal of the College. The persons addressed were asked to reply within the next 48 hours.

> VII.-Coming Evidence.

It was agreed that evidence shall be taken on Monday next from the members of the Commission who were also requested to give evidence.
VIII.-Adjournment.

The Chairman then adjourned the meeting till Monday next, 24th instant, at 8.30 a.m.

Confirmed-24,21.24.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS.

Fourth Day.
Monday, 24te Novembsar, 1924.
In the Court of Policy Hall, Guiana Public Buildings, at 8.30 a,m.
With the exception of Messrs. Ri E. Brassington and A. A. Thorne all the members of the Commission were present.

L - Confirmation of Minutes.
The minutes of the previous meeting of the 21 st instant were confirmed and signed after circulation to the Commission.

## II.-Mr: Wynn-Williams' Speech.

Slight verbal amendments were made in the typed copy of the abstract of the speech which Mr. Wynn-Williams had previously delivered to the Commission.

- III.-Evidence begun.

Mr. E. R. D. Moulder, one of the Commissioners and Principal of Queen's. College then gave evidence up to head "Training of Teachers"-(a) Pupil Teachers -Georgetown, on the matters contained in the questionnaire which the Commissioners had previously drawn up and issued to all witnesses : Mr. Moulder toresume giving his evidence to-morrow morning.
IV.-Adjournment.

The Chairman adjourned the meeting till 8.30 a.m. to-morrow.
Confirmed-25.11.24.

# education commission.-Mindtes of meetings. <br> Fifth Dat. <br> Tuesday, 25th Novembel, 1924. 

In the Court of Policy Hall, Guiana Public Buildings at 8.30 a.m.
With the exception of the Hon. P. N. Browne, K.C., and Mr. R. H. Carr all the Comissioners were present.

## 1.-Confirmation of Minutes.

The Minutes of the previous meeting of the 24th instant were confirmed and signed after circulation to the Commission.
II.-Procedure for expeditíng Business.

The Chairman called attention to the fact that the evidence of Mr. Moulder had already taken up more than three hours. In order to regulate the proceedings and expedite matters he proposed when a written question was answered to enquire of each individual member of the Commission whether he desired to ask anything further.

The examination of Mr. Moulder was then resumed and also concluded.
The next witness, Miss E. J. Baskett, Principal of the Bishop's High Schoolfor Girls, was then examined.

The third witness of the day was Mr. E. Beckett, the Superintendent of Onderneeming Industrial School, whose evidence was also concluded.

## III.-The Agenda.

On the suggestion of Mr. Luckhoo it was decided to place "Agriculture" under a separate head for specific treatment in view of its importance, but in the meantime to proceed with getting the evidence to witnesses on the lines of the questionnaire.
IV. It was decided to proceed with the evidence of Mr. Thorne and Canon Wilson to-morrow.

> V.-Witnesses.

Towards the close of the meeting printed copies of a memorandum on Primary Education were received from Mr. G. H. A. Bunyan, Secretary of the B.G. Teachers' Association.

Answers were received from-
The Surgeon General, who would also give oral evidence.
The Revd. J. A. Scrimgeour and Mr. O. E. Pilgrim replied "that they were willing to appear before the Committee to give oral evidence."

> VI.-Adiournment.

T'he Chairman adjourned the meeting till 8.30 a.m. to-morrow.
Confirmed and Signed.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS. <br> Sixth Day.

Wednesday 26th Noveuber, 1924.
In the Court of Policy Hall, Guiana Public Buildings, at 8.30 a.m.
With the exception of the Honourable P. N. Browne, Messrs. R. H. Carr and G. R. Reid, all the members of the commission were present.
I.-Confirmation of Minutes.

The minutes of the previous day, 25th inst., were confirmed and signed after circulation to the Commission.

## II.-Taking Eridence.

Mr. A. A. Thorne, M.A., one of the Commissioners, was examined in terms of the questionnaire.

At the request of Mr. Wynn-Williams, Mr. Thorne promised to hand in during next week an abstract of his views on rural Technical Schools to the Commissioner of Education.
III.-Witnesses; for Next Llay.

The Secretary was instructed to write as follows in order to secure evidence:-
(i) The secretary, B. G. Teachers' Association-not more than twa of the

Association to come forward at 8.30 o'clock to-morrow morning,
(ii) Sir John Harrison, C.M.G., to come forward at 10 o'clock to-morrow.
IV.-Adjournment.

The Chairman then adjourned the meeting till 8.30 a.m. to-morrow.
Confirmed-27.11;24.
Signed-28.11.24.

# EDUCATION COMMISSION.--MINUTES OF MEETINGS. 

## Seventie Daf.

Thorsdap, 27th November, 1924.
In the Court of Policy Hall, Guiana Public Buildings at 8.30 a.m.
With the exception of the Hovis. R. E. Brassington and Mr. P. N. Browne, K. O, and' Mr. G. H. Carr, all the Commissioners were present.
I.-Confrmation of Minutes.

The Minutes of yesterday's session were amended as follows and then confirmed :-

In paragraph II. the words "on rural technical schools" were inserted after the word "views," in the last line; and paragraph III. and IV. were struck out, the V. and VI. paragraphs becoming the third and fourth respectively.

1I.-Taking Ecidence.
Messrs; W. A. Arno and G. H. A. Bunyan, President and Secretary, respectively, of the B.G. Teachers' Association, gave oral evidence supplementary to the memorandum which they had sent in to the Commission.

At 10 o'clock the Chairman asked Messrs. Arno and Bunyan to defer their evidence, keeping within the precincts of the building until they were again required.

Sir John Harrison then came in and was examined.
Sir John Harrison having concluded his evidence, retired.
Messrs. Arno and Bungan were called in to resume their evidence which will be continued at 9.15 a.m. to-morrow.

## III.-Witnesses for next Day.

It was then decided to ask Mr. K. O. Pilgrim, B.So., to give his evidence at 8.30 to-morrow.(Friday).
17.-Adiournment.

The Chairman then adjourned the meeting till 8.30 o'clock to-morrow monning.

## EDUCATION COMMISSION.-MINOTES OF MEETIINGS. Elatith Day.

Friday; the 28th of November, 1924.
In the Court of Policy Hall, Guiana Public Buildings at 8.30 a.m.
Present: All the Commissioners with the exception of Messrs. Brassington, Woolford and Brown.

1. The Minutes of yesterday's meeting were confirmed.
2. Evidence: Messrs. Arno and Bunyan concluded their evidence.

Mr. E. O. Pilgrim, B.Sc., and the Revd. A, M. Hale gave evidence.
Mr. Hale desired to refer the Commissioners to a memorandum prepared by the Governing Bodies of the schools of the Church of England, the Churoh of Scotland, Wesleyan and Moravian Churches, and submitted to the Education Board in 1923; as containing his views on salaries of sohool teachers.
3. The Commission adjourned till Monday, the 8th December.

Approved and Signed-8.12.24.

EDOCATION COMMISSION.-MINUTES OF MEETINGS.
Ninta Daf.
. 1 Monday, 8th December, 1924.
In $\mathrm{m}_{\mathrm{t}}$ he Court of Policy Háll, Guiana Public Buildings, at 8.30 a.m.
Present:
Sir Charles Major, Kt., Chief Justice of British Guiana, Cbairman. Mr. J. A. Lookноо, K.C., F.R.

Majer W. Bain Gray, Commissioner of Education,
Mr. E. Wynn-Wilitams, His Majesty's Inspector of Schools.
Mr. E• R. D. Mounder M.A., Priucipal, Queen's College.
Mr, E. Beagett, Supt., Onderneeming $\operatorname{Industrial~School.~}$
The Revd. Canon O. Haydock Wilson,
" " Fatber B. F. Killion,
Miss L. B. Gampden King.
Miss E. J. Basket, Principal, The Bishop's High School.

1. The Minutes of the meeting of the 28th November as circulated were taken as read and were confirmed.
2. Evidence : Dr. P. James Kelly, Surgeon General, gave evidence.
3. It was decided to invite the Revd, James Persaud, the President of the Chamber of Commerce or other representative of that Body and a member of the Planters' Association, to give evidence at the next meeting.
4. The Commission adjourned till Wednesday next, loth December, at $8.30 \mathrm{a}, \mathrm{m}$. Approved and signed-10.12.24.

CHARLES MAJOR, Chairman.

## EDUCATION COMMISSION-MINUTES OF MEETINGS.

## Tentri Dap. <br> Wednesdaý, 10 th Deoember, 1924.

In the Court of Policy Hall, Guiana Public Buildings, at $8.30 \mathrm{a} . \mathrm{m}$.
Present : All the Commissioners with the exception of Messrs. A. B. Brown, P. N. Brown, E. G. Woolford, R. H. Carr and G. R. Heid were present.
2. Minutes of the 8th December as circulated were taken as read and were confirmed.
3. A reply from Mr. Sherlock, the President of the Chamber of Commerce, to the Commissioners' request to give evidance on subjects included in questionamire was read.
4. Evidence: The Rev. J. Persaud, representing the East Indian community in the Colony, gave evidence.
5. The Commission adjourned till Thursday the 11th instant at 8.30 a.m., for the evidence of the Director of Public Works.

Approved and signed-11.12.24.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS.

Elefente Day.
Thorsday, 11 the Deobmber, 1924.
In the Court bf Policy Hall, Guiana Public Buildings, at 8.30 a.m.
Present: All the Commissioners with the exception of Messes. Brassington, P. N. Browne, A. B. Brown, Woolford, Luckhoo, Carr, Reid and Thorne.
2. The minutes of yesterday's proceedings as circulated were taken as read and were confirmed.
3. Evidence: Mr. Pudsey, Director of Public Works, gave evidence.
4. The Commission adjourned till Monday the 15th instant at 8.30 a,m, Education Department, for the evidence of the President of the Planters' Association, and to discuss first draft recommendations.

Approved-15.12.24.
CHARLES MAJOR.
Chairman.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS. Twelfte Day. Monday, 15 th Deokmber, 1924.

In the Court of Policy Hall, Guiana Public Buildings, at 8.30 a.m.
Present : All the Commissioners with the exception of Messrs. A. B. Brown and Carr were present.
2. The minutes of the proceedings of the 11th instant as circulated were taken as read and were confirmer,
3. Evidence : Mr. W. Speed, nominated by Mr. G. E. Anderson, President of the Planters' Association, gave evidence.
4. Recommendations : Of the four draft recommendations circulated to the Commissioners the first, third and fourth were then discussed and passed unanimously after the following amendments :

In the first, for the words "that they will benefit from such a course," were substituted the words " of their personal fitness to become teachers."

In the third, for the words "by almost unanimous consent "were substituted the words " in several respects" and for the words " it be our instruction" in the fourth line of the words "than be more" in the sixth line were substituted the words ${ }^{56}$ in future all syllabuses and courses of study shall be so framed as to be."

In the fourth, after the word "schools" in third line the following words "receiving grants from public funds."

The Commission adjourned to Thursday the 18th instant at 8.30 a.m. (either in the Court of Policy Hall or the Education Department) for the evidence of Mr. Robert R. Strang of Plantation Uitvlugt and further discussion.

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## edUCATION COMMISSION - MINUTES OF MEETINGS.

## Thirteenth Day.

## Thubsday 18tri December, 1924.

In the Court of Poliey Hall; Guiana Public Buildings, at 8.30 a.m.
Present: All the Commissioners with the exception of Messrs. Brassington P. N. Browne, A. B. Brown, Luckhoo, Beckett and Thorne were present.
2. The minutes of the proceedings of the 18 th instant as circulated were taken as read and were confirmed.
3. Evidence: Mr/ R.iR. String, Manager of Plantation Jitvlugt, gavee evidence.

On a suggestion from Mr. Carr it was decided to ask Dr. Kelly to give in writing by way of supplementary evidence his views on the mass treatment of Hookworm disease, which Mr. Carr had observed to be highly successful.
4. Adjournment : The Commission adjourned till Friday the 19th instant at ten o'clock at the Education Department for the evidence of Mr. Carr accompanied by Mr. W. A. Walker and of two witnesses from the East Indian Association, preff ably a Hindoo and a Mohammedan.

Approved and Signed-13.12.24.

## CHARLES MAJOR, <br> Cbairman.

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## EDUCATION COMMISSION.-MINUTES OF MEETINGS.

Fóurteenth Day.
Fridsy, 19th Dhoevber, 1924,
In the Court of Policy Hall, Guiana Public Buildings, at 10 a.m.
Present : All the Commissioners with the exception of Messrs. Brassington, P. N. Brówne, A, B. !Brown, Luckioo, Thorne, Beckett and Miss Baskett were present.
2. The minutes of yesterday's proceedings as circulated weretaken as read and were confirmed.
3. Evidence : Mr. R. H. Carr accompanied by Mr. W. A. Walker gave evidence.
4. Adjournment : The Commission adjourned till Tuesday, the 23rd instant at ten o'clock.

Confirmed-23.12.24,
Chairman.

## EDUCATION COMMISSION.-MINUTES OF MEETINGS.

## 6. Fiftement Day.


Torsdi, 23 mD Détember, 1924 .
In the Court of Policy Hall, Guiana Public Buildings, at' 10 a.m.
Present: All the Commissioners with the exception of Messfis. Brassington". Woolford, P. N. Browne, A. B. Brown, G. R. Reid and Rey. Canon O. Hedydock Wileon.
2. The minutes of the proceedings of the 19th instant as circulated wére taken as read and were confirmed.
3. Evidence : Méssrs. Edan of Plantation Windsor 'Torest, and Mudholall ${ }^{\dagger}$ Bose of Georgetown gave evidence as representing the views of the Mobammedan'and Hindoo sections of the community, respectively.
4. Adjournment: The Commission adjourned till Tüesday the 30 th instant at 830 arm. in the Court of Policy Hall.
29.12.24.

# EDUOATION, COMMIŞSION-MINUTES OF MEETINGS. 

## Sixteenti Dat.

Totesday, 30th Droember, 1924
In the Dourt of Policy Hall, Guiand Public Buildings, at 8.30 a.m.
Present: All the Commissioners with the exception of Messrs. P. N. Browne, A. B. Brown, E. Beckett and G. R. Reid.
2. The Minutes of the proceedings of the 23rd instant, as circulated weretaken as read and were confirmed.

Discussion : Resolution No. 2 of the first series of proposals drawn upi by the Commissioner of Education was considered:and voted upon in three separate clauses.

Moved by Mr. Luckhoo-the following amendment: That after the word "Colony" in the third line, for the words "that three colgnial schools" in the third and fourth lines down to "for girls of the same ages" in the ninch and tenth lines, the following words be substituted : (i) three colonial primary schools (to be used as demonstration sohools for teachers in training) be established fonthwith in Georgetown, to be followed by one central school for boys who have attained, the age of 12 years, and one central school for girls of the same age."

## Carried by 8 votes to 4.

Moved by Mr. Luckhoo-the following amendment: That for the words ${ }^{\text {c }}$ two colonial schools" in the tenth line down to "public funds" ini the fifteenth line, the following words be substituted: (ii) that one colonial primary school,be established forthwith in New Amsterdam and in the village district of Buxton and Friendship."

Negatived by 11 votes to 2.
Moved by Mr. Carr-the following further amendment: That for the same words as mentioned in the last proposed amendment, there be substituted the following words: "(ii) that two colonial primary schools: of similar type be established forthwith in New Amsterdam and also in the villagq of Buxton and Eriendship."

Carried by 11 votes to 2.
It was agreed for the words " all areas and villages" in the seventeenth line to substitute the words " in urban and rural districtss" and for the words "schedule, of such places" in the eighteenth line to substitute the words "schedule of thase -districts. ${ }^{20}$
4. The Reverend Father Killion asked that it be recorded that, in view of the :strong position of Roman Catholicism in the life of the community, he appealed on behalf of the Catholic communion for special consideration if their schools should be closed upon the establishment of Government schools in view of the fact that the Roman Catholic denomination would have to pay very largely for school buildings that were not used.

Canon Wilsod, on behalf of the Anglican and other churches, joined,in the appeal.
5. The following clause (iv) of the recommendation was put to the vote and adopted:" (iv) that no grants in aid be given to denominational schools in, distriets adequately served by colonial schools.

Adjournment: The Commission adjourned till Wednesday; the 31st instant, tat 8,30 a.m. in the Court of Policy Hall.
24.2.25.

CHARLES MAJOK;
Chairman.

## EDUCATION COMMISSION.-MINUTES OF PROCEEDINGS.

Seventeenth Daf.<br>Wednesday, 31st Deormber, 1924.

In the Court of Policy Hall, Guiana Public Buildings, at 10 a.m.
Present: All the Commissioners with the exception of Messrs. A. B. Brown, P. N. Browne and E. Beckett:
2. The Commissinner of Education proposed and explained the following recommendation which was unanimously adopted and numbered 5 .
"That the permanent establishment of the Department of Education shall, in addition to the Commissioner and the Inspectorate, consist of :-

1 administrative officer (2nd class)
1 financial and statistical clerk (2nd class)
1 of each of the following grades :-
4th class clerk.
5th class clerk.
6th class clerk.
) ... 3 School Attendance Officers.
3. Mr. Wynn-Williams introduced and explained the following recommendation numbered $6:-$
(a) That all educational administration be henceforth undertaken by, and concentrated in, the Department of Education;
(b) that the Commissioner of Education be the responsible officer for all types of Education in the Colony.
4. The Principal of Queen's College desired record of his protest against the form and matter of the recommendation, upon which he bad not been consulted.

Upon Clause (a) being pul to the vote, Mr. Carr, Canon Wilson, $\cdot$ Miss King, Mr. Luckhoo, Mr. Brassington, Mr. Wynn-Williams, Major Gray and the Chairman voted for it.

Mr. Moulder, Mr. Woolford and Father Killion voted against it.
The clause, therefore, was adopted by 8 votes to 3.
". (Miss Basket' did not vote).
Clause (b) was then discussed :-
Mr. Carr suggested t"jat the word "executive" be substituted for the word "responsible" "; the Principal of Queen's College, he said, must be the absolute head of the College.

After debate, consideration of the recommendation was deferred until discussion of a recommendation regarding the constitution of an Education Board or , Council.

Mr. Carr then gave notice of his intention at the next meeting to move the adoption of a recommendation for the abolition of the present Education Board and the formation of a consultative Council in its place. The terms of the recommendation would be circulated.

Mr. Wynn-Williams having stated that his mission to the Colony was ended and that that was the last time he would act on the Commission, the Chairman (followed by Mr:'Woolford) on behalf of all the members of the Commission thanked Mr. Wynn-Williams for the valuable assistance he, as their expert adviser, had rendered to the Commissioners, desiring to express their high appreciation of his efforts towards the solution of, the many problems connected with administration of local education.

The Chairman informed the meeting that for many reasons they could not contemplate another sitting for some reeks, and at his suggestion the Commission adjourned sine die. ${ }^{\text {c }}$
24.2.25.

CHARLES MAJOR, Chairman.

# EDOCATION COMMISSION.-MINDTES OF MEETINGS. 

## Eiahteentr Daf.

Monday, 23rd Febrdary, 1925.

In the Court of Policy Hall, Guiana Public Buildings, at 9.30 a.m.
Present: All the Commissioners with the exception of Messrs. P. N. Browne, Brassington, Woolford, Beckett and Reid.

Since the last meeting Mr, Wynn-Williams' report to the Government of his inspection of the schools and of the results of his survey of the educational system of the colony, had been confidentially circulated to the members of the Commission, Who agreed that its contents ought to be utilized in its entirety: as the main part of the Commission's report.

The Commission then proceeded to consideration of a series of recommendations drafted by the Commissioner of Education in consultation with the Chairman and other members, based on Mr. Wynn-Williams' report.

Compulsory Education : The following reconmendation was adopted :-
"That all circulars tending to discrimination between East Indians and other races, be withdrawn, and that the operation of Ordinance No. 3 of 1876 be strengthened towards ( $a$ ) "efficient elementary instruction" being attendance at every elementary school session; (b) increase of pecuniary penaltios for non-attendance; and (c) making proof of cause or causes for absence of a child from school lie on the person alleging the same.

Secondary Education: The following recommendations were adopted :-
I.-(a) That Queen's College continue as a Government Institution as at present organised; the number of places open to pupils from primary schools entitled to free tuition to be not less than five nor more than eight in any one year.
(b) That in order that the Principal may have ample time for supervision, an additional master be provided qualified to teach at least one foreign language.
(c) That provision also be made for the teaching of drawing to the lower forms.
(d) That class-room accommodation and the vote for the upkeep of grounds, at present inadequate, be increased.
IT. (a) That all grants in aid of secondary education be administered by the Education Departroent and calculated as a capitation grant for each pupil over the age of ten attending an approved course of secondary education,* a bonus being given to the school in respect of each pupil satisfactorily completing a four years' course, with power to make an increased grant toschools carrying out an approved course of higher education.
III. That, wherever the number of pupils is less than 50 , a block grant, not exceeding the maximum capitation grant for 50, be given to schools where a qualified staff and adequate buildings have been provided.
IV. That it be one of the conditions on which a grant is given in aid of secondary education that every school so aided shall reserve a proportion of places for pupils selected by the Education Department, whose fees. shall be paid, wholly or in part, from public funds.
V. That schools receiving grants in aid of primary education be not allowed. to undertake secondary education unless they are specially recognised by the Commissioner of Education for that purpose.
VI. That the Blair Scholarship be awarded on the results of the examination for, and under the conditions oí, the Government primary scholarship, sofar as they are applicable.
far as they are applicable. of secondary education consists normally of English Language and Literature, Geography and History, Mathematics, Science

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(including Hygiene), Physical Training and at least one language other than English. The curriculum for girls should include a course of domestic subjects, such as cookery, laundry, needlework and housekeeping,

Agricultural Education : The following recommendations were adopted:
(I). (a) That in all courses for training of teachers due attention be given to Nature Study and that as soon as qualified teachers are available that subject be taught as an integral part of the curriculum in all State-aided primary schonls;
(b) that solected teachers (men or women) who show special aptitude receive a course in practical gardening suitable to the colony and be placed in charge of gardens, which shall be accessible to groups of schools in districts which are not served by the existing district gardens;
(c) that isolated schools may, with the approval of the Commissioner, of Education, establish a school garden if a qualified teacher and other requirements are available.
II. That in secondary schools the science course shall inclade the study of plant and animal life, together with such instruction in botany, chemistry, and physics as is necessary thereto, to be be followed (where necessary) by a specialised course in one cr more of those subjects.
III. That in the téchnical school the science course for pupils who propose to take up agricultural pursuits consist of a general course on similar lines, with greater attention to the agricultural or horticultural application of the biological, chemical or physical principles taught; and that technical instruction be given in one of the following subjects-poultry farming, dairying, or bee-keeping.
(Note.-The pupils taking this course would be from 12 to 15 years of age. The other subjects of the course would be English, Mathematics, (especially Mensuration) Manual Work, Book-keeping, Hygiene and Sanitation, Physical Training).

Mr. Carr, referring to the notice of intention to move the adoption of a recommendation as to the constitution and powers of an Education Consultative Council, asked to withdraw it in favour of that contained in Mr. Wynn-Williams' report, at page 42 of that report as confidentially circulated.

Adjournment: The Commission then adjourned till to-morrow at 9.30 a.m., in the Court of Policy Hall.

### 25.2.24.

# EDUCATION COMMISSION MINUTES OF MEETINGS. <br> Ningtapnit par. <br> Tomeday; 24th Febridary, 1925. 

In the Court of Policy; Hall, Guiana Public Buildings, at 9 a.m.
Present: All the Commissioners with the exception of Messrs w. G. Woolford, A. B. Brown, P. N. Browne, G. R. Reid, R. E. Brassington and E. Beckett.
2. The minutes of the sixteenth and seventeenth days' proceediny's 'sis \&irculated were taken'as Tridd kidlfere confirmed, the latter being slightly amended.
3. The following recommendations relating to training of teachers were after discussion adopted:-
I. (a) That in order to obtain entrants of suitable type for the teaching profession, every effort be made to recruit as many pupil teachers as possible from the secondary schools or from technical schools when established, or, if a sufficient number be not forthcoming from those sources, that, between the sges of 14 and 16, all pupil teachers in Georgetown, New, Amsterdam (and any other area in which arrangements can be made), receive full-time education of a secondary or technicai type in an approved central institution.
(b) That, between the ages of 16 and 18, all pupil teachers in the areas mentioned in paragraph (a), receive part-time education of a similar type, the rest of their time being spent in teaching practice in selected primary schools.
(c) That, between the ages of 18 and 20, all teachers in training attend a full time course of instruction in a central institution.
II. (a) That after 1st January, 1930, there be issued only two classess of teachers' certificates, to be called Certificate ' $A$ ' and Certificate ' $B$.'
(b) That Certificate ' $A$ ' be issued to candidaces who satisfactorily completea course of training, or, until a Training Institute is in full working order, pass an examination in geueral and professional subjects including a. practical test in teaching and that Certificate ' $A$ ' be one of the qualifications required for employment as a certificated assistant teacher in a Stateaided primary school in the colony.
(c) That Certificate ' $B$ ' be issued to teachers who-
(i) have satisfactorily completed at least seven years' service in a primary school in the colony or produce evidence of having completed a similarperiod in such other schools or countries as the Commissioner of Education shall consider equivalent thereto, and
(ii) pass a test in professional subjects in which credit will be given for proficiency in one general subject on a bigher standard than thatrequired for Certificate ' $A$.'
(d) That as soon as practicable Certificate ' $B$ ' be made an essential qualification for appointment as head teacher in a State-aided primary school inthe colony.
4, A recommendation for the separation of the sexes was then considered and adopted as follows :-

That in all schemes for the establishment of colonial' schools or the re-or-ganisation of existing schools, every effort be made to provide separate. premises (or at least separate departments) for boys and girls beyond. the infant school stage.
5. On consideration of a recommendation that an intercolonial Board of Examiners be created, it was decided to report that the Commission heartily affirmed. the principle and recommended that steps be taken by the Governments of thecolonies concerned to establish an institution of the kind.
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6. Relating to building and other skilled trades, the following amendment was adopted:-

That, in order to increase and improve the facilities for selected boys to learn one of the building trades (or other skilled trade) arrangements be made for the training of apprentices in an approved works under the supervision of the Director of Public Works similar to those in force for agricultural apprentices . under the Director of Science and Agriculture.
Adjournment: The Commission adjourned till to-morrow (Wednesday) at 2 p.m., in thè Court of Policy Hall.
25.2.24.

CBARLES MAJOR,
Chairman.

# edocation Commission.-Mindtes of meetings. 

Twantieth Day.<br>Wednesday, 25 th Februart, 1925.

In the Court of Policy Hall, Guiana Public Buildings at 2 p.m.
Present: All the Commissioners with the exception of Messrs. Woolford, Beckett, Canon Wilson and Reid, the last named Commissioner having left the Colony.
2. The minutes of the eighteenth and nineteenth days' proceedings as circulated were taken as read and were confirmed.
3. The following recommendations, were, after discussion, adopted:-

Secondary and Technical Education :
I. (a) That the Mitchell and Government Junior Scholarships be awarded on the results of an examination in English, History or Geography, Mathematics, and at least two additional subjects selected from the following list: :-Latin, French, Greek, German, Spanish and Portuguese, Drawing, General Science, Manual Work, Domestic Science, Book-keeping, Shorthand and Typing-the standard to be that of the papers for lower forms set by the Oxford and Cambridge Joint Board (No. 4), and
(b) that only those candidates be accepted who satisfy the Commissioner of Education that they have been undergoing an approved course of higher education.
II. (a) That funds be placed each year at the disposal of His Excellency the Governor for the purpose of nominating the boy or girl, selected by a committee appointed by the Governor for the purpose, best qualified to undergo a course of study in agriculture or any other branch of Applied Science at an institution of university rank within the British Empire; the proposed course and the institution selected to be approved by His Excellency.
(At this stage Mr. Brassington left the meeting).
Registration of Schools: That-
(a) It shall be the duty of the secretary of the governing body, or, if there is no governing body, of the head teacher, of every school not in receipt of grants from public funds, to furnish to the Commissioner of Education such particulars concerning the school as may from time to time be deemed necessary by the Commissioner ;
(b) in respect of schools existing if and when a regulation to the above effect comes into force, those particulars sball be furnished within three months thereafter;
(c) in respect of schools that may be opened thereafter, the particulars shall be furnished not less than three months before they are opened; and
(d) the Commissioner of Education, or the Surgeon General, or officers of their departments be empowered from time to time to inspect those schools and report thereon.
Queen's College: The following recommendations relative to the staff of Queen's College were considered aud adopted:-
(1) That there should be five assistant masters qualified to take higher work in either Classics, Modern Siudies, Mathematics, or Science, of whom two shall receive $£ 450$ per annum for three years rising after that by increments of $£ 25$ to $£ 600$, and three $£ 400$ per annum for three years, rising after that by increments of $£ 25$ to $£ 550$, if proved efficient.
(2) Three assistant masters, of whom one shall be qualified to give oral instruction in a foreign language, and one qualified to teach drawing,-at
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a salary of $£ 250$ for three years rising after that by increments of $£ 15$ to £300, if proved efficient.
4. Adjournment: The meeting was then adjourned till 9 o'clock to-morrow (Thursday) in the same hall.

Confirmed-4.2.25.
CHARLES MAJOR,
Uhairman.

# EDUCATION COMMISSION,-MINUTES OF MEETINGS. Twenty-first Dat. 

Thursdap, 26th. Februarp, 1925.

In the Court of Policy Hall, Guiana Public Buildings at 9 a, m.
Present: All the Commissioners with the exception of Messrs. Woolford, Brassington, Beckett, and Canon Wilsoo.
2. At the request of the Principal of Queen's College the recommendation relating to the staff of the College, approved yesterday, was reconsidered and adopted in the following amended form :-
(Mr. Brown and Mr. Luckhoo, while expressing agreement with the reduction of the probationary period from three years to two, not voting on the increase of salaries.)|
(1) That there be five assistant masters qualified, to take higher work in either Classics, Modern Studies, Mathematics or Science, of whom, if proved efficient, three shall receive $£ 450$ per annum for two years, rising after that by annual increments of $£ 25$ to $£ 600$, and two $£ 450$ per annum for two years, risiug by annual increments of $£ 25$ to $£ 550$.
(2) Three assistant masters, one of whom shall be qualified to give oral instruction in one foreign language, and one qualified to teach drawing-at a salary of $£ 300$ per annum for two years, rising after that by increments of $£ 15$ to $£ 350$, if proved efficient.
3. Grants-in-aid: After reasons given by the Commissioner of Education for the introduction of a system of block grants in place of the present system of specific payments, the following recommendations were adopted :-

1. That the present system of giving separate grants for salaries, buildings, latrines, etc., be abolished, and, in future, block grants be made to primary schools fulfilling the conditions of the Code in force for the time being special importance being attached to-
(a) the maintenance of an efficient standard of education;
(b) the payment of an approved scale of salaries fur teachers;
(c) the supply and maintenance of adequate and sanitary buildings, suitable furniture and apparatus; and
(d) the keeping of accurate accounts and records.
II. That an increased grant be made to primary schools in which regular and efficient instruction is one of the vernacular languages of India is given to not less than 50 per cent. of the pupils in average attendance.
In connection with grants-in-aid the Commissioner undertook to submit a recommendation for the classification of schools as indicated by Mr. Wynn-Williams at pages 55 et seq. of his report.
2. Teachers' Salaries : After considerable discussion the following recommendations by the Commissioner of Education were adopted :-
I. That the salaries of certificated teachers in state-aided primary schools be calculated in accordance with the following principles:-
A.-An adequate initial salary should be fixed for the lowest grade of certificated teacher without experience, and an annual increment, up to 15 years in all, the first to be granted atter two years' efficient service. B.-That an additional sum should be granted to-
(a) the holder of a higher grade of certificate or other special qualification 5
(b) the first assistant in a school in which the Commissioner is satisfied that the appointment of this kind is necessary;
(c) the holder of any other post which, in the opinion of the consultative committee involves special responsibility; e.g., the instructor of pupil teachers in an area where there is no pupil teachers' centre.

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II. That the salaries of uncertificated teachers be at a fixed rate (not subject to increment) calculated with general reference to the current cost of living.
III. That pupil teachers of ages 14 to 18 receive an allowance in respect of which only one increase be granted, on passing appropriate tests about the age of 16.
VI. That teachers in truining of ages 18 to 20 be granted a fixed allowance, returnable by those not carrying out their undertaking to teaoh in a primary school in the Colony for at least two years immediately after the period of training.
Trained as against untrained teachers : A proposal that existing trained teachers should be considered us having the special qualification within the meaning of $\mathbf{B}$ (a) above as discussed, and approved by a majority of votes.
5. The principle of giving free books for the use of children attending school was not accepted.
6. Adjournment: The Commission then adjourned till Wednesday, 4th Mareh. next, at 2 p.m., in the same hall.

Confirmed.-11.3.25.
CHARLES MAJOR,
Chairman.

## EDUCA'TION COMMISSION.-MINUTES OF MEETIINGS.

Twenty-second Day.<br>Wednesdar, 4th Mardi, 1925.

In the Court of Policy Hall, Guiana Public Buildings, at 2 p.m.
Present: All the Commissioners with the exception of Messrs. Woolford, Brassington, Beckett and Luckhoo.
2. The minutes of the meetings of the twentieth and twenty-first days were amended and confirmed.
3. Compulsory Attendance: The Chairman directed that the following additional recommendation should be circulated:-

That, as soon as practicable, the age for ermpulsory attendance at school be fixed by law at from 6 to 14 years for all parts of the Colony.
4. Scholarships : The Principal of Queen's College suggested that unqualified candidates should not be allowed to enter for the Guiana Scholarship.

No decision was arrived at.
5. Finance.-Salaries of teachers.

Under this head the following additional recommendation was unanimously adopted:-

That the salaries of head teachers be paid according to an approved scale in which the rates shall rise by fifteen an nual increments granted for officient service, and which shall take into account the class of certificate held by the teacher (A. or B.) and the grade of the school.
(The Commissioner of Education woald, every three years, place each school in one of three grades, the average attendance, the number of pupils that can be accommodated in a school according to the existing regulations, and the number of teachers employed being three of the factors to be taken into consideration by him).
6. Education Board: In a paper circulated to the Cnmmissioners, the Commissioner of Education bad adrocated that the functions of the proposed Consultative Council should bs purely advisory. Mr. Carr moved that the specific proposals contained in paragraphs 46.47 of Mr . Wynn-Williams report be adopted.

The Chairman thereupon drew attention to the appendix of the repart in which mention is made of a consultative council or committee of seven persons, to be nominated by the Governor.

During discussion Mr. Carr moved, and Mr. Moulder seconded, that the proposals in. Mr. Wynn-Williams' report be amended to read as follows :-

To consider and advise the Commissioner of Education on-
(a) the needs of the Education Department and the preparation of the Education Estimates;
(b) the expenditure of all public moneys voted for educational purposes by the Combined Court, and all the necessary audits relating thereto;
(c) any legal difficulties that may arise in connection with the supply of new schools, or the removal of any school from the Annual Grant List;
(d) any alterations that may from time to time be found desirable in the Code for primary schools and the regulations for secondary, technical, agricultural schools or institutions, and for the training of teachers before they aresubmitted to the Government for legal confirmation;
(e) the conditions under which scholarships of all kinds are awarded, the need for, or desirability of, holding any external examinations, and the kind of examination that would appear to be most suitable and appropriate, the general conduct and result of such examinations and their effect upon educational policy;
(f) any question, educational or otherwise, upon which the Commissioner may wish to seek advice.

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After discussion, Mr. Carr's principal motion was also agreed to, Mr. A. B. Brown and Mr. Thorne dissenting on the ground that the Council should be executive and not advisory.
(In the meantime Mr. Carr had left the meeting, after recording his vote in favour of his own motion.)

Mr. P. N. Browne moved that in the event of the creation of the consultative Council above referred to, the dismissal of a certificated teacher, or the cancellation of his or her certificate should be an executive act of the whole body and not of the Commissioner of Education alone.

This was agreed to.
Personnel : It was decided to recommend in the report that the Commissioner of Education should be ex-officio Chairman of the Council, that the Surgeon General should be ex-officio a member of the Council, and two members should be members of the Combined Court, and that the remaining members should be selected on account of their interest in education.

Adjournment: The Chairman adjourned the meeting till Wednesday, 11th instant, at 2 p.m., in the same hall.

Confirmed-4.3.25.
CHARLES MAJOR,
Chairman.

# EDUCATION COMMISSION.-MINUTES OF MHETINGS. 

Twenty-Third Day.
Wrdnesday, 11th Maroi, 1925.
In the Court of Policy Hall, Guiana Pablic Buildings, at 2 p.m.
Present: All the Commissioners were present with the exception of Messrs. Brassington, Beckett, P. N. Browne and Father Killion.
2. Confirmation of minutes: The minutes of the proceedings of the twentysecond day as circulated were taken as read and were confirmed.
3. The Guiana Scholarship: The following recommendation by Mr . Moulder was adopted; Mr. Woolford alone not voting.

That the entries for the Guiana Scholarship be restricted to candidates undergoing a course of higher education approved by the consultative Council.
4. The Inspectorate: The Commissioner of Education having stated that the proposals before the Commission had been drafted by Mr. Wynn-Williams and himself, offered explanations thereon.

An amendment was moved by Mr. Moulder that the words "possessing degrees (or their equivalent) of some recognised uuiversity of the United Kingdom, or the Dominions," be struck out.

Mr. Thorne moved an amendment that the following words be added-" had, in addition, five or six jears' experience as a teacher."

Mr. Moulder's amendment was carried by six votes to five,
Mr. Thorne withdrew his amendment.
The resolution as proposed by the Commissioner of Education was therefore carried in the following form :-
(a) That four competent and qualified inspectors be appointed to the permanent Civil Service with as little delay as possible, one to be resident in each county area, who in addition to performing all the duties connected with the inspection of primary schools, shall be competent to inspect at least one branch of secondary or technical education and shall be at the service of the Commissioner to discharge any other functions, administrative or otherwise, that he may consider necessary; and
(b) that in the case of secondary, technical, agricultural schools or any other institutions, where bigher or specialised education is given, the Commissioner be empowered, where no officer of the department has the necessary qualifications to enrol a panel of inspectors who are qualified to perform the duties connected with the inspection of such schools.
During the discussion Mr. Browne asked that the question of appointing teachers to the inspectorate (which was raised in the teachers memorandum) should be considered.

The Chairman said that it was no part of the duty of the Commission to recommend individuals for appointments. The Commission might, however, in their report, draw attention to the suggestion of the teachers as being worthy of notice.

Mr. Carr then moved that the suggestion of Mr. Wynn-Williams as regards the inspectorate be adopted, and that the words " of whom one shall be a woman with qualifications in domestic economy aud hygiene," be inserted after the word "inspectors" in the second line.

This was unanimously adopted.
It was also decided to suggest that Mr. Wynn-Williams be asked to assist in the matter of obtaining suitable inspectors.
5. Teachers' Pensions : The Commissioner of Education having introduced and explained his proposals, which are as follows:
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(a) That the 'leachers' Pension Ordinance be amended in the following respects:
(1) That the present limit of $50 \%$ of last salary drawn be cancelled and pension calculated according to length of service and class of Certificate.
(2.) tbat 2 years' salary be granted to each teacher retiring on pension,

Mr. Moulder, Canon Wilson and Mr. Woolford spoke against the proposals contained in section (2). The sense of the meeting having been clearly indicated against this section of the recommendation the Commissioner did not press it.

Mr. Luckhoo moved that the first clause of the recommendation be adopted.
This was carried by six votes against five.
6. Finance :-Grants in aid of primary education-

The following recommendation was unanimously agreed to :-
(a) That in addition to the block grants made to all schools which reach a satisfactory standard of efficiency, an additional grant be made to schools which are reported by the officers of the Education Department as being 'excellent' or 'good';
(b) that the purpose to which this grant is applied by the managers of the schools be specially approved by the Commissioner of Education.
7. Compulsory attendance : After discussion the Commissioner of Education put forward the following recommendation-

That, as soou as practicable, the age for compalsory attendance at school be fixed by law at from 6 to 14 years for all parts of the colony.
Mr. Carr moved:-'That the law be left as it stands.
The Chairman then put the question to the vote.
The recommendation was carried by eight votes to three.
8. Queen's College:-The members of the Commission thought that a recommendation as to free quarters for the Princical should form a part of the general recommendations in connection with Queen's College.

In connection with the above matter the Commissioners agreed to mention in their recommendations regarding Queen's College the following suggestion by Mr. 'l'horne:-

That arrangemen ts be made at Queen's College to accommodate boarders from the Country,
9. Adjournment: The meeting was then adjourned till 2 p.m. to-morrow, in the same hall.
18.3.25.

CHARLES MAJOR, Chairman

## EDUGATION COMMISSION.-MINUTES OF MEETINGS.

## Tẉenty-foubtr Day.

Thursday 12te March, 1925.
In the Court of Policy Hall, Guiana Public Buildings at 2 p.m.
Present : All the Commissioners with the exception of Messrs. Brassingtoin, Lackhoo, P. N. Browne and Thorne, and Father Killion.
2. The minutes of the proceedings of the previous day were confirmed subject to the following amendment:-

That in item No. 8-Queen's College-the words commencing from "Salary of the Principal" down to the word "candidate" at the bottom of the page' be expunged and the following substituted therefor. -

The members of the Commission thought a recommendation as to free quarters for the Principal should form a part of the general recommendations regarding Queen's College."
3. Secondary and Technical Education-A Girl's Scholarship-The Commissioner of Education then put forward the following recommendations.-
(a) That His Excellency the Governor be requested to nominate each year one girl between the ages of 16 and 19 selected by a committee to be appointed for the purpose as best qualified to undergo a course of study at an institution of university rank within the British Empire, the proposed course and the institution selected to be approved by His Excellency; and
(b) that a sum be voted annually to defray the cost of the student's fees for the approved course and other necessary expenses.
Mr. Moulder and Mr. Woolford spoke against the proposal as it stood, and suggested amendments.

The Commissioner of Education moved that the general principle of establishing this scholarship be affirmed. This was carried.

The Commissioner of Education then moved that the principle of selection by a committee appointed by the Governor for the purpose be affirmed. This was negatived by a majority of votes.
(The Principal of Queen's College did not vote.)
After other suggestions had been made, the Commissioner of Education, seconded by Mr. Moulder, moved for the insertion of the words "which shall be open to public competition", to which Mr. "Woolford suggested the addition of the words "under regulations to be made later."

Subject to these amendments and the necessary verbal alterations, clauses (a) and (b) of the recommendation were then unanimously approved.
4. Miscellaneous: The following items were then introduced by the Commissioner of Education:-
(a) That no action be taken in the matter of establishing a Government Secondery School for girls.
(b) That a scheme for the training of girls in suitable occupations io instituted on lines similar to those in force for the training of boys as agricultural and industrial apprentices.
(c) That the report of the special committee on the Industrial home for girls be approved, subject to provision being made for the general control of the home by a governing body of 3 members, nominated by His Excellency the Governor.
(d) That agricultural and industrial apprentices (including girls) who satisfactorily complete their course of training, be given a grant in moneg or kind, equal in value to the sum they have saved during their apprenticeship, for the purpose of enabling them to take up within the colong any

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agricultural or industrial pursuit approved by the authority administering the scheme under which they have been trained.
On the suggestion of the Chairman it was agreed that ( $d$ ) should be discussed after (b).

With reference to clause (a) Mr. Woolford stated that in his opinion a Government Secondary School for girls. was a necessity. 'He pointed out that the subventions to existing schools liable to be reduced at any time, or even to be cut off altogether.

It was therefore agreed to make it clear in the report that if the recommendations regarding the girls' department at the Technical School, aud the grants to the existing secondary schools are not carried 'out, then steps should be taken immediately to establish a Government secondary school for girls.
(b).-The principle of this clause was then agreed to.
(d) was then approved, and ordered to be included after (b).

The Chairman then said that suggestions had been made by a magistrate that girl offenders should be sent to an institution similar to Onderneeming.

After discussion (c) was then approved.
It was pointed out by Mr. A. B. Brown that the recommendation did not meet the need for a home for young gifls who had no Tesponsible persons to look after them. After discussion it was agreed to include in the report a recommendation that an orphanage or similar institution appeared to be required as well as the industrial hóme.
5. Educational administration : The Chairman drew attention to the minutes of the seventeenth day's proceedipgs, dated 31st December. Mr. Wynn-Williams bad introduced a recommendation (numbered 6 (b)) :

That the Commissioner of Education be the responsible officer for all types of education in the colony. Mr. Carr had proposed the following amendment.
That the word "executive" be substituted for the word "responsible."
Further consideration of this question having been deferred till the relations of the Commissioner of Education and the Board of Eduration had been settled, it was now brought forward for decision.

Considerable discussion followed, during which Mr. Carr entered the meeting. (Time 3.40 p.m.)

Mr. Woolford stated that, in his opinion, the Commissioner should be a member of the governing body of Queen's College.

The Chairman put the question as follows.-
That the Commissioner of Edication be the chief executive officer for all types of education in the colony; to which as an amendment, it was proposed to add the following words.-
"except in respect of Queen's College."
The amendment was put and was lost by 5 votes against 4 A second vote was taken on the question of the following words being added to the motion:-
"except in respect of Queen's College during the tenure of office of the present Principal."
'The addition was approved by 5 votes against 1. (The Commissionerof Education, the Principal of Queen's College and Miss Baskett, did not vote.)
6. Adjournment : The Cbairman then adjourned the meeting till Wednesday, the 18th instant, at 2 p.m., in the Court of Policy Hall,

Approved and signed
(18th March, 1925).

# EDOCATION COMMISSSON.-MINUTES OF MEETRGGS. <br> Twhaty-Fittif, Day, 

Wednesday, 18th March, 1925.
In the Court of Policy Hall, Guiana Public Buildings, 2 .p.m.
Present: All the Commissioners with the exception of Messrs, P. N. Brawne, A. B. Brown, Thorne, Carr, Beckett and Luckhoo.
2. Confirmation of minutes : The minutes of the meeting of the twent-fonrth day were taken astread and were confirmed.
3. The following recomondations, as amended, relating to the appointment, promotiops suspensiou and dismissal, etc., of teachers were unanimously adopted :-

1. That the powers of the Commissioner of Education in connection with the appointment, promotion and dismissal of teachers and pupil teachers in State-aided primary schools be strenthened in the following directions :-
(a) that the appointment and promotion of all teachers and pupil teachers in State-aided primary schools be subject to his approval ;
(b) that he be empowered to require the governing body concerned to suspend from duty any pupil teaoher or uncertificated teacher, and to investigate any complaint made against him or her ;
(c) that decision of the governing body in respect of an uncertificated teacher or pupil teacher be subject to confirmation by the Commissioner of Education, who may modify at his discretion the penalty proposed. Should the Commissioner of Education require the dismissal of the uncertificated teacher or pupil teacher, and the governing body (or a majority thereof) not concur in this penalty, the governing body may appeal to the Consultative Council whose decision will be final ;
(d) that he be empowered to require the governing body concerned to suspend any certificated teacher pending the decision of the Consultative (Ouncil as to the dismissal of the teacher or the cancellation of his or her certificate,
II. (a) that the practice of fining teachers be discontinued;
(b) that minor breaches of the regulations be recorded on the teacher's certificate or record of service; and
(c) that repeated or serious offences be punished by dismissal or the cancellation of the teacher's certificate.
2. The following recommendation relating to school buildings, etc., was also in like manner, unanimously adopted :-

That increased funds be provided in 1926 (and subsequent years, if necessary) for the purpose of putting into a reasonable state of repair (especially in respect of cleanliness and sanitation) the buildings, out-houses, surroundings and equipment of State-aided primary schools, which, in the opinion of the governing body concerned and of the Commissioner of Education, will necessarily be used as schools for at least five years thereafter. Should the governing body and the Commissioner of Education fail to agree as to the eligibility of any school to receive a portion of this grant the matter will be referred to the Consultative Council, whose decision will be final.
5. Agricultural Scholarship-age limit: It was decided to recommend :-

That the age limit for the proposed scholarship in agriculture (or other branch of applied science) be from 16 to 20 years.
6. Proposed Medical College at Jamaica:--It was further unanimously agreed to make the following recommendations relative to intending students of Medicine and Science :-

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That no subsidy be paid to the proposed Medical College at Jamaica, but that, in order to meet the needs of the intending students of Mericine and Science, there should be in at least one institution in the Colony courses in Physics and Chemistry up to the standard of the Higher Certificate of the Oxford and Cambridge Joint Board, and that in addition, provision be made for a course in elementary Biology which will be recognised by one or more of the bodies in Great Britain which licence medical practitioners.
7. Continuation schools : The Commissioner of Education pointed out that he proposed to include in the draft report proposals that evening continuation classes shall be carried on at the Colonial Schools, especially the proposed Technical Sp̣hool, and elsewhere. This was agreed to.
8. Adjournment : The Commission then adjournment sine die.

CHARLES MAJOR,
Chairman.

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## EDUCATION COMMISSION.-MIND'TES OF MEETINGS. <br> Twentr-Sixth Dây.

Wednesday, 15th April, 1926.
In the Court of Policy Hall, Guiana Public Buildings, at 2 p.m.
Present : All the Commissioners with the excaption of Canon Wilson, Miss Baskett, Captain Beckett, and Mr. Brassington. Mr. Carr left the colony on the 22nd March.

Confirmation of Minutes : The minutes of the proceedings of the twenty-fifth day, as circulated, were tàken as read and were confirmed.

Draft Report : The Secretary then read out the draft report prepared by the Commissioner of Education, down to the end of paragraph 12, page 18. Certain amendments; mostly verbal, were consequently made therein.

Adjournment: The Commission then adjourned until 2 p.m. on the following day (Thursday).

## EDUCATION COMMISSION:-MINUTES OF MEETINGS. <br> Th́fintr-eeventh Ditit.

Thórsday, 16th Aprilp 1925.
In the Court of Policy Hall, Guiana Püblic Buildings, at, 2 p.m.
Present: All the Commissioners with the exfeption of Canon Wison, Migs Baskett, Captain Beckett and Father Killion.

Confirmation of Minutas: The minutes of the proceedings, of the twenty-sixth day, as circulated, were taken as read and were confirmed.

Draft. Report: The reading of the draft, report prepared by the Commissioner of Education, was resumed, and continued down to the end of the chapter-Administration, during which reading certain, verbal amendments were made.

Adjournment: The Cammission then adjourned until', 2 p.m. on the following day (Friday, 17th April).

EDUCATION COMMISSION,--MINUTES OF MEETINGS.

## Twenty-Eiget Dat.

Friday 17ti Aprii, 1925.
In the Court of Policy Hall, Guiana Public Buildings, at 2 p.m.
Present: All the Commissioners with the exception of Messrs. Browne, Woolford and Brassington, the Rev. Father Killion, Miss Baskett and Captain Beokett.
2. The minutes of the proceedings of the twenty-seventh day, as circulated, were taken as read and were confirmed, with one amendment.
3. The confirmation of the report drafted by the Conmissioner of Education was then resumed. With reference to Chapter V., paragraph 9 , the Commissioner drew attention to the alternative proposals contained in the last two paragraphs of the Teachers' Memorandum. After discussion it was decided that the previous decision of the Commission, as ambodied in this paragraph of the report, covered all the points raised in the Memorandum.

The Chairman thereupon intimated that the report, as amended, would be circulated to the Commissioners for their signatures thereto.
4. The Chairman then said that on behalf of himself and the other mombers of the Commission he desired to record grateful thanks to the Secretary, Mr. H. $\mathbf{\Lambda}$. Mathews, late Assistant Inspector of Schools, for his arduous and untiring efforts, and that, personally, he desired to express his thanks to the Commissioner of Education, who had undertaken, aud ably and successtully carried out, the work of drafting the report.
5. The Commission then proceeded, Mr. Mathews withdrawing, to discuss the remuneration of the Secretary. It was decided to recommend that the following honoraria be paid:-

The proceediugs of the Commission then terminated.
CHARLES MAJOR,
Chairman.

APPENDIX D.

## MEMORANDUM.

Report on Education in British Guiana

BY.
MR. E. WYNN-WILLIAMS, H.M.I. of S.

## MEMORANDUM.

## REPORT ON EDUCA'TION IN BRITISH GUIANA BY Mr. E. WYNNWILLIAMS, H.M.I. of S.

- Introdiotory.

1. Whatever may be said on behalf of the Educational system in the Colony of British Guiana no plea can be established in favour either of statesmanlike policy or of effective administration. It is true that from time to time efforts have been made to systematise Primary Education by the introduction of Codes and Regulations, but these havo been little more than pale and shadowy attempts to transplant the Regulations of the English Education Department of the Privy Council, and later of the Board of Education, to a Colony where their suitability was open to grave doubt and where, owing to the lack of trained teachers and other circumstances not less important, it was impossible to carry them out with any hope of success. Educational policy has in fact followed the line of least resistance.

## No Attismpt to Think odt a Policy Suitable to the Colony.

2. No attempt appears to have been made to consider, far less to meet, the special needs of the Colony. It has in the past been thought sufficient for the needs of this distant outpost of Empire slavishly to adopt the principles and methods which were found suitable in England but which could under no circumstances be applicable in their entirety to a Colony where no traditions existed, where Commerce, Industry and Agriculture were in their infancy, and where difficulties have been immeasurably increased by the fact that a mixed population existed. The results of this unwillingness to think out an educational scheme, which can only be described as an intellectual lethargy, by those who are responsible for marking out the course (as it were) of Education, are very apparent to-day; and the very frequent criticisms that are made to the effect that the teaching in the schools bears little or no relation to the realities of life are by no means without foundation.

## Administrativi Failure.

3. Administratively the plight of the Colony is even worse. The history of administrative and executive control would be ludicrous, if it were not pathetio in its failure. Indecisiveness, constant instability, complete lack of continuity of policy are the cardinal features. The history of administrative changes (so far as it can be disentangled) affords ample illustration. Briefly it is as follows :-

## The Histori of Eduoation in Outline.

4. In 1830 the Colonial Exchequer made a small contribution to encourage the efforts and supplement the resources of Missionary Schools. Twenty years later as the result of a public enquiry the first Board of Education was established with the object of carrying into effect certain recommendations made by the Commission and of administering grants of money made for the purpose of erecting new school-houses and making some contribution towards the salaries paid to sshoslmasters. Attached to these grants were certain conditions which wore unacceptable to the Clergy; the Board became unpopular, and after one brief year of life it was swept out of existence. The entire control was then placed in the hands of an Inspector of Schools, and from 1850 to 1862 the distribation of grants and all other administrative functions were carried out, apparantly with groat sücoэss and ability, by one man.

In 1862 a change was again made. The Buard of Edusation was re-established and consisted of five members (all Governineat Oficials) nominated by the Governor,
who was himself President of the Board. The régime lasted from 1862 to 1874 during which time the number of State-aided schools was considerably increased and various changes of system including that known as "payment by results" was introduced. The effectiveness of the work carried out by the Board was neverthe less called in question and at the instance of the Governor of the day, Sir Jame Longden, another Commission of Enquiry was held, with the result that a thirc Board of Education was called into existence in 1877.

The new Board consisted of ten members, who were appointed by the Governor and the Court of Policy, and were made responsible directly to the Governor whc had full power to alter, nullify, of revoke any order or resolution made by them For five years this Board which consisted mainly of Ministers of various Denominations held office, but in 1882 the Governor, Sir Henry Irving, commented adversely on its àdministration and especially upon its financial incompetence and miscalcula. tions and, as a consequence, the existence of the Board was once more terminated.

For a second time the control of Education was vested in the hands of one man -the Inspector of Schools (1882),

Some grounds for dissatisfaction, however, continued to exist, snd the question of the best and most suitable form of administration continued to harass the minds of successive Governors. In 1896 a Commission declined to recommend the rehabilitation of the Board and with this recommendation the Governor, Sii Walter Sendall, concurred. In 1902 yet another Commission met and this time reported in favour of the re-establishment of the Buard which was to consist of six members, four of whom were to be nominated by the Governor, one by the Managers, and one by the teachers of schools. The Governor, Sir Alexander Swettenham, in a strongly expressed despatch dissented from the view of the Commission and his attitude was confirmed by the Secretary of State.

In 1910 (Ordinance No. 10 of 1910) a Board of Education appeared once more on the scene. This consisted of six representatives of the Combined Court, seven Managers of Schools, two Head Teachers, the Inspector of Schools, with Professor Harrison (Chairman)-the Director of Science and Agriculture. The powere of the Board were limited to giving advice. They had no executive or administrative functions. After four years' experience of this Board Sir Walter Egerton addressed a despatch to the Secretary of State in which he commented adversely on the work done by the Board and upon its general failure to carry out the duties which it was designed to achieve. With this adverse criticism two distinguished Chairmen of the Board (Professor Harrison and Sir Joseph Godfrey) fully concurred, but the Secretary of State (Mr., later Visccunt, Harcourt) deprecated the abolition of the Board.

Once again, in 1918, a radical alteration was made in the constitution of the authority responsible for Education. By Ordinance No. 36 of 1918 a new Board was constituted with the Governor himself, Sir Wilfred Collet, as Chairman. To this body was trunsferred en bloc all the powers of the Governor-in-Council and it was composed of not less than 9 , and not more than 11 members, of whom not less than 4 had to be elected members of the Combined Court. The powers of the Board under this Ordinance were not merely advisory but executive, and, inasmuch as the Governor was the Chairman, became virtually established as the final authority in the Colony. But, be it noted, the most modern attempt to bring education under effective administration took cognisance of Primary and Secondary Education only. Agricultural and Industrial Education (two Departments of activity and of the very highest importance) were left outside of the purview and control of the Board and no sort of attempt at co-ordinating these branches and bringing them into harmony with the educational organisation of the Colony was made.

Meanwhile the Legislature of the Colony proceeded on its way enacting laws which the Executive had not the ability to enforce and which were in advance of their time. Thus, an Act for making attendance at school between the ages of 6 and 14 compulsory was passed in 1919. It still remains on the Statute Book but remains almost a dead letter. Similarly, conditions laid down with every form and circumstances of impressive legality as necessary conditions of the recognifion of schools are openly and flagrantly disregarded-even conditions which affect the health of the children and the community at large. Regulations affecting sanitation for example -a vital pre-requisite to all education-are on the testimony of the Surgeon General himself openly ignored and the Executive. Authority of the Colony seems ponerless to carry out the legislation of the Court of Policy

Under circumstances such as these-an educational policy which is a mere copy of English policy and ill-adapted to meet the needs of the Colony, and with an Executive which is paralysed by constant changes-Education has become the sport and plaything of chance or politics. Its present condition, it must be candidly stated, is chaotic. It lacks objective, and control of the Government, if indeed any control can be said to exist, is too limited aua too seldom and too inconsistently exercised to be effective.

## Early Pioneer Work of the Churches.

5. On the other hand it must not be forgotten that the Government has succeeded in evading many of its responsibilities for a very long time. The task of building Primary Schools has been left entirely to religious denominations. These religious bodies have been the pioneers and they continue to be the mainstay of education. For this excellent work they deserve full credit. They have borne and are bearing the heat and burden of the day, and the State has escaped relatively cheaply by making grants to defray the salaries of the Teachers (which have not in the past been excessive) together with some insignificant payments for main. taining the buildings in repair, and for School Gardens and Manual Instruction.

## Some of the Results of the Control of Edudation by Denominations.

6. This long continued evasion of its responsibilities by the State has had the effect not merely of placing all denominations in a quasi-established position, but has resulted in anomalies which have led to absurd competition between the various denominations, gross wastage of public money, and of the weakening of the teaching force by the necessary employment of a very large corps of unqualified Teachers anc Pupil Teachers of immature age. Examples are found at every turn. Let me takt one illustration.

Buxton and Friendship form one large village community which on the hypo. thesis that the percentage of attendance reached 80 could be served by two schools At the present time the number on the books, accurding to the most recently published figures, is 1,369 and average attendance 892. For this number there are fivs separate schools in existence, with a teaching force of 5 Head Teachers, 6 Cortif cated Teachers, and no less than 29 Teachers and Pupil Teachers with no qualifioa tions at all. Such a state of affairs is clearly the very antithesis of sound educa tional organisation.

The points that at once invite criticism are (1) the ratio between qualified an unqualified practitioners, (2) the inevitable wastage of public money in the employ ment of so much unskilled labour and (3) the unsatisfactory results that must inevi tably ensue from the point of view of the children.

The absurdity of such a situation is so self-erident that it is only to be stated $t_{1}$ be fully appreciated.

For a village community of the size of Buxton and Friendship, where an average attendance of 890 is the case, two schools (one for boys and one for girls) with a staff consisting of 2 Head Teachers, 14 Certificated T'eachers and 4 Uncertificated Teachers might conceivably be sufficient : or, if the scale of school attendance rose (as it ought to rise in view of the Ordinance making attendauce compulsory) to $\mathbf{8 0 \%}$ and there were approximately 1,100 in average attendance, the total staff would consist of 2 Head Teachers, 18 Certificated Teachers and 4 Uncertificated Teachers-an arrangement which would provide for every class being under the direction of a qualified teacher, which would give the Head Teacher, in addition, to doing a certain amount of teaching himself, an opportunity of superintending the work of bis staff and still leave him two Uncertificated Teachers to assist at whatever point he thought their services most essential.

The case of Buxton and Friendship is cited not because it stands alone-there are many other examples-but because it serves to show one of the worst effects of this system of competing denominationalism.

Organisation, which is thoroughly indefensible in principle and thoroughly bad in practice, is one of the inevitable consequences. Teachers of immature age and Teachers possessing no qualifications are multiplied notwithstanding the fact that most of the scbools consist of one room only. And so the evil goes from bad to worse, the state of confusion increases, and the hope of orderly organisation and sound education steadily diminishes pari passu.

A breaking point, however, comes at last, and the zeal of the denominations to take charge of education is confronted by the inexorable and chastening demands of finance. Something has to be sacrificed to the ever-increasing demands that are made upon the Churches. Buildings and school premises generally are the first to suffer. Managers find it impossible to wrestle with wear and tear, to repair the damages made by time and use and weather, to comply with the very necessary demands for improvement and sanitation, to provide a supply of water-in short to keep abreast of the advancing needs of the times. The cry "no funds" is heard at every turn and the Department of Education has to rest content with the prospect of indefinite stagnation. Such is part of the price-and part only-paid by the Gevernment for the system of Education which depends wholly on the efforts of denominationalism.

## Refolim a Vital Nbobssity

7. No State, however small or remote, can aftord in these days of world-competition to pursue in the matter of Education a policy of laissez faire or rest content with what was adequate fifty or sixty years ago. And least of all British Guiana, which with all its natural resources appears to be struggling for its very existence in the world of industry and commerce. Reform which has been far too long delayed bas to be faced and faced immediately, let the cost be what it may. Not to go forward is to lapse into decay ; stagnation means industrial and commercial elimination.

## General State of Disorganisation.

8. The general disorganisation of the various educational activities is a matter upon which it is necessary to offer some comments. Primary Schools are under the administration of the Board of Education-Capax Imperii nisi imperassetwhose chief Executive officer is known as the Commissioner of Education. What the precise powers of this officer are cannot be definitely ascertained. They are apparently considerably restricted and the responsibilities for defects and mistakes in the administration cannot properly be laid at his door since he acts only as an adviser to the Board.

Secondary Education forms an entirely separate Department and is apparentiy under the direction of the Principal of Queen's College. There is, so far as I can ascertain, no point of conlact between Secoudary and Primary Departments, save
that the Commissioner of Education and the Principal of Queen's College have eents on and act as officers of the Board.

Agricultural Education is another separate Department under the direction and control of the chief officer of the Dapartment of Agriculture and Science. Industrial Education, so far as it can be said to exist, is limited to boys, who have been convicted in a Magistrate's Court of some legal offence or misdemeanour, or who are orphans. - These boys are sent to a quasi-penal settlement atthe residential school at Onderneeming, in the County of Essequebo, which can best be described as a Reformatory. For this.institution which is conducted with great skill and success by Captain Beckett the Department of Science and Agriculture is responsible.

The Public Works Department also makes fitful and pathetically unsuccessfal attempts to create, and cater for, a supply of skilled apprentices in various ways, and for this educational activity the Head of the Department, acting through and upon the nominal advice of a Committee of Employers, is responsible.

It will thus be seen that the disorganisation of the various educational forces is complete. No co-operation or co-ordination of any kind is in existence ; each depart-: ment proceeds upnnits way with a sublime disregard of the work done or attempted by anj other department.

Under these circumstances it is impossible to review the state of education asa whole. No system exists. The best that can be done is to review each department briefly and to consider the work accomplished by the several parts.

## Pimmary Education.

## Buildings

9. As regards Primary Schools the conditions under which the work is carried out are most unfavourable. All the buildings are of similar design. They consist of one large room in which children of all ages from 6 to 14 are taught together. Here and there, but very rarely, is to be found a class-room which is generally too small to be of much use. The latrines and office accommodation are almost without exception thoroughly bad -so bad that they can only be described as a disgrace to any civilized country; a supply of drinking water is seldom to be found and proper provision for lavatories is almost unknown.

## Equipment.

Equipment and the necessary apparatus of a school are equally deficient. Suitable desks for writing purposes are unknown luxury. Such substitutes for these as there are consist of cumbrous and shapeless blocks of wood, fashioned by primitive craftsmen, and constructed without reference to the needs of the children, and not unfairly referred to by the Teachers in their memorandum to the Commission as "instruments of torture." An adequate supply of books does not exist. The former are bought by the children and I seldom saw a class in which each member possessed a Reading Book of his or her own. Slates, most of which are in a broken and dilapidated condition, are used regularly in all classes, and younger children did most of their writing on these, holding them in the crook of the arm and without resting them on a desk.

## General Impression.

10. Under such conditions it is scarcely to be expected that very satif factory results can be obtained. It was scaroely possible: in the time at my disposal to form a very definite or accurate estimate of the real value of the work done. But $m y$ general impression coincided in broad outline with the report of Mr . Lawrence, which, as far as I am able to judge, seems to sum up the position with fairness and accuracy. Discipline is well maintained and in those subjects where the imitative faculties and powar
of memorising are primarily essential the results are quite satisfactory. The infants learn to read quickly and the younger children read and spell very well. Arithmetic in all classes appears to be a strong subject, and I saw several classes in which problems were attacked with confidence and were correctly and speedily solved. English is almost universally the weak subject, but for some reason or other the quality of the work falls off as the children grow older.

## Unsuitable Syllabuses.

11. The syllabuses of all sohools are practically alike. They are very narrow and restricted in outlook, and in some respects they are ludicrously grotesque. It seems absurd, for example, to find the East Indian and other children seriously giving their concentrated attention to the "Anarchy of Stephen's Reign" or "the religious difficulties of Queen Elizabeth," or, in the case of an English lesson, a class of children who were preparing for the Leaving Certificate, and whose knowledge of English was very imperfect, trying to assimilate the atmosphere and the Cockney humour of Dickens' "Christmas Carol." But when all is said and done, and when the difficulties under which all the teachers. work are remembered ; when the quality of the staff and the lack of equipment are taken into account, the wonder is not how little but how much has been accomplished. Under better conditions and under better direction it cannot be doubted that the achievements of the children would be greater. The main obstacle, however, in the way of reform is the effort that will be required from the teachers to lay aside the traditions to which they have been accastomed all their lives, and to adjust their teaching to the needs of the Colony in which they live.

## Secondary Liducation.

12. Of Secondary Education much that has been said of the Primary systemmay be repeated mutatis mutandis.

## Queen's College.

Queen's College, the principal Secondary School of the Colony, though a comparatively new building was not originally built for a school, and is none too large, nor too genérously equipped, for its purpose. Its class-room accommodation is limited; the Chemical Laboratory, though good as far it goes, is congested, and its playing field too small.

In character the training which it provides for the 168 boys on the roll is. similar and parallel in almost every particular to that given in an old established secondary school in England, and although I bave had no opportunity to form an. opinion of the quality of the teaching, the results of various Cambridge Local Examinations would appear to indicate that it is at least thoroughly sound as faras it goes, and it is legitimate to infer even from a very brief visit that the tone and discipline are all that might be expected in a well-conducted school of the kind.

## Irs Educational Objeotive.

13. It is, however, within the limits of fair comment to suggest that the time hascome when the object and purpose of the school should be reconsidered in the light of modern requirements. The main objective is to train boys for the professions and the Universities. The course of prescribed studies is severely and exclusively academic, and in this respect (if one may say so without offence) a little behind the times. That this should be the case is not surprising since there is no Secondary School of similar standing within the Colony, the nearest schools of the kind being in Trinidad and Barbados. In a well- meant attempt to preserve the standard of attainment the authorities of Queen's College have encircled the school with a chain of examinations, which appear to me to be unnecessary, and which have served to reduce the initiative, freedom and discretion of the Headmaster to a degree which. is little short of bondage.

## Tre Bane of Examinations.

wards) the work of the upper forms of the school (from Form III. upthe Jis tested by Cambridge Local examinations-first the Preliminary, then the Junior and finally the Senior: The Preliminary is to be, or has already shadow of impending tests still hangs like a pall over the school, necessarily limiting the teaching to the scope of a syllabus scarcely suitable to the needs of the majority of the boys.

## And the Fetish of Certifiontrs.

14. Meanwhile parents have become accustomed to demand certificates from such bodies as concrete evidence of their boys' progress, and some employers ask for them when engaging clerks in their counting houses. Thus the vicious circle is completed, and the work of the Teacher is bound to the chariot wheels of the Syndics of Cambridge University. The inappropriateness of the syllabus for the purposes of the majority of the pupils at the school may be seen at a glance; they may be suitable for certain types of Secondary Schools in England, but they certainly do appear to be in the highest degree artificial-especially as regards the the teaching of Science-for Secondary Schools in the tropics.

One of the consequences of this slavish adherence to external examinations may here be noted, Nc time can be devoted at any stage in a boy's career to Music, Drawing, or Manual Instruction. It is deplorable that in a school, where higher education is given, no place can be found to encourage and develop the orthetic and emotional side of a boy's training; but it is almost a scandal that Manual Work should entirely be neglected in the principal school of the Colony, where so much depends upon the industrial life of the community, upon the introduction of a highly skilled element in Agriculture and upon applied Science generally.

## The Guiana ${ }^{\text {Scholazsitip. }}$

15. Another lion in the path of rational education at Queen's College is the Guiana Scholarship.

This is the highest prize that a boy in the Colony can hope to attain; as it enables him to pursue advanced studies at any approved University in the United Kingdom or the Dominions. The election to this Scholarship is by Ordinance made to depend upon the results of an examination under the Regulations of the Oxford and Oambridge Schools Examinations Board which, like the Cambridge Eocal, and other similar examinations, lays no stress upon the special requirements of the Colony. It therefore follows that only a boy brought up on Classical lines, or on pure Mathematics, or academic Natural Science, is eligible. The successful candidate proceeds to a University, usually in Great Britain, adopts some proféssion, most frequently that of a Doctor or Barrister, and, if he becomes highly proficient in his calling, seldom returns to British Guiana. The present regulations governing -the Guiana Scholars, therefore, not only unduly influence the curriculum of the school in favour of academic professions, but, as Sir John Harrison witli great cogency has pointed out, provide the surest and best means of encouraging the highest talent of Georgetown to leave the Colony. No sort of encouragement is gipen to the future captains of Industry, Xommerce, or Scientific Agriculture, notwith. standing the fact that it is in these directions that the Colony is in the most pressing need of development." Everything is done-and on a generous scale-to promote the professions, but for the important class of producers less than nothing.

- Special Comuittee; 1917.

16. The seriousness and absurdity' of the policy adopted by Queen's College has not by any means been overlooked by the Education Authorities in the Colony. In 1917 a special Committee appointed by the Governor to enquire into the system of Secondary Education at Queen's College clearly recognised the anopaly'and reported in no uncertain terms upon it adding recommendations with the majorify

## X.

of which I entirely concur. The Committee very properly laid it down, inter alia, that (1) "the primary object of Queen's College should be the benefit of the Colony and the majority of the scholars rather than that of prospective scholarship winners, and the curriculum should be based on that principle," that (2) "it does not seem advisable to arrange the curriculum of the school for the henefit of the Guiana scholar . . . . irrespective of the inclination or capacity of the majority of the boys to follow it," and that (3) "the teaching of Science is not to be purely educational or examinational in its aims, but to have a marked practical bias and to be directed towards utilisation of the Botanical, Agricultural and Mineral resources of the Colony."

The Committee then proceeded to draft in outline a curriculum in Science which seemed to meet their views. In the lowest form this was to consist of Nature Study and elementary experimeutal Science, to which might be added the Nature Study and cultivating of a School Garden. In the middle forms, general experimental Science, including physical measurements and botanical diagrams, was to bé continued on broad lines; in the Upper Division of the School, Forms V. and VI., the curriculum was to include Chemistry, Physics and Botany, both theoretical and practical Agriculture and other allied subjects, elementary entomology and biology, for example for which time might well be found.

This very valuable report was in due course presented to the Governor, but it appears to have been entirely ineffective. The old regime, with its venerable adherence to an out-of-date system of examinations is still maintained, and no attention appears to have been paid to the recommendations of the distinguished men who laboured in vain to adapt the curriculum to modern requirements.

## Seoondary Education at New Amsterdam.

- 17. At New Amsterdam where two Secondary Schools-one for boys and the other for girls-have been founded under the ægis of the Canadian Mission is to be found a ray of light. At the Boys' School an excellent workshop, suitably and adequately equipped, has been built and some of the boys are taught constructively through their hands as well as their eyes and ears. But unfortunately the examination octopus has spread its all-embracing tentacles here as elsewhere, and pupils are required (probably against the conviction of the Headmaster and the Governing Body) to lay aside their craftsmanship and devote themselves to the Cambridge Local syllabus.


## Secondary School for Girls.

18. At the Girls' School at New Amsterdam, which caters for boarders, great stress is laid upon practical and domestic science in all its various forms, and its effect in producing capable all-round practical citizens is as marked as it is welcome. It is unfortunate that the numbers at this school are so small, but I have no hesitation whatever in saying that the general training provided there is good enough, to serve as a model for every Secondary School for girls in the Colony.

In Georgetown there are two schools for girls, the Bishop's High School and the School attached to the Ursuline Convent. Both are obviously well conducted but buth are compelled by force of circumstances to subordinate themselves to the $\theta$ amination system. In neither case is any provision made for practical domestic work, and the girls go forth into the counting-house, the shop and the home very meagrely equipped to face the realities of every-day life.

## Industrial Eddoation.

19. The privilege of receiving industrial training is (as I have already indicated) reserved for orphan boys and boys of the criminal class. This aptly epitomises the view of the Colony of the place that Industrial Education should occupy. The ranks of skilled industry are thus officially recruited from the crimi-
nal or the unfortunate class. Comment is hardly necessary. It is clearly axiomatic that the Colony in its present stage of development requires, above everything else, a concentrated effort to produce from amongst the best of its school population a corps of skilled mechanics and intelligent citizens, and that, so far from limiting its efforts to the lowest stratum of society, evergthing ought to be done to encourage the best and most gifted boys to undergo a course of training based upon the intellectual and practical requirements of scientific industry.

## Onderneeming.

20. The Industrial School ant Onderneoming is all that it should be, and is managed by Captain Beckett with the greatest skill. The discipline is strict, but it is admirably tempered by humane considerations from which humour is by no means wanting. The relationships between the boys and the Superintendent appear to be exceedingly pleasant. Both in school and on the estate hard work is expected of the boys, and, as far as I could see, is cheerfully given. The time table of the School consists of two hours during which the boys devote themselves to Reading, Writing and Arithmetic under the direction of an experienced Schoolmaster, whor though seriously overworked, discharges his duties efficiently and with success. The rest of the time is spent upon the estate, where the boys are introduced to a variety of occupations which attract and hold their interest. The aim of the Institution is to be self-sufficient. One detachment of boys attend at the quartermaster's Store, another work at the baker's shop, another at the rice, corn and coffee mills and at the factory where concentrated lime-juice and oil are manufactured. Other boys work in the gardens, others in the various departments of the farm, tending the cattle, pigs, horses and poultry. Others work in the cocoa and coffee groves: others again tap the rubber trees and cut lumber in the bush. All the food consumed in the School is prepared and cooked by the boys.

Orderly conduct and orderly employment, whether in the schoolroom or on the estate, the cultitivation of self-respect, trustworthiness, manly independence and a sense of the dignity of hanest toil are the ideals, which the: Superintendent sets before the boys, and appearances go to show that he is successful in implanting them. Few boys, after a full course of training at Onderneeming, cast a backward glance upon their past lives, or come again within the clutches of the police; the majority leave the School with characters reformed and strengthened, with a wide knowledge of the arts of tropical husbandiý, and plant life and general moral economy, with minds and bodies trained to embark upon some skilled trade. Neither is the social aspect of life neglected. Cricket and faotball are played, and a band has been formed, which if not very musioal is not without its merits; whilst other social enjoyments are provided from time to time for those who hare earned them by their work and conduct.. Physical health is not forgotten. A dispenser is constantly upon the premises, and his work is under the supervision and direction of the local Medical Officer.

The success of this School, and of the theory upon which the training of the boys is built, can scarcely be open to doubt. Its purpose is very well fulfilled and it is destined to play a still more important part in the corporate life of the Colony. But, if the fullest benefits are to be reaped, the Government should be a little more generous in their support. The present out-buildings are not very suitable-a byre, for example, where the cattle face each other and breathe into each other's nostrils, a milk store which is close to a pig-stye, a machine house which is too small for its purpose, are the most obvious defects; all of which could be easily remedied if the Publio Works Department supplied designs and a few master-craftsmen: All the rest could be done by the boys.

## Board of Iydustrial Training.

21. In one other direction besides the Industrial School at Onderneeming: which is under the control of the Department of Science and Agriculture, an attempt, feeble though it be, is made to create an appetite for Industrial training. The

Public Works Department makes an effort to organise and carry out a course of instruction for apprentices in various crafts, thus supplying the most urgent need of the Colony. The report of the Head of this Department has been presented to the Court of Policy and published. It makes depressing reading. From it the following points emergo:-(1) that 55 Bursaries for apprentices were awarded by the Government, (2) that of these 17 have been satisfactorily completed, 18 being current, (3) that no less than 20 have either lapsed or been forfeited for misconduct. Such figures do not speak well for the isolated effort on the part of the Department to filla gap in the Educational machine.

Responsibility for the failure to attract and hold apprentices cannot be said to lie altogether at the door of the Industrial Board. In reply to a Circular addressed to firms suggesting that pressure should be brought to bear on the apprentices by means of a form of indenture, under which they would profit from the technical classes instituted by the Industrial Board, the following reply (extracted from the Official Report) was received from one of the Masters which is described as typical:-
" We find we get better results from the young men we employ when there is no deed of apprenticeship signed. They seem to think that when they have signed any indenture of apprenticeship their position is secure and they can do just whatever they like, and we can do nothing with them, unless we report them to the Board of Industrial I'raining; therefore we do not take any more apprentices under any signed deed. We generally employ them as they come to us and ask for work, and when they do not suit us we dispense with their services."

Such is the lamentable story of the Public Works Department. To such depths has lndustrial Education fallen.

## agricultural Edjucation.

22. Agricultural Education has had a chequered and fleeting history. Various attempts have been made to solve this problem but so far without marked success, The outstanding fact is that no preparatory work is undertaken either at the Secondary or Primary Schools to supply the Department of Science and Agriculture, which is responsible for advanced agricultural training, with recruits. No stimulus has been applied to boys to take up this kind of work and the result is that it is difficult to find apprentices ready to work at the Botanical Gardens. At the present time there are only 14 or 15 boys in training. These are housed in quarters adjacent to Queen's College. A small proportion of their time is spent in the schoolroom where they revive forgotten memories of Arithmetic, English and the elements of general scientific knowledge, the rest is spent in doing practical work, which, as it nears the end of the course, becomes specialised, at the Botanical Gardens or in the laboratories connected with them.

The value of such training which is under the direction of Sir J. Harrison, Who is recognised as one of the greatest chemists and geologists in the world, "is unquestionable, and the fact that so few students can be induced to take advantage of it is one of the tragedies of the educational system of British Guiana. If the curriculum of the Secondary Schools were more in harmony with the scientific view of the eminent Head of the Department of Science and Agriculture, and if the policy of the Government for the cultivation of the vast tracts of fertile land in the Colony were brought into close relation with the educational work done at the Botanical Gardens a solution of one of the greatest problems of the day would be in a fair way of being solved. As matters stand the rich opportunities which the Botanical Gardens afford are scarcely realised. The scheme is starved by the Secondary Schools, who send no well-educated boys to take adrantage of it, by the Government of the Colony who make no attempt to encourage small proprietors, by the great community of sugar-planters who have not jet grasped the opportunities that may arise from employing on the estates young men who have for several
years studied under skilled direction the science of plant-life and geological: chemistry.

Two Sugarisions.
23. A propos of the Agricultural Apprentices two suggestions made by Sir J. Harrison may be alluded to here.

The apprentices are of course paid and part of their payment is withheld, and put to their credit at the Savings Bank, with the idea that when the period of apprenticeship is completed the student should have a fund at his disposal from which he could equip himself when he embarks upon his eareer. The suggestion is that the Government should reward good work either by doubling the'amount saved by the student, or by making a grant of land to a student, who wished to start upon an agricultural career. The cost to the Exchequer would be comparatively small, but it would certainly provide a great stimulus to the joung man who was ambitious of starting a small farm or a market garden. I commend such a proposal to the Government for their serious consideration.

The second suggestion is one which might equally well be kept in view for future policy. I have already alluded to the Guiana Scholarship, which is limited to students of proficiency in academic learning. It is suggested that the whole scholarship scheme should be reconsidered and revised in such a way that students, who give promise of being highly proficient in agriculture, geology, sugar chemistry: or some cognate science, should be eligible, if not indeed given the preference over all other types of student. The strength of this proposal lies in the fact that agriculture in its scientific aspect, including the sultivation of sugar and rice, is precisely the industry which it is the interest of the Government to develop and subsidise by every means at its disposal.

## Reform.

24. From what has already been said it will be evident that the time has arrived when reforms, and reforms of a drastic and fundamental nature, must bs faced and carried into effect. No tinkering with the present machine can possibly be effective; reconstruction alone will serve the very necessary purpose of brfiging the Colony abreast of modern conditions and developments.

Broadly speaking reform will fall under two main comprehensive heads-(1) the general reform of educational policy and (2) the reform of administrative control, There are of course other details of extreme importance and necessity, to which allusion will be made but the chief object of this report is to fosus the attention of the Government on the fundamental principles. which should, in my opinion, govern their future attitude towards education.

## Health and Sanifation.

25. The first and most urgent consideration should be that of the health and physical welfare of the children. The sanitary condition of the great majority of the schools which I have seen is simply deplorable and cannot but be a menace to the public health and a great impediment to the efforts made by the Sargeon General's Department to ameliorate the life of the commiunity. Hand in hand 'with an improvement in sanitation and in the sanitary arrangements of the schools. every attention must go to an improvement not only in personal hygiene but in the common decencies of the civilised people. In other words the very greatest impore tance should be attached by the Government to the cultivation in the schools, and amongst all classes of children, of habits of self-respect and respect for others. Sanitation and the practice of sanitary and decent habits should be regarded as essential to moral and physical efficiency, as one of the conitions upon whioh grants from public funds should be paid, and as the acid test of civilisation. In the interests of sound education, moral as well as intellectual, every school in the Colony: should be required to satisfy the Surgeon General's Dopartment that it is whole.
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some from a sanitarý point of view, and every scholar attending the schools should be subjected at least once, if not more frequently, during his or her school life to fairly detailed medical inspection. Careful records of these inspections should be kept at the Education Office, and the condition of the schools and of the children should form a very important part in the Surgeon General's report to the Government on the health of the Colony.

Hook-Worm.
26. Before leaving the subjeot of health attention should be drawn to the prevalegnce of the disease known as "hook-worm" which undermines the moral and physioal stamina of those who suffer from it. At the Commission some striking evidence, was heard of the ease and completeness with which this disease could be overcome provided only that properly organised mass treatment was made compulsory. The treatment, it is alleged, is simple and not as a rule attended by any sequelae of an unpleasant type, and it is therefore recommended that compulsory treatment should be enforced and carried out by the Surgeon General's Department. There is at least as much to be said in favour of the elimination of this scourge as in the acquisition of the elements of Reading or Arithmetic.

## A Nef Objeotive.

27. Next to sanitation must come a reconsideration of the purpose for which a school, whatever its grade, exists. To the familiar question the familiar answer"to oultivate a good citizen"-still holds good. But to be satisfying to the teacher at his desk, the employer at his counting house, the engineer at his works, the farmer in his fields, the philosopher in his study, and lastly to the man in the street, something more must be added. No boy or girl can be, described as educated or even as on the road to education, who has not been taught to use all his faculties, who cannot use hand as well as eye and ear, who cannot apply his intelligence and (if need be) manipulative skill in the world in which he lives.

## Education through the Hand.

28. And it is precisely here that the failure of the schools and the training given in them makes itself apparent. Boys and girls, whether in Secondary or Primary Schools, are taught and trained as though life for them consisted of one long span of intellectual leisure. The appeal that is made to thein is to memorise and store up (often a very meagre quantity) the elementary facts of History, Geography and Science and not to do or aot for themselves. They are taught to prefer aloth, which is speciously intellectual to action, and, when they reach adolescenco and manhood, their ambition is to sit upon an office stool and add up figures or check invoices rather than to expend their energy in productive work.

## False Idealism.

29. For all this the false idealism of the schools cannot but be held to be Largely responsible. The curricula both in Primary and Secondary Schools are obviously too aoademic ánd too remote from the actual facts of life. Constructive work, the training of the mind through hand and eje, is almost entirely neglected; no serious attempt is made to arouse and cultivate in the children abiding interests in their surroundings; no effort is made to penetrate the secrets of scientific husbandry or to interest the children in the countless wonders of Nature in which the tropics abound, and the attractions of biology, geology and entomology are passed by in favour of the "Anarchy of Stephen's Reign" or "the religious diffoulties of Queen Elizabeth."

That the type of Education given in the schools is in urgent need of ohange, that indeed their whole outlook and perspective demand reform, there can be no shadow of doubt. What is peeded is the substitution of a new for a worn-out and moth-eaten idealism. The aim should be to produce and train boys and girls who,
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$s o$ far from having a distaste for manual industry and occupation, take a pride in their technical skill and whose object in life is to become so profioient as to develop into masters of their craft and masters of their own desting. The failure to implant these ideals is the measure of the failure of the schools,

In every Primary School of the Colony, where it is possible to do so, provision should be made for some form of manual instruction ; for the boys in rural schools certainly, and possibly for the girls as well, opportunities should be found for doing. practical work in school gardens and no inconsiderable amount of the time-table should be devoted to this occupation. For the boys whether they live in towns or in the country, there should be a compulsory class in simple woodwork and every girl throughout the length and breadth of the Colony, whether she attends a Secondary or Primary School, should be expected to become proficient in needlecraft and cookery. Further, these subjects should not be regarded as by-products and relegated to some unimportant part of the curriculum. They should be regarded as being as important as Arithmetic or Geography or any other academic subject; they should be taught by masters and mistresses who are as skillèd as any other members of the staff and these masters and mistresses should be held in'as high respect as their fellows who lead less laborious lives.

## School Gardins,

The work in the school gardens should be the natural outcome of Nature lessons in the class-room and the handicraft allied with the drawing of siople designs and specifications.

## Needlewori.

As regards needlecraft every girl or nearly every girl should have been taught to plan, cut out and construct by her own unaided efforts all under-garments conamonly used by men, women and children, and when they have acquired this skill they might be promoted to a class where the elements of dressmaking were taught.

The absence of technology, the application of manual skill to abstract knowledge, is the most outstanding and noticeable defect of the educational system of the Colony. No child, unless, as I pointed out, he is an orphan or has graduated by passing through a criminal court, has any opportunity of acquiring an introduction to a skilled trade. Here clearly there is need for constructive reform. A Technical School should be built with as little delay as possible to serve Georgetown and the surrounding districts.

## Practical Idialism.

30. The aim and purpose of such a school should be clear and definite-to train boys and girls from an early age to adop̂t a scientific attitude of mind to the essential industries of the Colony. The beginnings of such a movement will necessarily be Blow and in some degree tentative : later experience will no doubt modify the details of the scheme; and it is certainly to be hoped that additions will be made to it as years go by.

## The Neides of the Colony.

31. What then are the primary needs of the Colony? As far as my own investigations have gone the answar would appear to be-firstly, the development of skilled agriculturists who can bring some scientific knowledge of ayricultural chemistry, of agricultural machinery and of entomology to bear upon the vast tracts of land that await cultivation ; of men who have gained some knowledge of forestcraft, surveying, sanitation and ever the building and repairing of houses; Secondly, the development of a corps of trained and skilled artizans whọ can bring. scientific knowledge of the elements of Chemistry, Physics and Mechánics to bear upon their work in the engineering shops and in other departments where elootrical add mechanical skill is needed. Thirdly, the development of clerks, accountants and
' secretaries who can take their place efficiently in the commercial bouse, who: bave "some knowledge of a foreign language (preferably Spanish) and who have had some training in Shorthand, Typerriting and modern methods of Book-keeping. Fourthly, the development of a large and (it is to be hoped) ever-increasing number of girls who have been trained in the necessary domestic arts. which will fit them to bcome competent housewives and mothers of a future generation of children. For these cookery, needlework, hygiene, the nursing of the sick, the care of infants, would of all needs-the development of a new generation of Teachers who can bring to their art new ideas and minds trained to consider the best means by which the education of the young can most profitably be attempted.

## a Technical Sohool.

32. If these be in fact the most urgent present needs of the Colony the educational foundations upon which a Technical School should be built become clear. The school would be divided into five different departments-
(1). Agricullure und Building Construction, which would include Nature Study (developing later into Botany), the study of growing crops (rice, plantain, caue, rubber, cocoa and cosoanut), insect pests and insecticides, the elements of agricultural chemistry, mensuration and the drawing of plans and specifications, wood and metal work, the clearing of the bush, surveying, levelling, water services and conservancy, foundations and the building of a house, sanitation and other necessary and kindred work. As the school develops in numbers and in power this department might be sub-divided, one part dealing more intensively with agriculture, the other with building.
(2) Science-pure and applied-which would include in chemistry, physics and .mechanics, mensuration, drawing of specifications, electricity, encineering, the repairing of various motor-engines, carpentry and plumbing-the two latter to be taken in close alliance with practical courses in wood and metal work.
(3) Commerce which would include special training in English (and possibly a foreign language) together with commercial geography, shorthand, book-keeping and arcountancy, and in the case of older and more adranced pupils elementary economics.
$\therefore$ (4) Domestic Economy which would include English, arithmetic (keeping of household accounts), bygiene (including sex bygiene), cookery, laundry, the care of infants and young children, first-aid, sicknursing, needlecraft and dressmaking.
(5) Training of Teachers, This department would be for every man and noman whohad normally reached 18 jears of age. For these the course of training would consist of one or more manual occupations, science (especially in its relation to agriculture), advanced English, hygiene, the History of the Empire, and the theory and practice of dducation. The training of intending Teachers during adolescence and the period of apprenticeship will be alluded to later.

Admission to the Trobnical School.
33. It will be necessary to exercise very great care and much discrimination in eqlecting the buys and the girls to be admitted to the Ti chnical School. The best method, though it is not suggested that it is altogether a satisfactory one, would appear to be by holding an examination of the children in the Primary Schools who hive reached the age of 12 or who have completed a Standard V. curriculum.
Those who provide clear evidence that they can read with understanding, that they "cain write and have mastered the elements of Arithmetic, might be regarded as "eligible for admision to the Tlechnical School; the twenty at the head of the examin4. ation list being selected äs scholars or free-placers and the remainder as fee-paying fupils. In normal circumstances not more than 60 would be selected; but for
the first two years, if the educational condition of the children seemed to warrant it, 100 might be drafted from the Primary Schools to the Technical School.

## A Three Yrars Coursm.

34. The course of instruction would be for three years (12-15) and admission to the Technical School would be conditional upon the parent giving a satisfactory guarantee that his child would not be withdrawn until he had reached the age of 15, or that, in the event of his failng to. do so, would guarantee the payment of the normal fees of the school.

## Premises.

35. Premises of a suitable type will of course be necessary, and here I would enter a caveat against any attempt to convert a disused hospital or lunatic asylum or any other derelict or unwanted public building into a schoul. The services of an architect who has special experience of building schools of this type should be secured and ample accommodation should be provided for the workshops, laboratories and class-rooms. A good site, within easy reach of the town and close to the Botanical Gardens, where much practical work could be done with the permission of the Director of Science and Agriculture, appears to be available. The land is the property of the Government and is about four acres in extent.

## Staffing.

36. The staffing should be on a generons scale. As Principal a man should be sought who, in addition to possessing high academic qualifications in some branch of Science, has good organising powers and first-hand experience of Technical Schools. A Teacher on the staff with special knowledge of tropical agriculture is essential, and the Governing Body will probably find it wise to seek the advice of the Educational Service of India, or of the authorities of the Imperial College of Tropical Agriculture at I'rinidad in their effort to secure the services of such a man. A highly trained and competent Teacher of Domestic Economy will be less difficult to find. Suitable candidates will probably be forthcoming from many Schools and Colleges of Domestic Training in England. A Normal Master to take charge of the professional side of the training of Teachers will of course be "appointed.

## Training not to be Entibely Vocational.

37. Reference may here be made to one important educational point in connexion with the training to be provided at the Technical School. In view of the fact that the pupils will be very young and in order to avoid the possibility of making the training too limited in scope it is important that opportunities should be provided for carrying on the general education of the boys and girls in English and Mathematics. In the case of the First Year pupils not less than half the time of the time-table should be devoted to these subjects and, in the case of the Second or Third Year pupils, not less than one-third.

It is further suggested in tha interests of economy that some arrangements might be made by which some members of the staff of Queen's College could undertake responsibility for part of the prograname of the Technical School and vice versa. Some such accommodation is not beyoud the limits of intelligent organisation. In the Training of Teachers Department and elsewhere the, services of some of the Inspectors might also be usefully employed, thus bringing the Training College students into close touch with the actual work that is being done or ought to be done in the Schools.

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C. 38. The establishment by the Government of a Technical School in Georgetown will be the first step in the development of a principle which requires cemphasis. It has already been pointed out that in the case of Primary"Educatión
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the Colony has depended for the supply of schools upon the voluntarg effort of various religious denominations, that the payment of Teachers' solaries and other small contributions represent the measure of the interest of the Colony in education and that no direct control or means of stimulating the work of the schools exist. That the Government should play a greater part in the education of future citizens, that it should exercise greater influence generally and accept direct responsibility are matters which scarcely admit of argument. They are palpable and self-evident. It only remains, therefore, to insist that the principle should be put into operation as soon as may be.

Both in Georgetown and in many of the rural districts there are too many schools, though the accommodation may not exceed the needs, and the result is defective organisation and unsatisfactory staffing. If, and when, the Government accepts full responsibility, these defects can be remedied and more satisfactory returns may be expected from the public money invested in education.

## A Model Practiting School for Georgetown. <br> two new colonial schools at buxton.

39. In Georgetown a Model School to be used by the students-in-training for the Teaching profession should be provided and used for demonstration purposes. At Buxton and Friendship, which are at present served by five sohools, two Colonial Schools, one for boys and one for girls, should be established catering for the whole population of these villages and officered by a staff of properly qualified Teachers. Here an immediate beginning should be made in the working out of State responsibility. It might be followed gradually in those villages where there were too many schools and where inter-denominational rivalry impedes the progress of education. Of these there were many examples given in the evidence of Mr. Moulder.

Central or Trade Schools.
40. An interesting problem connected with the proposal to establish a Technical School in Georgetown arises. It will be remembered that it has been proposed to recruit the latter by submitting all children of 12 years of age aud all children who have completed Standard V. to tests in English and Arithuetic with the object of selecting the best of them for more advanced training. But what of those who fail to satisfy these tests, who never reach the level of Standard V. proficiency 7 Clearly something must be done for these, many of whom may, if treated by other - processes of education than those commonly in use at the Primary Schools, develop into useful and valuable men and women. For these-the derelicts or misfits of the Primary School system-two schools, one for boys and one for girls, should be provided where an effort would be made to train them not exclusively through ejes and ears but through the use of their hands and manual activities. The main aim of such schools would be to cultivate dexterity of hands and to arouse and stimulate the mind by methods involving practical workmanship.

## A Fodr Years Programme.

41. It is not suggested that all these reforms should be put into operation at once. Considerations of public finance forbid that. It is, however, hoped that a fouryear programme will be drawn up and submitted to the Combined Court and that in this programme the first item be the building and equipment of a Technical Sohool in Georgetown with a Training Department for Teachers with a Model Practising School attached, the establishment of two Colonial Schools at Buxton and Friendship which would be quickly followed by two Central or Trade Schools for the older boys and girls in Georgetown.
[^63]
## xix.

beginning of this report. Boards of Education have been established and demolished ; some have been advisory councils; others have possessed executive authority. None have given satisfaction. None have succeeded in gaining the confidence of the public or of the Government. In these respects the existing Board is no better, if it is no worse, than its predecessors. During the sittings of the present Commission example after example : was brought to light of its general inefficiency and of its inability or unwillingness to put into operation the laws passed by the Legislative authority. "The Education Board, as at present constituted, does not work satisfactorily" writes the late Commissioner of Education in a memorandum issued in May, 1924 , and whatever one who is accustomed to an orderly civil service may think of the propriety of the head of a department allowing such a memorandum to be issued over signature the statument must be acknowledged to be strictly in accordance with the facts and his long experience. One illustration of many may be taken to illustrate the impotence of the Executive authority, The appointment of a Head Teacher and of all the Assistaut Teachers of a school rests with the Managers of the school: their salaries are paid by the Government monthly on a requisition from the Commissioner of Education. The conditions on which the salary is payable by the Treasury are (1) that the school has been kept open, (2) that the registers have been accurately kept, and (3) that the Teachers have been bona fide emplojed. Nothing so obvious as a guarantee of efficiency and satisfactory conduct is asked for, and the Commissioner has no power to require Managers to dismiss a Teacher or to terminate his service on grounds of inability to fulfill his duties. All that the Education Department can do when an Inspector finds that a Teacher is incompetent is to keep on reporting the fact to the Managers and to hope that in due course some action will be taken. Meanwhile the Commissioner has to sign the form authorising the payment of the Teacher from the Treasury. By such means is the administrative authority of the Education Department raduced to a sham and a delusion.

It is therefore not difficult to see that some steps must be taken without loss. of time to see that law is duly respected and carried out both in the spirit and the letter.
43. Another weakness in the administration of Public Education is to be found in the fact (already noticed) that various bodies are made responsible for various branches of education. For Primary Education the Commissioner is supposed to be responsible; for Secondary Education the Principal of Queen's College is the recognised functionary ; whilst Agricultural Education and Industrial Training aro under the control of the Director of Science and Agriculture and the Board of Industrial Training respectively.. There is no unity and no co-ordination. Each department goes on its own way without reference to, or consultation with its fellows. It would be difficult to invent any machinery which could so successfully oreate chaos and confusion.

What can be done to restore orderliness and efficiency? Clearly nothing, unless the Court of Policy decides that its Ordinances shall be carried out and provides some machinery which is capable of doing so.

## Executive Authority to be Strengthened.

The first step to be taken is to strengthen the authority of the Executive; and the second to unify and co-ordinate all forms of education and bring them under one central administrative anthority.

## All Forms of Education to be Unified.

As regards unification there can be little room for differences of opinion. It. will be unanimously adraitted that all forms of education-Primary, Secondary, Technical; Indastrial and Agricultural-can best be dealt with by concentrating them at one office, there to be controlled by one officer or by one corporate body

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who will be able to survey the whole field of public education and to link up its component parts into one complete whole. The recognition of this principle-the principle of educational unity-must of necussity be the pre-requisite of efficiency in administration.

## What is to be the Authority ? Three Alternatives.

44. And now for the machinery. Of what nature and composition shall it be ? Three main alternatives appear to exist-(1) to create a Board of Edacation with full executive powers ; (2) to create a Board of Education which shall be an Advisory body only and shall possess no executive power ; (3) to invest the Commissioner of Education with full executive powers and to hold him personally responsible for the conduct of his duties. There are of course other possibilities but all of them save one would involve insuperable difficulties in practical operation.

As to (1), the establishing of a Board with full executive powers, the difficulties in a Colony where geographical considerations are so great, and means of transport so defective, where there is an entire lack of a leisured class interested in and wellinformed on the subject of education, makes the proposal almost impossible. A Board that is to be fully responsible to the Government must meet very frequently; if it is to do its work efficiently it must meet not less than once a week; its members must be quasi-civil servants and might logically expeot to be paid for their time and services; failure to perform their duties to the satisfaction of the Government would involve no penalties, if the Board were composed of voluntary members only, and their dismissal from office would not provide any guarantee that their successors would fulfil their duties any more efficiently. Responsibility in fact would be entirely wanting since their chiof officer-the Commissioner of Education-might with justice shelter himself behind the valid argument that he only acted on the direct instructions of the Board.

To create (2), a Board, which is Advisory and nothing else, is open to the same objections as have already been mentioned. It would be difficult to find a body of meu who would be willing to serve on such a Council and in the event of a conflict of opinion between the Commissioner and his Advisory Board occurring a position of extreme difficulty would arise. Stagnation would inevitably follow and problems would be solved in the worst possible way-by the simple process of doing nothing.

The last alternative (3) is the most simple and efficacious way of dealing with the problem of administration. One officer, fully qualified by academic attainments and by experience of similar duties elsewhere, who started upon his duties with the confidence and good-will of the Government and who was well supported and kept well informed by the Inspectorate of all grades, would probably discharge the administrative and executive affairs of the Colony more effectively than any Boand however able or representative its members might be, Business would seldom if ever suffer from congestion, cases could be dealt with as they arose speedily and with despatch, decisions and interpretations of the Cude and other regulations.would be given without urdue delay. Above all and transcending all other considerations responsibility would be definitely fired.

## The Commissioner of Eddoation and a Consultative Counoll.

45. Diffculties nevertheless arise in connexion with so simple and logical an arrangement. To begin with there is the human element. The administrator is born-rara aris in terris-and is seldom recognised at sight. Then there is the natural uuwillingness to entrust the management of public affairs to a single man, be he never so efficient. Safety is to be found in a Committee or a Board where responsibility can be shared amongst the members. And. so-ad infinitum. Even the officer himself may prefer the assistance of a Council, His duties are varied and

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numerous. The opportunities which discussion of problems with a Council provide are often of great value and the moral support which a Council oan give adds strength to the position of the administrator,

## An Educational Constitution.

46. The best solution of the problem of administration would appear to lie in a compromise between (2) and (3)-a Commissioner of Education clothed with full responsibility and assisted by a Consultative Council to whom certain clearly defined duties should be assigned. The scope of the duties to be performed by the Consultative Council would be as follows :-
(a) To review the needs of the Education Department and to assist in the preparation of the Education Estimates.
(b) To review the expenditure of all public moneys voted for educational purposes by the Combined Court and to satisfy themselves that all the necessary audits bad been properly carried out;
(c) To deal with any legal difficulties that may arise in connexion with the supply of new schools, or the removal of any school from the Annual Grant list, the cancellation of any Teacher's Certificate and the dismissal of any Teacher from his or her office;
(d) To consider any alterations that may from time to time be found desirabld in the Code for Primary Schools and the Regulations for Secondary, Technical, Agriculcural Schools or Institutions and for the Training of Teachers before they are submitted to the Government for legal confirmation;
(e) To consider the conditions under which scholarships of all kinds are awarded, to advise as to the need for, or desirability of, holding any external examinations and to recommend the kind of examination that would appear to be most suitable and appropriate, to review the general conduct and result of such examinations and to form an estimate of their effect upon educational policy;
(f) 'To consider any question, educational or otherwise, upon which the Com-: missioner may wish to seek advice.

## Responsibility.

47. It should be clearly understood that responsibility for any action taken. would fall upon the shoulders of the Commissioner of Education who should bemade personally responsible through the Colouial Secretary to the Combined Court. Careful records of the proceedings, of the Conspitative Council would be kept and any action taken by the Commissioner against the advice of his Council in any case. where an explanation of his conduct was required by the Cuurt would necessarily throw upon him a heavy onus probandi.

The composition of the Council should be small enough to ensure rapid and workmanlike discharge of business and large enough to be representative of wide interests. The members-eight in number-should be nominated by the Gavernor and in order to secure reasonable continuity of policy should be required to serves. for a period of five years. The Commissioner of Education would be Chairmans and the Surgeon General an ex officio member, whilst not less than two members; would be chosen from the Elective members of the Combined Court the remaining four members would probably be selected on account of their interest and. distinction in education and of their knowledge of the practical needs of the Colony.:

The Inspedtorate.:
48. The best guarantee tor efficiency in the schools lies in an intelligent system of inspection. A good many witnesses in giving their evidence to the Commission: arowed their faith in the individual examination of children and expressed a degire
to return to the old system of payment by results. The arguments against this have been again and again summed up by the late Commissioner of Education and there seems to be very little doubt that the balance of expert opinion is unmistakeably agaiust it. Some efficient means of control must nevertheless be found to replace the old examination system, and some means of providing a stimulus discovered. The present scheme which depends largely upon a body of Emergency Inspectors is unsatisfactory both from the point of view of the Teachers as well as from that of the Administration, aud it becomes nejessary to face the fact that if the principle of inspection is to be adopted a staff of Inspectors must \$e appointed, who are qualified academically and by wide experience of different methods of teaching and different types of schools to discharge the difficult work they will be called upon to perform. The best and only the best men will serve this purpose; a third-rate inan of restricted vision and strong prejudices will do more harm than good. The kind of officer that is wanted must possess youth and energy, great tact and an abundance of cominon sense, patience to deal with the Teacher whose mind moves slowly, but who is willing to give his best, and the power to display righteous indignation where there has been neglect of duly or a disposition to shirk effort. In this connexion one of the pleas put forward by the British Guiana 'Teachers' Association to the Commission is fully endorsed. Inspectors should not merely be destructive critics, they should be mon capable of constructive criticism, who are ready and willing to make suggestions forimprovement, and who can, if necessary, demonstrate practically how effectivetheir suggestions can be made. Great stress is laid upon the choice of good. Inspectors. They are in many respects the most important parts of the administrative machine and upon their success or failure will depend in very large measure the success or failure of education in the Colong.

## Three Men One Woman.

49. As to numbers, it is suggested that four, one of whom should be a woman, would be a full complement. Of these, two men would be resident in the Counties of Berbice and Essequebo, and one man and one woman in Georgetown. In addition to discharging the ordinary duties of inspecting Primary Schools their services-particalarly those of the two resident in Georgetownwould be utilised in giving lectures or lessons to the students-in-training: at the Training College, which it is hoped will be established, thus bringing the theoretical work done there into close touch with the practical work of the schools. They would also be required to take part in the inspection of all sohools where higher education was undertaken. It is therefore important that each Inspector should háve special academic qualifications and experience in one particular direction, which would entitle bin to appraise the value of the work done in these institutions and to give advice to the Teachers concerned. For this reason it will probably be found that at least two of the Inspectors should possess special qualifications in Science (including work in wood and metal and Agricultural Science) whilst one (the woman Inspector) should be equipped with sound credentials in domestic economy and hygiene.

With machinery constructed of such quality and on such lines the confusion in administration which now exists could in a very short time be dispelled, The cost of the present Inspectorate is returned at $£ 1,659 \ldots$ the estimated initial cost of the suggested Inspeotorate would be $£ 1,800$. The difference between the two amounts. in terms of cash is relatively impalpable-in terms of value and efficiency (and without efficiency all expenditure is waste) the increased expenditure would repre-: sent the best possible investment.

## Education Commission.

50. Owing to the fact that the greater part of the time of the Commission has been taken up with the hearing of witnesses and also to the fact that many members. of the Commission itself have been unable to attend regularly; because the Com-
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bined Court was in session, it has been impossible to review the present situation end future policy as fully as could have been wished. Oertain important resolutions have been carried notably (1) the need for the medical inspection of all sohools, (2) the need for reconsideration and reconstruction of the curricula in Secondary an Primary Schouls and (3) the need for the establishment of a Technical School, whioh shall include a Training College for Teachers, but definite recommendations on vital points connected with educational policy and edministration are not likely, to be made before I leave the Colony. On these important issues I have already given my personal views. It now remains for me to allude to certain points which have been brought to my notice during the course of my stay and during the hearing of the evidence and to offer some comments upon them.

## (1)-The Evidence.

51. The number of witnesses who gave evidence was considerable and they may be regarded as fairly representative of the interests of the Colony, The Managers were by far the most numerous and the majority of these were Clergy, representing denominational schools and interests. The views of the teaching prufession were put forward by the Principal and Vice-Principal of Queen's College, the Head Mistress of the Bishop's School for Girls and by a Depntation of the British Guiana Teachers' Association. Four witnesses illustrated the points of viow of the employers of labour. Sir John Harrison, the Director of Science and Agriculture, provided from the ample store of his scholarship and detailed knowledge of the Colony testimony to which serious consideration cannot fail to be given. The Surgeon General dealt with educational problems from the point of view of health and sanitation, whilst one or two other witnesses elaborated their views on particular aspects of the problems to be solved by the Commission.

## Managers.

52. The attitude of the Managers generally may be summed up as one of rigid conservatism-save perhaps as regards the curriculum where many thought some improvements were possible. The general condition of the schools in their opinion was not seriously unsatisfactory, and, where an unsatisfactory state of affairs did exist, the remedy lay with the Goverument whose grants-in-aid were insufficient. Difficulties in connexion with premises and equipment were to be met by further payments from the Public Exchequer. As to the establishment of Colonial Sohools the Managers as a body, where they were not openly hostile-one witness described them roundly as "the abomination of desolation"-were clearly apprehensive of the results that might ensue. All mildly supported the provision of a Teohnical School in Georgetown but, apart from this, no constructive suggestions were forthcoming.

## Primait School Teachers.

3. 'Ihe Primary School Teachers, as represented by the Deputation of the British Guiana Teachers' Association, displayed a similar conservatism. The greater part of their evidence was designed as a defence of their position and their work. They pr,sceeded to demonstrate that education bad greatly improved of recent years and then provided the Commission with an account of the circumstances which accoanted for its inferiority. They very properly alladed to the obvious defects in the schools, such as lack of proper equipment and inadequate staffing. Tbey commented severely, not apparently without justice, upon the methods of inspection and expressed their disatisfaction with the examinations as at present conducted. Their constructiye suggestions were limited to (1) increased salaries, and (2) the appointment of an experienced Teacher as an Inspector of Schools. The abolition of average attendance as the basis for estimating grants was suggested.

## Secondary School Trachers.

54. The professional evidence given on behalf of Higher Education reached the high-water mark of conservatism. The existing slatus quo was defended with vigour und single-minded conviction. No radical reform in the aim and objective

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of Becondary Schools was necessary and even the tyranny of the examinations was regarded with feelings amounting almost to religious fervour. Suggestions for Teform-even reform in detail-were looked upon with deep suspicion and illdisguised diffavour.

## Emplofers.

55. The criticisms of the Employers (Business men and Planters) were as caustic as they were clearly defined. The Head of one of the State Departments commented upon the dearth of apprentices and the apathy of such apprentioes as there were; the Manager of a large sugar estate urged the need of training children to redognise the dignity of labour, whilst a third, a Director of a highly-organised industry, in a very statesmanlike review of the whole educational mashine pointed out the defects which existed in vivid and lurid lights. The Employers alone, and particularly the Employer to whom reference was last made, contributed constructive suggestions of value. These embraced the whole field of educational activity from the Primary School upwards and included advice on such important matters as sanitation and hygiene, the possibility of encouraging craftsmanship, the relation of the schools to industry in general, and to the vital necessity of cultivating the power to learn, the necessity of setting a standard in efficiency, of establishing an interest in Nature, of cultivating thríift, good manners, a sense of loyalty to King and Empire, and a pride in the Colony. There was no evidence advanced by the Employers which suggested a desire to economise in education : on the contrary they all applauded the proposal to found a Technical School and more than one agreed that the gradual esta blishment of Colonial Schools would have the effect of raising the general efficiency of deno minational schools. Practical common sense, tinged with high idealism, was their contribution to the evidence.

## Sir John Harrison.

56. Reference has already been made to some of the evidence given by Sir John Harrison. The prime importance of scientific agriculture was the core of his address. Land existed in plenty and the human material to cultivate it was at hand. All that was needed was skilful training. Expenditure of thought and -money was well worth while, as previous experience tended to show. School and District Gardens, worked on an economic basis, supplied the key of the problem ; and schools of all grades, not excluding Secondary Schools, could play their part in this common enterprise. A speech full of suggestions, all of which were practical, concluded with a strong recommendation to reconsider the aims of Secoudary Education and the "whole Scholarship system, especially the conditions which -governed the Guiana Scholarship.

## The Surgeon General.

57. The last evidence to which reference need be made was that of the Surgeon General. Dr. Kelly left the Commission in no doubt as to his views on the -lack of sanitation in the schools and lastly of his opinion as to the need for a strict. , and a: regular medical inspection of all school premises and school children. - i.

## (2) -The Training of Teachers.

- 58. The tuethod by which recruits for the teaching profession are obtained are 'by no meansksatisfactory. Boys and girls are appointed by the Managers of Schools. "They are eligible at any time between the ages of 14 and 16 , and the intellectual 'test which they are required to undergo to prove their fitness is that known as "the - Prímary'Sckiól Leaving Certificate.


## Pupil Teachers.

4.:Ther Code lays down cartain regulations for the training of \&Rupil a Texohers: and prescribes annual examinations to :: test " their progieiss. !Bat; as far asin am able to ascertain", nothing is done to prevent the

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exploitation of these young apprentices, who appear to work as Teachers throngh. out the school time-table and to work as students before or after these labours are undertaken. A further point which has not escaped my observation is that in the case of girls the instruction is invariably given by a man, and no precautions are taken to avcid circumstances that may compromise both teacher and pupil. Whether all the regulations of the Code governing their instruction and training are fulfilled or not is at least open to doubt. Bat upon two points there can be no doubt whatever-(1) that the principles, upon which the teaching profession is recruited, are open at more points than one to strong adverse criticism, and (2) that the professional in-breeding that obtains, under which a Head Master trains pupil teacher after pupil teacher year after year, cannot but be highly detrimental to a race of young teachers,

In Rural Districts, where schools are very remote from one another, the present Pupil Teacher system must necessarily be continusd, but in districts, where the schools are within reasonable distance of each other, some attempts should be made to collect the Pupil Teachers two or three times a week at a common centre, and to give them corporate instruction on lines approximating as nearly as possible to those of a Secondary School. In Georgetown and New Amsterdam all candidates for Pupil Teachership should be required to attend either a Secundary or a Technical School full time, until they are 16 years of age, and half time from that age to the completion of their apprenticeship, the remaining half being spent at selected Primary Schools. By such means only is it possible to hope for a new generation of Teachers which will be superior to the present. Mere instruction and the acquisition of a little text-book knowledge at the hands of the Head Master of a Primary School is not enough. If a joung Pupil Teacher is to develop into a competent certificated Teacher he must in his early life be subjected to the broadening influences of a Secondary School and be brought into contact with a type of Teacher whose professional career is not circumscribed by experience gained at a Primary School.

## Students-in-Training.

59. One word as to the course that should be adopted at the Training College which it is hoped will soon be established. The very greatest care should be taken to avoid making it too academic on the one hand or too pedagogic on the other. Literary studies there must be; the study of history is indispensable, physical training, music and mathematics will not be neglected, and special care will be devoted to the theory of education, But Natural Science in some shape or form, whether it be biology, geology, the study of animal, insect or plant life, or agricultural chemistry, ought to be the predominating feature of the College, And with this study should go some training in manual dexterity, some exercises in craftsmanship, some application of theoretical science to raw material, and, in the case of women, special courses in hygiene and needleoraft. Under such conditions only can future generations of Teachers be brought into sympathy with creative and industrial work, and to recognise to the full the real meaning and force of hand and eye training for the young.

## (3)-Salakies of Teageers.

60. This is a problem which is essentially local and upon which experience outside the West Indies would be of little assistance. The British Guiana Teachers' Association has already incorporated a plea for better pay in their memorial to the Commission, and doubtless the case which they have presented will receive due consideration from the proper authority. All will agree that the Teacher, who discharges his duties conscientiously and well, is worthy of something more than a living wage, that "a disgruntled Teacher is a social danger," that the teaching profession ought to be made attractive to men and women of intellect and initiative. The difficulty arises when an attempt is made to equate so large a class of practitioners with any other class in the Colony who are occupied in other skilled trades or professions.

Within the ranks of the profession itself the problem is more easily solved. Head Teachers obviously should be paid more highly than Certificated Assistant Teachers even though they be in charge of emall rural schools. Teachers who have been through a course of training may reasonably claim to be paid on a higher scale than those who have not been trained. For Assistant Teachers the class of certificate may usefully be taken as the basis of their ccale, whilst for Head 'leachers it is difficult to see how the average attendance at a school can be avoided as one of the considerations governing their rate of pay. To be Head Master of a large town school is one of the legitimate ambitions of all Meachers, and it can scarcely be denied that the efficient discharge of the increased responsibilities of directing a large staff and dealing with a large number of children ought to be rewarded by a higher salary than that which can be earned by the Head Teacher of a small school.

## Inorements.

61. It is recommended that no increments be given to Certificated Teachers until four years after they have received their certificates. After this period of probation the increments should be automatic and annual, but subject to refusal if a report is received from the Managers or an Inspector seriously reflecting on the diligence, conduct or efficiency of the Teacher, but no deduction should be made from any Teacher's salary without at least six months' notice being given and issued on the direct authority of the Commissioner.

## Fines and Debuotions.

62. No interim fines or deductions of any kind should be made from the monthly salary of any Teacher. The present syster of imposing monetary penalties upon Teachers for negligence or misconduct should be abolished forthwith, since it conveys the suggestion that gross carelessness, dereliction of duty, and even misconduct can be condoned by a money payment. The principle lying at the root of this system of fines is faulty and indefensible, and is morecver degrading to the profession as a whole. In cases of serious moral misconduct, such as the deliberate falsification of registers or other school documents, the Teacher should be discharged frow the publio service and his certificate cancelled, but in cases where mistakes have arisen through oversight, error of judgment or soine other excusable cause the Teacher should be warned that if similar complaints are established his annual increment will be stopped. It is of course understood that any Teacher who is discharged from his office may appeal direct to the Consultative Council and, if necessary, from that body to the Governor, or that he may, if he thinks fit, proceed against the Managers or Commissioner for wrongful dismissal in the ordinary way through the Law Courts.

The salaries of Teachers who possess no recognised qualifications should be at two flat rates-one covering the first ten years of service, the other on a considerably increased scale for any period of service above and beyond ten years. Teachers of this class should not be eligible for pension.

## (4)-Grants.

63. The present policy of a warding grants might well be reconsidered. Under existing regulations grants are made (1) to defray the salaries of Teachers; (2) for the purpose of providing and maintaining suitable buildings, books and apparatus; (3) for the supply of stationery; (4) for School Gardens; (5) for manual instruction. This plan would appear to be cumbrous and unsatisfactory. It is suggested that in future careful estimates should be made of conducting each school in a way that would yield results satisfactory to the Education Department and that block grants be included in the annual Education Budget to be presented to the Combined Court.


#### Abstract

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\section*{Classification of Sohools.} 64. In the preparation of the Budget the estimated average attendance should be taken as the basis of computation, but, in order to encourage efforts in the direction of increased efficiency, some margin should be allowed to enable Managers and schools to benefit finnacially as the result of superior work. For this purpose every school would be classified by the Commissioner, acting on the advice of the Inspectorate, under three heads (a) those where really excellent work was accomplished, (b) those where the work might legitimately be described as good, and (c) those which were satisfactory.


## " Excellentr."

In coming to a decision as to the category in which a particular school should be placed the Inspector should have regard to the general quality and effectiveness, not ouly of the teaching given, the way in which ali the conditions laid down in the Code had been fulfilled, the nature and extent of the agricultural or manual instruction, but to the general atmosphere of the school from a broader educational point of view, especially as regards cleanliness and good conduct, and the efforts that had been made to encourage moral qualities, such as truthfulness, thrift and the right kind of esprit de corps. No school which failed to provoke unhesitating enthusiasm, where the academic work was not of a really high standard or where the moral training in its widest sense was not particularly striking would be recommended for the "excellent" grant.

> " Good."

A school might qualify for a "good" grant where obviously successful efforts had been made to train the children in the moral virtues but where the academic work was, here and there, open to adverse criticism, where marked excellence in one or two directions distinguished the school from the general mass, and where after carefully balancing the weak and the good features of the school, the Inspector was able to roport that the net result justified a grant in excess of the normal grant,

## "Satisfactory."

A"satisfactory" school would represent the normal standard of attainments and accomplishments.

It is of course understood that any school which did not reach the minimum in respect of academic work, and did not satisfy all the conditions of the Code, particularly as regards sanitation, would not in any circumstances be eligible for a grant.

It will not have escaped observation that such a classification of schools will have some effect upon the scale of salaries for Teachers. It will enable Managers to reward those Teachers, who have shown special diligence and attention to duty, and those who have shown that they possess exceptional skill in their profession or, alternatively, to make provision for a better and more generous supply of books or other desirable apparatas for the benefit of the children.

I't is of course recognised that a differentiation of this kind between one school and another may place the Head 'Teacher at the mercy of the verdict of a single Inspector. It is therefore suggested that in each case where a school is recommended for the "excellent" or the "good" grant the estimate of the Inspector should be confirmed by another officer of the Department, or, preferably, by an inspection conducted by the Commissioner bimself and that asimilar confirmation be required before any school previously in receipt of one of these higher grants is reduced to a lower plane.

No grants should in future be paid to Managers for the purpose of building newt schools except possibly in the case of schools in very remote and inaccessible

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places (Art. 80) and all grants paid to Managers in respect of premises should be limited to "tenants' repairs" and not to repairs of the fabric which are, in accordance with the custom of the Colony, discharged by landlords.

## (5)-Examinations.

65. The thraldom of examinations under which Secondary Schools labour has already been commented upon in the hope that some speedy reform will be made in all directions and especially as regards the conditions under which the Guiana Scholarship is in future to be awarded. Similar reform is (in less degree perhaps) necedsary in the Primary system.

In the case of both the Blair and Mitchell Scholarships the test applied is that of the Cambridge Preliminary Examination, the effect of which is to disturb the natural development of the Primary School, and to encourage Head Masters ot teach Latin and French to children whe may become candidates for the scholarship.

The School-Leaving Certificate may have its uses in encouraging boys and girls to stay at school longer than thej otherwise iwould, and its continuance may be justified if no central or trade schools are established. But the kind of examination that would best suit the needs of the Primary School would be one taken by all scholars at 12 years and equivalent in scope to a Standard V. test. On the results of such an examination the elections to the Blair and Mitchell Scholarships and the twelve Government Scholarships might be made, together with the selection of pupils for the Technical School. An examination carefully and wisely conducted would have the advantage of supplementing the ordinary work of inspection and of maintaining an even standard of work in English and Arithmetic as between school and school.

Board of Examiners.
66. But in order to carry out this and other examinations there must be adequate and competent machinery.

The Commissioner as Head of the Education Department should undertake full responsibility for the scope, form and reliability of all examinations and to assist him he should form a panel of examiners, whose Question papers and assessments should be scrutinised by him and who should be under his complete control. For the purpose of carrying out all such examinations the Commissioner should be fully empowered to utilise the services of any master or mistress employed at any school whether Technical, Secondary or Primary in receipt of grants from the Treasury.

## An Intercolonial Examination Roard.

67. Allusion may here be made to another point put forward by the British Guiana Teachers' Association. Their recommendation that every effort should be made to give effect to the Resolution of the Trinidad Conference, 1921, that an Inter-colonial Board of Examiners be instituted is fully endorsed especially for the purpose of dealing with the issue of Teachers' certificates. Such a scheme would serve a useful purpose by preserving a high standard and avoiding in the Higher Examinations any parochialism which might subconsciously creep in. On such an Inter-colonial Board the Commissioder would presumably have a seat together with one or more other representatives.

## The Education Department and the Managers.

68. The rulations between the Education Department and the Managers require to be very clearly defined and regularised. All appointments of Teachers, Head Teachers, Assistants and Pupil Teachers after they have been made by the Managers must be approved and confirmed by the Commissioner who shall not, however, refuse approval and confirmation except on educational grounds. It is also essential that Managers shall carry out any directions issued to them by the Commissioner which are in conformity with the Uode or the Regulations for Secondary or Technical Schools or any cir-

## Exix:

cular or instruction legally enacted. It should also be recognised that failure on the part of the Managers to carry out such directions may involve a deduction from the annual grant or even the elimination of the school from the Annual Grant List; Under no circumstances will the Commissioner of Education interfere with the religious instruction which is given at a denominationnl school, or with any religious exercise, provided that; such religious instruction is given during the time specified on the official time-table which has been approved by an authorised officer of the Education Department.

On questions only involving details of school management the Manager of each individual school should he easily accessible to the Commissioner and vice versa. Questions, however, involving large issues of policy should be referred to the Commissioner through the medium of the Governing Body of each denomination. It would greatly promote harmony and would tend to the avoidance of misunderstanding if an annual conference between the Commissioner and each Governing Body could be arranged. The exchange of views and the discussion of problems between the education authority and the representatives of the Diocese, Synod or other bodies representative of varying denominations has been tried in various parts of England with great benefit and success. The machinery for such conferences already exists in British Guiana and it is sincerely hoped that full use will be made of it.

## (7)-Higher Eduoation.

69. In a similar way it is hoped that no effort on the part of the Education Department will be spared to bring those who are responsible for any form of Higher Education, including those who are actually employed iu teaching, into close touch with those who are actively engaged in directing industry and agriculture. The value of such an interchange is incalculable. On the one hand those who teach find that by such conferences their work is prevented by the criticisms of practical men of business from becoming too academic and detached; on the other hand it has been found by experience that employers of labour, even of unskilled labour, can be induced to appreciate more fully the work that is going on in the schools, the efforts that are being made to assist commerce and industry by the kind of education that is being given to recruits, and that a closer bond of sympathy and mutual understanding is ultimately established.
$\Delta_{s}$ far as the members of the teaching profession itself are concerned the need for a constant exchange of views is absolutely essential for many reasons. The solidarity of the profession is emphasised, the overlapping of curricula is avoided, an interchange of teachers is made possible, and reforms in detail can be outlined and put into practice by a very simple process and without arousing the susceptibilities of individual schools.

## (8)-Comptllsary Education.

70. Some divergence of opinion on this point was evident amongst the witnesses who appeared before the Commission. On the whole the balance of opinion was in favour of retaining the present law, that is to say of keeping the children compulsory at school in urban areas until they were 14, and in rural areas until they were 12 years of age. There was, however, a considerable minority who dissented from that view on the grounds that in both town and country there was a large demand for light labour, that this form of work served as a useful introduction to industry and that there were very many boys and girls of $\mathbf{1 2}$ who would never develop satisfactorily under the existing form of Primary Education, The latter point was heavily pressed and there can be no doubt that relatively less progress is made at the top end of the schools than elsowhere and that the complete absence of any attempt to teach children through their hands and by other devices than the ordinary academic methods accounts for this unsatisfactory state of things.

The remedy for that not inconsiderable class of children who do not responid or respond indifferently to the present methods of iustruction appears to tie not in alldwing them to leave school at a very immature age but in ohanging the nature of the training by the introduction of manual instruction, which may arouse the interests and activities of those children to whom the ordinary processes of education fail to make an appeal. The raising of the age to 14 may, from the point of view of policy, have been premature, and the schools may find it difficult to cater for the needs of many of the older scholars, but to reduce the age in either town or country cannot be regarded with any degree of satisfaction.

The worst solution of all is to ignore the law. Nevertheless this is precisely what has taken place, and is taking place. Whether this is due to weakness on the part of the Executive or to a general tacit admission that compulsory attendance cannot as is probably the case be enforced, the fact remains that the percentage of average attendance for last year, 1923, is officially returned at the astounding figure of 64 . In any case it is incumbent upon the Government, either to amend the law governing attendance at school, if the present law is unworkable, or, alternatively, to insist upon the existing law being carried into effect. It is quite obvious that no Government can allow the law of the Colony to be openly disregarded and still retain either its own respect or that of the community at large.

## (9)-Halp-Time.

71. Certain members of the Commission put in a strong plea for a half-time system as an alternative to coinpulsory education. Whether they meant by this that children above a certain age should attend school in the mornings and be allowed'to work in the afternoons, or that they should attend school one whole day and work in the sugar plantations the whole of the following day, was not very clear. But the points upon which they insisted, besides the general unsuitability of the subjects at present taught in the schools, were (1) that certain operations in the cultivation of the canes (such as manuring and weeding) being light occupations were eminently suitable for young cbildren, (2) that intinate knowledge of the methods employed in growing sugar under the direction of overseers was the best introduction that could ke given to the kind of work in which they woula subsequently he employed, (3) that the wages, which they would there earn, would alleviate the financial distress from which parents not infrequeutly suffer, and (4) that especially amongst Elast. Indians the family and not the individual was the economic unit-that is to say that it is the custom of this part of the community to encourage children from a very early age to contribute to the family exchequer-a habit which assumes a rather different aspect in the eyes of Western civilization,

It is very difficult for one who has known intimately the meaning of the halftime system in Lancashire to approach this prososal with a detached and unbiassed mind. Nevertheless one very important differeuce between half-time in British Guiana and half-time in Lancashire must be admitted. In the latter ease the children worked in mills under physical conditions, which were wholly inimical to health and development; and their work'was associated with machinery. In the former the work is in the open plantations; it is not exbausting and the children work in groups-" creole gangs" as they are known-and can associate with each other as they work. Short rests and intervals of childish play do not greatly impede the work as a whole; there is no necessity for any intense concentration of mind as was the case in the Lanoashire mills where any withdrawal of attention involved the loss of a finger or the stopping of machinery. Notwithstanding the advantages of the sugar plantation or the rice field over the cotton mill, it is difficult to believe that much would be gained from any point of view by withdrawing the children from school at 10 and allowing them to work half-time from 10 to 12 years of age. It is surely early enough for children to begin to face the realities of life at 12
and to begin to play their part in the financial responsibilities of family life. In the case of East Indians, it must be remembered, many centuries of tradition approve the custom and in the cultivation of their own plots of land even younger children are to be found working side by side with their parents before or after school hours. The whole question is worthy of further consideration in the light of more intimate knowledge. But this warning may well be given-that it is an easy matter to introduce a halfotime system but an exceedingly difficult matter to eradicate it if and when the occasion should arise, and further that it is by no means an easy matter to organise and control a school where the practice of half-time attendance is in vogue.

## (10)-The East Indian Popolation.

72. An interesting problem arises here. Thare are roughly 10,500 Eqst Indian children taught in the schools. The majority of the East Indian community came to the Colony under the Immigration Laws which have now been abrogated by the Government of India. The East Indian Association, which represented Hindus and Moslems, brought to the notice of the Commission two matters of importance to which reference is necessary. 'These concerned (1) sex and (2) language.

## The Sex Difficulty

Strong exception was taken on the grounds of national tradition, which had almost the sanction of religion, to girls who had reached or were approaching the age of pubert.y being taught by men. This would appear to be corroborated by the figures in the attendance registers, where it is observed that children above ten years of age seldom atrend school or attend with great irregularity and evident reluctance. The representatives urged that the sexes should be taught separately from a fairly early age and that adolescent girls-and adolescence in this oriental pecple is very rapid-should be taught by women preferably by Indian women. The theoretical plea for some concession in this direction to meet national susceptibilities would have been overwhelming, if the evidence of the witnesses had not disclosed the fact that nearly all East Iudian girls voluntarily undertook work in creole gangs which weredirected and superintended by male overseers. Despite this anomalous attitude of the East Indians, national traditions have some claion for recognition and it is recommended that, where the numbers make it possible, schools should be divided on the lines of sex, and that, where this cannot be done, a mistress sbould be detailed to teach the older girls.

## Language. •

As regards language the Association adopted the attitude of nationalism. They pointed out that the children of East Indians, who came to British Guiana under the late Immigration Laws, by mingling with other nationalities lost or were in danger of losing their national language and avquired a patois which was neither English nor Indian. This was to be deplored for many reasons but especially on grounds of patriotism and the Association accordingly pressed for instruction in Hindi or Urdu in the schools; and they were prepared to agree that this instruc,tion might be given out of school by qualified Ceachers, provided that their services were recognised, and paid for, by a grant from the Governuent.
'The solution of the language difficulty is, however, likely to be solved in the near future. Under the new arrangements with the Government of India which are, I am told, awaiting confirmation a stipulation is included under which pundits who will teach Hindi or Urdu will accompany future immigrations.

## (11)-River-side and Abr. 80-Schools.

73. Both these types of schnols are sui generis, and beyond the range of my experience. The former represent the river-side dwellers; whose life is amphibious and many of whose children come and go to school in canoes; the majority of this

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people are bovianders and Aboriginal Indians. Art. 80-Schools similarly are composed of Aboriginals and are in very remote and inaccessible parts of the Colony, and are organised and worked by missionary societies. To these the Government makes a grant in recoguition of the pioneer work-a grant which would appear from every point of view to be thoroughly justifiable and wise. As to the type of education which should be attempted it is difficult to do more than make negative recommendations. Anything like an attempt to teach on traditional lines is to be deprecated. The course to be adopted would appear to be entirely different. Health and sinitation, here as elsewhere, are the two main objectives in secular training; then should follow craftsmanship on lines suggested by the needs of the community; then (in the case of the river schools) all the devices of river oraft, the management, possibly the construction and repairing, of the cance together with sound and direct moral instruction. When all this has been done a start might be made with Reading and Writing and calculations in their very simplest form. Compulsory education is of course out of the question. For the Psychologist and the student of educational science these types of schools will provide wonderful opportunities for studying the bases of education under very exceptional conditions.

## (12)—Books.

74. The poverty of the equipment in the Primary Schools has already been referred to and in no respect is there greater need of improvement than in the supply of suitable books for the children, especially the older children, to read. In all directions reform is most desirable. At the present time the "readers" in use are those which were in common use in England thirty or forty or more years ago and, though many of them are not without merit, the subject matter strikes me as being singularly alien in thought and atmosphere to the needs of the children in the Colony. The time-honoured stories of King Alfred have no doubt their own place in an English or even an Imperial scheme, but thero are others, equally romantic and much more authenticated, which might be substituted for them. Similarly for small children graphic accounts of Napoleon and Splügen seem a trifle unreal for tropical schools. Much, too, is inappropriate in the text-books of Aritametic. Money sums are apparently in terms of pounds, shillings, and pence, notwithstanding the fact that the currency of the market-place and the shop is in dollars and bits and cents. The inference to be drawn is that a supply of books suitable to the special needs of British Guiana, and more or less common to the West Indies, is much to be desired. Books of general interest could without much difficulty be compiled out of the ample store of local material, especially on the inexhaustible subject of Nature and natural phenomina, A textbook on Geography, dealing with a regional survey of the West Indies and South America, would be more aseful and attractive than the old-fashioned political geographies, whilst a History dealing with the early romance of British subjects in the Indies and finishing with some account of the growth, development and unity of the Empite would be preferable to one dealing with early English History and such unattractive and relatively unimportant details as the Wars of the Roses. There must be in British Guiana and the West Indies men and women, who are fully qualified to produce books of the types which have been suggested, and the Government might well consider the advisability of commissioning some of them to attempt to satisfy local needs and at the same time to provide in broad outline books in which the unity of the Empire, its common interests and its common history, were emphasised.
75. In so short a time and with so limited an acquaintance with the schools it has been impossible to do more than survey the general principles that govern the education of the Colony and the way in which these principles are carried into tffect. I'he results of such investigations as I have been able to make are, it must be candidly confessed, entirely' unfarourable. It is difficult to believe that any other Colony is in a more backward and unsatisfactory condition, and the doubts which His Kxcellency expressed as to the efficiency of education would appear to be fully

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justified. The importance and practical value of a sound system of public education do not appear to have been fully realised, nor has it been sufficiently recognised that the progress of this Colony, no less than that of every other State in the world, depends, primarils and ultimately, upon the qualities of its industrial manhoodtheir capacity to use to the full the gifts with which Nature has endowed the land their skill in the use of tools and machinery, their ability to adapt their minds to enterprise, their power to exercise habits of thrift and perseverance. And it is precisely in failing to provide these vital forces that the education of the Colony is deficient and it is precisely here that the first step towards reform must be takena reform in aim and outlook and in the conception of educational values.

And next to this comes reform in execution-in the carrying out of reformed ideas. Good raw material in the shape of boys and girls, joung men and young women, are here in plenty, the intentions and wishom of the Government may be of the highest and the best, but, if the old slip-shod habits of the Executive continue to live and thrive, the last state will be no better than the the first. .The plain fact is that the present machinery is outworn and fit only for the scrap-heap. An occasion now presents itself to re-shape and reconstruct the engine and then to drive it fearlessly and resolutely npon its way. The occasion will, it, is hoped, produce the man, endowed with vigour and understanding, who will see to it that British Guiana does not lag far behind in the wake of other British Colonies.

## E, WYNN-WILLIAMS, His Majesty's Inspector of Schools.

7th January, 1925.

## APPENDIX.

It- is recommended that the undermentioned reforms and improvements be undertakeu without delay:-

## A.-Pohicy.

(1) That conditions affecting the health of children and the sanitation of sohools be rigorously enforced, and that schools of all grades be medically inspected as a condition of receiving grants.
(2) That the syllabuses of all schools be reconsidered with the object of making the instruction more suitable in character and more in accord with the needs of the Colony. That manual instruction and bygiene be included in the curriculum of all schools whatever their grade.
(3) That a Technical School be provided in Georgetown and that such a School be properly housed, staffed and equipped. That special provision ba made for the scientific training of boys and girls in agriculture, building coustruction, elementary engineering, commerce and domestic economy.
(4) That a Training College for Teachers be attached and form part of the Technical School.
(5) That a Model School in Georgetown be provided for demonstration purposes in connexion with the Training College.
(6) That two Central or Trade Schools be established in Georgetown for certain children over 12 years of age who are unable to benefit from the kind of education that is given in Primary Schools.
(7) That two New Schools at Buxton and Friendship be built to take the plaoes of the five existing Denominational Schools.

## B.-Administration.

(1) That the general powers of the Executive be greatly strengthened.
(2) That the Commissioner of Education be made the responsible officer for all forms of education in the Colony.
(3) That a Consultative Council of seven members, nominated by the Governor be established and that it be their duty to assist the Commissioner with their advice on certain specified matters.
(4) That the Inspectorate consist of three men, one to be resident in each of the three Counties; and one woman, to be resident in Demerara.

APPENDIX• E.

## EDUCATION COMMISSION.

Correspondence Relating to the Establishment of a Medical College at Jámaica.

## APPENDIX E. <br> Correspondenga Relating to the Establishment of a Medicath Colugqe at Jamaioa,

(1) Extract of despatch from Secretary of State dated 26th Septomber, 1924, to gether with minute therean by the Surgeon General, forwarded to the Chairman, Education Commission, by the Colonial Secretary:-
Extract from Despatch from Secretary of State for the Colonies,
Sir,
3. The Colonial Advisory Medical and Sanitary Committee were in clined to view with favour the suggestion for the establishment of a West Indian Medical College, e.g, in Jamaica. It would be for consideration whether an Institution of the kind should provide a short Medicipl Opprse, Which, should be completed in the United Kingdom, or a full cgurse, beginning and ending in the Cglony. It was recalled that the Ceylon Medical College gives a complete, course and grants at diploma which is recognised by the British Medical Association. The Committeo would welcome the establishment of an Institution on similar lines in the West Indies, if practicable, and I should be glad to receive your Governenent's views on the proposal,

I suggest that the matter might be fully discussed at the next Conference. It will be important to frame an estimate of the probable number of students if such an institution were establishẹd.

# I have, etce, <br> (for the Secretary of State) 

(Signed) ARNOLD.
Copy of a minote by, the Surgeon General—dated 1st December, 1924.

## Honodrable Colonial Seoretary,

I consider that such a school of medicine as contemplated in paran graph 3 of the despatch would ber a distinct adrance and would benefit the West Indies, British Guiana and British Honduras generally.
2. Jamaica would probably be the best centre for its establishment. I am in favour of a school providing the full course as in Ceylon, theugh the question of providing accommodation with properly equipped laboratories and lecture roems is a big one entailing heavy expenditure: There is further the question of obtains ing a properly qualified lecturing staff-full and part time. At present I am doubtful if Jamaica can furnish this staff; though there is no reason why such could not be provided for; if the school could justify its existence.
3. In Ceylon, with its high standard of secondary education and a population of over $4 \frac{1}{3}$ millions, the Medical Cbllege foutided in 1870 has been a thorough success end the qost to the Government is proportionally insignificant when compared with the advantages secured to the Colony.
4. The course of study provided in Ceglon is considerably cheaper than in the United Kingdom and the Diploma, L.M.S., (Licenciate of Medicine and Surgery) is recognised for registration purposes by the General Medical Council of the United Kingdom, and, moreover, other concessions are given by various English, Bcotch, and Irish examining bodies as regard the recognition, for examination purposes, of various courses of lectures and practical classes conducted in Ceylon.
5. Further, a Licenciate of Ceylon (L.M.S.) is granted exemption from the First Professional of the London Conjoint Board, M.R.C.S., L.R.C.P., and from th
iv.

First and Second Professionals of the Scotch and Irish Conjoint Boards, so that the locally qualified candidate may, after qualifying proceed to the United Kingdom and obtain British qualifications in about two years instead of the minimum prescribed period of fiye.
6. As regards the particular case of-British Guiana, this must be judged on the basis of population and secondary education, the latter especially. And as things stand secondary education is distinctly, backward, and it is doubtful whether, for some years to come, any material number of candidates would be forthcoming.
7. My own opinion is that rather than offer a subsidy to Jamaica (unless the amount is to be small) it would be better to develop secondary education and provide in British Guiana the mechanism for obtaining exemption from a Preliminary Scientific portion of British Medical Degrees and Diplomas.
8. In the Onited Kingdom the General Medical Council recognises for this purpose the lectures and examinations conducted at various Public Schôols such as Epsom, Tunbridge, Dulwich,' 'tc,
9. The conditions for obtaining this concession from the General Medical Council are the providing of properly equipped laboratories and teaching staff for the conduction of lectures and practical classes in Chemistry, Physics and Biology.
10. There is no reason why Queen's College should not obtain this. concession so that students who have passed the Preliminary Scientific examination in Medicine here would be exempted from this portipi when taking this British qualifications. and would be able to qualify for British degrees and diplomas in four instead of five years. There are, moreover, with the proper equipment of a scientific side at Queen's College, other advantages, such as the training of students for the various British Science degrees such as the B.Sc. (Báckelor of Science).
11. On the whole, therefore, and taking everything into consideration, $I$ aminclined to favour the establishment in British Guiana of facilities for obtaining locally the Preliminary Scientific training and dualification for Medical Degrees and Diplomas, and I intend to raise this point with the Education Commission at present sitting. If such small units as English and Scotch Public Schools can provide facilities for the Preliminary Scientific courses of Medicine and obtain the recognition of the General Medical Council, there is no reason why this Colony should not be able todo likewise.
(Signed) P. JAMES KELLY.

Reply by the Chairman, Education Commission, to Colonial Secretary, dated $2 n d$ Ti U, January, 1925.
Sir, I have the honour to acknowledge the receipt of Mr. Webber's letter No. 6200/20 of the 31st ultimo, transmitting extract from a despatch of the Secretary of State on the subject therein mentioned, together with the Surgeon General's minute thereon.
2. I observe that the Surgeon General will himself bring the matter before the Education Commission, and I await with interest that desirable step. Meanwhile the Documents transmitted will be circulated to the Commissioners.
3. The next meeting of the Commission will be in the latter part of the present month. Of its date the Surgeon General shall receive timely notice.

(Sgd.) CHARLES MAJOR.


C.S.O. No. 468/35.

## JBritisb Guiana.

## REPORT

OF THE

## DISTRICT COMMISSIONER <br> of tie work of tax <br> ESSEQUIBO DISTRICT,

FOR THE YEAR

$$
\text { 1934. V79172CE, } 8: 1
$$

Printed by the Eluthotity of ibis Excellency the Governor.

GEORGETOWN, DEMERARA :
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) No. 16,459.

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## DISTRICT COMMISSIONER'S OFFICE, Onderneeming, Esseqcibo, British Guiana, 26th February, 1935.

Sir,
I have the honour to submit herewith the Annual Keport of the Essequibo District for the year ending 31st December, 1934.
2. Following a rainfall of 16.30 inches in November and 28.30 inches in December, 1933, heary rains during the first week in January culminating in a fall of eight inches at Affiance, 10 inches at Anna Regina, 12 inches at Hampton Court on Sunday, 7th January, 1934, the whole district was practically flooded.
3. The Pomeroon River rose to such an extent that the floor of the Post Office at Charity was 3 ft .6 ins , under water. The floors of all houses less than 2 feet from the ground were under water and the occupants were housed in the schools and churches throughout the district.
4. Food Depôts were opened at Supenaam, Onderneeming, Queenstown, Anna Regina and Charity; and Committees appointed for the distribution of relief. Funds were obtained from Public Subscription.
5. The Floods abated on the 22nd January, 1934, the loss suffered by the villages in crops and stock accounts for the reduction in Revenue collected.
6. Grants-in-aid were made to the undermentioned Districts from Flood Relief and Unemployment Relief Funds for the improvement of drainage : -

| Districts. | Amount. |
| :---: | :---: |
| Anrora Country District | ...\$ 10000 |
| Bush Lot Country District | 20000 |
| Danielstown Village District | 36000 |
| Huis t'Dieren Country District | 1,000 00 |
| Henrietta and Richmond Country District | 40000 |
| Queenstown Village District | 1,348 18 |

## Local Government Board. Village Districts.

7. The following Table No. I gives the total Revenue and Expenditure. The mean percentage of collection was $\mathbf{5 9 . 1 \%}$ a decrease of $6.8 \%$ on the previous year. The Expenditure was for ordinary services and does not include the repayment of loans :-
8. 

TABLE NO. I.

| . Districts. |  | Estimate. |  | Colle oted. | Per cent. | Per cent. 1933. |  | Total Revenue. |  | Total xpenditure. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Danielstovn Queenstown | $\ldots$ | $\begin{array}{r} 1841 \\ 1,573 \\ \hline 40 \end{array}$ | \$ | $\begin{aligned} & 67640 \\ & 75253 \end{aligned}$ | $\begin{aligned} & 80^{\circ}-8 \end{aligned}$ | $\begin{array}{r} 92 \cdot 3 \\ 63 \cdot 4 \\ \hline \end{array}$ | \$ | $\begin{aligned} & 1,18996 \\ & 1,69564 \end{aligned}$ | \$ | $\begin{array}{r} 1,16517 \\ 1,57118 \\ \hline \end{array}$ |
|  |  | 2,414 91 |  | 1,428 93 | 59.1 | ... | \$ | 2,8856 | \$ | 2,736 98 |

Parate Execution for Recovery of Rates.
9. The number of proceedings lodged during the year amounted to twentyone. Five were withdrawn bofore sale, the Rates and Law Costs connected therewith having been paid.

## Coúntry Districts.

10. The following Table II. shews the Revenue and Expenditare of the Country Districts:-

TABLE II.

| Dietricts. |  | Estimate، | Collected. | Per cent. | Per cent. 1933. | Total Revenue. | Total Expenditure. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| Adventure | ... | 11413 | - 10437 | 91.4 | 92. | - 34974 | 26008 |
| Aurora | ... |  |  |  |  | 30488 | 20887 |
| Bush Lot | . | 29140 | 19589 | 67.2 | 848 | 44318 | 60752 |
| Henrietta and Richmond |  | 74011 | 61678 | $83 \cdot 3$ | $88 \cdot 5$ | 1,006 57 | 89141 |
| Huis t'Dieren | ... | 85292 | 55261 | $64 \cdot 7$ | 78.1 | 1,296 59 | 1,060 92 |
| Suddie | ... | 43386 | 39015 | 99.9 | 85.2 | 1.62350 | 1,078 83 |
| Rubal Santart DietbictsGolden Fleese Front Lands | ... | ... | ... | ... | ... | 12673 | 2646 |
|  |  | 2,432 42 | - 1,85980 | 76.4 | - | - 5,151 19 | - 4,033 59 |

11. The average percentage of collection was 76.4 per cent. compared with 76.6 per cent. for 1933. The expenditure included the repayment of loans in addition to ordinary current expenditure.
12. From 1st January, 1934, the administration of the Wakenaam Districts was included in the West Demerara Administrative district.
13. During the year Government decided to wind up the Local Government Board Investment Account and distribute the amount at Credit of the Account amongst the districts. The following amounts were received by the various districts as shewn below :-

| Aurora | ... \$ | 4832 |
| :---: | :---: | :---: |
| Adventure ... | ... | 19333 |
| Bush Lot ... | ... | 521 |
| Danielstown | ... | 24849 |
| Huis t'Dieren | ... | 46184 |
| Henrietta and Richmond | $\ldots$ | 7483 |
| Johanna-Cecelia |  | 13642 |
| Golden Fleece Rural Sanitary District | ... | 10960 |
| Queenstown | ... | 39863 |
|  |  | 2,264 83 |

14. This amount has been used in paying off Government loans as far as possible and improvement of drainage.
15. Danielstown was the only district indebted to Government on Loan Account at 81 st December, 1934. The final instalment of $\$ 150$ remaining unpaid. (This has since been paid off).
16. No Government Loans were made to the Districts in 1934. The sum of $\$ 452$ was due by all classes of districts at 31st December, 1934 on account of Loans from other sources as shewn in Table III.

TARLE III.


## II.-Collection of Colony Revende.

17. The total Revenue collected in this district amounted to $\$ 13,617.52$; a decrease of $\$ 3,358.63$ compared with 1933. Of this decrease $\$ 1,800$ is due to Wakenaam being transferred from this district to the West Demerara District on 1st January, 1934.
18. The sum of $\$ 934$ is accounted for by the fact that no rum duty was collected in this district during the year, as all retail spirit shop owners purchased their supplies and paid the duty in Georgetown.
19. The remainder of the decrease is due to two Retail Spirit Shops and thirty-five (35) Shops Rural not renewing their licences for 1935.
20. No cases for breaches of the Tax Ordinance were heard during the year. Cases were dealt with by the Commissary and fines ranging from fifty cents to one Dollar have been collected.

## III.-Inspection Visits.

21. All Villages and Country Districts were visited and the books and accounts audited and inspected. In several cases two audits were made during the year and numerous visits were made to inspect work and advise on Village matters.
22. The relations between District Administration and the Districts were distinctly cordial during the year; there were no petitions.
23. All Schools on the Coast and in the Indian Reservations were visited and the Registers checked and inspected. In several cases two visits were made and reports on the prescribed form submitted to the Director of Education.
24. All Post Offices and Postal Agencies were audited once a quarter. Report on the prescribed form were sent to the Postmaster-General on each occasion.
25. All other shops in the District were visited and their scales and weights tested and licences examined.
26. All Retail Spirit Shops were also visited and rum tested and stock compared.
27. All Public Works, Sea Defences and Unemployment Relief Works were supervised.

> IV.-Immigration.
28. The total East Indian population in this district is approximately $\mathbf{1 1 , 0 0 0}$ (figures taken from 1931 census returns) and is distributed as follows:-

Essequibo Coast.

| Males | $\ldots$ |  | $\ldots$ | $\mathbf{5 , 6 2 4}$ |
| :--- | :---: | :---: | :---: | :---: |
| Females | $\ldots$ |  | $\ldots$ | 4,887 |
|  | $\ldots$ | Pomeroon. |  |  |
| Males | $\ldots$ | $\ldots$ | 237 |  |
| Females | $\ldots$ | $\ldots$ | 153 |  |

29. Owing to the depression existing on this Coast about $25 \%$ of these people have emigrated to other sugar estates temporarily, for employment.
30. During the year 1;397 Pauper Certificates were issued to East Indians for Medical attendance at Suddie Hospital. Other work done for East Indians is as under:-
31. Wills were drawn up.

60 Promissory Notes made.
30 Applications for marriages were dealt with.
132 Birth Certificates were issued.
96 complaints by wives against husbands and rice rersa were heard and determined as far as possible.
150 petty complaints were also heard and dealt with as above.

> V.-Poor Relief.
31. The number of Paupers receiving permanent relief on the beginning of the year was 211 compared with 286 in 1933, and 267 in 1932, besides those receiving temporary relief.
32. During the first half-year 25 paupers died, three sent to the Alms House, four struck off and two transferred to other districts.
33. During the second half-year the number remaining on the Schedule was 238 compared with 264 for the same period last year. There were eleven in receipt of temporary relief.
34. The amount paid out for the year under review under the undermentioned heads were as follows:-

| Permanent Doles | $\cdots$ |  | \$ 2,149 68 |
| :---: | :---: | :---: | :---: |
| Temporary Relief | ... | .. | 9816 |
| Medicines |  |  | 2640 |
| Other payments including burials, pass- |  |  |  |
| ages, etc. <br> Enquirers' Salarie | ... | ... | 10868 |
|  | ... | ... | 19000 |
|  |  |  | \$ 2,572 92 |

compared with $\$ 3 ; 123.14$ during the same period in 1933.
35. The amount was shared amongst the three districts as under :-

| North Essequibo | $\ldots$ | $\ldots$ | $\$ 1,07746$ |
| :--- | :--- | :--- | ---: |
| South Essequibo | $\ldots$. | $\ldots$ | 1,24942 |
| Pomeroon | $\ldots$ | $\ldots$ | 24604 |
|  |  |  | $\$ 2,57292$ |

## VI.-Crown Lands.

36. The Revenue collected under this heading from all sources amounted to $\$ 1,560.34$ compared with $\$ 2,303.52$ in 1933 . This amount was paid into the Office of the Commissioner of Lands and Mines. The decrease is due to the Flood; many of the Pomeroon Farmers on leased Crown Lands having lost all their crops, were unable to pay their rents.
VII.-Land Settlement.
37. The block of land in the rear of Plins. Fairfield and Makeshift which was laid out by the Lands and Mines into 96 lots of 20 acres each are still in the same condition since my last report.
38. The occupiers are Members and Officers of the Universal Negro Improvement and Africau Communities League and have been allowed to occupy the land
on a free permission for two years and this concession expired on 31st December, 1934. I propose to hold a meeting of these people and decide the question of rent and re-allocation of the land.

Suddie Old Gal Farm.

39. The Suddie Old Gaol Farm which has been leased to sundry persons is at present partly abandoned, owing to the poor crops obtained by the farmers.
40. The sum of $\$ 60.50$ has been collected as rent for 1934 and paid into the Office of the Commissioner of Lands and Mines.

## VIII.-Aboriginal Indian Reservations.

41. A school and house for the teacher was erected by the Aboriginal Indians in the Iteribisci Indian Reservation. The School was opened on 1st. February, 1934. A school mistress was appointed and the salary paid by the Commissioner of Lands, and Mines from the Aborigival Indian Funds.
42. Furniture and books were supplied by the Education Department. The highest number of pupils was 14 and the lowest 7 .

> IX.-Distillery Supervision.
43. The only distillery in this district is at Pln. Hampton Court which was visited regularly during distilling operations and until all rum was removed from the Spirit Store.
44. A strict account was kept of all rum made and delivered, stock was balanced once a week:
45. All spirit pipes, fittings, receivers, etc., were regularly examined.
46. The quantity of rum made at Hampton Court during the year 1934 was $10,898 \frac{1}{2}$ bulk gallons equal $16,693.8$ proof gallons. This has been removed to the Colonial Bonded Warehouse.
X.-Labour and Wagès.
47. The average number of persons employed at Hiampton Court monthly were:-

|  |  |  |  | 1933 <br> Figures |
| :--- | :---: | :---: | :---: | ---: |
| Shovelmen | $\ldots$ |  | $\ldots$ | 208 |
| Male Weeders | $\ldots$ | $\ldots$ | $\mathbf{3 6 7}$ |  |
| Female Weeders | $\ldots$ | $\ldots$ | $\mathbf{1 6 5}$ | $\mathbf{1 9 4}$ |
| Creoles | $\ldots$ | $\ldots$ | $\mathbf{6 0}$ | $\mathbf{5 4}$ |
| ... |  | $\mathbf{1 5 1}$ | $\mathbf{3 9 1}$ |  |

and the daily wages paid were:

| Shovelmen |  |  | 35.37 cents per diem. |
| :---: | :---: | :---: | :---: |
| Male Weeders |  | ... | 32-36 eents per diem. |
| Female Weeders | ... | ... | 22-27 cents per diem. |
| Creoles | ... |  | 14-16 cents per dieta. |

## Rice Estates.

48. The people are financed during the crop by the proprietors and when accounts were made up at the end of the crop about $40 \%$ received a small margin.
49. Between the crops the people were engaged on Flood and Unemployment Relief Works. These works proved a great assistance to the people between the planting and reaping of the crops.

## XI.-Drainage Boards.

50. I continued in my capacity as District Commissioner to be Chairman of the Essequibo Drainage Boards.
51. The Jonanna-Cecelia to Annandale Drainage Board made its usurl assessment for the carrying out of maintenance works and I am pleased to place on record the amicable manuer in which the work has been carried out by the proprietors. There were no complaints about improper drainage and in each instance proprietors were allowed to carry out all works on their estates and paid for from the Advances from the Director of Public Works under Chapter 165, section (14), sub-section (2) of the Drainage Ordinance.
52. The Zorg-en-Vlygt to Aberdeen Drainage Board made an Assessment for the maintenance works in 1934 and the proprictors were allowed similar concessions as the Johanna-Cecelia to Annandale Area and have carried out their works satisfactorily.
53. The Three Friends to Walton Hall Drainage Board decided that the proprietors carry out their maintenance works as heretofore and consequently no assessment for 1034 was passed. The works are still being carried out in a. perfunctory manner:
54. The Drainage of the first two districts was good and all koker channels were open at the end of the year.
55. With the exception of the Anna Regina Estates and the proprietor of Sections C., D. and E., Pln. Reliance, no proprietor has paid anything on accoant of their arrears of Interest and Sinking Fund Charges and arrears of Maintenance Charges. Some definite action should be taken to settle the mode of payment if not, I am afraid they are getting deeper and deeper into the mire.
56. A sum of $\$ 1,373.90$ Drainage Rates was collected from 252 sundry Proprietors in the three declared Drainage Areas in this District and was paid into the office of the Director of Public Works.

## XII.-Sea Defences.

57. With the Sea Defence Ordinance of 1933 coming into force, the District Commissioner is now responsible for the collection of all Sea Defence Rates.
58. During the year 1934 a sum of $\$ 989.55$ Sea Defence Rates was collected from 96 Proprietors and paid into the office of the Sea Defence Board.
XIII.-Stafr.
59. The Staff in this District comprised of the undermentioned personel:Mr. L. M. Nightingale, District Commissiouer and Engineer.
Mr. R. L. Thomson, Class II. Clerk.
Mr. Harbin Elias, Probationer.
Mr. V. Naidu, Interpreter.
60. Mr. K. Thomson, Class II. Officer, was granted six months leave of absence from the date of his arrival in England. Mr. Thomson left the Colony, on 16th May, 1934, and returned to Essequibo and resumed duties on 14th December, 1934.
61. During the absence of Mr. Thomson the work of the district was carried on without additional staff.
62. I desire to place on record my appreciation of the manner in which the staff worked throughout the year.

## XIV.-Flood and Unemployment Rellef Works.

63. An Investigation Committee consisting of the Honourable Colonial Secretary as Chairman, the Director of Public Works, Hon. R. E. Brassington and the Director of Agricalture visited the district shortly after the Floods in connection with Flood Prevention Works. A meeting was held at Colony House, Suddie, and the undermentioned works were approved, and carried out:-
(a) Digging, widening and straightening Oena Creek for a distance of 200 roods.
(b) Digging relief canal from Capoey Lake aback of Queenstown to L'Union.
(c) Making up of the south side line dam of Dartmouth and continuing dam to McNabb.
(d) New green heart sea koker at Queeustown.
(e) Making up cuts in McNabb.
(f) Replacing original dam at Tapacooma Lake and dismantling existing weir.

## XV.-Cost of Administration.

64. The amount voted for the cost of administration in this district for the year 1934 was $\$ 7,858$ : a reduction of eighty dollars compared with 1933.
65. The amount expended amounted to $\$ 7,368.73$ a saving of $\$ 309.27$ from the original estimate.

## XVI.-Visits.

66. His Excellency the Governor visited on 2nd February, 1934.

The Colonial Secretary, the Director of Public Works and Director of Agriculture visited on 21st February, 1934.
On 17th March-Mr. Justice Savary and H. C. Humphrys, Esq.
On 7th May, 1934-Messrs. G. O. Uase and J. P. Bruen, Sea Defence Engineers.
On 25th April, 1934-Messrs. K. R. Follet-Smith and Dunlop. On 12th May, 1934-The Director of Public Works. On 8th June, 1934-The Postmaster-General.
On 1st August, 1934-The Colonial Auditor.
On 16th August, 1934-The Acting Director of Public Works.
On 17th October, 1934-The Officer Administering the Government.
I have the honour to be,
Sir,
Your obedient Servant,
L. M. NIGHTINGALE, District Commissioner, Essequibo.
The Colonial Secretary, Georgetown.

C.S.O. No. 805/35.

## JBritísb Guiana.

## REPORT

OF THE

## COLONIAL TREASURER,

FOR THE YEAR
1934. $\times 7,79172$,

G5
Printed by the Elutbority of Wis Excellency the Governor:

GEORGETOWN, DEMERARA :
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No. 16,353

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## TREASURY DEPARTMENT, Georgetown, Demerara, 27th April, 1935.

Sir,
I have the honour to submit my Report on the accounts and finances of the Government of the Colony of British Guiana for the year 1934, together with the following Statements annexed hereto as Appendices:-

## I. Annual Abstract Account.

IA. Statement of Revenue under Sub-heads compared with the Estimates.
Ib. Statement of Expenditure under Sub-heads compared with the Estimater.
II.-(1) Statement of Assets and Liabilities.
(2) Surplus and Deficit Account.
(3) Public Debt and Sinking Fund Balances.
III. Statement of Deposits.

IIIA. Statement of Deposits Invested.
IV. Statement of Advances.

IVA. Statement of Imprests.
V. Statement of the Funded Debt detailing the Loans raised and the Sinking Funds accumulated for thoir extinguishment.
VI. Statement of Investments.
VII. Statement of the Expenditure on Works and other payments charged to Loan Account.
VIIA. Statement of the Loans made by Government from Loan Funds to Local Authorities.
VIII. Balance Sheet Immigration Accounis.
IX. Abstract of the Immigration Accounts.
X. Colonization Fund Account.
I.

Revenue and Expenditure.
2. The Revenue and Expenditure for the year 1934 as shown by the Annual Abstract Account amounted to $\$ 6,105,607$ and $\$ 5,786,047$ respectively.
3. Considerable analysis of the foregoing totals is, however, necessary in order to elucidate the financial results of the year. The analysis must deal separately with:-
(i) The ordinary Revenue and Expenditure.
(ii) The amounts brought to account as Extraordinary General Revenue.
(iii) The Receipts and Expenditure in respect of Works financed from the Colonial Development Fund.
(iv) The Receipts and Expenditure in respect of Unemployment and . Flood Relief Works financed from Imperial Grant and Loan-in-aid.
4. The ordinary Revenue and Espenditure as originally estimated and the actual totals for the year were as follows :-


It will be observed that Expenditure exceeded the original approved Estimate by $\$ 6,164$ but that Revenue also was greater than estimated by $\$ 286,838$, the budget deficiency of $\$ 389,802$ being thereby reduced to $\$ 109,128$.
5. Expenditure would actually have amounted to $\$ 5,145,959$ and been less than the Estimate by $\$ 36,024$ but for the necessity to include in the year's accounts a charge of $\$ 42,188$ representing the Railway Permanent Annuities and interest ou Perpetual Stock which fell due on 31st December, 1933, but payment of which was not effected by the Crown Agents until January, 1934, the due date having fallen on a Sunday. From these figures it can be deduced that the normal revenue and expenditure transactions of 1934 resulted in a deficit of $\$ 66,940$, which howeves, was more than covered by the extraordinary revenue receipts of the year amounting to $\$ 90,206$-See item (a) of paragraph 6 below.
6. The amounts brought to account in 1934 as Extraordinary General Revenue comprise the following items:-
(a) Appreciation in value and gains on sales of Investments held ou behalf of the Post Office Savings Bank
$\$ 90,206$
(b) The amount held on deposit at 31st December, 1933, representing the proceeds of various realised Reserve Funds, subject to certain adjustments ... ... 338,481
$\$ 428,687$
Regarding (a) these gains are fortuitous but are properly appropriated in accordance with authorised procedure although there is entailed a corresponding contingent liability on Revenue to make good future losses should the market values of the securities subsequently fall.

Regarding (b) these Rescrve Funds, realised in keeping with the nolicy adopted with the object of reducing as far as possible the Colon's dependence upon Imperial assistance for balancing its ordinary budgets, have now been finally transferred to Revenue.
7. With the inclusion of the foregoing total of $\$ 428,687$ in Revenue, the deficiency of $\$ 109,128$ referred to in paragraph 4 was transformed into a surplus of $\$ 319,559$, thereby increasing the balance at credit of the Surplus and Deficit account from $\$ 37,038$; the figure brought forward from 1933 , to $\$ 406,597$. This balance is available for appropriation towards the deficit in the approved budget of the current year.
8. Under local accounting procedure the Receipts and Expenditure in respect of Works Guanced by loans and grants from the Colonial Development Fund and Unemployment and Flood Relief Works financed by Imperial Grant and Loan-inaid are self-balancing accounts, the sums appropriated annually to Revenue being the precise equivalent of the amounts expended so as not to disturb either way the balance on Surplus and Deficit Account.
9. There was expended during the year on "Colonial Development Fund Schemes" a sum of $\$ 254,024$ of which $\$ 223,774$ was received as Loans and the remaining $\$ 30,250$ as Grants.
10. Under the Head "Dnemployment and Flood Relief Works" there was expended during the year a sum of $\$ 343,876$ of which $\$ 34,619$ represents the unexpended balance of Grants received in respect of the previous year and $\$ 309,257$ Loan-in-aid appropriations.
11. The above analysis does not, of course, include expenditure to be met by public loans. It may be stated here, however, that during 1934 there was also expended as advances to the Sea Defence Board to defray the cost of permanent construction works on the Sea Defences a sum of $\$ 498,613$ which has been met
partly by loan and partly by adrances from the Orown Agents pending the raising of a further loan.
12. The financial results of 1934 may therefore be briefly summarised thus:-
(a) Expenditure amounting to $\$ 5,145,959$ chargeable against Revenue (escluding a special charge of $\$ 42,188$ carried over from 1933) was fully met from Ordinary Revenue amounting to $\$ 5.070 .019$ augmented by Extraordinary Receipts of $\$ 90,206$, Ieaving a surplus of $\$ 23,266$;
(b) with the addition of this surplus (and after providing for the special charge carried over from 1933) the balance of $\$ 87,038$ at credit of Surplus and Deficit Account brought forward from 1933 was increased by the transfer of $\$ 338,481$, the proceeds of realised reserves; to $\$ 406,597$;
(c) expenditure on special works amounting to $\$ 597,900$ was incurred which was met to the extent of $\$ 64, \delta 69$ by Imperial Grants and to the extent of $\$$ J̇シ3,031 by Imperial Loans; and,
(d) expenditure of $\$ 498,613$ on sea defence works is to be covered by public loans.
13. It will be apparent from (c) and (d) above that concurrently with the normal budget expenditure, additional public expenditure of well over $\$ 1,000,000$, was incurred during the year on repair, reconstruction, and development works from funds provided from external sources. Considerable private expenditure on repair and reconstruction also proceeded simultaneously. And, while, to the extent that these disbursements are the cost of rehabilitating assets destroyed by sea or flood they represent an economic loss, the unemployment situation has been relieved thereby and the enhanced circulation of money so brought about has reacted favoirably on the collection of Government revenues.
14. The Revenue of 1934-apart from Extraordinary Receipts-exceeded that of 1933 by $\$ 119,069$, the receipts under all the main subdivisions save two only, viz., "Internal Revenue" and "Rents" having been higher than in 1933. This result is all the more satisfactory because the conditions created by the severe losses to the Colony's agricultural industries occasioned by the floods and the subsequent inadequate rainfall aggravated by the extremely low prices prevailing for the principal exportable products at first gave ground for the belief that the revenue estimates would not be realised. It is at least gratifying that the economic reverses from which the Colony suffered were so little reflected in the collection of Government revenues.

## Details of Revenof.

15. The following tables show the comparision of the Revenue receipts of 1934 under main heads (1) with the Estimate and (2) with the Revenue receipts of the previous year :-


16. The following brief comments on the details of the revenue coilected under the more important sub-heads have been compiled mainly from reports furnished by the responsible collecting departments and should be read with Appendix 1 A.
17. I.-Customs.-Import Duties. - The Customs' returns show that the value of imports in 1934 was $\$ 8,190,268$ or $\$ 173,959$ less than that of the preceding year. The revenue from Import Duties, however, amounted io $\$ 2,375,217$ exceeding the estimate by $\$ 172,217$ and the revenue of 1933 by $\$ 90,842$. It is not possible to explain these results within the compass of a short paragraph as all relevant factors. must be taken into account including the eftect of the quota restrictions introduced during the year on the importation of foreign textiles. Reference is invited to the Report of the Comptroller of Customs.
18. I.-Customs.-Export Duty and Bill of Entry Tax.-The receipts under these sub-heads fell short of the collections for 1933 by approximately $\$ 4,000$ and $\$ 5,000$ respectively. In explanation of these decreases, the Comptroller of Customs reports as follows: "The decrease in revemue received from export duty is attribut"able to the further very considerable decline in the exports of diamonds, while the "decrease under the sub-head "Bill of Entry 'Cax" is due mainly to the decline in "values occasioned by the operation of the monetary exchanges of several countries "which, even in early November, 1933, were still at a preminm, whereas they have "since been at a discount. At mid-year 1933 the American rate was $13 \frac{7}{8}$ per cent. "and the Canadian $4 \frac{7}{8}$ per cent. premium."
19. II.-Excise and Licences.-The total sam collected under this Head amounted to $\$ 987,532$ as compared with the estimate of $\$ 975,420$ originally budgetted for. Nearly $\$ 470,000$ of this total sum was collected as Rum Duty on rum withdrawn from bond, the estimate under this sub-hend being exceeded at the end of the year by $\$ 4,845$.
20. Excesses worthy of note also occurred under the following sub-heads:-

| Sub-head. |  |  | Excess. |
| :---: | :---: | :---: | :---: |
| 2. Distillery tax on |  |  | \$ 2,731 53 |
| 8. Licences various |  |  | 12,363 03 |
| 11. Sugar Duty | ... |  | 13,861 38, |

The excess Revenue collected by the Commissaries' Department under the first of these sub-heads is attributable to an increase in production following on an
increase of over 40 per cent. in the quantity of rum exported to the United Kingdom, while the shortage reported in 1933 in the receipts under "Licences various," due to the more extensive use of motor cars of lower horse power, was more than made good in 1934 by an appreciable increase is the number of motor vehicle and bicycle licences issued during the year.
21. The revenue from the Excise Duty on Sugar proved as shown above to have been under-estimated by nearly $\$ 14,000$. This excess helped to offset the short-fall in the yield of the new excise tax on edible oils manufactured localiy, which realised little more than one-third of the estimate of $\$ 36,000$ included for this item. In spite of steps taken later in the year to amend the Ordinance so as to bring the total local manufacture of edible oils within its scope, the gield from the tax continued to be disappointing.
22. III.-Internal Revenue.-T.he total sum collected under this Head exceeded the estimate of $\$ 397,830$ by $\$ 49,419$ dne principally to an increased collection of "Estate duty" as the result of a windfall from one estate of extraordinarily high value declared during the year. The other estimates under this Head were geveraily realised, the collections for Income Tax, which provides the bulk of the revenue collected under this Head, having fallen short of the estimate of $\$ 300,000$ by only $\$ 4,332$. This short-fall was almost completely offset by an increase of $\$ 3,427$ collected as "Entertainment Tax," the year's return uuder this sub-head exceeding the record collection of 1933 by over $\$ 1,800$. The erection within the year of an additional cinema just outside of the city is stated to account for the excess, from which it seems safe to conclude that the incidence of this tax continues to have no adverse effect on the recreations of the general public.
23. IV.-Fees of Court or Office, etc.-An increase of $\$ 16,855$ is reflected in the total revenue collected under this Head, the principal excesses occurring under the following sub-heads:-

| Sub-head. |  |  | Excess. |
| :---: | :---: | :---: | :---: |
| 1. Fines and Seizures | $\ldots$ | $\ldots$ | 6,014 |
| 7. Registrar | $\ldots$ | $\ldots$ | 7,190 |
| 12. Crown Costs recovered $\ldots$ | $\ldots$ | 3,348 |  |
| 17. Agricultural Department | $\ldots$ | 2,311 |  |
| 22. Public Works Department | $\ldots$ | 8,491 |  |

These excesses are severally explained as being due to a higher percentage of recovery of fines imposed by Magistrates and of Crown costs in such cases, an under-estimate by the Registrar, and abnormal sales of livestock and citrus fruit by the Department of Agriculture during the jear.

As regards the excess shown under sub-head 22 , the revenue credited to the Public Works Department under this sub-head is earned principally by its transport service which was engaged for a considerable part of the year in transporting stone and cement for the emergency Sea Defence Works on the East Coast, Demerara. The reimbursement to the Department for this service is stated by the Director of Public Works to have resulted in the estimate for the year being almost doubled, the actual receipts totalling nearly $\$ 20,000$.
24. On the other hand there were appreciable decreases under the following sub-heads :-

Sub-head.
14. Hospitals, Asylums and

| Dispensaries | .. | \$ 6,515 |
| :---: | :---: | :---: |
| 25. Rice grading fees | .. | 3,118 |
| 30. Tolls, Rupuuuni Cattle Trail |  | 3,324 |

34. Boundary Commission ... $\quad$... 2,066

The decreases under sub-heads 14,25 and 30 are respectively explained as being due to fewer paying patients applying for treatment at the Georgetown Public Hospital during 1934, to a considerable drop in rice exports, and, to tolls due but remaining uncollected at the close of the year. Under sub-head 34 are credited the reimbursements made to the Colony for the substitute officers employed to replace the officers seconded for service with the Commission. The shortage indicated is, however, more apparent than real, the salary of the Government Medical Officer seconded for service with the Boundary Commission having been credited instead to the appropriate expenditure vote of the Medical Department.
25. V.-Postal Revenue.-The total Revenue collected during the year for sales of stamps, etc., totalled $\$ 176,467$ allocated as under in the accounts :-


These receipts exceeded the total estimate for the year by $\$ 20,460$, the new stamp issue for 1934 being mainly responsible for this excess. Of this amount it is worth while placing on record that sales by the Crown Agents in the United Kingdom realised $£ 3,404$, approximately $\$ 16,340$.
26. V. (a).-Wireless.-The Government Wireless service was discontinued as from 1st February, 1934, with completion of the arrangements for transfer of the plant to the Cables and Wireless, Ltd. The decrease of $\$ 4,755$ in the Revenue takings for the year is however counterbalanced by a saving in Expenditure under Head XXXII.
27. V1.-Rents.-The Revenue collections under this Head fell considerably short of expectations, the total sum collected being no less than $\$ 9,340$ under the estimate. This shortage is principally due to the depressed state of the , rice industry, there being a drop of nearly $\$ 7,000$ in the rental receipts by the Department of Lands and Mines for Crown and Colony Lands, as compared with the Estimate.
23. V11.-Forests Lands and Mines.-The Forest and Mining Industries continued to make progress during the year, the revenue collections by the Department of Lands and Mines showing an excess of $\$ 34,517$ on the estimare for the total Head collected principally from these industries.

In respect of the Girst of these, continued activity in the timber industry and the recovery during the year of outstanding arrears occasioned an excess of over $\$ 7,000$ under "Royalty-Timber," while unexpected shipments of Balata from the Rupununi District are reported to bave contributed to the excess of $\$ 3,854$ collected during the year as royalty on this forest product. The estimate for Balata Licences failed however to be realised to the extent of $\$ 1,770$, rents outstanding at the close of the jear accounting for the shortage.

In regard to the mining. industry, the high price of gold which reached the remarkable figure of $141 /-$ per fine ounce on the London Market at the close of the jear continued to attract prospectors to the Gold Fields; the revenue collections for Prospecting Licences issued during the year showing an increase of $\$ 1,655$ on the Estimate. This evidence of the upward trend of the Gold industry was also reflected in the following further excesses under this Head:-

| Sub-Head. |  | Excess. |  |
| :---: | :---: | :---: | :---: |
| 1. Fees | $\cdots$ | ...\$ | 1,760 |
| 3. Licences-Ulaim (gold) | ..- | ... | 3,755 |
| 5. Mining Privileges | ... | ... | 13,662 |
| 9. Royalties, Gold | ... | ... | 2,8 2 |

29. V1I1.-Interest, IX.-Refunds of Loans-The estimate of $\$ 11,800$ for interest under Sub-head I. "General," was more than d oubly realised, due prin. cipally to the payment by the Mayor and Town Council, Georgetown, of a substantial amount as interest on the overdue instalments for 1934 of the Annual Loan Charges payable in respect of the Georgetown Improvement Woriss, and to the maintenance on deposit at interest during the year of large cash balances for the reason explained in paragraph $5 \Sigma$ of this report.

Interest outstanding at the close of the year on loans recoverable from Drainage Areas, the Canals Polder Authority, and from the Sea Defence Board resulted in a short-collection of $\$ 23,160$ under sub-head 2, "Loans to Corporations." In addition, loan instalments totalling $\$ 4,496$ collectible from the Drainage Areas and Canals Polder Authority remained outstanding at the close of the jear, explain. ing the deficit under Head IX.

The estimate under sub-head 3, "Post Office Savings Bank" to which is credited the dividends accruing during the year on the Investments of the Post Office Savings Banix was exceeded by approximately $\$ 10,000$, increased investments having been made by the bank during the year as a result of its net receipts from depositors having risen within the year from $\$ 1,743,297$ to over $\$ 2,000,000$.
30. X.-Miscellaneous.-The total revenue under this head includes a sam of $\$ 12,996.86$ held on deposit in 1933 as a grant from the Carnegie Corporation and transierred in 1934 to adjust the charge made in 1933 against Colony funds in respect of the erection of the Carnegie Trade Centre for Women.
31. XI.-Sales of Crown Lands : XII.-Premiums on Grants, Leases, \&c.-The excesses under these Heads are reported by the Commissioner of Lands and Mines to be the result of the sale during the year of large areas of Crown Lands on the East Coast, Demerara, and of a quarry site at Kallacoon, Essequibo river.
32. XIV.--Salary Abatements.-The variation which became operative as from 1st July. 1934; in' the rate of the abatements made from the salaries of Civil Servants resulted in a reduction of $\$ 14,000$ in the revenue collected under this Head. This levy on Civil Servants' salaries ceased at 31st December, 1934, and has accordingly been excluded from the budget for 1935.
33. Extraordinary General Revenue Receipts.-The receipts under this head have already been commented on in paragraph 6. The amount on deposit at 31st. December, 1933, representing the proceeds of realised reserves was transferred to Revenue after deduction of the sum necessary to restore the $5 \%$ Loan Stamp Duty Account. The reasons for this course are fully explained in paragraph 63.

The approved estimate of Extraordinary Receipts:included a sum of $\$ 161,300$ representing the amount which it was anticipated could be released from the Sinking Fund under Loan Ordinance No. 6 of 1916 on the redemption of the unconverted $6 \%$ Bonds of the 16 th and 18th issues. It was subsequently decided, however, to employ this withdrawal to reduce the amount of the new loan which was required for the purpose.

## Details of Expunditure.

34, The Expenditure of the year after adjustment in respect of the deferred charge of $\$ 42,188$ referred to in paragraphs 5 and 12 was $\$ 61,989$ higher than that of 1933. It is noteworthy that the Expenditure of 1934 was nevertheless some $\$ 260,000$ less than that of the year 1929.
35. There were no variations of any importance between the actual expenditure and the original approved departmental estimates. The following comments which shonld he read with Annendix 1B. mav. however, be of interest:
36. The largest saving, viz., $\$ 12,941$ occurred under the head Public Debt Charges. This was principally due to the fact that the new loans raised during the year were secured on more advantageous terms than had been anticipated when the estimate was framed.
37. Under Wireless Telegraphs there was a saving of $\$ 8,610$ which was due to the transfer of the service to the Cables and Wireless, Itd., to which reference has already been made in paragraph 26.
38. Under Pensions and Gratuities there was a saving of $\$ 9,842$ on the appropriation for the year. The following table shows the additions made to the permapent pension list during the jear:-


- In addition to this amount, Iump sum payments totalling $\$ 8,200$ were mado to the personal representatives of decemsed public ofticers, of whom three died during the year.

On the other hand 27 pensioners in receipt of a total annual pension of $\$ 13,870$ died during the year, the net result at the close of the year being an increase of $\$ 1,359$ in the required annual appropriation under these classifications.
39. The only large excess- $\$ 47,968$-occurred under the head Transport and Harbours Department. This was principally due to the deferred capital charge of $\$ 42,188$ from 1933. The report of the Department which has already been issued deals fully with the variations in its revenue and expenditure and the effect on its net receipts.
40. The variations between the actual expenditure and the estimates under the Heads Colonial Development Fund Schemes and Unemployment and Flood Relief Works are shown as excesses but should not be regarded as such, all expenditure having been kept within the authorised provision. In the case of works financed from the Colonial Development Fund, the precise requirements in respect of approved schemes were not known when the Annual Estimate was prepared and in the case of Unemployment and Flood Relief Works considerable increases and variations were introduced daring the year as a result of the floods.
41. The provision for unemployment relief works in the 1934 estimates was shown under two Heads:-
LI.-Imperial Grant-Onemployment Relief Works $\$ 32,017$.
LII.-Imperial Loan-in-Aid-Unemployment Relief Works $\$ 130,000$.
42. Head LI. related to the estimated unexpended balance of the grant of £36,000-\$172,800 made by the Imperial Government for unemployment relief works in respect of the United Kingdom financial year 1st April, 1933, to 31st March, 1934. The actual balance was $\$ 34,619$ and this was fully expended during the year.
43. Head LII. represented the estimate for unemployment relief works for the remainder of the year 1934, i.e., 1st April to 31st Decomber, 1934. In viow of the position created by the floods the estimate under this Head was increased from $\$ 130,000$ to $\$ 307,200$ ( $£ 64,000$ )-an increase of $\$ 177,200$, i.e., the balance of the Vote of $\$ 480,000$ ( $£ 100,000$ ) which hud been provided in the United Kingdom esti-:
mates for 1933-34 as financial assistance for British Guiana and which was stilt available.
44. Head LII. was replaced in the estimate by a new Head styled "Imperial Loan-in-Aid-Unemployment and Flood Relief Works," the total provision of $\$ 307,200$ being allocated in terms of Legislative Council Resolution No. VIII. of 26th April, 1934.
45. Later in the year, the Secretary of State approved of a request by Government that the unappropriated balance of approximately $\$ 21,400$ remaining on deposit from loan-in-aid receipts from the Imperial Government to equate the Colony's budget to the end of 1932 should also be made available for the purpose. ,
46. The tolal actual expenditure on these works during 1934 amounted to $\$ 309,257$. In view of the very wide area over which this expenditure was spread it has been considered necessary to prepare for permanent record a complete detaile 3 statement of the expenditure which will be published as a Legislative Council Paper.

48. The balance of $\$ 37,815$ appearing under the Head "Loan Account" will be referred to later in this Report under "Public Debt."
49. The balance on Surplus and Deficit Account has already been explained earlier in this report. As stated, it is held for appropriation towards the deficit in the approved budget of the current year.
50. The fixed advance of $\$ 480,000$ from the Imperial Government provides the working capital necessary to finance requirements in the form of current cash and unallocated stores balances and outstanding advances due to Governmento
51. The indebtedness to the Crown Agents represents borrowings pending the raising of a loan to cover advances to the Sea Defence Board against expenditure in progress on sea defence construction warks. The expenditure.incurred and immediately in prospect at the close of the year amounted to $\$ 652,400$ as approved by Legislative Council Resolution No. XIII. of 31st January, 1935.
52. Of the amount of $\$ 498,113$ shown in the table above under "CashBalances" a sum of $\$ 200,000$ was held on special interest-earning deposit with the: local banks. This comparatively large accumulation of cash in the Colony is, of course, explained by the necessity for funds to be promptly available to cover the cost of the urgent sea defence works in progress referred to in the preceding, paragraph.
53. The item "Unallocated Stores" appears at an unusually high figure. This is due to advance purchases of cement and other material for the sea defence works and of rails, fittings, etc., in connection with renewals and new works to be undertaken by the Transport and Harbours Department.
54. The item "Advances pending the raising of a loan" comprises $\$ 446,428$, being the amount actually advanced to the Sea Defence Board at 31st December, 1934, and a balance of $\$ 24,972$ brought forward on this account from 1932 representing a portion of the redemption of $6 \%$ bonds effected in that year that could not be met frow loan funds owing to the exbaustion of the loan raised under Ordinance No. 11 of 1929. The disposal of this balance is explained in paragraph 83 under " Public Debt."

## Spedial Colony Funds.

55. The following special Colony Funds are included in the Balance Sheet under "Deposits for Investment":

| Immigration Fund | $\ldots$ | ... | 455,134 |
| :--- | :---: | :---: | :---: |
| Colonization Fund | $\ldots$ | $\ldots$ | 873,681 |
| $5 \%$ Loan Stamp Duty Account | $\ldots$ | 109,278 |  |

56. Immigration Fund.-This Fund is held for the purpose of meeting the cost of repatriation to India of those immigrants who are entitled to free or assisted back passages at the expense of the Culony. Details of the transactions of the Fund are recorded in Appendices VIII. and IX.
57. At the commencement of the year the balance at credit of the Fund was $\$ 430,163.91$. Receipts during the year totalled $\$ 27,546.40$ including sums of $\$ 693.54$ and $\$ 10,174.39$ representing respectively, gains on sales of investments and appreciation in the market value of investments on 31st December, 1934. Expenditure for the same period amounted to $\$ 2,576.15$.
58. Of the balance of $\$ 455,134.16$. at credit of the Fund at the close of the year, $\$ 441,839.20$ was held in investments, the remainder being held in, cash. A sum of $\$ 9,600$ was invested in January, 1935.
59. No Return Sinip to Ind́ia was despatched during 1934.
60. Colonization Fund.-Ihis Fund is free from liability but its application is limited by law to the financing of unindentured immigration into the Colony. The transactions of the Fund are recorded in Appendix X.
61. At the commencement of the jear the balance at credit of the Fund was $\$ 813,673$. Receipts credited. during the year totalled $\$ 61,175$. There was withdrawn from the Fund a sum of $\$ 1,167$ being the excess of payments over receipts in respect of the Bush Lot Land Settlement Scheme and Essequibo properties.
62. Of the balance of $\$ 873,681$ at credit of the Fund at the close of the year $\$ 856,889$ was held in investments and the remainder in cash.
63. The $5 \%$ Loan Stamp Duty Account is a fund established in 1929 by an appropriation from the proceeds of the loan raised under Loan Ordinance No. 11 of 1929. Its object is to provide for United Kingdom stamp duty charges on transfers of the stocks issued in respect of this loan. The Fund had, however, been earmarked for realisation in accordance with the decision to appropriate all general
funds in order to reduce borrowing from the Imperial Government to cover budget deficits and, in 1933, a partial realisation was effected to the extent of $\$ 78,952$ which sum was retained on deposit pending transfer to Revenue in 1934. The matter was subsequently reconsidered and a decision taken that having regard to the scurce of the fund the proposed appropriation to Revenue was innsuitable. The account has accordingly been reinstated and is to be maintained for its original purpose. The re-transfer of the sum withdrawn in 1933 was made on the closing of the accounts in December, 1934, and the fund consequently appears in the Balance Sheet as under-invested by this amount. Adjustment will be effected in the current year by the purchase of the required investments.

## imperial Assistanoe.

64. Apart from Colonial Development Fund loans and grants there have been received from the Imperial Government between 1931 and 1934 sums totalling $\$ 3,436,178$. Of this amount $\$ 1,256,978$ represents free grants for Unemployment Pelief Works appropriated to Revenue for this purpose during 1931-1934. The remaining $\$ 2,179,200$ has been issued as loan-in-aid, granted on terms to be precribed by the Imperial Treasury. Of the loan-in-aid receipts $\$ 1,370,600$ was appropriated to revenue during 1931-1932 in liquidation of budget deficits and $\$ 309,257$ for Unemployment and Flood Relief Works in 1934 ; $\$ 480,000$ is held as an advance for fixed working capital and, as already explained, is shown as a liability in the Balance Sheet represented by current assets. The balance of $\$ 19,343$ is included under the Head "c Deposits" and is held against expenditure which is being incurred during the current year on the completion of Unemployment and Flood Relief Works authorised during 1934 but which were still in progress at the close of the jear.

## Deposits.

65. Details of the Deposit Accounts will be found in Appendices III. and III.A.
66. The Special Colony Funds have already been commented on. The following new accounts opened during the year are of interest:-
67. Carnegie Corporation Grant, $\$ 19,370$.-This anount is the unexpended balance of a grant of $\$ 25,616$ (the equivalent of $\$ 27,000$ J.S.A. currency) received from the Carnegie Corporation to cover the cost of reconstruction of the wings of the Carnegie Fres Library Building to enable the Museum of the Royal Agricultural and Commercial Society to be housed on the upper floor. The work is in progress and the fund is kept invested pending its utilization.
68. Museum Association Grant, $\$ 2,400$. -This amount is a grant by the Museum Association to be used in paying for the services of a trained Curator for the local Museum for oue year and for providing new apparatus.
69. The largest item under "Deposits for Investment" is the account of the Post Office Savings Bank representing the total of the balances at credit of depositors in the Bank. It is noteworthy that this account has increased from $\$ 1,652,356$ at 31st December, 1929, to $\$ 2,067,267$ at the close of 1934.

## Advanoes.

70. The details of Advances are shown in Appendix IV. The principal items are commented upon below. .
71. Advances to Local Authorities through the Local Government Board.-The amount outstanding on this account at 31st December, 1933, was $\$ 54,689$ due by 34 Authorities. One advance was made during the jear, namely, a loan of $\$ 1,125$ to Bush Lot Country District for improvement of internal drainage and fencing of cultivation areas. Repayments totalled $\$ 8,463$ leaving outstaiding at the close of the
year a balance of $\$ 47,351$ of which instalments amounting to $\$ 18,290$ were overdue. The Authorities in default of instalment repayments number twerty-two.
72. Punded Loans: Villages.-These loans represent a consolidation of the liabilities to Government of the Villages concerned including arrears in connection with the Coastal Drainage Schemes. The balance outstanding at 31st December, 1933, was $\$ 60,725$. Repayments during the year totalled $\$ 9,097$ leaving $\$ 51,623$ outstanding at the close of the year. The repaymont instalments and interest due during 1934 in respect of these loans were duly met with but two exceptions, nanely, Buxton and Friendship- $\$ 1,010$ and Victoria- $\$ 643$.
73. Drainage Areas-Annual Charges (Maintenance Expenses)-The balance outstanding on this account at 31 st December, 1933, was $\$ 56,122$. Advances during the year totalled $\$ 24,288$ while recoveries amounted to $\$ 27,122$ leaving a balance of $\$ 53,288$ outstanding at the close of the year. Considerable difficulty is being experienced by the Director of Public Works, through whom these adrances are made, in effecting recoveries and it is recognized that in the case of certain areas complete recovery will prove to be impossible. The position is being investigated.
74. Recoveries from Local Authorities during 1934 were assisted by the liquidation of the "Local Government Board Investment Account"-a fund established by the Board some years ago to secure suitable investment of dormant cash balances. The accumulated interest earned by the fund amounted to $\$ 16,589$ which was distributed among 111 Local Authorities. Of this sum $\$ 8,943$ was utilised in reduction of liabilities due to Government.
75. Adrances to Co-operative Credit Banks.-The outstanding loans at 31st December, 1934, amounted to $\$ 26,246$. The amount advanced to these Banks was $\$ 69,178$ of which $\$ 42,932$ has already been repaid. Overdue instalments at the close of the year amounted to $\$ 416$ of which $\$ 317$ has since been paid.
76. The position of these advances is regarded as satisfactory except as regards the Mahaica-Supply and Eldorado banks. These two Banks are in a moribund condition and it is proposed to seek authority to write off the balances due by them amounting to $\$ 3,394$.
77. Personal Advances-to Public Officers.-These advances are made to assist Public Officers to take vacation leave out of the Colong. The conditions governing repayment were revised during the year and now provide for recovery by instalments within two years from the date of the officer's return from leave..
78. Advance made on the security of Mortyage on land $\$ 8,000$.-No payment was made during the year in respect of the debt due by $R$. Bacchus which is secured by Mortgage on Pln. Taymouth Manor. The matter is in the hands of the Crown Solicitor.
79. Colonial Derelopment Fund.- $\$ 120,172$-This balance represents the excess of actual expenditure incurred during the jear on works in progress financed by the Colonial Development Fund over the sums received from the Fund. The amount was covered by an issue made in January, 1935. .

## Publio Debt and Loan accounts.

80. The Public Debt, Loan Expenditure, and Sinking Fund balances are sum-, marized in Statement (3) Appendix II. Details are contained in Appendices V.,.VI., VII. and VII.A.
81. At 31st December, 1933, the Colony's Funded Debt amounted to $\$ 22,187,537$, During the year the following redemptions were effected:-

82. The Sinking Funds for the redemption of the Public Debt totalled $\$ 2,973,642$, the investments held having a mean market value of $\$ 3,223,999$ at 31st December, 1934.
83. The $\$ 963,6006 \%$ Bonds redeemed on 1st January, 1934, were those of the 16th and 18th issues under Ordinance No. 6 of 1916, the holders of which had not accepted the offer of conversion to 4\% made during 1933 when notice was given that the option to redeem would be exercised. A sum of $\$ 159,287$ being the proportion of the Sinking Fund applicable to these bouds was withdrawn therefrom and used for the redemption, the balance of $\$ 804,313$ being met from the proceeds of the $\mathbf{3 \%}$ loan of $£ 175,400$ at 96 raised on 2 nd May, 1934. It is proposed to raise by the sale of additional. $3 \%$ stock a further sum of $\$ 14,972$ to cover the outstanding advance of $\$ 24,972$ in respect of the 1932 redemption-less $\$ 10,000$ withdrawn from the sinking fund and held on deposit.-See paragraph 54.
84. The $\$ 1,200,000$. $3 \%$ stock redeemed on 1st February, 1934, comprised two loans of $£ 150,000$ and $£ 100,000$ raised in 1898 and 1901 respectively and due to mature in 1945, with the right of optional redemption from 1923, The sum available in the appropriate Sinking Fund was $\$ 984,473$ and the deficiency of $\$ 215,527$ was met from the proceeds of the $3 \%$ loan of $£ 45,014$ raised at par on 1st April, 1934.
85. The proportion of the Public Debt representing loans made by the Central Government to Local Authorities which is recoverable from such bodies amounts to $\$ 4,128,684$.' These loans comprise the recoverable proportion of the expenditure on the Georgetown Sewerage and Water Supply Schemes, the Coastal Drainage Schemes, and the Canals Polder Drainage Scheme, together with loans to the Vlissengen Proprietors (Georgetown) and to the Sea Defence Board.
86. The cost of construction of the sea defence works of a permanent character executed and in progress since 1933 is charged as an adrance to the Sea Defence Board in terms of section 17 (2) of the Sea Defence Ordinance, 1933. From the loan of $\$ 120,000$ raised in 1933 an advance of $\$ 30,000$ was made to the Board in that year. A further sum of $\$ 52,185$ was advanced in 1934 leaving a balance in hand of $\$ 37,815$ on this loan. The advances to the Board to defray the cost of the extensive emergency and reconstruction works necessitated by the serious breashes which occurred during the year are being met, as already explained, by temporary borrowing from the Crown Ageuts' Joint Colonial Fund pending the raising of a further loan. 1t is proposed to raise one loan in London to meet all the extraordinary expenditure on sea defence and on other public works recommended by the Floods Investigation Committee.
87. Up to the close of 1934 there had been charged to the Colonial Development Fund for the financing of approved schemes a sum of $\$ 708,017$ of which $\$ 138,512$ is in the form of free grants and $\$ 569,505$ in the form of loans. Further loans from the Fund amounting to $\$ 287,914$ are receivable in respect of authorised works in progress at 31st December, 1934.
88. In the Report for the year 1933 special emphasis was laid on the burden of the considerable portion of the public debt represented by the $£ 1,000,000$ 1942-72 $5 \frac{1}{2} \%$ Loan and the $£ 2,090,0001949-695 \%$ Loan on which rates of interest exceeding the current cost of money are payable. It was pointed out that it is unfortunate that by reason of the terms of the loans Government is precluded for some years to come from taking any action having for its object the reduction of the relatively high interest charges payable on these loans raised in the United Kingdom. The matter is mentioned here again because during the year it was the subject of discussion in the Legislative Council, and was ventilated in the newspapers, and many novel but ineffectual suggestions were put forward as a means of securing the much desired reliel. No financial operation can, of course, be devised which would achieve this result and at the same time maintain inviolate the conditions on which the loans were raised. British Guiana is not singular in the Empire in this respect and it is possible that the subject may be approached from a wider Imperial angle. In the meantime, however, no independent action by this Colony is possible.

## III.

## Departmental.

89. The Colonial Treasurer, Hon. T. Millard, C.M.G., acted as Colonial Secertary from 8th May to 10th June, and was absent on vacation and special leave during the remainder of the year. The selection of Mr, Millard for appointment as Colonial Secretary as successor to Sir Crawford Douglas-Jones has since been announced. While the I'reasury staff regret that his promotion will result in the loss of his services to the Treasury, it is particularly gratifying to them that his services in his higher sphere of office are to be retained in the Colony.
90. Mr. M. K. Khan, Class II Clerk was promoted during the year to be a Class I Clerk in the Official Receiver's Office. The vacant Class II pust was transfered to the Department of Lands and Mines in order to enable an officer of that Depart-
ment to receive promotion without transfer, and a new Class III post was substituted in the Treasury to which Mr. E. A. Jack, Probationer, was appointed. Mr. Jack's post has been filled by the appointment of Mr. C. H. Da Silva.
91. During the year two Treasury officers were seconded for special duty in other Departments-Mr. C. A. Lashley, Class III Clerk to act as Accounting Officer of the Department of Agriculture and Mr. A. A. Learmond, Probationer, to act in the Secretariat.
92. Apart from the Colonial Treasurer, one officer was on vacation leave during the year.

I have the honour to be,
Sir,
Your obediẹt Servant,
E. F. McDAVID,

Colonial Treasurer (Acting).
The Honourable
The Colonial Seoretart.

APPENDICES.
1934.

## APPENDIX

British Guiana Annual
Statement showing the total Receipts

I.

Abstract Accuunt, 1934.
and Payments in the Year 1934.


STATEMENT OF DISTRIBUTION OF BALANOES AT 31bt DEOEMBER, 1934.

E. F. MoDAVID,

Colonial '「reasurer (Acting)

## APPENDIX I (A).

Statement of Revenue in the year $\underset{\text { Estimates. }}{1934 \text {, under }}$ Sub-heads as compared with the Estimates.


AiPPENDIX I (A).-(Continued).


APPENDIX I (A).-(Continued).


## APPENDIX I (B).

Statement of Expenditure in the Year 1934, under Sub-heads as compared with the Estimates.
(Unoovered Excesses marked "will be inoluded in Final Supplementary Statement).


## APPENDIX I (B).-(Continued).



## APPENDIX I (B).—(Continued).



APPENDIX I (B).-(Continued).


APPENDIX 1 (B).-(Continued).


APPENDIX I (B).-(Continued).


## APPENDIX I (B).-(Continued).



## APPENDIX I (B)-(Continued).



APPENDIX 1. (B).-(Continued).


## APPENDIX I(B).-(Continued).



## APPENDIX I (B).-(Continued).



## APPENDIX-I (B). ${ }^{\underline{n}}$ (Continued).



## APPENDIX I (B).-(Continued).



AFPENDIX I•(B).-(Continurd).


## APPENDIX I (B).-(Continuld).



## APPENDIX I (B)-(Continted),


t Oredir 837 37.

## APPENDIX I (B).-(Continced).



APPENDIX I (B).-(Continoed).


## APPENDIX I (B).--(Continued).



## APPENDIX I (B) -(Continued).



## APPENDIX I (B)-(Continued).



APPENDIX I.
(1)

Statement of Assets and Liabilities of the Colony of Britush Guiana at
31st December, 1934.

(2)

Statement of Surplus and Deficit Account at 31st December, 1934.

(3)

Public Debt and Sinking Fund Balances at 31st December, 1934.


Norz.-There is a contingent liability for the repayment of Parliamentary Losns-in-Aid granted on terms to be presoribed by the Imperial Treasury in liquidation of budget deficits and Unemployment Relief Works in 1934 other than works oovered by grants. The rum reeeived and brought to account to 31st December, 1934, as revenue is

[^64]
## APPENDIX III.

Balances of Deposit Accounts on 31st December, 1934,


* Nett Debit Balanoa transferred to Adpance Acoount.
+ Seo page 47.


## APPENDIX LII.-(Continued).

## Balances of Deposit Accounts on the 31st Derember, 1934.



## APPENDIX IIIA.

Balances at Debit of the Deposits Invested Accounts on 31si December, 1934.


APPENDIX IV.
Balances of Adrance Accounts on the 31st December, $193 \pm$.

| - . |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adpanors to Co-Opreative Orbdit Banks- |  |  |  |  |  |  |
| Ann's Grove-Clonbrool | $\cdots$ | $\ldots$ | ... $\$$ | 1,668 20 |  |  |
| Boterverwagting-Triamph | $\cdots$ | ... | ... | 2,662 40 |  |  |
| Rloomfield-Salton | $\ldots$ | $\ldots$ | $\ldots$ | 2,40400 <br> 1,347 <br> 185 |  |  |
| Canal No. 1 | ... | ... | $\cdots$ | 1,860 60 |  |  |
| Den Amstel-Fallowehip | ... | ... | $\ldots$ | 1,763 20 |  |  |
| Eversham | $\cdots$ | $\ldots$ | $\cdots$ | - 2.296848 |  |  |
| Esrequibo (North) | $\cdots$ | ... | $\ldots$ | 2.216 ${ }^{514} 000$ |  |  |
| Essequibo (South) | $\ldots$ | $\ldots$ | $\cdots$ | 2,606 00 |  |  |
| Expectation ${ }_{\text {Golden }}$ | $\because$ | ... | $\ldots$ | 21180 |  |  |
| Good Intent-Sistera | ... | ... | ... | 750 <br> 8070 <br> 80 |  |  |
| Georgetown . | $\cdots$ | $\ldots$ | $\ldots$ | 45600 |  |  |
| Hopatown | ... | $\ldots$ | . | 83960 |  |  |
| Leguan | $\cdots$ | ... | ... | 1,06000 |  |  |
| Mehaicn-Supply | $\because$ | $\cdots$ | ... | 1,427 80 |  |  |
| Plaisance-Sparandanm | ... | .... | $\ldots$ | ${ }^{1} 43040$ |  |  |
| Rose Hall | $\cdots$ | ... | ... | 43600 |  |  |
| Vieldon | $\cdots$ | ... | ... | 21420 |  |  |
| Vreed-en-Hoop | $\cdots$ | ... | ... | 663800 |  |  |
| Vergenoegen | $\because$ | ... | $\cdots$ | 3200 |  |  |
| Wakenaam | ... | ... | ... | 74180 | \$ | 26,24640 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Arthurville-Fredorioksburg | $\cdots$ | … | .... | 38790 |  |  |
| Alneam | ... | - | ... | 81000 |  |  |
| Bel Air (Berbice) | ... | ... | ... | 3.65000 |  |  |
| Rugh Lot | ... | ... | $\ldots$ | 1,125 00 |  |  |
| Clonbrook | ... | ... | ... | 24.00 |  |  |
| Central Mahaicony | $\cdots$ | - | $\ldots$ | 49135 |  |  |
| Den Amstel-Fellownhip | $\cdots$ | .... | ... | 16800 |  |  |
| Danielstown | ... | ... | ... | 15000 |  |  |
| Eldorado Block | ... | .* | ... | 63129 |  |  |
| ${ }_{\text {Cryrish }}$ Cood Intent and Sistera | ... | ... | $\ldots$ | ${ }_{6} 612$ |  |  |
| Gibraltar-Courtland | ... | .... | ... | 1.78444 |  |  |
| Golden Crove-Nabaclis | ... | ... | ... | 3,214 73 |  |  |
| Golden Fleece and Paradire | -. | ... | ... | 7961 |  |  |
| Hyde Park and Grove | ... | ... | ... | ${ }_{120}^{23156}$ |  |  |
| Holena ${ }^{\text {Hopetown }}$ | ... | … | $\cdots$ | 3,555 35 |  |  |
| La Grange | $\ldots$ | ... | $\because$ | 13987 |  |  |
| Lots Nos. 64 and 65 Country District | $\ldots$ | $\ldots$ | $\cdots$ | 2,910 <br> 4,040 <br> 00 |  |  |
| Lot No. 71 | ... | ... | $\ldots$ | $2{ }^{2}, 60000$ |  |  |
| Lot No. 72 | . | ... | . | 2,664 00 |  |  |
| Lots Nos, 57 to 66 Country Distriot | $\ldots$ | $\cdots$ | $\ldots$ | 10,650 ${ }^{2} 542$ |  |  |
| Relief and Support | $\because$ | $\cdots$ | $\ldots$ | 1,023 12 |  |  |
| Rosehall Village | ... | $\cdots$ | ... | 1,063 000 |  |  |
| Stanley town | ... | ... | ... | 4714 500 |  |  |
| Satiem | $\ldots$ | $\ldots$ | … | 10000 |  |  |
| Wlverston | ... | $\cdots$ | $\ldots$ | 74000 41109 |  |  |
| Weldasd | ... | ... |  | 41109 |  |  |
| East Coast, Berbiee | ... | $\cdots$ |  | $\begin{array}{r} 47,35382 \\ \quad 238 \\ \hline \quad 2 \end{array}$ |  |  |
|  |  |  |  |  |  |  |
|  | $\cdots$ | $\ldots$ | $\cdots$ | 500 |  |  |
| Frorde, A. | $\cdots$ | … | $\ldots$ | 8000 |  |  |
| Hunte, J. | ... | ... | $\cdots$ | 34 600 60 |  |  |
| Hu-a-Kam, A, K. | $\cdots$ | $\ldots$ | $\cdots$ | ${ }^{6} 500$ |  |  |
|  | $\ldots$ | $\ldots$ | ... | \% 46 |  |  |
| Postmaster General for Rural Letter Carriers |  | ... | ... | $\stackrel{299}{ } 18$ |  |  |
| Ponton, E. F. | ... | $\cdots$ | $\ldots$ | $12 \%$ |  |  |
| Paizoman, R. | $\ldots$ | ... | $\cdots$ | 600 |  |  |
| Seara, A. W. | $\cdots$ | $\cdots$ | ... | 4000 |  |  |
| Vanderpool, C . Wintz, $C$. | $\ldots$ | $\cdots$ | $\ldots$ | 2200 |  | 48974 |
|  |  |  |  |  |  |  |
| Carried Forward | ..* | ... |  | ... | \$ | 74,087 58 |

APPENDIX IV.-(Continued).
Balances of Adrance Accounts on the 31st December, 1934.


## APPENDIX IV.-(Continued).

Balances of Adrance Accounts on the 31st December, 193 t.


## APPENDIX [V.—(Continued).

Balances o1. Adcance Accounts on the 31st December, 1934.

| Brought forward | $\cdots$ | 8 | 23,399 55 | 219,075 49 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Migorleaneots-(Contd.)- |  |  |  |  |  |
| Urown Agents-Pending Adjustment - .. | -.. | ... | 26018 |  |  |
| Cambridge Looal Examinetions -.. | -* | ... | 6364 |  |  |
| - Defaced Coing ${ }_{\text {Den Amstel }}^{\text {Dillage Counoil }}$ | -. |  | $\begin{array}{r}3674 \\ 364 \\ \hline 88\end{array}$ |  |  |
| Dinector of Agrioultare (for Beekeeping fund)* | ... | ... | 4260 |  |  |
| Director of Agrioulture-purohase and sale of Onion Seed | ... | ... | 6636 |  |  |
| Guiana Soholar-P, de Caires -.. | ... |  | 15360 |  |  |
| Good Intent Village ... ... | ... | ... | 2,00n 00 |  |  |
| Ministry of Panaions | ... | ... | 1,641 32 |  |  |
| Maintenanoe Loans-Teaohera Training;Centre | $\cdots$ | ... | 3,083 00 |  |  |
| Nary Pensions | :. | ... | 22260 |  |  |
| Public Works Department-Worky for other Departmenta | ... |  | 1,494 45 |  |  |
| Proprietor, Pln. Nismes $\quad .$. | ... | ... | 40368 |  |  |
| Queen's College Oadet Platoon Fund - ... | ... | ... | 24661 |  |  |
| Koyal Bank of Canada (defaoed ooin) <br> Shanks Canal Commissioners | -.. | ... | 116 22.200 |  |  |
| Secretary District Administration (for Law Oostr) | ... | $\cdots$ | 1200000 |  |  |
| Sea Defenoe Board-(pending the collection of rates) | ... |  | 18,535 54 |  |  |
| Trangport and Harboura Department ...) | ... | .... | 16.59293 |  |  |
| Wesleyan Methodist Sooiety . ... |  |  | 1,875 00 |  |  |
| War Oftioe, London | ... | $\ldots$ | 45360 |  |  |
| Colonial Governments- |  |  |  |  |  |
| Government of Trinidad ... | ... |  | 61748 |  |  |
| Government of Gold Ooast ... | - | ... | 57496 |  |  |
| Government of Nigeria ... | ... |  | 1,530 92 |  |  |
| Government of Sierra Leone | ... |  | 17780 |  |  |
| Government of Grenada | ... | ... | 1850 |  |  |
| Government of Britigh Hondaras Government of Antigua | ... | ... | $\begin{array}{r}10468 \\ \hline 639\end{array}$ |  |  |
| Government of Antigua ... | .." |  | 633 |  | 3,030 03 |
| Barclays Bank- <br> For payment of Interest on Sterling Loan due 1935 |  |  |  |  |  |
| Imperial Treasury- <br> B.G.-Brazil Boundary Commission (Suspense Account) | ..0 | ... | ... |  | 32,491 35 |
| Colonial Ievtlopient Fund | $\cdots$ | ... | ... |  | 120,172 95 |
|  |  |  |  | 5 | 579,430 66 |

## APPENDIX IVA.

Imprests Balances on the 31st December, 1934.

APPENDIX
Statement of the Colony's Funded Debt or Loans raised for fixed periods, and of the

revenue and assets of the Colony are directly pledged in respect of loans.
he converaion of Bonds under Ord. 7 of 1887 into Bonds ander Ord. 19 of 1896 .
V.

Sinking Funds accumulated at 31st December, 1934, for the extznguishment of


Statement of the Colony's Funded Debt for Loans raised for fixed periods, and of the

V.-(Continued)

Sinking Funds accumulated at 31st December: 1934, for the extinguishment of th


APPENIDIX
Statement of the Colony's Funded Delt or Loans raised fur fixed periods, and of the

V.-(Contiuued).

Sinking Funds accumulated at 31st December, 1934, for the extinguishment of the

| ayount Odtbtanding at Slet Dhemiber, 1934. |  |  | REMARES. |  |
| :---: | :---: | :---: | :---: | :---: |
| monde. | Insoribed Stook. | Total. |  | Acanmu. lated, |
| 15000 |  | $\left\|\begin{array}{lll} s & 701,150 & 00 \\ (11) & 181,550 & 0 c \end{array}\right\|$ | Forward <br> $\$ 381,850$ was issued in the Colony at 5 per cent. on 1st Jane, 1918, for a torm of 10 years. Interest payable 1st June and 1 st December. Under Combined Court Resolutions Nos. XIXII, XLIV and II, dated 20th November, 1919 , soth September, 1820, and 17ch February, 1922 , respuctively, $\$ 372,600$ of this issue wis converted into 50 year 6 per cent. Ronds. Under Combined Court Resolu-re-converted in of 50 year 5 per cent. bonds for the unexpired period of the loan with the option to the Government to redeem them atter the expiration of ten years from the date of conversion on twelve montha' nolice being given due for redemption was redeemed during 1988. An $\Delta$ nnual Contribution to a Sinking Fund as will be sumficient with earlier over-pravision is being made to provide for the redemption of the 50 year Bonds. |  |
|  |  | (11) $181,5500 \mathrm{C}$ |  |  |
|  | .." | (12) ... | 8118,500 was issued in the Colony at 5 per cent. on 1st day of January, 1919, for <br>  <br>  <br>  <br>  <br>  |  |
|  | .- | (13) ... | $\$ 300,100$ was issued in the Colony at 5 per cent. on 1st June, 1919 , for a Lerm of 10 years. Under Combined Ciurt Resolutions Nos. LXIII, XLIV anil II, <br>  respectively, 8333,000 of this issue was converted into 50 year 8 per cent. Bonds. given in the Gasette of the 1st June, 1929., The accumulated sinking Pund for the redemption of the isgoe of 9333,000 has been talken to Revenue, the redemption having been effectod from funds provided under the " Public <br>  |  |
|  | ... | (14) ... | $\mathbf{8 3 5 , 0 5 0}$ was issued in the Colony at 5 per cent. on 1st January, 1920, for a term of 10 years. Under Combined Court Resolution XLIV, dated 30th September, 1920, the whole of this issue was converted into 50 year 6 per cent. Bonds. The issue was redeemed on 1st July, 1930, notice having been previously given inemption of the igsue has been taken to Revenue, the redemption having been effected from funds provided under the "Public Purpeses" Loan Ordinance No. II of 1929. |  |
| $\cdots$ | $\cdots$ | (15) ... | 862,000 was issued in the Colony at 5 per cent. on 1st January. 1921, for a term of ten years. Interest payable lst January and 1st July. 870,000 was issued in the Colony at 5 per cent. on 1st January, 1021, for a torm 870,000 was issued in the Colony it 5 per cent. on 1st January, 1921 for a term of fifteen years with the option to the Government of issue on $1 z$ mcaths notice being given in the opfcinl Gazetle. Interest payable 1st January and list July. Under combined Court Resolations Nos. Xh Augst, 1922, respectively, 827,000 of the 882,000 1ssue and the whole of the 470,000 have been converted into 50 year 6 per cent. Bonds. sinking yuads at the rates of 8 per cent., 5 per cent. and 631 per cent. per annuin were prively. The total issue was rede日med on the let Jannary, 1931. |  |
| 35000 | ... | (16) 517,350 00 | $\$ 1,161,850$ wasissued in the Colony at 6 per cent. on 1st January, 1922, for a term of 50 years with the option to the Governuent to reaeem them at any time after the expiration of 10 years from the iate of issue on 1 It January and lat July, $\$ 142,550$ of this issue was redeemed during 1932 notice having previonsly been given in the "Gazette of the 31st December, 1930 . The balance of ef Government appearing in the "Gazette" of 9fth September, 1937. A further sum of 8501,050 was redeemed in January, 1934, the outstanding balance 8517,350 having been converted into 4 per cent. " Governuent Notice published in the G Gzette will be sufficient with earlier over-protision is being made to provide for the redemption of this issue. |  |
| .000 00 | ... | (17)4,800,000 00 | \$4, 800,000 was raised through Messre. Bernhard Bcholle \& Co. of London, on 1 st July, 1922, with option to the Government io redeem on ist July, 1942, or any subsequent interest ate on 6 months' notice being given. Interest pay able list January, and 1st July. A Binking Fund of such proportion of the Capital sum of the gaid Bonds as with interest will be suticient in the aggregate to pay the asid sum of $84,80,0,0$ on the Bonds. The tirst paynent of the half-yearly ingtalnent in respect of the Sinking Yond was made on the 1 st day of March. 1925, and thereafter on every subsequent 1st day of September, and ist Uay of March. |  |
| . 60000 | $\cdots$ | (18) . 376,500 00 | \$888, 150 was issued in the Colony at 6 per cent, on' 1st January, 1023, for a term of 50 years with the option to the Government to redeem them at any time after the expiration of 10 years fron the date of inicial Gazette" Interest payable 1at January and 1st July. $\$ 461,650$ of this issue was redeemed on the 1st January, 1934 , the ont standing balance 8776,500 having been converted into 4 per cent. Bonds in <br>  sucficiont with earlier over-provision is being made to provide for the redemption of this issue. |  |
| 95000 | ... | (19) 124,95000 | 8124,950 was issued in the Colony at 5\% per annum on 1at January, 1026, tor a term of 40 yeara, with the option to the Government to redeem them at any time after the expiration of 10 years from the date of issue on 12 mannary notice being given in the Fund at the rate of 1.022 per cent. per annum is being provided for the redemption of this issue. |  |
| . 50000 | $\cdots$ | 56,701,500 00 | Forward ... ... | 20.74 |

APPENDIX
Statement of the Colony's Funded Delt or Loans raised tor fixed periods, and of the

(b) The above totals exolude Loans from the Colonial Development Fand totaling \$569,5n5.35.
hal charg inance 7 of 1889 ; Legislative Counoil Resolution No. X. of 1930 ,
V.-(Continued).

Sinking Funds accumulated on 31șt December, 1934, for the extinguishment of


## APPENDIX VI.

Statement of Investments on 31st December, 1934.


## APPENDIX VI.-(Continued).

Statement of Investments on 31st December, 1934-(Continued).


## APPENDIX VI.-(Continued).

Statement of Investments on 31st December, 1934-(Continued).


APPENDIX VI.-(Continued).
Statement of Investments on 31st December, 1939-(Continued).


6\% paid on applicaticin.

APPENDIX VI.-(Continued).
Statement of Investments on 31st December, 1934-(Continued).


## APPENDIX VII

Statement at the 31st December, 1934, of the Expenditure on Works and other payments chargeable to Loan Accounts.

|  |  | $\left\lvert\, \begin{gathered} \text { Erpended } \\ \text { at } \begin{array}{c} \text { 318t Deor., } \\ 1933 . \end{array} \\ \hline \end{gathered}\right.$ | $\begin{aligned} & \text { Expendod } \\ & \text { 1934. } \end{aligned}$ | $\left\|\begin{array}{c}\text { Total Expen- } \\ \text { diture nt 31st } \\ \text { Deor., } \\ \text { 1934. }\end{array}\right\|$ | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LOAN ORDINANCE NO. 3 OF 1886. |  |  |  |  |  |
| Difference between value of Bonds and amount realised | \$ 22,364 $\mathrm{b}^{2}$ |  |  |  |  |
| converting Debentures into Insoribed Stook ... $\quad 15,11576$Expenditure on Public Works- |  |  |  |  |  |
|  |  |  |  |  |  |
| Mahaica ... . ... ... | 12.73217 |  |  |  |  |
| Botanic Gardens ... | 6,045 45 40 |  |  |  |  |
|  | 40,000 00 |  | , |  |  |
| Hospitals- |  |  |  |  |  |
| Berbiee... ${ }_{\text {Georgatown }}$ | 3,558 58 |  |  |  |  |
| $\begin{array}{ll}\text { Georgotown } \\ \text { Suddie ... } & \text {... }\end{array}$ |  |  |  |  |  |
| Law Courts... | 116,277 00 |  |  |  |  |
| Leper Abylum | 3,495 90 |  |  |  |  |
| Magiatrate's Vigilance... Court Rooms- | 1,070 98 |  |  |  |  |
| Belfield ... ... | , 58316 |  |  |  |  |
| Police Station- |  |  |  |  |  |
| Vergenoegen ${ }_{\text {New Amsterdam }}$ | 3,22292968 |  |  |  |  |
|  |  |  |  |  |  |
| Mara ... ... | 1,039 59 |  |  |  |  |
| Belle Vue ... | 80170 |  |  |  |  |
| Onderneeming School -. | 4,389 67 |  |  |  |  |
| Sca Dea Wall, Georgetown ... |  |  |  |  |  |
| Capoey and Suddie ... ... | 7242 |  |  |  |  |
| Villages- |  |  |  |  |  |
|  | 31,275 15 |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Fund trovided for this loan ... | 14,598 17 s | S 334,112 30 |  |  |  |
| Torna to Local Authorities- |  |  |  |  |  |
| Town Council-Georgetown ... ... | 254,000 00 |  |  |  |  |
| Proprietors, Pln. Belair | 109,440 00 |  |  |  |  |
| East Demerara Water Supply 12 of 1884 ... $\begin{array}{c}\text { Idem } \\ \mathbf{9} \text { of } 1886\end{array} \quad .$. | $\begin{array}{r}96,370 \\ \hline 482 \\ \hline 985\end{array}$ |  |  |  |  |
| Boerasirie Commissioners, 11 of 1885 ... | 24,622 75 |  |  |  |  |
| Town Council, New Amgterdam, 3 of 1892 ... | 32,500 00 | 865,887 70 | ... | * 1,200;000 0 | 200,000 00 |

LOAN ORDINAMCE NO. 19 OF 1896.


## APPENDIX VII.-(Continued).



APPENDIX VII.-(Continued).


LOAN ORDINANCE No. 38 . OF 1920


APHENDIX VII. -(Continued).


LOAN ORDINANCE NO. 22 OF 1933 (SEA DEFENCE LOAN)

Expenses of Irsue of Loan
Advances on Loan to Sea Defence Board for contruction of permanent sea defences


LOAN (REPAYMENT) ORDINANCE
No. 8 OF 1934.
Expenpes of Issue of Loan
To complete repayment of $3 \%$ Stools (1923-45)
raised uuder Loan Ordinanoe


216,067 62

COLONIAL DEVELOPMENT FUND-
Construction of road from Bartion to Potaro, Construction of road from Bartica to Potaro,
including orection of Steel Bridge across Potaro River
Fxtension of Branch Rnad to $_{0}$ Tumatumari
Oonstruction of rosd to Tiboku
Revolving Fund for Seed Padi
Motor Lorries
Harbour Dredger


## APPENDIX VIIA.

Statement of the Loans made by Government trom Lonn Funds to Local Authorities at 31st December, 1934.

| Looal Anthority. | Total expended to 31st December, 1934. | Amount recover able from Local Authority. | Remarks. |
| :---: | :---: | :---: | :---: |
| City of GeorgetownSowerage, Main Drainage and External House Con, neotions.. $\underset{\substack{\text { Municipal } \\ \text { Supply }}}{ } \text { Water }$ | $\left\|\begin{array}{cc} \$ & 4,784,24104 \\ \$ & 815,103 \\ 17 \end{array}\right\|$ | $\begin{aligned} & \$ 2,600,07984 \\ & \$ \\ & \$ 853,25090 \end{aligned}$ | The liability of the Georgetown Town Council has been fixed hy the Georgetown Improvement Works (Finance) Ordinanoe, ${ }^{1932}$ (No. 48) at an annval charge of $\$ 177,638.39$ commencing in 1933 and ceasing in 1969 . |
| Vlisengen Proprietors .. | ( 202,836 82 | \$ 202,836 82 | The total amount expended is recoverable by the operation of a Sinking Fund Charge of 1 per cent. per annum ceasing in 1945, with interest at the rate of 3 per cent. per annum, with the option to lot-owners to of liability at any time. |
| Drainage Boards under Coastal Drainage Scheme | \$ 1,345,701 30 | \$ 346,149 22 |  |
| Canals Polder Au thority -Nos. 1 and 2 Canals1910 Loan <br> 1922 Loan | \$ 25,000 00 <br> \& 208,638 64 | \$ 25,000 00 <br> § 125,18318 | The total amount expended is recoverable in 25 ansual instalinents ceasing in 1938, with interest at the rate of 4 per cent. per annum. A balance of $\$ 4,000$ is outstanding. <br> 60 per cent. of the amount expended is recoverable by the operation of a Sinking Fund Charge of 1 per cent. per annum commencing in 1928 and ceasing in 1967 , with interest at the rate of 5 per cent. per annum: Interert for bution 1934 outstanding. |
| Sea Defence Board | * 82,185 00 | S 82,185 00 | Advanced to the Sea Defence Board daring 1933 to meet expenditure on Sea Defences of a permanent oharaoter; proposed terms of repayment:-annual instalmants over a period of 10 years with interest at 4 per cent. per andum. |
|  | \$ 7,463,705 97 | S $4,128,684$ n6 |  |

## APPENDIX VIII.

balance sheet at 31gt DECEmber, 1934, of the immigration accounts.

| Immigration Fund (amalgamated)Immigration Fund (Amalgamated) | Dr. <br> $\ldots$ <br> 441,839 <br> 13,294 | $\begin{array}{cc} \text { Cr. } \\ \$ 455,134 & \\ \$ 46 \end{array}$ |
| :---: | :---: | :---: |
| Investments Account (Appendix VI.) ... |  | - |
| Cash in hands of Colonial Treasurer ... |  | ... |
|  | \$ 455,134 16, | \$455,134 16 |
| Otarr Tmmigration Accounts- |  |  |
| Deposits—Clothing ... ... ... | ... | - 44750 |
| " Back Passages (prior to 1898) | ... | 1,431 35 |
| " $\quad$, (subsequent to 1898) | ... | 12699 |
| , Remittances ... . ... ... | .. | 8216 |
| ,, Balances Estates Deceased Immigrants... |  | 2,070 05 |
| Balance due by Colonial Treasurer | \$ 1,739 13 | ... |
| Balance in hands of Emigration Agent, Calcutta | 1,904 97 | ... |
| Balance in hands of Emigration Agent, Madras | 51395 | ... |
|  | \$ 4,158 05, | \% 4,158 05 |

E. F. McDAVID,

Colonial Treasurer (Acting).

APPENDIX
Abstract of the Immigration Accounts

## RECEIPTS.

1. IMMIGRATION FUND (AMALGAMATED)To Balance at 31gt Droember, 1933In hands of Colonial Treasure Duplicate Certificates
Interest on Inventment
Investments realised
Grin on sale of Investments
Return ship "Gangea," 1932 (Caloutta Agenoy)
Gain on valuation of Securities at middle Market Price in Luondon at close of the year
$\ldots$
$\ldots$
$\ldots$
$\ldots$
$\ldots$
$\ldots$
$\ldots$
IX.
for the year ended 31st Docember, 1934


## 76.

## APPENDIX X.

COLONISATION FUND.
RI OBIFTE AND Expenditurn yoi the Year 1934.


C.S.O. No. 1113/35.

## JBritisb ©্Mana.

## ADMINISTRATION REPORT

OF THE

## DIRECTOR OF AGRICULTURE

FOR THE YEAR

$$
\begin{equation*}
\text { 1934. J. } 79172 \text { r } \tag{G5}
\end{equation*}
$$

## Drinted by the Elutbority of Wis Excellency the Governor.

GEORGETOWN, DEMERARA:
"the argosy" company, limited, printers to the government of british guiana.

No. 16,409.

## TABLE OF CONTENTS.



## REPORT OF THE DIRECTOR OF AGRICULTURE FOR THE YEAR 1934

I have the honour to submit my report on the work of this Department for the year 1934. In accordance with the policy adopted in previous years, the reports of the Divisional Officers will be published separately.

## STAFF.

Mr. J. D. Gillespie, B.Sc. (Edin.), Agricultural Superintendent, returned from six months' leave of absence on May 17, 1934.

Mr. A. A. Abraham, Assistant Agricultural Superintendent, resumed duty on March 15, 1934, after three months' leave of absence spent in the Colony.

Mr. W. G. Delph, Registrar and Auditor, Co-operative Credit Banks, was granted seven and a half months' leave of absence and left the Colony for Barbados on January 30, Mr. Delph was recalled before the expiration of his leave to act as Secretary, District Admiuistration, vice Mr. E. S. Christiani on leave of absence as from August 8.

Consequent on the leave of absence of Mr. Delph, Mr. A. A. Thorne, Jnr., Accountant, was appointed to act as Registrar of Banks.

Mr. C. A. Lashley, was trausferred from the Treasury as Mr. Thorne's locum tenens.

Professor the Hon. J. S. Dash, B.S.A. (McGill), Director of Agriculture, was granted three and a half months' leave of absence from the date of arrival in Canada. Professor Dash returned on September 19, 1934.

During his absence, Mr. F. Burneft, M.C., M.A. (Oxon), Deputy Director of Agriculture, acted as Director.

Mr. H. Macluskie, U.D.A. (Aberdeen), Agricultural Superintendent, was granted six months ${ }^{2}$ leave of absence and left the Colony for the United Kingdom on May 31, and in addition one month's extension of leave on half salary as from December 14, 1934.

Mr. E. B. Martyn, B.A. (Oxon et Cantab), Botanist and Mycologist, was granted three months' and twenty four days leave of absence from date of arrival in England. He left the Colony on June 13, returning on November 13, 1934.

Mr. C. H. B. Williams, Cane Agronomist, who was granted study leave in 1933 to pursue a post-graduate course in Plant Breeding at Harvard University, returned to the Colony on June 26, 1934. Mr. Williams has fulfilled the requirments necessary for the Degree of M.A. of the University.

Mr. A. deK. Frampton, C.D.A., Agricultural Superintendent, has been promoted to the post of Agricultural Officer, Straits Settlement and Federated Malay States. This appointment takes effect as from 1935.

Mr. D. D. Haynes, Agricultural Instructor, was transferred to British Honduras and laft the Colony on April, 7, 1934.

Capt. E. Beckett, F.L.S., F.E.S., Agricultural Superintendent, died on February 24, 1934, after a prolonged illness. Mr. Beckett had been associated with the Department for a number of years and his loss is greatly felt. An obituary notice
with fitting reference to Mr. Beckett's services appeared in the Agricultural Journal Vol. V. No. 1, while the Legislative Council voted his widow a gratuity of £400.

Mr. H. D. Huggins, M.Sc., Dip. Agr. (I.C.T.A.), Assistant Agricultural Superintendent, has been appointed Agricultural Superintendent, with effect as from February 24, 1934.

Mr. E. G. A. Benson, B.Sc., Dip. Agr., A.I.C.T.A., Rice Grading Inspector, has been appointed Aesistant Agricultural Superintendent, vice Mr. Huggins, as from June 1, 1934.

Mr. H. F. H. Gadd, Secretary of the B.G. Rice Marketing Board has been tentatively appointed Rice Grading Inspector as well cice Mr. Benson; this arrangement to be reviewed at the end of one year's trial.

Mr. L. E. McKinnon, Agricultural Foreman, has been appointed Agricultural Instructor vice Mr. Haynes with effect as from July 1, 1934.

Mr. W. A., Bovell, Rice Grading Examiner, has been appointed Agricultural Instructor with effect as from July 1, 1934.

Mr. G. L. Leitch, Clerk, Botanic Gardens, has been appointed Rice Grading Examiner, as from July 1, 1934.

Miss O. Bardon, Record Clerk, was transferred to the Colonial Secretary's Office, and Miss N. Green, Record Office, C.S.O., was appointed to the post as from March 1, 1934.

## ADVISORY BOARD OF AGRICULTURE.

3. There was enacted on September 5, 1934, an Ordinance to provide for the establishment of an Advisory Board of Agriculture. The Board consists of the Director of Agriculture and the Deputy Director of Agriculture as Chairman and Vice-Chairman, ex-officio, respectively and the following seven appointed members ;Hon. F. J. Neaford, Hon. R. E, Brassington, Hon. Peer Bacchus, Messrs. W. H. Richards, R. B. Hunter, J. F. Martins and S. Andries. Each member holds office for three years from the date of appointment but is eligible for re-appointment at the termination of the period of office.

## EXPENDITURE.

4. The total vote assigned to the Department by the Legislature at its Session for the year was $\$ 115,492$. The following expenditure was voted on Supplementary Estimates during the year 1934.

Fixxed Establishment-
Personal Emoluments ... ...\$ 18000
Uufixed Estallishment-
Personal Emoluments ... ... 9032
Other Charges-
Allowances for Upkeep of Bicycles '. ... 1200
Travelling Expenses and Subsistence Allowances ... 1,400 00
Library and Publications ... ... 30000
Furniture ... ... 2500

Miscellaneous ... ... 8500
Botanic Gardens, Maintenance of -... 10000

Table 1.
annoal hetimates.


| 5. The payments into the Treasury |  |  |  | ws : |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Internal Revenue-Auction D |  |  | \$ |  | 40 |
| Agricultural Stations |  |  |  | 3,711 |  |
| Botanic Gardens | $\ldots$ | $\ldots$ |  | 493 |  |
| Sale of Official Publications | $\ldots$ | ... |  |  |  |
| Sale of Guide Samples (Rice) | ... | ... |  |  | 878 |
| Miscellaneous-Sundries | ... | ... |  |  |  |
| Sundry Reimbursements | ... | ... |  | 2,700 |  |
|  |  |  |  | 7,045 |  |

## METEOROLOGY.

6. The following are abstracts of the meteorological observations recorded at the Botanic Gardens, Georgetown, and at the Penal Settlement, Mazaruni, during 1934 :-

Meridian of longitude for calculation of time adopted as standard in the Colony ...
$60^{\circ} W$
Hours slow of Green wich time $\quad$... $\quad .$.
Georgetown.
7. The meteorological station is situated in the Botanic Gardens at a distance of 1.45 miles south of the coast-line. The hours of observation are 7 a.m. and 1 and 6 p.m. local official time which is 3.45 hours behind Greenwich time. The height of the barometer is 6 feet 6 inches above mean sea-level.
8. During the year 1934, the air temperature in the shade as recorded by the dry bulb thermometor for the months of April, May, July to November was higher than the means recorded over the period 1846-1933. The highest temperature recorded was $89.0^{\circ} \mathrm{F}$. on August 18 and 27, September 18 and 19 and October 1, while the lowest was $70.0^{\circ} \mathrm{F}$. on the nights of February 5 and 6. The mean shade temperature for the year was $80.2^{\circ} \mathrm{F}$. which is lower than the average from 18461933. The total rainfall was 81.04 inches as compared with 116.55 inches in the year 1933, and with 88.38 inches average precipitation for the past 54 years (18801933). The total rainfall for January was 28.00 inches, which is the highest on
record for that month, the next highest being 25.10 inches which was recorded in the year 1890. The abnormal rain which occurred on the night of January 7-8, resulted in widespread flooding. After the floods in January the rainfall for the remaining months, with the exception of October and Novernber, was below the average. Rain fell on 208 days of the year as compared with 225 days in 1933. The evaporation from a free water surface, $\Omega$ six foot square tank at the ground level was 59.18 inches, as compared with a normal evaporation of 57.90 inches, the evaporation for 1934 was 73.02 per cent. of the total rainfall.
9. The total amount of bright sunshine for the year was $2,555.6$ hours as compared with $2,387.7$ hours in 1931 and with $2,674.8$ hours in 1932, and was 82.0 hours above the average from 1846-1933. The mean radiation temperature (blackened bulb in vacuo) was $4.6^{\circ} \mathrm{F}$. higher than normal, and $1.0^{\circ} \mathrm{F}$. lower than that of the previous jear. The maximum monthly record during the year was $150.8^{\circ} \mathrm{F}$. for October, while the highest daily record $164^{\circ} \mathrm{F}$. occurred on October 27.
10. The mean minimum temperature on grass was $1.1^{\circ} \mathrm{F}$. higher than the average. The mean velocity of the wind was 6.99 miles per hour. The maximum velocity as recorded by the anemograph was 31.22 miles per hour at $7.40 \mathrm{p} . \mathrm{m}$. on January 7.

## Mazaruni.

11. The sub-station at the Forest Station, Mazaruni River, is in longitude $58^{\circ} 38^{\prime} 45^{\prime \prime}$ W. and latitude $6^{\circ} 23^{\prime} 35^{\prime \prime}$ N. at a distance of 42 miles south of the coastline.
12. The hours of observation are the same as the main station in Georgetown. The height of the barometer is $\overline{5} 5$ feet above mean sea level. During 1934, the mean shade temperature was $79.1^{\circ} \mathrm{F}$. The maximum temperature recorded was $92.0^{\circ}$ F. on May 20, while the minimum temperature $68.0^{\circ}$ F. occurred on March 5, 8 and 9 and April 30. The total rainfall was 89.62 inches or 16.43 inches lower that of the previous year. The total rainfall was 8.58 inches higher than that of Georgetown. Rain fell on 224 days as compared with 208 in Georgetown. The total amount of bright sunshine recorded during the year was $1,899.8$ hours as compared with 2,555.6 hours at Georgetown.
13. The following table shows the mean rainfall for 1934 in the three counties and the average rainfall for the period 1925-1934 inclusive :-

Tabli II.
mean rainfall at coastal stations.


The 1934 Floods.
14. In January, 1934, a long period of wet weather culminated in floods unparalleled in the period for which rainfall records are available-that is to say during the last 70 or 80 years. Examination of the rainfall figures of the period during and immediately prior to which the major floods occurred, shows that they were few record downpours, but that the abnormal surplus of water was due rather to the steady continuance of wet weather, which filled the conservancies and put the whole of the coastlands in a waterlogged condition. This flooding, normal for a wet season, terminated in an abnormal precipitation over a period of 24 hours, which unfortunately coincided with spring tides that hampered the run off of the water. As a result widespread and serious floods occurred, the effects of which were con siderably magnified on the East Coast of Demerara by breaches in the conservancy dams.
15. The year 1933 was a wet year, the total rainfall at the Botanic Garden: being 116.55 inches or 28.71 inches above the mean for the last 52 years ( 87.8 inches) and in December alone 27.10 inches fell. The heary rain then continue( in January 1934, reaching a climax on the night of the 7 th-8th when 7.16 inche: were recorded. The following table shows in detail the rainfall at the Botani Gardens during this period :
DAILY RAINFALL AT THE BOTANIC GARDENS, GEORGETOWN, DURING DECEMBER, 1933, ANI

December, 1933.

| December, 1933. |  |  | January, 1934. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Days. |  | ches. | Days. |  | ches. |
| 1 | ... | . 07 | 1 | $\cdots$ | . 78 |
| 2 | ... | . 61 | ${ }_{3}^{2}$ | ... | .94 4.10 |
| 3 | ... | . 61 | 3 | ... | ${ }^{4.10}$ |
| 5 | ... | 1.48 | 4 | $\cdots$ | ${ }^{2.69} 1.15$ |
| 5 6 | $\cdots$ | $\ldots 3$ | 5 6 | $\cdots$ | ${ }_{1.25}^{1.15}$ |
| 9 | ... | 1.33 | 7 | ... | 7.16 |
| 8 | ... | . 43 | 8 | $\cdots$ | 1.08 |
| 9 | ... | 1.95 | 9 | ... | 1.02 |
| 10 | ... | 2.25 | 10 | ... | 1.22 |
| 11 | ... |  | 11 | ... | 1.75 |
| 12 | ... | . 67 | 12 | $\cdots$ | 1,65 |
| 13 | ... | . 56 | 13 | ... | . 28 |
| 14 | ... | ... | 14 | $\ldots$ | . 02 |
| 15 | ... |  | 15 | $\ldots$ | . 41 |
| 16 | ... | . 06 | 16 | ... | . 19 |
| 17 |  | 5.12 | 17 | ... | . 19 |
| 18 |  | 2.28 | 18 | .. | 03 |
| 19 |  | . 09 | 19 | ... |  |
| 20 |  | 1.77 | 20 | ... | . 12 |
| 21 |  | 1.14 | 21 | ... | . 08 |
| 22 |  | 1.55 | $\stackrel{22}{23}$ | $\cdots$ | . 22 |
| 23 |  | 1.37 | 24 | ... | . 05 |
| 25 |  | . 02 | 25 | ... | . 22 |
| 26 |  | . 03 | 26 | $\cdots$ |  |
| 27 |  | . 80 | 27 | ... | . 03 |
| 28 |  | . 16 | ${ }_{29} 8$ | ... | . 19 |
| 29 | ... | ${ }^{.40}$ | 29 30 | $\ldots$ | . 19 |
| ${ }_{31}^{30}$ | $\ldots$ | 1.40 .52 | 31 | $\cdots$ | . 30 |
|  |  |  |  |  | 28.00 |

The total for January-28 inches-constitutes a record for that month, but the more significant fact is that between December 17 and January 12 a period of just under four weeks, 42.45 inches of rain fell.
15. On studying the rainfall returns from different parts of the Colony, it is apparent that the abnormal rainfall of the first week in January was confined to that part of the coastlands between the Berbice and Moruka Rivers, the Corentyne Coast and the North West District receiving no excessive precipitation. It is evident also that the culminating storms fell in the Pomeroon on the night of January 6, on the Essequibo Coast on the morning of the 7th, and in Georgetown and the East Coast, Demerara, on the night of the 7th.
16. Readings from individual gauges on the coast showed some remarkable totals for the iwenty-four hours during which the severest storms fell. The highest fall of all was measured at the mouth of the Moruka, 14.84 inches on the 6 th being followed by 7.07 inches on the next day. Anna Regina recorded 10.37 inches and Hampton Court 12.10 inches on the 7th. The West Coast conservancy gauges at Boerasirie and Warimia showed the large cumulative precipitations of 30.75 inches and 21.28 inches respectively for the period of January 1-13 inclusive, though the readings on the 7th were not nut of the ordinary. Some of the East Coast estates, however, received, like Georgetown, 7-8 inches on the night of the 7th.
17. The damage done by the floods was, of course, very considerable. The sugar industry was estimated to have lost approximately 20,000 tons of sugar in addition to considerable direct financial loss through charges for extra pumping, raising dams, and expenditure for rehabilitation works. The loss to the rice industry was severe, some of the late autumn crop was damaged by the early rains, the spring crop was almost completely destroyed, and much padi was damaged in the factories and storehouses. Ground provision areas, permanent crops and livestock suffered equally.
18. The Agricultural Superintendents and the Government Veterinary Surgeon were immediately instructed to assist in relief works generally and to inspect and report on the extent of all losses. As soon as this was carried out, prompt measures were taken to rehabilitate the areas in which losses were most extensive with quick growing crops in order to make provision against a shortage of foodstuffs later in the year. Funds for planting material, etc., were made available from "Flood Relief Funds" as shown in the following paragraphs.
19. Re-establishment of cultivations, etc.-As quick maturing crops were essential, 223 bags of black eye peas were obtained from the United States of America and 50 bags of sweet potatoes from Trinidad. The black eye peas were distributed, throughout the Colony, while the potatoes were planted in nurseries in Essequibo and Demerara and cuttings or slips distributed later. Vegetable seeds were also obtained from the United States and these were distributed both as seed and seedlings. Sub-Station Cecilia on the East Coast, Demerara, was turned into a large nursery for propagation of supplies of planting material.
20. Large quantities of cassava cuttings, eddoes, yams, tannias and corn were obtained from the North West District and distributed throughout East and West Demerara, and in certain districts in the Essequibo and Berbice counties. In addition, the District Commissioners were granted certain sums of money by the Flood Relief Committee* and this was also spent, after consultation with the District Agricultural Officers of the Department, in purchasing seed padi and planting material as well as oxen to assist areas sbort of ploughing oxen in preparing land for the coming rice crop. Goverument further approved of the removal of duty on gasolene and crude oil for use with tractors engaged in ploughing rice land in the

[^65]Mahaica, Mabaicony and Abary Oreeks. This recommendation was made by the District Commissioner and the Agricultural Superintendent, East Demerara, and it is probably due to this last measure that such a large area of rice was planted in this area for the autumn crop. The distribution in the districts was made direct by the Department's officers as far as possible, but it was necessary in many districts for this to be done by the village overseers. The distribution of all planting material is given in a table at the end of this section.
21. Special Flood Competitions.-With a view to encouraging further the early establishment of ground provision areas affected by the floods, the Department inaugurated the following agricultural competitions in various districts :-

| For the best cultivated mixed be not less than half an acre |  | farms |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Berbice- |  |  |  |  |  |
| Schumacker's Lust to Ithaca |  | prizes to |  |  |  |
| Bush Lot to Hopetown | $\ldots$ |  |  |  | 26 |
| Belladrum to Tempie | $\ldots$ | ", | " | " | 26 |
| Central Corentyne | $\ldots$ | ", | " | " | 26 |
| Fyrish to Gibraltar | ... | " | " | " | 26 |
| East Coast, Demerara- |  |  |  |  |  |
| Plaisance ... |  | , | " |  | 30 |
| Golden Grove ... | . | ", | " | " | 50 |
| Beterverwagting | ... | " | " | " | 60 |
| Buxton | ... | ", | ", | " | 60 |
| Ann's Grove |  | ", | " | ", | 40 |
| Victoria | $\ldots$ | ", | " | ", | 30 |
| Mabaica | ... | " | ", | " | 40 |
| West Coast, Demerara- |  |  |  |  |  |
| Canals Polder ... | -. | " | " |  | 80 |
| Vreed-en-Hoop to Maripa | ... | " | " | " | 40 |
| North West District- |  |  |  |  |  |
| Barima-Imbotero | ... | " | " | " | 275 |
| Aruka-Koriabo... | ... | " | ", | " | 325 |

22. Although the North West District did not suffer from the floods a special effort was made there to secure immediate additional cultivation in order to make good losses in the flood areas, thus avoiding shortage of foodstuffs.
23. The Agricultural Superintendents and Instructors of the districts visited the plots and instructions were given in connection with drainage, growing and spacing of the various crops, whilst the rules governing the competitions were explaived. The results of all competitions obtained were satisfactory and the end desired generally was achieved.
24. Purchase of Seed Padi for free distribution.-The end of the year rains caused heavy losses to the 1933 autumn padi crop, and considerable attention was paid to the distribution of seed padi so as to ensure as near as possible a normal acreage under the 1934 autumn crop. Large stocks of selected seed were purchased and distributed free, although considerable difficulty was experienced in obtaining good quality padi of bigh germination test. The January floods contributed largely to this condition, ruining large quantities of stored seed padi. The figures given in the table at the end of this section indicate the distribution of seed padi purchased from Flood Relief Funds. This is entirely separate from pure seed stocks owned by the Department of which 1,499 bags were distributed.
25. Advances to Pomeroon Farmers- $\$ 4,000$.-The Pomeroon Flood Relief Loan was granted on April 28, 1934, the sum allocated being $\$ 2,000$. On June 11,

1934, a further sum of $\$ 2,000$ was granted with the proviso that only the larger grant holders employing labour be given loans. Inspections by the Agricultural Superintendent were carried out on those grants which had suffered the greatest damage and loans were based on the recommendations made accordingly. Loans were made under two heads:-
(a) A long term loan for rebabilitating or extending coffee cultivations repayable in 5 years with interest at 6 per cent.
(b) A short term loan for replanting or extending provision cultivations, repayable in twelve months (at reaping time) with interest at 6 per cent. All loans applied for with the exception of two were made under class (a). The total number of applications received was 115 applying for loans amounting to $\$ 13,799$, far in excess of that granted by Government. There were many deserving cases and although the individual loans made were only sufficent partially to assist in re-establishing damaged areas the farmers understood the position and were grateful for the assistance received. The cultivations in this district are now in a satisfactory condition but crop prices are véry low.
26. The following table indicates the distribution from Flood Relief Funds of all planting material, seed padi, etc, in the various districts. See also para. 191.
DISTRIBUTION OF PLANTING MATERIAI, ETC., FROM FLOOD RELIEF FUNDS IN BERBIOE, DEMERARA

|  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

- Inoludes 638 bags purchased for Distriot Commissioner.
+ Includes 10 bage ( 90 ib, ) eent to North West District.


## PRINCIPAL CROPS. <br> Sugar.

27. The major annual statistics covering the sugar industry for the ten years ending 1934 are shown in Table III.

Table IlI.
CANE AOREAGES, AND THE PRODUCTION AND EXPORTS OF SUGAR AND ITS BY-PODUOTS-1926-1934.

| Year. | Sugar Cane Aareage Reaped. English asces. | Sugar Pron duoed from Area Reaped. Tons. | Yield per Aore Reaped. Tons. | Exports - Sugar. |  |  | Rum Producad. <br> Proof Gallons. | Rum * Exported. <br> Proof Gallons, | Molasses Exported. <br> Gallons. | Molascrit Exported. <br> Tons. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Tons. | Total Value in Dollars. | Value per ton in dollars. |  |  |  |  |
| 1925 | 55,676 | 107,580 | 1.93 | 97,728 | 6,785,740 | 69.4 | 1,277,900 | 1,148,124 | 1,345,243 | 1,268 |
| 1926 | 65.728 | 98,152 | 1.76 | 84,659 | 6,050,257 | 71.5 | 1,622,966 | 789,643 | 2,017,862 | 1,075 |
| 1927 | 56,584 | 114,030 | 2.01 | 109,616 | 8,787,585 | 80.1 | 1,436,010 | 1,081,020 | 2,677,457 | 915 |
| 1928 | 58,489 | 116,484 | 2.17 | 114,687 | 8,124,666 | 71.0 | 1,745,293 | 1,269,923 | 2,873,468 | 1,832 |
| 1929 | 56,126 | 117,254 | 2.08 | 100,449 | 5,943,788 | 69.1 | 1,838,353 | 1,109,482 | 2,636,623 | 1,803 |
| 1930 | 54,264* | 127,764* | 2.35 | 114,642 | 5,418,884 | 47.3 | 1,671,371 | 846,319 | 3,851,337 | 400 |
| 1931 | 64,999* | 126,143 ${ }^{\circ}$ | 2.29 | 119,346 | 5,325,755 | 44.6 | 1,002,267 | 722,076 | 7,106,997 | 66 |
| 1932 | 5,240* | 148,634* | 4.69 | 197,078 | 6,442.515 | 47.0 | 840,617 | 645,511 | 7,654,520 | 205 |
| 1938 | 55,811* | 141,956** | 2.64 | 127,083 | 5,745,151 | 44.9 | 1,239,355 | 883,019 | 8,137,233 | 178 |
| 1934 | 63,966* | 132,240* | 2.45 | 129,913 | 5,568,454 | 42.8 | 1,346,307 | 1,120,090 | 5,384,834 | ... |

* Includes farmers' oanes.

28. Of the total of 61,567 English acres allocated to cane in 1934, 52,194 were reaped on the estates. The yield amounted to 130,119 tons of sugar, an average of 2.49 tons per acre. In addition the estates manufactured. 2,122 tons of sugar from farmers canes, of which 1,772 acres were reaped. The general average yield, including farmers canes, was 2.45 tons sugar per aore.
29. It will be noted that the total output as well as the average yield per acre are lower than in 1932 or 1933. These decreases are the direct results of the disastrous floods of December, 1933, January, 1934, and of the severe drought which followed. A full discussion of the unusual weather conditions will be found in paragraphs 7-16.
30. From information kindly supplied by the sugar estates, it appears that the area devoted to the varieties Diamond 10 and P.O.J. 2878 is being increased while that devoted to the standard cane D. 625 is being gradually decreased. The comparative figures for three years are given in Table IV. which does not include acreages under " Other Plantivgs."

Table IV.
COMPARATIVE ACREAGE UNDER D. 625, DIAMOND 10 AND P.O.J. 2878.

| Variety |  | Year. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1983. | 1934. | 1935. |
|  |  | acres. | acres. | acres. |
| D. 625 | ... | 32,964 | 32,703 | 32,429 |
| Diamond 10 | ... | 5,563 | 8,796 | 13,303 |
| P.O.J. 2878 | $\ldots$ | - | 746 | 2,763 |

31. Of the acreage to be reaped in $1935,55.4$ per cent. is planted to D. 625, 22.7 per cent. to Diamond 10 and 4.7 per cent. to P.O.J. 2878. "Mixed" plantings still represent the rather high proportion of 12.6 per cent.
32. Returns of commercial yields obtained by the sugar estates in 1934, and kindly supplied by the managements, indicate that Diamond 10 outyielded D. 625 as first and second ratoons both on frontland soils and on pegasse. As a plant cane on frontland its yield was the same as that of the standard cane, but on pegasse soils it proved inferior to the standard cane. P.O.J. 2878 gave higher yields than either Diamond 10 or D. 625 as a plant and as a first ratoon on frontland soil. No second ratoons data are available. On pegasse it also outyielded the other two varieties as plant canes. No ratoon data are available for P.O.J. 2878 on pegasse.
33. Research.-The Sugar Experiment Stations' Committee comprised, at the beginning of the year :

The Director of Agriculture (Chairman).
Hon. G. E. Anderson, Plo. Diamond, E.B., Demerara.
Mr. J. C. Gibson, Pla. Port Mourant, Berbice.
Mr. A. Murison, Pin. Uitvlugt, W.C., Demerara,
Mr. James Bee, Pln. Albion, Berbice.
Mr. C. Farrar, New Amsterdam, Berbice.
Hon. M. B. G. Austin, Georgetown.
The Director of Agriculture being absent from the Colony on leave from May 1 to September 19, the Deputy Director of Agriculture acted as Chairman for the period.
34. The Hon. G. E. Anderson, having resigned from the Committee on his departure from the Colocy, Mr. R. E. Rhodes of Pln. Diamond was appointed in his stead. Mr. W. H. Richards of Pln. Lusignan acted for Mr. Murison when the latter was absent from the Colony.
35. The floods took a heary toll of the sugar experiments and no less than Gfteen had to be abandoned while several others were severely damaged. The selected and imported seedlings in the nurseries also suffered greatly so that in general the work has received a setback which will retard the accumulation of data argently required. No new canes were introduced during the year but arrange-
ments have been made to import a number of varieties through the newly establisbed quarantine station at Trinidad.
36. Breeding work has been further extended. In the years 1929-32 some 6,260 seedlings were grown annually. In 1933, 18,974 were grown and 15,175. transplanted to the field. In 1934, 24,205 seedlings were basketed. This increase in the output of seedlings has been rendered possible by financial assistance from the Oolonial Development Fund.
37. Among the 1933 seedlings transplanted to the field were 64 Saccharum $\mathbf{x}$ Sorghum hybrids. Attempts at back-crossing these to Saccharum have yielded six seedlings. At the end of the year 173 of the 1933 canes had been selected for further observation. The standard of selection can be judged by the following average figures for these selections:

| Mean number of stalks per stool | $\ldots$ | 7.46 |
| :---: | :---: | ---: |
| " weight per stool, etc. | $\ldots$ | 27.95 |
| ", Brix | $\ldots$ | 19.53 |
| ", weight per stalk-libs | $\ldots$ | 3.75 |

38. Considerable progress has been made in the work of multiplying, testing and selecting the large number of seedlings on hand. Thirty-eight replicated variety trials were reaped during the year and forty-two.were in progress at the end of the year. As a result of trials already resped, planters have been advised to extend Diamond 10 and P.O.J. 2878. The commercial results obtained by the estates in 1934 have confirmed the indications of the experiments. D. 118, which still covers a considerable area, either in pure stands or mixed fields, has not done well in the experiments, and planters are advised to discard it as rapidly as possible.
39. Some of the thinner canes, notably Co. 213, P.O.J. 2753 and P.O.J. 27.27; have given a good account of themselves in the experiments and it is proposed to repeat some of the work with them with a view to cautious commercial extension as soon as sufficient planting material is available. There is considerable local prejudice against these canes but they have certain advantages in the field such as ease of germination, heary stooling, sturdy ratooning, etc., and if the ones suggested maintain their early promise they are deserving of a fair trial on a commercial scale.
40. At the time of writing D. 11/28 has been compared with D. $62 \overline{0}$ five times as a plant cane and twice as a first ratoon. In four out of the five replicated plant cane trials and in both first ratoon trials it outyielded the standard cane.
41. Further work has been carried out with the root distribution of D. 625, P.O.J. 2878 and Diamond 10. It is hoped to have sufficient data for a report on the subject at the end of 1935.
42. A good start has been made in an effort to correlate cane growth with soil moisture and to determine what, if any, useful modifications could be effected in local irrigation practice.
43. Eighteen manurial experiments were reaped during the year and 29 were in progress on December 31. Part of the results have been fully described in Sugar Bulletin No. 3 and the remainder will be considered in Sugar Bulletin No. 4. It will suffice to say here that planters are being advised to use 2 cwt . sulphate of ammonia per acre on plant canes on flooded frontland and to increase their present applications to 4 cwt . for the first ratoons. On pegasse lands it is suggested that they use 6 cwt . per acre both for plants and first ratoons. It is reasonably certain that the doses indicated will produce not only increased yields butincreased profits.
44. Of the four flood-fallowing trials established with the aid of Imperial Funds, two were seriously damaged by the floods and it is unlikely that any conclusions
can be drawn from them. Results from the other two will be available for discussion in the nest annual report.
45. Research on the cane pests of the Colony has continued, notably in respect to moth-borer and hardback control. Work on the former is being undertaken with assistance from the Colonial Development Fund to which further reference is made in para. 46 (2). Investigational work on moth-borer carried out, during the last two and a half years with the aid of this grant, has shown that different varieties of cane show differing degrees of susceptibility to attack. Canes of local parentage appear to be more attractive to the insect than do imported varieties. The present breeding policy of the Sugar Station, involving as it does crossing between promising local and imported canes is, therefore, well founded. The collection of the Amazon parasite (Metagonistylum minense), discovered by Dr. J. G. Myers, and its introduction into the Colony has continued during the year with the aid of a special grant from the Sugar Producers' Association. The parasite is being bred and multiplied in the field laboratories at the Sophia Station, as well as on certain estates, and has been released at several points on the sugar belt. It has been recorded that these released parasites have completed a life cycle in the field. Further reference to this work is made in an article by Mr. L. D. Cleare, F.L.S., F.R.E.S., in Vol. V. No. 1 of the Agricultural Journal of British Guiana entitled "Sugar-cane Meth-borer Investigations in British Guiana: The Present Position."
46. Grants-in-aid.-(1) In 1932, a free grant of $£ 900$ for one year was provided from the Empire Marketing Board for the assistance of sugar research in British Guiana. This grant expired on June 30, 1933. As a result of representations made, the Colonial Development Fund Committee sanctioned a capital grant of $£ 150$ per annum and a maintenance grant not exceeding $£ 750$ per annum for a further period of two years for the continuance of sugar research in British Guiana. These grants are conditional on a sum not less than $\$ 16,000(£ 3,3336 \mathrm{~s} .8 \mathrm{~d}$.) being provided annually by the sugar industry of this Colony.
(2) In 1931, a free grant of $\mathscr{L 2 , 4 7 5}$ was provided from the Colonial Development Fund for three years to enable special moth-borer investigations to be undertaken. As noted previously, the Government Entomologist was seconded for this work. An additional free grant of $£ 775$ from the Colonial Development Fund was sanctioned to enable researches into the moth-borer pests of sugar-cane to be extended for a further period of nine months from July 9, 1934, and terminating on April 9, 1935. At the time of writing this report a further grant of $£ 700$ had been received from the Colonial Development Fund.

The Supernumerary Entomologist whose salary is being met from the Fund has been engaged in "Entomological Investigations" which are summarised under this head elsewhere in the report.
47. Cane-farming.-TThe annual output of cane farmers sugar during the past five years has been as follows:-

| 1930 | $\ldots$ |  | $\ldots$ | 1,626 tons. |
| :--- | :--- | :--- | :--- | :--- |
| 1931 | $\ldots$ | $\ldots$ | 1,631 | $"$ |
| 1932 | $\ldots$ | $\ldots$ | 2,047 | $"$ |
| 1933 | $\ldots$ | $\ldots$ | 2,328 | $"$ |
| 1934 | $\ldots$ | $\ldots$ | $2,122 . "$ |  |

The general trend is upward and the slight drop last year as compared with 1933, may be attributed to the very unfavourable weather conditions which prevailed. The industry is gradually expanding and it is confidently expected that in 1935 the output will show another important rise. The sugar estates continued to pay a minimum price of $\$ 2.20$ per ton of cane, a figure well in excess of what farmers would have received if the agreed schedule had been strictly adhered to. An informal Commiltee was convened by the Sugar Producers' Association to discuss
and assist in adjusting points of difference which arise betwoen farmers and estates: This committee, whose members are as follows, has already rendered very valuable service :- Hon. F. J. Seaford, (President, Sugar Producers' Association), Hon. J. S. Dash, (Director of Agriculture), Hon. J, I. D'Aguiar, (Momber of Legislative Council for Central Demerara), Mr. M. B. Laing, (District Commissioner, East Demerara), Mr. W. H. Richards, (Manager, Plo. Lusignan), Mr. C. H. Palmer, (Manager, Ressouvenir Estates, Ltd.), Mr. R. H. Payne, (Manager, Pln. Enmore), Mr. W. S. Jones, (Messrs. Booker Bros. McConnell \& Co., Ltd.), and two representatives of each of the villages of Beterverwagting and Buxton.
48. An effort is being made to establish nurseries of P.O.J. 2878 and Diamond 10 in cane-farming areas. Distributions of planting material of these varieties have been made from tha Sugar Experiment Station and some estates have rendered. much valued assistance in this direction.

## Rice.

49. The area occupied by rice during 1934 was 63,227 English acres but. including the second or spring crop, the area actually reaped was 70,951 acres. The yield was returned at 881,785 bags (of 140 lb .) padi which is equivalent to $\mathbf{5 5 , 1 1 2}$ tons of padi.
50. The amount of rice exported was 14,700 tons with a value of $\$ 583,090$ as against 29,120 tons with a value of $\$ 1,062,470$ for 1933 . This enormous decrease in the total amount of rice exported during the year is due to the heary losses caused by the floods and to the fact that exports were temporarily suspended early in the year as a precaution to ensure sufficient supplies locally.
51. Table V. gives particulars of rice production and exports from 1925 to 1934.

Table V.
RICE ACREAGES, PRODUCTION AND EXPORTS, 1925-1934.

| Year. |  | Area Reaped (Spring and Autumn Crops) English Acres." |  |  |  |  | Yields. |  | Exports. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Berbice. | Demerara. | Essequibo. |  |  | Padi tons. | Rice tons ( $50 \%$ yield of cleaned Rice from Padi) | Rice. |  |  |
|  |  |  |  | Mainland | Islands |  |  |  | Tons. | Total Valne in dollars. | $\underset{\substack{\text { Value } \\ \text { per ton in } \\ \text { dollara }}}{ }$ |
| 1925 |  | 17,383 | 10,619 | 9,105 | 4,853 | 41,965 | 38,403 | 23,042 | 6,918 | 523,964 | $75 \cdot 7$ |
| 1926 | $\cdots$ | 25,112 | 11,688 | 9,837 13,240 | 5,680 | 52,117 | 49,899 | 29,939 | 2,914 | 218,146 72381 | 74.8 62. |
| 1927 1988 | $\cdots$ | 20,182 | 14,607 <br> 17886 <br> 18968 | 18,240 12356 | 6,123 | 63, 68, 522 | 69,748 | 35,848 | 11,497 | 1,144,147 | 62.9 61.6 |
| 1929 | $\cdots$ | 28,121 | 2n,962 | 11,023 | 6,636 | 66,742 | 72,096 | 43,257 | 14,091 | 1,876,407 | 62.1 |
| 1930 | ... | 26,689 | 18,399 | 10,786 | 7,608 | 63,482 | 64,252 | 38,551 | 22,480 | 1,090,385 | $48 \cdot 5$ |
| 1931 | ... | 29,217 | 34,955 | 10,445 | 8,875 | 83,492 | 78,424 | 47,054 | 23,632 | 1,060,339 | 44.8 |
| 1932 | ... | 29,218 | 37,275 | 12,506 | 8,892 | 87,941 | 84,783 | 50,869 | 25,641 | 1,187,871 | ${ }_{41}{ }^{1 / 2}$ |
| 1933 |  | 27,120 | 37,696 | 13,197 | 9.112 | 87,125 | 63,524 | 38,154 | 29.120 14.700 | 1, 8563.470 | $36 \cdot 4$ 39.6 |
| 1934 | ... | 24,990 | 31,213 | 6,638 | 8,110 | 70.951 | 55,112 | 31.067 | 14,700 | 633,090 | 39.6 |

* Inatead of Rhyoland acres in accordanoe with new legislation. A Rhynland acre $=1.032$ English acres.

52. It will be seen that a setback has been experienced during 1934 as a result of the abnormal weather conditions referred to elsewhere in the report. The floods that destroyed about 30 per cent. of the 1933 autumn crop-which would normally he exported in 1934-were followed by drought couditions which caused a reduction in area of the usual mid-year sowings. The rice industry of British Guiana occupies the second position among the Colony's agricultural industries, the value of the export trade alone, even at the existing low prices, being well above the million dollar figure in 1933 ; in addition, the domestic trade is of considerable importance since rice is a staple article of local diet. This setback, therefore, although only of a temporary nature it is hoped, has been severely felt.
53. It will also be seen from the table that in 1928 a new high level of exports was reached, and in the following years new records for exports were created four
times in succession. Exports have increased by 2,976 tons per annum or at the rate of 14 per cent. annually since 1927, but there has' been an annual reduction of $\$ 4.88$ fer ton in the fo. b. prices or a decrease of 10 per cent. per year from 1927. Theso falling prices for the product have reached a point extremely discouraging to the grower, with little sign of improvement in the near future. Indend, prices have now reached such a low level that any further decrease is likely to react unfavourably on the progress made in recent years.
54. Research.-At the Central Rice Station, Georgetown, an interesting phase has been reached in varietal investigations. Twenty new types were collected during tours of inspection in the districts, while ninety-one varieties wore obtained from India, Egypt, Tanganyika, North Borneo, Siam and Java. All these varieties have passed through preliminary trials with the result that a large number of now types will be available for more exacting trials in 1935.
55. The sisth generation hybrids of the crosses Americano $1600 \times$ Demerara Creole and Mexican Edith $亠$ Demerara Creole are now coming true to type and will be included in the 1935 variety trials. The fifth generation hybrids from the cross Kristnakatakulu $\times$ No. 79 are approaching homozygosity.

57: Variety trials were conducted at the Central Rice Station, Georgetown, and at Henrietta Experiment Station, Essequibo. At the latter centre, six varieties were tested, namely, No. 79, Blue Stick, Lead Rice, Kalyaman, Ramcajara and Demerara Creole. No. 79 and Blue Stick were the most successful, both being significantly letter than the long grained variety, Demerara Creols.
58. At the Central Rice Station, Georgetown, thirteen varieties were under replicated tests, namely, No. 79, Blue Stick, Kalyaman, Demerara Creole, H. 7, Ramcajara, No. 75, No. 78, H. 6, D. 111, D. 114, Lead Rice and McKenzie Small. The trials were headen by Lead Rice, D. 114, Blue Stick and No. 79. The grain characters of the Lead Rice preclude it from further extension as there is little demand for the "barley" type of grain. The success of $D .114$ is worthy of note as this variety approaches very closely to the Carolina type of grain and may be of value in approaching markets hitherto untapped. The variety Blue Stick has recently improved considerably in the Demerara trials owing to the selections of a strain which is immune to the leaf-spot disease caused by the fungus Piricularia with the result that it now produces a significantly higher yield than Demeraras Creole. In spite of the success of the medium length varieties, the demand for a long-grained type continues, and efforts are being concentrated on the evolution of a high-yielder of the Demerara Creole type, to replace the old standard variety.
59. An extensive experimental programme is planned for 1935, when a chain of variety trials will be inaugurated throughout the rice growing areas of the colons. Trials will be laid down at the following centres (a) On irrigated land at Hearietta, Essequibo; Leguan Island; Vreed-en-Hoop, West Demerara; Georgetown, Demerara; Pln, Hope, East Demerara; and Whim, Berbice ; (b). On unirrigated land at Pln. Ross, West Coast, Berbice; and No. 63, Corentyne.
60. Two manurial trials were laid down towards the end of 1933 and reaped in May, 1934. In the first trial a mised fertiliser consisting of 2 cwt. per acre each of sulphate of ammonia, superphosphate and sulphate of potash was applied at different growth stages of the rice crop. A previous experiment showed that manuring the seedlings in the nursery before transplanting was of no value, so in this trial, the following five treatments were decided upon:-

Control-no manure.
Manures applied at transplanting.
Manures applied at 30 days after transplanting.
Manures applied at flowering.

| Treatment. | Padi <br> lb. per acre. | Percentage of mean. |
| :---: | :---: | :---: |
| Control | 2,280 | 70.5 |
| Manuring at flowering ... | .. 2,840 | 87.9 |
| Manuring at transplanting | 3,184 | 98.5 |
| Manuring 30 days after transplanting | g 3,720 | 115.1 |
| Manuring at transplanting and flowering ... | at $\quad 4.120$ | 127.5 |
| Significant Difference ( $\mathrm{P}=0.05$ ) .... | . 461 | 14.3 |

61. All manurial treatments gave significant increases over the control. Of the single dres sings, manuring 30 days after planting gave the bost resulte, but even this increase of $1,440 \mathrm{lb}$. per acre of padi did not cover the cost of the fertiliser.
62. The second trial, in which dressings of 3 cwt. and 6 cwt . per acre of sulphate of ammonia were tested, gave the following results :-

63. The dressing of 6 cwt , sulphate of ammonia per acre produced an increase of $1,504 \mathrm{lb}$, padi, i.e. approximately 86 per cent. over the non-manured plots, but even this increase did not cover the cost of the fertiliser.
64. These trials have demonstrated that, owing to the cost of fertilisers in relation to the very low price obtainable for padi, the application of artificial fertilisers to the padi crop is an unprofitable undertaking at the present time. It, therefore, becomes necessary to concentrate attention on improving yield by the introduction of better varieties or improved cultural methods. In this light, the following experiment is of some import.
65. Double Transplanting of Padi.-Briefly the technique is as follows:Seedlings are lifted from the nursery when about four weeks old and transplanted, three or four seedlings per clump, into a bed at rather close spacing, say $5 \times 5$ inches. When another four weeks have elapsed, the seedlings are lifted from the bed, each clump is split into three or four and the divided clumps are planted out in the field at the normal spacing, say $8 \times 8$ inches. In this way, one bed will plant up five or six beds at the second planting. An experiment was conducted at the Central Rice Station to determine at what ages the first and second transplantings should take place. There were six treatments, as follows ;-

[^66]66. The yields observed are shown below :-

$\left.\begin{array}{ccccc}\text { Treatment. } & & & \text { lb. per acre, } & \begin{array}{c}\text { Percenfage } \\ \text { of mean. }\end{array} \\ 1 & \ldots & & \ldots & 3,000\end{array}\right)$

Both treatments 5 and 6 gave significant increases in yield of $500-600 \mathrm{lb}$. padi per acre over the single transplanting. This more than covers the extra cost incurred by the process.
67. Rice Threshing Trials.-The Department of Agriculture has for some years been giving considerable thought to the problem of padi threshing. In Essequibo principally, the practice followed is to beat the straw on threshing tables until the padi is removed. This practice is, however, expensive in terms of human labour and probably survives only because the grains of the Blue Stick variety (which is practically the only variety cultivated in Essequibo) are easily removed from the straw. In the other rice producing districts of the Colony, padi is threshed by "bull-mashing " to which there are many objections. The rate of threshing by both methods is slow, and during harvesting, at seasons of untimely rainfall, it is advisable to thresh and place the crop under cover as expeditiously as possible. For these reasons, therefore, the Department has obtained quotations for and records of a number of types of mechanical threshers which might offer some solution to the problem.
68. In 1931, thanks to assistance provided by the Colonial Development Fund two power threshing machines (manufactured by the Bon Accord Co., Ltd., Aberdeen) were obtained by the Department both for demonstration purposes and to discover the running costs and output under British Guiana conditions. The smaller, driven by a $1 \frac{1}{2}$ H.P. Petter engine on a composite bed-plate, was found to have a capacity of 850 lb . per hour or if worked $10-11$ hours per day, 2,000 bags in a month, which may be taken as the duration of a normal threshing seasan. The market price of this unit in Georgetown is $\$ 280$. The larger machine driven by a 5 H.P. Petter engine running on gas oil, was found to have a capacity of 1,600 lb. per hour or about 3,400 bags in a month. The landed cost in British Guiana of the larger unit is $\$ 868$.
64. After trials were made at the Department's Central Rice Station under experimental conditions, the larger machine was given an extended trial by the Local Authority of Unity and Lancaster, East Coast, Demerara. Figures are now available as to the cost of threshing under commercial field conditions. The Authority details this cost as follows:-

| Mechanic | ... | 4.4 cents per bag |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Labour ... ... | ... | 4.0 | " | " | " |
| Transportation of machine | ... | 1.0 | " | " | " |
| Watchman | $\ldots$ | 1.2 | " | " | , |
| Petrol \& oil | ... | 1.5 | " | " | " |
|  |  | 12.1 |  |  |  |

The following comments on the working of the thresher are of interest:
"It is clear that, taking into consideration capital cost and depreciation, " mechanical thresking at the above rate is uneconomical. The high cost
"was, bowever, due to the heavy rainfall during the crop season on "account of which the work could not be properly organised. On the " other hand the machine saved a large arnount of padi which would have " been irretrievably damaged by the rains."
70. During the last crop the machine was loaned to Mr. E. M. Walcott of Plantation Hope for further trial on certain front lands of the estate where 1,222 bags of padi were grown. It is reported that the work of the machine was satisfactory but figures on the cost per bag are not yet available. The Unity-Lancaster Village Authority have declined to make further use of the machine as "they consider its use more expensive than bull-mashing."
71. The indications are, therefore, that with the low ruling prices for rice, and with the comparatively high depreciation and running costs of the machine tried, a type of thresber adopted to the present needs of the industry is still a great desideratum.
72. Pure line seed padi distribution.-The heavy rains at the end of 1933 followed by the floods of January 1934 caused a considerable loss of high grade padi which would bave ordinarily been kept for seed purposes. The loss was of a threefold nature, namely, germination and rotting in the fields, germination in the factory caused by the padi being stored damp, and wetting of the stored padi by flood water in January resulting in germination and rotting of the bottom tiers and destruction of the germ in the upper tiers by the heat generated. These conditions caused a severe setback in the extension of pure line areas, the only pure line seed available being that supplied by the Department. Large areas were again lost at the end of 1934 in the rainfall areas as a result of the excessive dry weather. The following table gives details of seed distributions during the year.

PARTICULARS OH SEED PADI DISTRIBUTION-1934.
Number of Bags ( 140 lb .) Distributed. District. Pure Line Seed Depart- Selected Seed Purchased mental Stocks. Flood Relief Funds. bags. bags.
Berbice-Wost Coast, Canje District, Lower and Upper
$\begin{array}{ll}\text { Corentyne } & \ldots \\ \text { Demerara-Kitty }\end{array}$
East Demerara-Kitty to Mabaica ...

205 $300^{\prime}$ 528 *587
West Demerara-West Coast and West Bank 188
Essequibo-Essequibo Coast, Wakenaam and Leguan ...
74. Work on the erection of the padi barns was completed in 1931. These barns were utilised for the storage of seed grown for distribution and multiplication
in the various districts.
75. The Plant Breeder has continued the supervision of the rice experimental work at the Central Experiment Station, Georgetown, which was placed under his control in 1932, and where he has been engaged in carrying out experimental and breeding work, reference to which has been made in paras. 54 to 66.
76. Owing to difficulties in connection with collection of monies due for seed supplied, the Revolving Fund was not utilised during the year for the purchase and distribution of pure line seed padi and the question of the repayment of this loan was being discussed at the close of the year under review. Other methods were adopted to encourage the use of pure line seed, including free distribution in those areas affected by the Floods, to which further reference is made in para. 72.
77. Rice Mill and Rice Machinery.-A grant of $£ 1,820(\$ 8,736)$ was made on August 11, 1931, from the Colonial Development Fund for the purchase of a rice mill and various units of rice machinery.
78. Reference to the annual reports for 1932 and 1933 will indicate what has been done in this connection. A trial shipment of 50 bags of Loonzain (i.e., roughly milled rice) to the United Kingdom was made by the Rice Marketing Board in February. The milling of this rice into white rice gave the following results:Rice $71.8 \%$, Broken $16.5 \%$ and Meal $11.7 \%$ which was considered a very satisfactory pield. It is unfortunate, however, that although every care was taken to use perfectly dry padi, free from any mustiness before milling into Loonzain, the shipment arrived in London with a musty odour which was brought about by poor storage poditions. This was inevitably reflected in the finished white rice product which had a somewhat musty odour and contained a great many yollows. This is particularly unfortunate as had it arrived in good condition it would probably have been sold at the same price as Burma Two Stars. It is proposed to make another shipment shortly.
79. Grading.-Further amendments were made to the Grading Regulations during 1934, the chief features of which were that they defined the limits of colour in each grade and provided that all rice should be shipped in new bags. A new grade was also introduced and called No. 1 Extra. 'Io obtain a No. 1 Extra Certifisate, rice must have a Super colour and a breakage of not more than 25 per cent. jor less than 12 per cent.
80. The method of analysing rice samples was slightly modified during the pear, with a resultant improvement in the consistency of results obtained in the sampling and analysis of milled rice.
81. Table Vl. gives particulars of rice exported during 1934 according tograde.

Tarle VI.
amodnt of rice graded in britise adiana-1934.

| Montha. | Whole Grain Super. | Super. | $\begin{aligned} & \text { No. } 1 \\ & \text { Extra. } \end{aligned}$ | No. 1. | No. 2. | No. 3. | White Rice. |  | Broken Graing. | Super Broken Grains. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | A. | B. |  |  |  |
| Januar |  | 177 |  | 745 | $9: 32$ | 3.301 | 36 |  |  |  | 7,213 |
| February | ... | 1,816 | ... | 6,523 | 8,287 | 13,677 | 50 | 33 | 6,228 | 116 | 35,730 |
| March |  | 1,522 | ... | 10,151 | 13,37 | 14,7\% | 10 | 72 | 2,444 | 16 | 42,299. |
| April | . | 1,199 | ... | 3,873 | -6,650 | 11,80 | 18 | 78 | 692 | $\cdots$ | 24,320 |
| May | $\ldots$ | 729 37 | ... | 1,559 | 1,549 | 6,445 |  | 12 | 727 | $\cdots$ | 10,071 |
| June | ... | 37 | ... | 354 | 1,028 | 3,694 | ... | 10 | 751 | 5 | 6,879 |
| July | ... | 10 | ... | 994 +1987 | 1.412 | 6,569 | $\because$ | 1 | ${ }_{837}^{553}$ | 52 | 9,591 |
| Angnat | ... | 100 | ... | 1,287 | 2,514 | 4,043 | 7 | 3 | 837 |  | 8,791 |
| September | 25 | $\begin{array}{r}195 \\ 305 \\ \hline\end{array}$ | 1117 | 852 <br> 124 <br> 1 | 324 1.996 | 7,476 | $\stackrel{3}{4}$ | 20 5 | 577 | 14 | ${ }_{5}^{9,3961}$ |
| November |  | 1,468 | 2,055 | 671 | ${ }_{3}^{1.566}$ | 6.897 | 130 |  | ... | ... | $\begin{array}{r}\text { 5, } \\ \text { 14,777 } \\ \hline\end{array}$ |
| December | ... | 1,777 | 1,418 | 832 | 4,161 | 8,742 | 3 | 35 | ... | ... | 17,019. |
| Percentages of Grades exported | '1 | 4.9 | 24 | 14.7 | 24.0 | 463 | '1 | '1 | 73 | 1 | $100 \cdot 0$ |
|  | 25 | 9,335 | 4,690 | 27.965 | 45,716 | 87945 | 261 | 285 | 13,8! | 2 3 | 190,146 * |

* Equivalent to 14,700 tons.


## Coconuts.

82. The area under coconuts in 1934 was 22,600 acres. The exports for 1934 were as follows :-Coconuts $2,487,402$ valued at $\$ 32,960$; coconut oil 12,662 gallonsvalued at $\$ 5,5$ อे 4 and copra 700 tons valued at $\$ 23,487$.
83. From the figures given in Table VII. it will be seen that there has been a considerable decrease in the exports of copra and coconut oil-700 tons and 12,662 gallons were exported in 1934 as compared with 921 tons and 20,198 gallons respectively in 1933. Prices bave also continued to decline and this especially so in regard to copra which fell from $\$ 84$ per ton in 1929 to $\$ 44.56$ per ton in 1933 and $\$ 33.55$ in 1934. Messrs. Wieting \& Richter, Ltd., continued to utilise this product in the local manufacture of edible oil-Fryol. The importations of edible oil into this Colony have been steadily declining since 1930 in which year Fryol came on the market. The importations for 1934 were 39,296 gallons as compared with 140,701 gallons in 1933, 144,350 gallons in 1932, 187,062 gallons in 1931 and 350,802 gallons in 1930.
84. The Copra Products (Sale and Manufacture) Ordinance which came into effect at the end of 1933, as stated in the last report, was designed to secure for the coconut producer the benefits resulting from the protection accorded the local manufacturer of edible oil by the increased duties on the imported product. Under this Ordinance the local manufacturer of copra products was compelled to pay the producer of copra or crude coconut oil the minimum price fixed by the Governor-inCouncil of three cents per lb. for copra and $4 ⿹ 𠃌$ cents per gallon for crude coconut oil.
85. In order that all coconut producers should have equal opportunities tosell their copra and oil to the local factories, provision was made for the establishment of a Copra Brokers' Board constituted by Brokers licensed under the Ordinance and representatives of producers.
86. The producer delivers his copra to the broker who holds it on his account, paying him an advance, the rate of which is fixed from time to time by the Copra Brokers' Board. When a sale is made to a local manufacturer or for export each broker supplies a quota based on the quantity of copra he is holding, which quota. is drawn up by the Board. Accounts are made up at the end of every quarter, and all sales of copra received during that period are pooled and an average price arrived at. This average price is distributed among the brokers who, in turn, distribute it to the producers who have delivered copra to them, less the amount they have advanced and a commission for their services of 25 cents per 100 lb . This
commission cuvers.interest on the money advanced, storage on copra held on behalf of producers and all chargescovering delivery to the local mill or to the steamer for export. It was estimated that exports of copra and coconnts in terms of gallons of oil were very littie in excess of the imports of edible oil, and conse--quently, provision was made in the Ordinance that not more than 30 per cent. of the quantity of copra received by brokers during any period of three months should be exported during that period, in order to safeguard the raw materials of the local manufacturer.
87. At the time the Ordinance came into force the world price of copra had fallen to around $£ 9.10 \mathrm{~s}$. per ton, equivalent to $\$ 1.34$ per 100 lb . f.o.b. It was therefore assumed that if the maximum of 30 per cent. had to be exported at this price and the balance was purchased by local manufacturers at three cents per lb., the nett return to the producer, after deducting the 25 cents per 100 lb . repayable to the broker, would be $\$ 2.25$ per 100 lb . which would bave been an improvement on the world price of 89 cents per 100 lb . Unfurtunately, however, it is being claimed that a number of illegal operators began the manufacture of crude oil, who neither paid the full price for their copra or their oil, nor paid the excise duty prescribed by the Ordinance, in consequence of which the licensed factories were unable to compete and consequently could not use the copra which accumulated in the hands of the brokers. This was not noticeable in the first quarter of the year, and during that period the arrangement worked very satisfactorily. Despite heavy deliveries to brokers, the Demerara Oil and Cake Mills, Ltd., were able to take . 62.5 per cent. of brokers' holdings and the balance had to be exported, and the average price to the producer worked out to $\$ 2.17$ per $100^{\circ} \mathrm{lb}$. instead of the anticipated $\$ 2.25$. In the succeeding quarters the position became gradually worse until in the December quarter the Mill took no copra at all and the whole of brokers' receipts were exported. Nevertheless, the benefit to the producer amounted to roughly 32 cents per 100 lb , of copra delivered to brokers throughout the year under review.
88. From the beginning it was made clear by Government that on account of the inherent difficulties of working such an Ordinance and in view of the large number of small producers in the Colony-even then coconnt oil manufacture was a thriving village industry-legislation would only be enacted if Government was rrelieved of all responsibility in connection with the financial side of its operations and this was readily accepted by those concerned. Actually, too, a large proportion of the population is not greatly concerned as to whether the oil consumed is refineā or not, cheapness being of far greater consideration.
89. It was also manifest that production figures had fallen, doubtless as a result of poor prices, which were no incentive to growers to collect nats and tend their groves and this was stressed at the time. With the stimulus provided by protection it was equally to be expected that increased activity in the industry generally would result. Therefore, taking all these facts into consideration it was -realised that defects would be discovered and that such an Ordinance could only be regarded in the light of a trial in dealing with an abnormal situation arising out of disturbed economic conditions. That the idea is theoretically sound and that the coconut industry is in dire need of assistance, there can be no doubt. Unquestionably, however, the practical difficulties which have arisen in connection with the operation of the Ordinance are not easy to overcome. At the end of the year the position was causing considerable anxiety both to the trade and to Government.
90. The year 1934 was marked by an almost complete absence of outbreaks of the coconut caterpillar (Brassolis sophorae L.) on the coconut estates. Sporadic and localised attacks occurred in Georgetown and on one or two areas on the East Coast, Demerara, but these were shortlived and caused but little damage to the trees. A few of the more enterprising and progressive estates maintained control
gangs during these slight, outbreaks but as usual most of the proprietors adopted a policy of "laissez aller."
91. Table VII. gives particulars of coconuts, coconut oil and copra during the period 1925-1934.

Table VII.
OGCONUT ACREAGES, AND THE PRODUOTION AND EXPORTS OF COCONUTS AND ITS BY-PRODUCTS-1925-1934.

| Year. | Acres under cultivation (English)* aores. | No. of Nuts Exported. | Value in Dollare. | Coprs Exported, tons. | Value in Dollars. | Coconut Oil Exported gallons. | Value in Dollars. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1925 | 31,434 | 1,363,280 | 34,303 | 864 | 96,110 | 30.394 | 30,601 |
| 1926 | 27,880 | 815,917 | 19,739 | 716 | 190,055 | 18,778 | 18,620 |
| 1927 | 29,235 | 334.185 | 6,019 | 1,163 | 116,525 | 25,326 | 25,271 |
| 1928 | 29,456 | 321.635 | 5,939 | 3,501 | 352,522 | 26,244 | 24,426 |
| 1929 | 29,451 | 637.812 | 10,614 | 3,759 | 314,350 | 20,462 | 16.73! |
| 1930 | 28,052 | 629,371 | 7,845 | 2,010 | 143,423 | 26,377 | 16,059 |
| 1.431 | 22,882 | 1,494,195 | 13,538 | 1,381 | 82,629 | 20,742 | 9,254 |
| 1932 | 23,301 | 962,964 | 16,484 | 757 | 48,936 | 19,048 | 10,239 |
| 1933 | 23,452 | 1,698,175 | 22,925 | 921 | 41,045 | 20,198 | 8,904 |
| 1934 | 22,600 | 2,487,402 | 32,960 | 700 | 23.487 | 12,662 | 5,554 |

*Instead of Rhynland acres in accordance with new legislation. A Rhynland acre $=\mathbf{1 . 0 5 2}$ English acres.

## Coffee.

92. The area under coffee in 1934 was 4,217 acres. The exports were 317 tons of cured coffee valued at $\$ 47,238$ as against 510 tons valued at $\$ 79,594$ in 1933. The exports in 1933 were the highest recurded and the 1934 exports, although lower, were higher than the average of any period prior to 1929. Coffee shipments took place to the greatest extent from December to May and were substantially affected by the heary rains at the end of 1933 and early 1934. The flood conditions which resulted in January, 1934, darnaged and in some cases destroyed considerable coffee areas in the Canals Polder, Demerara, und in the Pemeroon. In addition, British Guiana's coffee is exported mainly to the northern European countries and the unsettled political and monetary situation in Europe throughout the year is considered to have depressed foreign trade in general and to have affected the demand for coffee.
93. The Liberian species is the chief type now cultivated throughout the Colony, although records indicate that Arabian or "Creole" was once extensively planted. The crop continues to prove the most satisfactory on the acid, pegasse areas of the Colony.
94. During the year, the Department inaugurated a system of weekly recording of prices of the chief local agricultural commodities. The prices, including those of coffee, were telegraphed regularly to the North West District which is the area furthest removed from the Georgetown Central market.
95. Table VIII. shows the acreage, exports and values of this crop from 1925-1934.

Table VIII.
COFFEE ACREAGES, EXPORTS AND VALUES-1925-1934.

| Year. |  | Area cultivated <br> (English) acres.* | Exports. |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Tons. | Total Value in Dollars. |
| 1925 | $\ldots$ | 6,669 | 298 | 114,593 |
| 1926 | $\ldots$ | 5,499 | 345 | 132,623 |
| 1927 | ... | 5,646 | 192 | ${ }^{68,844}$ |
| 1928 1929 | $\cdots$ | 6,201 | 410 | 137,433 |
| 1929 1930 | … | 6,212 <br> $\mathbf{6 , 2 6 3}$ <br> , 868 | 405 | 104,135 $\mathbf{3 2 , 4 0 0}$ |
| 1931 | $\cdots$ | 4,899 | 355 | 33, 682 |
| 1932 | $\cdots$ | 5,800 | 470 | 69,436 |
| 1933 1934 | $\cdots$ | 4,630 4,217 | 510 317 | 79,594 47,238 |
| 1934 | $\cdots$ | 4,217 | 317 | 47,238 |

[^67]
## 21

## NOR CROPS.

## Pineapples.

96. Reference has been made in previous reports to the establishment of, and the efforts made by, the British Guiana Fruit \& Canning Company at their concessions at Dalgin on the Demerara River. During the year the Department has given a considerable amount of assistance to this company, both in the field and in the factory.
97. In the field a second manurial trial has been established to investigate the economics of applications of slowly available fertilisers in the early stages of growth, of dressings of mixed fertilisers during mid-growth, and of applications of manures at blossoming. The results should be available for inclusion in the next annual report.
98. A pot experiment with pineapples has been commenced and entails the reaping and analysis of plants of detinite periods. The investigation is already yielding information which should be of great value in deciding the most paying composition, amount and time of application of artificial fertilisers to the crop.
99. Frequent visits have been paid to the concession by the Supernumerary Entomologist in connection with insect pests. Members of the Uhemical Division have studied methods of control in the factory and have carried out an investigation of the use of the hypodermic needle and refractometer in assessing the ripeness of fruit.
100. There can be no doubt that the venture is still in an experimental stage and it is a great pity that the company decided to erect a factory before solving the many field problems which have presented themselves. It seems that there has been a reduction in the amount of 'browning' experienced during the year but the production of large-cored and unevenly ripened fruit still persists.

Citrus.
101. The area under citrus and other fruit was 535 acres exclusive of limes.
102. The distribution of budded plants from the Botanic Gardens nurseries was continued, but the number was less than in the previous year. As axplained in the report for 1932, a year of large output is followed by a year of small output, owing to the limited capacity of the nursery. In future, however, it is hoped that the demands on the Botanic Gardens nurseries will not be so large, as several persons who had placed big orders were persuaded to grow their own nurserios, the Department giving every assistance with the layout of the nursery and planting of the stocks, and later on with budding.
103. The experimental orchard at Hosororo bore a good crop from the end of the year, and the quality of the grapefruit was extremely good and showed an improvement on the initial crop of the previous year. A careful record is being maintained of the quantity and quality of the fruit from each tree. The grapefruit, though rather large, is of good flavour. The oranges on the other hand, though sweet and juicy, tended to be small. The trees at Hosororo should soon be able to supply us with the greater part of our budwood requirements. In the meantime the Trinidad Department of Agriculture have responded most generously to our demands.
104. Table IX indicates the distribution of citrus plants during 1932-1934.

Table IX.
DISTRIBU'TION OF CITRUS-1932-1934.

|  |  | Demerars. |  |  | Berbice. |  |  | Eraequibo. |  |  | North West. District. |  |  | Total Distribution. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 1932. | 1933. | 1934. | 1932. | 1983. | 1934. | 1932. | 1933. | 1934. | 1932. | 1933. | 1934. | 1932. | 1933. | 1934. |
| Budded Orangea |  | 118 | 1,524 | 363 | 210 | 216 | 51 | 66 | 132 | 534 |  | 600 | 176 | 394 | 2,472 | 1,124 |
| Budded Grapefruit |  | $1 E 4$ | 708 | 853. | 229 |  | 66 | 50 | 22 | 245 |  | 224 | 114 | 813 | 1,382 | 778 |
| Budded Limes |  | * | ... | 100 | ... | ... | $\because$ | ... | ... | ... | 1,145 | 497 | 426 | 1,145 | -497 | 526 |
| Seedling Limes |  | 3,200 | ... | ... | ... | ... | .. | ... | ... |  | 3,021 | 268 | 226 | 6,221 | 268 | 236 |
| Total |  | 3,472 | 2,2:3 | 816 | 439 | 643 | 117 | 116 | 154 | 759 | 4,596 | 1,589 | 952 | 8,623 | 4,619 | 2,664 |

105. The area under limes during 1934 was 541 acres-a decrease of over 300 acres on the previous year. This is in a great measure due to the floods which destroyed large acres of all classes of agricultural crops. The exports of concentrated lime juice for the year were 10,468 gallous valued at $\$ 2,013$ as against a nil return for 1933, and 892 gallons of essential oil of limes valued at $\$ 32,967$ as compared with 1,166 gallons valued at $\$ 65,014$ in 1933 -the record year for exports of this commodity. Some 526 budded limes and 236 lime seedlings were distributed from Hosororo during the year there being a small lime factory in the North West District. Some $3 \mathrm{C}, 000$ gallons of raw lime juice was turned out by this factory.
106. Trable $X$ gives statistics bearing on the citrus industry.

Table X.
citrus acreages, and exports and values of ooncentrated lime juice and essential oil

| Year. |  | Area under limes (English) acres.* | Ares under other Citrus (Engliph) acres. | Ooncentrated Lime-juice Exported. Gailons. | Value in Dollars. | Essential Oil of Limes Exported Gallons. | Value <br> in Dollars. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | - |  |  |  |  |
| 1925 | $\cdots$ | 689 | ... | 8.430 | 12,130 | 306 | 146 |
| 1926 | $\cdots$ | $6+9$ | ... | 4,974 | 7.156 | 277 | 144 |
| 1927. | . | 705 | ... | 5,249 | 7,559 | 273 | - 14.175 |
| 1928 | ... | 695 | ... | 8,124 | 7,799 | 440 | 24,316 |
| 1529 | $\cdots$ | 635 | $\cdots$ | 12,717 | 12,019 | 801 | 47,585 |
| 1930 | $\ldots$ | 740 | $\cdots$ | 11,373 | 10,855 | 660 | 39,352 |
| 1981 | $\cdots$ | 747 | 254 | 8,347 | 8,014 | 590 | 39,806 |
| 1432 | $\ldots$ | 787 | 316 | 958 | 920 | 730 | 44,728 |
| 1933 | ... | 869 | 328 | Nil |  | 1,166 | 65,014 |
| 1934 | $\cdots$ | 541 | 335 | 10,468 | 2,013 | 892 | 32,987 |

*Inatead of Rhynland acres in accordance with new Legislation. A Rhynland acre $=\mathbf{1 , 0 5 2}$ English acres.

## Bananas.

107. Proposals for the building up of an organised banana export industry: received much attention and attracted a great deal of discussion during the year. The extensive area in Central America and Jamaica, previously cultivated in bananas but now rendered unproductive by Panama Disease, have caused fruit growing firms to look elsewhere for sources of supplies. Following discussions during the West Indian Fruit and Vegetable Conference held at Jamaica in 1933, and at the request of the Director of Agriculture, Mr. N. E. Sanderson and Dr. V. C. Dunlap. (representing the United Fruit Company) visited the Colong for a period of about two months in order to investigate the possibilities of the establishment of a local banana industry. The Companip later reported (in a letter dated July 10, 1934) that conditions were considered unfavourable for banana extension. As a result of their findings contracts were not made between the Company and local banana growers, as has been the case in the Caribbean Islands.
108. As there was a scarcity of 'Gros Michel' planting material the Department established nurseries at the Demerara, Berbice and Essequibo Statious for the multiplication of suckers of this type with a view to extension if conditions justified. The collection of suckers for establishing the nurseries was not easy on account of
the greatly depleted supplies of planting material cansed by the floods in the districts. In addition, suckers could only be collected under the personal supervision of the District Agricultural Officers, in order to ensure that they were true to type. At Plantation Dunoon, Demerara River a large scale trial is being made with Gros Michel bananas in co-operation with the proprietor of the estate. The writer feels that success is more likely to be achieved in the river areas within relatively easy reach of Georgetown.
109. At the end of the year the possibility of banana extension received still further attention on account of the offer made by Messrs. J. Lauritzen, a Danish Steamship Firm, to provide space for regular shipments of dwarf or Cavendish bananas to Europe. The Company did not propose to purchase the fruit but were interested only in transport. A preliminary but important point which awaited settlement at the end of the year was that of freight charges, because on the basis cf ruling London quotations the prices which would remain for the grower, after deduction for freight' at the figure proposed by the shipping company, were definitely unattractive. The handling, packing and transportation of Cavendish bananas even under the best of conditions present considerable difficulty. Information is, however, available as a result of experiments in other Colonies and the Department is, therefore, in a position to advise growers and shippers in regard to handling methods, if and when a satisfactory price agreement is arrived at between producers and any marketing agencies which may be created. The first essential is to arrange for trial shipments which aro now under consideration.
110. The District Agricultural Officers have made a careful study of existing scattered cultivations with a view to cbtaining reliable figures in regard to planting material available. Such figures will be particularly usiful also for providing estimates in regard to supplies, notably for shipping tests, as there is practically no organised cultivation of bananas carried on in the Colong. At the time of writing, all questions relating to the possibility of a banana industry in the Colony were receiving the attention of the recently appointed Advisory Board of Agriculture.

## Provision Crops.

111.: The area under ground provisions (a name used collectively for plantains, bananas, corn, cassuva, sweet potatoes, tannias, yams, etc.) was 16,450 acres as compared with 16,635 acres in 1933 and $17,13 \overline{5}$ acres in 1932. Reference has already been made to the damage and losses caused by the January floods and for a time the supply of planting material was very limited. Competitions were started with the object of encouraging the early establishment of quick growing crops and the ensuring of a food supply; the response to this was satisfactory. Advantage was taken of the period of re-establishment to encourage farmers to segregate their crops instead of planting them in mixed cultivations as is generally practised.
112. Two tons of good quality black eye peas were imported from the United States Department of Agriculture and distributed. The cultivation of other types of peas and beans is not expanding at the rate dosired, slow but steady progress is, however, being made. The area under sweet potatoes continues to show an increase -the Black Rock, a Barbados variety, is the most popular. There is a marked improvement in the quality of fresh vegetables grown as farmers are at last realising the value of using good seed. As a result of continuous trials, the Department is now in a position to recommend those varieties most:likely to succeed and the drug firms of Messrs. Brodie \& Rainer and Booker Bros. stock seeds approved by the Department.

## Apiculture.

113. The interest awakened in this minor ind ustry during recent years has not only been maintained in 1934 but increased. The honey collection during the two periods of honey flow, i.e., the end of the January-February rains and at the end of the August-September rains, were favourably reported on in all districts of the

Colony and the 1934 honey crop was one of the biggest, if not the biggest, in the history of the industry.
114. Honey has thus far been produced solely for local consumption but at the end of the year stocks had so increased that the Department of Agriculture found it necessary to make investigations in regard to an export trade and in this connection the Secrelary of the West Indian Committee rendered valuable service. The following report was obtained on samples sent to England by the Department:-

" As usual the darker the colour the stronger the flavour.
" legarding the packing, we recommend barrels containing 3 to $3 \frac{1}{2} \mathrm{cwt}$, "each, but in case of need casks containing 5 to $5 \frac{1}{2}$ cwt. each or, if " absolutely necessary, cases each $2 \times 56 \mathrm{lb}$. tins. On no account should
" metal drums be used.
" If tins in cases unavoidable very great care must be exercised in "cleansing the tins if previously used and in preventing any solder "dropluing into the Honey.
"We have ascertained that the prices quoted for the British Guiana "Honey, are about the same as those quoted for Jamaica Honey but it " has been poinced out to us that difficulty might be experienced in " introducing Honey from a new source at top prices."
115. The increased output of honey must be attributed not only to the satisfactory honey flows but also to the better condition of hives. Extension work in connection with bee-keeping now forms a definite phase of the Department's programme and practices in all districts of the Colony are being brought more into line with modern concepts. Better honey storing is also due to the improved strain of bees in the Culony. The Department has continued to introduce new blood in the form of purely mated pure-bred Italian queens and progeny from these sold at attractive prices to beekeepers. The pure-bred queens distributed were in 1932-49; in 1933 -53 and in 1934-92.
116. During the jear, Mr. H. D. Hugging, Agricultural Superintendent, paid visits to East and West Demerara, Berbice and Essequibo in connection with beekeeping. Satisfactory results were obtained and the visits were highly appreciated by those interested.
117. There were also inaugurated during the year, a scheme for the supply by the Department's Demonstration Apiary of nucleus colonies to beginners and others desirous of increasing hive numbers. Although there has been the tendency for the number of hives per beekeeper to increase under the scheme, not as large a number of hives were applied for from the Department as was anticipated. This was attributed to the fact that the unusually good honey flows during the year made it specially easy for beekeepers to divide and build up their hives rapidly and with little inconvenience.
118. Three hives placed on scale have been weighed daily as from May 8, 1934. Data on the weight changes of the hives and on rainfall, which is the chief factory affecting seasonal honey flows, are being recorded. The results indicate that even during some periods of moderately heavy rainfall honey continues to be stored but the period is too short to make any but tentative inferences.
119. The condition of the hives at the Apiary was very much more satisfactory at the end of the year than at the outset due mainly to the fact that a small revolving fund of $\$ 50$ was provided and it was, therefore, possible to make replacement when hives had been depleted and weakened by rapid queen-breeding operations.
120. The British Guiana Beekeepers' Association, with whose activities the Department of Agriculture is closely associated, had a successful year and at the end of 1934 there were forty-nine members.

## Cacao.

121. The area returned under cacao was 812 acres. There is still a demand for seedlings among farmers, and orders for several hundred plants have been placed from various districts at the Botanic Gardens nurseries.
122. At the request of the Trinidad Department of Agriculture, a search has been made during the year for any trees which may appear to be immune or resistant to Witchbroom. It has proved, however, a difficult matter as the small proprietors who own most of the cacao haveno tree records or knowledge of individual trees on their land, and several trees pointed out as free of Witchbroom were subsequently found to be affected. One or two more promising trees, however, are still under observation.
123. Table XI. shows the area under cultivation and the imports of this commodity from 1925-1934.

Table XI.
cacao agreages, imports and values of raw oacao and prepared cacao-1925-1934.

| Year. | Aren cultivated (English) aores." | Cacao exported.lbs. | Cacao-Importa. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Raw Cacoo. lbs. | Value in Dollars. | $\begin{gathered} \text { Prepared } \\ \text { Ground. lbs. } \end{gathered}$ | Value in Dollars. |
| 1925 | 2,021 | none | 5,345 | 431 | 212,961 | 36,228 |
| ${ }_{1927}$ | 1,356 | , | 10,216 | 1,468 | 163,869 | 27,090 |
| 192\% | 1,265 | ", | $\mathbf{1 2 , 8 7 4}$ $\mathbf{8 , 3 6 7}$ | 1,663 423 | 1056.565 150.393 | -29,404 |
| 1929 | 1,514 | ", | 4,334 | 539 | 119,134 | 19,724 |
| 1930 | 1,514 | " | 6,201 | 8837 | 108.081 | 18,108 |
| 1931 | 953 791 | ", | 9,624 1,147 | 800 87 | 121,961 70,764 | 18,250 |
| 1933 | 797 | " | 1,163 | 18 | 109.092 | 15,187 |
| 1934 | 812 | 787 | 3,832 | 279 | 106,201 | 16,433 |

*Inatead of Rhynland acres in accordance with new legislation. A Rhynland acre $=\mathbf{1 . 0 5 2}$ English acres.
Tobacco.
124. During the year distribution of selected seed was continued by the Department. Many applications were received and as much help as possible was given by the District Agricultural Officers to persons making trial with the crop.
125. The offer of the British Guiana Match Factory of cash prizes and the attractive purchase prices for cigarette tobacco tended to maintain interest in this type of leaf. The heavy rains at the end of 1933 and early in 1934 destroyed most of the tobacco planted, so that despite the competitions, the total amount of tobacco produced during the year was comparatively small.
126. Three (3) lb. of seed and 398 plants were distributed from the Experiment Stations during the year.

## Para Rubber and Balata.

127. The area returned under Para Rubber was 873 acres as compared with 681 acres in 1933. Owing to the low prices paid for rubber and the uviversal presence of Leaf Spot Disease this crop can no longer be considered amongst the Colony's exports.
128. The exports of Balata (Mimusops Globosa) were $248,542 \mathrm{lb}$. valued at $\$ 70,299$ as compared with $479,573 \mathrm{lb}$. valued at $\$ 127,529$ in 1933 . The market for this product has become very restricted in recent years.

## MISCELLANEOUS CROPS.

Forage Crops.
129. Several new fodders were introduced during 1934, viz., Lespedeza sericea, Korean Lespedeaa, Robe Lespedeza and Common Lespedeza recerved from the United States Department of Agriculture and Paspalum dilatatum and P. virgatum from the School of Agriculture, Natal, South Africa. The cultivation by cattle owners of Guatemala Grass is steadily increasing while there is also a fair demand for Demerara Primrose. I'ze latter grows well in semi-shade but gives a poor and stunted growth when grown in the open.
130. During the year under review 1,920 cuttings of the various fodder crops were distributed.

## Green Manures and Cover Crops.

131. In the report for 1933 mention was made of experiments being undertaken to determine the value of these crops in annual crop-practice and their suitability for planting between permanent crops. 'lhree varieties were mentioned as giving promise for planting under coconuts and 'orchard crops' (such as coffee, citrus, etc.) viz. Dolichos hosei, Calapogonium muconoides and Indigofera endecaphylla. This latter variety is undoubtedly the most promising ; in previous years this legume has been a very shy seeder but this year it seeded freely. The Rice Bean, Phaseolus calcaratus, obtained from the Department of Agriculture, New South Wales, has been added to the collection and appears to be a very promising cover crop.
132. Experiments are in progress to discover a suitable leguminous cover crop for rice fields which will not only enrich the soil but will inhibit the growth of weeds during the "off" season. Two species of Sesbania were introduced, namely, S. speciosa through Kew and S. aegyptiaca from the Imperial College of Iropical Agriculture, 'Irinidad. These two species have not proved very successful owing to their inability to compete with the quick growing sedges in the easily stages of growth.
133. Very satisfactory results have been obtained with a legume identified as Vigna repens which was found growing wild about the Experiment Station, Georgetown. It is easily established by cuttings and rapidly smothers the weeds. An added advantage is that it may be used to cover the ground for an indefinite period. A. plot was established in May 1934 and in three months time had taken over the entire plot. It has now been growing for nine months and will be used in a green manurial trial during the coming autumn crop. A plot cut in 1933 gave an equivalent of about 10 tons of fresh material per acre.

A fair quantity of seed totalling 228 lb . has been distributed from the Experi ment Stations during the year.

## Poison Plants.

134. The Haiari cultivation trials in the North West District were continued, the more vigorous growth of both black nnd white varieties in the open than under shade becoming very marked. The white Haiari in the open at Wauna Sub-Station had become almost thick evough to smother the weeds, and the Black Haiari, which under similar conditions had not-appeared so vigorous as the White, now seems almost to equal it in rate of growth.
135. Dr. W. A. Archer, Botanist, United States Department of Agriculture, spent some four months in the Colony, principally with the object of studying rotenone producing plants. In this connection be made several visits to the North West District and the Forestry Station, Mazaruni. The Department was able to assist him in several directions, and he was afforded full facilities for carrying out laboratory work in the Herbarium.

## CENSUS RETURNS.

136. Tables XII and XIII show the number of acres under cultivation during 1934 in the three counties of the Colony and also summaries for the period 19251934.

Table XII.


* Includes area under farmers' canes-1,772 acres.
t Does not include acreage for the Spring Crop-7,724 acres-whioh is grown on the same land.
Table XIII.
SUMMARIES OF CROP AVERAGES-1925-1934.

- Instead of Rhynland acres in accordanoe with new legislation. A Khynland aare $=1.052$ Engligh acras.


## ANNA REGINA ESTATES-BUSH LOT LAND SETTLEMENT.

137. The Anna Regina Eistates cum annexis have been leased for three years to Mr. Parikhan Rai. A proper lease was drawn up by the Crown Solicitor and duly executed. Excluded from the lease are; the Bush Lot Land Settlement, Henrietta Experiment Station, rice mill, factory, storage buildings, etc.
138. The floods of January, 1934, completely destroyed the spring crop at Bush Lot whilst the lack of water for planting the autumn rice crop, brought about by a breach in the Tapacooma Lake, caused a reduction in the total acreage planted. As a result revenue from rent collections suffered.
139. The District Agricultural Officer continues to have charge of the settlement and of Government interests generally in the Anna Regina properties.

Essequibo Commission.
140. His Exceliency the Governor Administering the Government on December 31, 1934, appointed a Commission to enquire into the position which will
be created on the Essequibo District if Plantation Hampton Court were abandoned as a sugar estate. The members of the Commission are :-

Director of Agriculture, The Director of Public Works, Hon. T. T'. Smellie, O.B.E.,
Hon. E. A. Luckhoo,
Hon. F. J. Seaford,
Hon. R. V. Evan-Wong, B.Sc.,
G. M. Eccles, Esq.,

Abdool Rayman, Esq., with
F. Burnett, Esq., M.C.,

Chairman.


Secretary
141. The following are the terms of reference:-
(1) To enquire into the position which will be created in the Essequibo District if Hampton Court were abandoned as a sugar estate.
(2) Whether other sugar estates would be prepared to give employment to labourers resident on the Essequibo Coast who will be thrown out of employment if Hampton Court is abandoned;
(a) in approximately what numbers per annum and the seasons during which the labour will be required;
(b) whether other estates would be prepared to establish families from the Essequibo Coast on their estates.
(c) the rate of wages which should be paid for seasonal labour having regard to the fact that the labourer from Essequibo or elsewhere not resident on an estate will bave to be able to maintain himself and his family wherever their home may be.
(3) What assistance, financial or otherwise, Government should give to ezable estates to erect the necessary buildings :
(a) to accommodate seasonal labour.
(b) cottages for families.
(4) In what manner Government could assist, financially or otherwise, in the cost of transporting labourers from the Essequibo District or elsewhere in the Colony to the estates.
(5) To examine and report upon the effect any considerable emigration from the Essequibo District will have on the interests of proprietors in that district and whether their ability to pay
(i) capital cost of drainage and irrigation schemes,
(ii) charges for maintenance of these schemes,
(iii) sea defence rates, will be affected, and if so to advise whether in this connection relief, and if so to what extent, should be given to the proprietors and others in the district.
(6) To examine and advise upon any other matters of importance which may arise during the course of the enquiry.

## CO-OPERATIVE CREDIT BANKS.

142. The Credit Banks continued under the Chairmanship of the District Agricultural Officers, while the duties of Registrar and Auditor are performed by Mr. W. G. Delph who is attached to headquarters staff.

An Ordinance (No. 28 of 1933) to make better provision for the constitution and management of Co-operative Credit Banks was passed by the Legislative Council on August 30, 1933. Under Section 3 (1) of this Ordinance the Governor shall appoint for the general superintendence of all banks a Board to be styled "The Cooperative Credit Banks Board." The Board shall consist of five members one of whom shall be the Director of Agriculture. Under Section 3 (2) the Director of

Agriculture shall be the Chairman of the Board and shall preside at its meetings, the Registrar being Secretary.
143. There were on December 31, 1934, twenty-seven banks on the register-15 in Demerara, 8 in Berbice and 4 in Essequebo. Three of these banks are nonfunctioning. At the close of the year the membership of the remaining 24 banks was 10,629 ; West Indians owned 46,686 shares and East Indians 27,715 out of a total issue of 80,219 .
144. The lending capital of the banks is derived from two main sources-share capital subscribed by members and Government loans, the balance due to Government being $\$ 26,246.40$ at December 31, 1934 .
145. Loans are made by the Credit Banks to members only and these are chiefly small agriculturists, with valid security, raising crops of padi, sugar cane, ground provisions, etc. Some business is also done with persons engaged in coconut oil manufacture, pig-keeping, cow-keeping, huckstering, diamond seeking, etc. Money is also lent for repair of buildings and for purchase of properties.
146. In the following table a comparison of the business done in 1933 and 1931 by all the banks in the Colony is made:

|  | Year. | Number of Loans made. | $\begin{aligned} & \text { Amount } \\ & \text { Leat: } \end{aligned}$ |  | Loans Recovered |  | Interest Colleated. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 1933 \\ & 1934 \end{aligned}$ | $\begin{aligned} & 865 \\ & 671 \end{aligned}$ | \$ | $\begin{aligned} & 24,60151 \\ & 20,14471 \end{aligned}$ | \$ | $\begin{aligned} & 2389455 \\ & 20,067 \quad 29 \end{aligned}$ | \$ | $\begin{aligned} & 8,24142 \\ & 8,08241 \end{aligned}$ |
| , | Deorease | 194 | \$ | 4,456 80 |  | 3,827 26 | \$ | 15901 |

147. Under the "Rules for Co-operative Credit Banks" provision is made for the building up of reserve funds out of profits on the basis of 4 per cent. per annum on the paid-up capital of a bank at the end of its financial year. The total amount of investments carried out by the banks in this connection at December, 31, 1934, was $\$ 33,324,97$ and, in addition, $\$ 1,244.72$ was further allocated by the various banks for 1934 to be invested later. There is also a Secretaries' Guarantee Fund in connection with the banks which stood at $\$ 3,411.41$ at the end of 1934 .
148. The position of the Wakenaam, Leguan, Den Amstel, Fellowship, Beterver-wagting-Triumph and Eldorado Block Co-operative Credit Banks has not improved. These banks are still in a bad way on account of various causes and will not be able to meet in full their indebtedness to Government.

## AGRICULTURAL ECONOMICS.

149. In this, as in other Agricultural Departments, work in directions such as soil studies, the biological sciences and extension has been well organised before work in agricultural economics began or was even seriously contemplated. Nevertheless, here as elsewkere, a distinct need bas arisen within recent years for reliable and understandable information in regard to market prices, relative costs of production, wages in relation to prices, employment of labour, cost of living, etc. The need for data of this kind has been felt by Department and voiced by commercial interests concerned with the business of local agriculture.
150. An officer suitably trained now being available, in 1933 a definite start was made with economic studies and the scope of the work was extended and increased during 1934. It is to be pointed out that this work- was undertaken with a clear-cut policy in mind. No academic research of purely long-range interest has been or is being attempted. All data collected are calculated to throw light on questions that have already been the subject of colonial discussion or thought.
151. A system of weekly price recording for locally grown productsw as initiated. Not only are these prices of value for record and reference purposes, but outlying districts are informed by telegram of price changes so that producers are now provided with an independent check on sales reports submitted by market agents. There has been much complaint in the past from producers in the districts who claimed that agents, to whom produce was sent for sale on a commission basis, did not remit the full benefit of market prices. This price supply service is planned to ensure for the producer more reliable market reports. There is also on record prices on export markets (reduced to an f.o.b. basis) of those agricultural commodities whose export trade warrants; these f.o.b. quotations are submitted for Government's information.
152. A study was made of the prices of the chief agricultural commodities and index numbers caloulated for the period 1910-1933. Further, weighted annual index numbers were prepared so that a single figure might be obtained to indicate the comparative economic situation for each year. Prices of a large variety of articles entering into the local cost of living were also collected for as long a pariod as records would permit (in most cases from 1919 onwards) and a weighted index of cost of living obtained. Wages were similarly studied for eight classes of wageearners so that an indication might be obtained of the relative changes that had taken place in local wages and in prices received for commodities produced.
153. A survey questionnaire was prepared and a house to house survey carried out in the rice-farming district of West Demerara. One of the chief objects of this survey was to determine the size of cultivation with the highest average labour incomes. Other considerations are embodied in the survey, the field figures for which are at present under examination.
154. A study has also been made of the seasonal variation in prices of the Colony's chief agricultural commodities and the periods at which shipments are made of our export products. This included a study of the competition, from the point of view of arrival on the importing market, between British Guiana and Burma rice in the West Indies. The seasonal variation in the employment of labour on sugar estates in each district of the Colony was also studied and a similar examination made of the activities of banks supplying credit to small cultivators. Indexes of seasonal variation have been computed in all cases. The results obtained from the labour study should be of service to the estates' management since seasonal fluctuation in supply of and demand for labour continues to be a source of much concern. The information on the periods when agricultural credit is most needed is of special value to the Department of Agriculture which has executive and administrative control over the Co-operative Credit Bank management throughout the Colony.

## CHEMICAL INVESTIGATIONS.

155. The Division has been occupied with general agricultural chemical work both on the coastlands and in the interior of the Colony. The total number of samples examined in the laboratory during the year has increased cousiderably, due to the fact that the Division received assistance from a supernumerary staff employed as a result of the receipt of grants from the Colonial Development Fund, Imperial Chemical Industries, Ltd., and Messrs. Booker Bros. McConnell \& Co., Ltd.
156. As previously mentioned early in the year two representatives of the United Fruit Company paid an extended visit to the Colony in order to assess the possibilities of inaugurating an export trade in bananas. In the selection of land suitable for the commercial cultivation of the Gros Michel variety the texture, acidity and salinity of the soil play an important part. At that time the Division had examined as regards acidity, texture and salinity over eight thousand samples of soil collected in widely distributed parts of the Colony. This information was placed at the disposal of the visitors and was of material assistance in selecting
areas for personal observation. As a result their visits were principally confined to the banks of the main rivers of the Colony. The Chemist-Ecologist accompanied these representatives to Surinam where soil samples were collected from areas formerly uoder Gros Michel bananas. These soils were found to be similar to those occurring on the coastal belt of this Colony.
157. A number of advisory visits were paid to the Colony's sugar estates which were for the most part concerned with instances of crop failure.
158. A certain amount of laboratory work has been executed in connection with the problem of flood-fallowing. Perhaps the most striking point that has emerged from this study is the fact that flood-fallowing causes a very considerable increase in the amount of 'available' iron present in the soil. There is a low, but very definite correlation between the amount of 'available' iron present in the topsoil at planting and the final tonnage of cane. In many cases the content of organic matter is reduced as a result of flooding.
159. The third Sugar Bulletin published during the year gives a description of the progress made in determining the fertiliser requirements of the sugar-cane soils of this Colony.
160. During the year the refractometer has been applied to the selection of sugar-cane seedlings in their first year. It is now possible to exercise a rigid selection, both as regards weight and quality, in the early stages of propagation and this advance should accelerate the work considerably.
161. The pineapple canning industry has received assistance from the Chemical Division during the year both in the field and in the factory. A pot experiment concerned with the manual requirements of the crop is in progress and is yielding results of considerable value.
162. During the year samples of local Tonka Beans have been compared with samples of the Trinidad bean. It appears that the local bean is smaller, shorter and wider than the Trinidad bean. It contains approximately half as much coumarin.
163. In the early part of the year a short visit of inspection was paid to the areas opened up by the Bartica-Potaro-Tiboku Road. These areas are agriculturally unpromising. During the latter part of the year the Chemist-Ecologist toured the Rupununi District and the Pakaraima Mountains as a member of the advance party investigating the possibilities of Assyrian settlement in those areas:

## ENTOMOLOGICAL INVESTIGATIONS.

164. The following crop pests have received attention by the Supernumerary Entomologist for the period under review.
(1) Sugar-cane.-The Dynastids, Dyscinetus geminatus and D. bidentatus which do considerable damage to cane tops and young plants were not recorded from any of the estates during the year.
There was likewise a period of respite from the Yellow. Sugar-cane Aphis, Sipha flara Forbes. This insect turns up as a rule during the wet seasons and in cases where severe attacks occur on young plants the growth may. be seriously retarded. The absence of this pest was probahly due to the low rainfall-the total figure for the year was only 81.04 inches with 28 inches in January during which flood conditions prevailed which were not calculated to foster the aphis. The wet months June and December had only 9.21 and 5.63 inches respectively both of which figures are well below the average.
(2) Rice.-The rice weevil investigations were prosecuted further, the use of harmless adulterants as deterrents being the main line of research. The results obtained shem that the development of the weevils may be greatly
retarded for at least six months by the use of Calcium carbonate at the rate of 1 lb . to the bag of 180 lb . of rice. Sodium fluor-silicate used at the rate of 0.07 per cent. by weight gave similar results. The experiments was fully described in a paper published in the Agricultural Journal of British Guiana, Vol. VI., No. 1.
The Padi bug, Mormidea poecila Dall. turned up towards the end of September at Plantation Albion on the Courantyne Coast. The attack though short-lived was severe and caused no insignificant loss of crop. The life-history of the pest was studied and published in the Agricultural Journal, Vol. V., No. 4.
Neither of the padi stem borers; Diatraea or Scirpophaya did any noteworthy damage.
(3) Pineapplés.-A wilt disease of pineapples was investigated. Mealy-bugs though present on some of the plants did not appear to be implicated. The butterfly, Tmolus echion Butl. for some unknown reason continued to be very scarce all the time.
The Bug, Athaumastus laetus Mayr. turned up at the pineapple cultivation at Dalgin together with its chalcid egg-parasite.
(4) Coconuts.-Tbere were no outbrgaks of Brassolis sophorae L. worth mentioning.
(5) Miscellaneous pests.--The Uhrysomellid, Colaspis /ıypochlora Lefev. was recorded seriously injuring plantains at Beterverwagting, Agricola and parts of the West Coast, Demerara.
A Scolytid beetle was found attacking Mahogany trees-both British Honduras and West Indian-in the North West District.

## BOTANICAL AND MYCOLOGICAL INVESTIGATIONS.

165. The Botanist and Mycologist was absent on leave for four months and during this period attended the lmperial Mycological Conference held in London, as the Colony's representative.
166. No serious disease of major crops occurred during the period under review.
167. Serious damage was caused to the coffee cultivation in the Pomeroon District by the floods at the beginning of the jear. Moko disease of plantains and bananas was identified definitely as one of the causes of the wilting of these plants. A scarch is being made for cacao trees which might prove immune or resistant to Witchbroom. The 'browning' disease of pineapples at the Pineapple Company's concessions was less evident than in the previous year.
168. A lerge quantity of unnamed material from the Jenman Herbarium which had been sent to Kew for determination was returned with the required information.
169. Dr. W. A. Archer, Ph.D., of the United States Department of Agriculture spent some four months in the Colony studying Fish Poisons. He brought with him plants of a number of new citrus varieties from the United States, and also gave to the Department duplicates of his collections made while in the Colony, for which we are indebted to him.

## INVESTIGATIONS IN INTERIOR OF THE COLONY.

170. The question of the suitability of the interior of the Colony for extended settlement of immigrants has received consideration during the year. Unfavourable reports had previously been made by Agricultural Officers on the question of permanent settlement on the Bartica-Potaro Road. Those areas which have been surveyed by Agricultural Officars ase detailed below.
171. Potaro-Tiboku Area.-In order to investigate the possibilities of agricultural settlement in this area a tour was made by the Chemist-Ecologist, in whose -divisional report the subject is dealt with in more detail, with the object primarily of undertaking a reconnaissanco survey of the soil types of the area, assessing their agricultural possibilities and roughly ascertaining their distribution. I'he main soil type of the area is wallaba sand possessing negligible agricultural possibilities although certain patches of red clay or loan are to be found in the district. Although this red soil might with special care possibly support slow-growing orchard crops such as oranges, coffee and grapefruit they are generally not suited to the permanent cultivation of ground provisions. They are of relatively low fertility, contain considerable quantities of ironstone gravel and prone to erosion when cleared. It appears, therefore, that a permanent settlement depending entirely upon agricultural pursuifs is not likely to be successful in this district.
172. Rupununi District and Assyrian Settlement.-The question was raised of the settlement in the Rupununi District of 10,000 to 15,000 Assyrians by the League of Nations, who sent out a commission to report on the suitability of the District. The Commission consisting of Brigadier General J. C. Browne and -Signor Giglioli arrived in the Colony on October 30, 1934. An advance party consisting of the Chemist-Ecologist, Agricultural Superintendent, Essequibo, Government Veterinary Surgeon, Assistant Government Medical Officer of Healte and a Government Surveyor left for the Rupununi in October. The objects of the tour were to obtain, in advance, information regarding the agricultural possibilities of the area for submission to the Commission on the spot and to accompany the Commission at a later stage, in order to give opinions on the areas inspected. The reports of the Agricultural Officers and the Government Veterinary Surgeon bave been forwarded to the Secretary of State. The Commission have since decided that the district is unsuitable for the purpose in view.

## agricultural education and extension.

## District Work.

173. Divisional Agricultural Officers are stationed in Berbice, East and West Demerara, Essequibo and the North West Districts, and the work undertaken in these several districts is usually given in detail in their reports which are published separately. Briefly, such work which was considerably increased by flood relief activities during the period, includes:
(1) Field experimental work, with the major crops (i.e. sugar and rice) in collaboration with the specialist officers concerned where such is carried on in their districts.
(2) The organisation of supplies and distribution of seed through accredited padi farmers, and visits to such farms for instructional work at intervals.
(3) District agricultural inspection and educational work on all matters pertaining to agriculture, including control of crop pests and diseases.
(4) Experiments and demonstrations with various minor crops, distribution of planting material, etc.
(5) Supervision of agricultural stations, sub-stations, livestock centres, school gardens, field competitions, etc.
(6). Encouragement of the extension of areas suitable to fruit, notably citrus, as well as food and money crops supplementary to rice and ground provision, e.g., green vegetables, peas and beans, papaws, etc., for all of which there is a ready local market.
(7) Collection and collation of agricultural census returns.
(8) Co-operative Credit Bank work.
(9) General extension and advisory work, including rice grading where such is required.
174. District Agricultural Committees.-The two District Agricultural Comrmittees appointed towards the close of 1933 in the East and West Demerara Districts
functioned during the year. The Director of Agriculture is Chairman of both Committees with the District Commissioners as Vice-Chairmen. Representatives from the sugar estates, rice and cane-farming industries serve as members whilst the Elective Members of the various districts are also on these committees. The scope and activities of the Committees were outlined in paragraph 135 of the Administration Report for 1930 in which year detailed recommendations were made to Government. The proceedings of the meetings have been published from time to time in the Agricultural Journal of British Guiana. It is sufficient to report here that the most important item under discussion has been the question of the establishment of an export trade in bananas referred to elsewhere in this report.
175. Schòol Gardens.-There are six registered school gardens in the Colony, namely :-Berbice—Auchylne School, Edinhurgh School; Demerara-Friendship Wesleyan School, Stewartville Congregational School; Essequibo-St. John's E. School, Sans Souci Wesleyan School. I'he work forms part of the schools curriculum by arrangement with the Education Department. The Department supervises the agricultural activities in the gardens, whilst the Education Department is responsible for the discipline of the teachers and pupils. Good work has been by pupils in most cases, although it is felt that the time allotted for such work is all tooshort. Regular visits have been paid by the District Officers and instruction given.
176. Field Competitions.-The following is a list of the agricultural competitions which were held in the various districts during the year.
(1) Rice.-For the best block of transplanted pure line padi on an area not less than half an acre in extent in Berbice, Demerara and Essequibo:
(a) On the Corentyne Coast in the Crabwood Creek District and between Villages 47 and 49.
(b) On the East Coast, Demerara, between Kitty to Mahaica and between Mahaica to Abary.
(c) In West Demerara between Vreed-en-Hoop to Hague.
(d) In Essequibo District-On the Coast; on Wakenaam Island and on Legnan Island.
(2) Miscellaneous Crops.-For the best miscellaneous farm the area to be not less than half an acre in extent in Berbice, Essequibo and North West:
(a) On the Easi Bank, Berbice, between Islington and Sisters.
(b) In the Pomeroon District.
(c) Hill lands-North West District,
(3) Onions.-For the best block of onions grown from seed obtained from the Department of Agriculture the area to be not less than 5 square rods in Berbice, Demerara and Essequibo :
(a) In the Berbice District-On the Corentyne Coast between Nigg and Friendship and on Plantation Blairmont.
(b) In the East Demerara District-On the East Coast between Victoria to Unity and in Buston Village.
(c) In the Essequibo District-On the Essequibo Coast and on Wakenaam lsland.

The special competitions in areas affected by the floods are given in para. 21.
177. Jubilee Agricultural Exhibition.-Towards the end of the year plans began to crystallise and preparations started for the holding of a Jubilee Agricultural Exhibition in 1935.

## LIVESTOCK.

178. The floods took a heary toll of all clasies of stock in the coastal areas. The old system of management, with its attendant risks from overstocking the limited pastures and semi-starvation in periods of drought and floods, no doubt accentuated, and was a contributory factor to, the losses sustained. The intensive
system of management practised on the Stock Farm has been advocated for some years but is viewed with disfavour by cattle owners, doubtless dua to the low prices paid for milk. As it is useless to attempt improvements of pasture without an assured drainage, the only practical improvement of conditions for coast cattle lies in the direction of limiting the number stocked in intensively cultivated areas.
179. The prolonged drought which followed the floods caused farmers to cease cultivation and good agricultural lands were turned into grazing areas. As a result of this, coastal cattle were in a better condition in 1934 than at any other period within the last six years. Their emaciated condition in normal years is mainly due to starvation caused by insufficiency of pasturage. Unless steps are taken during 1935, when these agricultural lands will again be cultivated, to procure grazing farther afield, it is feared that the cattle will revert to their usual deplorable condition.
180. The following is a brief resumé of activities of livestock improvement efforts during the period 1928-1934.
(1) Cattle.-Number of services recorded for the period-1,352. I'here were no services recorded in 1928, the only mature bull being at Onderneeming.

| 1929 | $\ldots$ | $\ldots$ | 49 | services |
| :---: | :---: | :---: | :---: | :---: |
| 1930 | $\cdots$ | $\ldots$ | 121 | $"$ |
| 1931 | $\cdots$ | $\ldots$ | 197 | $"$ |
| 1932 | $\cdots$ | $\ldots$ | 245 | $"$ |
| 1933 | $\cdots$ | $\cdots$ | 320 | $"$ |
| 1934 | $\cdots$ | $\cdots$ | $\frac{420}{}$ | $"$ |
|  |  |  |  | 1,352 |
|  | services. |  |  |  |

(2) Swine.-In addition to 5 boars at service, 181 breeding pigs were distributed.
(3) Poultry.—Average number of pens of poultry maintained 5, while 375 head of young stock and 17,000 eggs were sold.
(4) Stock Register.-The following breeding animals weŗe sold: 4 bulls, 5 cows, 7 heifers, 2 boars, 1 sow, 1 ram and 2 ewes. The livestock in hand at the end of 1934 consisted of : 6 Holstein-Friesian bulls at stud; 4 young Holstein-Friesian bulls which will be ready for service in 1935; 2 Guernsey bulls at stud; 1 Guernsey bull calf; 3 Holstein-Friesian cows; 1 Holstein-Friesian heifer calf; 1 Jack Donkey at stud; 2 working donkeys; 1 boar, 5 sows and 19 young stock-Canadian Berkshire breed; 6 pens of poultry (utility breeds) and 2 pens of Ducks.
(5) Fodder Trials.-Analyses and trials with various local fodder plants and grasses have been made while valuable grasses and plants have been introduced and established.
(6) General-In 1928 there were no suitable stables for the few animals on hand. During the period 1928-1934 the following improvements were made. The land allocated for livestock was fenced and divided into paddocks. Stables were built for bulls, cows and donkeys. A piggery with portable house and runs and other necessary equipment for open air pigbreeding was established. A small poultry farm with portable houses and runs, incubator house and incubators, brooder house and brooders, and growing houses and chicken runs were established. A food barn with the necessary equipment for storing and grinding mash, oil engine and mill, bins, weighing machine, etc., was built.
181. Progress has thus been made with dairy cattle, pigs and poultry but in regard to beef cattle the same cannot be recorded. This industry is in the bands of a more substantial class and it seems a pity that they have not been able to go in
for the systematic improvement of their animals by co-operating in the importation, and use of improved sires. A successful start has been made with a livestock centre at Leguan where the Agricultural Officer has done a great deal of educational: work among the people, who are making good use of the Guernsey bull, which has been stationed there, and a pen of poultry. The same cannot be said of the efforts made in connection with the co-operative marketing of milk produced in the Island.
182. Grants-in-aid.-On October 19, 1934, this Government received the folldwing grant from the Colonial Development Fund for the improvement of the livestock industry of the Colony:

A loan of $£ 1,500$, free from interest, repayable in five years to establish ${ }^{\text {a }}$
revolving fund for the purchase of breeding stock in the United KingdomThis fund will be utilised for the purchase aud distribution of bulls chiefly of beef type, immunised to locul disease, to approved ranchers and cattle owners in British Guiana on easy terms of repayment. The amounts realised from the sale of animals will be paid back into the Fund which will then be available for the purchase of further and additional stock for distribution. The introduction of pure bred animals into the herds of the Colony will be assured thereby while improvement of the cattle and creation of a reliable beef supply for the neighbouring British Colonies will be placed on a more satisfactory basis. It is hoped that ranchers and cattle owners. generally will make full use of the facilities provided by this Grant.

Animal Health.
183. Anthrax.-There was an outbreak of anthrax amongst mules in Essequibo, and the animals were inoculated. Only one death occurred,
184. Mal de Caderas.-In the Rupununi District this disease has been prevalent for ever three years and has caused heavy losses amongst equines. Advice as regards control and treatment was given to ranchers concerned but no action wastaken by them.
185. Tuberculosis.-A high percentage of exported animals, all from the Berbice District, were found to be affected with this disease.
186. The chief drawback to the control of animal disease is the lack of livestock regulations. The stock-owners usually accept the advice of Government Veterinary Surgeon when it suits their convenience, more often such advice is ignored. A Bill to make provision for the impravement of the breed of cattle and other animals and with respect to the prevention of contagious and infectious diseases among them has been drafted and will, it is hoped, be introduced into Legislative Council during 1935.

Livestock Returns.
Livestock Returns.
187. The returns of livestock in the Colony for 1934 are shown in Tablé XIV.
Table XIV.
LIVESTOCK RETURNS, 1934.

| County. |  | Horned Cattle. | Horses. | Mules. | Assen. | Buffalop: | Sheep. | Goats. | Swine. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Berbioe | $\ldots$ | 37,402 | 458 | 436 | 3,056 |  | 7,800 | 3.400 | 5,600 |
| Demerara | ... | 46,073 | 576 | 1,128 | 2,507 | 82 | 8,9115 | ${ }^{4,500}$ | 6.698 |
| Essequibo | $\ldots$ | 5,527 $\mathbf{6 0 , 6 6 0}$. | 24 1.830 | 34 14 | 560 4 | 3 | 896 208 | ${ }^{1,068}$ |  |
| Total |  | 149,662 | 2,388 | 1,612 | 6,127 | 82 | 17.809 | 8.980 | 14,110 |

BOTANIC GARDENS AND NURSERIES.
189. The Superintendent was absent on leave from June 13 to November 14.
188. Very heavy rain fell at the beginning of the year, the Gardens being flooded, in common with the rest of Georgetown, on the night of January 7-8. The rain-
fall for the remainder of the year, however, was below normal. Planting out of trees and shrubs was continued in the Front Gardens, Park Lands and Avenue. A number of new plants were obtained by exchange from Trinidad and other sources, including also some palm plants from Florida and a large quantity of seed from Sydney, Australia.
190. An illustrated Guide to the Gardens was published at the end of the year. A further section of pipe line, passing through the nurseries, was connected to the water supply. The storeroom was rebuilt during the year, and at the end of the year a motor mower was obtained. The production of budded citrus was continued, and certain individuals wishing to cultivate citrus on a fairly large scale were assisted to start their own nurseries.

## SEED AND PLANT DISTRIBUTION.

191. The following is a list of the planting material distributed locally by the Department during the year 1934. This is entirely separate from distributions through Flood Relief Funds shown elsewhere in this report, (vide para. 26).

Field and Garden Crops.

| Sugar cane | ... | ... | 39,978 cuttings. |
| :---: | :---: | :---: | :---: |
| Padi (Seed) | $\cdots$ | ... | 209,860 lb. |
| Padi (Seedlings) | ... | ... | 260,000 |
| Plantains | ... | ... | 33 suckers. |
| Bananas | ... | ... | 2,031 ", |
| Papaw (Seed) | ... | ... | $3 \frac{1}{4} \mathrm{lb}$. |
| Papaw (Plants) | ... | $\ldots$ | 136 |
| Grape Vine | ... | ... | 89 plants. |
| Tobacco (Seed) | ... | ... | 3 lb . |
| 'Tobacco (Plynts) | ... | ... | 398 |
| Legumes (Cover Crops) | ... | ... | 109 lb . |
| Peas and Beans (Edible) | ... | $\ldots$ | 119 lb. |
| Fodders (Various) | ... | ... | 1,920 cuttings. |
| Onion (Seed) | ... | ... | 60 lb . |
| Onion (Seedliugs) | ... | ... | 6,400 |
| Eschallot | $\ldots$ | ... | $1 \frac{1}{4} \mathrm{lb}$. |
| Tomato (Seed) | $\ldots$ | ... | 3 lb . |
| , (Plants) | ... | ... | 9,203 |
| ", (Cuttings) | ... | ... | 56 |
| , (Fruit) | ... | ... | 92 lb. |
| Cabbage (Plants) | ... | ... | 684 |
| Jorusalem Artichoke | ... | ... | 4 lb . |
| Boulangers (Plants) | ... | ... | 117 |
| ", (Seed) | ... | ... | $7 \mathrm{oz}$. |
| Pumpkin (Seed) | ... | ... | $8 \mathrm{oz}$. |
| Squash (Seed) | ... | $\ldots$ | 8 oz . |
| Ginger | ... | ... | $3 \frac{1}{4} \mathrm{lb}$. |
| Sweet Corn |  | ... | ${ }^{\frac{1}{4} \mathrm{lb} \text { b }}$ |
| Vegetable Seeds (Assorte |  | ... | 20 lb . |
| Pepper (Cbilli) | ... | . ${ }^{\text {a }}$ | 300 plants. |
| Seed Coconuts | ... | ... |  |
| Sweet Potatoes (cuttings) | ... | ... | 108,995 10,750 |
| Sweet Potatoes (tubers) | ... | ... | 10,750 389 suckers. |
| Pineapple | ... | ... | 389 suckers. |
| Krowa | ... | ... | 25 suckers. |

## Orchard Crops.

| Citrus (budded)-Oranges... |  | ... | 1,124 | plants. |
| :---: | :---: | :---: | :---: | :---: |
| Citrus (budded)-Grapefruit |  | ... | 778 | " |
| Limes (budded) | ... | ... | 526 |  |
| Limes (seedlings) | ... | ... | 236 |  |
| Coffee (Liberian) | ... | ... | 500 | seedlings. |
| Cocao | ... | ... | 1,951 |  |
| Mangoes (Grafted) | ... | ... |  | plants. |
| Pears (Grafted) | ... | ... | 13 |  |
| Other Economics | $\cdots$ | ... | 1,469 |  |

## SEED AND PLANT EXCHANGE.

192. A large quantity of new seeds and plants were received during the year. A number of ornamental plants were exchanged with Trinidad, to whom we were also again much indebted for supplies of citrus budwood. Plants of six new Tangelos and other citrus varisties were received from the United States Department of Agriculture through Dr. Archer. Half a dozen varieties of grafted mangoes were sent us from Dominica, and for a selection of yams we were indebted to the Imperial College of Tropical Agriculture, Trinidad. A large number of palm plants were sent us from the Coconut Grove Arboretum, Florida, with whom we have exchanged seed, and a further selection of seed was received from the Botanic Gardens, Sydney, including many species of Acacia and Eucalyptus. A number of plants collected by Dr. Archer during his stay in the Colony were also planted in the nursery. In response to requests received from other Botanic Gardens and allied institutions who had received our exchange catalogue, a number of parcels of seed were sent out during the year, and in addition a large eelection was forwarded to His Excellency the Governor after his departure from the Colony.
193. The introductions by the Department during 1934 of economic and ornamental plants and propagating material have been published quarterly in the Agricultural Journal of British Guiana which re-appeared during the year under review.

## PUBLICATIONS AND LIBRARY.

194. The Agricultural Journal of British Guiana, the official publication of this Department, re-appeared in March, 1934, after its publication had been suspended for two years-1932 and 1933-for economic reasons. The absence of the journal has been felt acutely and one of the factors responsible for its re-appearance was the requests received by the Department from those engaged in agriculture both in and out of the Colony. The Library is in receipt of a wide range of periodical literature from all parts of the world, including research bulletins, administration and miscellaneous reports, etc. The Department can only afford to receive such publications on the basis of exchange.
195. Agricultural Notes compiled by the Department, simply worded, on subjects of a topical nature, have again been published in the local press, for whose cooperation the Department is duly grateful. In addition to the Journal, Sugar Bulletin No. 3 and an illustrated Guide to the Botanic Gardens were published. The Government Botanist and Mycologist published a note on the Foreshore Vegetation in the Journal of Ecology and a similar account in "Timehri," a local journal.
196. The classification and indexing of the Department's library have been completely re-organised. With the grouping of periodical publications under their several subjeots and the system of cross-indexing, information is rendered more readily available than before. Unfortunately, after the necessary attention has been given to binding periodicals, lack of funds practically prohibits the purchase of text books.

## AGRICULTURAL LEGISLATION.

197. The following is the chief agricultural legislation enacted during 1934:1. Rice (Export Blending \& Grading) Regulations, 1934.—The chief features are:
(a) Rice other than broken and Super Broken may not be graded unless blended;
(b) Persons shall not blend rice unless licensed by the Director of Agriculture;
(c) A' blender's fee shall not exceed 2 cents per bag of 100 pounds and 4 cents per bag of not more than 100 pounds;
(d) All applications for grading must be accompanied by a certificate from a registered blender;
(e) Applications for grading must be submitted to the Rice Marketing Board and then to the Inspector;
( $j$ ) The Inspector may refuse to grade if blending has not been satisfactorily performed.
198. Rice (Export Blending \& Grading) Regulations, No. 2, 1934.-The chief purpose was to declare that the Rice (Export Blending \& Grading) Regulations, 1934, should come into force on October 1, 1934.
199. Rice (Export Blending \& Grading) Regulations, No. 3, 1934.-The chief feature was to make provision for No. 1 Extra grade.
200. Rice Factories Rules, 1934.-The chief feature was to specify the type of books to be used in factories.
201. Proclamation dated 13th January, 1934.-Prohibiting the export of rice as a result of conditions caused by the floods;
202. Proclamation dated 22nd January, 1934. Fixing the quantity of rice which might be exported at 25 per cent. of quantity called for by contracts. On February 1 this proclamation was revoked.
203. Order-in-Council under Section 8 of the Wild Birds' Protection Ordinanceamending the schedúle altering the close season. The chief features are that the names of certain birds are included in or excluded from the schedules and that the period to be observed as the close season in respect to Wild Birds shall be from April 1 to August 1 with the exception of the lbises, for which the close season shall be from June 1 to August 1.
204. Order-in-Councl allowing the importation into the Colony of certain fruits and vegetables from Netherlands Guiana.
205. Board of Agriculture Ordinance, 1934. (Ordinance No. 26 of 1934). To provide for the establishment of an Advisory Board of Agriculture.

## GENERAL REMARKS.

198. There is hardly need to add very much under this head as the condition of the various industries and the work carried out by the Department has been clearly stated in the foregoing pages.
199. The outstanding event of the year has been the 'Floods' which administered a severe check to all agricultural enterprise and more particularly to the rice industry. The resources of the Department were heavily taxed in dealing with a situation unprecedented in the history of the Colony.
200. The important tasik allotted the Department was, in the first place, that of ensuring a sufficiency of local food-stuffs in view of serious damage to rice and
in many cases complete destruction of ground provision cultivations. Secondly, to provide such aid to the staple industries of the Colony as would assist them to recover in the minimum of time. The first has been accomplished though not without much extra work and great anxiety. The second is in process of being achieved, and at the time of writing, indications are that, at the end of 1935, the sugar crop. for the year will have even exceeded the average production figure reached in recent years; while the rice industry, with favourable plantiug weather at mid-year, should recover much of its production status, though not all. In this connection, the Department's pure line seed campaign continues unabated and is gathering more and more momentum as time goes on. Good progress is also to be recorded in the breeding work and search for new varieties. A substantial contribution has also been made to the study and control of the rice weevil ; millers and exporters should derive some profit from the results of these investigations, if they are followed up in a practical way. The marketing of the rice crop, nevertheless, continues to cause anxiety as a result of Indian competition and the practices adopted by unscrupulous exporters of giving rebates, which have proved cifficult of control by the Marketing Board.
201. Unfortunately, prices for all kinds of produce are still very low. There is nothing to indicate, however, that sugar and rice are likely to give place to any otber crop in the Colony's general ecouomy, and these must be its main bulwark and support, both now'and in tha future. The Department has from the beginning emphasised this view, which becomes increasingly clear as more experience is gained.
202. Mention must be made of the steady expansion of the cane-farming industry, particulars of which will be found in para. 48. In this connection, the Department's efforts have been greatly assisted by the enthusiasm of the District Commissioner, East Coast, Demerara, and the readiness of the sugar estate proprietors to meet the demands made on them, notably as regards prices, in a generous and truly co-operative spirit.
203. In addition to the usual research activities in connection with soils, fertilisers, varieties, flood-fallowing, etc., which continue to be a special feature of the Department's sugar work, the introduction and vigorous efforts made to secure rapid spread of the Amazon fly parasite of moth-borer will, it is hoped, also help to bring about increased field returns.
204. The useful start made in connection with agricultural economic investigations referred to in paras. 146-151 might be pointed to as a field which offers unlimited scope in the collection and classification of information, valuable not only in matters affecting agricultural development, trade, and commerce, but also in the study and adjustment of such questions as labour relationships, unemployment, cost of living, etc.
205. Reference might also be made to the gradual progress which is being made in connection with the improvement of livestock in the Colony, notably dairy cattle, pigs and poultry; to the increased interest in minor industries such as apiculture, citrus and other fruit, together with the cultivation of quick cash crops such as garden vegetables, onions, tomatoes, peas, beans, etc. The success in this latter branch of agriculture has been largely due to the efforts of the District Oficers in carrying out experiments, and demonstrations and the encouragement given to farmers in the use of improved seed, now freely obtained through the Department's Sub-Stations, field competitions, etc.
206. School and home garden work is attracting a great deal of interest in the rural communities and good progress is being made where head-teachers are keen on practical work and will devote sufficient time to it.
207. Administration duties remain heary, and it is difficult to cope with the increasing volume of work, the nature of which invaribly requires careful study and prompt attention. This applies not only to matters affecting departmental policy, preparation of memoranda and reports on various schemes for development, drainage and irrigation questions, but also in regard to general correspondence, committee meetings, interviews, Executive and Legislativo Council work. During the year, several officers were on leave, and this helped further to accentuate the position, as there is no extra staff to fill any gaps due to sickness, leave or other enforced absences.
208. It is pleasing to record that the construction of the Department's new buildings was completed and the Administration staff, Entomological, Botanical, Co-operative Credit Banks, and Meteorological Divisions were transferred to the new quarters towards the end of August.
209. In conclusion, I should like to express my great appreciation of the loyal help rendered by the staff during a very trying period. The thanks of the Department are due also to the agricultural and mercantile community for assistance generously rendered, and to the local newspapers for their courtesy in distributing agricultural information.

## J. SYDNEY DASH, <br> Director of Agriculture.

May 31, 1935.

c. C.S.O. No. 1592/35.

## $\mathfrak{J b r i t i s b}$ Guiana.

## REPORT

OF THE

## DIRECTOR OF EDUCATION,

FOR THE YEAR

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T \cdot 79172 \dot{\gamma}
$$

## 1934.

Drinted be the Eluthority of 1bis Excellency the Governor.

GEORGETOWN, DEMERARA :
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## THE ANNDAL REPORT OF THE DIREOTOR OF EDOCATION FOR THE YEAR 1934.

PAR'T T.

## Preface.

Prior to the emancipation of slaves in 1838, few serious efforts were made towards the education of the black population of the Colony, but at some time between 1825 and 1830, two free schools were started in Georgetown as a result of the interest shown by the British Parliament in the education of the Negroes. In 1830, a small grant in aid of education was paid from Colony funds.
2. The first schools opened were undenominational. Six of them were established from funds provided from the Lady Mico Legacy, which had for one of its objects the release of Cbristian slaves. These funds were supplemented by Parliamentary grants. The main impetus towards a general system of education came, however, from the Christian Missions. As a result of their eftorts, there were in 1841, 101 denominational schools in various parts of the Colony, for the establishment and maintenance of which the Combined Court (the competent financial body of that time) had voted a sum of $£ 3,159$. The six undenominational schools already mentioned also became Church schools, when the Trustees of the Lady Mico Legacy found themselves unable to meet the demands which the maintenance of these schools made upon them.
3. The population of the Colony at this time has been given as $\mathbf{9 8 , 1 5 4}$, and the number of children attending schools as 4,919. At the last Census (1931), the population of the Colony was given as 310,933 and the number of children on the primary school registers is now 47,738: the percentage of children enrolled has thus been trebled in the last 100 years.
4. Until recent years both the interest of the public and the policy of Govern. ment in regard to education, have been almost entirely confined to the provision of a system of primary schools. The curriculum of these has been built up on the historic three R's, and now includes Sewing, Drawing, Physical Exercises, Hygiene, Geography and Nature Study, and in a few areas Handwork and Domestic Subjects. Each school is organised in four divisions-Preparatory (or infant), Lower, Middle and Upper. The schools are open to all races, and English is the only medium of instruction.
5. Elementary education is compulsory and free. In Georgetown, New Amsterdam and Buxton, the age for compulsory attendance is 6 to 14 years; in other parts of the Colony 6 to 12 years. The Ordinance requiring compulsory education was passed as long ago as 1876, and compulsion has been enforced with varying degrees of success, according to the funds and staff provided by Government; and to the economic and other considerations which affect school attendance elsewhere. Fees for primary education were abolished in 1918.
6. With four exceptions, all the primary schools of the Colony are denominational. Eightdenominations of the Christian Church are represented ; and it is to them that the Colony owes its present system of education. The Church of Eagland has the largest number of schools and pupils. Then follow the Church of Scotland, the Church of Rome, the Wesleyan Methodist Mission, the British Guiana Congregational Union, and the Canadian (Presbyterian) Mission, while the Moravian and Lutheran bodies both have a few schools each.
7. All the denominational schools, with one or two minor exceptions, receive grants from the public revenues which are sufficient to pay the salaries of all teachers, and to assist in the provision and maintenance of buildings and equipment. Thesd grants depend upon the average number of pupils in attendance, and the conditions under which grants are paid are contained in the Code of Regulations for Grant-inAid Schools, made by the Governor in Council under the Education Ordinance, Chapter 196. One or more primary schools which are eligible to receive the
maximum grants under the Code are to be found in all the main centres of population. Remote or sparsely populated places, and "places difficult of access" are provided for by schools which receive small block grants, but which are not eligible to receive full grants in aid owing to the small number of pupils attending, and other factors. The annual expenditure on primary education from public funds is approximately $£ 67,000$.
8. Under the Education Code, the control of the primary schools of each denpmination is vested in a Central Committee of the denomination concerned, which is known as the "Governing Body" and which, while delegating many of its powers to local School Managers, exercises a general direction over all the schools of the denomination, especially in regard to the appointment of teachers. The members of the Governing Bodies and the School Managers, are, with a few exceptions, clergymen. The central authority which deals with the organization and supervision of education in the whole Colony, and the administration of all public funds voted for educational purposes, consists of the Director of Education, together with an advisory Education Committee whose duties and powers are defined in the Education Ordinance.
9. An essential feature was added to the system of primary education by the establishment of a Teachers' Training Centre, which was opened in Georgetown in September, 1928. The first group of students- 25 men and 5 women-completed a two years' course in July, 1930. The second group-21 men and 9 womencompleted their course in July, 1932, and the third group-19 men and 11 womenin July, 1934. The course of training includes instruction in the theory and practice of education, special attention being given to practical work of all kinds suitable for primary schools.
10. For the higher education of boys, provision is made by a Government secondary school in Georgetown, Queen's College, in which the course of instruction is similar to that of a Public School or Grammar School in England. The pupils range in age from 10 to 19 jears. The College was established in 1844 by the Bishop of Guiana as a Cburch of England Grammar School. From the beginning it was aided by Government grants, and finally became a Government institution in 1877. There is no Government secondary school for girls, but five such schools are conducted by the Church of England, (1), the Roman Catholic Church, (3) and the Canadian Prestyterian Mission (1), the Church of England and the Canadian Mission Schools receiving grants in aid from Government. There are also one secondary school for boys, and one secondary school for boys and girls, in receipt of grants: There are, in addition, a number of private secondary schools which receive no grants. In 1934 the total number of pupils receiving secondary education in the Government schools, aided schools, or private schools was 832 boys and 672 girls, and the annual expenditure on secondary education from public funds was approximately $£ 7,700$. The pupils in these sehools range in age from 10 to 20 years, and the curriculum is usually based on the requirements of the Cambridge Local Examinations Syndicate, or of the Oxford and Cambridge Schouls Examination Board.
11. Since 1882, there has been awarded annually one "British Guiaua Scholarship," which is now of the total value of $£ 900$, open to boys and girls, and tenable. at a University or an Institution of University rank within the. Empire. There are also a number of Government scholarships and a few endowed scholarships tenable. at the secondary schools. Government has the right to nominate three students at hny one time to receive free tutition at the Imperial College of Tropical Agriculture, Triniciad. These students usually complete the Diploma Course lasting three years.
12. During 1924 and 1925, the whole system of education in the Colony was investigated by a Commission. Important changes were recommended regarding the training of teachers, the establishment of Government primary schools, and of one or more technical schools. The carrying out of these recommendations has been greatly hampered by the financial condition of the Colony since the Commission reported. The Teachers' Training Centre has, however, been established, and the most obvious instances of unnecessary competition between denominational schools have been dealt with by the amalgamation of overlapping schools. Some progress
has been made towards re-organizing the pupils of the primary schools in junior and senior schools, and providing centres for the instruction of senior pupils in Handwork and Domestic Sabjects in the most populous areas. In May, 1932, the Government, by means of a grant from the Imperial Government for the relief of unemployment in the Colony, was enabled to complete the erection of a Government School in Georgetown, which serves as a demonstration school for the studeuts of the Teachers'. Training Centre.
13. With regard to Vocational Training, a Trades Centre for Youths was opened in Georgetown in 1931. It is run on the lines of a Junior Technical School in the Dnited Kingdom, the pupils receiving a two years' course of instruction which includes general Education-English, Arithmetic and Physical Trainingtogether with instruction in Woodwork and Technical Drawing. In 1932 the Colony received the generous gift of $£ 10,000$ from the Carnegie Corporation of New York for the "educational and scientific development of the Colony," which was used for the purpose of providing a Trade Centre for women in Georgetown. The building was erected in 1933 and the first course of instruction commenced in November of that year.
14. The following diagram illustrates the relationship of the various institutions referred to :-


## Part II. <br> Chapter I.-Grneral Report.

1. On 30th September, 1934, I completed ten years service in my present post, and in this report I have recorded some of the more important changes which have taken place during that period in primary education.
2. According to the report of my predecessor (Mr. H. W. Sconce), for the year 1923, 40,381 pupils were enrolled in the fully-aided primary schools; the average number in attendance for the year being 20,700 , or $64 \%$. These figures do not include pupils attending schools in remote or sparsely populated areas, in respect of whom no complete statistics ware included in the Annual Report at that time. From other sources it has, however, been ascertained that the enrolment in these schools was 1,057, with an average attendance of 544 or $50.5 \%$. Adding these figures we get a total enrolment in all primary schools of 41,438, and an average attendance of 26,244 or $63 \%$ for both types of school combined.
3. For the year 1934 the corresponding figures have been as follows :-


The following table shows the position in 1934, as compared with 1923 :-

| Nouber of Children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { (a) } \\ & \text { Year. } \end{aligned}$ | On (b) Roll. |  |  | (c) <br> In Average Attendance. |  |  | (d) <br> (c) as percentage of (b) |  |  |
|  | Fully aided. | Reg. 80. | Total. | Fully sided. | Keg. 80. | Total. | Fully nided. | Keg. 80. | Total. |
| 1923 | 40,381 45,281 | 1,057 2,680 | 41,438 47,811 | 25,700 31,681 | 544 1,609 | 26,244 33,290 | 64 70 | 50 62 | 63 |
| Increase | 4,850 | 1,523 | 6,373 | 5,981 | 1,065 | 7,046 | 6 | 12 | -6 |

It will be seen from the table that during this period the enrolment of pupils in fully-aided schools has increased by 4,850 , and the average attendance by 5,981 . In the Regulation 80 schools the enrolment has risen from 1,057 to 2,580, and the average attendance from 544 to 1,609 . Taking both types of schools together, the enrolment has increased by 6,373 , the average attendance by 7,046 , and the percentage which the average attendance bears to the enrolment from $63 \%$ to $69 \%$.
4. So far as I have been able to ascertain, these figures are higher than the general figures for the British West Indian Colonies. The increase in the number enrolled is partly due to the increase in the population, but the increase in the percentage which the average attendanoe bears to the enrolment is due to a more enlightened attitude on the part of parents, especially East Indian parents. This has to a large extent been brought about by the efforts of the School Managers, the Head Teachers, and the Department.
5. If we turn to the number of schools, the position is as follows :-

Number of Sohools.

|  | fully-aided. | REGULATION 80. | Aboriginal indian. | total |
| :---: | :---: | :---: | :---: | :---: |
| 1923 | 224 | 23 | . | 247 |
| 1934 | 178 | 53. | 2 | 233 |
|  | -46 | +30 | +2 | -14 |

During this period 3 new fully aided schools have been established, but there has been a large reduction in the total nuinber of these owing to the amalgamation of over-lapping schools and to the fact that 18 other schools have been transferred to the list of those receiving grants under Regulation 80. Twelve new schools bave also been given grants under Regulation 80 in order to meet the needs of remote and sparsely populated districts where no schools previously existed.
6. With regard to the racial distribution of the pupils in the schools, the most notable increase has been in the improved enrolment and attendance of East Indian children, In 1924 , the total number of East Indian children enrolled was $\mathbf{1 0 , 7 5 3}$,
made up as follows:-

| $\begin{gathered} \text { BOYs. } \\ 7,816 \end{gathered}$ | $\begin{aligned} & \text { eIrls. } \\ & 2,937 \end{aligned}$ | toral. $10,753$ |
| :---: | :---: | :---: |
| The figures for 1934 are :9,295 | 5,945 | 15,240 |
| Sbowing an increase of :- $1,479$ | 3,008 | 4,487 |
| and a percentage of increase:- $18.9$ | 102.4 | 41.7 |

This increase does not include the pupils in Regulation 80 schools, the latest figures for both fully-aided and Regulation 80 schools being as follows:-

7. The change in the number of teachers in fully-aided schools has been a follows:-

|  | Certificated |  |  | Uncertificated |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Head Teachers. | Assistant Teachers. | Total. | Assistante. | Papil Juni | and hers. | Total. |  |
| $\begin{array}{ll}1923 \\ 1934 & \ldots\end{array}$ | 224 171 | - $\begin{array}{r}132 \\ \hline 262\end{array}$ | 356 433 | 448 458 | 225 94 | 147 $\cdots$ | 820 $\mathbf{6 5 2}$ | $\begin{array}{r}1,176 \\ \hline 986\end{array}$ |

It will be seen from the above figures that the number of certificated teachers has bee increased from 356 out of 1,176 or 30.2 per cent, to 433 out of 985 or 44 per cen Many of these certificated teachers have taken the place of the so-called "Junior teachers-persons of all ages with no qualifications who were employed at a fix :salary of $\$ 5$ per month with no hope of any increase. Out of the 356 certificat terchers employed in 1923 only 64 had attended a course of instruction at an institi tion for the training of teachers, whereas there are now 152 such teachers in $t$ l Colony. Along with this improvement in the type of teacher there has been : appreciable increase in the average salary. In 1923 the average salary of a $\mathrm{H}_{\mathrm{e}}$ Teacher was $\$ 682.46$ as compared with $\$ 740.99$ in 1934, In 1923 the average sala of a teacher other than a Head Teacher was $\$ 138.42$, while in 1934 it was $\$ 204.0$ It will be seen that the average increase has been $\$ 58.53$ per annum in the case Head Teachers and $\$ 65.60$ per annum in the case of other teachers. The form increase is due mainly to the increase in the number of pupils per school, whi has risen from 180 to 254, and the latter to the withdrawal of the junior teache who were paid at the rate of $\$ 5$ per month each.
8. The increase in the number of trained teachers has been made possible by the existence of the Teachers' Traiuing Centre, the establishment of which has been one of the outstanding events in the history of primary education in the Colony during the past ten years. The establishment of a Training College was one of the main recommendations of the Education Com mission of 1925, but it was not until the annual Estimates of 1928 that financial provisicn could be made for this service. To meet the existing financial conditions the expenditure had to be put at the absolute mininsum. In particular, the number of students was reduced. Thirty students should have been admitted each year, but this was reduced to thirty every second year, which is equivalent to 15 a year. Moreover, by agreeing to the proposal that the Second Inspecior of Schools should perform the duties of Superintendent of the Teachers' Training Centre, the Department has cut down the inspecting staff below its previous strength. In spite of these limitations, the work of the Teachers' Training Centre bas been very successful, and I am satisfied that the increase in the number of trained certificated teachers in the schools has been an essential part of the general improvement which has taken place in the work of the schools.
9. Another change has been the introduction of practical work into the curriculum of primary schools. In 1924 there was no centre of any kind equipped to give practical instruction either to boys or to girls, and the number of schools where any serious attempt was made to give instruction of this kind in the school itself was almost negligible. There are now 5 Handicraft Centres for boys and 2 Domestic Subjects Centres for girls, and while there is no doubt that the number of each should be increased, it has to be kept in mind that the present number has been fixed by financial, not educational considerations. In addition to the practical instruction given in the Centres, there is now an appreciable amount given in the schools themselves, especially in the Preparatory and Lower Divisions, and altogether there is a much greater appreciation of the importance of hand and eye training than there was.
10. The three R's still form the backbone of the curriculum and the plan adopted has been to introduce improved and more enlightened methods while retaining, as far as possible, the virtues of the older and more stereotyped ones. There is a general consensus of opinion that the requirements of the examinations which test the general standard of education of pupils, such as the Primary School Certificate, the Government County Scholarship and the Papil 'Teacher's Appointment Examinations, call for more initiative on the part of the teachers than was the case ten years ago. Especially in the larger schools, the methods ermployed by teachers have been improved, and at the same time the attitude of teachers in matters of discipline has become more enlightened, discipline no longer resting solely on the child's fear of immediate corporal punishment.
11. The physical surroundings in which the children work are in general much improved, and in some cases they have been improved out of all recognition. In 1924 a large number of sohools were dilapidated and insanitary and totally lacking in suitable equipment, especially in the junior classes. The installation of the sewerage system in Georgetown has greatly improved the sanitary conditions in city schools, but the conditions in schools in other districts bave also been greatly improved. It is exceptional now to find a school which is definitely insanitary, and the condition of buildings in regard to repair is much better, the chief defect being a lack of paint. Mure accommodation is, however, urgently needed in many districts and few schools have a satisfactory water supply.
12. The improvement in the matter of equipment is at once evident to anyone who knew the schools ten years ago, or who visits one of the more backward schools to-day. For several years now the Department has required the Governing Bodies to draw up a definite programme for the provision of school equipment, and the results have been noteworthy. Many schools are now well equipped in nearly all divisions, and in many others there have been important improvements in respect of one or more of the divisions. It is hoped that in a few years time all the schools will have been supplied with the necessary minimum of suitable furniture, and that it will be
possible to supply articles of equipment which are necessary for more effective work
but which are now bejond the reach of most schools.
13. In addition to the general raising of the standard required of all schools, the establishment of the Government School in Georgetown has marked a definite stage in the matter of the physical conditions under which primary eaucation is carried on in the Colony. That school serves as an example of what a school should be like under the conditions prevailing in Georgetown and other main centres of population. Some important modifications might be made if Government were erecting a new school building in a country district, but the essentials of floor space, light, playground space, and suitability of equipment, would remain similar even if not identical. The establishment and progress of the school have been a matter of great interest to all those who desire to see education advance in the Colony, and have without doubt succeeded in the very useful purpose of concentrating and guiding public opinion as to the type of school which is needed.
14. Another direction in which improvement has taken place in the matter of physical surroundings has been in the organisation of physical training and games. Ten years ago there were few, if any, teachers who had any real knowledge of, or interest in, this branch of their work. Now both men and women students in the Teachers' Training Centre receive systematic instruction in Physical Training and games, and the results are obvious in many schools. In addition to the former students of the Teachers' Training Centre, there are many other teachers who have developed a real liking for the work. In some cases it is literally true to say that the children have had to be taught to play, as there seem to be very few local games such as are usual among the children of other countries. For the older pupils the Inter-School Sports are now an annual event in which great keenness is shown, and the inter-school cricket and football competitions have raised the standard of play in these games very considerably. The Department now has at Thomas Land a playing field for the Georgetown schools. It is not by any means small, but it has been found to be inadequate to meet the growing demands of the schools-the only other playground in the City which is reserved for children being St. Philip's playground, to which the Town Council gives an annual grant.
15. These improvements have been made at the cost of the least possible increase in expenditure. The ever increasing needs of the schools bave been met by reorganisation, and by redistributing the funds available under the item-Grants to Schools. In 1923 these amounted to $\$ 315,843$ for an enrolment of 41,438 pupils, viz.. $\$ 7.62$ per pupil per annum. For 1934 the corresponding figures have been $\$ 325,478$ for 47,811 pupils enrolled, i.e., $\$ 6.81$ per pupil. Thus the increase in the total has not been sufficient to maintain the annual cost per pupil at its former level, much less provide a margin for improvements.
16. At present, therefore, the general position is that the funds available as grants are being used to their utmost capacity, and no increase in the number of pupils or further improvements can be provided for within the present total. A large number of teachers, increased accomodation for pupils, and an extension of the arrangements for the instruction in handicrafts of both boys and girls are, however, all required, and progress in any of these directions will cause an increase on the present expenditure, apart from any increase on account of the number of pupils.
17. During the year 1934 itself the most striking feature has been the continued increase in the number of pupils. The following table shows the position as compared with 1933.

|  |  |  | Enrolment. |  |  | Average attendance. | Pereentage of average attendance. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Boys. | Girlu. | Total. |  |  |
| $\begin{aligned} & 1933 \\ & 1934 \end{aligned}$ |  |  | $\begin{aligned} & 24,337 \\ & 24,810 \end{aligned}$ | $\begin{aligned} & 19,773 \\ & 20,416 \end{aligned}$ | $\begin{aligned} & 44.110 \\ & 45,231 \end{aligned}$ | $\begin{aligned} & 30,209 \\ & 31,681 \end{aligned}$ | $\underset{70_{r}}{68.5}$ |
| Increase | - |  | 478 | 613 | 1,121 | 1,472 | 1.5 |

PEROENTAGR OF ATTENDANOE.

|  |  |  | 1934. | 1933. |
| :--- | :--- | :--- | :--- | ---: |
| Demerara | $\ldots$ | $\ldots$ | 71.4 | 69.9 |
| Berbice | $\ldots$ | $\ldots$ | 66.7 | 64.8 |
| Essequibo | .. | $\ldots$ | $\underline{70.6}$ | 69.1 |
| General Ggure for Colong |  | $\underline{70 .}$ | $\underline{68.5}$ |  |

EAST INDIANS.

|  | Fully Aided Schools, |  |  | Regulation 30 Schoole (in remote and sparsely populated areas). |  |  | Totals. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boss. | Girls. | Total. | Boss. | Girls. | Total. | Boys. | Girls. | Total. |
| 1933 | $\mathbf{9 , 1 4 9}$ $\mathbf{9 , 2 9 5}$ | 4,971 | 14,120 16,240 | 720 763 | 458 479 | $\begin{aligned} & \mathbf{1 , 1 7 8} \\ & \mathbf{1 , 2 4 2} \end{aligned}$ | $\begin{array}{r} 9,869 \\ 10,058 \end{array}$ | 5,429 <br> $\mathbf{6 , 4 2 4}$ | $\begin{aligned} & 15.298 \\ & 16.432 \end{aligned}$ |
| Increase <br> Decrease | $146$ | $974$ | 1,120 $\cdots$ | ${ }^{43}$ |  | ... ${ }^{4}$ | 189 | $\stackrel{995}{\text { ‥ }}$ | 1,184 .. |
| AbORIGINAL INDIANS. |  |  |  |  |  |  |  |  |  |
|  | Fully Aided Sohools. |  |  | Regulation 80 Sohools (in remote and aparaly popalated areas). |  |  | Totals. |  |  |
|  | Boys. | Girls. | Total. | Boye. | Girl. | Total. | Boys. | Girls. | Total. |
| $\begin{aligned} & 1903 \\ & 1934 \end{aligned}$ | $\begin{aligned} & 378 \\ & 412 \end{aligned}$ | 330 <br> 342 <br> 1 | 708 | 204 235 | 172 <br> 174 | 376 409 | 582 | 502 516 | 1,084 1,163 |
| Inorease <br> Decrease | ... 3 | ${ }^{. . .} 12$ | .$^{46}$ | ${ }^{31}$ | $\ldots 2$ | ${ }^{. . .} 3$ | ${ }^{65}$ | 14 | ${ }^{\text {.. }}{ }^{19}$ |
| OTHER RACES. |  |  |  |  |  |  |  |  |  |
|  | Fally Aided Schools. |  |  | Regulation 80 Sohools. |  |  | Totals. |  |  |
|  | Bcys. | Girlb. | Total. | Boys. | Girls. | Total. | Boys. | Girls. | Total. |
| $\begin{aligned} & 1933 \\ & 1934 \end{aligned}$ | $\begin{aligned} & 14,810 \\ & 15,108 \end{aligned}$ | 14,472 <br> 14.129 | $\begin{aligned} & 29,28282 \\ & 29,237 \end{aligned}$ | $\begin{aligned} & 496 \\ & 519 \end{aligned}$ | 417 | 913 929 | 15,306 15,727 | $\begin{aligned} & 14,889 \\ & 14,539 \end{aligned}$ | $\begin{aligned} & 30,195 \\ & 30,266 \end{aligned}$ |
| Inoreace <br> Decrease | $298$ | 343 | ${ }^{-} 45$ | ... 23 | ${ }^{\cdots} 7$ | $\ldots{ }^{16}$ | ... | 350 | ... ${ }^{71}$ |

18. It will be seen that there has been an increase in the total numbers of 1,121 in the enrolment and of 1,472 in the average attendance in the fully aided schools, showing the satisfactory fact that the average attendance is increasing more rapidly than the enrolment. When we turn to the figures for average attendance we find it improving in all counties, but more particularly in Demerara, where it has risen from 69.9 to 71.4, the highest figure ever recorded for any county.
19. When we analyse the increases in respect of race wo find that the East Indian figures are much higber than for other races. There is an increase of 189 boys and 995 girls among the East Indians. The other races (excluding the Aboriginal Indians) show an increase of 421 boys but a decrease of 350 girls, chiefly in the fully aided schools. The Aboriginal Indians show increases of 65 boys and 14 girls.
20. The satisfactory progress shown in respect of East Indian girls is mainly due to the efforts which have been made during the past five years. Another noteworthy adpance was made by the admission of 3 East Indian women bursars to the Teachers' Iraining Centre. They were admitted in September, 1934, to a special course of training lasting one jear along with 9 women teachers of other races.
21. The Education Committee met on 8 occasions during the year. The draft annual estimates and serious matters of discipline among teachers were the most important questions discussed, and great benefit was derived from their advice. Mrs. G. R. Reid, B.A. (Lond.) who had been a member of the Committee since it was established in 1927 left the Colony on leave in August, 1934, and her membership of the Committee has since expired. Mrs. Reid was the first woman to be appointed by Government to a statutory committee in the Colony and ber services have been of great value during the period of her membership.
22. During the year the staff of the Department was reduced to an abnormal degree. For several months I was the only senior officer of the Department in the Colony, the Inspector of Schools being on leave from 16ith April, 1934, to 9th October, 1934, and the Second Inspector of Schools and the Assistant Inspector of Schools being on leave for the purpose of attending a seminar at Yale University from 13th July to 3rd October 1934, as the guests of the Carnegie Corporation, New York. The Aseistant Inspector of Schools then proceeded on vacation leave till 12th December, 1934. Their places were filled temporarily by the appointment of Mr. J. E. Owen, Head Teacher of St. Stephen's School, and Mrs. M. G. Kimber (formerly of the Bishop's High School for Girls) as Assistant Inspectors and by the temporary return of Mr. H. V. Taitt from the staff of Queen's College to his post as Assistant laspector of Schools. I was absent from duty on sick leave from 2 nd November, 1934 to 27 th November, 1934. I desire to thank the members of the inspecting and clerical staff for the good work they have done during the year.

## Chapter II.-Primary Education-Boys and Girls.

(d)-REPORTS OF INSPECTIONS.

1. It has been the custom during recent years for the report under this beading to consist of general remarks rather than a statement of the actual reports made by the Inspectors on the schools inspected by them. It is considered that on this occasion it will be of greater assistance and guidance to School Managers, Head Teachers and Assistant Teachers alike, if the report contains some of the particular remarks made by Inspectors. It is not, however, proposed to set out details for each county this year, but to deal only with the county of Demerara. The remaining counties, Berbice and Essequebo, will be considered in the report for 1935.
2. It is the policy of the Department to inspect fully-aided schools throughout the Colony at least once a year, and where possible and convenient twice a year. Regulation 80 Schools, on account of their geographical position, are usually inspected once every two jears. Unfortunately it has not been possible for some time to adhere strictly to the programme, owing to the number and variety of duties which devolve upon the limited staff of the Department.
3. As far as possible districts have been allotted to particular Inspectors, so as to allow one Inspector an opportunity to estimate the progress of a whole area Instances however have occurred where it has been necessary to share this work between two Inspectors in order to secure efficient working and saving in travelling expenses.
4. Of the 233 primary schools under the control of the Department, 178 are fully aided 53 receive grants under the terms of Regulation 80 and 2 are maintained from the Aboriginal Indian Fund. Of these, 151 fully-aided and 19 Regulation 80 Schools were inspected during the year. Through unforeseen circumstances it has sometimes been found necessary to cancel proposed tours, especially to schools in
remote places, the inspection of which necessitates spending a considerable time in travelling.
5. Apart from the nctual inspections frequent visits have been made to schools in the districts where officers happened to be travelling on special duty. During the year approximately 400 such visits were paid, principally to schools in Georgetown, the East Coast, the West Bank and West Coast Demerara. These visits afford an opportunity for Inspectors to keep in close touch with Head I'eachers and their stafts, and thus provide what is so essential, a direct and frequent contact between schools and members of the Department. We have not yet reached the ideal in this respect and are not likely to do so until each county has its own full time County Inspector, who will be in a position to pay periodic visits to schools after the annual inspection, and to see that suggestions made in regard to organisation, methods, etc., are being given a fair trial. Questions of staffing, casual leave, enquiries into complaints and many other matters of rainor importance could also be dealt with by the County Inspector on the spot, who would thus become of great assistance to all the teachers in his district.

## (a)-County of Demerara.

6. (i) Of the 26 schools in Georgetown all were inspected during the first balf of the year. The reports on the whole show a decided step forward in regard to general efficiency and the general standard of conduct, and in many instances a. willingness on the part of the Head Teachers and their staffs to co-operate with the Department to ensure further progress and advancement in their schools. It must be recognised that the schools of Georgetown are on the whole better staffed than the schools in country districts, and a higher standard of attainment is therefore expected from them.

Among the schools in Georgetown the most notable advance has been made at Kingston Methodist School, where the report includes the following passage :-

The discipline and organisation of this school are excellent; the Head Teacher has already brought about a distinct improvement in the quality of the work, and the general atmosphere of the school is one of industry and application.

Christ Church C. of E.-The tests given in the three R's proluced good results, especially in the Preparatory. Lower and Middle Divisions.

St. Thomas's C. of S.-The Upper Division (b) is a gcod class and shows that the Head Teacher is making the best of the material at his disposal. B sth Arpithmetic and Oomposition were fairly good.

Main Street R. C.-The discipline and organisation are sxcellent, and, with the exception of the usual individual variations, the quality of the work of the children was well above the normal standard attained in the majority of the schools in the Colony.

Ursuline Convent R.C.-Composition is very good in the Upper Division, but more continuous narrative is needed in the Preparatory and Lower Divisions. Arithuetic is good especially in th.e Upper Divisions.

Bourda $\boldsymbol{R}$. C.-The organisation is very satisfactory and the discipline is good. Reading, Writing and Arithmetic were very well done throughout the school.

St. George's C. of E.-The discipline has improved considerably, and the general efficiency is very fair. Arithmetic was fair and Composition shows a good deal of promise. The weakness in this school lies in the Middle and Upper Divisions.

Bedford Meth.-The general efficiency is uneven.
St. Leonard's C. of $E$. -The general efficiency has improved since the last inspection. The tests in Arithmetic were fairly well done.

St. Andrew's C. of S.-The general tone and discipline of this school are excellent. Arithmetic, including siuple problems, and Dictation were well done. The work of the school continues to progress, the result, it would seem, of sound and effective teaching.

St. Mary's R. C. - Reading and Recitation were very good. Composition is also good. These remarks apply to all divisions throughout the school.

Smith Church Cong.-The organisation, discipline and general efficiency are all good. The new infant school is a decided advantage, and has increased the general usefulness of the school considerably. The other classes were examined in the three $R$ 's and secured good results.

Freeburg C. of E.-The discipline is excellent and the organisation good. A thorough inspection of the work in the three K 's in all divisions showed that the general standard attained was very satisfactory.

St. Philip's C. of E.-The discipline of the Upper Division was quite satisfactory, while that of the Middle Division could be much improved. The tests in English and Arithmetic given in the Middle Division (a) were well done by the girls, but the boys were very weak. The general standard of efficiency is variable, but on the whole can be regarded as satisfactory. The new infant school has proved a great help in the organisation of the whole school. Sound work is being done in this part of the school, and good progress has been made.

Werk-en-Rust Meth.-Mental Aritbmetic was well done in the Preparatory and Upper Divisions, and the Written Arithmetic was good.

St. Stephen's C. of S.-The organisation and discipline of the school still continue to be adversely affected by the problems of accommodation, and it is therefore surprising and all the more creditable to both staff and children, to find that the tone and atmosphere of the school are good. The work in all Divisions in Reading. Writing and Arithmetic can be considered generally very satisfactory.

Charlestown $\boldsymbol{R}$. C.-The discipline and general efficiency are very satisfactory. Reading, Writing, Number and Composition are all very good. The English of the Middle and Upper Divisiots is very good, and reflects great credit on the teachers concerned.

St. Barnabas' C. of E.-Whe work in the three R's is claiming most of the attention of the staff during this present term, and some improvement can be recorded at this relatively early stage of the year.

Queenstown $\boldsymbol{R}$. C.-The general efficiency is uneven. Keading and Writing of the Lower School are very fair, while Arithmetic is quite good. 'l'he standard in these subjects in the other divisions is not so satisfactory.

Comenius Mor.-Tests were given in English Composition and Arithmetic to the Upper Division, and the results were good.

St. Sidwell's C. of E. Juñior.-The Reading, Recitation, Composition and Number work are on the whole good.

Lodge Cong.-Reading and Writing are generally weak, while (omposition lacks variety.

Wortmanville $\boldsymbol{R}$. C.-The School is well organised. Reading is good in the Middle Division. Writing throughout is fair. The standard in Arithmetic has fallen off sisce the last inspection.

In January 1934 Government decided to give a Grant-in-Aid to the Nursery School, Albouystown, which is attached to the Dharam Sala under the control of Pundit Ramsaroop Maraj. In March the school was inspected and received a favourable report from the Second Inspector of Schools. A detailed examination of the work in the three R's was undertaken and the general standard attained was good.
(ii) East Coast, Demerara.-26 of the 33 schools in this district were inspected. The standard of efficiency and general instruction attained, especially in regard to the three $R$ 's, has, on the whole, improved, but there is still much room for advancement in all the schools in this area. It is considered that, with a little more effort, many Head Teachers could easily raise the general standard of efficiency so as to earn the award "Good" for " Work."

St. James-the-Less C: of E., Kitty.-The general standard of instruction and efficiency certainly has not fallen below the award given at the last inspection. Extra accommodation has been provided by the raising of the building, and the teachers in the Preparatory Division have an excellent opportunity of introducing modern methods of instrúction now that this divisinn works apart from the others.

Kitty Meth. -The standard of efficiency is uneven ; the greatest weakness being
in the Preparatory Divisinn. The work in the Lower Division and Middle Division (a) was good in the three R 's.

Graliam's Hall Mor.-The standard of efficiency is very uneven, but the Hear Teacher had assumed duty only three months prior to the inspection, and it i anticipated that a general and sound improvement will be found at the nest inspec tion.

Ogle C.M.-The Head Teacher and the staff are working well.
St. Paul's C of E. Plaisance.-The general efficiency of the school could reacl a much higher standard than fair. Upper Division (a) is a very weak class, bu Opper Division (b) did good work in Mental and Written Arithmetic and Composi tion.

Plaisance Meth.-The general efficiency is quite good in spite of the uninspirin, surroundings. Reading and Arithmetic throughout the school were good.

St. John's R.C. Plaisance.-The discipline and organisation are excellent. Th work done in the three R's in all divisions was thorougbly inspected, and the genera standard attained was very satisfactory.

Better Hope C.M.-The general efficiency is hampered by the lack of propet furniture and equipment.

Beterverwagting C. of E.-Divisional organisation should be introduced. Ths work of the Lower Division in the three R's was quite good, but that of the Middl Division did not show the same promise.

La Bonne Intention C. of E.-The work is too variable and lacks uniformity more life is needed in this school.

St. Peter's R.C., Beterverwagting.-With the increased accommodation and thi improvement in the building it is hoped that the general efficiency will reach a muct more uniform standard. There should be more life, inspiration and discipline.

Lusignan C. of E.-The organisation of the school could be improved by a re allocation of the staff.

Non Pareil C. of E.-The organisation is weak and the general efficiency ha: not improved very much since the last inspection.

Golden Grove Meth.--'The school is well organised as regards staff. The Pre paratory and Lower Divisions are now housed in a separate building.

St. Andrew's C. of E., Cove and John.-The general efficiency is satisfactory and the mork in all the classes exhibited steady progress.

Victoria R.C.-The organisation and discipline of this school are quite satis factory.

Hope Estate C. of E.-No real progress has been made. Work in the thre, R's is mediocre. It is hoped that considerable progress will have been made wher this school is next inspected.

Ann's Grove Meth.-The organisation, discipline and general efficiency are vers fair. On the whole the Head Teacher, who has been recently appointed, has madi a good start.

Mahaica Meth.-Tbe organisation, instruction and general efficiency neei much improvement, and in both work and records the school was classified as unsatisfactory.

Ann's Grove R.C.-Th.e geueral at mosphere in this school is too passive. Thert should be more organised games, more Oral Composition, more, in fact, of anj activity that would incite the children to self-expression.

Mahaicony C. of S.-A thorough inspection was carried out in the three R's and Writing and arithmetic reached a satisfactory standard.

Mahaicony Meth.-The general standard reached in the three R's cannot be considered more than fair. The discipline is satisfactory.
(iii) Buxton, Demerara.-All the four schools in this area were inspected.

Buxton Cong.-The examination given in the three R's throughout the school produced good resulte. The concluding remarks of the report read as follows:-"It can safely be said that the Head Teacher and his staff work in a school which is worthy of the traditions of Buxton as an edusatioual centre."

Friendship Meth.-There are some points which require careful attention on the part of the Head Teacher and his staff, particularly in the lower half of the school, but on the whole the work done showed that progress has besn, and still can be, made.

St. Augustine's C. of $E$.-The general standard of work attained in the three main subjects of the curriculum was fair.

St. Anthony's R.O.-The discipline is satisfactory and the instruction and general efficiency very satisfactory.

The four schools enumerated in parayraph (iii), although situated along the East Coast, Demerara, are considered of sufficient importance to be reported on separately.
(iv) East Bank, Demerara.-Nine of the schools in this district wereinspected. The reports indicate only a fair standard of attainment throughout.

Ruimveldt C. of E.-The organisation needs improvement. The work of the school is weakest in the Preparatory and Lower Divisions.

Houston Meth.-The organisation is fair. Members of the staff should visit the Teachers' Training Centre. The work in the three R's is of a very fair standard.

Agricola Meth.-The reading in the Lower Division was refreshingly clear and deliberate. Fair average work has been done both in Arithmetic and English in the exercise books of the Middle Division.

Agricola C. of E.-The work in this school requires improvement in some directions, but is on the whole satisfactory.

Providence C. of E.-The general standard of work is uneven. It is fairly satisfactory up to the Middle Division (a) but falls away in the Middle Division (b) and the Upper Divisions.

Peter's Hall C. of E.-The teacher in charge is conscientious and hard working. The standard of attainment in the three R's although rather uneven, may be considered fair.

Mocha Meth.-The discipline and general tone of the school are excellent. There is a pleasing atmosphere of industry and progress along sound lines. The result is very largely due to the enthusiasm of the Head Teacher and her assistant. The work in the three R's is good throughout the sohool.

Grove C. of $E$.-The instruction and general efficiency are very fair. A more even standard of attainment in the three R's throughout the school should be aimed at.

Grove C. of $E$ (Branch).-The general tone of this school is rather passive. An attempt should be made to introduce more modern methods into the teaching, and it is suggested that the teachers should attend the Teachers' Training Centre for advice in these matters.
(v) West Baink, Demerara.-All schools in this area were inspected.

Vreed-en-Hoop C. of $E$,-Reading is fair in all classes. Writing is good in the Preparatory and Lower Divisions and fair in the other divisions. Arithmetic was weak in the Middle Division (a) while that of the Middle Division (b) and the Upper Division was good.

Malgre Tout R.C.-As a result of the tests given and inspection of daily exercise books the Preparatory and Lower Divisions were found to do fair work; the Middle Division is definitely weak, and the Upper Division, which receives the undivided attention of the Head Teacher, is satisfactory.

Goed Fortuin C. of E.-The work on the whole is rather uneven, but that of the Middle and Upper Divisions is satisfactory. A general improvement has been noticed in the results of the annual examination held in July.

Bethel Cong.-The instruction and general efficiency are fair. The Head Teacher appears to be endeavouring to raise the standard of work throughout.

Noitgedacht C.M.-The general efficiency is very fair and a general improvement has been shown since the last inspection.

Mindenburg C. of E.-The discipline was good, and instruction and general efficiency have improved since the last inspection. Writing in the Preparatory Division was good. Mental Arithmetic was well done in the Middle Division. Nismes Meth.-The general efficiency is fair. The work in the Preparatory,

Lower and Middle (a) Divisions can be regarded as very fair, bat the work in the Middle Division (b) and the Upper Division is very poor.

La Retraite C. of S.-The erganisation of this school has much improved. Reading has improved. Handwriting is generally fair, and arithmetic, except in Lower Division (b), is fair.

Wales C.M.-The general atmosphere of this school is far too passive. The work in general lacks character in the Preparatory Division. Writing and Arithmetic in the Lower and Middle Divisions are fair, and the written work of the Upper Division is very poor. It would appear that the pupils are left to their own devices far more than is advisable. The teachers should avail themselves of the opportunity now afforded them by the Department of visiting the Teachers' Training Centre and the Government School, Georgetown.

Potosi Con.-The general discipline is good, and the general efficiency very fair. Reading is fluent. Straightforward Arithmetic is well done.
(vi) Demerara River-Two schools were inspected.

Uitkomst C.M.-The organisation may be considered quite satisfactory considering the present conditions under which the staff is working, especially in respect of the shortage of suitable furniture. Writing and English were very fair. Arithmetic has been carefully taught, and the results of the tests given were good. A striking feature of the school curriculum was Nature Study. In this subject diaries are kept by the senior pupils, and their observations are carefully recorded on birds and plants.

Christianburg C. of $S$.-The organisation is good, and the discipline is distinctly good. In the three R's the standard attained is generally very satisfactory. The School Records were in order and extremely well kept. Very good work is being done in the school garden where some 40 boys are engaged in growing vegetables. They have made and erected an excellent fencing round the garden.
(vii) West Coast, Demerara.-Ten schools were inspected.

Windsor Forest C. of E.-At the time of inspection there was a very poor attendance, only 90 out of 231 . The tests given in the three R's produced fair results.

Blankenburg C. of E.-The results would be very satisfactory if the Notes of Lessons and Teachers' Journals received more careful supervision. In many instances Reading and Writing were good, and Arithmetic, written and mental, was good in the Upper Division.

Blankenburg Cong.-The Head Teacher has been able to secure a number of excellent coutinuous readers. This has done much to increase the general knowledge of the pupils. The sohool library has also assisted considerably in this direction. Sound work is being done in the three R's. The school still continues to do good work and the Head Teacher has several fresh schemes for further improving the general efficiency of the school. Special mention must be made of the Bookbinding which reaches a very high standard.

Anna Catherina C. of $\boldsymbol{E}$.-The discipline was good. Instruction in the three R's reaches a fair standard. The results of tests given were in many instances disappointing.

Anna Catherina C. of S.—The organisation cannot be satisfactory with the inadequate accommodation and furniture. The general standard of work attained is fair.

Stewartville Cong.-The organisation has improved since the last inspection. The tests given in the three R's produced good results. The school garden is a special feature of the school, and the results have been good.

De Willem C. of E.-The organisation is fair. The only improvement noted in the general efficiency was in the English of the Upper Division. The standard attained throughout is only fair.

PPhiladelphia C. of S. -The organisation is fair and the discipline very fair. The general standard of work was unequal, varying from weak to very fair.

Parika C. of E.-The school is fairly well organised, but the discipline is weak, This reacts on the standard of work attained, which can only be classified as fair.

Hyde Park Cong.-The school is now worked on a divisional organisation, which is a decided improvement. The general efficiency is fair on the whole. The six children in the Upper Division did good work in English and Arithmetic, but the work in the other divisions was uneven,

## (b) County of Berbice.

Of the 44 schools in this County 40 were inspected. As indicated in the early. part of this report it is not intended to deal in detail with the reports submitted. The standard of work has certainly improved, for 25 per cent. of the schools inspected secured "Good" or "Very Good" in the award given under (a) work. This advance has obviously been brought about by the increased interest which teachers bave shown in School Records. Under this heading no fewer than 24 schools out of the 40 inspected secured the award "Good" or "Very Good." This is very gratifying, for it must follow that once teachers take a keener interest in the preparation of their work a corresponding effect will be noticeable in the standard of work attained by the pupils. This general improvement was particularly noticed in the schools in New Amsterdam, and seems to be largely the result of the discussions which were held with the school staffs after every inspection. Certain schools in Berbice bave alivays been outstanding in their general efficiency and organisation. These schools have maintained, and in some instances have improved their position. In this connection special reference to Cumberland Mathodist School must again be made. The Head Teacher and staff of this school are to be congratulated on the good standard of work which has been attained. The report given at the last inspection states:-"The organisation still continues to be very good. The discipline is excellent and a high standard of efficiency is maintained. The general tone and atmosphere of the whole school indicate what can be achieved by a staff who evidently take the fullest interest in their work. Written work throughout reaches a very creditable standard. Intelligent answers were given in Arithmetic. The Head Teacher and the staff are to be congratulated on the standard of work which is being done."

Considerable improvement has also been observed in the following schools:New Amsterdam Church of Scotland; New Amsterdam Roman Uatholic (Boys); New Amsterdam Congregational ; and New Amsterdam Church of England.

The general trend of the reports in connection with the other schools indicates that Head Teachers have endeavoured, usually with success, to act upon the suggestions put forward at previous inspections. It is hoped that these schools will continue to make the satisfactory progress which they have begun.

## (c) County of Essequebo (including Leguan and Wakenaam), Pomeroon and the North West District.

There are 38 schools in the County of Essequebo, and of these, 28 were inspected. From the reports submitted it would appear that the general standard of work has not progressed to the same extent as in the other counties. On the other hand, considerable improvement has been seen in the keeping of School Records. Here 13 schools out of 28 secured the award "Good." In regard to work, 2 schools-Wakapoa Church of England in the Pomeroon, and Santa Rosa Roman Catholic in the Moruca. River-were awarded "Very Good," and 4 schools received "Good." Such a wards are considered very creditable for schools in such remote areas, for in most instances these schools are not yet able to receive as much attention from the Department as can readily be given to those in other parts of the Colony. In spite of the less frequent visits to these districts a fairly satisfactory standard of efficiency has been waintained, and in some instances there has been marked progress, but in a large number more effort could have been made and a higher standard of work attained.

It is pleasing to record that the late students of the Feachers' Training Centre, who have been appointed to schools in these districts, are giving a good account of themselves, and that generally Head Teachers welcome their services and are able to report very favourably on their work and conduct. It cannot be too strongly
stressed that teachers should avail themselves of every opportunity afforded them by the Departmental library, and of the advice which can be secured by visits to the Teachers' Training Centre, wheuever they are in Georgetown. This applies particularly to teachers of the Preparatory and Lower Divisions, for it is in these divisions that the foundation of Primary Education is laid. If the instruction given in these divisions is sound, then teachers in the Middle and Upper Divisions have something firm to build upon.
(d) begulation 80 sohools.

There are 52 Regulation 80 schools in the Colony and these are dispersed throughout the length and breadth of the three Counties. The majority of them are situated in what are termed "river" or "remote" districts, i.e., those on the banks of the Demerara, Mahaica, Mahaicony, Berbice, Corentyne, Essequebo, Mazaruni, Potaro, Rupununi and Pomeroon Rivers, and those in the North West District.

On account of their situation it is the policy of the Department to inspect these schools, on an average, once in two years. During 1934, 19 of these schools were inspected. Owing to the impossibility of regular and systematic inspection, the standard of general efficiency is found to be lower that elsewhere. Nevertheless there are a few which have secured high awards under (a) Work and (b) School Records. The Head Teachers of suoh schools are to be congratulated on this achievement, for the credit is almost entirely due to their individual efforts. Schools of this nature require initiative, resourcefulness, and above all, a very keen interest in the work on the part of those in charge of them. The question of staffing frequently presents considorable difficulty to the Governing Bodies and the Department when a racancy occurs, as it is usually found necessary to ondeavour to obtain a teacher from some distance away. To overcome this difficulty it is very important that Governing Bodies should encourage their teachers to serve in these districts even for limited periods. If practised for a number of years, this arrangement would have far reaching effects on the efficiency of the schools.

## (b) physioal welfare.

(i) Furniture and Equipment.-Satisfactory progress has been made in a number of schools in regard to the supply of furniture and equipment. Many schools have been supplied with up-to-date desks and benches made by the youths attending the Trades Centre, Kingston. Still the demand for more writing and seating accommodation exists in many schools, and it will be some time yet before the Department, Governing Bodies and School Managers are in a position to supply adequate equipment to every school.
(ii) Dental Treatment.-The scheme for systematic dental treatment for Primary School children in Georgetown, which was started in June 1933, was continued throughout 1934. This has proved a great benefit to children suffering from dental trouble, and many defects have been corrected in their early stages.

A total of 914 pupils received treatment during the year, an increase of 380 over 1933. The reports submitted by the Dental Surgeons show that care has been exercised by the Head Teachers to see that pupils attend regularly and the scheme has worked smoothly. It is to be hoped that it will soon be possible to extend this scheme to other important areas outside Georgetown.
(iii) Medical Inspection.-During the year 34 schools were visited by the Assistant Government Medical Officer of Healtb, Dr. E. Cochrane, In some instances a medical examination of all the pupils was carried out, but generally speaking Dr. Cochrane's activities were connected with an inspection of the school premises including latrines, and the provision of proper drinking water. Some schools were visited during the school holidays so that only outhouses and surroundings were noted. Dr. Cochrane reports as follows: "The usual defects of overcrowding, poor drinking water supply, etc., were apparent in all. Wherever I went I found teachers very helpful, very anxious to get information on sanitary problems, and in the majority of cases latrines were kept ressonably clean, and the ground around was free from litter and rubbish." His visits were contined
chiefly to areas in which he happened to be carrying out his usual duties-East Coast Demerara, West Bank Demerara, and most of the larger schools in the

> (c) sohool aardens.

The school gardens which were established in six selected schools throughont the colony still continue to show sound progress. The schools are as follows:Auchlyne Church of Scotland School. Edinburgh
Friendship Mëthodist School.
Stewartville Congregational School.
St. John's Church of England School.
Sans Souci Methodist School.
Keen interest has been shown by the Head Teachers and the pupils alike. The reports submitted by the officers of the Agricultural Department, who have been responsible for the lay-out of these gardens, and under whose guidance and general supervision they have been maintained, indicate that very satisfactory work has been done and sound progress has been made. In a recent competition, Friendship Methodist School, East Coast Demerara, and Stewartville Congregational School, West Coast Demerara, secured first and second places respectively, whils Wortmanville Roman Catholic School, Georgetown, was awarded a special prize for schools not in receipt of a grant under this scheme. Work in these gardens takes up much of the spare time of the Head Teachers and the pupils who work in them. This has willingly been given, and the success achieved has, in most cases, more than compensated them for their efforts. The Department wishes to express its appreciation of the keen interest taken and the valuable assistance given by the officers of the Department of Agriculture.

## (D) sohools in remote and sparsely populated areas.

1. There are 57 schools in the Colony situated in remote and sparsely populated areas. If those on the islands and at the mouth of the Essequibo River, as well as the two schools receiving special grants for Aboriginal Indian education are added, the total number is 76.
2. In these 76 schools there are 4,929 children, with an average attendance of 3,308 , or $67 \%$ of the enrolment. Owing to the cost of transport, the supervision of these schools is very difficult. The Department endeavours to pay annual visits to all the fully aided schools in these areas, and those receiving smaller grants under Regulation 80 of the Code are visited at least every two years.
3. At the eastern extremity of the coastland, is the Orealla Church of England School, sixty miles up the Corentyne River, which separates this Colony from Dutch Guiana. Situated one hundred and twenty miles up the Berbice River is the Calcuni Congregational School. Fifty miles up the Mahaica is the Church of England Aboriginal Indian School-St: Cuthbert's. There are many schools along the banks of the Demerara River, the most remote being Mallali Church of England School, about 100 miles from the mouth, Fifty miles up the Essequibo River is Bartica Church of England School, which has an enrollment of 331 children. On the Pomeroon Piver there are 11 schools, not only on the banks of the main stream, but also on the creeks which are tributaries of this river. On the black waters which gave the Moruca its name we have the Church of England Warrau Indian Mission and the beautitul Roman Catholic Mission of Santa Rosa, where the pupils are of mixed Indian and Spanish blood. In the North West District which touches the Venezuelan frontier, there are 10 schools on six different rivers and creeks.
4. Far in the interior is Tumatumari School, and about 200 miles from the coast and on the Brazilian border there are the Eupakari Church of England School, and the St. Ignatius Roman Catholic School. These schools are very useful, for
they are all either in Aboriginal Indian reservations or in districts where there is a floating population of gold and diamond seekers or woodcutters.
5. On the whole the attendance is satisfactory, for on the rivers many children live far away from school, and frail cances, known as corials, are their only means of conveyance.
(D) REMOTE sChools-statistics.
(a) Fully Aided Schools.

District.

| Corentyne River |  |
| :--- | :---: |
| Berbice River | $\ldots$ |
| Demerara River | $\ldots$ |
| Pomeroon River | $\ldots$ |
| Essequibo River and Islands |  |
| North West District | $\ldots$ |

(b) Regulation 80 Schools.

| District. |  | No. of Schools. | Roll, | Average |
| :---: | :---: | :---: | :---: | :---: |
| Corentyne River ... | ... | 1 | 93 | 56 |
| Canje Creek | ... | 1 | 73 | 31 |
| Berbice River | ... | 8 | 250 | 170 |
| Mahaicony River | ... | 1 | 27 | 25 |
| Mahaica River | ... | 2 | 90 | 58 |
| Demerara River | ... | 10 | 377 | 232 |
| Essequibo River and Islands | - | 9 | 500 | 333 |
| Mazaruni River ... | ... | 2 | 42 | 35 |
| Potaro River | ... | 1 | 17 | 11 |
| Pomeroon River | ... | 2 | 117 | 67 |
| Iteribisci Creek | ... | 1 | 13 | 12 |
| North West District | ... | 7 | 209 | 123 |
| Rupununi District | ... | 2 | 63 | 41 |
| Regulation 80 Schools | ... | 47 | 1,871 | 1,194 |
| Fully Aided Schools | ... | 29 | 3,058 | 2,114 |
| Total ... | ... | 76 | 4,929 | 3,308 |

(e) primary sohool examinations.

1. The follo wing are the details of the examinations held during 1934.

|  |  | Entered. | Passed. | Percentage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Primary School Certificate | $\ldots$ | 1,071 | 406 | 39 |  |
| Primary School Needlework | $\ldots$ | 587 | 308 | 52 |  |
| Pupil 'Teachers' | Appointment | $\ldots$ | 153 | 53 | 35 |
| " | " | End of I. Year ... | 34 | 34 | 100 |
| $"$ | " | End of II. Year... | 21 | 20 | 95 |
| " | End of III. Year | 3 | 1 | 33 |  |
| " | " | End of IV. Year | 14 | 10 | 71 |
| Government County Scholarship | 250 | 30 | qualified. |  |  |

2. It will be observed that there was a great improvement in the results of the Primary School Certificate Examination in which 39 per cent. of the candidates passed, as against 16 per cent. in the previous year 1933.
3. There are still a number of fully aided schools which each year fail to enter any candidates. While it is not desired that pupils who are obviously below the standard for this examination should be entered, it is unsatisfactory to find certain schools year after year failing to enter even one candidate.
4. As the supply of teachers for remote country schools is a matter of great importance and still presents some difficulty, Head Teachers should endeavour to prepare pupils for this examination, which is the qualifying examination for entry to the Pupil Teachers' Appointment Examination. By this means they will have a supply of pupil teachers who will eventually qualify as teachers for these remote schools.
5. The results of the Pupil Teachers' Examinations were very satisfactory on the whole, especially the results for the End of First Year where every candidate passed the examination.
(F) SCHOOL ATTENDANCE.

During the school year ending 31st August, 1934, there were on the list of aided schools 178 fully aided schools, and 53 schools receiving grants ander Regulation 80. The enrolment in fully aided schools was 45,231 as against 44,110 the previous year, showing an increase of 1,121. The percentage of attendance of the total number of pupils on the roll of fully aided schools was 70.0 for the year.

The following table gives a comparison of the corresponding figures of attendance during the last three years :-

|  | Year. | Oertificates Ifsued. | Prizes. | Special Prizes. | Percentage of Attendance, |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | ... | 1,306 | 197 | 115 | 67 |
| 1932 | ** | 963 | 220 | 72 | 67.8 |
| 1933 | $\cdots$ | 2,519 | 191 | 105 | 68.5 |
| 1934 | $\cdots$ | 1,947 | 193 | 133 | 70.0 |

The following school attendance flags were won in respect of the period 1st September, 1933 to 31st August, 1934.

| Names of Donor. | District. | Sohool. |  | Attendance Percentage. | Last Holder. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| His Excelleney Sir Graeme Thomson.. | The Colony | Zeelandia E. |  | 84.4 | Great Troolie Is, |
| E. M. Walcott, Esq. | Demerara (except | Baxton 0. |  | 82.0 | St. John'a R.C. |
| J, E. Strickland, Eeq. | Heorgevown | Andrew's |  | 82.7 | Government Sohool |
| J. A. Luokhoo, Esq., K.C. | South East Essequebo | dia | -* | 84 | Zeelandia E. |
| Dr. P, M. Earle | Fast Bank, Demerara | Grove E. |  | 68.0 | Mocha Meth. |
| Beterverwagting and Triumph Village Council. | Beterverwagting and Triumph | Beterverwagting O, of E. | - | 76.7 | Beterverwagting $\mathrm{Ca}_{4}$ |
| Plaieance and Sparendaam Viliage | Sparendaam | St. Paul'a C. of E. |  | 78.0 | St. John's R.C |
| T. P. Jaundoo; Eeq. | West Cozat, Borbice | Hopetown C. |  | 73.6 | Hopetown |
| A. O. Broughton. Esq. | New Amsterdam | N/A Boys R.O. |  | 72.4 | N/A. Boys R.C. |
| Manoel Vieira, Esq. | Frierds, Berbice River.. | Mare C, of S. |  | 75.0 | Providence C. |
| Hon. A. V. Orane, L.L.B. | Weet Bank, Demerara.. | Mangre Tout R.C. |  | 74.0 | Noitgedacht C.M. |
| Hon. Dr. J. B. Singh | Weat Cuast, Demerara... | Blankenbarg $\mathbf{C}$. |  | 76.0 | Anne Catherina E. |

In the last annual report it was stated that some advance had been made in regard to attendance; from the above table it can be seen that once again further advance has been made, the percentage this year being 70\%, the third time this figure has been reached.

Although it is gratifying to record this improvement, the Department is not yet satisfied. Parents and pupils still look upon Mondays and Fridays as days on which attendance does not matter; the Department is of the opinion that if the attendance on those days could reach the average attendance on the other days the percentage would be at least 75\% without much greater effort.

It is also suggested that all Head Teachers and Assistant Teachers should regard themselves in the light of attendance officers, and endeavour to improve the attendance of their own schools. This can be done in each school by dividing up the school into separate areas and assigning each area to individual teachers. The school could arrange a teacher's competition for the best joar's percentage of attendance in the school area.

The standard of punctuality still leaves much to be desired. This can be easily seen by the numbers of children arriving after assembly although perhaps
in time to have their names marked present. It is a bad advertisement for any school in the Colony for its pupils to be still on their way to school long after school has commenced. It is regrettable, however, that many Head Teachers pay little regard to this unpunctuality so long as they are able to record the child as present.

The Department suggests to the British Guiana Teachers' Association that they make this subject of unpunctuality one of the principal subjects for discussion during the next year's programme.

## Chaptir III.-Segondaby Edioatton.

(a) AIDED SECONDARY SChools.

## (i) The Bishop's High School for Girls.

1. Staff and Organisation.-In April Miss B. M. Jackson left after 23 years' service, and Miss J. E. Girling, B.A. (Lond.) joined the staff as Geography Mistress. In July Miss P. E. Elmes and Miss M. B. Jackson, B.A., (Leeds) left, and inSeptember Miss W. J. Key, B.A., (Lond.) arrived to be English and Languages Mistress. Mrs. Pollard, B.A., (Lond.) joined the staff temporarily in January, and has taught Latin throughout the year. Mrs. Franker assisted with Mathematics during the Christmas term. A new form, VI A, was organised during the year for pupils preparing for the British Guiana Scholarship Examination.
2. Number on the Roll.-The number of girls on the roll for each of the three terms was as follows:-

| Lent term | $\ldots$ | $\ldots$. | 118 |
| :--- | :--- | :--- | :--- |
| Summer term | $\ldots$ | $\ldots$. | 119 |
| Christmas term | $\ldots$ | $\ldots$. | 126 |

Ten Government scholars, three Blair scholars, five Mitchell Foundationers and three Free Place Pupils were on the Roll at the end of the jear.
3. Attendance.-Throughout the year attendance maintained a high level :-

| Lent term | $\ldots$. | $\ldots .$. | $\mathbf{9 6 . 7 \%}$ |
| :--- | :---: | :---: | :---: |
| Summer term | $\ldots$ | $\ldots .6$ | $95.6 \%$ |
| Christmas term | $\ldots$ | $\ldots$. | $95.5 \%$ |

4. Examination.-Sixteen girls took the Cambridge School Certificate Examination in July, and nine passed, three gaining First Class Certificates and Exemption from the London Matriculation Examination, and one gaining a Second Class Certificate. Twenty girls took the Cambridge Junior Examination, and thirteen passed.

In the Pianoforte Examinations of the Associated Board of the Royal Schools of Music, four pupils passed the Preliminary Grade, one the Elementary and one the Lower. Each gained either Distioction standard or Honourable Mention. One girl who took the Trinity College Intermediate Examination passed with Honours.
5. Miscellaneous: Games.-The Annual Sports were held in November, and Victoria Houee again won the Shield. Mary Hoase gained an eassy victory in the Tennis Match, but Victoria House won a keenly contested Netball Match. Cricket was played during the Christmas Term, the House match being postponed till the following term.

Dramatic Club.-This continues to flourisb, and a concert was given in December. $\$ 43.84$ was raised for the Children of the Leper Hospital.

Guides.-The School Company, (5th Georgetown) under Miss C. de Freitas, now consists of three patrols, and numbers twenty-four Guides and recruits. All show great keenness and the tone of the Company is good.

Lectures.-Miss B. B. Briant, Principal of the Carnegie Trade Centre kindly gave a lecture on "Food Supplies." Mr. I. M. E. Aitken kindly lectured on "The Water Supply and Sewerage System of Georgetown," and Dr. E. Cochrane on
"Mosquitoes." The representative of Singer's Sewing Machine Co., also gave a demonstration to the senior girls.

Parents' Afternoon.-On July 26th all parents were invited to the school to see as much as possible of the school activities, and to meet the staff.

Old Girls' Guild.-Eleren meetings were held daring the year, when members enjoyed lectures, debates, indoor and outdoor games, and dramatic entertainuents. Activities for 1934 closed with a most enjogable Christmas Party. There are forty members, and we hope that many more old pupils will join the Guild.
(ii) The Berbice High Schools for Boys and Girls. Boys' School.
6. Organisation and Staff.-The Boys' School and the Girls' School are organised separately for purposes of internal administration but in many subjects the correspondiug forms of the two schools are taught together. Mr. B. O. Yisin Das, B.A. (McGill) continues to act as Headmaster. The Rev. R. J. Smith, B.A. (McGill) joined the staff as Visiting Tutor in Religious Knowledge. Mr. G. J. Gillespie, Agricultural Superintendent, has taken charge of the school garden. Mr. J. C. Chandisingh and Mr. J. J. Niles (Assistant Masters) attended the classes for purposes of collating and co-ordinating the practical and theoretical courses. A new Upper form-Form VIA.-was organised during the year. Papils in this form are being prepared for the Guiana Scholarship Examination.
7. Number on roll.-The number of pupils on the roll for the three terms were as follows:-

$$
\begin{array}{lll}
\text { Spring term ... } & \ldots & 67 \\
\text { Summer term... } & \ldots & 63 \\
\text { Autumn term... } & \ldots . & 58
\end{array}
$$

At the end of the year there were nine Government scholars and four Free Place scholars.
8. Attendance.-The following are the figures for the three terms :-

| Spring term $\ldots$ | $\ldots$. | $90.7 \%$ |
| :--- | :--- | ---: |
| Summer, term $\ldots$ | $\ldots$ | $93 \%$ |
| Autuman term $\ldots$ | $\ldots$. | 92 |

9. Examinations.-Nine candidates were entered for the Cambridge Junior Examination, and seven passed. Nine entered for the Cambridge School Certificate Examination, and eight passed. 'Two of these latter gained exemption from the London Matriculation Examination. These results were very satisfactory.
10. Miscellaneous.-In order that the standard of cricket in the school might be improved, the Ferreira Cricket Cup Competition was organised early in the year. The firm F. G. Ferreira, Ltd., generously presented the cup. The Providence Cricket Club won the cup with 18 points, Vorburg Cricket Club were second with 13 points, and this school came third with 10 points. Inter-House matches were regularly played, and Pugsley House emerged winners. In football several friendly inter-house matches were played. The annual sports were held on Easter Monday. Mr. A.C. Broughton, Mayor of New Amsterdam, distributed the prizes. Pugsley House won the House Championship. An athletic shield was presented for competition between the two Honses, and Pugsley House was successful. Regular meetings of the Literary and Debating, the Historical and the Scientific. Societies, were held throughout the year. The speakers included Drs. F. T. Wills and J. A. Nicholson, the Revs. R. J. Smith, B.A., H. W. Grant, M. A. Cossou, and P. Matthews, Mr. H. MacLuskie, and Mrs. Ruby MacGregor, A.T.C.L, L.R.S.M. During the year the school was visited by Lady Davson, and Mr. E. O. Pilgrim, B.Sc., of Queen's College. The old boys' association was revived and is holding regular fortnightly meetings. The annual Prize-giving and Speech Day was held on May 7th. There was a large and representative gathering. The Director of Education presided and presented the prizes.

Girls' School.
11. Staff-No changes in the staff were made during the year.
12. Number on roll.-The number of pupils on the roll for each of the three terms was as follows:-

| Spring Term | $\ldots$ |  | $\ldots$ | 40 |
| :--- | :---: | :---: | :---: | :---: |
| Summer Term | $\ldots$ | $\ldots$ | 35 |  |
| Autumn Term | $\ldots$ | $\ldots$ | 33 |  |

Seven Government County scholars and three Canadian Mission scholars wore on the roll during the year.
13. Attendance.-The average attendance for the three terms was as follows :-

Spring Term
$\begin{array}{lll}. . . & . . & 89.2 \% \\ \cdots . . & \ldots . & 96.2 \% \\ . . . & \ldots & 94 \%\end{array}$
Summer Term
Autumn
14. Examinations.-The two pupils for the School Certificate were both successful, and of the six pupils entered for the Cambridge Jubior, five were successful. Two pupils were ontered for Division I, two for Division II, one for Division III Grammar of Music, and one for the Intermediate Practical Examination of the Associated Board of the Royal Schools of Music, and all passed. These results were very satisfactory.
15. Miscellaneous.-A concert given by the pupils for the purpose of raising funds to provide atbletic equipment was beld in the 'lown Hall, and with the proceeds of this, cricket bas been started for the girls. The apparatus of the Physical Culture Class was also increased. A Literary and Debating Society was organised at the beginning of the year.
(b) secondart schools not in réolipt of grants.
16. The following schools in Georgetown also provide secondary education and prepare candidates for the examinations of the Cambridge Local Syndicate:-

St. Stanislaus' College (Boys).
Ursuline Convent (Girls).
Convent of Mercy (Girls).
Modern High Sobool (Boys and Girls).
Central High School (Boys and Girls).
The total number of pupils known to be receiving secondary education in the Colony is 832 boys and 672 girls.
(c) scholahships.
17. During 1934 the following scholarships were awarded :-
(1) British Guiana Scholarship-

No examination. Two Scholarships will be awarded in 1935.
(2) Government Junior Scholarship-
F. R. Jacob
(3) Mitchell Foundations-
G. E. I Luck
Dorothy E. Romato
C. O. Fung-Kee-Fung
(4) Blair ScholarshipViolet M. Bourne
(5) Government County Scholarships-
... Queen's College.
... Queen's College.
... Bishop's High School.
... Central High School.
.:. St. Stephen's Sohool.

Demerara-
Boys-3 Scholarships available-3 awarded.

Neville Franker
Leonard Westmaas
James Eytle
Girls-2 Scholarships available-2 a warded. Wanda Man Son Hing Etsa Pollard
... Cbrist Church.
... Government School (1)
... Government School (2)
... Government School (3)
.... Buxton C.

Ber:bice-
Boys-2 Scholarships available-2 awarded.
Carl DaSilva
Francis Hilary Roja $\quad . .$. New Amsterdam Boys' R. $\mathbf{O}_{6}$
Girls-2 scholarships available-1 awarded. Georgina Eector
... New Amsterdam Boys' R.C.
...Edinburgh S.
One remaining scholarship was awarded to the boy next in order of merit under the terms of Regulation 9 :-

Clifton Low-a-Chee . ...Cumberland Meth.
Essequebo-
Boys-2 scholarships available-1 awarded.
Horace Cholmondeley
... Beterverwagting $\mathbf{E}$.
Girls-1 scholarship available-none awarded.
Two remaining scholarships were awarded in order of merit under the terms of Regulation 9:-

Arthur Greene ...Cbrist Church.
George Bancrott
....Government School (4).
The following candidates also qualified ;-
Demerara-
Boys
Leslie Drayton
Orid Johnson
Jocelyn Manson Hing
Ewart Isaacs
Linden Burnham
Stanley Allsopp
Neville London-Williams
Basil Phillips
Robert Baird
Girls
Elsie Jaikaran
Valerie Chan Choong
Sheila King
Doreen Rodrigues
Eugene Dolphin
Berbice-
Denis Da Silva ...New Amsterdam Boys' R.C.
Eustace Fraser
Stanley Too Kong
George Alleyne
... Rose" Hall S."
...Cumberland Methodist.
(1) Transferred from St. Mary's Roman Catholic School on 29th January, 1934.
(2) 'Transferred from St. Philip's Church of England School on 5th Septem. ber, 1932.
(3) Transferred from Nt. Philip's Church of England School on 17th Jahuary 1933.
(4) Transferred from Aurora Church of Scotland School on 31st October, 1932.
18. The following table shows the number of scholarships held on 31st December, 1934, and the schools at which they are tenable :-

| $\therefore$ Schoole | Government County Soholars. | Government Junior Scholars. | Mitohell Foundationers. | Blair Echolars. | Centenary Exhibitioners. | Free Place. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Queen's Colloge <br> Bishop's Eigh Sohool <br> Oonvent of Meroy <br> Barbice Bigh Sohool for Boys <br> Berbice High Sohool for Girls <br> St. Stanialaus' College <br> St. Jomeph'a Intermediate Sohool | 20 | 3 | 8 | 2 | 8 |  | 41 |
|  | 9 | 1 |  | 2 | ... | 3 |  |
|  | 1 | ... | 1 | \% | ... |  | 2 |
|  | 6 | ... | ... | $\ldots$ | ... | 4 | 10 |
|  | 7 | $\cdots$ | $\ldots$ | $\cdots$ | $\because$ | 3 | 10 |
|  | 4 | 1 | ... | $\ldots$ | 1 | -.. | ${ }^{6}$ |
|  |  | $\cdots$ | ... | ... | ... | ... | 1 |
| Totals ... | 49 | 5 | 14 | 4 | 9 | 10 | 90 |

(d) Examinations.
19. The following table shows the number of entries by all the schools in the Colony, and passes in the examinations named :-

## Oxford and Cambridgr Sohools Examination Board.

|  |  |  | No. Entries | No. Passes. |
| :--- | :--- | :--- | :---: | :---: |
| School Certificate | $\ldots$ | $\ldots$ | 28 | 14 |
| Lower Certificate | $\ldots$ | $\ldots$ | 29 | 16 |

## Cambridae Looal Examinations Syndioate.

|  |  |  | No. Entries | No. Passes. |
| :--- | :--- | :--- | :---: | :---: |
| School Certificate | $\ldots$ | $\ldots$ | 87 | 38 |
| Junior | $\ldots$. | $\ldots$ | 266 | 122 |

20. In addition to the examinations mentioned above, the Department conducted the following examinations on behalf of bodies outside the Uolony :-
(1) Matriculation Examination of the University of London.

January, 1934-10 candidates cntered.
June, 1934-17 candidates entered.
(2) Intermediate Arts Examination of the University of London-4 candidates entered.
(3) Intermediate Science Examination of the University of London-1 candidate entered.
(4) London Association of Accountants (Intermediate).-2 candidates entered.
London Association of Accountants (Final).-1 candidate entered.
(5) London Chamber of Commerce (Commercial Certificate).-12 candidates entered.
(6) London Chanber of Commerce (Higher Commercial Certificate).-4 candidates entered.
(7) City and Guilds of London Institute-Technological Depertment.3 candidates entered.

Chapter IV-Training of Teachers.
(a) teachers' training centre.

There is one institution for the training of Primary School teachers-the Government Teachers' Trainiug Centre, Georgetown. Thirty students are normally admitted to the Centre every two years on the results of a competitive examination. One third of the cost of their maintenance is met by the students themselves, who are under bond to repay this third by monthly deductions from their salaries after first appointment to schools.
2. The third group of thirty students completed their two vears' course at the Teachers' Training Centre in July, and began work in the schools in Septernber. The following table shows how they have been distributed :-


Twenty-nine of these students were awarded Temporary Certificates as Trained Teachers, and one a Third Class Certificate.
3. An entrance examination was held in April. Nearly 250 candidates competed for the thirty places for the normal two-year course. The following table shows the sources from which the successful candidates were drawn :-

| Schools. | Georgetown. | County <br> of Demerara. | New Amsterdam. | County of Berbice. | County of Essequibo, | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Churoh of England | 2 | 1 | 1 | 2 |  | 6 |
| Chursh of Scotland | $\because$ | 1 |  | 2 | 1 | 4 |
| Roman Catholic | 5 | 1 | 3 | ... | .. | 9 |
| Moravian | 4 | i | ... | ... | $\because$ | 4 |
| Methodist | 1 | 1 | ... | ... | 1 | 3 |
| Congregational | 1 | i | ... | ... | 1 | 2 |
| Canadian Mission | $\cdots$ | 1 | ... | ... | $\ldots$ | 1 |
| Undenominational | 1 | ... | ... | ... | ... | 1 |
| Total | 14 | 5 | 4 | 4 | 3 | 30 |

One candidate who was accepted was afterwards transferred voluntarily to the Special Course for Women Students.
4. Twenty-two men studente went into residence at the Students' Hostel in September, where they live under the immediate supervision of the Resident Tutor: As in the case of the 1952-34 group of women students, the difficulty of providing living quarters for those from the country districts has fortunately been avoided, the present group, with only two exceptions, having their homes in Georgetown. In the absence of a women students' hostel, the lodgings of such students have to be visited and reported upon by the Assistant Mistress. This difficulty will eventually have to be met, however, when greater numbers of women from the country districts gain admission to the Centre, as it is essential that the benefits of corporate life and residential discipline should eventually be extended to the women students. Further, the urgent need for trained women teachers in the country districts has caused difficulties when such appointments have been made from teachers who previously bave lived entirely in the towns.
5. The work of the Centre has been carried on on similar lines to those of previous years. In addition to the course of general education in English language and literature, Mathematies, General Science (which is taken at the laboratories of Queen's College), Hygiene, History, Geography, Music and Drawing, there are also two concurrent courses of lectures on the Principles of Education, (one on the Practice of Teaching and the other on Educational Theory and Elementary Psychology) ; courses of Pbysical Training and Games for men and women students separately, and courses of Educational Handwork, Woodwork (men), and Domestic Science (women). Instruction in Domestic Science has siace September been given at the Carnegie Trade Centre for women instead of at the Domestic Science Centre for Primary Schools as in former years.
6. An important step was taken during the year to enlarge the scope of the Centre. A group of students was admitted in September to a Special (one jear).

Course for Women Teachers who are to be trained more particularly (but not solely) in methods of teaching younger children. A noticeable feature in many schools is the lack of even one good infant teacher, and it is hoped that through the adoption of this plan this defect will in tine be made good. The following table shows the sources from which these students were drawn:-

| 1 Schools. |  | Georget own. | Demerara. | New <br> Amsterdam. | Berbice. | Es equibo. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Churoh of England | - | 1 | 2 | 1 | - | ... | 4 |
| Church of Scotland | .. | 1 | - |  | ... | .. | 1 |
| Romen Oatholic | ... | $\ldots$ | i | 1 | ... | ... | 1 |
| Methodist | ... | ... | 1 | i | ... | ... | 1 |
| Congregational | ... | ... | 1 | 1 | ... | ... | 2 |
| Ounadian Miraion | $\cdots$ | **' | $\cdots$ | - | ... | ... | $\cdots$ |
| Moravian | $\cdots$ | $\because$ | ... | ... | $\cdots$ | ... | $\because$ |
| Total | ... | 5 | 4 | 3 | ** | $\cdots$ | 12 |

7. The students in this special group do a considerable amount of practical teaching in the schools of Georgetown under the direct supervision of the Assistant Mistress. Every morning for three-quarters of each term is to be spent in one or other of the larger schools. Lectures are given in the afternoons.
8. Three of the remaining eleven places are filled by East Indian bursars. The successful candidates for these bursaries were:-

$$
\begin{array}{ll}
\text { Miss Edith Leila } & \text { (Demerara). } \\
\text { Miss Irene Salamalay } & \text { (Georgetown). } \\
\text { Miss Rosaline Khan } & \text { (Berbice). }
\end{array}
$$

Miss Marie Khan, Berbice, was also offered a bursary but was unable to accept it.
9. The usual games were played throughout the year. The present group of students are showing great keenness, and it is hoped that the general standard will be higher than that of preceding groups. Daring the jear there have been the usual literary evenings and debates, and there was a farewell social evening before the departure of the out-going group in July. There was also an end-of-term social evening after the Christmas term.
10. During the last week of August several teachers visited the Centre on the invitation of the Director of Education, and were shown round by the acting Assistant Master and the Assistant Mistress. The Centre also took part in the Exhibition of handwork held in Noveraber.
11. The Education Department Library was transferred to the Centre during August, where it has absorbed the Library at the Centre. The amalgamated library is controlled by the staft.
12. As the Lecture Hall on the upper flat of the Carnegie Library Building was required for other purposes the Centre was removed in November to temporary quarters in Cowan Street, Kingston, in the building adjoining the Students Hostel.

Staff on 31st Deoember, 1934.
Superintendent-Second Inspector of Schools (Mr. R. S. Dacker, M.A.). Assistant Masters-Mr. A. A. Bannister, B.A., Mr. R. C. G. Potter. Assistant Mistress-Miss K. Harris.

## Visiting Staff.

Drawing-Mr. W. Minshall.
Hygiene-Dr. B. V. Wase-Bailey (Government Public Health Department). Music and Speech Training-The Rev. W. Hawley Bryant.
Agriculture-Mr. Fitz Greaves, Agricultural Department, (retired).
Pbysical Training-Warrant Officer W. F. Gunby (B.G. Militia).
Natural Science-Mr. J. H. Bevis, B.Sc. und Mr. C. I. Drayton, Queen's (Jollege.
(b) Gorernment School, Georgetown.-As this school plays an important part in the training of teachers the following account of its activities has been included in this chapter.

1. Enrolment and Average Atteridance. - The present enrolment is 696 . Accommodation and equipment have been provided for 600 pupils. The average attendance usually exceeds 80 per cent. of the enrolment, and on this basis it will be seen that the sohool is already overcrowded. Provision has been made in the 1935 Estimates for additional classrooms.
2. Instruction and Method.-Special attention has been given to Infant School methods. The "Beacon" Reading system is used, which is a combination of the phonic and sentence methods. It has been found that by a judicious use of the blackboard, even at this early stage, the children have been successfully taught most of the words contained in the Introductory Reader, with the result that when the books themselves are used little difficulty is experienced in making rapid progress. The phonic spelling system has been adopted, i.e., the sound of the letters in the words are pronounced and nct the names of letters, thus eliminating a tedious process still far too common in the majority of schools.
3. Other methods of instruction adopted are also in keeping with modern ideas but experiment for experiment's sake is avoided as well as the danger of substituting showy activities for those processes which experience has shown to be more thorough in their effect if less apparently enjoyable.

A careful examination of the written work in all standards confirms this opinion, and also provides ample evidence of the careful work of the staff.
4. Special Activities.-The connection between the school and the outside world is emphasised by the existence of various clubs and institutions.
(a) There is a Breakfast Fund subscribed to by members of the public, from which is met the expense of providing free meals for a number of poor children attending the school.
(b) As in several other schools, thrift is encouraged and the Penny Bank bas 583 subscribers with total deposits of over $\$ 1,200$. It may also be well to mention here that St. Anthony's R. C. School, Friendsibip, has 413 depositors with a total deposit of $\$ 1,020$. There are also other schools where this scheme has proved a great success, and it is hoped that the results attained by them will be-emulated by those schools which up to the present have no Peuny Bank.
(c) There is also a Senior Girls' Club organised by the women members of the staff of this section. The Principal of the Carnegie Trade Centre has interested herself in its activities, and the Head Mistress of the Bishop's High School has kindly. promised to speak to the Club.
(d) Educational visits have been paid during the year to the Blankenburg district, and on one occasion some of the children took part in a concert at the Congregational School there.
5. Health and Hygiene.-Medical inspections, dental treatment, and visits were carried out during the year by Dr. E. Cochrane, Dr. C. M. Walcott, Dr. R. Cochrane, and Mri. H. W. Cameron.

First Aid equipment is kept in the school in case of minor injuries, and in more serious cases children are treated at the Broad Street Dispensary free of charge.
6. Garden.-The very successful efforts that have been made in the garden by buth the staff and pupils alike, have frequently been brought to the notice of the officers of the Department. The beds have beén well planned and neatly kept; the work is arranged on an organised basis that has brought its own results. The most recent improvement has been the demarcation of the paths by laying down a shell surface.
7. A new activity that has been successfully started is the Parents' Association, by which regular contact is maintained between the staff and the pareuts. Through this, common difficulties can be discussed not only between individual parents and members of the staff, but also among the parents themselves.
8. Other methods have been adopted to encourage attendance. Cards àre kept by which a visible record is made available for both parents and pupils. The school is divided into Houses which compete regularly for the Attendance Cup presented by Mrs. W. Bain Gray: Only full attendances count towards the total,
9. Conclusion.-The responsibilities of this echool are many: It should set a standard of what can be done under local conditions; it should be a training ground for teachers; and it should be an institution in which the children in this district may expect to attain normal and uninterrupted progress throughout their school careers. There can be little doubt that this school is fulfilling these functions and has more than justified its existence.

## Chapter V.-Vocational and Pre-Vocational Instrucrion.

(a) the traide centre, kingiton, georgetown.
(i) Day Classes for Youths.

1. The Trade Centre for Youths is still accommodaten at the Immigration Depot, Kingston, Georgetown.

On 1st January, 1934, Mr. G. H. Morrison, who had been in charge of the Centre for two years, was appointed Head Teacher of Kingston Methodist School, Georgetown, and Mr. W. A. Philadelphia, Instructor of the Buxton-Friendship Handicraft Centre, succeeded him. Mr. J. Oxley continued his duties as Instructor in Woodwork, and on lst September, 1934, Mr. G. Fernandes, a student from the first group trained, was appointed Assistant Instructor.
2. The number on the roll at the beginning of the year was 21. This number was increased to 30 by the ond of the term in April. The attendance throughout the term was uniformly good, the average for the term being 23.

With the re-opening of the second term on 30th April, 1934, a new class of 25 was admitted. This class was recruited from various parts of the Colony;-Essequibo Coast, Bartica, West Coast, East Coast and East Bank Demerara, and West Coast Berbice. At the close of the term in July there were 50 on the roll, with an average daily al tendance of 42.
3. The conduct of the youths continued to be very satisfactory throughout, and a high average standard of work has been attained during the jear. Each year new technical exercises are introduced, and the execution in most cases has been very satisfactory. In addition to the work of the approved scheme for the two years' course, the following articles among others were made:-
(i) School furniture for 21 Primary Schools-mainly desks, benches, teachers' tables and stools.
(ii) 18 "Hawkesbury" chairs and 18 camp cot frames for the "Transport and Harbours Department, for use in the Rest Houses on the Bartica-Polaro Road.
(iii) Furniture and fittings for the Teachers' Training Centre and the Students' Hostel.
(iv) An office desk with file stand for the Education Department.
4. The work of the Centre shown at the Exhibition of Handwork held by the Education Department in Georgetown during November was very favourably commented on by all who visited the exhibition.

The models exhibited included :-
(i) Specimen sets of school furniture, of different sizes.
(ii) A garden seat.
(iii) An office desk and a household desk.
(iv) A dining table nnd occasional tables.
(v) A window seat.
(vi) Book cases and other articles of household furniture.

It was generally considered by those qualified to judge that the standard of work compared very favourably with work done by experienced workmen in the Colony.
5. In addition to their bench work, the youths continued to receive instraction in Elementary 'lechnical Drawing, English, Arthmetic (including simple Mensuration) and Physical Training. They are able to interpret and construct simple pians of work to be done. The senior students are made to work directly from drawings prepared by the Instructor. Many of them have their own drawing instruments
and some tools which they use at home in their spare time. At the end of each term, tests in practical and written work were held; and the results on the whole were very satisfactory.
6. During the year the Centre was visited by His Excellency the Governor, the Colonial Secretary, Mr. R. B. Craig of the Public Works Department, Mr. J. B. Aitken of the Forestry Department, Members of the Board of Industrial Training, School Managers, Head Teachers and parents of youths in attendance.

The men students of the Teachers' Training Centre continued to attend one day per week for instruction in practical and theoretical work, with very satisfactory results.
7. The Department is again indebted to the Board of Industrial Training who have continued to assist not only in the financing of this scheme of training, but by giving advice generally. Continued interest has also been shown by the Officers of the Public Works Department and the Transport and Harbours Department.

## (ii) Evening Classes.

8. Special evening classes were held for motor mechanics, engineers, and carpenters. The class for motor mechanics continued to do very good work under the tuition of Mr. A. E. Cbapple, Government Motor Mechanic. The average enrolment for the jear was 22, with an average attendance of 19.
9. In Technical Drawing it was, found necessary to amalgamate the Primary, the Intermediate, and the Journeymen's Classes. Mr. J. W. Johnson, Docknaster of Messrs. Sprostons, Ltd., took charge of the new class, but resigned in May, 1934, owing to pressure of other duties. He was succeeded by Mr. H. R. Guenin, B.Sc., Permanent Ways Engineer of the Transport and Harbours Department. The cerminal test showed that students who have attended well have, made correspondangly good progress in their work. The enrolment of this class for the year was 26 , and the average attendance 16.
(b) handiorabt oentres for boys attending primary sohools.
10. The work at these Centres continues aiong similar lines to those of 1933 ; Woodwork and Technical Drawing being the subjects of instruction.
11. The following are the Primary Schools' Woodwork Classes now being conducted in different parts of the Colony :-

> District. Kingston, Georgetown

Kingston, Georgetown
Ketley, Georgetown 11
Fellowship, W.C., Demerara • 5
Friendship, E.C., Demerara 6
New Amsterdam, Berbice 5

Instructor.
Mr. S. D. Daniels.
Mr. H. R. Joseph.
Mr. G. S. L. Payne.
Mr. P. Fidell.
Mr. G. M. Pieters.

Mr. P. Fiddell was transferred from the Kingston Centre to Friendship, East Coast, Demerara, in January, owing to the appointment of Mr. W. A. Philadelphia as Head Teacher of the 'Lrades Centre at Kingston.

KINGSTON HANDICRAFT CENTRE, GEORGETOWN.
12. This Centre which is still accommodated at the Immigration Depot, ${ }^{\text {'Kings- }}$ ton, provided for an enrolment of 20 boys from each of the following schools, giving a total of 100. The classes continued as in the previous year.

School. No. of Pupils. Average Attendance

|  |  | for year |
| :--- | :--- | ---: |
| St. Thomas' | 20 | 16 |
| St. George's | 20 | 14 |
| Comenius | 10 |  |
| Queenstown | 10 | combined |
| classes | 16 |  |
| Kingston | 20 | 16 |
| Christ Church | 10 |  |
| St. Ambrose's | 10 | combined |
| classes |  | 18 |

At the beginning of the year the attendance was unsatisfactory, but there was a gradual improvement after the Head Teachers of the various schools had been come municated with. The average attendance for the year was 16.
13. The general work and conduct have shown a marked improvement, especially in drawing, which required a good deal of attention. The admission of new boys during the various terms made it difficult for the instructor to adhere to the regular course in Woodwork. Exercises were done in numerous joints (Tenon . and Hancheon, Open Dovetail, Slip and Mortise and Tenon). For the Exhibition in November a number of articles were made. Those shown were a combination cabinet and a medicine cupboard, which were highly commended. Among the other articles made were a notice buard, cupboards and easels. A number of repairs were done to the furniture of some of the schools by the pupils attending.
14. The Drawing Scheme was followed as in the previous year. Contracts I., II., III. and part of IV. were completed by by the majority of the pupils. These were supplemented by actual woodwork drawings in isometric projection, and occasional arithmetical problems. Terminal tests were held in April, July and December, and the results of these indicated an improvement in the work of the classes.
15. Frequent visits were paid to the Centre throughout the year by members of the Board of Industrial Training, School Managers, Head Teachers and members of the staffs of schools in attendance, and visitors interested in the work.

## Ketley Handicraft Centre, Georgetown.

16. Owing to the additional classes in attendance at this Centre it was found necessary to appoint an Assistant Instructor. There were 211 pupils on the roll, admitted from the Primary Schools in Georgetown as follows:-

| school. | No. Of POPILS. |  | AVERAGE ATTENDANCE FOR THE YEAR. |
| :---: | :---: | :---: | :---: |
| Bedford .. | ... | 20 | 10 |
| Charlestown ... | ... | 22 | 17 |
| Government A | ... | 21 | 16 |
| B | ... | 22 | 16 |
| Smith Church | ... | 20 | 16 |
| Wortmanville |  | 23 | 17 |
| Lodge $\}$ | $\cdots$ | 23 | 17 |
| St. Phillip's ... | ... | 22 | 16 |
| Freeburg ... | ... | 21 | 16 |
| Werk-en-Rust | ... | 20 | 17 |
| 'St. Stephen's ... | ... | 20 | 14 |

The average attendance for all classes for the period under review was 15.5. Pupils were drawn from the Upper and Middle Divisions, their ages varying from 10 to 16 years. On account of the poor attendance of Bedford School their number was reduced during November from 20 to 10,10 pupils from St. Barnabas' School being admitted in place of those from Bedford.
17. The conduct of the pupils was good throughout the year, and Head Teachers made it tbeir concern to ask for reports on their pupils.
18. Frequent visits were paid to this Centre throughout the year by the Rev. J. B. Brindley, Head Teachers of every school attending and interested parents. Dr. Robert Greenidge of New York, who was on a visit to the Colony, was conducted over the Centre, and he expressed his great pleasure at the work which was being done to develop the practical side in the training of these boys.
19. Tests in Practical Woodwork and Technical Drawing were given at the end of each term, and with few exceptions the results were satisfactory. On the results of these tests a shield is awarded annually which is competed for by the classes in attendance. St. Stephen's School has again secured first place. Many schools that send classes to the Centre held a Parents' Day, at which specimens of work done were exhibited. Special work was exhilited at the Exhibition held in November. The articles included 2 Morris Chairs which won very favourable comments.

## 'Fellowship Handicraft Centre.

20. The following schools attend this Centre.-

| Schoor. | No. of perils. |
| :---: | :---: |
| Blankenburg Con. (A) | 20 |
| Blankenburg U. of E. (A) | 18 |
| Blankenburg Con. (B) | 20 |
| Blankenburg C. of E. (B) | 19 |
| Anna Catherina C. of E. | 20 |

AVERAGE ATMTENDANCR
FOR THE FEAR.
16
14
16
14
15

During the early part of the year the floods greatly affected the attendance, and consequently the average for the first term fell to 13.12. The average for the year was 15.
21. The general standard of the work has improved, marked efficiency being shown in many cases, especially in bench work. Drawing has also improved, though there could still be better work done in many instances. A few boys.offered Woodwork at the Primary School Certificate Examination, and three candidates gained certificates.
22. At the Department's Handwork Exhibition held in November the Centre exhibited models of Woodwork which compared favourably with other work shown, and was generally of a high standard. Two boys who left the Centre during the year secured employment as Advanced Apprentices.

## Buxton Handicraft Centre.

23. There were 115 pupils on roll, admitted from four Primary Schools of the village as follows,-

| school. | 1 No. ON ROLL. | AVERAGE ATTEN FOR YEAR. |
| :---: | :---: | :---: |
| St. Augustine's | $\cdots \mathrm{l}$ | For Yeak. |
| Buxton Congregational | 23 | 20 |
| St, Anthony's | 23 | 20 |
| St. Anthony's $\}$ | 23 | 19 |
| Buxton Congregational | 23 |  |
| Friendship Methodist | 23 | 18 |

At the beginning of the year the attendance was poor, but a better figure was reached later in the term. There was a fall at the end of each term, but nevertheless the average worked out at 86 per cent.
24. Apart from the inevitable closing, due to the floods, for a fortnight during January, classes were held throughout the year, the minimum time being 5 hours daily. The principal subjects tanght were Woodwork and Technical Drawing according to definite schemes, but Arithmetic also received attention. Variations in the Scheme in Woodwork were made to meet the requirements of pupils who had already completed the usual scheme. In most cases the pupils worked with a fair degree of interest and neatness. The articles made included occasional tables, book cases, medicine cupboards and egg stands, most of which were purchased by the boys.
25. Other models were made for the Eshibition in November and included a window seat (3 pieces), cabinet, tea or coffee table, dwarf book case and coffee table. Nine pupils took the Woodwork paper at the Primary School Certificate Examination.
26. A satisfactory standard in discipline was maintained. A pleasant feature s the interest shown by the parents in the work of the Centre.

## New Amsterdam Handicraft Centre.

27. The work at this Centre continued along the same lines as in 1933, and pupils were drawn from the Primary Schools in New Amsterdam and the surrounding districts. The following schools were in attendance, -

| schoor. | No. ON ROLL |  | AVERAGE ATTENDANCE FOR YEAR. |
| :---: | :---: | :---: | :---: |
| New Amsterdam C. of $\mathbf{E}$. |  | $19$ | - 12 |
| New Amsterdam C. of S. | ... | 21 | 16 |
| New Amsterdam R. C. | . 8 | 19 | 16 |
| New Amsterdam Con. | ... | 16 | 11 |
| Cumberland | ... | 20 | 16 |

28. The schemes of work in Woodwork and Drawing were proceeded with in strict order, and great care was taken to secure proper preparation of the materials for the various models in Woodwork.
29. The pupils who have been in attendance from the beginning of the course have completed the first year's course of the scheme, and will proceed to the second year's course in January 1935. The whole of the outlined scheme has not been completed on account of frequent withdrawals and admissions of pupils. This has caused the boys of each class to be at different stages in the course. Individual instruction and attention to the work at each stage became difficult, and as a result progress was not as rapid as it was expected to be.
30. The more advanced pupils have developed an encouragingly high standard and are doing intelligent work both in Woodwork and Drawing. Some of the boys have completed the four books of the Drawing Course, and are proceeding to draw the models made both in orthographic and isometric drawing, The results of the test in Woodwork held in July were satisfactory, but the results in Drawing did notreach the standard expected. Some of the pupils, however, did creditable papers.
31. The Manager (the District Commissioner) paid 17 visits to the Centre.
32. The Department is again obliged to direct the attention of all Head Teachers to the need for maintaining as far as possible, a permanent class throughout the two years' course. The frequent changing of pupils has been a source of considerable inconvenience to the Instructors in charge, and a serious handicap to the progress of a class as a whole. The need too, for punctuality and regular attendance cannot be stressed too strongly. Wherever the general efficiency of a class has been found to be low these two factors have proved to be the cause. On the other hand where marked progress has been made, it has been due to the part played by Head Teachers in directing their attention to the requirements of the Department in respect of regular and punctual attendanoe.

## (c) DOMESTIC SUBJECTS CENTRES FOR GIRLS ATIENDING PRIMARY SCHOOLS.

## 1. Georgetown Domestic Subjects Centre.

33. The Domestic Subjects Centre was re-opened on 7th January, 1934. The Teachers' Training Centre students continued their training in Domestie Science until the end of June, when they took the final examination in this subject. After the Easter holidays Miss Martindale, the acting Head Teacher, was appointed to act as Head Teacher of St. Stephen's Church of Scotland School, and Miss E. Yellery, Assistant teacher at the Centre, was appointed to take her place. In order to secure better and more suitably situated premises the Centre was moved during November to 53 Robb Street, which has been rented for the purpose.
34. The Scheme of Work has been revised, suitable alterations being made as a result of experience. The following schools are now sending classes :-

| Schools. |  | Number of Pupils. |  |
| :--- | :--- | :--- | :--- |
| St. Thomas's | $\ldots$ | $\ldots$ | 25 |
| St. Barnabas' | $\ldots$ | $\ldots$ | 20 |
| Bedford | $\ldots$ | $\ldots$ | 20 |
| St. George's | $\ldots$ | $\ldots$ | 20 |
| Main Street | $\ldots$ | $\ldots$ | 12 |
| St. Mary's | $\ldots$ | $\ldots$ | 20 |
| Comenius | $\ldots$ | $\ldots$ | 20 |
| Kingston | $\ldots$ | $\ldots$ | 20 |
| St. Ambrose's | $\ldots$ | $\ldots$ | 20 |
| Christ Church | $\ldots$ | $\ldots$ | 20 |

## 2. New Amsterdam Domestic Subjects Centre.

35. The work of this Centre is progressing favourably. Domestic Science is being gradually accepted by parents and pupils alike as one of the essential subjects
of the Primary school curriculum.. . The attendance steadily improved during the year; the enrolment and attendance figures being:-

## Enrolment.

First term 113
Second term 111
Third term 110
$\begin{array}{cc}\text { Average } & \text { Attendance. } \\ \cdots & 62.4 \% \\ \cdots & 69.7 \% \\ \cdots & 76.3 \%\end{array}$
36. At the end of July the girls who had completed the two years' course left the Centre. Five of these took Domestic Science at the Primary School Leaving Certificate examination. A new group of pupils was admitted in September.

When the new pupils were selected, those from Standard IV were cbosen, as it had been found that many girls leave school in Standard. $V$, and do not complete the two years' course.
37. A limited supply of groceries is supplied by the Department for the teaching of Cookery; the children bringing other supplies to be cooked for their meals. Experience has shown that additional funds are required for this branch of the work if there is to be any scope for expansion. At the Parents' Day of the Congregational school the senior girls made jam, jellies, cake, buns, etc., and exhibited cassava, rice and plantain flour made by themselves.

Improvement has been shown in Needlework, and many of the girls who have left the Centre have shown a fair knowledge of dress-making. A treadle machine has been supplied by the Department, and is helping to improve the work. A number of garments were made and sent to the Exhibition held in Georgetown.

Housekeeping and Laundry work are also receiving due attention. A course in basket-making was given to the senior girls.

The co-operation with the Head Teachers of the schools continues to be successful.
(d) oarnegie trade oentre for women, georgetown.
38. The Carnegie Trade Centre for Women is now in its second year. There is little that is new to report on as the year has necessarily been one of consolidation.
39. The numbers in the School have been maintained, and there is still a long waiting list. The greatest demand seems to be for the Needlework and Dressmaking Course of two years, but the numbers in this course are being limited in order to prevent an unemployment problem arising in this class of the community. It is good to report however, that three girls trained at this Centre have been taken on as junior staff.
40. The cooking classes have unfortunately suffered through changes in staff, but it is hoped that conditions in this class are now more settled and that there will be applicants coming forward to be trained as cooks to meet the constant demand for them.
41. Each department in the Centre has been busy throughout the year, often working over-time to execute the orders on hand, and the Revenue for the year ended December 31st, 1934, was approximateiy $\$ 5,000$.
42. A two days Exhibition held in December enabled the general public to visit the Centre and see the girls at work, and the parents to come and see the work done by their girls.
43. A small consignment of Guava Jelly was sent to a firm in Canada at the end of the year, and some Panama Hats made at the Centre have been sent as samples to the Board of Agriculture in England. It is hoped in this way to find outside markets for its produce.
44. Some attempt has been made to encourage the social life of the school ; A School Committee has been formed with representatives from each class. This Committee is responsible for organising an end of the term function for the girls. Tickets are sold for this, and the money collected is spent on light refreshmentsthe girls catering for themselves.
45. A Savings Association has been formed in the School, and once a week

When payments are made the girls are encouraged to save-the results of this have been satisfactory.
46. Several meetings were held during the year, when lecturers kindly delivered addresses to the girls on a variety of topics. Dr. Cochrane and Miss Harrison, Superintendent of the Infant Welfare Centre, gave talks on Health, and Mrs. Bradburn one on Home Industries in Cyprus, to which she brought extremely interesting specimens of work to show to the girls. Miss Harrison, in addition to Ler talks, took regular weekly classes in Hygiene for two terms and we were very sorry when her time came to leave the Colony.
47. New features of the work done at the Centre have been a weekly Cooking Class for girls from the Bishop's High School, and a weekly class in Needlework and general Domestic Subjects for the students of the Teachers' Training Centre.

## Chapter VI.-Miscellaneods.

(a) education department library.

1. The membership of. the Education Department Library has continued to increase and now stands at 620 on the register. In August the Library was transferred to the Teachers' Training Centre, and amalgamated with the Students' Library there. By this amalgamation the number of books available has been considerably increased and members have been enabled to obtain the advice and assistance of the Teachers' Training Centre staft in their choice of books.
2. There are now in the Library over 250 different books on Education and Teaching, nearly 200 on English Language and Literature, over 100 each in History, Geography, Natural Science (including Health Education) and Arts and Crafts, and a Reference Section of about 50 volumes, besides a smaller number of books on Mathematics and Music, and a fairly large selection of class-books in various subjects and of Supplementary Readers. The English section includes a small selection of standard works of fiction and " modern knowledge," which should go some way towards solving the problem of providing country teachers with good general and recreational reading.
3. As in former years the Teachers' Certificate Examination held in December caused a great increase in borrowing during the latter part of the year. About 200 applications (most of them for two books each) from 64 members were dealt with from the 1 st September to the 30th November. It is hoped that these members will continue to use the Library now that the examination is over, and that the 500 other members will not only make more use of the library themselves but will also encourage other teachers to join. It cannot be too strongly emphasised that the library exists for the benefit of the teachers, and that any teacher who neglects to use it is depriving himself of the readiest means of keeping abreast of new ideas in education and of fresh methods of teaching.
4. The library was closed for stock-taking from 4th April to 14th April Members must again be reminded that books should be returned in time. Carelessness in observing this rule throws upon the librarian much extra work and often inconveniences other members who happen to be on the waiting list for books thus delayed.
5. The thanks of the Department and of members are due to Mr. D. J. Richmond of Comenius Moravian School, who, often at great personal inconvenience, has performed the duties of librarian from the establishment of the library in September, 1925, up to August of this year. The work of the library is now being undertaken by the staff of the Teachers' Training Centre.

## (b) Children's breakfast centre.

1. The following table shows the number of meals supplied to children in 1933
and 1934 at the two main Centres, (St. George's Church of England School and
Comenius Moravian School).

2. The return received in connection with Ketley Centre showed that 12,857 meals were distributed as compared with 9,620 meals in 1933. There were also issued 9,831 meals to adults, as against 18,586 during the previous year. These make a grand total of 88,941 meals in 1934 as compared with 83,407 in 1933, an increase of 5,534 for the year or an average increase of 503 meals per month (for 11 months).
3. The meals, as improved during 1933, were continued in 1934. The usual meal of rice and vegetables has been varied by bread, fruit, milk, butter and sugar, according to the revised diet scale. The result of these additions has been visible in the improved health and vigour of many children, and in their increased capacity to acquire knowledge.
4. The work of the Soup Kitchen for adults is still carried on in connection with the Breakfast Centre. Certain firms in Water Street and the Georgetown Child Welfare and Maternity Centre were supplied with tokens for distribution to poor persons, each of whom on presentation of the tokens at the Centre received either a meal or a few loaves, whichever was preferred.
5. The annual subvention of $\$ 600$ by the Legislative Council was supplemented by donations from the proceeds of several prize-drawings. Special thanks are due to the British Guiana Sugar Producers' Association for their handsome gift of two tons of sugar per annum."The Inspector General of Police has also been most helpful in urging the claims of the Centre on those who have organised prize-drawings. Messrs. Weiting and Richter, Ltd; Messrs. Bookers' Amalgamated Groceries, Ltd. ; and the Standard Cash Grocery have all given gifts in kind, and the Harlequin Bakery have supplied the bread at reduced rates.
6. The following is a statement of Receipts and Expenditure during 1934 ;-

7. Visitors.-During the year the visitors included Mrs. Bain Gray, Mrs Kimber, Miss Douglas-Jones and several health visitors of the Child Welfare and Maternity Centre of Georgetown.
(c) insuranoe fremidms of teadiers.

As a result of observations made by the Auditor, teachers whose premiums were paid by the Department by deductions from their salaries were circularised on the subject of their assigning their policies to the Director of Education. Only two teachers of the 26 whose premiums were paid agreed to this course, and it was decided to dis-
continue deductions from the salaries of those who did not agree. Up to 31 st December the premiums of the two teachers who assigned their policies to the Director of Education were paid.

Balance brought forward from 1933 ... \$ 407 . 68
Deductions during 1934 ... $\quad . . \quad 1,24502$
Premiums paid January to December, 1934
Balance at Cr. 31.12.34. ...

| 1, | $\begin{array}{r} \$ 1,50558 \\ 14712 \end{array}$ |
| :---: | :---: |
| \$1,652 70 | \$ 1,652 70 |

(d) personnel on 31st deoember, 1934.

Director of Education, and Chairman, Education Committee :-
Major the Hon. W. Bain Gray, M.A., Ph. D. (Edin.) B. Litt. (Oxon.).
members of the eduoation oommittee.
His Lordship the Bishop of Guiana.
The Hon. E. A. Luckhoo,
The Hon. J. Gonsalves.
\} Members of the Legislative Council.
Mrs. G. R Reid, B.A.
F. B. Henderson, Esq.

Dr. T. T. Nichols, M.A., M.D., C.M.
J. W. Jacksan, Esq., J.P.

INSPECTOFS.

| Inspector of Schools | ...L. G. Grease, M.A. (Oxon). |
| :---: | :---: |
| Second Inspector of Schools | ...R. S, Ducker, M.A: (Oxon). |
| Assistant Inspector of Schools |  |
| Educational District Officer | ...A. A. Bannister, B.A. (Dunelm) acting for H. V. Taitt, M.A. (Dunelm)-Temporarily employed as Assistant Master, Queen's College. |
| teachers' | training centre. |
| Superintendent | ...R. S. Ducker, M.A. (Oxon). |
| Assistant Master | ...R. C. G. Potter, acting for A. A. Bannister. |
| Resident Tutor | ...G. H. Morrison. |
| Assistant Mistress | ... Miss Kathleen Harris. |
| Instructor, Physical Training | ...Warrant Officer W. F. Gunbs: |
| Janitor | ...C. Devonish. |

CLERICAL STAFF.
Class I. Clerk
Class II. Clerk
Class III. Clerks

Probationer
Attendance Officers
...W. O. Fraser.
...W. E. Davis.
...J. S. 'Talbot.
... Miss E. Mackintosb, Miss A. Rose and Miss B. Dalgleish.

Messenger
....Miss V. Choy.
....A. C. Armstrong (Georgetown).
...W. Massiah (New Amsterdam).
... W. Holman.

Appendix 1.
SCHOOLS RECEIVING FULL GंRANTS-IN-AID.
(a.) LIST OF SCHOOLS SHOWING AVERAGE ATTENDANCE

"U."—Undenominational


## Appendix I.-(Contd.)

SCHOOLS RECEIVING FULL GRANTS-IN-AID.-(CONtD.)
(a) LIST OF SCHOOLS SHOWING AVERAGE ATTENDANCE.


## Appendix I．－（Contd．）

（b）PROVINCIAL DIStRIBUTION OF SOHOOLS．

| Listmitet． | $\begin{array}{\|c\|} \hline \\ \hline \end{array}$ | Number on Register． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bojs． | Girls． | Total． |  |  |
|  | 2538484910311 | 5，367 | 5,390$\mathbf{3} 731$$\mathbf{6 1 6}$ | 10,757 8,400 1 | 8，271 | 76.9 |
|  |  | ＋4，669 |  | 8,400 1,323 | 1，992 |  |
|  |  | 1，252 | 983 <br> 884 <br> 18 | － 2,3187 |  | 75.0 66.2 |
|  |  | 984 <br> 183 <br> 1 | ${ }_{133} 8$ | 1，830 | 1，241 | 67.8 <br> 67.8 <br> 69 |
|  |  | 1，699 | 1，155 | 2，804 | 1，922 | 67.3 |
| Total ．．． | 95 | 14，861 | 12，806 | 27，667 | 19，757 | 71.4 |
|  | - <br>  | ${ }^{896}$ | 907 <br> 550 <br> 80 | 1，803 | 1，236 | 68.568.5 |
|  |  |  |  | －${ }^{1,7288}$ |  |  |
|  | . <br> $\cdots$ <br> 19 <br> 4 | $\begin{array}{r}3,635 \\ \hline 354\end{array}$ | 2，183 |  | 3，720 | 68.6 73.1 |
|  | $\begin{array}{r}3 \\ 1 \\ 1 \\ \hline\end{array}$ | $\begin{array}{r} 004 \\ 360 \\ 1,285 \\ 1,280 \end{array}$ | $\begin{array}{r} 249 \\ 247 \\ 1,014 \end{array}$ | $\begin{array}{r} 603 \\ 614 \\ 32 \\ 2,299 \end{array}$ |  | 73.8 |
|  |  |  |  |  |  | 66.2 |
| Total ．．． | 44 | 7，130 | $\frac{1,014}{5,217}$ |  | 8，241 | 66.7 |
| Cocnty of Esbrquibo－ Leguan and Wakenaam Essequibo River North and South Coast Pomeroon North West District |  | $\begin{array}{r} 471 \\ 202 \\ 1,486 \\ 377 \\ 288 \\ \hline \end{array}$ | $\begin{array}{r} 413 \\ 173 \\ 1,231 \\ 318 \\ \mathbf{2 5 8} \\ \hline \end{array}$ | $\begin{array}{r} 884 \\ 3,75 \\ 2,717 \\ 695 \\ -566 \\ \hline \end{array}$ | $\begin{array}{r} 636 \\ 263 \\ 1,968 \\ 467 \\ 349 \end{array}$ | $\begin{aligned} & \begin{array}{l} 71.9 \\ 70.1 \\ 72.4 .4 \\ 67.2 \\ 63.9 \\ \hline \end{array} . \end{aligned}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total．．． | 39 | 2，524 | 2，393 | 5，217 | 3，683 | 70.6 |
| Grand Total | 178 | 24，815 | 20，416 | 45，231 | 31，681 | 70.0 |

（c）DENOMINATIONAL DISTRIBUTION OF SCHOOLS．

| District． |  |  |  | $\begin{aligned} & \dot{a} \\ & \dot{0} \\ & \dot{0} \\ & \dot{0} \\ & \dot{0} \\ & \dot{b} \\ & \dot{d} \\ & \dot{4} \end{aligned}$ | Number on Register． |  |  | Daily AverageAttend－ ance． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 迪 | 离 | － |  |  |
| Churcb of England |  |  |  |  |  |  |  | 17.719 |  | 67.7 |
| Charch of Scotland | $\ldots$ | $\cdots$ | $\cdots$ |  | 3，408 | 2，563 | 5，971 | 4，178 | 70.0 |
| Roman Catholic | $\ldots$ | ．．． | $\cdots$ |  | 3,646 <br> 3 <br> 3 | 3,555 <br> 2766 | 7,101 6,038 | 6，348 4,129 | 75.3 68.3 |
| Methodist ${ }_{\text {Congregational }}$ | $\cdots$ | $\ldots$ | $\cdots$ |  | 3,262 1,964 1,4 | 2，776 1,706 | 6，038 $\mathbf{3 , 6 7 0}$ | 4，129 $\mathbf{2 , 6 7 0}$ | 68.3 72.7 |
| Congrian Mision | ．．． | ．．． | $\cdots$ |  | 1，456 | －947 | 2，403 | 1，524 | 63．4 |
| Moravian | $\ldots$ | ．．． | $\cdots$ | 5 | $\begin{array}{r}1988 \\ \hline 796\end{array}$ | 394 661 | $\begin{array}{r}\text { 8，} 872 \\ .1,457 \\ \hline\end{array}$ | 1,1024 1,102 | 71.5 76.6 |
| Undenominational | ．．． | ．．． | ．．． | ${ }^{5}$ | 796 | 661 | －1，457 | 1，102 | 75.6 |
| Total | ．．． | ．．． | $\ldots$ | 178 | 24，815 | 1 20，416 | 45，231 | 31，681 | 70.0 |

Appindix I.--(Contd.)
(d) CLASSIFICATION AND AGE OF PUPILS ENROLLED.

| 1 | DIVISIONS. |  |  |  |  |  |  |  | Totals. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Prepamatory. |  | Lowue. |  | Middur. |  | Uppar. |  |  |  |  |
|  | Boys. | Girls. | Boys. | Girls. | Boya. | Girls. | Bose. | Girls. | Boys. | Girls. | Tutal. |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Eapt Indians <br> Aboriginals$..$. | 704 | ${ }_{29} 9$ | $\ldots$ | $\cdots$ | .... | $\ldots$ | $\cdots$ | $\ldots$ | $\begin{array}{r}704 \\ 32 \\ \hline\end{array}$ | 546 | 1,250 |
| Others | 916 | 905 | $\cdots$ | $\cdots$ | ... | $\cdots$ | $\cdots$ | $\cdots$ | 917 | 908 | 1,825 |
| Botween 6 and 8 years- |  |  |  |  | 11 |  |  |  |  |  |  |
| $\underset{\text { East Indians }}{\text { Aboriginals }}$ ( $\ldots$ | 2,151 | 1,528 | 374 12 | 224 8 | 11 | 5 | $\stackrel{\text { :.. }}{ }$ | $\cdots$ | 2,536 | 1,757 73 | 4,293 |
| Othera ... ... | 2,027 | 2,426 | 699 | 734 | 23 | 37 | ... |  | 3,319 | 3,197 | 6,546 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Aboriginal | 64 | 1,13 | 1, 55 | ${ }_{39} 9$ | 19 | 15 |  |  | 2,125 | 2,77. | 4,399 |
| Others 12 … | 791 | 604 | 2,183 | 2,061 | 516 | 618 | 13 | 5 | 3,603 | 3,288 | 6,791 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Aboriginals $\quad \cdots$ | 19 | 20 | 56 | 483 | ${ }_{2}$ | ${ }_{23}$ | 79 | ${ }_{2}$ | ${ }_{97}$ | 81 | 2,965 |
|  |  |  |  | 1,082 | 1,655 | 1,619 | 244 | 326 | 3,134 | 3,089 | 6,223 |
|  |  |  |  | 81 | 740 | 275 |  |  |  | 500 |  |
| Aboriginals $\quad . .$. | 6 | 6 | 21 | 28 | 25 | 23 |  |  | 55 | 61 | 1.3110 |
| Others 10 .... | 18 | 5 | 305 | 212 | 1,389 | 1,148 | 1,144 | 1,169 | 2,856 | 2,534 | 5,390 |
| Between 14 and 16 years- |  |  |  |  |  |  |  |  |  |  |  |
| Aboriginals | 1 | $\ldots$ | 8 | 2 | 18 | 10 | 5 | 6 | 32 | 18 | 50 |
| Others ... | 3 | 1 | 43 | 14 | 325 | 212 | 978 | 886 | 1,349 | 1,113 | 2,467 |
| Total East Indians | 3,971 | 3,289 | 2,705 |  |  | 837 |  |  |  |  |  |
| Total Aborigiuals | 181 | 151 | 152 | 113 | $\cdots 71$ | 63 |  | 15 | 412 | 342 | 754 |
| Total Others | 4,439 | 4,003 | 4,482 | 4,106 | 3,808 | 3,634 | 2,379 | 2,386 | 15,108 | 14,129 | 29,237 |
| Grand Total | 8,591 | 7,443 | 7,339 | 6,807 | 6,732 | 4,534 | 3,153 | 2,632 | 24,815 | 20,416 | 45,231 |

(e) NUMBER OF TEACHERS AND PUPIL TEACHERS EMPLOYED.


## Appendix I.-(Contd.)

summary.


Appendix II,
(a) SCHOOLS IN REMOTE OR SPARSELY POPULATED AREAS RECEIVING GRANTS UNDER REGULA TION 80 , OK FROM ABORIGINAL INDIAN FUND.

SCHOOLS UNDER BEGULATION 80.


Appeindix II.-(Contd.)
(a) LIST OF SCHOOLS, SHOWING AVERAGE ATTENDANCE.-(CONTD.


- Bohool closed temporarily.


## Appendix II.-(Contd.)

(b) PROVINCILL DIStribution of schools.

| Dibrbior. |  | Number on Register. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys. | Gitls. | Total. |  |  |
| Codnty or Drmbrara- <br> East Coast ... <br> Mast Bank $\quad .$. <br> West Bank ... <br> Demerara River <br> West Const <br> Total ... | [r\|r $\begin{array}{r}3 \\ 2 \\ 1 \\ 1 \\ 10 \\ 2\end{array}$ | $\begin{array}{r} 204 \\ 59 \\ 11 \\ 68 \\ 214 \\ 214 \\ 47 \end{array}$ | $\begin{array}{r}153 \\ 31 \\ 6 \\ 6 \\ 27 \\ 163 \\ 27 \\ \hline\end{array}$ | 357 90 17 17 95 377 74 | 206 68 9 91 632 232 49 | 67.6 <br> 64.4. <br> 52.8 <br> 64.2 <br> 61.5 <br> 66.2 |
|  | 19 | 603 | 407 | 1,010 | 615 | 00.9 |
|  | 1 <br> 1 <br> 1 <br> 7 <br> 1 <br> 11 | $\begin{array}{r}63 \\ 37 \\ 14 \\ 135 \\ 100 \\ \hline\end{array}$ | 40 <br> 36 <br> 88 <br> 93 <br> 96 | 93 73 22 228 228 165 | $\begin{array}{r}56 \\ 31 \\ 21 \\ 149 \\ \hline 90\end{array}$ | 60.2 <br> 4.2 <br> 95.5 <br> 95.5 <br> 65.3 <br> 54.5 |
| Total ... <br> County of EssequiboLeguan and Wakenaam Essequibo River and Islands Mazaruni River Potaro River ... Rupununi River Pomeroon North West Distriot | 11 | 339 | 242 | 581 | 347 . | 69.7 |
|  | - $\begin{array}{r}5 \\ 4 \\ 2 \\ 1 \\ 2 \\ 2 \\ 7 \\ 7\end{array}$ | 215 81 87 11 11 46 65 110 | 156 49 15 6 17 17 52 99 | 371 130 42 17 173 117 117 209 | 241 92 35 11 41 41 67 123 | 64.9 <br> 70.8 <br> 883 <br> 664 <br> 65.7 <br> 65.0 <br> 67.2 <br> 68.8 |
| Total ... | 23 | 555 | 394 | 949 | 610 | 64.2 |
| Total, Reg. 80 Sohools, | 53 | 1,497 | 1,043 | 2,540 | 1,572 | 61.9 |
| Sohiols Maintaingd from aboriginai indian Fond. |  |  |  |  |  |  |
| $\underset{\text { Mahaica Creek }}{\substack{\text { Demprara } \\ \hline}}$ | $.\|1\|$ | 12 | 15 | 27 | 25 | 92.6 |
| $\underset{\substack{\text { Egegeorbo } \\ \text { North } \\ \text { Coast }}}{ }$ | 1 | 8 | 5 | 13 | 12 | 92.3 |
| Total ... | 2 | 20 | 20 | 40 | 37 | 92.5 |
| Grand Total | - 55 | 1,517 | 1,063 | 2,580 | 1,609 | 62.3 |

- Statistics from 1 school in the district are not arailable.
(c) denominational distribution of schools.

| Denomination of School. |  |  |  | Number on Register. |  |  | Average Attendance. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  | $\dot{B}$ |  |  |  |
| Churoh of England | ... | ... |  | 15 | 315 | 210 | 525 | 336 | 62.1 |
| Church of Sootland | ... | ... |  | ${ }^{6}$ | $\begin{array}{r}115 \\ 194 \\ \hline\end{array}$ | 96 119 | ${ }_{223}^{211}$ | 1138 | 63.0 66.1 |
| Roman Catholic | $\ldots$ | $\cdots$ | ${ }^{*} 7$ | 139 | 168 | ${ }_{137}^{203}$ | 105 | ${ }_{76.6}^{68.1}$ |
| Canadian Mission | ... | … | 16 | 796 | 503 | 1,299 | 789 | 60.7 |
| Lutheran ... | ... | $\cdots$ | 4 | 58 | 57 | ${ }^{115}$ | 77 | 66.9 |
| Ondenominational | ... | ... | 2 | ${ }^{21}$ | 20 | 40 | 37 | 92.5 |
| Total | ... | ... | 65 | 1,517 | 1,063 | 2.580 | 1,609 | 62.3 |

- Statietics from 1 R.O. School (St. Ignatius Rupununi) not incInded as School olosed temporarily.


## Appendix II.-(Contd.)

(d) CLASSIFIOATION AND AGE OF PUPILS ENROLLED IN sCHOOLS (APPENDIX II, (A)


Appendix II．$\rightarrow$（Contd．）
（e）NOMBER OF TEACHERS AND PUPIL TEACHERS EMPLOYED．（REG． 80 SCHOOLS）．

| Digtriot， |  | Certificated Teanher． |  |  |  | UncertificatedTeachers． |  |  |  | $\begin{aligned} & \text { Pupil } \\ & \text { Teacherr. } \end{aligned}$ |  |  |  | Total． |  |  |  | $\begin{aligned} & \text { Gand } \\ & \text { Total } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\underset{\text { Endians. }}{\text { Ind }}$ |  | Others． |  | $\begin{gathered} \text { Eant } \\ \text { Indikne. } \end{gathered}$ |  | Othera． |  | $\begin{gathered} \text { Haut } \\ \text { Indiann. } \end{gathered}$ |  | Othera． |  | $\begin{gathered} \text { Rast } \\ \text { Indians. } \end{gathered}$ |  | Others． |  |  |  |  |
|  |  | $\begin{aligned} & \text { 営 } \\ & \text { 㞾 } \end{aligned}$ | 呂 |  |  | $\stackrel{\text { 品 }}{\substack{d}} \mid$ |  | $\frac{\mathbf{~ a}}{9}$ | 輛 | $\begin{array}{\|l\|l} \stackrel{.}{\mathbf{4}} \\ \text { 曾 } \end{array}$ |  |  | 容 |  | 宮 | 曷 | 产 |  |  |  |
| Countr or Deyrbaba－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weat Bant $\quad .$. | 1 | ．．． | $\cdots$ | ． | $\cdots$ | 2 | $\cdots$ | ．．． | － | $\ldots$ | $\cdots$ | $\cdots$ | ．．． | 2 | … |  |  | 2 | 1 | 2 |
| Kati Bank   <br> Opper River $\ldots$. $\ldots$ <br> ．．．   | 10 | 7 | $\cdots$ | i－ | $\cdots$ | i－ | $\cdots$ | $\ldots$ | $\frac{1}{7}$ |  | $\cdots$ | ．．．＇ |  | $\stackrel{1}{2}$ | $\cdots$ | $\cdots$ | $\frac{1}{7}$ | 7 | $\frac{1}{7}$ | 14 |
| West Comst *** $\square$ | 10 | ．．． | $\ldots$ | ．．． | $\ldots$ | 1 | $\cdots$ | 1 | 1 | ．．． | $\cdots$ | $\ldots$ |  |  |  |  |  | 2 | 1 |  |
| Total | 19 | 1 | ．．． | 1 | ．．． | 11 | ．． | 6 | 13 | ．． | ．．． | ．．． | ．．． | 12 | $\cdots$ | 7 | 13 | 19 | 13 | 32 |
| Connty of Brrbigr－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corentyne Coast－．．． <br> Canje Creek | 1 | $\ldots$ | $\ldots$ |  |  | 1 |  | $\dddot{1}$ | 1 | $\ldots$ | $\cdots$ | $\cdots$ | ．．． |  | $\cdots$ |  | 1 | 1 | 1 | 2 |
| Eati Ranti |  | $\cdots$ | $\cdots$ | 1 |  | $\cdots$ | $\cdots$ | 1 | $\ldots$ | － | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1 | 5 | 1 | 5 |  |
|  | 7 | ．．． | $\cdots$ | 1 | 1 |  |  | 6 1 | 5 | $\cdots$ | $\ldots$ | $\cdots$ |  |  |  |  | 5 | 7 | 5 | ${ }^{12}$ |
| Total | 11 | ． |  | 1 | 1 | 1 | ．．． | 9 | 8 | $\ldots$ | ．．． | ．．． | ．．． | 1 | ．．． | 10 | 9 | 11 | 2 | 20 |
|  | 2 |  |  |  |  | $\begin{array}{c\|c\|} \hline 6 & 1 \\ \cdots & \cdots \end{array}$ |  | $\frac{1}{5}$ | $\frac{4}{2}$ | $\cdots$ |  | $1 *$ |  | ．${ }^{7}$ | $\begin{aligned} & \mathbf{1} \\ & \ldots \end{aligned}$ |  | $\frac{4}{2}$ | 8 | 5 13 <br> 2 10 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 13 <br> 10 <br> 12 <br> 6 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 | 1 | 5 |  |  |  |
| Total ．．．．．． | 25 | 2 |  |  |  | 1 |  | 6 | 1 | 12 | 19 |  |  |  |  | 8 | 1 | 13 | 19 | 21 | 20 | 41 |
| Grand total | 55 |  | $\cdots \mid$ |  |  | 3 |  | 18 | 1.2 | 27 | 40 | ． |  | ．．．．． | －．．｜ 21 |  | 1 | 30 | 41 | 51 | 42 | 33 |

summary．


- Appendix III.
list of schools receiving grants for the teaching of east indian languages.
(a) FULLIT AIDED SCHOOLS.

(0) SCHOOLS NOT OTHERWISE ON THE AIDED LIST.

No. 66, Canadiau Mission.
$\begin{array}{ll}\text { No. 48, } \\ \text { Feelandia, } & " \quad \text { " }\end{array}$
Gindu Religiou" Sooiety", Albouystown.

Appendix IV.
school ATtendance.



Appendix V.
SECONDARY SCHOOLS.
(a) NUMber and ages of pupils enrolled.

|  | Age. |  | Class or Form. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\underset{\text { Brep. }}{\text { Pr }}$. | B. ${ }^{\text {I. }}$ G. | B. ${ }^{\text {II. }}$ G. | ${ }_{\text {B. }}{ }^{\text {III. }}$ G. |  | G. |  |  |  |  |  | G. |
| Under 12 | -" | $\cdots$ | $21 \quad 123$ |  |  | $\left.\begin{array}{rr} 8 & 47 \\ 33 & 16 \end{array} \right\rvert\,$ | 7 |  |  | 19 |  | 4 | ${ }_{103}^{115}$ | 299 108 |
| 12 to 13 | $\ldots$ | $\cdots$ |  |  | 31 3 | 51 10 | 32 |  | 7 | 34 | 1 | 10 | 132 | 94 |
| 13 to 14 | ... | $\ldots$ |  | 2 | 17 l |  | 55 |  | 14 | 37 | 2 | 14 | 161 | 76 |
| 14 to 15 | ... | $\cdots$ | $\cdots$ |  | 8 |  | 60 |  | 39 | 36 | 2 | 22 | 127 | 71 |
| 15 to 16 | ... | ... | $\cdots$ | $\ldots$ | 1 |  | 49 |  | 35 | 7 | 7 | 5 | 100 | 14 |
| 16 to 17 | ... | $\ldots$ | $\ldots$ | $\ldots$ |  |  | 19 |  | 22 | 4 | 10 | 2 | 53 | 6 |
| 17 to 18 | ... | $\cdots$ | $\cdots$ | $\ldots$ |  | ... | 4 |  | 8 | 3 | 8 |  | 20 | 3 |
| 19 19 to 1920 | ...: |  | … | $\cdots$ | $\ldots$ | $\ldots$ | 1 |  | ${ }_{6}^{6}$ |  | 7 |  | 14 |  |
| Over 20 | - ... |  | ... |  |  | ... |  |  | 2 |  | 3 |  |  |  |
| Total |  |  | 30 126 | $90 \quad 56$ | $120 \quad 66$ | 1978 |  | 149 | 126 | 140 | 40 | 57 | 832 | 672 |

(b) SCHOOLS RECEIVING GRANTS-IN-AID.

NOMBER OF PUPILS AND TEACHERS.

| Sorool. | $\begin{aligned} & 10 \text { years and } \\ & \text { under } 12 . \end{aligned}$ |  | 12 years and under 14. |  | 14 years andunder 16. |  | 16 years and under 18. |  | 18 yoars and over. |  | Total. |  | Number of teaohers employed. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys. | Alrls. | Boys. | Girls. | Boys. | Girls. | Boys. | Girls. | Boys. | Girls. | Boys. | Girls. | Men. | Women. |
| Berbice High School for | 2 | $\cdots$ | 17 | ... | 25 | ... | 9 | $\cdots$ | 4 | ... | 57 | ... | 4 | ... |
| Berbioe High School for |  | 2 | ... | 15 | $\ldots$ | 10 | $\cdots$ | 5 | ... | $\cdots$ | ... | 32 | ... | 4 |
| Bishop's ${ }_{\text {Gigh }}$ Gigh School for | $\cdots$ |  | $\cdots$ |  |  |  |  |  |  | 4 |  | 124 |  | ${ }^{6}$ |
| Girls ${ }^{\text {a }}$ | $\cdots$ | ${ }_{8}^{22}$ | 8 | 35 6 | $\cdots 3$ | $\begin{array}{r} 43 \\ 5 \end{array}$ | 4 | $\stackrel{3}{3}$ | 1 | ... | 22 | 22 | 2 | 2 |
|  | 8 | 33 | 25 | 66 | 28 | 58 | 13 | 28 | 5 | 4 | 79 | 178 | 6 | 12 |

Appendix V.-(Contd.)
(0) PARTICULABS Of FEES OHARGED AND SGHOLARSHIPS TENABLE IN THE LARGER SECONDARY SCHOOLS TN THE OOLONY:-


| Oharoh of England ... | Bishop's High Sohool | Junior Forms <br> Senior Forms $\begin{array}{cc} . . \$ 14 & 10 \\ \ldots . . & 17 \\ 10 \end{array}$ <br> Music or Spanish <br> With regard to sisters t... 900 of the fee is charged for each member of one family after the first. | The " Baskett Scholarship" is awarded to a genior papil to enable her to continue ber studies aiter attaining the School Certificate standard and is tenable for two years, but may be extended for one or more years. |
| :---: | :---: | :---: | :---: |
| Roman Catholio Charoh ... | St. Rose's High School, Ursuline Convent. | Transition <br> Forms I, II, III and IV .... 1300 <br> Forms Upper IV, Lower and Upper $V$ and VI ... 1650 | No soholarships are awarded; but in dividual cases, the number of which is not fixed - ususlly about $10 \%$ of the pupils-are considered and granted uxemption from the whole or a part of the usual fees. |
| Roman Catholic Church. | St. Agneg's School. Ursu line Convent. | Forms Upper and Lower D\$500 Forms A änd B" " $\quad$ ".. $8 \quad 800$ |  |
| Roman Catholic Church . | St. Joseph's Figh Sohool, Convent of Meroy. | Monthly Fees-    <br> Preparatory Class $\ldots \$ 1$ 00  <br> Form II $\ldots$ 150  <br> Form III $\ldots$ 260  <br> Form IV $\ldots$ 250  <br> Form V $\ldots$ 300  <br> Form VI $\ldots$ 400  | There is one acholarship and the num. ber of free places varies from 15 to 20. |
| Oanadian Misaion (Preabyterian) | Berbice High Sohool for Girls. | $\begin{aligned} & \text { All Forms } \\ & \text { In the case of iwo pupils } 800 \\ & \text { from the same family the } \\ & \text { charge for both is } \end{aligned}$ | There is one Canadian Migaion Scholarship. |

## Appendix VI.

financial statement.
(a) SUMMARY CF EXPENDITURE.


## Appendix VI.-(Contd.)

(b) ANALYSIS OF EXPENDITURE.

(o) ITEMS OF EXPENDITITRE UNDER OTHER HEADS WHICH ARE CONTROLLED BY THE DIRECTOR OF EDUCATION.



## Appendix VIII.

RELIGION AND POPULATION.
beligious persuasions of the population classified according to the 1931 Census.
christian.


C.S.O. No. 1756/34.

## $\mathfrak{J B r i t i s b} \mathfrak{G u i a n a}$

## REPORT

of the

## REGISTRAR GENERAL,

FOR.THE YEAR

1933. 

## - Drinted by the Elutbority of ibis Excellenci the Governor.

GEORGETOWN, DEMERARA:
Athe argosy" company, himited, printers to the government ó britisi gudana.
No. 16,229 .

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...
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... Paragraph 21.
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Deaths, Death Rate, etc.
... Paragraphs 44-51.
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Marriages .
Births, Birth Rate, etc.
Stillbirths
Deaths, Death Rate, etc. .
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Population
...
Births, Birth Rate, etc
...
Deaths, Death Rate, etc. .
V.-Departhental

Vital Statistios
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... Paragraphs 65 \& 66.
... Paragraphs 67-70.
Paragraphs 71-76.
Tables Nos. I.-XI.

# GENERAL REGISTER OFFICE, Georgetown, Demerara, 6th July, 1934. 

Sir,
I have the honour to submit for the information of His Excellency the Governor, my Annual Report on the Estimated Population and on the Vital Statistics of the Colony for the year 1933.
2. The following statistical tables are appended:-
I.-Estimated Population of the Colony and of the difforent races on the 31st December, 1033.
II.-The total Births, the number registered in each registration district and the number of each race.
III.- I'he total Deaths, the number registered in each registration district and the number of each race.
IV.-The number of Deaths at different ages in each registration district.
V.-Still-births of each race in each registration district.
VI.-The causes of death in each registration district.
VII.-The canses of death among the various races at different ages, throughout the Colony.
VIII.-The canses of death of children under one year of age in each registration district.
IX.-The causes of death in each ward of the City of Georgetown, and its environs.
X.-The causes of death in each division of the Town of New Amsterdam.
XI.-The vital statistics for each registration district with the deaths of persons in Hospitals, Asylums, and other Public Institutions, returned as occurring in the District from which such persons cams.

## 1.-Whole Colony.

Population.-Vide Table I.
3. The Estimated Population on 31st December, 19:33, was 321,260. Of these 160,716 were males and 160,544 females, being in the proportion of 1001 males to 1,000 females.

## Marriages.

Marriages performed during the year under the provisions of the Marriage Ordinance No. 25 of 1901.
4. 1,295 marriages were registered under Ordinance No. 25 of 1901. This number was 138 more than in 1932.
5. 70 of the marriages were performed by licence, 1,218 by banns and $7 \mathrm{in}^{\mathrm{N}}$ extremis. One of the marriages in extremis was solemnised by the Congregational and six by the Roman Catholic Denomination.
6. The churches and other buildings in which the marriages were solemnized or celebrated belonged to the following denominations:-

| $\stackrel{(1)}{\text { Denomination. }} \text { or Seots, }$ |  |  |  | (2) | (3) | (4) 1933. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Churoh of England | . | ... | ... | 316 | 370 | 375 |
| Ohurch of Sootland | . | .. | ... | 1180 | 146 | 181 |
| Roman Catholio | ... | ... | ... | 178 | 186 | 231 |
| Congregationalist | ... | ... | ... | 103 | 123 | 174 |
| Methodist | ... | ... | ... | 83 | 115 | 110 |
| Moravian | ... | ... | ... | 55 | 68 | 54 |
| Oanadian Presbyterian | ... | $\ldots$ | ... | 42 | 45 | 60 |
| Other Denominations or Seots | ... | ... | ... | 97 | 99 | 110 |
| Superintendent Registrar' Oftioo | ... | ... | ... | 3 | 1 |  |
|  |  |  |  | 997 | 1,157 | 1,295 |

7. 139 or 5.4 per cent. of the 2,590 persons married signed the Registers by mark, last year the figures were 229, 9.9 and 2,314 respectively.
8. Of the marriages--

1,101 bachelors married spinsters.
51 bachelors married widows.
111 widowers married spinsters.
30 widowers married widows.
1 divorcee married a spinster.
1 bachelor married a divorcee.
Total. ... 1,295
9. Of the husbands 32 , and of the wives, 342 were minors.
10. At the beginning of the year there were 403 registered buildings for publishing banns of marriage. During the year, 3 buildings were registered and 2 substituted for 2 cancelled. The total at 31st December was 406.
11.-(a) Under the Immigration Ordinance No. 18 of 1891, 468 marriages of East Indians were registered, viz. :-

191 by Magistrates.
93 in accordance with their own religion and personal law.
184 by Christian Clergymen.
Total ... 468
(b) The marriage rate among the Indians was 6.9 per 1,000 as against 6.3 for 1032.
(c) These marriages with the exception of 184 Christian marriages, which are already included in paragraph 4 hereof as having been performed under the Marriage Ordinance of 1901 , increase the total marriages to 1,579 represented as follows:-

> 1,111 Marriages of races other than East Indians, under the Ordinary Law.
> 184 Marriages of Christian East Indians, under both the Marriage and Immigration Laws.
> 284 Marriages of East Indians under the Immigration Law.

Total ... 1,579
12. The marriage rate was 9,8 per 1,000 of the population. In 1932 it was 8.9 excluding the East Indian population and the marriages amongst that race, the rate for the other races would be 11.9.

## Births.--Vide Table 11.

13. 10,461 births were registered; of these 5,339 were boys and 5,122 girls. In the previous year the figures were 10,825 5,473 and 5,352 respectively.
14. The birth rate was 32.6 per 1,000 of the estimated population as against 34.1 for 1932.
15. The following shows the number of births registered each quarter :-

\begin{tabular}{|c|c|c|c|c|c|}
\hline \multicolumn{3}{|c|}{$\stackrel{(1)}{\text { Quartera. }}$} \& $\stackrel{(2)}{\text { cilen. }}$ \& $$
\stackrel{\text { (3) }}{\text { Fomalen, }}
$$ \& ( ${ }_{\text {(4) }}^{\text {(4) }}$ <br>
\hline Maroh Quarter \& ... \& ... \& 1,534 \& 1,482 \& 3,016 <br>
\hline June Quarter ${ }^{\text {a }}$, ${ }^{\text {a }}$ \& $\cdots$ \& $\cdots$ \& 1,199 \& 1,193 \& 2,392

2,288 <br>
\hline September Quarter ${ }^{\text {December }}$ Quarter ${ }^{\text {a }}$... \& ... \& \& 1,433 \& 1,332 \& <br>
\hline Totals \& ... \& ... \& 6,339 \& 5,122 \& 10,461 <br>
\hline
\end{tabular}

16. Of the total number of births registered 5,142 or 49.2 por cent. were legitimate, and 5,319 or 50.8 per cent. illegitimate.

The births may be classified as follows :-

17. The following is a comparative statement of the percentage of illegitimacy for the previous five years :-

|  |  | 1928. | 1929. | 1930 | 1931. | 1932. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Inclusive of East Indians | $\ldots$ | $50.0 \%$ | $50.6 \%$ | $52.7 \%$ | $52.1 \%$ | $52.1 \%$ |
| Exclusive of East Indians | ... | $57.9 \%$ | $57.9 \%$ | $60.2 \%$ | $\mathbf{5 9 . 8 \%}$ | $60.1 \%$ |

18. The subjoined table gives the proportion of illegitimate children for the tollowing places which are the latest available :-

| St. Vincent | (1927) | $\cdots$ | ... | ... | 72.2\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jamaica | (1932) | ... | ... | ... | 71.7\% |
| Trinidad | (1933) | ... | ... | ... | 68.9\% |
| Barbados | (1928) | ... | ... | ... | 66.0\% |
| St. Lucía | (1933) | ... | ... | $\cdots$ | 65.6\% |
| Grenada | (1933) | ... | ... |  | 65.1\% |

19. There were 133 cases of twins; last year there were 129 cases. There was one case of triplets.
20. The birth rates per thousand of the various races with comparative figures for 1931 and 1932 were as follows :-

| $\stackrel{(1)}{\text { Racen. }}$ |  |  | Of the entimated Population of each Race. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (2) | $(3)$ 1932. | (4) |
| Europeans (other than Portuguese) | $\cdots$ | ... | $\left.{ }_{19}^{14.9}\right\}^{18 \cdot 6}$ | $\left.\left.{ }^{14.4} \mathbf{2 0}\right\}^{4}\right\}^{19.5}$ |  |
| Europeang (Portuguese) | ... | ... | 37.7 | ${ }^{40 \cdot 6}$ | 36.6 19.0 |
| Cast Indians | ... | ... | +20.2 | ${ }_{38} 18$ | 47 |
| Aborigines | $\cdots$ | ... | 25.1 | 28.1 | 28.0 34 |
| ${ }^{\text {Blacke }}$ Mixad Races | $\ldots$ | $\cdots$ | $\begin{array}{r}24.3 \\ \hline 2.9\end{array}$ | 35.6 5 |  |
| Mixed Races ${ }_{\text {Othor }}$ Racer and Races not stated | $\cdots$ | ... | $2 \cdot 9$ |  |  |

## Stillbirtis.-Vide Table V.

21. The number of stillbirths recorded during the year was 627 and was in the proportion of 60 to every 1,000 children born alive as against 651 or 60 to 1,000 for 1932 ; of the figures for 1933, 278 were returned as legitimate, and 571 were certified by medical men.

## Deaths.-Vide Table III.

-22. 7,848 deaths were registered ; of these 4,236 were males and 3,612 females. In the previous year the figures were 6,694, 3,491 and 3,203 respectively.
23. The death rate was 24.4 per 1,000 of the estimated population as against 21.1 per 1,000 for 1932.
24. The death rate for males was 26.4 and that for females 22.5 per 1,000 , as compared with 22.0, and 20.2 per 1,000, respectively for 1932 .
25. 5,598 or 71.3 per cent. of the deaths were certified by medical men, as against 4,676 or 69.9 per cent. for 1932.
26. The following shows the number of deaths registered each quarter :-

| $\begin{gathered} \text { (1) } \\ \text { Quarters. } \end{gathered}$ |  |  |  |  | (2) <br> Males. | (3) <br> Femalen. | (4) Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| March Quarter | ... | ... | $\ldots$ | $\cdots$ | 1,379 | 1,041 | 2,420 |
| June Quarter | ... | ... | ... | ... | 887 | 738 | 1,625 |
| September Quarter | - | ... | $\cdots$ | $\ldots$ | 948 | 804 | 1,752 |
| Decomber Quarter | ... | ... | ... | .. | 1,022 | 1,029 | 2,051 |
| Totals | ... | ... | ... | ... | 4,236 | 3,612 | 7,848 |

27. Coroners' Returns.-Of the deaths 202 were reported by the Coroners.
28. The following table shows the excess of births and the excess of deaths in the different districts from 1924 to 1933 :-

| $\begin{gathered} 1(1) \\ \text { Distriotg. } \end{gathered}$ | Excess of Births. |  |  |  |  |  |  |  |  |  | Excess of Deaths. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (2) | (1925 | (4) | ${ }_{1927}$ | $\begin{gathered} (6) \\ 1923 \end{gathered}$ | (7)929 | (8) | $(9)$ 1931 | ${ }_{1932}$ | (11) 1933 | ${ }_{1924}$ | (13) 1925 | ${ }_{\text {1926 }}(14$ | (1927 | (16) | (17) 1929 | $\begin{aligned} & (18) \\ & 1930 \end{aligned}$ | ${ }_{1931}$ | (20) 1932 | (21) 198 |
| Skeldon | 116 | 289 | 201 | 279 | 301 | 298 | 355 | 304 | 441 | 400 | $\cdots$ | $\ldots$ | $\ldots$ | ... | $\cdots$ | $\ldots$ | ... | $\ldots$ | $\ldots$ | $\cdots$ |
| Port Mourant | 373 | ${ }^{684}$ | 527 | 403 | 237 | 633 | 639 | 519 | 657 | 605 118 | ... | ... | ... | $\ldots$ |  |  | $\ldots$ | $\ldots$ | ... | $\cdots$ |
| $\begin{array}{ll}\text { Lower Oanje } \\ \text { Upper Canje } & \ldots \\ \text { Cat }\end{array}$ | 79 | ${ }_{2}^{137}$ | 138 2 | 61 17 | 71 7 | 150 10 | 157 12 | ${ }^{91}$ | 191 14 | 118 9 | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ |  | $\cdots$ |
| Uppor Canje | $\cdots$ | $\ldots{ }^{. .}$ | ${ }^{. .} 2$ | 17 | 7 | 10 | 12 | $\cdots$ | 14 |  | 67 | $\dddot{74}_{6}$ | 147 | 164 | 176 | 96 | 108 | 216 | 30 | 169 |
| Highbury | . | ... | ... | $\ldots$ | 7 | 24 | 31 | $\cdots 5$ | 2 | 8 | 28 | 2 | 5 | 40 | ... | ...' | ... | ... | ... | .. |
| Mara and Upper Berbioe River |  | 11 |  |  |  |  | 3 |  | 29 | 19 | 1 | ... | 2 | 55 | 18 | 24 | ... | 14 |  | $\cdots$ |
| Cotton Tree ... | 263 | 213 | 106 | 218 | 165 | 255 | 241 | 183 | 262 | 129 | ... | $\cdots$ | $\cdots$ | $\cdots$ | .-. | $\cdots$ | $\ldots$ | ... | ... | - |
| Mahnioony ... | 182 | 208 | 112 | 178 | 151 | 205 | 271 | 185 | 220 | 164 | ... | $\ldots$ | ..- | ... | ... | ... | ... | ... | ... |  |
| Mahaiom | 131 289 | 91 264 | 162 | 256 446 | ${ }_{96}^{90}$ | 79 240 | 1398 | 193 | 205 295 | 1235 | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| Plaisanga | 200 | 230 | 393 | 279 | 88 | 150 | 286 | 261 | 330 | 246 |  |  |  |  |  |  |  |  |  | - |
| Georgetown ... |  |  |  |  |  |  |  |  |  |  | 235 | 100 | 144 | 282 | 691 | 214 | 964 | 120 | 31 | 24 |
| Peter's Hall | 147 | 227 75 | 24 | 157 | $\ldots$ | 115 | 212 | 188 23 | 200 62 | ${ }^{116}$ | $\cdots$ | $\cdots$ | 114 | 255 | 53 30 | 63 | 31 | ... | ... | .- |
| Belle Vue | 69 | 27 | 190 | 45 | $\cdots$ | 105 | 77 | 183 | 224 | 118 | $\cdots$ | ... | 114 | 205 | 89 | 63 | 31 |  | $\cdots$ | $\cdots$ |
| Leonora | 96 | 190 | 220 | 210 | 21 | 178 | 195 | 288 | 286 | 156 | ... | ... | ... | ... |  | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ |
| Philadelphia Leguan | 169 | 154 | 260 | 261 | $\cdots$ | 161 | 260 | 270 | 287 | 91 | $\cdots$ | ... | $\ldots$ | ... | 45 | ... | $\ldots$ | ... | ... |  |
| Upper Enaequebo | ... | ... | $\cdots$ | ... | ... | $\ldots$ | ... |  |  |  | 64 |  | 35 | 96 | 19 |  |  | 9 | 18 | 2] |
| Bartios Mararui ... | ... | ... | ... | ... | ... | ... | ... | 13 | 18 | 11 | 65 | 20 | 16 | 47 | 66 | 29 | 31 |  |  |  |
| - Upper Mazaruni ... |  |  |  |  |  |  |  |  |  |  | 73 | 73 | 93 | 75 | 57 | 54 | 76 | 52 | 46 | 41 |
| Waranamm  <br> Guddio ... |  | 48 | 47 | 143 | 20 | 46 <br> 30 | 20 | 819 | 116 31 |  | 35 | - 5 | ... | $\cdots$ | 102 | ... | $\cdots$ | $\cdots$ | $\ldots$ | 78 |
| Anna Regina ... | 176 | 128 | 141 | 137 | 64 | 168 | 131 | 214 | 232 | 136 | ... | ... | ... | ... | ... | ... | . | ... | ... | - |
| Pomoroon ${ }_{\text {North }}$ Wentorn | 76 | 132 168 | 108 4 | 79 | 118 35 | 119 39 | 146 39 | 151 32 | 185 69 | 199 | $\ldots$ | $\ldots$ | $\cdots$ | 158 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
|  |  |  |  |  |  |  |  |  |  |  |  | $\cdots$ |  |  | $\ldots$ | .. | $\ldots$ | ... | ... | - |
| Totals | 2,699 | 3,168 | 3,372 | 3,119 | 1,456 | 3,004 | 3,590 | 3,418 | 4,256 | 3,164 | 561 | 323 |  | 1,102 | 1,329 | 461 | 326 | 413 | 125 | 651 |

[^68]29. The number of deaths of children under one year was 1,613 and was equal to a rate of 154 per 1,000 births as against 1,503 or 139 per 1,000 births in 1932 .
30. The following table shows the proportion of the deaths of the children under one year of age of each race, to every 1,000 births of each such race with. comparative rates for 1931 and 1932 :-

31. The proportion of the deaths of the children under one year of each race to every 1,000 deaths of the total mortality of the whole Colony and of each race with comparative rates for the years 1931 and 1932 was as follows :--

| $\begin{gathered} (1) \\ \text { Races. } \end{gathered}$ | On the Total mortadity. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Of the whole Colony. |  |  | Of eaoh Race. |  |  |
|  | (2) | (3) | (4) | (5) | (6) | (7) |
| Earopesing (other than Portuguese) <br> Enropeans (Yortuguese) | $2 \cdot 3)^{2 \cdot 3}$ | $\left.{ }^{-1} 6\right\}^{3}{ }^{3} 7$ | $\left.{ }^{-1} 1\right\}^{1} 3 \cdot 2$ | 102.6) ${ }^{86 \cdot 1}$ | $\left.\begin{array}{c}34 \cdot 5 \\ 158.9\end{array}\right\} 138 \cdot 9$ |  |
| Fant Indiana | 1018 | $115 \%$ | 108.4 | 2270 | 2418 | $215 \cdot 6$ |
| Ohinger | . 6 | ${ }^{.} 7$ |  |  | 113.6 | 1976 |
| Aborigine: | $6 \%$ 66.9 | 6.3 76.6 | $6 \cdot 1$ 69.4 | $169 \cdot 2$ 170.9 |  |  |
| Blackg <br> Mixed Rages | 66.9 22.2 | 76.6 320 | 69.4 17.8 | $170 \cdot 9$ $262 \cdot 1$ | 2034 <br> $294 \cdot 0$ <br> 21 | ${ }_{260} 19.7$ |
| Other Racen and Races not stated.... |  |  |  |  | 111.1 |  |

32. The following were the principal causes of death of children under one year:-

33. 369 deaths of persons 80 years of age and upwards were registered. Last year there were 292.
34. The age at death of two males and one female could not be ascertained. Last year this information could not be obtained in the case of eight males.
35. The following table shows the death-rate of the various races per 1,000 of the estimated population of each race and of the total mortality with comparative rates for the years 1931 and 1932 :-

6

36. The following table shows the population, the number of hirths and deaths, the birth rate and death rate per 1,000 of the estimated population, the deaths of children under one year of age, the infantile death rate per 1,000 births, and the number of stilihirths from 1869 to 1933 :-

| (1) <br> Years. | (2) <br> Population. | (3) <br> Birthe. | (4) <br> Destbs. | (5) | (6) <br> Death rate. | (7) <br> Deaths of Ohildren under 1 year. | (8) Infantile Death rateper 1,000 Birthe. | (9) <br> Stillbirths. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1869 | 206,118 | 6.664 | 6,334 | $32 \cdot 2$ | 307 | 1,437 | 216 | 407 |
| 1870 | 209,000 | 7,103 | 6,203 | 33.9 | 29.0 | 1,365 | 192 | 486 |
| 1871* | 193,491 | 7,182 | 7,324 | 37.1 | $37 \cdot 8$ | 1,540 | 214 | 503 |
| 1872 | 200,043 | 7.032 | 7,354 | $35 \cdot 1$ | $37^{\circ} 0$ | 1,640 | 233 | 472 |
| 1873 | 211,0111 | 7,658 | 7.245 | $35 \cdot 8$ | $34 \cdot 3$ | 1,680 | 222 | 496 |
| 1874 | 218,908 | 8,317 | 7.567 | 37.9 | 34.5 | 1,663 | 200 | 531 |
| 1875 | 222,769 | 7,825 | 8,034 | 36.1 | 36.0 | 1,685 | 215 | 628 |
| 1875 | 225,365 | 7,833 | 8,270 | $34 \cdot 7$ | 36.6 | 1,838 | 235 | 540 |
| 1877 | 228.880 | 7.585 | 8,677 | $33 \cdot 1$ | 37.4 | 1,827 | 241 | 508 |
| 1878 | 239,263 | 7,960 | 7,282 | 33.2 | $34 \cdot 4$ | 1,676 | 211 | 501 |
| 1879 | 248,110 | 9,211 | 6,735 | $37 \cdot 1$ | $27 \cdot 1$ | 1,547 | 168 | 670 |
| 1880 | 253,060 | 8,975 | 7,649 | $35 \cdot 4$ | $30 \cdot 2$ | 1,755 | 196 | 616 |
| 1881 | 254,717 | 8,144 | 8,095 | 32.0 | 81.8 | 1,658 | 204 | 610 |
| 1882 | 257,940 | 9,105 | 8,451 | 353 | 32.8 | 1,924 | 211 | 593 |
| 1883 | 260,011 | 8,172 | 7,867 | $31 \cdot 4$ | 80.2 | 1,559 | 191 | 699 |
| 1884 | 264,061 | 7,869 | 8,076 | 29.7 | 30.6 | 1,508 | 192 | 651 |
| 1885 | 270,049 | 8,56i | 7,973 | $31 \cdot 6$ | 29.6 | 1,601 | 187 | 678 |
| 1886 | 274,311 | 9,661 | 7,014 | 35.2 | 25.5 | 1,562 | 162 | 866 |
| 1887 | 277,038 | 8,949 | 8,979 | 39.2 | \$2.4 | 1,905 | 213 | $\therefore 836$ |
| 1888 | 278,477 | 8,575 | 8,153 | 30.7 | 29.2 | 1,467 | 171 | 761 |
| 1889 | 282, 166 | 10,183 | 7,937 | 36.1 | 28.1 | 1,866 | 183 | 807 |
| 1890 | 282,103 | 8,726 | 11,230 | 30.9 | 39.8 | 2.075 | 238 | 769 |
| 1891 | 278,393 | 7,422 | 10,210 | 26.6 | 36.6 | 1.683 | 227 | 646 |
| 1892 | 278,295 | 7,795 | 11,070 | 28.0 | 39.8 | 1,811 | 232 | 732 |
| 1893 | 278,279 | 7,693 | 9,880 | 27.2 | $35 \cdot 5$ | 1,669 | 220 | 802 |
| 1894 | 230.869 | 6,957 | 9,374 | 24.7 | $33 \cdot 3$ | 1,584 | 228 | - 27 |
| 1895 | 283.278 | 8,177 | 8,345 | $28 \cdot 8$ | 29.5 | 1,471 | 180 | 864 |
| -1896 | 285,315 | 9,276 | 7,513 | 32.6 | $26 \cdot 3$ | 1,593 | 172 | 915 |
| 1897 | 286,484 | 9,635 | 8,000 | 33.6 | $27 \cdot 9$ | 1,774 | 184 | 937 |
| 1898 | 286,222 | 8,500 | 9,706 | 29.3 | 33.9 | 1,941 | 228 | 839 |
| 1899 | 287,288 | 8,275 | 8,352 | $28 \cdot 8$ | 29.1 | 1,580 | 191 | 814 |
| 1900 | 294,943 | 10,817 | 7,473 | 36.7 | $25 \cdot 3$ | 1,769 | 164 | 993 |
| 1901 | 901,748 | 10792 | 7,096 | $35^{\circ} 9$ | 23.6 | 1,746 | 162 | 985 |
| 1902 | 302,178 | -10.087 | 8,494 | 33.4 | 28.1 | 1,957 | 194 | 876 |
| 1903 | 302,628 | 8,786. | 8,772 | 29.9 | $28 \cdot 9$ | 1,799 | 205 | 856 |
| 1904 | 301,923 | 9,151 | 8,694 | 30.3 | 28.8 | 1,836 | 201 | 863 |
| -1905 | 308,390 | 10,194. | 8,314 | 356 | 27.4 | 1,902 | 187 | 888 |
| - 1906 | 30¢,959 | 10,113. | 8,844 | 32.9 | 28.8 | 2,039 | 202 | 988 |
| 1907 | 304,549 | $8.60{ }^{\circ}$ | 11,262 | 28.3 | 36.9 | 2,202 | 256 | 810 |
| 1908 | 304, 089 | 8,299 | 9,381 | $27 \cdot 3$ | 30.8 | 1,644 | 198 | 846 |
| 1909 | 305,090 | 8,947 | 9,367 | 29.3 | 300 | 1,872 | 209 | 1,019 |
| 1910 | 303,107 | 8,332 | 10,424 | $27 \cdot 6$ | 34.4 | 1,954 | 235 | 813 |
| 1911 | 295,784 | 8,630 | 9,385 | 28.8 | 31.7 | 1,865 | 229 | 878 |
| 1912 | 299,044 | 9,894 | 8,727 | 33.1 | 29.2 | 1,879 | 190 | 862 |
| 1913 | 304, 149 | 10,515 | 7.370 | 34.6 | $24 \cdot 2$ | 1,885 | 179 | 885 |
| 1914 | F09,938 | 10,662 | 7,686 | $34 \cdot 4$ | 24.5 | 1,811 | 1. 170 | 943 |
| 1915 | 312.391 | 9,766 | 8,637 | $31 \cdot 3$ | 27.7 | 1,799 | 184 | 837 |
| 1916 | 313,859 | 8,326 | 8,605 | 26.5 | 27.1 | 1,583 | 190 | 706 |
| 1917 | 813,993 | 8,933 | 9,549 | 28.4 | 30.4 | 1,781 | 199 | 765 |
| . 1918 | 310,972 | 7,791 | 12.614 | $25 \cdot 1$ | 40.6 | 1,739 | 223 | 751 |
| -1919 | 305,941 | . 7,938 | 12,377 | 259 | 40.4 | 1,469 | 188 | 658 |
| 1920 | 307,290 | 9,788 1088 | 7,879 | 31.9 34.5 | 26.6 30.9 | 1,453 | 148 | 796 |
| 1921 | 298.188 | 10.287 | 9,200 | $34 \cdot 5$ 27.8 | 30.9 99.1 | 2,002 | 195 | 8987 |
| 1922 | 297, 817 | 8,274 | 8,663 | 27.8 30.4 | 29.1 | 1,537 | 186 | 797 846 |
| 1923 | 299.199 | 9,109 | 8,468 | 30.4 3.4 | 28.3 | 1,609 | 177 | 8846 |
| 1924 | 301.204 | 9,765 10,197 | 7,717 | 32.4 | $25 \cdot 6$ | 1,606 | 165 | 822 787 |
| 1925 | 304,412 | 10.197 | 7,352 | 33.5 | $24 \cdot 2$ | 1,589 | 155 | 787 |
| 1926 | 306,844 | 10,658 | 7.837 | 34.7 32.6 | 25.5 26.0 | 1,696 1,589 | 169 158 | 776 |
| 1927 1428 | 50N,478 $\mathbf{3 0 7 , 7 8 4}$ | 10,041 80709 | 8,024 8.575 | $32 \cdot 6$ 28.3 | 26.0 27.9 | 1,689 $\cdot 1,607$ | 158 | 777 |
| 1928 1929 | 307,784 309,676 | 8,702 $\mathbf{9 , 8 2 4}$ | 8575 7.281 | $28 \cdot 3$ 31.7 | 279 835 | 1,607 1,434 | 185 146 | 731 |
| 1929 1930 | 309,676 $\mathbf{3 1 2 , 4 8 9}$ | 9,824 10,438 | 7,281 | 31.7 33.4 | 23.0 23 | 1,439 | 146 | 697 |
| 1931 | 313619 | 9,853 | 6,848 | 31.4 | 21.8 | 1,373 | 139 | 621 |
| 1938 | \$17.813 | 10,825 | 6,694 | $34 \cdot 1$ | 21.1 | 1,503 | 139 | 651 |
| 1933 | 321,260 | 10461 | 7,848 | 32.6 | $24 \cdot 4$ | 1.613 | 154 | 627 |

37. The following table shows the rate per 1,000 of (a) the total mortality, and (b) the estimated population, of the undermentioned of (a) the total mortality, and
years:- during the last ton



PHTHISIS AND OTHER FORMS OF TUBERCULOSIS.

38. The following table shows the number of deaths from Enteric Fever during the period 1924 to 1933 :-

|  | (1) | (2) | (3) 1925. | (1926. | 195). | (6) ${ }^{(628 .}$ | (7) | (8) | $(9)$ 1931. | (10) <br> 1932. | (11) 1933 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Deathr |  | 89 | 79 | 102 | 90 | 58 |  | 53 | 52 | 46 | 68 |

Georgetown and Environs.
Population.
39. The estimated population of Georgetown and its environs on the 31st December, 1933, was 64,207 or 28,613 males and 35,594 females.

## Marriages.

40. There were 475 marriages performed under Ordinance No. 25 of 1901.

## Bioths,

41. 1,861 births were registered; of these 972 were boys and 889 were girls. In the previous year the figures were 1,895 being 945 boys and 950 girls.
42. The birth rate was 29.0 per 1,000 living as against 29.9 for 1932 .

Stillbirths.
43. There were 113 stillbirths as against 147 for 1932.

## Deaths.

44. 2,108 deaths were registered, of which 1,154 were males and 954 females. In the previous jear the figures were 1,926, 1,077 and 849 respectively.
45. Of the deaths 1,221 or $57 \cdot 9$ per cent. occurred in the Public Hospital and 276 or 13.1 per cent. in the Alms House. Of the deaths in the Public Hospital 648 or $53 \cdot 1$ per cent. were of patients from the country districts. Of the deaths in the Alms House 154 or 55.8 per cent. were of inmates from the country districts.
46. The death rate excluding the deaths in the Public Hospital and Alms House of patients and inmates from the country was 20.3 per 1,000 of the population as against $18 \cdot 9$ per 1,000 for 1932.
47. Four deaths occurred in the shipping in the river. There were three deaths last year.
48. 2,030 or 96.3 per cent. of the deaths were certifiea by medical men as against $\mathbf{1 , 5 5 7}$ or $\mathbf{9 6 . 4}$ for last year.
49. The subjoined table shows the number of deaths registered during each quarter of the year:-

| (1) <br> Quarter: |  |  |  |  | (2) Males. | (3) Femalos. | (4) <br> Totals. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maroh Quarter | ... |  | ... | ... | 284 | 254 | 538 |
| June Quarter | ..* |  | ... | ... | 275 | 205 | 480 |
| September Quarter | ... |  | ... | ... | 285 | 210 | 495 |
| Deoomber Quarter | ... |  | ... | ... | 310 | 235 | 695 |
| Totals | ..- |  | *. | ... | 1,154 | 954 | 2,108 |

50. The following table shows the principal causes of death and the death ratefrom each cause (a) per 1,000 of the mortality, and (b) per 1,000 of the population of the city, with comparisons for 1932 :-

| (1) | 1932 |  |  | 1933 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (2) <br> No. of Death, | Rate per 1,000 |  | (5) <br> No. of Deaths. | Rate per 1,000 |  |
|  |  | (3) | (4) |  | (6) | (7) |
|  |  | Of Total Mortality. | Of Estimated Population. |  | Of Total Mortelity. | Of <br> Entimated <br> Population. |
| Pneumonia and Bronohitis | 116 | 97.0 | 18 | 162 | 124.0 | $2 \cdot 6$ |
| Eidnoy Diseases ... | 79 | 66.1 | 19 | 80 | $61 \cdot 3$ | 12 |
| Bowel Complaints (inoluding Dysentery, Diarrhoes and Enteritia, eto.) | 73 | $61^{\circ} 0$ | 128 |  | 75.0 | 15 |
| Fever (Malarial and unqualifed) ... | 89 | 74.4 | $1 \cdot 4$ | 80 | $61 \cdot 3$ | 1-2 |
| Phthlsis and other forme of Tuberoulosis ... | 96 | $80 \cdot 3$ | 15 | 87 | 66.6 | $1 \cdot 4$ |
| Diseases of early Infancy (inoluding Premature Birth, congenital Debility, oto.) | 125 | 104\% | 2.0 | 108 | 82.7 | - 17 |

N.B.-The deaths of patients in the Hospital, as well as of inmates of the Alms House, who were anmitted to the institutions from the Country Districts have been excluded.
51. Of the deaths 271 were children under 1 year of age. This is equivalent to 146 deaths for every 1,000 children born; Last year these figures were 278 and. 147 respectively.

> III.-New Amsterdam.
> Population.
52. The estimated population on 31st December, 1933, was 9,119 or 4,122 males and 4,997 females.

Marriages.
53. There were 75 marriages performed under Ordinance No. 25 of 1901.

Births.
54. 280 births were registered, of these 143 were boys and 137 girls. In the previous year there were 313 births of which 168 were boys and 145 girls.
55. The birth rate was 30.7 per 1,000 of the population as agaiust 34.6 for Still-births,
56. There were 38 stillbirths recorded as against 40 for 1932.

## Deaths.

57. 442 deaths were registered, of which 261 were males, and 181 females. In the previous year the figures were 343 of which 199 were males and 144 females.
58. Of the deaths 296 occurred in the Public Hospital, and 56 in the Mental Hospital. Of the deaths in the Public Hospital 189 or 63.9 per cent. were of patients from the Country Districts, and of the deaths in the Mental Hospital 50 or 89.3 per cent. were of inmates admitted from various parts of the Colony other than New Amsterdam.
59. The death-rate excluding the deaths in the Public Hospital of patients from the Country Districts, and the deaths of inmates admitted to the Mental Hospital from places other than New Amsterdam was 22.3 per 1,000 of the population, as against 16.6 per 1,000 for 1932.
60. 433 or 98.0 per cent. of the deaths were certified by medical men as against 330 or 96.2 per cent, for last year.
61. The following table shows the number of deaths registered during each quarter of the year :-

| (1) <br> Quarters. |  | (2) Males | (3) <br> Females. | (4) <br> Totals. |
| :---: | :---: | :---: | :---: | :---: |
| March Quarter ${ }^{\text { }}$ | - | 95 | 46 | 141 |
| June Quarter | $\ldots$ | 54 | 35 | 89 |
| September Quartor | ... | 62 | 41 | 103 |
| Decomber Quarter | ... | 50 | 69 | 109 |
| Totals | ... | 261 | 181 | 442 |

62. The following table shows the principal causes of death, the death rate from each such cause (a) per 1,000 of the mortality, and (b) per 1,000 of the estimated yopulation of the Town, with comparisons for 1932:-

| (1) | 1932. |  |  | 1933. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rate per 1,000 |  | (5) <br> No. of Deaths. | Rate per 1,000 |  |
|  |  | (3) | (4) |  | (6) | (7) |
|  |  | Of Mortality. | $\begin{gathered} \text { Of } \\ \text { Population. } \end{gathered}$ |  | $\stackrel{\text { Of }}{\text { Mortality. }}$ | Of Population. |
| Fever (Malarisl and unqualified) ... | 7 | 46.7 | 8 | 21 | $103 \cdot 4$ | $2 \cdot 3$ |
| Kidney Diseases ${ }^{\text {a }}$. ${ }^{\text {a }}$ | 7 | $\begin{array}{r}467 \\ \hline 13\end{array}$ | 8 | 10 | 49.3 142.9 | 1.1 |
| Pneumonla and Bronchitis ... | 20 | 133.3 | $2 \cdot 2$ | 29 | $142 \cdot 9$ 59.1 | 3.2 |
| Phthisis and other forms of Tubereulosis - ... | 11 | $73 \cdot 3$ | 1.2 | 12 | $59 \cdot 1$ | 13 |
| Bowel Complaints (inoluding Dymentery, Diarrhosa and Enteritia) | 9 | $60^{\prime} 0$ | 10 | 18 | 88.7 | 20 |
| Diseases qf early Infancy (including Premature Birth; congenital Debility, eto.) | 16 | 106\% | 18 | 20 | 98.5 | $2 \cdot 2$ |

N.B.-The deaths of patients in the Hospital from Country Districts and of inmates of the Mental Hospital from places other than New Amsterdam have been excluded.

63．Of the deatbs 48 were of children under one year of age，which are equiva－ lent to 171 deaths to every 1,000 children born，as against 36 or 115 respectively for 1932.

## IV．－EAbt Indians． <br> Population．

64．The estimated population of East Indians was as follows：－

|  |  | Males． | Females． | Persons． |
| :---: | :---: | :---: | :---: | ---: |
|  |  |  |  |  |
| In the whole Colony | $\ldots$ | 71,691 | 63,423 | 135,114 |
| On Sugar Estates | $\ldots$ | 29,051 | 25,526 | 54,577 |
| Off Sugar Estates | $\ldots$ | 42,640 | 37,897 | 80,537 |

65. 

Births．


66．The number of Births registered during each quarter of the year was ：－

67.

Deaths．

|  | （1） |  |  | 1932. |  |  |  | 1933. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | （2） | （3） | （4） | （5） | （6） | （7） | （8） | （9） |
|  | Loomlity |  |  |  |  |  | 户్ర్సి |  |  |  | $\stackrel{8}{9}$ |
|  |  |  |  | 亳 | 恶 | 号 | $\begin{aligned} & \text { 曾首 } \\ & \text { 最 } \end{aligned}$ | 家 | $\xrightarrow{\text { 容 }}$ |  | 产它 |
| Whole Ooleny | － | ．．． | ．．． | 1，716 | 1，468 | 3，184 | 23．8 | 2，223 | 1，724 | 3，947 | $29 \cdot 2$ |
| On Sugar Estaten |  | ．．． | ．．＂ | 587 | 533 | 1，120 | 20.6 | 849 | 659 | 1，508 | 27.6 |
| Off Sugar Estater |  | ．．． | ．．． | 1，129 | 985 | 2，064 | 26.9 | 1，374 | 1，065 | 2，439 | 30．3－ |

68. The number of Deaths registered during each quarter of the year was :-

|  | , | (1) Quarters. |  | (2) <br> No. Recintered. |
| :---: | :---: | :---: | :---: | :---: |
| March Quarter | ... | $\cdots$ |  |  |
| June Quarter | ... | . | $\ldots$ | 1,360 757 |
| September Quarter Deoember Quarter | $\cdots$ | .. | $\ldots$ | 889 |
| Total |  |  | ... | 971 |
|  | .- | $\cdots$ | $\cdots$ | 3,947 |

69. The number of deaths of children under 1 year was 851 or 172 per 1,000 of the births of the race as against 770 or 142 per 1,000 respectively for 1932 .
70. The principal causes of death with comparisons for 1932 were :-

| $\stackrel{\text { (1) }}{\text { Causes of Death. }}$ | 1932. |  | 1933. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (2) <br> No. of Deaths. | (3) <br> Rate por 1,000 of Population. | (4) <br> No. of Deaths. | (5) <br> Rate por 1,000 of Popalation. |
| Pneumonia and Bronchitis <br> Ferer (Malarial and nuqualified) <br> Disoanes of early Infanoy (including Premature Birth, | 529 516 | 3.8 <br> 3.8 <br> .7 | 729 598 | 5.3 4.4 3.0 |
| oongenital Debility, eto.) Kidney Diseases | 367 296 | 27 82 | 412 309 | 3.0 2.9 |
| Bowel Complaintu (including Dysentery, Diarrhoea, Enteritis, ete.) <br> Phthisis and other forms of Tubaroulosis | $\stackrel{236}{99}$ | 18 | 308 87 | $\begin{array}{r}2.3 \\ \hline 6\end{array}$ |

## V.-Departmental

71. Sixty-nine prosecutions were instituted during the year under review for breaches of the Registration of Births and Deaths Ordinance No. 1 of 1868. The fines in these cases amounted to $\$ 39.24$ and the costs to $\$ 3.12$.
72. Two hundred and eighty-one searches were made, and five hundred and four extracts of Births and Deaths were given off under Ordinance No. 1 of 1868.
73. Ten Baptismal Names werg entered in the Registers under Ordinance No. 32 of 1919.
74. Under the Marriage Ordinance No. 25 of 1901, five searchos were made and twenty-two Extracts of Marriages were issued. Three buildings were registered and two substituted for the publication of Banns of Marriage.
75. The amount of fees received for searches, extracts, \&c., and paid into the Treasury, was three hundred and ninety-eight dollars and seventy-six cents.
76. The foregoing amount does not include searches made and extracts given in the public interest during the year, on behalf of the undermentioned Heads ol

Government Departments. Vide G. S. Circular No. 7,120/10 of the 8th April, 1911:-

| Department. | Searches, |  |  | Extracta. |  |  | Monetary Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Birthg. | Deatha, | Marriagos. | Birthn, | Death. | Marriages. |  |
| The Hanourable The Oolonial Secretary <br> The General Manager Transport Department <br> The Direotor of Eduogtion <br> The Immigration Agent General <br> The Inspector General of Police <br> The Postmaster General <br> The Stipendiary Magistrate, Georgetown ... <br> The Seoretary, Income Tax Commissionern ... | $\begin{array}{r}71 \\ 45 \\ 48 \\ \mathbf{3} \\ \cdots \\ \cdots \\ \hline 1\end{array}$ | $\cdots$$\cdots$$\cdots$111$\cdots$ | $\cdots$$\cdots \cdots$$\cdots \because$$\cdots$$\cdots$$\cdots$$\square$ | 1 <br> 1 <br> $\cdots$ <br> $\cdots$ <br> $\mathbf{3 0}$ <br> $\ldots$ <br> $\cdots$ <br> $\cdots$ |  |  | $\begin{array}{r} 120 \\ 84 \\ 1080 \\ 3298 \\ 32 \\ 24 \\ 24 \\ 24 \\ 48 \end{array}$ |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | . 4704 |

I have the honour to be,
Sir,
Your obedient Servant,

## The Honourable <br> The Colonial Seoretary.

## VITAL STATISTICS.

1933. 

Table No. L.
Showing the Estimated Population of the Colony on the 31st December, 1933.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{(1)}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
(2) \\
Europeans \\
(other than \\
Portuguese).
\end{tabular}}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\(|\)\begin{tabular}{c} 
(3) \\
Europeans \\
(Portuguese).
\end{tabular}}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
(4) \\
East Indians.
\end{tabular}}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
(5) \\
Chinese.
\end{tabular}}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
(6) \\
Aborigines.
\end{tabular}}} \& \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\begin{tabular}{l}
(7) \\
Blacks,
\end{tabular}}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{(9) Other Races and Races not stated.}} \& \multicolumn{3}{|c|}{Totals.} \\
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& (10) Males. \& \[
\left\lvert\, \begin{gathered}
(11) \\
\text { Femalen. }
\end{gathered}\right.
\] \& \[
\int \begin{gathered}
(12) \\
\text { Persong. }
\end{gathered}
\] \\
\hline Estimated
Population
31st December,
1932. \& \(\left\{\begin{array}{l}\text { Males... } \\ \text { Females } \\ \text { Persons. }\end{array}\right.\) \& \begin{tabular}{|c}
1,184 \\
894 \\
\\
\(\ldots\)
\end{tabular} \& …
\(\cdots\)
2,078 \& \[
\begin{aligned}
\& 4,020 \\
\& 4,634
\end{aligned}
\] \& \begin{tabular}{c}
\(\cdots\) \\
\(\cdots\) \\
\(\cdots, 654\) \\
\hline
\end{tabular} \& \[
\left.\begin{aligned}
\& 71,332 \\
\& 62,727
\end{aligned} \right\rvert\,
\] \& \(\cdots\)
\(\cdots\)
134,059 \& 1,685
1,330
\(\ldots\) \& \[
\begin{aligned}
\& \cdots \\
\& \cdots \\
\& 3,015
\end{aligned}
\] \& \[
\begin{aligned}
\& 4,109 \\
\& 4,321
\end{aligned}
\] \& \begin{tabular}{l}
\(\cdots\) \\
\(\cdots\) \\
\(\cdots, 430\) \\
\hline
\end{tabular} \& 60,072 \& \[
\begin{gathered}
\ldots \\
\ldots \\
126,077
\end{gathered}
\] \& \[
\left|\begin{array}{l}
16,363 \\
18,796
\end{array}\right|
\] \& \begin{tabular}{|c} 
\% \\
\(\cdots\) \\
\(\cdots 5\) \\
35,159
\end{tabular} \& \[
\begin{aligned}
\& 190 \\
\& 151
\end{aligned}
\] \& 341 \& 158,955
\(\ldots\) \& 158,85 \& \[
\begin{gathered}
\ldots \\
\cdots \\
317,813
\end{gathered}
\] \\
\hline Arrivals during 1933. \& \(\left\{\begin{array}{l}\text { Females } \\ \text { Persons. }\end{array}\right.\) \& 1,142
715
\(\ldots\) \& \[
1,857
\] \& \[
\begin{aligned}
\& 192 \\
\& 134
\end{aligned}
\] \& \[
326
\] \& 1,249
483 \& \[
1,732
\] \& \[
\begin{array}{r}
291 \\
95
\end{array}
\] \& 386 \&  \&  \& \(\begin{array}{r}1,323 \\ 804 \\ \hline\end{array}\) \& \[
2,12 i
\] \& 1,100 \& (1) \&  \& \[
\cdots
\] \& \[
\begin{gathered}
5,297 \\
. .
\end{gathered}
\] \& 2,736 \& \[
8,033
\] \\
\hline \[
\begin{gathered}
\text { Births } \\
\text { during } 1933 .
\end{gathered}
\] \& \(\left\{\begin{array}{l}\text { Males... } \\ \text { Females } \\ \text { Persons. }\end{array}\right.\) \& \[
\begin{aligned}
\& 11 \\
\& 16
\end{aligned}
\] \& 27 \& \[
\begin{aligned}
\& 91 \\
\& 98
\end{aligned}
\] \& 189 \& 2,509
2,433 \& \[
4,942
\] \& 32
27 \& \[
\begin{aligned}
\& \cdots \\
\& \cdots \\
\& \cdots
\end{aligned}
\] \& \[
\begin{aligned}
\& 222 \\
\& 184
\end{aligned}
\] \& \[
\begin{aligned}
\& \cdots \\
\& \cdots \\
\& 406
\end{aligned}
\] \& 1,831
1,734 \& \[
\begin{aligned}
\& \cdots \\
\& \cdots, 565
\end{aligned}
\] \& \[
\begin{aligned}
\& 641 \\
\& 629
\end{aligned}
\] \& 1,270 \& 2
1 \& \[
\begin{gathered}
\cdots \\
\cdots \\
3
\end{gathered}
\] \& 5,339
.. \& \(\stackrel{7}{6} 122\) \& \[
\begin{gathered}
\cdots . . \\
10,461
\end{gathered}
\] \\
\hline Totals of foregoing. \& \(\left\{\begin{array}{l}\text { Males... } \\ \text { Females } \\ \text { Persons. }\end{array}\right.\) \& \[
\begin{aligned}
\& 2,337 \\
\& 1,625
\end{aligned}
\] \& \[
\begin{aligned}
\& \cdots \\
\& 3,962
\end{aligned}
\] \& \[
\begin{aligned}
\& 4,303 \\
\& 4,866
\end{aligned}
\] \& \[
9,169
\] \& \[
\begin{aligned}
\& 75,090 \\
\& 65,643
\end{aligned}
\] \& \[
140,733
\] \& \[
\begin{aligned}
\& 2,008 \\
\& 1,452
\end{aligned}
\] \& \[
\begin{aligned}
\& \cdots \\
\& \cdots, 460 \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 4,331 \\
\& 4,505
\end{aligned}
\] \& \[
\begin{gathered}
\ldots \\
\cdots \\
8,836
\end{gathered}
\] \& \[
\begin{aligned}
\& 63,226 \\
\& 68,543
\end{aligned}
\] \& \[
\begin{gathered}
\cdots \\
131,769
\end{gathered}
\] \& \[
\begin{aligned}
\& 18,104 \\
\& 19,930
\end{aligned}
\] \& \(\ldots\)
\(\cdots\)
38,034 \& \[
\begin{gathered}
192 \\
152 \\
\ldots
\end{gathered}
\] \& \[
344
\] \& \[
169,591
\] \& 166,716 \& \[
6 \begin{gathered}
\ldots . \\
\cdots 36,307
\end{gathered}
\] \\
\hline Departures during 1933. \& \(\left\{\begin{array}{l}\text { Males... } \\ \text { Females } \\ \text { Persons. }\end{array}\right.\) \& \[
\begin{array}{r}
1,173 \\
701
\end{array}
\] \& \[
\begin{aligned}
\& \cdots \\
\& \cdots \\
\& 1,874 \\
\& \hline
\end{aligned}
\] \& \[
\left.\begin{gathered}
224 \\
147
\end{gathered} \right\rvert\,
\] \& \[
\begin{aligned}
\& \cdots \\
\& 371
\end{aligned}
\] \& 1,176
496 \& \[
1,672
\] \& \[
\begin{aligned}
\& 192 \\
\& 118
\end{aligned}
\] \& \[
310
\] \& … \& … \& 1,130
713 \& \[
1,843
\] \& \begin{tabular}{l}
748 \\
\hline 85 \\
\hline
\end{tabular} \& …
\(\cdots\)
1,129 \& ... \& … \& \[
\begin{aligned}
\& 4,639 \\
\& \ldots
\end{aligned}
\] \& \[
\dddot{2,560}
\] \& 7,199 \\
\hline Remaining \& \(\left\{\begin{array}{l}\text { Males... } \\ \text { Females } \\ \text { Persons. }\end{array}\right.\) \& \[
\begin{array}{r}
1,164 \\
924 \\
\hline
\end{array}
\] \&  \& \[
\begin{aligned}
\& 4,079 \\
\& 4,719
\end{aligned}
\] \& \[
8,798
\] \& \[
\left|\begin{array}{c}
73,914 \\
65,147
\end{array}\right|
\] \& \[
139,06
\] \& \[
\begin{gathered}
1,816 \\
1,334 \\
\ldots
\end{gathered}
\] \& \[
3,150
\] \& \[
\begin{aligned}
\& 4,331 \\
\& 4,505
\end{aligned}
\] \& \[
8,836
\] \& \[
\left|\begin{array}{|c|c|}
62,096 \\
67,830
\end{array}\right|
\] \& 129,926 \& \[
\begin{aligned}
\& 17,360 \\
\& 19,54 \overline{5}
\end{aligned}
\] \& …

36,905 \& $$
\begin{aligned}
& 192 \\
& 152 \\
& \hline
\end{aligned}
$$ \& \[

$$
\begin{gathered}
\cdots \\
344
\end{gathered}
$$

\] \& \[

$$
\begin{gathered}
164,952 \\
\cdots
\end{gathered}
$$

\] \& 164,156 \& \[

$$
\begin{gathered}
\cdots \\
\cdots 29,108
\end{gathered}
$$
\] <br>

\hline Deaths during 1933. \& $$
\left\{\begin{array}{l}
\text { Males... } \\
\text { Females } \\
\text { Persons. }
\end{array}\right.
$$ \& \[

$$
\begin{aligned}
& 27 \\
& 10
\end{aligned}
$$

\] \& 37 \& \[

$$
\begin{aligned}
& 87 \\
& 86
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \cdots \\
& \cdots \\
& 173
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 2,223 \\
& 1,724
\end{aligned}
$$

\] \& \[

\mathbf{3 , 9 4 7}
\] \& 30

11 \& 41 \& $$
\begin{aligned}
& 162 \\
& 117
\end{aligned}
$$ \& \[

279

\] \& \[

$$
\begin{aligned}
& 1,429 \\
& 1,394
\end{aligned}
$$

\] \& \[

2,823

\] \& \[

$$
\begin{gathered}
268 \\
269
\end{gathered}
$$ .

\] \& \[

$$
\begin{aligned}
& \cdots \\
& \cdots \\
& 537
\end{aligned}
$$

\] \& 10 \& \[

$$
\begin{gathered}
\cdots \\
\cdots \\
11
\end{gathered}
$$

\] \&  \& 3,612 \& \[

7,848
\] <br>

\hline Eistinated Population on 31st December, 1933. \& $$
\left\{\begin{array}{l}
\text { Males... } \\
\text { Females } \\
\text { Persons. }
\end{array}\right.
$$ \& \[

$$
\begin{array}{r}
1,137 \\
914
\end{array}
$$

\] \& \[

2,051

\] \& \[

$$
\begin{aligned}
& 3,492 \\
& 4,633
\end{aligned}
$$

\] \& \[

8,625

\] \& \[

\left|$$
\begin{array}{l}
71,691 \\
63,423
\end{array}
$$\right|

\] \& 135,114 \& \[

$$
\begin{gathered}
1,786 \\
1,323 \\
\ldots
\end{gathered}
$$
\] \& $\cdots$

$\cdots$

$\cdots, 109$ \& $$
\begin{gathered}
4,169 \\
4,388 \\
\ldots .
\end{gathered}
$$ \& ...

8,557 \& $$
\left.\begin{array}{|}
60,667 \\
66,436
\end{array} \right\rvert\,
$$ \& …

127,103 \& 17,092
19,276

$\cdots$ \& | … |
| :---: |
| 36,368 | \& \[

$$
\begin{aligned}
& 182 \\
& 151
\end{aligned}
$$
\] \& …

$\cdots$

333 \& $$
60,716
$$ \& 160,544

$\ldots$ \&  <br>
\hline
\end{tabular}

Tablej No. II.
Births Registered in each Registration District dǜìng 1933, according to Race.


Table Ṅo, IIİ.
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Net inorease in 1933.

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Still-Births of each Race in each Registration District durving 1933.


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Table No. VI.-(Continued).
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Causes of Death in each $\dot{\text { Registration District registered during the year: } 1933 .}$



Table No. VII.-(Continued).
causes of death at all ages among the various races throughout the colony registered during the year 1933

causes of death at all ages among the various races throughout the colony registered during the vear 1933,


Table No. Vìll.
Causes of Death of Children under one year of age during 1933.


Table No. VIII.-(Continoed).
Caüses of Death of Children under one year of age during 1933.



Tarle No. VIII.-(Continued),
Causes of Death of Children under one year of age during 1933.


\begin{abstract}
XTITI.-Ill-Drfinkd Diseases. 199 Sudden Death
200a Heart Failure
200 b Other Ill-defined causes 200c Cause not specified

Totals, Ill-defined Diseuses Totals, all causes $\left\{\begin{array}{l}\text { Males } \\ \text { Females }\end{array}\right.$ Do. Last Year

| $\begin{array}{r\|} \text { ASEs. } \\ \ldots \end{array}$ | $\left.\begin{array}{c\|c\|c\|c\|c\|c\|c\|c\|c\|} 1 & \ldots \\ \ldots & 1 \\ \ldots & \ldots \\ & \ldots \end{array} \right\rvert\,$ | ... $\cdots$ $\cdots$ $\cdots$ | $\cdots$ | .. $\ldots$ <br> $\cdots$ $\cdots$ <br> 2 $\cdots$ <br> ... $\cdots$ | .. . <br> $\cdots$ $\ldots$ <br> $\cdots$ $\ldots$ <br> 1 $\ldots$ <br>  $\ldots$ | .... | … | ... | $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ | . $\cdots$ $\cdots$ $\cdots$ | ... $\cdots$ $\cdots$ $\cdots$ $\cdots$ | a.. $\cdots$ $\cdots$ $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | . | $\cdots$ | $\cdots$ |  | $\begin{gathered} \cdots \\ \cdots \\ \cdots \\ \hline \end{gathered}$ | $\begin{gathered} \cdots \\ \cdots \\ \cdots \\ 1 \end{gathered}$ | $\|$r  <br> $\cdots$ 1 <br> 1 1 <br> 4 1 <br> 2 2 | 1 <br> 1 <br> 5 <br> 4 | 1 <br> 1 <br> 2 |  <br> 3 <br> 9 <br> 9 <br> 13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 21 | $\ldots$ | $\ldots$ | 2 | $1 . .$. |  | ... |  | ... |  | . | $\ldots$ | ... | 1 |  | ... | . |  |  | ... | 2 | 1 | 1 | 7 4 | 11 | 3 | 25 |
|  | 16119 | 46 | 61 | 72.54 | 14.36 | 42 | 41 |  | 6 | 1 | 13 | 25 | 38 | 14 | 22 | $2^{4}$ | 30 | 75 | 13 |  | 7 |  | 38 |  |  | $\cdots$ | ... |
|  | 11015 | 38 | 70 | 69. 49 | 1534 | 30 | 42 |  | 2 | ... | 9 | 27 | 30 | 17 | 16 | 19 | 21 | 62 | 21 | 3 | . 6 | 9 | 34 | ... 748 |  |  |  |
|  | 27134 | 84 | 1311 | 141103 | 2970 | 72 | 83 |  | 8 | . 1 | 22 | 52 | 68 | 31 | 38 | 48 | 51 | 137 | 34 | 5 | 13 | 15 | 72 | ... ... | 1613 | 999 |  |
|  | 27856 |  | 101 | . $95 \quad 76$ | 3782 |  | 1104 | ... | 17 | . $\cdot$ | 18 | 83 | 64 | 22 | 23 |  |  | 95 |  |  |  | 12 | 47 | 790713 | 1503 | 884 | 1503 |

Table No. IX.
Causts of Death in each Ward, Public Institution, and Environ of the City of Georgetown, registered during the year 1933.

II.-Cancer and other Tumotre

45
Cancer of the Buccal Cavity and
46
47
48
Ceritoneum Despinat Or
8
Cancer of the Respiratory Organs...
Cancer of the Uterus Cancer of the Uterus

Cargans
50
51
Cancer of the male Genito-Urinary
Organs
52
53
Cancer of other or Unspecified Organs
54
55
Non-malignant Tumours
Tumours of undetermined nature
Totals, Cancer, etc.
d
III.-Rifumatigm, ' Dibbases Notrition and of Ekdocrine Glands and other General Diseaseg.
Rheumatic Fever
57 Chronic Rheumatism, Osteo Arthritis 59 Diabetes

## Diabetes Beri-Beri

Diseases of the Thyroid and Parathyroid Glands
69 Other General Diseases

Totals, Rheumatism, etc.

71
72
73
IV. Diskasgs of the Blood and Blood-Forming Organs. anæmia, Chlorosis

73 Leukæmia, Aleukæmia
Diseases of the Spleen

Totals, Diesases of the Blood, etc.
VI. Dibeasre of the Nervoub Sybtem and Sense Organs.
78
79 Encephalitis
Meningitis

Table No. IX.-(Continued).
Causes of Death in each Ward, I'ublic Institution, and Environ of the City of Georgetown, registered during the year 1933.


|  | VIII. Diferaseg ót the Regpiratory Systrm. |
| :---: | :---: |
| 105 | Diseases of the Larynx |
| 106a | Acute Bronchitis |
| 106b | Chronic Bronohitis |
| 106c | Bronchitis not distinguished as acute or chronic |
| 107 | Broñ cho-Pneumovia |
| 103 | Lobar Pneumonia |
| 109 | Pneumonia (nototherwise defined) |
| 110 | Pleurisy. |
| 111 | Congestion and Hæmorrhagic Infarct of Lung, etc. |
| 112 | Asthma |
| 113 | Palmonary Emphysema |
| 114 | Other diseases of the Respiratory System |
|  | Totals, Diseases Respiratory System <br> IX. Digeasms of the Digmetive Sybtem. |
| 115 | Diseases of the Buccal Carity, Pharyix, etc. |
| 117 | Ulcer of the Stomach or Duodenum, |
| 118 | Other Diseases of the Stomach |
| 119 | and 120 Diarrhœes and Enteritis |
| 121 | Appendicitis |
| 122a | Hernia |
| 122b | Intestinal Obstruction |
| 123 | Other Diseases of the Intestines |
| 124 | Cirrbosis of the Liver |
| 125 | Other Diseases of the Liver ... |
| 126 | Biliary Calculi |
| 127 | Other Diseases of the Gall, Bladder and Ducts |
| 129 | Peritonitis without atated cause |
|  | Totals, Diseases Digestive System <br> X. Non-Venerial Dibeabes of the Genito-Ubinary \|Sybtem and Annexa. |
| 130 | Acute Nephritis ... |
| 131 | Chronic Nephritis |
| 132 | Nephritis not atated to be acute or chronic |



Table No: IX.-(Continued).
Causes of Death in each Ward, Public Institution, and Enriron of the City of Georgetown, registeved during the year 1933



Table No. IX.-(Contiñoed).
Causes of Death in each Ward, Public Institution, aud Environ of the City of Georgetown, registered during the year 1933.


Table No. X.
Causes of Death in each Ward and Public Institution in the Town of New Amsterdam, registered during the year 1933.


Table No. X.-(Continued):


## xxix．

## Tabie XJ．

RETURN OF VITAL STATISTICS FOR EACH REGISTRATION DISTRICT IN THE


RETURN OF VITAL STATISTIOS FOR GEORGETOWN AND NEW AMSTERDAM FOR THE YEARS 1935，1932， 1931.

| Dietrict， |  | $\begin{aligned} & \text { 要 } \\ & \text { 品 } \end{aligned}$ |  | Annual rate per 1，000 living． |  |  |  | All Renal Diseases． | All Respiratory Diseaser． |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { 品 } \\ & \text { 邑 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |
| Georgetown， 1933 | 64，207 | 1，861 | 1，331 | 29.0 | 20.7 | 10 | 74 | 82 | 161 | 81 | 90 | 24 | 113 | 236 | 127 |
| Georgetown， 1932 ．．． | 63，400 | 1，895 | 1，215 | $29 \cdot 9$ | 192 | 9 | 51 | 79 | 117 | 89 | 93 | 24 | 147 | 249 | 131 |
| Georgetown， 1931 ．．． | 62，690 | 1，726 | 1，190 | $27 \cdot 5$ | 19.0 | 5 | $E 4$ | 73 | 137 | 65 | 88 | 20 | 159 | 213 | 123 |
| New Amsterdam， 1933 | 9，119 | 280 | 215 | 307 | 23.6 | 4 | 10 | 10 | 30 | 21 | 12 | 10 | 38 | 36 | 129 |
| New Amsterdam， 1932 | 9，045 | 313 | 159 | 34.6 | 17.6 | 2 | 4 | 9 | 20 | 8 | 11 | 5 | 40 | 28 | 89 |
| Now Amsterdam， 1931 | 8，889 | 239 | 202 | 26.9 | 22.7 | 3 | 24 | 8 | 21 | 11 | 14 | 6 | 33 | 38 | 138 |

Note．－The deaths of perions in the hospitals and other public Inetitutions have in each case been returued as occurriug in the district from which the patients came．

## $\mathfrak{J B r i t i s b}$ Guiana.

## REPORT

OF THE

## IMMIGRATION AGENT GENERAL,

## FOR THE YEAR

1932. 

$Y: 5826.709$

$$
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$$

Printed by the Eutbority of 1bis Excellency the Governor.

GEORGETOWN, DEMERARA :
"the argosy " company, limited, printers to the government or british guiana,
1933.

No. 16,037.

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# DEPARTMENT OF IMMIGRATION ANI) REPATRIATION, Georgetown, Demerara, 8th June, 1933. 

Sir,
I have the honour to submit for Your Excellency's information the following report on the Department of Immigration and Repatriation for the year 1932.

## Arrivals.

2. No Immigrants, were introduced into the Colony from India during the year.
3. From statistics furnished by the Registrar General 2,273 East Indians came to the Colony by ordinary passenger ships, while 2,390 departed from it.

Twenty-two East Indians applied to this Office for paper of identity and were registered as "casuals."
4. No Immigrants from the West India Islands were introduced under the provisions of Ordinance No. 10 of 1890 during the year.

## Return Ships.

5. The s.s. "Ganges," a new and larger vessel, sailed on the 1st September, 1932, from Georgetown with 333 souls for Calcutta. This ship was a joint one with Trinidad, from which Colony 604 souls were repatriated.
6. The usual classifications are shown in the tables which follow, together with the sum of the remittances to India made through the Treasury on registration, the highest of which was $\$ 1,130$ :-

7. 

| - | Introduced from India. |  | Dependents not entitled in their own right sent free. |  |  |  |  |  | Soul. | Adulta. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults. |  | Adulta, |  | Minors. |  | Infants. |  |  |  |
|  | M. | F. | M. | F. | m. | F. | M. | F. | Total, | Total. |
| Free pasbage after ton years Anisted passage after ten years Paid pabsage <br> Paupers $\begin{aligned} & \ldots \\ & \cdots \end{aligned}$ | $\begin{aligned} & 13 \\ & 78 \\ & 8 \\ & 83 \end{aligned}$ | $\begin{array}{r}5 \\ 46 \\ 3 \\ 21 \\ \hline\end{array}$ | $\begin{array}{r} \\ \hline 14 \\ \cdots \\ \cdots \\ \hline . .\end{array}$ | 17 <br> 17 <br> $\cdots$ <br> . | i7 <br> $\dddot{7}$ <br> 1 | äi $\cdots$ $\cdots$ | 71 $\cdots$ |  | $\begin{array}{r}21 \\ 196 \\ 11 \\ 105 \\ \hline\end{array}$ | $\begin{array}{r}\text { 21 } \\ 1751 \\ 11 \\ 1041 \\ \hline\end{array}$ |
| Total | 182 | 75 | 16 | 18 | 18 | 21 | 1 | 2 | 333 | 312 |

8. Classification of the ages of the 333 persons who retarned by the "Ganges " gives the following results:-

| Under 10 years of age ...Between 11 and 20 years |  |  |  |  |  | ... | 31 | persons. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | ... | 32 |  |
| " | 21 | " | צ0 | " |  | ... | 9 |  |
| " | 31 | " | 40 | " |  | . 0 | 68 | " |
| " |  | " | 50 | " |  | ... | 128 | " |
|  |  | " | 60 | " |  | ... | 47 | " |
| Over 60 years |  |  |  |  |  | ... | 18 |  |

9. There were only 7 deaths among the repatriates of this Colony on the voyage as compared with 37 deaths amongst 520 souls on the last keturn Ship in 1929. The deaths which occurred on the "Ganges" were principally from pulmonary troubles.

Population.
10. The East İndian population "rrmaining" on 31st December, 1932, is classified as follows :-

| Clase. |  |  | Males, | Females. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| On Estater- |  |  |  |  |  |
| Adultr Children | ... | $\cdots$ | 19,666 | 16,717 8828 | 36,383 |
|  |  |  |  |  |  |
| Total on Kytaten | ... | $\cdots$ | 29,131 42,201 | $\begin{aligned} & 25,345 \\ & 37,382 \end{aligned}$ | $\begin{aligned} & 54,476 \\ & 79 \\ & \hline \end{aligned}$ |
| Total Eaat Iudian Population |  |  | 71,332 | 62,727 | 134,059 |

The proportion of females to males is as shown in the tabile below:-
On Estates. . Females to Males

| Adults |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Children | $\ldots$ | $\ldots$ | 85 | 100 |
| Total | $\ldots$ | $\ldots$ | 91 | 100 |
|  | $\ldots$ | $\ldots$ | 87 | 100 |

## Marriages.

11. Four hundred and twenty-t wo marriages were registered during the year under the provision of the Immigration Ordinance. In 1931 there were 411 marriages.

The classification of the marriages is as follows :-

| By Magistrate-Section 137 ... | . | 166 |
| :---: | :---: | :---: |
| By Clergy - , 141 | ... | 164 |
| According to religion and personal law, Section 142 | ... | 92 |
| Total | ... | 422 |

## Work and Wages.

12. From returns furnished by Estates there were 54,476 East Indians residing on 31 Sugar Estates at 31st December, 1932, of whom a weekly average of 14,495 persons were employed in field labour during the year, or an average of 26.61 per cent. as against 27.74 per cent. in 1931.

## Avrrage Earnings per day Actually Worked.

13. The following table compiled from the sane sources of information shows the average all-round earnings per day actually worked in the three counties with the percentage of total absences from all causes:-

14. At each visit to an Estate, the Agent obtains an average of the earnings for the week previous to his visit of the twelve shovelmen who have earned the most in that week, and similar averages of six male weeders and six female weeders.

For the year, the averages of these highest monthly averages, reduced to earuings "per day worked" show as follows :-

15. The figures for 1931 were :-

16. A comparison of the average rate of earnings per day worked of East Indian Labourers during 1929, 1930, 1931 and 1932, is shown in the following table :-

| Year. | Average earnings per day worked. |  |  | Average highent earnings per day worked. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shovelmen. | Males <br> Weeders. | Females <br> Weedern, | Shovelmen. | Males <br> Weeders. | Femala <br> Weaders. | Per cent. day lost. |
| $\begin{array}{r} 1929 \\ 1930 \\ 1931 \\ 1932 \\ \hline \end{array}$ | 50 47 45 44 | 43 <br> 40 <br> 37 <br> 38 | $\begin{array}{r} 33 \\ 30 \\ 28 \\ 29 \\ \hline \end{array}$ | 63 <br> 61 <br> 59 <br> 62 | 60 <br> 55 <br> 60 <br> 53 | 42 40 38 38 | 27.5 <br> 29 <br> 30 <br> 29 |

17. The cost of living, food, clothing and implements calculated on the scale suggested in the Annual Report of this Department for 1921, for a shovelman per week was estimated during the year to be about $\$ 1.85$.

## Crimes and Offences.

18. The following classification of cases before the Higher Courts during the year has been kindly supplied by the Kegistrar :-
(a) Total number of cases-all Classes -3 of which were pending at 31st December, 1932;
(b) Total number of cases-East Indians alone -2 of which were pending at 31st December, 1932;
(c) Total number of cases-East Indians associated with others

In 1931. 1.00

74 26 36

 ... 2 Nil
(d) Number of cases resulting in convictions -all classes - ... 39
(e) Number of cases resulting in convictionsEast Indians alone
(r) Number of cases resulting in convictions-.. East Indians associated with others ... ... 1

In 1931.
(e) Number of call classes 39 60

Nil
The charges against East Indians were :-
Offences against the person including murder
and mauslaughter ...

(h) Other offences-East Indians associated with others ... ... 2 Nil
19. There were 200 persons in the prisons on 31st December, 1932, of whom 53 were East Indians, or 26.50 per cent. of the total inmates. Last year this percentage was 28.86 per cent. The percentage of East Indian population to the total population of the Colony is 42 per cent.

## Strikes.

20. There were no strikes during the year.

## New Legislation Affecting tee Labour Laws or the Position of East Indians.

21. No new legislation affecting East Indians was enacted during the year.

## Administration of Estates of East Indians.

22. During the year under review 68 intestate estates were dealt with by this Department and reported to the Official Receiver and Public Trustee who paid into the Treasury as unclaimed balances during the same period the sum of $\$ 164.41$ in respect of 7 estates. In regard to these estates enquiries for heirs in India are addressed by this Department to the Emigration Agent at Calcutta.
23. The Protector of Emigrants in Calcutta was authorised during the year to pay heirs in India the sum of $\$ 107.51$ in respect of 4 estates.

The above figures relate only to Intestate Estates.
24. The number of Wills made in this Department for East Indians was 504 as against 483 in 1931.
25. The necessary papers to obtain probate were prepared in connection with 66 estates of East Indians during the year.

## Destitue East Indians.

26. 

|  |  | 31.rt December, 1932. |  |  | $\begin{aligned} & \text { Total S1st } \\ & \text { Decembor } \\ & \text { 1831. } \end{aligned}$ | Th of Rast Indian Inmates to all Races for 1932. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males. | Femaler. | Total. |  |  |
| Alms House - ... | - | 145 | 66 | 811 | 201 | 25.4\% |
| Mental Huspital Leprosy Hospital | $\cdots$ | 156 | 73 | 229 | 238 | 38.6 |
| Leprosy Hospital ... | - | 57 | 20 | 77 | 72 | 28.8\% |

27. The following table taken from information kindly furnished by the Post-
master General shows the number of depositors with the amounts at their credit in the Post Office Savings Bank at the close of the year :-

|  |  | 1932. |  |  |  |  | 1931. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. of Depositors. |  | Amount. |  | rage por Head. | No. of Depositorn. |  | Amount. |  | rage per Head. |
| East Indians Chinese Other Races | $\ldots$ | $\begin{aligned} & 10,066 \\ & 23,981 \\ & 23,994 \end{aligned}$ | 8 | $\begin{aligned} & 816.437 \\ & 355,144 \\ & 680,718 \end{aligned}$ | ${ }^{3}$ | $\begin{aligned} & 8110 \\ & 9224 \\ & 9878 \end{aligned}$ | $\begin{array}{r} 9,786 \\ 27,765 \\ 27,54 \end{array}$ |  | $\begin{aligned} & 800,135 \\ & 41,575 \\ & 652,142 \end{aligned}$ | \$ | $\begin{array}{r} 8176 \\ 11390 \\ 2367 \end{array}$ |
| All Races | ... | 34,441 | \$ | 1,532,299 |  | 44.49 | 37,705 |  | 1,493,852 |  | 3962 |

28. From the report of the Director it appears that in 27 Cu -operative Credit Banks 27,628 one dollar shares are owned by East Indians out of a total share issue of 83,126 shares.
29. The Director of Education has been good enough to furnish the following table regarding the East Indian children attending Primary Schools :-

|  |  |  |  |  | Fully-Aided Sohools. | Schools under Regulation 80. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boys Girls | *** | $\because$ | *- | $\cdots$ | 8,665 | 774 | 9,439 |
|  | - | -• | ..- | ... | 4,441 | 494 |  |
| - |  |  |  |  | 13,106 | 1,268 | 14,374 |

30. Sixty-seven East Indians were employed as Teachers and 52 schools received grants for teaching Hindi during the year.

## Condition of East Indians on Estates.

31. From the comparative table of the earnings of East Indians employed in field labour on Sugar Estates during the years 1929, 1930, 1931 and 1932, given below, it will be seen that an average of 82 persons less ( 42 per cent.) were employed weekly in 1932 than in the precedlng year, while the total amount paid out in wages rose-by $\$ 565.07$ (3.6 per cent.) It will be observed that there is a very small decrease in the number of persons employed, whilst the total amount earned during 1932 is greater than in the preceding year, which shows that a fair level of employment was maintained.

|  |  |  | Resident Labourora. |  | Non-resident Labourers. | Total Average No. employed weokly. | Total earnniga for the year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Shovelmen, male weederg, femsle weeders. | Creoles. | Task Gang. |  |  |
|  |  |  | Average weekly No. employed. |  | Average weekly No. employed. |  |  |
| 1929 ... | ... | ... | 13,078 | 2,415 | 5,267 | 20,760 | - 1,464,874 |
| 1930 ... | -." | $\cdots$ | 12,475 | 2,283 | 6. 272 | 20,030 | 1,784,961 |
| 1981 ... | $\cdots$ | ... | 12,772 | 2,200 | 4,295 | 19, 267 | 1,563,121 |
| 1932 ... | *. | ... | 12,324 | 2,171 | 4,690 | 19,185 | 1,619,628 |

## Administration of the Department.

32. Mr. A. H. Hill, Immigration Agent General, went on leave as from 1st April, 1932, prior to retirement, and the post of Immigration Agent General was abolished as from 30th June, 1932, when this Department was placed under the control of the Registrar-General, who was appointed to perform the duties of Immigration Agent General.

Dr. R. J. Kelly administered the Department from 1st April to 5th July when he left the Colony on leave of absence, after which Dr. B. N. V. Wase-- Bailey assumed charge up to the end of the year,

As from 1st January the staff of this Department was reduced from nine to six officers; at the end of June it was further reduced by two officers who were retrenched, leaving a staff of four Officers, The designation of the Department was changed from Itmmigration Department to Department of Immigration and Repatriation as from 1st Januairy, 1932.

I have the honour to be,
. . . Your Excellency's most obedient Servant,
B. N. V. WASE-BAILEY,

His Excellency the Gopernor.

C.S.D. No. 2061/34,

## JBritisb Euiana.

## REPORT

OF THE

## IMMIGRATION AGENT GENERAL,

FOR THE YEAR

## 1933.

Printed by the Eluthority of libis Ercellency the Governor.

GEORGETOWN, DEMERARA:
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1934.

No. 16,243.

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| Marriages | ... | ... | ... | ... | 1 |
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| Crimes and Offences | ... | ... | ... | ... | 3 |
| .Strikes | ... | ... | ... | ... | 3 |
| New Legislation | ... | ... | $\cdots$ | ... | 4 |
| Estates of Deceased | Immigrants | $\cdots$ | ... | ... | 4 |
| Destitute East Indian | s... | ... | ... | ... | 4 |
| Savings Bank | ..* | ... | ... | ... | 4 |
| Education | ... | ... | -* | ..* | 5 |
| Condition of East Ind | lians on Estates | ... | ... | ... | 5 |
| Administration of Dep | partment | ... | $\cdots$ | ... | 5 |

## DEPARTMENT OF IMMIGRATION AND REPATRIATION, Georgetown, Demerara, 31st July, 1934.

SIR,
I have the honour to submit for Your Excellency's information the, following report on the Department of lmmigration and Repatriation for the year 1933.

## Arrivals.

2. No Immigrants were introduced into the Colong from India during the year.
3. From statistics furnished by the Registrar General 1,732 East Indians came to the Colony by ordinary passenger ships, while 1,672 departed from it in the same manner.

Forty-five East Indians applied to this Office for papers of identity and were registered as "Casuals," i.e., those who arrived at their own expense.
4. No Immigrants from the West Indian Islands were introduced during the year.

## Return Ships.

5. No return ship with time-expired East Indian Immigrants was despatched in 1933.

## Population.

6. The East Indian population "remaining" on 31st December, 1933, is classified as follows:-


The proportion of females to males is as shown in the table below :-

| On Estates- |  | Females to Males. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Adults ... | $\ldots$ | $\ldots$ | 85 | 100 |
| Children | $\ldots$ | $\ldots$ | 93 | 100 |
| Total $\ldots . .$. | $\ldots$ | 88 | 100 |  |
| General (on and off Estates) $\ldots$ | $\ldots$ | 88 | 100 |  |
|  |  |  |  |  |
|  | Marriages. |  |  |  |

7. Four hundred and sixty-eight marriages were registered during the year under the provisions of the Immigration Ordinance, Chapter 208. In 1932 there were four hundred and twenty-two marriages.

The classification of the marriages is as follows :-


## Work and Wages.

8. From returns furnished by estates there were 54,577 East Indians residing on 31 Sugar Estates at 31st December, 1933, of whom a weekly average of 14,785 persons were employed in field labour during the year, or an average of 27.09 per cent. aेs compared with 26.61 per cent. in 1932.

Average Earnings per Day Actually Worked.
9. The following table compiled from the sane sources of information shows the average all-round earnings per day actually worked in the three counties with the percentage of total absences from all causes :-

10. At each visit to an Estate, the Agent obtains an average of the earnings for the week previous to his visit of the twelve shovelmen who have earned the most in that week, and similar averages of six male weeders and six female weeders.

For the year, the averages of these highest monthly averages, reduced to earnings "per day worked" show as follows :-

11. The figures for 1932 were :-

12. A comparison of the average rate of earnings per day worked of Fast Indian Labourers during 1930, 1931, 1932 and 1933 is shown is the following table :-

| Year. | Average earninga per day worked. |  |  | Average highest earnings per day worked. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shovelmen. | Male <br> Weeders. | Female <br> Weoders. | Shovelmen. | Male <br> Weedors. | Female <br> Weeders. | Per oent. daya loat. |
| $\begin{aligned} & 1930 \\ & 1931 \\ & 1982 \\ & 1983 \\ & \hline \end{aligned}$ |  | 40 oents. <br> 37 " <br> 38 <br> 38 - | 30 oents. <br> 29 <br> 30 " | 61 cents. <br> 62 " <br> 59 ., | 55 cents. 50 <br> 63 : <br> 63 | 40 cents. <br> 38 <br> 88 •• <br> 39 | $\begin{aligned} & 29 \\ & 30 \\ & 29 \\ & 29.1 \end{aligned}$ |

13. The cost of living, food, clothing and implements calculated on the scale suggested in the Annual Report of this Department for 1921, for a shovelman per week was estimated during the year to be about $\$ 1.81$.

## Crimes and Offences.

14. The following classification of cases before the Higher Courts during the year has been kindly supplied by the Registrar:-

| (a) Total number of cases-all Classes | 68 | In 1932. |
| :---: | :---: | :---: |
| (b) Total number of cases-East Indians alone | 68 26 | 74 |
| (c) Total number of cases-East Indians associated with others | 1 | 26 2 |
| (d) Number of cases resulting in convictions -all classes | 54 | 39 |
| (e) Number of cases resulting in convictionsEast Indians aloue | 19 | 14 |
| (f) Number of cases resulting in convictionsEast Indians associated with others ... | Nil | 1 |

The charges against East Indians were:-
Offences against the person, including Murder and manslaughter-
(g) East Indians alone ... ... 10 7

(h) East Indians associated | with others | $\cdots$ |
| :--- | :--- |
| .. | 1 |

For other offences:-
(i) East Indians alone ... ... 16
(i) East Indians associated with others .... Nil 2
15. There were 252 persons in the prisons on S1st December, 1933, of whom 66 were East Indians, or 26.19 per cent. of the total inmates. Last jear this percentage was 26.50. The percentage of East Indian population to the total population of the Colony is 42.

## Strikes.

16. During August there was a state of unrest among the labourers of Plantation Diamond which resulted in a strike.

The cause of the trouble was an alleged insufficiency of rates of pay for the various kinds of work on the estate, especially in respect of weeding work which the shovelmen had been given, to keep them employed until the factory started working, when they would be employed as cane cutters and punt loaders.

The estate was visited and enquiries were made by Mr. M. B. Laing, Commissioner, East Demerera, who was appointed an additional Commissioner and Immigration Agent for the East-Bank Demerara, for the purpose of an enquiry.

On investigation is was found that the rates paid at Diamond for the different classes of work compared favourably with rates paid in other districts, and it transpired that the wages earned by those men who continued to work at the price refused by the strikers, were higher than the average, and it may therefore be assumed that the prices offered to, and refused by the strikers were not unreasonable.

Other complaints made to Mr. Laing were as follows:-
(a) Unsympathetic treatment by the Manager,
(b) Neglect of overseers to inform labourers of the price of work before work was commenced,
(c) Assanlt by a headman on a boy.

These complaints were all investigated and it was found that there was no cause for complaint against the Manager who had been employed for over twenty years on the Estates belonging to the Demerara Company on the East Bank.

As regards the complaint against the headman for assaulting a boy of thirteen years of age, it was found that the assault had been committed. The headman was dismissed and the boy's parents were provided with money by the management to pay for a summons against the headman.

Regarding the complaint that prices for work were not made known to the labourers before commencing work, instructions were given by the Manager that labourers must be informed of the price to be paid as soon as practicable.

After a period of about six weeks during which a detachment of Police was stationed on the estate, and proclamations were issued prohibiting processions and unlawful assemblies, the situation became normal.

New Legislation affecting tee Labour Laws of tee Position of East Indians.
17. No new legislation specially affecting East Indians was enacted during the year.

## Administration of Estates of East Indians.

18. During the year under review 59 intestate estates were dealt with by this Department and reporred to the Official Receiver and Public Trustee who paid into the Treasury as unclaimed balances during the same period the sum of $\$ 228.26$ in respect of 14 estates.

In regard to these estates enquiries for heirs in India are addressed by this Department to the Emigration Agent at Calcutta.
19. The Protector of Emigrants in Calcutta was authorised during the year to pay heirs in India the sum of $\$ 162.91$ in respect of 5 estates.

The above figures relate only to Intestate Estates.
20. The number of Wills made for East Indians in this Department throughout the Colony was 563 compared with 504 in 1932.
21. The necessary papers to obtain probate were prepared in conuection with 76 estates of East Indians during the year, compared with 66 for the previons sear.

DHSTITUTE EAST INDIANS.

|  | 31st December, 1933. |  |  | Total 31st December, 1932. | \% of East Indinn Inmates to all Races for 1933. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Femalea. | Total. |  |  |
| Alms House | 160 | 72 | 232 | 211 | 28.1 |
| Mental Huspital . | 144 | 71 | 215 | 229 | 29.5 |
| Leprosy Hospital ... | 60 | 23 | 83 | 77 | 28.0 |

22. The following tablo taken from iuformation kindly furnished by the Postmaster General shows the number of depositors with the amounts at their credit in the Post Office Savings Bank at the close of the year :-

|  |  | 1933. |  |  | 1932 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No, of Deponitors. | Amount. | Average per Head. | No. of Depositors. | Amount. | Average per Head. |
| East Indiane Chinese Other Racea | … $\cdots$ $\cdots$ $\cdots$ | $\begin{aligned} & \mathbf{1 0 , 7 0 4} \\ & \mathbf{2 5 , 6 6 4} \end{aligned}$ | \$887,078 <br> $49,, 06$ <br> 795,582 | $\begin{array}{\|rr} 8 & 8288 \\ & 11583 \\ & 31 \\ & 00 \end{array}$ | $\begin{aligned} & 10,066 \\ & 23,984 \\ & 289 \end{aligned}$ | $\begin{array}{r} 816.437 \\ 35,144 \\ 680,718 \end{array}$ | 8 $\begin{aligned} & 8110 \\ & 9224 \\ & 2878\end{aligned}$ |
| All Racen | $\cdots$ | 36,799 | \$ 1,732,366 | - 4708 | 34,441 | * 1,632,299 | 3. 4440 |

23. As regards the number of one dollar shares owned by East Indians in the Co-operative Credit Banks, it is regretted that the figures for 1933 are not available.
24. The Director of Education has been good enough to furnish the following table regarding the East Indian childreu attending Primary Schools:-

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

25. Sixty-six East Indians were employed as Teachers and fifty-five schools received grants for teaching Hindi during the year.

Condition of East Indians on Estates.
26. From the comparative table of the earnings of East Indians employed in field labour on Sugar Estates during the years 1950, 1931, and 1932 and 1933 given below, it will be noted that an average of 824 additional persons (an increase of $4.3 \%$ ) were emploped weekly in 1933, compared with the previous year, and that the total amount paid out in wages was increased by $\$ 38,221(2.4 \%)$.

These figures speak for themselves, and it is obvious that the Sugar Estates have relieved considerably the question of unemployment.

27. In regard to Sanitary and Housing conditions on Sugar Estates, considerable eftort, on the whole, is being made to effect improvements. Most of the estates maintain a "Sanitary Gang" nader the supervision of the Government Medical Officer of the district, and on some estates new dwelling-houses of a good type were erected during the year for resident labourers.

Administration of the Department.
28. From 1st January to 9th July the Department was administered by Dr. B. N. V. Wase-Bailey, Government Medical Officer of Health and Acting Registrar Geveral, after which I assumed charge up to the end of the year.

I have the honour to be,
Your Excellency's most obedient Servant,
J. A. HENDERSON,

Immigration Agent General.
His Excellency the Governor.


G.S.O. No. 1560/35.

## JBritisb Euiana.

## REPORT

OF THE

## IMMIGRATION AGENT GENERAL,

FOR THE YEAR

## 1934.

Drinted by the Eluthority of 1 bis Excellency the Governor.

GEORGETOWN, DEMERARA :
-"the argosy" company, limited, printers to the government of british gulana,

No. 16,423.

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# DEPARTMENT OF IMMIGRATION AND REPATRIATION, British Guiana 29th July, 1935. 

Sir,
I have the honour to submit for Your Excellency's information the following report on the Department of Immigration and Repatriation for the jear 1934.

## Arbivals.

2. No Immigrants were introduced into the Colong from Iudia during the year.
3. From statistics furnished by the Registrar General 2,404 East Indians came to the Colony by ordinary passenger ships, while 2,029 departed from it in the same manner.

Thirty-three East Indians applied to this Office for papers of identity and were registered as "Casuals," i.e., those who arrived at their own expense.
4. No Immigrants from the West Indian Islands were introduced during the year.

Return Ships.
5. No return ship with time-espired East Indian Immigrants was despatched in 1934.

## Pupdlation

6. The East Indian population " remaining" on 31st December, 1934, is classified as follows :-

| Class. |  |  | Males. | Females. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| On Estater- |  |  |  |  |  |
| Adulta | $\cdots$ | $\ldots$ | 19,031 | 16,294 | 3i,325 |
| Children | ... | ... | 9,689 | 8,982 | 18,671 |
| Total | ... | ... | 28,720 | 25,276 | 53,996 |
| Total off Estates | ... | ... | 43,391 | 38,617 | 82,008 |
| Total East Indian Population | .." | ... | 72,111 | 63,893 | 136,004 |

The proportion of females to males is as shown in the table below :-

| On Estates- |  | Females to Males. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Adults ... | $\ldots$ | $\ldots$ | 86 | 100 |
| Children | $\ldots$ | $\ldots$ | 93 | 100 |
| Total $\ldots$ | $\ldots$ | $\ldots$ | 88 | 100 |
| General (on and off Estates) | $\ldots$ | $\ldots$ | 89 | 100 |

Out of a total East Indian population of 135,114 on 31st December, 1933, it has been estimated that 18,310 persons were on that date entitled to return passages, either wholly or partly at the expense of Government-representing 15,014 Lull passages.

## Marbiages.

7. Five hundred and twenty-two marriages were registered during the year under the provisions of the Immigration Ordinance, Chapter 208. In 1933 there were four hundred and sixty-eight marriages.

The classification of the marriages is as follows :-

| By Magistrates-Sertion 137 | ... | 175 |
| :---: | :---: | :---: |
| By Clergy-Section 141 ... | ... | 186 |
| According to religion and personal law-Section 142 | ... | 161 |
| Total ... | ... | 522 |

## Work and Wages.

8. From returns fursished by estates there were 53,996 East Indians residing on 29 Sugar Estates at 31st December, 1934, of whom a weekly arerage of 15,411 persons wete employed in field labour during the year, or an average of 28.54 per cent, as compared with 27.09 per cent. in 1933.

## Average Earnings per Day Actually Worked.

9. The following table compiled from the same sources of information shows the average all-round earnings per day actually worked in the three counties with the percentage of total absences from all causes :-

10. A comparison of the average rate of earnings per day worked of East Indian Labourers during 1931, 1932, 1933 and 1934 is shown in the following table:-

|  | Year. |  | Average earnings per day worked. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Shovelmen. | Male <br> Weeders. | Female <br> Weeders. |
| 1931 | ... | ... | 45 cents, | 37 cents. | 28 cents. |
| 1932 | ... | ... | 44 - | 38 " | 29 " |
| 1933 | .. | $\cdots$ | 44 " | 38 " | 39 |
| 1984 | ... | $\ldots$ | 43 .- | 38 .. | 31 .. |

11. The cost of living, food, clothing and implements calculated on the scale suggested in the Annual Report of this Department for 1921, for a shovelman per week was estimated during the year to be about $\$ 1.74$.

## Crimes and Offences.

12. The following classification of cases before the Higher Courts during the year has been kindly supplied by the Registrar :-
(a) Total number of cases, all Classes ... 90 . 68
(b) Total number of cases, East Indians alone 27.26
(c) Total number of cases, East Indians associated with others...$\quad 3$
(d) Number of cases resulting in convictions, all classes ... 70

1
(e) Number of cases resulting in convictions,
(e) Number of cases resulting in convictions, $\begin{array}{r}\text { East Indians alone } \quad . . .\end{array}$ $21 \quad 19$
(f) Number of cases resulting in convictions, East Indians associated with others ... ... 3

Nil.
The charges against East Indians were :-
Offences against the person, including Murder and Manslaughter-
(g) East Indians alone ... .. 13 10
(h) East Indians associated with others ... Nıl 1

For other offences-
(i) East Indians alone
... 1416
( $i$ East Indians associated with others $\quad . . \quad 14 \quad 3 \quad$ Nil.

- 13. There were 314 persons in the prisons on 31st December, 1934, of whom 86 were East Indians, or 27.39 per cent. of the total inmates. Last year this percentage was 26.19. The percentage of East Indian population to the total population of the Colony is 42 .


## Strikes.

14. During February and March there was a considerable amount of unrest on Plantation Hampton Court. The immigrants complained that they were badly treated by the headmen (or drivers) and of not having been paid for certain work. The complaints were enquired into by the District Commissioner and the labourers, after being advised by the Commissioner, eventually settled down and conditions became normal.

During September trouble nccurred with the labourers of Plantations Leonorar Ditvlugt, De Kinderen and Tuschen, West Demerara, who made various complaints. The alleged grievances were fully investigated by the District Commissioner and, after nearly three weeks of unrest, conditions became normal on all the estates.

New Legislation affeoiing the Labour Laws or the Position of East Indians.
15. No new legislation specially affecting East Indians was enacted during the year.

## administration of Estates of East Indians.

16. During the year under review 69 intestate estates were dealt with by this Department and of this number 28 were reported to the Official Receiver and Public Trustee who paid into the Treasury as unclaimed balances during the same period the sum of $\$ 188.56$ in respect of 15 estates.

In regard to these estates enquiries for heirs in India are addressed by this Department to the Emigration Agent at Calcutta.
17. The Protector of Emigrants at Calcutta was authorised during the jear to pay heirs in India the sum of $\$ 98.48$ in respect of 5 estates.

The above figures relate only to Intestate Estates.
18. The number of Wills made for East Indians in this Department througkout the Colony was 520 compared with 563 in 1933.
19. The necessary papers to obtain probate were prepared in connexion with 48 estates of East Indians during the year, compared with 76 for the previous year.
destitute east indians.

20. The following table taken from information kindly furnished by the Postmaster General shows the number of depositors with the amounts at their credit in the Post Office Savings Bank at the close of the year :-

21. From the report of the Director it appears that in 24 Co-operative Credit Banks, 27,715 one dollar shares are owned by East Indians out of a total share issue of 80,219 shares.
22. The Director of Education has been good enough to furnish the following table regarding the East Indian children attending Primary Schools:-

23. Seventy-two East Indians were employed as Teachers and forty-nine schools received grants for teaching Hindi during the year.

## Condition of East Indians on Estates.

24. It will be seen from the comparative table of East Indians emploged in field labour on Sugar Estates for the years 1931, 1932, 1933 and 1934 that the total amount paid out in wages has increased year by year.

An increase of $\$ 77,631$ was paid out in wages in 1984 as compared with the previons year and an average of 879 additional persons were employed weekly in 1934, i.e., an increase of 4.4 per cent.


25. Severe floods occurred throughout the Colony during Jaunary of the jear under review, but owing to the precautionary measures taken there was no outbreak of any serious disease. Many East Indians, however, suffered much loss of cattle, crops, etc., as a result of the flood.

Sanitary and housing conditions continue to improve on Sugar Eistates, and a light railway of five miles was constructed at Plantation Lusignan for the converance of labourers to and from their work aback of the estate.
administration of the Department.
26. Throughout the year Dr. J. A. Henderson was in charge of the Department except for a short period from 20th February to 5th March when I acted as Immigration Agent General.

I have the honour to be,
Your Excellency's most obedient Servant,
B. N. V. WASE-BAILEY,

Immigration Agent General.
Bis Excmllenoy the Governor.


## $\mathfrak{J B r i t i s b}$ Guiana.

## REPORT

ON

## THE RESUITS OF THE CENSUS OF THE POPULATION, 1931.

BY
$ப 45.79172 \mathrm{sin}$
C. H. NORTON, G2 census commissioner.

GEORGETOWN, DEMERARA:
"tite argosy" company, limited, printers to the government of british gulana.

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# CENSUS REPORT OF BRITISH GUIANA， 1931 

CENSUS COMMISSIONER＇S OFFICE，<br>Georgetown，Demerara，<br>British Guiana，<br>23rd December， 1931.

## Tee Honourable

 The Colonial Secretary，SIR，
I have the honour to submit for the information of His Excellency the Governor and $t$ l Honourable the Legislative Council my report on the results of the Census of the Colony of British Guia which，in order to synchronise with the date of the Im perial Census was taken at midnight on Sunday， 26 of April，1931，in accordance with Ordinance No． 41 of 1930.

## ＂A．＂－GEOGRAPHICAL SITUATION．

2．British Guiana lies on the North－eastern coast of the continent of South America between parall $1^{\circ}$ to $5^{\circ}$ North and meridian $57^{\circ}$ to $61^{\circ}$ West，and is stated by the latest map of the whole Colony（1924） comprise 89,480 square miles．It is bounded on the North by the Atlantic Ocean，on the South and Sout west by Brazil，on the East by Dutch Guiana，and on the North－west by Venezuela．The coast－line has approximate length of 270 miles；and it varies in depth（from the Ocean southwards）from 540 miles on $t$ western to 300 miles on the eastern side．

## ＂B．＂－ADMINISTRATIVE．

3．The accompanying map shows the division of the Colony into three Counties，containing appro： mately：－

| Demerara | ．．． | $\cdots$ | ．．．4，420 |  | les． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Berbice | ．．． |  | ．．．16，920 | ＂ |  |
| Essequebo | ．．． |  | ．．．68，140 | ＂ | ＂ |

4．The Capital Georgetown，within Municipal limits as fixed by the Gecrgetown Town Coun Ordinance，Chapter 86，has 1，527 English acres of which 96 acres is occupied by the Cemetery，whilst total area of Georgetown and its suburbs is 2，046 acres．New Amsterdam，the principal town of Berbi comprises 669 acres－New Amsterdam Town Coancil Ordinance，Chapter 87.

> "C."-THE CENSUS, PRIOR ENUMERATION.

5．In 1831 when Berbice was united to Demerara and Essequebo to form one Colony under the name British Guiana a rough count of the people was made，being compiled from the following records of $t \boldsymbol{t}$ time：－
（a．）Census of the Free Population of Demerara and Essequebo 31st October， 1829.
（b．）Census of the Free Population of Berbice October， 1827.
（c．）The Demerara and Essequebo Slaves Registration， 1829.
（d．）The Berbice Slaves Registration， 1831.
6．The following table＊gives the population as made up at that date ：－

|  | White |  |  | Frek，Colourrd and Blage |  |  |  | Slapes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\text { ¢ }}{\text { 足 }}$ |  | $\begin{aligned} & \text { T్ } \\ & \text { O- } \end{aligned}$ | $\underset{\underset{\sim}{3}}{\stackrel{y}{\omega}}$ | 菏 | W | 茟思 | 号 | 亳 | 式 | 或亏 |
| Georgetown | 962 | 658 | 1，620 | 1，625 | 2，743 | 4，368 | 5，988 | 3，209 | 3，407 | 6，616 | 12，6 |
| Demerara（Country District）．．． | 662 | 110 | 772 | 463 | 617 | 1，080 | 1，852 $\}$ | 33,883 | 28，869 | 34，199 | 41，0 |
| Essequebo ．．．． | 476 | 138 | 614 | 442 | 470 | 912 | $1.5 \pm 6\}$ | 33，883 | 28，869 | 28，553 | 25，0 |
| Total Demerara and Essequebo．． | 2，100 | 906 | 3，006 | 2，530 | 3，830 | 6，360 | 9，366 | 37，092 | 32，276 | 69，368 | 78，7 |
| New Amsterdam | 130 | 49 | 179 | 324 | 530 | 854 | 1，003 | 695 | 681 | 1，376 | 2，4 |
| Berbice Country District | 289 | 55 | 344 | 130 | 177 | 307 | 651 | 10，202 | 8，540 | 18.742 | 19，3 |
| Total in Berbice ．．． | 419 | 104 | 523 | 454 | 707 | 1，161 | 1，684 | 10，897 | 9，221 | 20，114 | 21，8 |
| Total in British Guiana ．． | 2，519 | 1，010 | 3，529 | 2，984 | 4，537 | 7，5211 | 11，050 | 47，989 | 41，497 | 89，484 | 100，5 |

Nots．－But as in the interval of two years，the Slaves of Demerara and Essequebo had decreased about 2，600，the trne popu tion at the time of the nnion would not be much more than 98,000 of whom 15,000 constitated the Town Population a about 83，000 the Raral Popalation．

7．Since 1831 a Census has been taken every ten years with the exception of the year 1901，when $t$ population was estimated to be $295,896 \dagger$ showing an increase of 17,568 over the Census of 1891 ．

Note．- ＊Extract from the Local Gnide of 1843 ．
8. The following table gives the population of the Colony enumerated at each Census since 1831 :-

" D."-INITIAL PREPARATION-CENSUS 1931.
9. For the purpose of the Census the three Counties of the Colony were divided into Districts, these being again divided into divisions, and the divisions intu sub or enumeration divisions. The Government Officers in Georgetown, and those stationed in the various outlying districts of the Colony, viz., Commissioners, District and Assistant Commissaries, Inspectors of Police, Wardens and Land Officers, Assistant Inspectors of Districts, Agricultural Superintendents and Government Dispensers performed the duties of SubCommissioners of Census in addition to their substantive duties, sub-dividing the divisions under their charge and selecting their enumerators. The sub-divisions and enumerators proposed by the Sub-Commissioners. were submitted to the Census Commissioner and duly received the approval of the Governor, being published in the Official Gazette of the Colony on the 28th of March, 1931. A Proclamation issued by His Excellency the Governor ordering the Census to be taken on the 26th of April, 1931, appeared in the Official Gazette of 11 th April, 1931.
" E."-ENUMERATION DISTRICTS.
10. The number of divisions into which each District was divided was as follows :-

| District |  |  | No. of Divisions. |  |
| :--- | :---: | ---: | :---: | :---: |
| Georgetown | $\ldots$ | $\ldots$ | $\ldots$ | 28 |
| Demerara | $\ldots$ | $\ldots$ | $\ldots$ | 90 |
| Berbice | $\ldots$ | $\ldots$ | $\ldots$ | 44 |
| Essequebo | $\ldots$ | $\cdots$ | $\cdots$ | 52 |
|  |  | Total | $\ldots$ | $\overline{214}$ |

11. These divisions were again divided into sub or enumeration divisions as follows :-

| Georgetown | $\ldots$ | $\ldots$ | $\ldots$ | 186 |
| :--- | :---: | :---: | :---: | ---: |
| Demerara | $\ldots$ | $\ldots$ | .. | 370 |
| Berbice | $\ldots$ | $\ldots$ | $\cdots$ | 264 |
| Essequebo | $\cdots$ | $\cdots$ | $\cdots$ | 200 |
|  |  | Total |  | $\cdots$ |
|  |  | 1,028 |  |  |
|  |  |  |  |  |

12. In 1911 and 1921 the Colony was divided into 210 and 208 divisions respectively. The increase on this occasion is due to the owners of estates of 200 acres and over being required to enumerate on their properties.

## "F."-THE ENUMERATORS.

13. There were 1,028 enumerators employed for the whole Colony. The Harbour of Georgetown was under the charge of the Harbour Master, who with his officers, six in number, enumerated the shipping.
14. All Institutions and Estates of 200 acres and over were separately enumerated by the persons in charge and formed separate divisions.

## "G."-THE COLLECTION OF CENSUS STATISTICS.

15. A copy of the Householder's Schedule used at this census is attached to this report. It is drawn up on the lines of the schedule used in England at the recent Census, with certain alterations to meet the requirements of the Colony. There are columns for "Infirmities," "Other Occupations " and "Ability to read and write English" and "Other Languages," viz., " Hindi," "Hindustani," "Tamil," "Telagu," etc.

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16. There were 128,194 schedules printed, and 80,219 were returned filled in.
17. The Schedules and Summary Books together with instructions to Enumerators were distributed between three and four weeks prior to the date of the Census. The time thus allowed appeared to be sufficient to enable the enumerators to study the forms, to receive any instructions thereon and to deliver them to the householders and cccupiers in sufficient time before Census day.
18. The Commissioner personally interviewed the Sub-Commissioners and wherever possible the enumerators, and instructed them in the requirements of the schedule and the duties they were called upon to perform.

## "H."—CENSUS LESSONS.

19. The Education Department in a circular to School Managers and Head Teachers of schools directei that the Census should form the subject of special lessons to all pupils of the upper divisions of schools. This was carried out, and the pupils were instructed in the history of Census-taking, its objects, details of the procedure and enumeration, and the importance of accurate information being given. The ciergy of the different denominations in the Colony were approached by Government, asking them to take a suitabl opportunity of explaining to their congregation the meaning and importance of the Census. This was done and explanatory sermons were given in the majority of churches in the Colony.
"I."-TABULATION OF THE STATISTICS
20. The first process was to check the entries in the Enumerators' Books against the totals of population in the Schedules; any errors found being corrected, and these figures being used for the first count. Th result of this preliminary computation was reported to His Excellency the Governor on the 18th of June 1931. The final check after tabulating showed that the total p.opulation was 310,933 persons, an increas of 362 persons over the preliminary figures.
21. The Statistics and tables given in this Report were extracted directly from the Schedules, th process adopted being somewhat antiquated at a time when mechanical appliances of all kinds are in operatio for the saring of time and labour. Under these conditions the work has necessarily taken longer, and th time has also been prolonged by the preparation of an amplified Report covering more extensive ground tha formerly.
22. The abstract sheets were hand ruled by the Census Staff ; this work entailed a good deal of tim and labour. The abstract sheets employed for "Occupations" by ages, alone took many hours of work i their preparation. The ticking system of extraction, noting each unit under any category by a stroke an completing every four strokes by a diagonal (resulting in a five barred gate) was used.
"J."—STAFF EMPLOYED.
23. A special staff of 29 persons besides the Clerk and Supervisor who was seconded from the Pos Office Department were engaged in abstracting the statistics required and now embodied in this Repor This Staff with the exception of the Clerk and Supervisor was not engaged until after the Census had bee taken and remained unchanged until towards the end of the work.

## "K."-ESTIMATED ABORIGINAL INDIANS.

24. Following the precedent of the previous Censuses it was decided that the enumeration of th Aboriginal Indians living in their primitive state in the remote parts of the Colony, would prove a expensive and difficult undertaking, aud productive of results of but little economic value. A carefi estimate of these compiled from returns furnished by Officers of the Census in outlying districts places the number at 7,379 which, it will be observed, is less than the estimated number in 1921 by 2,321 persons.
25. The following table gives the District, tribe and sex for 1931, and the totals for the tribes in 1921 :-

| TRIBE |  | DISTRICI'S. |  |  |  |  |  |  |  |  |  |  |  | TOTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rupununi |  | Es'quebo River |  | Cuyuni |  | Mazaruni |  | North <br> West |  | Pom'roon |  |  |  |
|  |  | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | 1931 | 1921 |
| Patamonas | ... | 300 | 350 | 17 | 13 | $\ldots$ | ... | $\ldots$ | ... | $\ldots$ | $\cdots$ | ... | $\cdots$ | 680 | 2,500 |
| Wapisanas | ... | 917 | 809 | $\cdots$ |  | $\cdots$ | ... | ... | $\cdots$ | $\cdots$ | $\ldots$ | ... | $\ldots$ | 1,726 | 2,200 |
| Macousis | ... | 832 | 905 | 4 | 8 |  | $\ldots$ |  |  | ... | $\ldots$ | $\cdots$ | ... | 1,749 <br> 259 | 2,000 |
| Acamois | ... | 900 | 1,100 | 1 | ... | 30 | 45 | 216 | 247 | $\cdots$ | $\cdots$ | $\ddot{10}$ | 12 | 2,539 |  |
| Arawaks | ... | $\cdots$ | ... | $\cdots$ | $\cdots$ | 15 | 20 | $\ldots$ | .... | 15 | 15 |  | ... | 65 |  |
| Caribs | ... | $\cdots$ | ... | $\because$ | $\cdots$ | 15 |  | $\ldots$ | ... |  |  | … | ... |  | 2,700 |
| Wariaus | ... | $\cdots$ | 30 | $\cdots$ | $\cdots$ | $\cdots$ | ... | $\ldots$ | $\ldots$ | $\cdots$ | ... | … | $\cdots$ | 55 |  |
| Waimais | $\cdots$ | 25 10 | 30 7 | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 17 J |  |
| Tarumas | $\ldots$ | $\stackrel{10}{22}$ | 7 | .... | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | ... | ... | .... | ... | 31 |  |
| Arikuma | .. | , | 1 | ... |  | ... | ... | 12 | 18 | $\ldots$ | .. | .. | ... | 33 |  |
| Accousi | ... | ... | ... | ? | 1 | $\cdots$ | ... |  |  | ... | ... | ... | $\cdots$ | 3 459 |  |
| Not Stated | ... | ... | ... | ... | ... | ... | ... | 235 | 224 | ... | ... | ... | ... |  |  |
| Total | ... | 3.008 | 3,211 | 24 | 22 | 45 | 65 | 463 | 489 | 15 | 15 | 10 | 12 | 7,379 | 9,700 |

26. The following table gives the number of Aborigines enumerated in the settled areas with comparativi figure for the two previous Censuses :-

| COUNTY | 1931 |  |  | 1921 |  |  | 1911 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Fenule | Persous | Male | Female | Persons | Male | Fernale | Persons |
|  | 491 | 497 | 988 | 715 | 616 | 1.331 | 742 | 731 | 1,473 |
| Berbice . | 400 | 413 | 813 | 455 | 453 | ${ }^{908}$ | 479 | 474 | ${ }^{1} 953$ |
| Essequebo ... | 3,283 | 3,424 | 6,707 | 3,415 | 3,496 | 6.911 | 2,392 | 2,083 | 4,475 |
| Total | 4,174 | 4,334 | 8,508 | 4,585 | 4.565 | 9,150 | 3,613 | 3,288 | 6,901 |

Note.-In Abstract " $C$ " will be found the number of Aborigines enumerated in the saveral Districte of the Colong.
PART II -STATISTICAL.
27. The report contains 50 tables digesting the information obtained at the Census and both the body of the Report and the Tables will show comparative figures as far as it has been possible to obtain them. Thil section of the Report will deal with the tables wade from the Census Schedules under the following heads:-

1. Population--numbers, increases and distribution.
2. Occupations of the People.
3. Density of Population.
4. Houses.
5. Religious Persuasions.
6. Sexes.
7. Literacy of the People in Races.
8. Ages.
9. Condition as to Marriage.
10. Birth-places and Races.
11. Infirmities,
12. East Indian Populatiou.
13. Cost of Ceusus.
14. Conclusion.

## I.-POPULATION.

(a)-Numbers and Rates of Increases.
28. The population of any area in the Colony means the population actually present in that area at thi date of the Census. The population enumerated at midnight on Sunday, 26th April, 1931, in each distric and their respective sub-divisions include private residents both permanent and tetaporary, and inmates o public institutions. Persons engaged on night work were included with all others enumerated, but those whi were travelling on the night of the Census were counted as part of the population of the place at which they arrived on Monday, 27th April, 1931.
29. Disregarding the Aboriginal Indian population living in the remote parts of the Colony a previously estimated (para. 24 wupra) who will be excluded from the calculations and tables throughout thi report, the population of British Guiana on Ceusus Day, 1931,


That is to say that a little more than one-twentieth of the whole population euumerated in 1911, was adder to the Colony in twenty years.
30. The following table shows the comparative increases in the population, and the number of person arriving in and departing from the Colony since 1831 :-

| DECADES | Eunmerated <br> Population | Increase per cent. | IMMIGRANTS |  | Excess of |  |  |  | MEAN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Arrivals | Dep'tures | Arrivals | Dep'tures | Birthe | Deaths | Birth Rate | Death Rate |
| 1831 | 98,000 | $\cdots$ | $\cdots$ | $\cdots$ | -.. | ... | ... | $\cdots$ | -* | ... |
| 1831-1841 | 98,154 | . 15 | 9,246 | $\ldots$ | ... | ... | ... | ... | . | ... |
| 1841-1851 | 135,594 | 38.14 | 43,314 | $\cdots$ | $\cdots$ | ... | ... | ... | ... | ... |
| 1851-1861 | 155,907 | 14.64 | 39,228 | 4,040 | 35,818 | ... | ... | ... | ... | ... |
| 1861-1871 | 193,491 | 24.10 | 61,924 | 2,519 | 59,405 | ... | - 31 | ... | $\cdots$ | $\cdots$ |
| 1871-1881 | 252,186 | 30.33 | 70,165 | 9,560 | 60,605 | ... | 3,341 | ... | 35.5 | 33.9 |
| 1881-1891 | 278,328 | 10.36 | 44,112 | 17,798 | 26,314 | ... | 4,158 | $\ldots$ | 32.5 | 31.1 |
| $1891.1901\}$ |  | $6.36\{$ | 41,207 | 18,947 | 22,260 | ... | - ${ }^{10}$ | 4,483 |  | $\because 9$ |
| 1901-1911 ${ }^{\text {1911 }}$ | 296,041 | 0.56 \{ | 24,557 | 17,069 | 7,488 | ... | 2,216 | ... | 30.7 | 29.8 |
| 1911-1921 | 297,691 | . 56 | 99,890 | 88,738 | 11,152 | $\cdots$ | 26 | ... | 30. | 30. |
| 1921-1931 | 310,933 | 4.45 | 99,344 | 101,445 | ... | 2,101 | 17,487 | ... | 31.9 | 26.4 |

31. The increase of 13,242 represents an increase of 4.45 per cent., as against a percentage increase of
the previous census.
32. The departures exceeded the arrivals by 2,101 persons during the decade, as compared with an excess of arrivals over departures between 1911 and 1921 of 11,152 persons.
33. While the birth-rate is not the highest during the past 50 years, being exceeded in 1881 and 1891 the death-rate is the lowest during the period above mentioned; the births exceeding the deaths by 17,487 this excess representing a "natural increase" of 5.87 per cent. upon the population as enumerated in 1921.
34. The Natural Increment Population since 1871 is shown as follows :-

| Population in 1871 |  | $\ldots$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Excess of births over deaths $1871-1931$ | $\ldots$ | $\ldots$ | $193,4,91$ | persons. |
|  | $\ldots$ | $\ldots$ | 22,745 | " |
| Natural increment population 1931 | $\ldots$ | $\ldots$ | $\overline{216,236}$ |  |

This number is less by 94,697 than that revealed by enumeration on the 26 th April, 1931, and shows the effect that immigration has had on the population of the Colony.
35. As enumerated the population falls short by 2,144 of the Kegistrar-General's figure which is computed by adding or subtracting the yearly difference between the total births and deaths and the excess of emigration over immigration,
36. During the decade 1921-1931 departures are stated to have exceeded arrivals by 2,101, but as the returns of arrivals and departures are only taken at the various ports of the Colony, there is some doubt as $\ddagger$ whether the departures are not in excess of those given.

## (b.)-Distribution of Population.

37. The general geographical distribution is indicated in the following table, which also shows comparative figures on similar lines for the two previous Censuses :-

| Where Living. | Number of Persons. | Percentages of Total Population. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1931. | 1921. | 1911. |
| In Georgetown (within Municipal Limits) ... | 61,899 | 19.91 | 18.29 | 16.49 |
| County of Demerara (exclusive of Georgetown). | 123,285 | 39.65 | 40.14 | 42.82 |
| In New Amsterdam (within Municipal Limits). | 8,002 | 2.57 | 2.57 | 2.91 |
| County of Berbice (exclusive of New Amsterdam) | 67,917 | 21.84 | 20.43 | 19.34 |
| County of Essequebo ... ... | 49,830 | 16.03 | 18.57 | 18.44 |
| In Towns (within Municipal Limits) | 69,901 | 22.48 | 20.86 | 19.40 |
| On Sugar Estates ... ... | 67,443 | 21.69 | 22.22 | 23.95 |
| On Rice and Cocoanut Estates ... | 8,907 | 2.86 | $\cdots$ | ... |
| In Villages | 102,609 | 33.00 | 39.69 | 41.77 |
| On Frarms and Settlements | 56,828 | 18.28 | 14.41 | 11.42 |
| In Forest Districts ... | 5,245 | 1.69. | 2.82 | 3.46 |

The number of persons resident in Towns has increased from 62,802 in 1921 to 69,901 , i.e., by 11.3 per cent., and on Sugar Estates from 66,157 to 67,443 or 194 per cent, whilst the residents in Villages have decreased from 112,252 to 102,609 equal to 8.59 per cent. The reason for the increase on Sugar Estates and decrease in villages is due to Estates of 200 acres and over being required at this census to enumerate their Own properties, and consequently fairly large settlements of people living on estates lands, which were dealt with as villages in 1921 hare been includedin the population of the estates on this occasion. The number of Sugar Estates in 1921 was_44 asagainst 38 in 1931; and the number of estates of 200 -acres and over includt ing Sugar Estates was 68 . The number of settlements which were enumerated by the estates, was 10, with an approximate population of 6,000 as against 4,974 in 1921 .

|  | 1931 |  |  | 1921 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. | Males. | Females. | Total |
| Cify of Georgetown. |  |  |  |  |  |  |
| l. Kingston | 1,428 | 1,575 | 3,003 | 1,323 | 1,618 | 2,94 |
| 2. North Cummingsburg ... | 2.156 | 2,737 | 4,893 | 2,310 | 2,937 | 5,24 |
| 3. South do. | 2,354 | 3,404 | 5,758 | 2,278 | 3,370 | 5,64 |
| 4. Alberttown ... | 2,052 | 2,759 | 4,811 | 1,645 | 2,352 | 3,99 |
| 5. Queenstown | 1,364 | 1,777 | 3,141 | 974 | 1,231 | 2,20 |
| ¢. Bourda ... | 2,229 | 3,191 | 5,420 | 2,085 | 2,956 | 5,04 |
| 7. Lacytown ... ... | 2,659 | 3,720 | 6,379 | 2,331 | 3,419 | 5,751 |
| 8. Robbstown \& Newtown... | 202 | 116 | 318 | 261 | 121 | $38:$ |
| 9. Stabroek | 1,370 | 1,225 | 2,595 | 1,226 | 1,173 | -, 391 |
| 10. Werk-en-Rust | 3,637 | 4,937 | 8,574 | 3,151 | 4,372 | 7.52 |
| 11. Wortmanville | 1.522 | 2,107 | 3,629 | 1,312 | 1,833 | 3.14: |
| 12. Charlestown | 2.824 | 3,790 | 6,614 | 2,473 | 3,444 | 5,91: |
| 13. Albouystown | 2,925 | 3,440 | 6,365 | 1,812 | 2,244 | 4,05t |
| 14. Shipping ... | 393 | 6 | 399 | 188 | 1 | 18 ¢ |
| Total City of Georgetown ... | 27,115 | 34,784 | 61,899 | 23,369 | 31,070 | 54,43! |
| Environs. <br> Kingston outside of Municipal limits and Thomas | 38 | 30 | 68 | 257 | 45 | $30 \%$ |
| Kitty Village including Newtown, Bel Air Park \& the Shelter Belt ... | 3,104 | 3,589 | 6,693 | 2,016 | 2,247 | 4,263 |
| Lodge Village and the Botanic Gurdens | 460 | 543 | 1,003 | 281 | 339 | 620 |
| Total Environs | 3,602 | 4,162 | 7.764 | 2,554 | 2,631 | 5,185 |
| , City | 27,115 | 34,784 | 61,899 | 23,369 | 31,070 | 54,439 |
| ,. City and Environs ... | 30717 | 38,946 | 69,663 | 25,923 | 33,701 | 59.624 |

52. The wards which show the largest increases are :-Albouystown with an and Werk-en-Rust with an increase of 1,051 persons being an increase of : respectively.
53. There are only two wards showing decreases:--North Cummingsbur persons, and Robbstown and Newtown with a decrease of 64 persons.
54. Of the Environs, Kitty including Newtown shows an increase of 2,430 the 1921 figures.
55. The population of this village as returned at the last four Censuses is as 1

| In | 1891 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots 1,687$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\#$ | 1911 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots 3,258$ |
| $"$ | 1921 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots 4,268$ |
| $"$ | 1931 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots 6,698$ |

56. The population of the Town of New Amsterdam within municipal lim per cent. of the total population of the Colony shows an increase of 351 or 4.59 p Jation of the town in 1921.
57. The comparative figures for the sub-divisions of the town are :-

(e) -The Villages.
58. The following table gives the population of the principal villages and settlements in the three Comnties:-


## (c.) -The Counties and Disthicts.

38. The succeeding table gives the population of the several Districts of the three Counties with comparative figures for the previous Census, the population, the increase or decrease, and the percentage increase or decrease:-

39. In the County of Demerara, the East Bank has contributed an increase of 3,336 or 21.55 per cent., as against a decrease of $\mathbf{2 , 1 9 0}$ or 12.42 per cent. in 1921. In Berbice, the Corentyne Coast shows an increase of 6,578 persons or 24.63 per cent., by far the largest individual increase, while the West Coast and Canje Creek districts also show an increase of 1,663 or 14.81 per cent. and 831 or 10.99 per cent. respectively.
40. In the County of Essequebo the largest increase is Bartica, the population of which has increased from 959 in 1921 to 1,585 or 65.69 per cent.
41. The County of Demerara inclusive of Georgetown shows an inprease of 11,252 or 6.47 per cent.; Berbice inclusive of New Amsterdam has an increase of 7,436 or 10.86 per cent; while Essequebo shows a decrease of 5,446 equal to .98 per cent.
42. Taking the several districts separately it will be seen that during the ten jears which have elapsed since the last Census there has been considerable migration among the people, several of the districts showing a diminished population while others have increased.
43. The principal decreases in the Districts are-in Demerara, the West Bank, the population of which shows a shrinkage of 1,444 cr 9.21 per cent. ; the Upper River which has decreased by 1,359 or 14.54 per

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cent. In Berbice the East Bank has decreased by 1,470 or 26.49 per cent. ; the Corentyne River by 376 or 23.95. per cent., and the Upper River shows a decrease of 384 or 18.75 per cent.
44. In Essequebo the largest decrease occurs in the Essequebo, Potaro, Cuyuni, Mazaruni and Puruni Rivers, the population of which shows a decrease of 2,671 or 21.22 per cent., while the Essequebo Coast and Tiger Island is second with a decrease of 2,395 or 11.35 per cent.
45. Regarding the causes of the various increases and decreases here shown, the reduction is principally due to the straitened circumstances of the Sugar and Diamond Industries.

## (d)-Georgetown and New Amsterdam.

46. The population of Georgetown, the capital within municipai limits, was 61,899 persons as compared with 54,439 persons at the previous Census, and with 48,828 persons for the decade ending 1911. The population of the town of Georgetown forms 19.90 per cent. of the total population of the Colong.
47. The population of the environs as detailed in paragraph 51 , which was 7,764 persons as compared with 5,185 in 1921 has increased by 2,579 persons or 49.74 per cent.
48. Georgetonn and its environs taken together contain a population of 69,663 persons forming 22.40 per cent.of the total population of the Colony, as compared with 59,624 for the previous Census ; representing en increase of 10,039 persons or 16.84 per cent. during the ten years.
49. Predeliction for Urban residence may be noted from the following table which gives the distribution of the population in the urban and rural areas of the Colony, for each Census shown :-

50. The Table supports the suggestion that there is a general tendency for the people to reside in the principal town of the Colony. Taking the Colony as a whole it will be observed that the proportion of the country dwellers has consistently decreased during the last 20 years, while there has been a steady increast in the number of town residents.
51. The population of the several wards and divisions of Georgetown and its Environs with the comparative figures for 1921, are given below :-

| Name of Village or Settlement. | Population. |  | ```Increases ( + ) Decreases (-) during 1921-1931.``` |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1931 | 1921 | No. of Persons. | Percentages. |  |
| Countr of Essequebo. |  |  |  |  |  |
| Vergenoegen, Philadelphia and Greenwich <br> Park (Essequebo River) ... | 1,525 | 1,630 | - 5 | - . 33 |  |
| Parika (Essequebo River) ... ... | 463 | 399 | $+\quad 61$ $+\quad 620$ | $+16.04$ |  |
| Bartica (Essequebo River) ... | 1,585 | 959 | +626 | + 65.28 |  |
| Endeavour (Leguan) | 271 | 211 | +60 $+\quad 616$ | + 28.44 |  |
| Melville \& Sans Souci (Wakenaam) ... | 1,179 | 1,795 | - 616 | - 34.32 |  |
| Zeelandia (Wakenasm) ... | 294 | 501 | - 207 | - 41.32 |  |
| Aurora \& Spring Garden (Essequebo Coast) | 611 | 685 | - 74 | - 10.80 |  |
| Huis 'tDieren (Essequebo Cuast) ... | 279 | 753 | - 474 | - 62.95 |  |
| Adventure (Essequebo Coast)... ... | 642 | 837 | - 195 | - 23.30 |  |
| Johanns Cecelia \& Zorg (Ersequebo Coast) | 1,344 | 990 | + 354 | + 35.76 |  |
| Queenstown (Essaquebri Coast) ... | 1,264 | 1,482 | - 218 | - 14.76 |  |
| Henrietta (Esspquebo Coast)... - ... | 774 | 1.126 | - 352 | - 31.26 |  |
| Danielstown (Essequebo Coast) ... | 7.41 | 910 | - 169 | - 18.57 |  |

59. With reference to the remarks on the migration of the people in (paragraph 42 supra) the following may be of interest to show the movements of the people. Taking the settlement of Bel Air, East Coast, Demerara, the population of which has increased 112.8 per cent. during the past decade; 33.3 per cent. of the total population of this settlement were born there, 29.8 per cent. have migrated from Essequebo; 14 per cent. from Pln. Ogle, East Coast ; 6.9 per cent. from Georgetown, 5.6 per cent. from Kitty, East Coast, and 3 per cent. from West Demerara; while the balance of 7.4 per cent. is made up of small numbers from other villages and settlements in the Colony. Again the village of Bush Lot, Nos. 27 and 28, Corentyne, in the county of Berbice, whose popalation has increased by 122.68 per cent. ; 44 per cent. were born at Bush Lot, 13.7 per cent. have migrated from Plantation Port Mouraut, 6 per cent. from Plantation Albion, 3.8 per cent. from Plantation Rose Hall, 1.8 per cent: from Whim, 1.4 per cent. from New Amsterdam, 1.4 per cent. from Maida, and 1.2 per cent. from Letter Kenny, while the balance of 26.7 per cent. is made up of small numbers from other parts of the county. The village of Bartica in the county of Essequebo, which is the starting-off point for the interior has increased its population during the decade by 65.28 per cent. The total population of the village is made up as follows:- 23.2 per cent. were born there; 19.1 per cent. migrated from Georgetown; 15.4 per cent. from East Demerara; 9.6 per cent. from the Essequebo Coast; 7.2 per cent. from the Essequebo River; 5.8 per cent. from the West Indian Islands; 5.3 per cent. from West Demerara; 3.4 per cent. from the Essequebo Islands; 2.5 per cent. from the County of Berbice, and the balance of 8.5 per cent. is made up of small numbers from other parts of the Colony, and other countries, viz., Venezuela, China, Surinam, etc.

## II.-DENSITY OF POPULATION.

60. Distributed over the whole Colons, the density of the population is 3.47 persons to each square bile, but this result is misleading, as the distribution of the population over the colony is so irregular. The populated area of British Guiana is genorally confined to a narrow strip extending along the coast-line, and for limited distances up the several rivers and creeks of the Colony, and within comparatively short distances from their banks. Beyond the higher reaches of the rivers, small isolated settlements may be found, while there are large areas in the hinterland without any population whatever.
61. The extent of the settlement of the people in each County and Town may be obtained from the following table :-

| Districte. | Ares in Square Miles. | Total Population. | Persons par Square Mile. | Acres per Person. |
| :---: | :---: | :---: | :---: | :---: |
| The Colony ... | 89,480 | 310,933 | 3.47 | 184.18 |
| $\begin{array}{\|ll\|}\text { Georgetown } & \text {... } \\ \text { Now Amsterdam } & . . \\ \text { Com }\end{array}$ | 2.23 1.04 | 61,899 8,002 | 27,757 7,694 | .04 .08 |
| County of Demerara (inclusive of Georgrtown) County of Berbice (incla- | $4,420$ | 8,002 185,184 | $41.90$ | .08 15.27 |
| $\left\lvert\, \begin{gathered}\text { cone } \\ \text { sive of New Ams erdam )... } \\ \text { Connty of Easequmo }\end{gathered}\right.$ | $\begin{aligned} & 16,920 \\ & 68.140 \end{aligned}$ | 75,919 49,830 | 4.49 .73 | $\begin{aligned} & 142.64 \\ & 875.23 \end{aligned}$ |

To give a better idea of the density of the population in the County of Essequebo, the following figures may be of some assistance. The Essequebo Coast which has a population of 18,341 persons, and an area of 80 square miles; there are 229.26 persons per square mile and 279 acres to a person. The North West Districr, the population of which is 5,706 persons with an area of 7,342 square miles, has .8 persons per square mile; and 823.67 acres per person, while in the Rupununi District with an area of 40,772 square miles the population is 1,030 persons, giving .03 persons per square mile, and 25,334 acres to a persou.
62. Georgetown within Municipal limits has 61,899 persons or 43.25 to an acre, and 27,757 persons to a square mile.
63. Georgetown together with its environs has 69,663 persons or 35.71 to an acre, and 22,840 persons to a square mile.
64. New Amsterdam has 11.96 persons to an acre equal to $\mathbf{7 , 6 9 4}$ to the square mile.

## III.-HOUSES.

65. The following table gives the number of houses and the population returned at this and the three preceeding Censuses:-

66. While the number of houses returned by the Enumerators was distributed as follows :-

|  | Number of Houses. |  |  | Population. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Inhabited. | Uninhabited, | In course of erection. | Persous. | Males. | Females. |
| Gerrgetown | 8,874 | 751 | 37 | 61,899 | 27,115 | 34,784 |
| Environs of Georgetown | 1,703 | 107 | 51 | 7.764 | 3,602 | 4,162 |
| New Amsterdam | 1,384 | 105 | 3 | 8002 | 3,480 | 4.522 |
| Demerara ... | 22,967 | 1.797 | 553 | 115,521 | 58,746 | 56,775 |
| Berbice | 13,609 | 837 | 400 | 67,917 | 35,169 | 32,748 |
| Esrequebo ... | 11,253 | 1,367 | 270 | 49,830 | 27,269 | 22,561 |
| Total ${ }^{-}$ | 59.790 | 4,964 | 1,314 | 310,933 | 155,381 | 155.552 |

467. It will be observed that the number of inhabited houses returned in 1921 was 66,593 as against 59,790 at this Census. This large discrepancy appears to be due to the Enumerators on this occasion adhering more closely to the definition of what constitutes a "House," irrespective of the number of separate occupiers. In 1921 the Census Commissioner drew attention to the lack of a satisfactory detinition of a "House," and on this occasion the instructions to enumerators definsd a "House" as meaning any house or range, and including auy premises used as a residence.
468. The distribution of houses between the Urban and Rural areas of the Colony for the Censuses shown appears in the succeeding table, which also indicates the percentages in the respective areas to the total houses in the Colony :-

469. At this Census the Schedules required information regarding the number of rooms contained in eact inhabited house, and the following table gives the number of persons, inhabited houses and rooms, and indi. eates the average number of rooms per house, and persons per room in the several districts of the Colony :-

| Districts. | Number of |  |  | Average, |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Persons. | Inhabited Houses. | Rooms. | Rooms per House. | Persons per Room. |
| The Colony ... | 310,933 | 59,790 | 155,123 | 2.6 | 2. |
| Georgetown (within Municipal Limits) | 61,899 | 8,874 | 32,873 | 3.7 | 1.9 |
| Now Amsterdam (within Municipal Limits) | 8,002 | 1,384 | 4,465 | 3.2 | 1.8 |
| County of Demerara ... | 123,285 | 24,670 | 63,329 | 2.6 | 1.9 |
| County of Berbice ... | 67,917 | 13,609 | 31,771 | 2.3 | 2.1 |
| County of Essequebo ... | 49,830 | 11,253 | 22,685 | 2. | 2.2 |

70. The succeeding table digests the results stated in the preceding paragraphs:-

| Town and County. | Persons to a Family. | Persons to an Inhabited House. | Families to an Inhabited House. | Persons to 2 Square Mile. | Inhabited Houses to a Square Mile. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| The Colony | 3.83 | 5.20 | 1.34 | 3.32 | 1.49 |
| Georgetown (within Municipal Limite) ... | 379 | 6.97 | 1.85 | 27,757 | 3,979 |
| Environs of Georgetown ... ... | 4.03 | 4.56 | 1.13 | 9,585 | 2,102 |
| New Amsterdam (within Municipal Limits) | 3.35 | 5.78 | 1.70 | 7,694 | 1,331 |
| County of Demerara (exclusive of Georgetown and Environs) | 3.43 | 5.03 | 1.38 | 26.15 | 5.20 |
| County of Berbice (exclusive of New Amsterdam) | 3.60 | 4.99 | 1.21 | 4.01 | . 80 |
| County of Essequaho ... ... | 404 | 4.43 | 1.09 | . 73 | . 16 |

IV.-SEXES.
71. The following table shows the division of the sexes over the whole Colony, and comparative figures for each Census to 1911 :-

72. The percentage rates of increase $(+$ ) and decrease ( - ) among males and females were :-

73. The percentage sex composition of the entire population for the same period was:-

which appeirs to indicate that the halance between the sexes is increasing in the Colony in favour of the female.
74. The excess of females over males, and the proportion of each sex to every 1,000 of tha opposite sex at each successive Census since 1841 is indicated in the following table:-

75. Expressing these results in another form, the following table shows the proportion of each sex to every 1,000 of the opposite sex at the Censuses from 1841-1931 :-

76. The preceding table reveals that a change has taken place during the intercensal period 19211931, by which the preponderance of males in the Colouy, which formerly existed has changed, and that an equalization of the sexes has been in progress. Twenty years ago there were but 926 females to every 1,000 males, and at the recent Census there were 1,001 females to every 1,000 males, or in other words, in 1911 there was an excess of 80 males in every 1,000 of each sex, while in 1931 there was an excess of 1 female in every 1,000 of each sex.
77. How far this change has been brought about by some variation in the returns of births and deaths, may be gathered by the following figures:-

78. From these results it appears that during the whole decade with the exception of 1922 more males were born each year than females; but on the other hand during the whole decade more deaths occurred amongst males than females. As regards the births and deaths over the whole period there were 49,357 births of males, and 47,548 births of females. The number of deaths for the same period was 43,129 males and 36,289 females thus giving a net surplus of 5,031 females (i.e., a gain of 1,809 males in the total births, and 6,840 females in the total deaths).
79. During the decade $1921-1931$ the departures from the Colony of the female sex exceeded the arrivals by 2,189 , while with the male sex, the arrivals exceecied departures by 88 .
80. The relatives proportions of the sexes in the various race divisions of the whole population are shown in the following table:-

81. The races in which the male element preponderate are "Europeans (Uther than Portuguese)," who have 78 females to every hundred males; the "East Indians," who have 87 ; and the "Chinese" 81 .
82. The females preponderate among the Portuguese, Blacks, Mixed and Aborigines, among whom the number of females to every 100 males is $115,110,117$ and 104 respectively.
83. Comparing the figures of 1931 with 1921, we find that in the Portuguese race the number of females to each 100 males has risen from 112 to 115; East Indians from 80 to 87, and Aborigines from 99 to 104 ; while decreaseshave occurred as follows : Europeans from 82 in 1921 to 78; Chinese from 86 to 81 ; and Coloured or Mixed from 120 to 117.
84. The table below shows the relation of the sexes in the several race divisions of the native-born or creole population:-

| Race Division of Native born Population. | Proportion per cent. of |  | Number of Female to every 100 Males of the Native-born Population. |  | Number of Males and Feinalesin |  |  |  | $\begin{aligned} & \text { Percentage Increases } \\ & \text { and DDereases during } \\ & 1931-1921 \text { in each } \\ & \text { Kace Division. } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 1931 | 1921 | 1931 |  | 1921 |  | Increase |  | Decrease |  |
|  |  |  |  |  | M. | F. | M. | F. | M. | F. | is. | F. |
| Europeans (other than Portuguese) .. | 47.16 | 52.84 | 112 | 114 | 499 | 559 | 843 | 965 |  |  |  |  |
| Europenns 'Portuguese) | 46.15 | 53.85 | 116 | 115 | 3,664 | 4,275 | 3,717 | 4,288 |  |  | . 29 | . 32 |
| East Indians | 51.51 | 48,49 | -945 | 94 | 54,836 | 51,617 | -43,652 | 41,321 | 9.49 | 8.10 |  | . 01 |
| Chineso ... | 51.03 | 48.97 | 95 | 98 | 1,290 | 1,238 | 1,181 | 1,165 |  | ${ }^{80}$ |  | $\cdots$ |
| Blacks ... | 46.71 | 53.29 | 114 | 113 | 54,517 | 62.192 | 51,202 | 58,088 | 2.81 | ${ }_{3.26}$ |  |  |
| Mixed Races | 45.88 | 54.12 | 117 | 121 | 14,506 | 17,111 | 12,715 | 15,438 | 2.81 | 1.34 |  | $\cdots$ |
| Aborigines | 49. | 51. | 104 | 99 | 4,090 | 4,258 | 4,585 | 4,565 |  | 1.34 | $\stackrel{4}{4}$ | . 24 |
|  |  |  |  |  |  |  |  |  | $\|13.90\|$ | 12.75 | . 74 | . 57 |
| Total | 48.57 | 51.43 | 105 | 106 | 133,402 | 141,250 | 117,895 | 125,830 | 13.16 | 12. |  |  |

85. The females exceed the males by 7,848 or 5.9 per cent., the proportion of the sexes being 105 females to every 100 males as compared with 106 females in 1921.
86. The males number 133,402 or 48.6 per cent. of the native population, as compared with 48.3 per cent. in 1921. This number forms 42.9 per cent. of the whole population of the Colony, and 85.8 per cent. of the total male population of the Colony. The females number 141,250 or 5.14 per cent., as compared with 51.6 per cent. in 1921 , being 45.4 per cent. of the whole population of the Colony, and 90.8 per cent. of the total females in the Colony.
87. Comparing the figures with 1921 , the males have increased by 13.2 per cent., and the females by 12.2 per cent. The disproportion of the sexes in the creole population is most marked among the Europeans, Portuguese, Blacks and Coloured or Mixed Races.
88. The males are in excess among the East Indians who have 94 females to every 100 males, and the Chinese who have 96.
89. All divisions show an increase in both males and females, except Europeans who have a percentage decrease of .29 in the males and .32 in the females; the Portuguese .04 in the males and .01 in the females, and the Aborigines who have decreased .41 in the males and .24 in the females.
90. The sex composition of the several race divisions in the foreign-born population is as below :-

| Race Division of Foreign-Born Population | Proportion per cent. of |  | Number ofFemales toevery 100Malos |  | Number of Males and Females in |  |  |  | Percentage Increases and Decreases during 19:1-1931 in each Race Division. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\stackrel{ \pm}{*}$ |  |  | 1931 |  | 1921 |  | Increase |  | Decreuse |  |
|  | 走 | - | 1931 | 1921 | M. | F. | M. | F. | M. | F. | M. | F. |
| Europeans (other than Portugese) | 64.83 | 35.17 | 54 | 52 | 693 | 376 | 970 | 513 | ... | $\ldots$ | . 83 | . 67 |
| Europeans (Portuguese).. | 5186 | 48.14 | 92 | 96 | 349 | 324 | 594 | 576 | $\cdots$ | ... | . 72 | 1.22 |
| East Indians ... | (61.83 | 38.17 | 61 | 56 | 14.893 | 9194 | $2 \overline{2}, 478$ | 14,487 | ... | ... | 31.72 | 25.69 |
| Chinese ... ... | 88.61 | 19.39 | 25 | 33 | 341 | 82 | 281 | 95 | . 17 | ... | $\cdots$ | . 06 |
| Black and Africans ... | 58.79 | 41.21 | 70 | 73 | 4,406 | 3,088 | 4,544 | 3,335 | ... | ... | . 41 | 1.20 |
| Mixed Races... ... | 50.25 | 49.75 | 98 | 104 | 1,097 | 1,086 | 1,190 | 1,244 | ... | ... | . 28 | . 77 |
| Races not stated ... | 56.81 | 43.18 | 76 | 113 | -200 | 152 | 309 | + 350 | ... | ... | . 33 | . 91 |
|  |  |  |  |  |  |  |  |  | . 17 | ... | 34.29 .17 | 30.52 |
| Totals ... | 60.58 | 39.42 | 65 | 60 | 21,979 | 14,302 | 33,366 | 20,600 | $\cdots$ | ... | $\overline{34.13}$ | 30.52 |

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#### Abstract

91. Among the foreign-born population which forms 11.7 per cent. of the whole population of the Colony, the males exceed the females by 7,677. The males number 21,979 or 60.6 per cent. as compared with 61.8 per cent. in 1921. This number forms 7 per cent. of the whole population of the Colony, and 14.2 per cent. of the total male population of the Colony. The females number 14,302 or 39.4 per cent. as compared with 38.2 per cent. in 1921 ; forming 4.6 per cent. of the whole population of the Colony, and 9.4 per cent. of the total female population of the Colony. The proportion of the sexes for the foreign-born population is 65 females to every hundred males as compared with 61 females in 1921.


92. Comparing the figures with 1321, the number of males has decreased by 11,387 or 34.1 per cent., and the females by 6,298 or 30.6 per cent.
93. The disproportion of the sexes is most narked among the Europeans, Chinese and East Indians, and least marked among the Coloured or Mixed Race and Portuguese.
94. In all divisions the males exceed the females.
95. In all divisions both sexes show a decrease with the exception of the Chinese, in which the males show an increase of $\cdot 17$ per cent. The most marked percentage decrease is among the East Indians, the figures being males 31.72 per cent., and females 25.69 per cent.
96. The succeeding table gives the proportion of the sexes in each race division, and the percentage of native-born and foreign-born of both sexes in Geor getown (within Municipal Limits) :-

| Race Division. | Number of |  | Proportion Percentage of |  | Proportion Percentage. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | 'Males. | Females. | Native-born. |  | Foreign-born. |  |
|  |  |  |  |  | Males. | Females. | Males. | Females. |
| Europeans (other than Portuguese) | 746 | 697 | 51.7 | 48.3 | 24.5 | 30.7 | 27.2 | 17.6 |
| Do. (Portuguese) ... | 2,327 | 3,068 | 43.1 | 56.9 | 38.7 | 52.1 | 4.4 | 4.8 |
| East Indians ... | 3,001 | 2,495 | 54.6 | -46.4- | -40.7- | -39i- | - +3.9 | -6.4 |
| Chinese ... | 626 | 492 | 56. | 44. | 40.1 | 40.9 | 15.9 | 3.1 |
| Blacks and Africans | 14,044 | 19,049 | 42.4 | 57.6 | 37.9 | 52.4 | 4.5 | 5.2 |
| Mixed or (Coloured) ... | 6,253 | 8,822 | 41.5 | 58.5 | 37.7 | 53.6 | 3.8 | 4.9 |
| Aborigines ... ... | 46 | 73 | 38.7 | 61.3 | ... | ... | ... | $\cdots$. |
| Races and Birth Places not stated | 73 | 88 | 46.4 | 53.6 | ... | ... | ... | ... |
| All Races ... | 27,115 | 34,784 | 43.8 | 56.2 | 37.9 | 50.8 | 5.9 | 5.4 |

97. In Georgetown the males numbered 27,115 or 43.8 per cent. forming 8.7 per cent. of the total population of the Colony, and 17.4 per cent. of the total male population of the Colony. The females numbered 34,784 or 56.2 per cent., being 11.2 per cent. of the whole population of the Colony, and 22.3 per cent. of the total female population of the Colony.
98. The females exceed the males by 7,669 , the proportion of females to males being $128: 100$. Of the total males 37.9 per cent. were native-born, and of the total females 50.8 per cent. were born in the Colony. The females are in excess in all race divisions except the Europeans, East Indians and Chinese.
99. Among the native-born the females are in excess in all race divisions except East Indians, while among the foreign-born the males preponderate among the Europeans, East Iudians and Chinese.
100. The geographical distribution of the sexes comprising the entire population appears in the following: table :-

101. Of the total male population of the Colony 19.69 per cent. live in the Urban Areas of whom 87.05 per cent. are native-born, and 12.95 per cent. are foreign born. The females living in the same division comprise 25.28 per cent. of the total female population of the Colony. Of these 90.91 per cent. are native born, and 9.09 per cent. are foreign born.
102. The remainder or Rural Areas contain 80.31 per cent. of the total male population of the Colony. Of the total number of males in the rural parte 85.6 per cent. are native born and 14.4 per cent. are foreign born. Of the total female population there are 74.74 per cent. in the rural areas of whom 90.83 per cent. are native born, and 9.17 per cent. foreign born.
103. Of every 1,000 persons of the population in the two towns of the Colony 562 were females and 438 were males. In the same areas, the proportion of the sexes was 128 females to every 100 males. In the Rural Areas there were 482 females and 517 males in every 1,000 persons, while the sex proportion was, in the rural areas, $\mathbf{9 3}$ females to every $\mathbf{1 0 0}$ males.
104. The male population of Georgetown alone formed 17.45 per cent. of the whole male population of the Colony, and the female population 22.36 per cent. of the entire female population. Of the males in Georgetown 86.54 per cent. were born in the Colony, and 13.46 per cent. were born elsewhere, while of the females 90.33 per cent. were native born and 9.67 per cent. foreign born.
.105. The males in the County of Demerara (excluding Georgetown) comprise 40.13 per cent. of the total male population of the Colony. Of these 84.4 per cent. were native born and 15.6 per cent. were foreign born. The female population of Demerara comprises 39.18 percent. of the total female population of the Colouy, and of these 89.83 per cent. were born in the Colony, and 10.17 per cent. were born elsewhere.
105. The male population of New Amsterdam forms 2.24 per cent. of the total male population of the Colony, 90.95 per cent. being native born and 9.05 per cent. foreign born. The female population comprises 2.9 per cent. of the total female population; 95.42 per cent. of them being native born and 4.58 per cent. are foreign borv.
106. Of the total male population of the Colony, the County of Berbice (exclusive of New Amsterdam) clains 22.63 per cent. of which 85.23 per cent. are native born and 14.77 per cent. foreign born. The females comprise 21.05 per cent. of the whole female population, and of these 90.42 per cent. are native born, and 9.58 per cent. are foreign born.
107. The males in the County of Essequebo comprise 17.55 per cent. of the total male population of the Colony, and the females $\mathbf{1 4 . 5 1}$ per cent. of the total female population. Of the males 88.83 per cent. were born in the Colony and 11.17 per cent. elsewhere. Of the females 94.11 are native born and 5.89 foreign born.
108. The proportion and percentage proportion of the sexes in the Towns and Counties of the Colony is shown in the succeeding fable, which also gives comparative figures for 1921 :-

| Town | $\begin{aligned} & \text { Number recorded } \\ & \text { in } 1921 \end{aligned}$ |  | Number recorded in 1931 |  | Proportion Percentages of the Sexes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1921 | 1331 |  |
|  | Males | Females |  |  | Males | Females | Males | Females | Males | Females |
| Georgetown (within Municipal Limits) ... | 23,369 | 31,070 | 27,115 | 34,784 | 42.93 | 57.07 | 43.81 | 56.19 |
| $\begin{array}{lr}\text { New Amsterdam } \\ \text { Municipnl Limits) } & \text { (within } \\ \text { Mun }\end{array}$ | 3,315 | 4,336 | 3,480 | 4,522 60,937 | 4333 | 56.67 48.58 | 43.49 50.57 | 56.51 49.43 |
| County of Demerara $\quad .$. | 61,438 | 58,055 | 62,318 | 60,937 | 51.42 | 48.58 47.56 | 50.57 51.78 | 49.43 48.22 |
| County of Berbice | 31,898 | 38,934 24,035 | 35,169 27,269 | 32,748 $\mathbf{2 2 , 5 6 1}$ | 52.44 5652 | 47.56 43.48 | 51.78 54.72 | 45.28 |

Comparing the figures with those of the last Census, it will be seen that the proportion of the sexes has increased in all the towns and counties with the exception of Essequebo where there is a large decrease. The percentage proportion of the males has increased in Georgetown and Now Amsterdam, and decrease.l in the three counties, while the females have increased in the three counties, and decreased in Georgetown and New Amsterdam.

## V.-AGES.

110. The table below shows the numbers of the population at different agee, and the percentage increases and decreases in the several age groups during 1921-1931.

111. In the under I year period the females following the universal rule, exceed the males; this excess however, disappears in the following period where the males exceed the females. Both age groups in the division, it will be seen show an increase in numbers as compared with the previous Census. The mortality in the "under 1 year" section amounted to nearly 20 per cent. of the total deaths in the whole Colony, as compared with nearly 19 per cent. in 1921, while for the whole division "under 5 " the deaths totalled 28.4 per cent., as compared with 28 per cent. at the previous Census. The females in the " $5-15$ " period are in the minority. With the exception of the males in the " $10-15$ " section, both the sexes in this group show an increase in numbers. In the following age period " $15-25$ " the females preponderate as at the 1921 Census. The proportion of the sexes in this group is 1,110 females to 1,000 males as compared with 1,100 in 1921.
112. In the age period " $25-45$ " there is an improvement in the disproportion of the sexes, the relative proportions being 958 females to every 1,000 males as compared with 923 females to 1,000 males at the last Census. The proportional percentage of the whole population of the " $25-45$ " period has decreased during the decade by 5.23 per cent. among males, and 1.69 per cent. among females. The succeeding age period " $40-65$ " shows some improvement in the disproportion of the sexes, the relative proportion being 949 females to 1,000 males as compared with 840 females to 1,000 males in 1921 . This disparity would have been still greater, but for the mortality amongst the males which decreased their numbers by over 3 per cent., while the femalos increased their numbers by nearly 9 per cent.
113. In the last age period " 65 and upwards" the females preponderate, the proportion being 1,278 females to every 1,000 males as compared with 1,221 females to each 1,000 in 1921. Both sexes in this group show a percentage decrease in numbers. Of the 8,461 persons in this group 959 are returned as being between 80 and 90 jears of age, 168 have recorded ages between 90 and 100 years, and 38 claim centenarian honours as against 44 in 1921.
114. At the last Census the Commissionor drew attention to the difficulty experienced in obtaining accu|rate age returns, and this difficulty has been experienced again on this occasion, especially in the centenarian
class. After the taking of the Census, enquiry was made into those persons who stated their age as being 100 and over, and only in one instance, an East Indian, could documentary evidence be obtained to substantiate the claim, therefore in the age periods $70-100$ and over, some doubt exists in many cases, as to the reliability of the information given.
115. The number of females to every 1,000 males at certain ages, for each of the last four Censuses is shown in the table below :-


The principal characteristic of this table is the steady incline of the female population at all ages, with the exception of the under 1 year to 5 group, which shows some variation during the past 50 years. The final group " 65 and upwards" shows a marked increase, indicating that the female element of the population is longer lived now than in past years.
116. The proportion of the sexes at various age groups in Urban and Rural areas respectively is shown below :-

| Districts |  | Males |  |  |  |  |  |  |  | Females |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { All } \\ \text { Ages } \end{gathered}$ | $\begin{array}{c\|c} \mathbf{T o} \\ 5 \end{array}$ | 5 <br> to <br> 10 | 15 to 20 | $\begin{aligned} & 20 \\ & \text { to } \\ & 45 \end{aligned}$ | 45 to 65 | $\left\lvert\, \begin{gathered} 65 \\ \text { and } \\ \text { Opwards } \end{gathered}\right.$ | $\begin{aligned} & \text { Age } \\ & \text { not } \end{aligned}$ <br> Stated | $\underset{\text { Ages }}{\text { All }}$ | $\begin{gathered} \text { To } \\ 5 \end{gathered}$ | 5 to 10 | 15 to 20 | 20 <br> to <br> 45 | 45 to 65 |  | $\begin{array}{\|c\|} \text { Age } \\ \text { not } \\ \text { Stated } \end{array}$ |
| Urban | ... | 438 | 60 | 94 | 44 | 163 | 62 | 14 | 1 | 562 | 61 | 102 | 60 | 224 | 90 | 24 | 1 |
| Rural | ... | 518 | 76 | 112 | 49 | 192 | 75 | i3 | 1 | 482 | 76 | 106 | 54 | 170 | 62 | 14 | ... |

As is generally found the adults in the prime or working period of life are found in towns; the proportion of adults between " 20 and 45 " in urban districts, being 337 to every 1,000 of the population, as against 362 in the rural areas. Comparing the respective sexes in the age period it will be sean that the females in the urban districts outnumber the males, while the males exceed the females in the rural areas.
117. The number of femules of reproductive age " $15-45$ " in every 1,000 persons of the population is in urban districts 284, and in rural districts 224. The larger proportion of adults of reproductive age of both sexes is also found in the urban areas, being Urban 491 and Rural 465.
118. Comparing the numbers of persons "from 45 upwards," it is seen that the proportion is Urban 190 per 1,000 and Rural 164 per 1,000 .
119. The age distribution of the sexes at the various age groups in each county and town was :-

| Town and County | Proportiou to 1,000 persons of the population in each Town and County. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |  |  |  |  | Females |  |  |  |  |  |  |  |
|  |  | $$ | $\frac{12}{6}$ | $\begin{gathered} \text { ơ } \\ \text { ì } \end{gathered}$ |  | $\begin{aligned} & 18 \\ & 18 \\ & 48 \end{aligned}$ |  |  | $\begin{aligned} & \stackrel{.0}{0.0} \\ & \frac{1}{4} \\ & \overline{4} \end{aligned}$ | $\begin{array}{r} 10 \\ 0 \\ 0 \end{array}$ | $\underset{\sim}{5}$ | $\begin{aligned} & \underset{y}{\circ} \\ & \dot{\rightharpoonup} \end{aligned}$ | $\begin{aligned} & \text { ợ } \\ & \stackrel{1}{\dot{~}} \end{aligned}$ | $\begin{aligned} & \text { ® } \\ & \text { ®i } \end{aligned}$ |  |  |
| Georgetown ... | 438 | 60 | 94 | 44 | 163 | 62 | 14 | 1 | 361 | 60 | 101 | 60 | 225 | 91 | 23 | 1 |
| Demerara | 505 | 74 | 109 | 49 | 186 | 75 | 11 | 1 | 494 | 72 | 106 | 55 | 179 | ${ }^{67}$ | 14 | 1 |
| New Amsterdam ... | 434 | 60 | 96 | 43 | 157 | 65 | 12 | 1 | 565 482 | 66 83 | 112 | 51 | 216 | 85 | 14 11 | $\stackrel{2}{1}$ |
| Berbice ... | 517 | 83 | 120 | 49 |  | 72 | 11 | 3 | 482 | 83 | 103 | 52 | 155 | 5 | 12 | 1 |
| Essequebo ... | 547 | 73 | 107 | 53 |  |  | 11 | 3 | 452 | 74 | 103 |  |  |  |  |  |
| Whole Colony ... | 499 | 73 | 108 | 48 | 185 | 72 | 12 | 1 | 501 | 72 | 106 | 55 | 183 | 69 | 15 | 1 |

120. The proportion of adults " $20-45$ " in Georgetown, where it is 388 to every 1,000 persons of the city population, is larger than the proportion in New Amsteraam or any of the counties. The proportion in New Amsterdain is 373 as compared with 401 in 1921.
121. The county with the highest proportion is Essequebo with 376, next comes Demerara with 365, and then Berbice with 347.
122. Of females of reproductive age " $15-45$ " Georgetown has the highest proportion, there being 285 females of this age to every 1,000 persons of its population; New Amsterdam is second with a proportion of 2.7 ; next comes the county of Demerara with 234, Berbice with 218, and last Essequebo with 207. In Georgetown and New Amsterdam the females of reproductive age " 15.45 " exceed the males of reproductive age (20-65) ; in the rural districts the reverse is the case.
123. The relative proportions of the sexes among adults of " $20-45$ " are:-to every 1,000 males of this age of the population in each district,-in Georgetown 1,378 females ; Demerara 964 ; New Amsterdam 1,377; Berbice 919 ; and \#ssequebo 699.
124. The following table shows how much lower is the proportion of children in the Urban, as compared with the Rural Districts:-

| Division | Women of Procreative Age per 1,000 of Population of Division. | Children of 5 gears and under per 1,000 of Population of Divisiou. |
| :---: | :---: | :---: |
|  | 285 277 234 218 207 | 120 126 146 166 147 |

125. The above table points out some unusual featuree when examining the figures showing the proportion of young children. In Eseequebo where the proportion of women of reproductive age is considerably lower than elsewhere, and where the disparity between the sexes among adults is much more marked, the proportion of joung children is the highest with the exception of Berbice. In the county of Berbice the proportion of children of 5 years of age and under is very much higher than elsewhere, notwithstanding, that with the exception of Essequebo the proportion of women between " $15-45$ " is the lowest.
126. The small proportion of young children as compared with the high proportion of females of reproducive age in Georgetown, may perhaps be accounted for by the disparity of tho sexes; Georgetown having a proportion of only 225 males of reproductive age to each 1,000 of the population, as against 237 at the previous Census.
127. Turning to the proportion of aged persons " 65 years and upwards," we Giad, contrary to rule, that Georgetown with the lowest proportion of young children has the highest proportion of aged persons, while the county of Berbice which has the highest proportion of young children, following the usual rule, has the smallest proportion of old people.
128. Taking the columns "Males" and "Females" we find that both in Georgetown and New Amsterdam except in the " 5 years and under" period in the flrst named place, the females outnumber the males in every age period, the proportion of the sexes for all ages being-in Georgetown 128, and in New Amsterdam 130 females to every 100 males. In the other districts where the males are in excess, there are to every 100 males-in Demerara 98 females ; in Berbice 93, and in Essequebo 83.
129. The marked excess of males in Essequebo may be explained by the fact that in this, the largest of the three counties, the bulk of the persons employed are engaged in mining, balata-collecting, timber-cutting and other forest industries in which only males are employed.
130. The proportion of persons under and over 25 years of age per 1,000 of the population, at the past five Censuses was:-


The increase in the proportion of young persons under 25 since $18 S 1$ is due to the smaller number of East Indian immigrunts introduced since that date, the large majority of the immigrants introduced being adults, while during the decade under review no indentured immigration has takon place.
131. The proportion of the sexes under and over 25 years of age per 1,000 of the population of each sex is given in the succeeding table:-

132. The number of each race at various age periods can be obtained direct from the tables in the appendices. The proportion of males and females in each race division of the population per 1,000 , at various age periods is shown below :-


This table should be read as follows :-Of every 1,000 males in the total population of the Colony 7.67 were Europeans; . 15 were under 1 year of age; .5 were over 1 to 5 years-and similarly for the females and the other races.
133. Of males of "All Ages" the highest proportion occurs amongst the East Indians who have 448.76 males in every 1,000 males in the entire population ; next come the Africans and Blacks who have 379.2, and after them the Mixed or Coloured Race with 100.4.
134. Taking the females of "All Ages" the Africans and Blacks have the highest proportion with 419.7 females in every 1,000 of the entire population; the East Indians are next with 390.9 , and after them the Mixed or Coloured Race who have 116.9.
135. The highest proportion of males "under 15 years" is found among the East Indians who have 165.98 in every 1,000 males of the total male population. Next follow the Blacks with 127.3 and after them the Mixed or Coloured Race with 43.5.
136. Of females "under 15 years of age" the East Indians also have the highest proportion with 159, followed by the Blacks with 128.2.
137. Taking the males of " 15 years and upwards," the East Indians have 281.5 to every 1,000 males of the total male population as compared with the Blacks who have 250.6.
138. Of females "aged 15 years and upwards," the Africans and Blacks have the highest proportion with 290.3 as against 230.8 among the East Indians.
139. Taking the females of reproductive age " 15-45," the East Indians have the highest proportion with 208.7 females to every 1,000 females of the whole female population, the Africaus and Blacks coming next with 180. ,
140. Of old persons aged " 65 years and upwards," the Africaus and Blacks claim the highest proportion of both sexes,
141. The following table showing the deaths among the population from the 25th April, 1921, to 26 th April, 1931, in towns and counties is subjoined :-


## VI.-CONDITION AS TO MARRIAGE OR CIVIL CONDITION.

142. The number of husbands enumerated amounted to 46,254 , while there were 46,290 wives. The wives therefore outnumbered the husbauds by 36 , the proportion being 1,001 wives to every 1,000 husbands. On the other hand there were 8,561 unmarried males in excess of the unmarried females; the numbers being 103,361 unmarried males and 94,800 unmarried females, giving a proportion of 917 females who were unmarried to every 1,000 unmarried males.
143. Amongst those who were widowed the females more than doubled the males; widows numbering 14,246 while only 5,599 widowers were recorded.
144. There were 167 males and 216 females returned as divorced.
145. The succeeding table dipides the entire population into each category of the marital condition during the decades given, and the proportionate percentage of each class to the whole population.

| Year | Unmarried | $\%$ | Married | $\%$ | Widowed | $\%$ | Divoreed* | $\%$ | Total Popu- <br> lation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1891 | 199,887 | 72. | 66,933 | 24. | 11,508 | 4. | $\ldots$ | $\ldots$ | 278,328 |  |
| 1911 | 191,874 | 65. | 87,603 | 30 | 16,564 | 5. | $\ldots$ | $\ldots$ | 296,041 |  |
| 1921 | 187,598 | 63. | 91,527 | 31. | 18,566 | 6 | $\ldots$ | $\ldots$ | 297,691 |  |
| 1931 | 198,161 | 63.7 | 92.544 | 29.8 | 19,845 | 6.4 | 383 | .1 | 310,933 |  |

This table shows that in comparison with 1921 little change has occurred in the proportional ratio of jach section of the population classed according to its condition as to marriage towards the entire population of the Colony. The increase in the unmarried, and decrease in the married persons can be accounted for by the increase of children in the "under 1 to 15 " group, the excess being slightly over 16,000.
146. Distributed by sexes the marital condition of the population compared with the previous three Censuses appears in the table below :-

|  | Year | Unmarried | \% | Married | \% | Widowed | \% | Divorced* | \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1891 | ... $\left\{\begin{array}{l}\text { Males }\end{array}\right.$ | 114,083 | 75. | 34,270 | 23. | 3,406 | 2. | ... | $\cdots$ |  |
| 1891 | $\cdots$ Females | 85,804 | 68. | 32,663 | 26. | 8,102 | 6. | ... | $\ldots$ |  |
| 1911 | ... $\left\{\begin{array}{l}\text { Males } \\ \text { Females }\end{array}\right.$ | 103,820 88,054 | 68. 62. | $\begin{aligned} & 44,975 \\ & 42,628 \end{aligned}$ | 29. 30. | 4,922 11,642 | 3. <br> 8. | ... | ... |  |
| 1921 | $\ldots\left\{\begin{array}{l} \text { Males } \\ \text { Females } \end{array}\right.$ | $\begin{aligned} & 99,704 \\ & 87,894 \end{aligned}$ | 66. 60. | $\begin{aligned} & 46,118 \\ & 45,409 \end{aligned}$ | 30. 31. | 5,439 13,127 | 4. | $\ldots$ | ... |  |
| 1931 | $\cdots\left\{\begin{array}{l} \text { Males } \\ \text { Females } \end{array}\right.$ | $\begin{array}{r} 103,361 \\ 94,800 \\ \hline \end{array}$ | $\begin{aligned} & 66.5 \\ & 60.9 \end{aligned}$ | $\begin{array}{r} 46,254 \\ 46,290 \\ \hline \end{array}$ | $\begin{array}{r} 29.8 \\ 29.8 \\ \hline \end{array}$ | $\begin{array}{r} 5,599 \\ 14246 \\ \hline \end{array}$ | 3.5 9.2 | $\begin{array}{r} * 167 \\ * 216 \\ \hline \end{array}$ | . 1 |  |

147. This table, like that in the preceding paragraphs shows little variation in the proportion of the population separated into its civil conditions. The preponderance of widows over widowers is apparent throughout the forty years covered by the above table.
148. The number of each sex at successive age periods returned as unmarried, married, widowed and divorced is shown in the table bolow:-

149. It would appear that the following conclusions can be drawn from the foregoing table: That as might be expected, the number of unmarried persons of both sexes decreases as the age groups alvance; that amongst females the greatest number of married persons are found in the age groups from 20 to 30 years; whilst among males the greatest number of married persons is found in the age groups from 30 to 40 years ; and that in the case of the widowed of both sexes, the largest proportion exists in the age group " 60 and upwards." With regards divorced persons, this is the first occasion that information was required on this subject.
*This information was obtained only at the recent Census.
XXVI.

CENSUS REPOR'L OF BRITISH GUIANA, 1931.
150. The proportion of each sex, according to marital conditions, at each of the last four Censuses we as follows:-

| Dute of Census | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unmarried | Married | Widowed | Divorced* | Unmarried | Mari ied | Widowed | Divorced |
| 1891 | 752 | 226 | 22 | ... | 678 | 258 | 64 |  |
| 1911 | 675 | 293 | 32 | ... | 618 | 300 | 82 | ... |
| 1921 | 659 | 305 | 36 | ... | 600 | 310 | 90 | ... |
| 1931 | 665 | 298 | 36 | 1 | 609 | 298 | 92 | 1 |

151. It will be observed that there is a decrease in the number of married persons of both sexes with more or less corresponding increase in the unmarried, reference to which has been made in para. 145 supra.
152. The succeading table gives the proportion of married persons to every 1,000 of the population different age periods for each of the last four Censuses. In this table no account is taken of persons of le than 15 jears of age.

| AGES | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Census Year |  |  |  | Census Year |  |  |  |
|  | 1891 | 1911 | 1921 | 1931 | 1891 | 1911 | 1921 | 1931 |
| 15 Upwards | 317 | 423 | 447 | 466 | 391 ' | 444 | 457 | 461 |
| 15-19 | 48 | 118 | 81 | 117 | 221 | 328 | 288 | 386 |
| 20-29 | 205 | 312 | 333 | 386 | 375 | 439 | 477 | 494 |
| 30-39 | 370 | 483 | 524 | 563 | 488 | 536 | 573 | 563 |
| 40-49 | 446 | 558 | 594 | 620 | 474 | 519 | 544 | 510 |
| 50 Upwards | 487 | 555 | 615 | 602 | 352 | 358 | 353 | 336 |

153. Taking the whole marriageable population " 15 ycars and upwards," there is a steady increase each Census of married persons of both sexes. The largest incresse appears among the males in the "20-3C period, and the females in the " $15-20$ " period.
154. The population of marriageable age numbers 199,487 equal to 64.2 per cent. of the total populatio as against 67.9 per cent. in 1921.
155. Taking the whole marriageable population as that of 15 years of age and over, the proportion married, unmarried, widowed and divorced is as follows :-

| Year | $\begin{gathered} \text { Un- } \\ \text { married } \end{gathered}$ | \% | Married | \% | Widowed | \% | Divorced* | \% | Total Marriageable Population | \% of Tot Yopulatio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1911 | 98,084 | 49. | 87,603 | 43. | 16,564 | 8. | ... | $\cdots$ | 202,251 | 68.3 |
| 1921 | 92,231 | 46. | 91,527 | 45. | 18,566 | 9. |  |  | 202,324 | 67.9 |
| 1931 | 86,736 | 43.47 | 92,523 | 46.39 | 19,845 | - 9.94 | 383 | . 20 | 199,487 | 64.2 |

This imformation was obtained only at the recent Census.

156．Divided as to males and females the marriageable population compared with the population of the same age at the last three Censuses is as follows ：－


157．The males of marriageable age number 99,241 being 63.8 per cent．of the entire male population， and 49.8 per cent．of the marriageable population．Of this number 46,249 or 46.6 per cent．are married，as against 45 per cent．returned as married at the previous census；the unmarried males number 47,226 or 47.6 per cent．；the widowed 5,599 or 5.6 ，and the divorced number 167 or 2 per cent．

158．The females of marriageable age in the Colony number 100，246 being 64.4 per cent．of the entire female population，and 50.2 per cent．of the marriageable population．Of these 46,274 or 46.2 per cent．are married，as against 46 per cent．married in 1921； 39,510 or 39.4 per cent．are single ；14，246 or 14.2 per
cent．are widowed，and 216 or 2 per cent．divorced．

159．Below are given the proportions of single，married，widowed and divorced of each sex in every 1,000 persons of marriageable age（ 15 and upwards；，at each census from 1891.

|  | Single． |  |  |  | Married． |  |  |  | Widowed． |  |  |  | Divorced．＊ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { of }}{\text { Number }}$ |  | Proportion per 1,000 of Marriageable． |  | $\underset{\text { of }}{\text { Number }}$ |  | Proportion per 1，000 of Marriageable． |  | Number of |  |  | opor－ <br> per <br> 00 of riage－ ble． |  |  |  |  |  |  |  |  |
|  | M． | F： | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | $F$. | M． | F． |
| 1891 | 70，423 | 42，731 | 368. | 223. | 34，270 | 32，663 | 179. | 170. | 3，406 | 8，102 | 18. | 42. |  |  | ．－． |  | 108，099 | 83，496 | 43，660 | 43，073 |
| 1911 | 56，496 | 41，588 | 279. | 206. | 44，975 | 42，628 | 222. | 211. | 4，922 | 11，642 | 24. | 58. | ．．． | $\cdots$ | $\ldots$ |  | 106，393 | 95，858 | 47，324 | 46，466 |
| 1921 | 51，556 | 40，675 | 255. | 201. | 46，118 | 45，409 | 298. | 224. | ［5，439 | 13，127 | 27. | 65. | ， | $\cdots$ | $\cdots$ | ． | 103，113 | 99， 211 | 48，148 | 47，219 |
| 1931 | 47，226 | 39，510 | 236.74 | 198．06 | 46，249 | 46，274 | 231.84 | 231．96 | ［5，599］ | 14，246 | 28． 17 | 71.41 | 167 | 216 | ． 84 | 1.08 | 99，241 | 100，246 | 56，140 | 55，306 |

160．It will be observed that at each census the proportion of both husbands and wives has steadily in－ creased．Similarly the proportions of unmarried persons of both sexes have decreased，and the proportion of those widowed increased．

161．The proportions of males and females in every 1,000 males and females respectively of the marriage－ able population divided into unmarried，married，widowed and divorced at each census since 1891 were：－

|  | Males． |  |  |  | Females． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { 荡 } \\ & \text { تٌ } \end{aligned}$ | － | ＊ | 哭 | 䑁 | 家 | ＊ |  |
| 1891 | 651 | 317 | 31.5 | $\cdots$ | 512 | 391 | 97 | $\ldots$ |  |
| 1911 | 530 | 423 | 46.3 | ．．． | 434 | 445 | 121 | $\cdots$ |  |
| 1921 | 500 | 447 | 53. |  | 410 | 458 | 132 |  |  |
| 1931 | 476 | 466 | 57. | ＊ 1. | 394 | 462 | 142 | ＊ 2. |  |

162．It will be noted that the proportion of married males in every 1,000 males of marriageable age is steadily increasing，the number being 466 in 1931 as compared with 317 in 1891，while the proportion of females has similarly increased from 391 to 462.
${ }^{*}$ Available for 1931 only．
163. The female population of reproductive age (taken as from $15-45$ years) numbered 73,900 persons or 47.5 per cent. of the total female population. Of this number 35,978 females or 49 per cent. were married, forming 77,7 per cent. of the total number of wives enumerated. The unmarried, widowed and divorced females (between the ages of 15 and 45 years) together numbered 37,922 or 51 per cent. of all females of those ages. Below are shown the comparative figures for the last four censuses :-

| Census Year. | Whole Female Populatiou 15-45 | Number Married. | Percentage Married. | Number Unmarried, Widowed and Divorced.* | Percentage Unmarried, Widowed and Divorced.* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1891 | 65,450 | 25,343 | 39. | 40,107 | 61. |  |
| 1911 | 72,692 | 32,636 | 45. | 40,056 | 55. |  |
| 1921 | 73,825 | 35031 | 47. | 38,794 | 53. |  |
| T'931 | 73,900 | 35,978 | 49. | 37,922 | 51. |  |

164. The tables do not show the conjugal condition of the various races in the population separately. In respect of the East Indians however, this information has been compiled for the Indian Government, and appears in the special East Indian tables at the end of this Report. Turning to this and comparing the figures with those for the other races taken together, it is seen that of the East Indian population, which forms 41.98 per cent. of the entire population 41.2 per cent. are returned as married, while all the other races taken together show only 21.5 per cent. married. Among the East Indians, the proportion of married has increased from 40.9 per cent. in 1921 to 41.2 per cent. at the enumeration in 1931 ; while the percentage of married persons among the other races collectively has declined during the same period from 23.4 per cent. to 21.5 per cent.
165. Of the total number of married persons in the whole population, the married East Indians form 58.1 per cent., and the other races taken together form 41.9 per cent. as compared with 55.8 and 44.2 per cent. respectively in 1921.

166: The explanation of the low proportion of married shown by the other races collectively, is to be found in the fact that a not inconsiderable proportion of the population, principally of the black and coloured races, which together form 50.8 per cent. of the entire population, live as man and wife without passing through any religious or civil ceremony.
167. The subjoined table gives the relative proportions of married, and unmarried in each town: and district in the Colony.

[^70]|  | Proportion per 1,000 of each Sex. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males, |  |  |  | Females. |  |  |  |
|  | Singlo | Married | Widowed | Divorced | Single | Married | Widowed | Divorced |
| $\begin{array}{llll}\text { Urban } & \text {... } & \text {... } & \text {... } \\ \text { Rural } & \text {... } & \end{array}$ | 727.4 649.9 | 240.5 311.7 | 31.4 37.2 | .7 1.2 | 677.1 586.6 | 213.2 326.1 | 108.9 85.7 | .8 1.6 |
| County of Demerara. |  |  |  |  |  |  |  |  |
| City of Georgetown ... | 727.4 | 240.5 | 31.4 | . 7 | 673.8 | 214.3 |  |  |
| Environs ... ... | 657.1 | 308.2 | 34.4 | . 3 | 673.8 590.4 | 314.3 | 109.1 | . 9 |
| East Coast ... | 640.4 | 319.5 | 39.2 | . 9 | 587.5 | 326.5 | 84.8 | 1.2 |
| Mahaica ... | 645.5 | 306.4 | 45,8 | 2.3 | 576.4 | 327.6 | 83.4 | 12.6 |
| Mahaicony ... ... | 689.9 | 277.8 | 31.5 | . 8 | 658.4 | 271.4 | 70.2 | 12.6 |
| East Bank ... | 605.9 | 350.3 | 42.5 | 1.3 | 524.8 | 370.7 | 105.5 | 1 , |
| West Bank ... | 635. | 312.9 | 49.7 | 2.4 | 582.9 | 316.1 | 99.8 | 1.2 |
| Wast Coast ... | 609.7 | 349.5 | 39.6 | 1.2 | 541.2 | 368. | 89.5 | 1.3 |
| Opper River ... | 700.3 | 260.6 | 38.7 | . 4 | 635.4 | 274.4 | 90. | . 2 |
| Total, County of Demerara ... | 665.3 | 295.8 | 37.8 | 1.1 | 611.6 | 288.3 | 98.6 | 1.5 |
| County of Berbice. |  |  |  |  |  |  |  |  |
| Town of New Amsterdam... | 728.2 | 239.9 | 31.3 | . 6 | 703. | 204.6 | 92.4 |  |
| West Coast ... | 721.3 | 251.9 | 26.3 | . 5 | 667.4 | 2613 | 70.8 | ".". 5 |
| East Coast ... | 632. | 339. | 24.7 | 4.3 | 582.5 | 326.5 | 90.2 | . 8 |
| Corentyne Coast .. | 624. | 348. | 26.3 | 1.7 | 554.8 | 380.5 | 62,8 | 1.8 |
| Corentyue River ... ... | 595.6 | 382.6 | 21.8 | ... | 533.6 | 3993 | 67.1 | 1.8 |
| East Bank, Berbice River ... ... | 660.6 | 289.3 | 47.7 | 2.4 | 592.8 | 303.3 | 102.9 | 1. |
| West Bank \# "... | 593.7 | 3552 | 50.5 | . 6 | 5417 | 352.8 | 105.5 | ... |
| Upper River ${ }^{\text {P }}$. | 736.7 | 233. | 30.3 | ... | 632.3 | 263. | 104.7 | ... |
| Canje Creek ... ... | 605.3 | 353.1 | 41.4 | , 2 | 529.5 | 378.5 | 91.6 | . 4 |
| Totar, County of Berbice ... | 643. | 325. | 30.7 | 1.3 | 577.3 | 346.9 | 74.7 | 1.1 |
| County of Essequebo. |  |  |  |  |  |  |  |  |
| Essequebo, Potaro, Cuyuni, Mazaruni and Puruni Rivers | 675.9 | 289.5 | 34.1 | . 5 | 6286 | 270.1 | 99.3 | 2. |
| Leguan Island... ... | 6511 | 301.5 | 45.8 | 1.6 | 570.9 | 318.4 | 105.4 | 5.7 |
| Wabenaam Island ... | 656.7 | 302.3 | 39.6 | 1.4 | 579. | 330.7 | 86.4 | 3.9 |
| Essequebo Coast and Tiger Island ... | 656.3 | 298. | 44.4 | 1.3 | 586. | 314.2 | 98.4 | 1.4 |
| Pomeronn and Moruca Rivers and North-West District ... | 762.2 | 2092 | 28.3 | . 3 | 729.7 | 217.1 | 53. | . 2 |
| Total, County of Essequebo ... | 6855 | 276. | 37.6 | . 9 | 628. | 283.9 | 86.4 | 1.7 |

168. Taking the urban and rural areas, it is seen that the proportion of married persons of both sexes in the rural areas is largely in excess of the proportion of married persons in the urban population. This is due to a preponderance of East Indians in the rural areas, among whom the percentage of married persons is much greater than the percentage among the other races.
169. Taking the counties next the same conditions are found to obtain. In the county of Berbice, where the proportion of East Indians ( 55.2 per cent. of the population) is greatest, the proportion of married is highest, while in the County of Essequebo, which has a slightly lower percentage of East Indians than Demerara, the proportion of married is lowest.
170. If the above table is studied in conjunction with the table in paragraph 200 which shows the race composition of the population of the several districts, it will be seen that with very few exceptions the districts which have the largest proportion of East Indians in their population, also have the highest proportion of married people.
171. Passing to the unmarried it is seen that the Pomeroon and North West District have the highest proportion with 762 per 1,000 males, and 729 per 1,000 females, followed by New Amsterdam with 728 and 703 respectively, while Georgetown comes third with 727 males and 660 females.
172. The West Bank, Berbice River, claims first place as the district with the highest proportion of widowed, followed closely by the island of Leguan. Passing to the divorced, Mahaica claims first place with , 3 ner 1.000 males, and 12.6 per 1,000 females, followed by Leguan with 1.6 males and 5.7 females.

## VII．－BIRTH PLACES AND RACES．

173．Below are given the birth－places of the population at each Census since 1861 ：－

|  | Born in the Colony |  |  |  | Born Elnewhere |  |  |  |  |  |  |  |  |  |  | Total Popa－ lation | Population per cent．of |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 莒 |  |  |  |  | 吕 |  | 4 |  |  |  |  |  |
|  | $\begin{gathered} \text { Num- } \\ \text { ber } \end{gathered}$ | $\begin{gathered} \text { Per } \\ \text { eent } \\ \text { age } \end{gathered}$ | Number | $\begin{aligned} & \text { Per } \\ & \text { cent } \\ & \text { age } \end{aligned}$ | $\begin{array}{\|c\|c\|} \hline \text { Num- } \\ \text { ber } \\ \text { cent } \\ \text { age } \\ \hline \end{array}$ | $\begin{gathered} \text { Num- } \\ \text { ber } \end{gathered}\left\|\begin{array}{c} \text { Per } \\ \text { cent } \\ \text { age } \end{array}\right\|$ | $\begin{gathered} \text { Num- } \\ \text { ber } \end{gathered}$ | $\left\|\begin{array}{c} \text { Per } \\ \text { cent } \\ \text { age } \end{array}\right\|$ | Num－ ber | Per cent age | Num－ ber | $\left\|\begin{array}{c} \text { Per } \\ \text { cent } \\ \text { age } \end{array}\right\|$ | Num． | $\left\|\begin{array}{c} \text { Per } \\ \text { cent } \\ \text { age } \end{array}\right\|$ | $\left.\begin{array}{c\|c} \text { Num- } \\ \text { ber } \\ \hline \end{array} \right\rvert\, \begin{aligned} & \text { Per } \\ & \text { Qgen } \\ & \hline \end{aligned}$ |  | 象号 |  |
| 1861 | 7，000 | 4.49 | 94，110 | 60.37 | 8，601 5．59 | 1，813 1．16 | 9，859 | 6.32 | 22，081 | 14.16 | 2，629 |  | 9，299 | 5.96 | 506.33 | 155，907 | 64.86 | 35.14 |
| 1871 |  |  | 113，570 | 58.70 | 13，385 6.92 | 1，444 ． 75 | 7，925 | 4.09 | 42，681 | 22.06 | 6，295 | 3.25 | 7，541 | 3.90 | 650.33 | 193,491 | 58.70 | 41.30 |
| 1881 | 7，708 | 3.06 | 141，931 | 56.28 | 18，3187．26 | 1，617 ． 64 | 6，879 | 2.73 | 65，161 | 25.84 | 4，393 | 1.74 | 5，077 | 2.01 | 1，102 ． 44 | 252，186 | 59.34 | 40.66 |
| 1891 | 7，463 | 2.68 | 162，643 | 58.44 | 21，025 7.65 | 2,533 .91 | 6，378 | 1.93 | 73，031 | 26.24 | 2，475 | ． 89 | 3，433 | 1.23 | 347 ． 13 | 278，328 | 61，12 | ｜ 38.88 |
| 1911 | 6，901 | 2.33 | 211，804 | 71.55 | 12，2684．14 | 1，720 ．59 | 1，908 | ． 64 | 59，849 | $20.2{ }^{\prime \prime}$ | 634 | ． 21 | 706 | ． 24 | 243.08 | 296，041 | 73.88 | 26，12 |
| 1921 | 9，150 | 3.07 | 234，575 | 78.80 | 10，128 3，40 | 1，483 ． 49 | 1，170 | ． 40 | 39，965 | 13.43 |  | ． 13 | 155 | ． 06 | 659.22 | 297，691 | 81.87 | 18.13 |
| 1931 | 8，348 | 2.68 | 266，304 | 85.64 | 9，677 3.11 | 1，069 34 | 673 | ． 22 | 24，087 |  | 423 | ． 13 | 67 | ． 02 | 352.11 | 310，933 | 88.33 | 11.67 |

174．The figures in the column showing Europeans born out of the Colony，include a small proportion of Whites born in the West India Islands，Of the remainder in this column，between 85 and 90 per cent． roughly，were born in the United Kingdom，the balance being contributed in varging pioportions by other countries peopled by the White Race．With this correction the summary may be taken as accurately showing the birth－places of the population under the several races，

175．The following statements have been prepared from a return furnished by the Immigration Depart－ ment as regards the years 1835－1911，while the figures for the decades 1911－1931 have been obtained from the Annual Reports of the Registrar General．With reference to the latter figures it should be explained that prior to 1913 no record was kept of immigrants and emigrants other than those arriving and departing under the purview of the Immigration Department，but in the middle of 1913 a system was introduced by which all arrivals and departures from every port of the Colony were recorded and returns supplied to the Registrar General ；this explains the large excess in numbers during the last two decades．The Table of arrivals for 1921－1931 is given separately，the reason being that the Reports of the Registrar General for this period， supply the information in＂Races＂and not＂Countries from whence arriving＂as previously．

Arriving．

| Whence． |  | $\begin{gathered} 1835 \\ \text { to } \\ 1840 \end{gathered}$ | $\begin{gathered} 1841 \\ t 0 \\ 1850 \end{gathered}$ | $\begin{gathered} 1851 \\ \text { to } \\ 1860 \end{gathered}$ | $\begin{gathered} 1861 \\ \text { to } \\ 1870 \end{gathered}$ | $\left\lvert\, \begin{gathered} 1871 \\ t 0 \\ 1880-81 \end{gathered}\right.$ | $\left.\begin{gathered} 1881-82 \\ \text { to } \\ 1890-91 \end{gathered} \right\rvert\,$ | $\left\lvert\, \begin{gathered} 1891-92 \\ \text { to } \\ 1900-01 \end{gathered}\right.$ | $\left\|\begin{array}{c} 1001-02 \\ \text { to } \\ 1910-11 \end{array}\right\|$ | $\begin{gathered} 1911 \\ \text { to } \\ 1921 \end{gathered}$ | Totals． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| West India Islands | ．．． | 8，092 | 4，836 |  | 10，130 | 12，887 | 4，161 | 707 | ．．． | 57，402 | 98，215 |
| Madeira | ．．． | 429 | 16，744 | 9，587 | 1，533 | 2，170 | 182 |  |  | 4，606 | 35，251 |
| East Indians ．．． | ．．． | 406 | 11，841 | 23，381 | 38，715 | 59，327 | 38，851 | 39，473 | 23，769 | 9，216 | 238，979 |
| Casuals（do．）．．． | ．．． | ．．． | ．．． | 164 | 800 | 878 | 918 | 1，027 | 788 | 11，700 | 16，111 |
| Azores | ．．． | － |  | 164 |  | ．．． | ．．． | ．．． | ．． | $\cdots$ | 164 |
| Africa | ．．． | 91 | 9893 | 1.968 | 1，403 | ．．． | ．．．． | ．．． | ．．． |  | 13，355 |
| England ．．．． | ．．． | $\cdots$ | ．．． | 21 |  | $\cdots$ | ．．． | ．．． | ．．． | 13，726 | 13，747 |
| China | ．．． | ．．． | ．．． | 3，288 | 9，343 | 903 | ．．． | ．．． | ＇．．． | 3，087 | 16，621 |
| Cape de Verde ．．． | $\cdots$ |  | ．．． | 819 | ．．． | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ．．． | 819 |
| Malta | ．．． | 208 | ．．． | ．．． | ．．． | $\ldots$ | ．．． | $\cdots$ | ．．． | $\cdots$ | 208 |
| United States | ．．． | 70 | ．．． | $\cdots$ | $\ldots$ | $\ldots$ | ．．． | ．．． | ．．． |  | 70 |
| Not Stated | ．．． | ．．． | ．．． | ．．． | $\ldots$ | ．．． | ．．． | $\cdots$ | ．．． | 153 | 153 |
| Total | ．．． | 9，296 | 43，314 | 39，228 | 61，924 | 70，165 | 44，113 | 41，207 | 24，557 | 99，890 | 433，693 |

Arrivals 1921－1931．


| Race. | $\begin{gathered} 1835 \\ \text { to } \\ 1840 \end{gathered}$ | $\begin{gathered} 1841 \\ \text { to } \\ 1850 \end{gathered}$ | $\begin{gathered} 1851 \\ \text { to } \\ 1860 \end{gathered}$ | $\begin{gathered} 1861 \\ t 0 \\ 1870 \end{gathered}$ | $\begin{gathered} 1871 \\ \text { to } \\ 1880-81 \end{gathered}$ | $\begin{gathered} 1881-82 \\ \text { to } \\ 1890-91 \end{gathered}$ | $\left\|\begin{array}{c} 1891-92 \\ 10 \\ 1900-01 \end{array}\right\| 1$ |  | $\begin{gathered} 1911 \\ \text { to } \\ 1921 \end{gathered}$ | $\begin{gathered} 1921 \\ \text { to } \\ 1931 \end{gathered}$ | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Europeans (other than Portuguese)... <br> Do. (Portuguese)... | $\cdots$ | $\cdots$ | 98 | $\ldots$ | $\cdots$ | ... | … | $\cdots$ | 13,854 4,914 | 16,089 5,663 | 29,943 $10,6 \% 5$ |
| East Indians $\quad .$. | ... | 247 | 3,883 | 2,504 | 9,385 | 17,798 | 18,947 | 15,499 | 6,341 | 5,663 | 74,604 |
| Do. (Casuals) ... | ... | ... | ... | $\cdots$ | $\because$ |  |  | 1,570 | 9,418 | 22,432 | 33,420 |
| Chinese ... ... | ... | 753 | $\stackrel{\square}{59}$ | 15 | 175 | ... | ... | 1. | 3,039 | 4,168 | 7,397 |
| Africans ... | ... | 753 | 59 | ... | ... | ... | ... | ... | 51.07 | ... | 812 |
| Blacks ... ... | ... | ... | ... | ... | ... | ... | ... | ... | 51,167 | 53,084 | 104,251 |
| Mixed ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other Races $\quad .$. | $\cdots$ | ... | ... | $\ldots$ | ... | ... | ... | ... | . | 9 | 9 |
| Not Stated | $\cdots$ | ... | ... | ... | ... | $\cdots$ | - 0 | ... | 5 | ... | 5 |
| Total ... | ... | 1,000 | 4,040 | 2,519 | 9.560 | 17,798 | 18,947 | 17,069 | 88,738 | 101,445 | 261,116 |

These tables studied in conjunction with the tables in paragraph 173 are of interest as showing the influence of immigration in past years in the rarious race divisiong of our population.
176. In the section showing the population "born outof the colony" the East Indians outnumber emigrants from other places. The figures showing the number of the latter, excepting in the case of the Europeans, a proportion of the West India Islanders, the Portuguese and Chinese may be taken as principally representing the remainder of those who originally emigrated to the colony under indenture. With the exception of the Chinese who show a slight increase it will be seen that with the cessation of immigration they have rapidly declined in numbers.
177. The number of each nationality or race comprising the population of the Colony, is shown in the subjoined table :-

| Race Division. | Number of Persons. |  | Percentage Increase ( + ) and <br> Decrease (-) in each Race Division during 1921-1931. | Percentage of whole Population formed by each Race Division. |  | Percentage of each Race. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | in 1931. | in 1921. |  | $\begin{gathered} \text { in } \\ 1931 . \end{gathered}$ | $\begin{aligned} & \text { in } \\ & 1921 . \end{aligned}$ | Native. born. | Foreignborn. |
| European (other than Portuguese; ... | 2,127 | 3,291 | -35.37 | . 69 | 1.11 | 49.74 | 50.26 |
| Do. (Portuguese) ${ }^{\text {... }}$ | 8,612 | 9,175 | -6.01 | 2.77 | 3.08 | 92.19 | 7.81 |
| Enst Indians | 130540 | 124.938 | + 4.48 | 41.98 | 41.97 | 81.55 | 18.45 |
| Chinese ... | 2,951 | 2,722 | + 8.41 | . 95 | . 91 | 8567 | 14.33 |
| Blacks and Africans ... | *124,203 | 117,169 | $+6$. | 39.95 | 39.36 | 93.97 | 6.03 |
| Mixed Races | 33,800 | 30,587 | +10.50 | 10.87 | 10.28 | 93.54 | 6.46 |
| Aborigines $\quad .$. | 8,348 | 9,150 | $-8.77$ | 2.68 | 3.07 | 100. | 100 |
| Races not stated ... | 352 | 659 | -46.59 | . 11 | . 22 | $\cdots$ | 100, |
| All Races ... ... | 310,933 | 297,691 | + 4.45 | 100. | 100. | 88.28 | 11.72 |

178. Dividing the population into two main divisions of "Whites" and "Coloured" the first mentioned forms 3.4 per cent. of the total, the remaining 96.6 per cent. being "Coloured."
179. Taken by races; the only race divisions to show an increase are-the East Indians who show an increase of 5,602 or 4.48 per cent. ; the Blacks and Africans who have increased by 7,034 or 6 per cent. ; the Chinese who show an increase of 229 or 8.41 per cent.; and the Mixed or Coloured who have increased by $\mathbf{3 , 2 1 3}$ or 10.50 per cent.

These four divisions form respectively 4.48 per cent., 6 per cent., 8.41 per cent. and 10.50 per cent. of the whole population. Taken together they form 93.75 per cent. of the total population; and their increases taken collectively aggregate 2,836 more than the total inerease in the populatien during 1921-1931 or an increase on the total population as enumerated in 1921 of 5.4 per cent.
*Of these 67 are Airicans.
180. Of the races which have diminished in numbers, the Europeans (other than Portuguese) who only form 69 per cent. of the whole population, show a decrease of 35.4 per cent. ; the Portuguese who comprise 2.8 per cent. of the population show a shrinkage in numbers of 6 per cent., and lastly the Aborigines who form 2.68 per cent. of the total enumerated population have decreased by 8.77 per cent.
181. In order to determine the "Natural Increment" population of the various races, and to make comparison with the enumerated population in the same division the following two summaries are subjoined :-
(a) Summary of Registered Births and Deaths, whole Colony, from 25th April, 1921, to 26th April, 1931; and
(b) Comparative Summary of "Natural Increment" Population and Enumerated Population.

Table (a) showing the number of Registered Births and Deaths for whole Colony from 25th April, 1921, to 26th April, 1931.

| Race | Births |  |  |  | Deaths |  |  |  | Excess of |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | F. |  |  | M. | F. |  |  | Births |  |  | Deaths |  |  |
|  |  |  |  |  | M. |  |  |  | F. | Per- <br> sons | M. | F. |  |
| Furopeans (other than Portuguese)... | 198 | 155 | 353 | . 36 |  | 265 | 137 | 402 | . 50 | ... | 18 | ... | 67 | $\cdots$ | 49 |
| $\underset{\text { Euese) }}{\text { Europeans }}$ (Portu- | 1,034 | 948 | 1,982 | 2.05 | 1,133 | 1,016 | 2,149 | 2.71 |  |  |  | 99 | 68 | 167 |
| East Indians ... | 22,853 | 21,781 | 44. 34 | 46.06 | 20,418 | 15,487 | 35,905 | 45.21 | 2,435 | 6,294 | 8,729 | $\ldots$ |  | 167 |
| Chinese $\quad .$. | 407 | 346 | 753 | . 78 | 285 | 215 | 500 | . 63 | 122 | 131 | 253 | . |  |  |
| Aborigines ... | 1,395 | 1,385 | 2,780 | 2.87 | 1,732 | 1,594 | 3,326 | 4.19 | $\cdots$ | ... |  | 337 | 209 | 546 |
| Blacks | 17,502 | 17,056 | 34,558 | 35.66 | 15,942 | 14.502 | 30,444 | 38.33 | 1,560 | 2,554 | 4,114 | ... | ... | 546. |
| Mixed or Coloured... |  | 5,856 | 11,813 | 12.19 | 3,183 | 3,263 | 6,446 | 8.12 | 2,774 | 2,593 | 5,367 | $\cdots$ | $\ldots$ | $\ldots$ |
| Race not Stated ... | 11 | 21 | 32 | . 03 | 171 | 75 | 246 | . 31 | 2,774 | , | 5.36 | 160 | 54 | 214 |
| All Races ... | 49,357 | \|47,548 | 96905. | 100. | 43,129 | 36,289 | 79,418 | 100. | 6,288 | 11,259 | 17,487 | ... | ... | $\cdots$ |

Table (b) showing Comparative Summary of "Natural Increment" Pcpulation and E'numerated Population.

| Race | Population 88 enumernted in $19 \% 1$ | Excess of |  | Population as determined by "Natural Increment" | Population as enumerated in 1931 | Iucreases \& Decreasesof Enumerated Popula lation compared with Natural Increment Population |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Births | Denths |  |  | Increase | Decrease |
| Europeans (other than |  |  |  |  |  |  |  |
| Poriuguese) ... | 3,291 | ... | 49 | 3,242 | 2,127 | ... | 1,115 |
| Do. (Portuguese) ... | 9,175 | $\cdots$ | 167 | 9,008 | 8,612 | ... | 1,115 |
| East Indians | 124,938 | 8,729 | ... | 133,667 | 130,540 | ...* | -3,127 |
| Chinese ... ... | 2,723 | 25.3 | ... | 2,975 | 2,951- | ... | 24 |
| Blacks and Africaus | 117,169 | 4,114 | ... | 121,283 | 124,203 | 2,920 |  |
| Coloured (or Mixed) ... | 130,587 | 5,367 | - | 35,954 | 33,800 | ... | 2,154 |
| Aborigines ... | 9,150 | ... | 546 | 8,604 | 8,348 | ... | 256 |
| Race not slated | 609 | ... | 214 | 445 | 352 | ... | 93 |
| All liaces | 297,691 | 17.487. | ... | 315,178 | 310,933 - | ... | 4,245 |

182. As will be seen from the above tables the natural increment population as based on the 1921 census figures exceeds the enumerated population by 4,245 persons, but from this must be deducted the excess of departures over arrivals (paragraph 30 supra) of 2,101 persons, leaving a difference between the natural increment population and the enumerated population of 2,144 persous equal to 6 per cent. of the total population as enumerated in 1931.
183. It is seen that four of the races show a natural increment or increase in numbers due to excess of births over deaths; the East Indians with an increase of 8,729 or 6.98 per cent., the Chinese whose natural increase is 253 or 9.29 per cent., the Blacks and Africans with 4,114 or 3.51 per cent., and the Coloured or Mixed Race with 5,367 or 17.55 per cent.
184. All the other races show a natural decrease or excess of deaths over births during the period, the excess in each case being:-the Europeans 49 or 1.49 per cent. ; the Portuguese 167 or 1.82 per cent. ; and the Aborigines 546 or 5.97 per cent.
185. To turn next to the population considered in its two constituent parts of native-born and foreignborn, using the latter term in its broad sense to mean all persons born out of the colony and not fereign subjects only, the table belew shows the increase in the native-born population at each Census from 1861 :-

186. It will be observed that the native population shows a steady and progressive rate of increase, and now comprises 88.33 per cent. of the whole population.
187. The progress made by the several races of the native population betwen 1891-1931 is shown in the summary below. It is not possible to trace their growth over a longer period, the necessary data not being available, as in all census reports prior to 1891 the native population is treated under the general head "Natives of British Guiana," without distinction as to race.

| Race Divisions Native-born Population. | Namber of Persons. |  |  |  | PercentageIncrease ( + )andDecrease ( - )in RaceDivisionsduring1921-1931. | Percentage of Native Population formed by each Race Division. |  |  |  | Percentage of whole Popalation formed by each Kace Division. |  |  |  | $\begin{gathered} \text { Per- } \\ \text { cent- } \\ \text { age. } \\ \text { of } \\ \text { Total } \\ \text { Race } \\ \text { in } \\ 1931 . \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | in 1931 | in 1921 | in 1911 | in 1891 |  | $\begin{gathered} \text { in } \\ 1931 \end{gathered}$ | $\begin{gathered} \operatorname{in}_{1901} \end{gathered}$ | $\begin{gathered} \text { in } \\ \text { 1911 } \end{gathered}$ | $\mathrm{in}_{1891}$ | $\begin{gathered} \text { in } \\ 1931 \end{gathered}$ | $\begin{gathered} \text { in } \\ 1921 \end{gathered}$ | $\begin{gathered} \text { in } \\ 1911 \end{gathered}$ | $\operatorname{in}_{1891}$ |  |
| European fother than Portugese) | 1,058 | 1,808 | 2,207 | 2,025 | -4148 | . 39 | . 74 | 1.01 | 1.18 | . 34 | .61 | . 76 | . 73 | 49.74 |
| Earopeans (Portugese) | 7,939 | 8,005 | 8,176 | 6,788 | - .82 | 2.89 | 3.24 | 3.73 | 3.99 | 2.55 | 2.69 | 2.72 | 2.44 | 92.19 |
| East Indians ... | 106,453 | 84,973 | 66,668 | 32,432 | +25.28 | 3876 | 34.87 | 30.49 | 19.07 | 34.20 | 28.54 | 22.53 | 11.65 | 81.55 |
| Chineso | 2,528 | 2,346 | 1,988 | 1,239 | + 7.76 | . 92 | . 96 | .91 | .73 56 | .81 37 | [ 76.79 | . 6.68 | . 44. | 85.67 |
| Blacks | 116,709 | 109.290 | 105,653 | 96, 182 | +6.79 | 42.49 | 44.84 | 48.31 | 56.55 14.09 | 37.53 | 36.71 9.46 | 35.69 9.17 | 34.56 8.61 | 93.97 93.54 |
| Mixed Races | 31,617 | 28,153 | 27,112 | 23,977 | +13.30 | 11.51 | 11.55 | 1239 316 | 14.09 4.39 | $\underline{10.17}$ | 9.46 3.07 | 9.17 2.38 | 8.61 | 93.54 100. |
| Aborigines ... | 8,348 | 9,150 | 6,901 | 7,463 | $-8.77$ | 3.04 | 3.76 | 316 | 4.39 | 2.68 | 3.07 | 2.33 | 2.68 | 100. |
| Totals | 274,652 | 243,725 | 218,705 | 170,106 | $+12.68$ | 100. | 100. | 100. | 100. | 88.33 | 81.87 | 73.88 | 61,1 | 88.33 |

188. The native-born population which forms 88.33 per cent. of the whole population, numbers 274,652 as compared with 243,725 in 1921 , or an increase of 12.69 per cent.
189. All the race divisions show an increase except the Europeans, Portuguese, and Aborigines. The largest numerical increase occurs among the East Indians, the Blacks and the Coloured or Mixed Race. The highest percentage increases are shown by the East Indians, and the Coloured or Mixed Race.
190. The creole or native-born East Indians who form 81.5 per cent, of the total East Indian population, 38.8 per cent. of the native population, and 34.2 per cent. of the whole population of the colony show an increase during 1921-1931 of 21,480 or 25.28 per cent. of their numbers at the beginning of the period.
191. The creole Blacks who form 94 per cent. of the total Black Race, 42.5 per cent. of the native population and 37.5 percent. of the whole population have increased by 7,419 or 6.79 per cent.
192. The Coloured or Mixed Sreoles who form 93.5 per cent. of the total Coloured or Mixed population ; 11.5 per cent. of the native population, and 10.2 per cent. of the whole population, have increased by 3,464 or 12.3 per cent. These three races which taken together form 92.8 per cent. of the native population, and 81.9 per cent. of the whole population of the colony show an aggregate increase of 32,363 equivalent to an increase of 14.5 per cent. on their combined numbers at the previous census in 1921, or an increase of 10.87 per cent. on the total population of the colony in that year.
193. The native Europeans who form 49.7 per cent. of the total European Race in the colony; .39 per cent. of the native population, and .34 per cent. of the whole population, number 1,058 as against 1,808 in 1921 or a decrease of 750 or 42.03 per cent. The creole Portuguese now number 7,939 as compared with 8,005 at the last census ; a decrease of 66 or 82 per cent. They form 92.2 per cent. of the total Portuguese Race, 2.9 per cent. of the native-born population. and 2.5 per cent. of the whole population.
194. The native-born Chinese who form 85.7 per cent. of the total Chinese in the Colony; .92 per cent. of the native-born population, and .81 per cent. of the whole population show an increase of 182 or 7.7 per cent.
195. The number of Aborigines enumerated at the present census was 8,348 as compared with 9,150 counted in 1921, a decrease of 802 or 8.76 per cent. They form 3.04 per cent. of the native population, and 2.7 per cent, of the whole population of the Colong.
196. The decreases in the several race divisions of the foreign-born population are similarly shown in the summary below:-

| Race Diviajnns Foreign-bora Population | Namber of Peraona. |  |  |  | Percentage increape ( + ) and Decrease ( - ) in esch Race Division during 1891-1911, 1911. 1921 and 1921-1981. |  |  | Percentage of Foreign Popalation formed by each Race Division. |  |  |  | Percentage of mholePopulation formed by each Rase Division. |  |  |  | $\begin{array}{\|c} \text { Percent- } \\ \text { ake of } \\ \text { Total } \\ \text { Reaee } \\ \text { 1931. } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{In}_{1931}$ | ${ }_{1921}$ | ${ }_{1911}^{\text {In }}$ | ${ }_{1891}^{\text {In }}$ | ${ }_{1931}^{1921-}$ | ${ }_{1921}^{1911-}$ | $\begin{aligned} & 1891- \\ & 1911 \end{aligned}$ | $\underset{1931}{17 n}$ | $\begin{array}{\|c} \text { In } \\ 1921 \end{array}$ | $\begin{aligned} & \text { In } \\ & 1911 \end{aligned}$ | $\begin{gathered} \text { In } \\ 1891 \end{gathered}$ | $\underset{1931}{ }{ }_{19}$ | $\underset{1921}{\mathrm{In}_{1}}$ | In <br> 1911 | ${ }_{1891}^{18}$ |  |
| Earopesna (other than Portuguese)... | 1,069 6 | 1,488 | 1,730 1908 | $\begin{aligned} & 2.533 \\ & 5,378 \end{aligned}$ | - 27982 | - $14 \cdot 28$ | 31.70 | $2 \cdot 95$ | 2.76 | 2.24 | 23 4 7 | 34 | 50 | $\stackrel{59}{ }$ | 1.92 | 5026 |
| Eant Indians (taguese)... | 24,087 | 39,965 | 59,849 | 79,031 | - 3973 | - $33 \cdot 22$ | -18.05 | 66.39 | 7406 | 77.38 | 7.48 | 7.76 | $13 \cdot 42$ | $20 \cdot 21$ |  | 781 18.45 |
| Chinese | 423 | 376 | 634 | 2,475 | + 12.50 | - 40.69 | - 74.38 | 1.16 | ${ }^{\cdot 69}$ | ${ }^{82}$ | 62.28 | $1 \cdot 36$ | 13 | -21 | . 89 | 14.38 |
| Blaoke and Africant | 7,494 | 7,879 | 9,833 | 19.406 | - 4 489 | - 1988 | - 49.33 | $20^{\circ} 66$ | 14.60 | 12.71 | 17.93 | $2 \cdot 41$ | 2.65 | 333 | 698 | 6.09 |
| Mcized Races | 2,143 | 2,434 | 3.139 | 5,052 | - $10 \cdot 31$ | - 224.47 | - 37.87 | 6.02 | + ${ }^{\text {P }}$ | 4.06 | $4 \cdot 67$ | ${ }^{70}$ | ${ }^{4}$ | 1.06 | $1 \cdot 82$ | 6.46 |
| Races not stated | 352 | 659 | 243 | 347 | - 4689 | +17119 | 29.97 | 97 | 1-22 | .32 | 32 | 11 | 22 |  | -12 | 100 |
| Totals | 36,281 | 53,966 | 77,336 | 108,222 | 32\%77 | 30.22 | 28.54 | $100^{\circ}$ | $100^{\prime}$ | 100 | $100^{\circ}$ | 11.67 | 18.13 | 26.12 | 38.89 | 1167 |

197. The foreign-born population-meaning all persons born out of the Colony,-forms 11.67 per cent. of the whole population. During the inter-censal period 1911-1921, it decreased numerically by 23,370 or 30.22 per cent., and during the past decade the rate of decrease has been even greater showing $\mathbf{1 7 , 6 8 5}$ equal to 32.79 per cent.
198. As was pointed out in the 1911 and 1921 Census Reports, it is inportant to bear in wind when making comparison between the relative increases and decreases in the native-boru and foreign-born sections of the population as shown in the summaries above, that the births among the foreign-born section are classilied as "Creole" born, and included in the native-born section. In the absence of inmigration, therefore the several race divisions of the foreign-born population must necessarily show at every enumeration a decrease squivalent to, at least, the number of deathe in each race during the intercensal period. Upon this follows the iurther important fact to remember, that the foreign-born element is almost entirely adalt.
199. No records are available showing separately the surviving births among the foreign-born and the native-born population, as shown in the summaries above. Therefore it is not possible to definitely determine the actual relative progress of each race in its constituent parts of native and foreign-born.
200. The distribution of the races divided as to native and foreign-born in each district of the colony, is
in the table below :given in the table below:-

201. The table is to be read in the following manner:-in every 1,000 persons in the population of Georgetown there are 23 Europeans of whom 13 are native-born and 10 foreign-born-and so on for each of the other races and districts.
202. It will be observed that the race composition of the population difters considerably in the various districts. In the county of Demerara the Blacks are in excess of the East Indians, while in the counties of Berbice and Essequebo the proportion of East Indians is greater than the proportion of Blacks.
203. The districts which show the largest proportion of Fiast Indians are, Corentyne Coast 721 to every 1,000 of its population; East Coast, Berbice 713 ; West Coast, Demerara 695 ; Leguan Island 675 ; and Wakenaam 618, while the smallest proportions of the same race are found in Upper Berbice River 10 to every 1,000 of the population; Pomeroon, Moruca und the North West District 69 : and the City of Georgetown 89.
204. The largest proportion of Blacks are found in New Amsterdam 609; West Coast, Berbice 539 ; Georgetown 535, and Essequebo, Potaro, Cuyuni, Mazaruni and Puruni Rivers 530.
205. The districts with the largest proportion of the Chinese element are:-New Amsterdam, Georgetown, Upper Demerara River and Leguan.
206. The districts with the largest proportion of the Mixed Race are:-The Upper Berbice River, Georgetown, the Upper Demerara River, and the Pomeroon and Moruca Rivere, and North West District.
207. Of Europeans Georgetown and New Amsterdam claim the highest proportion, while the Portuguese preponderate in Georgetown, the Environs of Georgetown, and the Pomeroon and Moruca Rivers, and the North West District.
208. The largest proportion of Aborigines, as might naturally be expected, are found in the River Districts.
209. Tables showing (a) the deaths, and (b) the births among the several race divisions in each district of the Colony, since the last decennial census of 1921 ; and (c) the mean annual birth and death rate of each race during the same period are subjoined.

TABLE (A).


TABLE (B).

table (C).

| RACE DIVISION. |  |  |  | birth Rate. |  |  | DEATH RATE. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Maler. | Females. | Persons. | Males. | Females. | Persons. |
| All Races | ... | .." | . | 32. | 31.6 | $31 \cdot 7$ | 278 | 24.2 | $26^{*}$ |
| Furopeane (other than Portuguese) <br> Europeans (Portuguese)... <br> Eat Indians |  | $\cdots$ | , | $\begin{aligned} & 11 \cdot 3 \\ & 25 \cdot{ }^{\circ} \\ & 33 \cdot 3 \\ & 25 \cdot 7 \\ & 30 \cdot 2 \\ & 35 \cdot \\ & 30 \cdot 8 \end{aligned}$ | $\begin{aligned} & 11 \cdot 5 \\ & 21 \cdot 6 \\ & 37.6 \\ & 29.2 \\ & 27.1 \\ & 32.5 \\ & 306 \end{aligned}$ |  | 15.1 | $10 \cdot 2$ | $12 \cdot 9$ |
|  |  | ... | $\cdots$ |  |  |  | 27.9 298 | ${ }_{26}^{22 \cdot 6}$ | ${ }_{2}^{25 \cdot 1}$ |
| Ohinese | $\cdots$ | ... | $\cdots$ |  |  |  | 18. | ${ }_{18}^{26.1}$ | 28.4. |
| Mlacti ${ }_{\text {Mixed }}$ | $\ldots$ | $\ldots$ | $\cdots$ |  |  |  | 27.5 | ${ }^{13}{ }^{\circ}$ | ${ }^{20.2}$ |
| Aborigines | $\cdots$ | $\cdots$ | $\ldots$ |  |  |  | $20 \cdot 3$ 38.6 | $18{ }^{\prime} 2$ $35^{\prime} 4$ | 197* |

## VIII.-OCCUPATIONS.

210. The number of persons returned as engaged in some definite occupation was 146,734 or 55.17 per cent. of the population aged 5 years and upwards ; the number returned as of no occupation being 164,199 or 52.8 per cent. of the whole population.
211. The total number of males returned as engaged in some definite occupation was 97,544 being 73.5 per cent. of all the enumerated males aged 5 years and upwards. The total number of females returned as similarly occupied was 49,190 or 37 per cent. of all the enumerated females aged 5 years and upwards.
212. The number and percentage of the population of each sex aged 5 years and upwards returned as occupied, and the number and percentage of each sex of all ages returned as of no occupation, compared with the numbers so returned at the previous census in 1921, are as follows :-

213. The total number of persuns returned as "Occupied" in 1931 shows a decrease of 31,617 or 17.7 per cent. on the numbers so returned in 1921.
214. The number of those returned as "Unoccupied" has increased during the same period by $\mathbf{4 4 , 8 5 9}$ or 37.6 per cent.
215. The number of occupied males has decreased since the previous enumeration in 1921 by 3,994 or 3.9 per cent. ; while the number of occupied females has decreased by 27,623 or 36 per cent.
216. In the "Unoccupied" division the numbers of both males and females have increased during 1921 -1931 , the unoccupied males by 8,114 or 16.3 per cent., and the females by 36,745 or 52.8 per cent. This increase may be largely accounted for by the number of scholars returned at this census, the increase over 1921 being 24,414 or 91.4 per cent. ; the males being 12,777 or 83.6 per cent.. and the females 11,637 or 101.8 per cent. In the division "Children and persons who are not wage-earners," the increase over 1921 is 51,040 or 82.3 per cent. ; this increase is accounted for to a considerable extent by the children in the under 1 year to 5 group who have increased during the decade by 46.6 per cent.
217. The persons described as "unoccupied" comprise children and persons returned of no employment; Scholars of all ages ; inmates of the Alms House, Mental Hospital and Leper Asylum ; pensioners and persons of independent means; paupers in receipt of poor relief; prisoners at the Penal Settlement and county prisons; retired merchants and tradesmen, and among the females persons returned as engaged in "Home Duties."
218. Below are given the main classes and groups into which the occupations of the people have been classified; the numbers of both sexes returned under each group, and the percentage of the population 5 years and upwards. As the classification at this census has been entirely revised and extended, it has not been found possible to give comparative figures for 1921.

219. Class IV., Agricultural, forms 28 per cent. of the total population aged 5 years and upwards. The other classes in the order of their importance are Class III., Commercial, which forms 9.25 per cent. of the population aged 5 jears and upwards; Class VIII., Domestics, which forms 6.14 per cent. ; Class VII., Mechanics, Artisans and Similar Occupations, forming 5.87 per cent ; Class V., Mining and Quarrying, forming 1.9 per cent. ; Class II., Professionai, forming 1.21 per cent. ; Class VI., Forest, forming 1.15 per cent.; Class I., Public Service, forming 1.12 per cent., and last Class IX., Other Occupations, which only forms $\cdot 47$ per cent.
220. As has been previously pointed out, there has been a general revision and extension of the classification of the "Occupation Table," and therefore, to attempt any comparison with the figures of 1921 would be both inaccurate and unreliable.
221. The occupations of the people have not been tabulated for the race divisions of the population, except in the case of the East Indian Race ; and these are referred to under the head "East Indians."

[^71]222. In the table below are given the proportion per 1,000 of the male and female population in each district of the Colony, returned under the several groups of occupations.
occupations in 1,000 of each sex in tee population of each county, town and ititrict in 193,


OCCUPATIONS IN 1,000 OF EACH SEX IN THE POPULAATION OF EACH COUNTY, TOWN AND DISTRICT IN 1931.

223. Under Class 1V., "Agricultural," Berbice comes first as the county having the largest population of the "Agricultural Class" of both sexes in its population, the proportion being 396 in every 1,000 of its, male population, and 219 females in every 1,000 of its female population. In the West Coast, Demerara, the "Agricultural Class," forms among the males 50 per cent. of the population, the next highest districts being Leguan with 486 in every 1,000 males; Wakenaam 460; Corentyne 453 ; West Bank, Demerara 445, and Mahaica 431.
224. Ancong the females in the same Class the Berbice River has the highest proportion, viz., 338 femaler agriculturalists to every 1,000 of its female population ; the Canje Creek District comes next with 310, then Leguan with 308 ; and the East Bank, Demerara with 302.
225. The occupations of the people in combination with ages will be found in the tables in the appendices.
226. This is the first Census at which any attempt has been made to obtain statistics regarding the Subsidiary or other occupations of the people, and the information returned has been compiled to form the series of Tables to be found among the appendices.
227. Much difficulty has been experienced in compiling these tables due mainly to the unsatisfactory replies given. Quite a number of people repeated their main occupation, while others gave foolish replies such as "Agent for anybody," etc.
228. The following Table gives the number of both sexes having a Subsidiary or Other Occupation in Towns and Counties, together with the percentage of the population 5 years and upwards in each division

229. Five tables, showing the Subsidiary or Other Occupations of the people of Georgetown, Demerara County, exclusive of Georgetown, New Amsterdam, Berbice County, exclusive of New Amsterdam, and Essequebo County, will be found on pages of this Report.

## IX.-lRELIGIOUS PERSUASIONS.

230. The total number of persons returned as professing some specitied religion was 305,156 being 98.14 per cent. of the entire population, as against 290,090 or 97.44 per cent. returned in 1921. Of this number 185,563 or 60.81 per cent. were returned as professing one form or another of the Christian Religion, as compared with 176,111 or 60.71 per cent. at the previous Census ; while 119,593 or 39.19 per cent. were returned under non-christian religion as against 113,979 or 39.29 per cent. in 1921 . 5,777 or 1.86 per cent. of the entire population failed to state their religious persuasion, as compared with 7,601 or 2.6 per cent. returned as "Religion not stated " in 1921.
231. The following table gives the distribution of the several religions anongst the Urban and Rural areas of the Colony :-

232. Of those returned as professing Christianity, the Anglicans are the most numerous numbering 78,865 or 42.5 per cent., as against 73,972 or 42 per cent. at the last census; next follow the Roman Catholics, who, with a total of $3 C, 382$ form 16.4 per cent., as against 23,225 or 13.9 per cent. in 1921 ; then the Presbyterians with 21,602 or 11.6 per cent. compared with 15,345 or 8.7 per cent. in 1921 ; the Wesleyans numbering 18,729 or 10 per cent., as compared with 14,686 or 8.3 per cent. at the last Census; the Congregationalists numbering 17,897 or 9.6 per cent.; the Moravians numbering 2,493 or 1.3 per cent., and lastly the Canadian Presbyterians who total 1,381 or . 7 per cent. "Other Sects" collectively number 14,215 forming 7.7 per cent., as against 48,883 or 27.7 per cent. in 1921.

Those described under the head "Other Sects," comprise Plymouth Brethren, Salvationists, Peungites, Seventh Day Adventists, African Methodista and Jordanites.

233．Of those returned under non－christian religions the Hindus are by far the most numerous，with a． total of 96,338 ，being 80.5 per cent．of the non－christian population as compared with 95,325 or 83.6 per cent． in 1921．Next come the Mohammedans with 21,792 or 18.2 per cent．，and then the Parsees with 74 or .06 per cent．

234．The following table gives the percentage distribution of the several religions for the Colony，the Counties，and for each District

| COUNTY，TOWN AND DISTRIC＇． | CHILISTIAN． |  |  |  |  |  |  |  |  |  | NON－CHRISTIAN． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 突 |  |  | 虽 | Congregational． |  | 品 |  |  | 号 | 总 | 安 |  |
| The Colons | 310，933 | 25.36 | $9 \cdot 77$ | 6.95 | 6.02 | 5＇76 | $\cdot 45$ | －80 | 4.58 | 1.86 | 30．98 | $7 \cdot 00$ | －02 | －45 |
| DEMERARA－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgetown（within Municipal limits） | 61.899 | 35.51 | 23.94 | $9 \cdot 16$ | $9 \cdot 17$ | 5.87 | － 09 | －96 | 6．97 | $2 \cdot 58$ | $3 \cdot 55$ | 1.93 | ＇02 | ＊25 |
| Environs of Georgetown ．．． | 7，764 | 33.22 | 12－27 | $3 \cdot 92$ | ${ }^{6} \cdot 23$ | $2 \cdot 91$ | $\cdot 19$ | $3 \cdot 57$ | $7 \cdot 08$ | $1 \cdot 15$ | $24 \cdot 50$ | 4.74 |  | －22 |
| East Ooast ．．． | ＋0，002 | $22^{\circ} 59$ | 5.94 | $1 \cdot 61$ | 7.92 | $7 \cdot 17$ | $\cdot 27$ | 1.55 | 459 | 1.38 | 38.64 | $7 \cdot 5$ | －02 | $\cdot 78$ |
| Mahaica | 8，3：2 | $10 \cdot 49$ | 3.99 | 7．29 | 14.46 | $2 \cdot 67$ | 1.02 | －05 | 187 | 1.96 | $46 \cdot 78$ | 8：31 | $\cdot 26$ | －85． |
| Mahaicony | 7，080 | $6 \cdot 16$ | 435 | 19.16 | $21 \cdot 14$ | $\cdot 71$ | $\cdot 28$ | $\cdot 17$ | $1 \cdot 40$ | 3．90 | 36.47 | $5 \cdot 82$ | －03 | $\cdot 41$ |
| East Bank ．．．．．． | 18，770 | 19.50 | $5 \cdot 23$ | 1.88 | 8＇27 | $2 \cdot 59$ | －04 | －10 | $6 \cdot 12$ | $\cdot 53$ | $41 \cdot 34$ | 13.79 | ＇03 | － 53 |
| Weat Rauk | 14，238 | $17 \cdot 11$ | 5.62 | 6.73 | $5 \cdot 14$ | 11.38 | －60 | 1.73 | 1.87 | $\cdot 68$ | $39 \cdot 79$ | $8 \cdot 93$ | ．．． | －40 |
| Went Coart－．． | 19，145 | $15^{\circ} 22$ | 2．06 | 5 | $1 \cdot 01$ | 6.18 | $\cdot 37$ | －05 | 1388 | $\cdot 37$ | 51.23 | 1580 |  | －19 |
| Upper River ．．． | 7，984 | $36^{-47}$ | 9.84 | $10 \cdot 30$ | 3．25 | $8 \cdot 20$ | ＇13 | $\cdot 31$ | 11.77 | $5 \cdot 20$ | $12 \cdot 61$ | $1 \cdot 22$ | 09 | ${ }^{6} 66$ |
| County of Demerara | 185，184 | 20\％29 | 11.74 | 6.33 | 8.07 | 5．91 | $\cdot 24$ | －98 | $5 \cdot 17$ | 1.81 | 27＊14 | 684 | －03 | 45 |
| BERBIOE－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Town of New Amsterdam | 8,002 | $34 \cdot 75$ | $10 \cdot 73$ | 12.67 | 6.34 | $14 \cdot 70$ | －02 | － 52 | $9 \cdot 23$ | $2 \cdot 36$ | 4.69 | $2 \cdot 85$ | ． 02 | －62 |
| West Ooast | 12， 691 | 42.56 | 1.25 | $1 \cdot 43$ | $2 \cdot 19$ | $12 \cdot 49$ | $\bigcirc 80$ | $2 \cdot 92$ | －86 | $\cdot 18$ | $26 \cdot 95$ | $8 \cdot 27$ | 01 | －09 |
| Fast Oosst $\quad .$. | 2，405 | 18.08 | 5.03 | 694 | 2.67 | 158 | $5 \cdot 36$ |  | 1.87 | $\cdot 79$ | $49 \cdot 93$ | $8 \cdot 10$ |  | －25 |
| Corentyne Coast ．．． | 33，277 | 11.61 | $2 \cdot 22$ | 11.29 | $\cdot 22$ | $5 \cdot 17$ | － 30 | $\cdot 17$ | －48 | －29 | $58 \cdot 67$ | 8.49 | $\cdot 01$ | $\cdot 68$ |
| Corentyne River ．．． | 1，194 | $37 \cdot 60$ | 75 | 1\％9 | ＇09 | $\cdot 17$ | －09 | ．．． | $\cdot 17$ | ．．． | 49.66 | 9.85 | ．．． | ．．． |
| Berbice River（comprising tast and West Ban and Upper River）．．． | 8，848 | $12 \cdot 43$ | 1.91 | 14.50 | 1.91 | 13.58 | －84 | $\cdot 96$ | 11.73 | 1.69 | 32．08 | $8 \cdot 15$ |  | －22 |
| Canje Oieek ．．． | 9，302 | $23^{\prime} 10$ | $1 \cdot 60$ | 6.46 | $3 \cdot 35$ | $2 \cdot 36$ | 19 | －84 | 2.72 | $2: 13$ | 46.84 | 946 |  | ， 35 |
| County of Berbice | 75，919 | 21：38 | 2.91 | $9 \cdot 25$ | 1.88 | 7．93 | －84 | $\cdot 84$ | 3.09 | ＊89 | 4263 | 7.95 | $\cdot 01$ | $\cdot 45$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 11，507 | $37 \cdot 77$ | 9.83 | $8 \cdot 79$ | 4.88 | $7 \cdot 33$ | －20 | －34 | 6.25 | $7 \cdot 20$ | 12＇32 | 4.78 | $\cdot 01$ | 30 |
| Eser quebo，Potaro，Macaruni and Puruni Riv Leguan Ialand | 3.577 | 28.82 | 78 | $2 \cdot 30$ | 28 | $\cdot 36$ | $\cdot 73$ | －03 | 1．29 | 1.69 | 50.94 | 11.55 | $\cdot 13$ | $\cdot 70$ |
| Wakenaem Island ．．．．．． | 4.100 | 12．56 | 1.07 | $20 \cdot 15$ | $2 \cdot 8$ | ${ }^{*} 39$ | 134 | $\cdot 05$ | 3.05 | $\cdot 42$ | $46^{\circ}$ | 11.79 |  | －39 |
| Epaequebo Coast and Tigar Island．．．in Weat Distriot | 18.700 | 27.02 | $2 \cdot 63$ | $6 \cdot 80$ | $4 \cdot 66$ | $\bullet 20$ | 988 | －02 | 421 | $\bullet 89$ | 43.88 | 8.02 | $\cdot 02$ | ． 67 |
| Pomeroon \＆Moruoa Rivers and North West Distriot | 11，946 | 40.73 | 39．60 | － 46 | $3 \cdot 67$ | －19 | －07 | $\cdot 01$ | $5 \cdot 15$ | $5 \cdot 65$ | 320 | $1 \cdot 20$ | ．02 | ． 05 |
| County of Essequebo | 49，8i0 | 31.73 | 12.89 | $5 \cdot 75$ | $4 \cdot 82$ | 1.87 | $\cdot 59$ | $\cdot 09$ | 4．60 | 350 | 27：32 | 6.19 | －03 | $\cdot 42$ |

235．The proportion of the sexes amongst the five principal religions is shown in the table below for the Colony，and each County respectively，where 1,000 males are taken as the basis for determining the number of females to that number of males．
（I．）THE COLONY．

|  | RELIGION． |  |  | The Colong． |  | Orban Area． |  | Raral Area． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Male． | Female． | Male． | Femalo． | Male． | Female． |
| Anglican ．．． | ．．． | ．．． | ． | 1，000 | 1，070 | 1，000 | 1，264 | 1，000 | 991 |
| Koman Catholia | ．．． | ．．． | $\cdots$ | ．．． | 1，057 | ．．． | 1.287 | ．．． | 835 |
| Preabsterinn | $\cdots$ | ．．． | $\cdots$ | ．．． | 1，159 | ．．． | 1，485 | ．．． | 1，039 |
| Weslejan | ．．． | ．．． | － | ．．． | 1，210 | ．．． | 1，4E7． | ．．． | 1，106 |
| Oingregational | ．．． | ．．． | $\cdots$ | ．．． | 1，183 | ．．． | 1，509 | ．．． | 1，084 |

(II.) THE COUNTIES.

236. Taking the Colony as a whole it will be noticed that in each denomination the female sex outnumbers the males; and the same occurs in the Urban areas. In the Rural areas the females preponderate in all the denominations, except the Anglican and Roman Catholic, the proportion being 991 and 825 females respectively to each 1,000 males.
237. Taking the Counties it will be seen that in Demerara and Berbice the females preponderate in all the denominations, with the exception of the Roman Catholics in Berbice, where the males are slightly in excess of the females. Throughout the County of Essequebo the males are in excess of the females.

## X.-LITERACY.

238. At the 1921 Census the Householder's Schedule required information regarding persons who "Can Read," "Can Write," while at this census the information sought was "Ability to read and write," English, Hindi, Hindustani, Tamil, Telagu, Chinese and Portuguese.
239. Of the total male population 5 years and upwards 99,791 or 75.1 per cent. were returned as literate, in one or more of the above languages, and 89,227 or 67.2 per cent. were returned as being able to read and write English.
240. Among the female population 5 years and upwards 86,025 or 64.64 per cent. were returned as literate, in one or more of the above languages, and 83,303 or 62.6 per cent. were returned as being able to read and write English.
241. If the principle is accepted that a person who can write, can also read, then the following table gives a rough comparison with the 1921 figures.


CENSUS REPORT OF BRITISH GUIANA, 1931.
242. From the above table it will be seen that those claiming to read and write have in creased during the past 10 years by 57,936 or 45.3 per cent. ; of these the males show an increase of 34,436 or 52.7 per cent., and the females an increase of 23,500 or 37.6 per cent.
243. Under the Education Ordinance, Chapter 196, the compulsory school age is fixed at:-For urban districts 6-14 years, and for rural districts 6-12 years, and the following table gives the population of compulsory school age, together with the scholars returned, and the percentage of the population of compulsory school age returned as scholars.

| County. |  |  | Compulsory School Age. |  |  |  | Percentage of Population of compulsory school age returned as scholars. |  | Number of Schools. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Population returned. |  | Scholars returned. |  |  |  |  |
|  |  |  | Males. | Femalos. | Males. | Females. | Males. | Females. |  |
| Demerara | ... | ... | 19,271 | 19,312 | 14,548 | 12,665 | 75.5 | $65 \cdot 6$ | 119 |
| Berbice | ... | ... | 8,940 | 8,412 | 6,510 | 4,853 | $72 \cdot 8$ | $57 \cdot 7$ | 59 |
| Essequebo | ... | ... | 5,326 | 5,108 | 3,542 | 2,839 | $66 \cdot 5$ | $55 \cdot 6$ | 71 |
| Whole Colony | . ${ }^{\text {P }}$ | ... | 33,537 | 32,832 | 24,600 | 20,357 | $73 \cdot 4$ | 62. | 249 |

244. It should however be explained that the population in the above table represents all children aged 5 to 14 jears inclusive. Taking the whele Colony, it will be observed that 73.4 per cent. of the boys, and 62 per cent. of the girls of compulsory school age were returned as scholars at this Census. The figures giving the number of schools in each County were kindly supplied by the Director of Education.

## XI -INFIRMITIES.

245. The persons returned as (a) Blind, (b) Deaf, (c) Dumb. (d) Deaf and Dumb, (e) Insane, (f) Leprous, numbered 2,485 being .8 per cent. of the whole population.
(a.) BLIND.
246. The total number of persons returned as afflicted by blindness was 524, being in the proportion of one blind person in every 593 of the population.
247. The number returned as blind at each of the past six censuses were :-

| Year. | Number <br> of <br> Blind. | Persons Enumerated <br> to one <br> Blind Person. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1871 | $\cdots$ | 85 |  |
| 1881 | $\cdots$ | 185 | 2,276 |  |
| 1891 | $\cdots$ | 439 | 1,370 |  |
| 1911 | $\cdots$ | 339 | 634 |  |
| 1921 | $\cdots$ | 398 | 742 |  |
| 1931 | $\cdots$ | 524 | 748 |  |
|  |  | 593 |  |  |

248. It will be observed that there has been an increase in the proportion of blind during the past ten years. In comparison with the neighbouring island of Trinidad and with British Houduras, we have at this Census one blind person in every 593 of our population, as against 650 in Trinidad, and 676 in British Honduras returned as blind at the Census of 1921.
249. Of the number returned as blind 211 were males and 313 females, being in the proportion of 1.3 males, and 2 females per 1,00c living of each sex. Thus one in every 736 males was blind, and one out of every 497 females was similarly afflicted.
250. The following table shows the proportion of blind in town and counties :-

251. It will be seen that there is one blind person in every 421 of the population in New Amsterdam, and one in every 499 in Georgetown, whilst the least afflicted district is Berbice County (exclusive of New Amsterdam) with one blind person in every 666 of its population.

## (b.) DEAF.

252. The persons enumerated as deaf numbered 733 being in the proportion of one deaf person in every 420 of the population. Of these 326 were males and 412 were females; the proportion being 2.1 males and 2.6 females per 1,000 living of each sex.
(c.) DUMB.
253. The number returned as dumb was 113, being in the proportion of one dumb person in every 2, 752 of the population; 72 of these were males, and 41 females; being in the proportion of .46 males and .26 females per 1,000 living of each sex.

## (d.) DEAF AND DUMB.

254. The total number of deaf-mutes enumerated was 89 being in the pzoportion of one deaf-mute to every 3,494 of the population. Of these 50 were males and 39 females; being in the proportion of .32 males and .25 females per 1,000 of each sex.
255. The proportion of deaf, dumb, and deaf and damb, returned at each of the past six Censuses were:-

(e.) INSANE.
256. According to the returns the number of persons recorded as insane was 816 in the proportion of 2.6 persons in every 1,000 of the population, or one such person to every 381.
257. These figures comprise 763 inmates of the Mental Hospital, and 56 otherwise returned, and include, without distinction, the inter-mixture of congenital idiots and imbeciles.
258. The insane males numbered 463 and the females 356. The males therefore outnumber the females. This excess was not only absolnte, but relative for there were 3 insane males and only 2.3 insane females per 1,000 living of the corresponding sex, or one insane male in every 336 males, and one insane female in every 437 females.

[^72]259. Below are given the numbers returned as insane at the last four Censuses.

260. Since the previous census in 1921 the male insane have increased by 23.5 per cent., and the females by 23.6 per cent.
261. Comparing with the neighbouring island of Trinidad, and with British Honduras, we have at this Census one person of unsound mind to every 380 of our population against one in every 383 in Trinidad, and one in every 515 in British Honduras, returned as insane at the Census of 1921.
262. Of the total number of persons returned as insane 1 per cent were Europeans; 2.5 per cent. Portuguese; 32.2 per cent. East lndians; 4 per cent. Chinese; 54.2 per cent. Blacks; 10.4 per cent. Mixed or Coloured and .2 per cent. Aboriginal Indians.

## (f.) LEPROUS.

263. The number of persons returned as afficted with leprosy was 248 being in the proportion of 8 to every 1,000 of the population, or one leper in every 1,254 persons.
264. Of the abuve 153 were males and 95 females being in the proportion of one leper in every 1,015 males, and one in every 1,637 females.
265. The figures compared with the three previous Censuses are :-

|  | Census Year, | Number of Lepers. |  |  | Persons enumerated to one Leper. | Males enumerated to one Leper. | Females enumer ated to one Leper. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Persous. | Males. | Females. |  |  |  |
| 1891 | ... | 353 | 285 | 68 | 788 | 532 | 1,861 |
| 1911 | ... | 420 | 298 | 122 | 705 | 516 | 1,167 |
| 1921 | ... | 247 | 158 | 89 | 1,205 | 957 | 1,645 |
| 1931 | $\ldots$ | 248 | 153 | 95 | 1,254 | 1,016 | 1,637 |

266. The above figures comprise only inmaies of the Leper Asylum, no other persons having been returned as lepers on the Census Schedules.
267. Divided as to races, the number of lepers was as under :-

| Race. | Persons. | Males. | Females. | Percentage of Total Lepers. | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Blacks ... .. | 124 | 74 | 50 | 50. |  |
| East Indians | 65 | 45 | 20 | $26 \cdot 21$ |  |
| Mixed liace or Coloured. | 38 | 21 | 17 | 15.32 |  |
| Yortuguese ... | 15 | 9 | 6 | 6.05 |  |
| Chinese | 6 | 4 | 2 | $2 \cdot 42$ |  |
| White ... ... | ... | ..' | ... | ... |  |

268. No enquiry was made as to the amouat of other forms of sickness, but it may ke noted however, that 717 patients were enumerated in the Public Hospitals of the Colony. In addition no inconsiderable proportion of the inmates of the Alns House, who numbered 842 as compared with 688 in 1921 are con* stantly under treatment.
269. Passing from the bodily and mental infirmities of the people which fill the Asylums and Hospitals, to the moral infirmities which provide the inmates of Prisons, the number of prisoners enumerated was 229, being in the proportion of 74 to 100,000 of the pupulation as compared with 354 or 119 to 100,000 in 1921 .
270. The inmates of the Industrial School for boys at Onderneeming (Essequebo) numbered 125 as compared with 137 in 1921.
271. From figures supplied by the Poor Law Commissioners, there were 3,119 persons, "in receipt of out-door relief" in the Colony as against 2,025 in 1921. At this Census information was not required on this subject as it was found at the two previous censuses that the enquiry was viewed with suspicion, and was productive of no reliable information.

## XII.-THE EAST INDIAN POPULATION.

272. This section of the Report deals separately with the East Indian population and the statistics are given in response to the request of the Government of India. The number of persons dealt with in this part of the report is returned as 130,540 consisting of 69,729 males and 60,811 females. This total number forms 41.98 per cent. of the whole population of the Colony.
273. Those born in the Colong were 106,453. Those born in India were 23,236, and those born elsewhere numbered 851.
274. The Origin of the Indian Colony here dates back to 1838, when 406 persons arrived being introduced by private enterprise. It was not until the 4th May, 1845, that the first set arrived by the ship "Lord Hungerford " and took up work under Indenture.
275. They came at fairly regular intervals until 1917, when the last lot arrived by the ship "Ganges" ou the 18th April, and from this time the cessation of the indenture system must be fixed.
276. During the decade a small.number of repatriated immigrants returned to the Colony, and these are as follows :-

| 1921 | $\ldots$ | $\ldots$ | $\ldots 274$ |
| :---: | :---: | :---: | :---: |
| 1922 | $\ldots$ | $\ldots$ | $\ldots 160$ |
| 1923 | $\ldots$ | $\ldots$ | $\ldots 173$ |
|  |  |  | Total |
|  | $\ldots .607$ |  |  |

The departures during the decade under their terms of indenture were :-

| 1921 | $\ldots$ | $\ldots$ | $\ldots 464$ |
| :---: | :---: | :---: | :---: |
| 1923 | $\ldots$ | $\ldots$ | $\ldots 211$ |
| 1924 | $\ldots$ | $\ldots$ | $\ldots 379$ |
| 1925 | $\ldots$ | $\ldots$ | $\ldots 779$ |
| 1926 | $\ldots$ | $\ldots$ | $\ldots 570$ |
| 1927 | $\ldots$ | $\ldots$ | $\ldots 654$ |
| 1928 | $\ldots$ | $\ldots$ | $\ldots 520$ |
| 1929 | $\ldots$ |  | 4,069 |
|  |  |  |  |

277. Divided as to sex the tables show that these might be arranged thus :-

XLVIII. CENST'S REPOR'T OF BRITISH GUIANA, 1931.
278. This population is distributed as follows:

279. The East Jndian population has been divided according to Conjugal Conditions, and a table is appended to this repart.
280. The table below shows the East Indian Population for the past three Censuses divided into unmarried, married, widowed and divorced.

|  | Year. |  | Unmarried. | \% | Married. | \% | Widowed. | \% | Divorced* | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1911 | $\cdots$ | $\cdots$ | 67,887 | $53 \cdot 7$ | 53,795 | 42.5 | 4,835 | $3 \cdot 8$ | ... | ... |
| 1921 | ... | ... | 67,560 | 54.1 | 51,117 | 40.9 | 6,261 | 5. | ... | ... |
| 1931 | ... | $\cdots$ | 68,068 | $52 \cdot 1$ | 53,784 | $41 \cdot 2$ | 8,468 | 65 | $\xrightarrow{220}$ | $\cdot 2$ |

281. Of the East Indian population 41.2 per cent. are returned as married, as compared with 40.9 per cent. in 1921; 52.1 per cent. are single as compared with 54.1 per cent. in 1921 ; while 6.5 per cent. are widowed as against 5 per cent, and .2 per cent. are returned as divorced.
282. With regard to the divorced persons there is no doubt that inaccuracies have occurred as from figures kindly supplied by the Immigration Agent General, there are only ten legal divorces recorded in that department during the 10 years. No doubt the difference between the two can be accounted for by divorces performed by Mohammedan Priests according to their religious beliefs, being returned as such, although not having engaged the attention of the Court.
283. The following table gives the conjugal condition according to countics :-

| County. | Unmarried. | Married. | Widowed. | Divorced. |
| :---: | :---: | :---: | :---: | :---: |
| City of Georgetown ... | 3,246 | 1,854 | 392 | 4 |
| Town of New Amsterdam | 637 | 423 | 77 | $\cdots$ |
| County of Demerara ... | 32,558 | 27,475 | 4,445 | 110 |
| Counts of Berbice ... | 21,699 | 16,885 | 2,157 | 64 |
| County of Essequebo ... | 9,928 | 7,147 | 1,397 | 42 |
| Totals | 68,068 | 53,784 | 8,468 | 220 |

[^73]284. The table below shows the numbers of the East Indian population at different ages; and the percentage increases and decreases in the several age groups during 1921-1931:-

285. Dealing with the table above we see that in the under " 1 Year period" the males contrary to the universal rule exceed the females, and the same occurs in the following period.
286. The females in the " $5-15$ "group are in the minority. In the " $15-25$ " group the females are in excess of the males, while in all the other groups the males exceed the females.
287. Literacy.-Separate statistics have been prepared showing :-

Those who can read and write Englisb.
Those who can read and write Hindi.
Those who can read and write Hindustani.
Those who can read and write other languages.
288. This table is interesting as it marks the progress of the East Indian Colonists separately from other nembers of the population.
289. The present table when summarized gives the following results:-

|  |  | Males, | Females. | Total. | \% of Total Fast Indian Yopulation. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A bility to read and write | English | 22,863 | 9,856 | 32,721 | 25.07 |
| \% , \% | Hindi | 7,286 | 1,423 | 8,709 | 6.67 $2 \cdot 10$ |
| " " $\quad$ " | Hindustani | 2,263 | 554 | 2,817 | - 11 |
| " " | Tamil | 122 | 18 | 66 | .05 |
| " $\quad$ " | Portuguese | 1 | 2 | 3 | $\cdots$ |
| Totals | $\ldots$ | 32,585 | 11,882 | 44,467 | 34.06 |

[^74]The lettered East Indians form 34.06 per cent. of the East Indian population, and 14.3 per cent. of the total population of the Colony.

## RELIGIOUS PERSUASIONS.

290. Although the majority of the East Indians adhere to forms of Worship peculiar to their Oountry and race, a good many have embraced Christianity as is shown in the following table :-

Christians.-

| Anglicans ... | $\ldots$ | $\mathbf{3 , 4 6 5}$ |
| :--- | ---: | ---: |
| Roman Catholics | $\ldots$ | $\mathbf{1 , 9 5 8}$ |
| Presbyterians | $\ldots$ | 1,275 |
| Weslegans ... | $\ldots$ | 741 |
| Congregationalists | $\ldots$ | 120 |
| Moravians ... | $\ldots$ | 49 |
| Canadian Presbyterians | $\ldots$ | $\mathbf{1 , 0 5 5}$ |
| Other Sects ... | $\ldots$ | 382 |
|  |  |  |

9,045
291. As will be seen from the above table the Anglicans are the most numerous numbering 3,465; the Roman Catholics next with 1,958 ; then the Presbyterians with 1,275 ; and then the Canadian Presbyterian with 1,055 . Of the other denominations the Wesleyans have 741 ; the Congregationalists 120 , and the Moravians 49.
292. The tables relating to Religious Persuasions may be further summarized thus :-


The Non-Christians form 91.42 per cent. of the East Indian population; the Christians comprise 6.93 per cent., while 1.65 per cent. failed to state their religion.

## OCCOPATIONS.

293. The number of East Indians engaged in some defnite occupation was 65,183 or 70.7 per cent. of the East Indian population aged 10 years and upwards; the number roturned as of no occupation being 65,357 or 50.07 per cent. of the total East Indian Population.
294. The following table shows the number and percentage of the East Indian population of each sex 10 jears and upwards returned as "occupied," and the number and percentage of all ages returned as "unoccupied" together with the numbers so returned at the previous Census in 1921.

|  |  |  | Occupied. |  |  |  | Onocoupied.* |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1931. | $\%$ | 1921. | \% | 1931. | \% | 1921. | \% |
| Males | ... | ... | 44,839 | 89.C2 | 50,882 | 93.77 | 24,890 | $35 \cdot 70$ | 18,248 | 26.22 |
| Females | ... | ... | 20,344 | 48.73 | 33,670 | 81.47 | 40,467 | 66.55 | 22,138 | $39 \cdot 67$ |
| Persons | ... | ... | 65,183 | 70.7 | 84,552 | 88.46 | 65.357 | 50.07 | 40,386 | 32.32 |

295. The total number returned as employed shows a decrease of 19,469 or 23 per cent.
296. The number of those returned as "unoccupied" shows an increase of 24,971 or 61,83 per cent.
297. The occupied males show a deerease of 6,143 or 12.04 per cent. of those returned in 1921 ; while the females have decreased by 13,326 or 39.58 per cent.

[^75]298. In the unoccupied division the number of both males and females have increased during the decade, the unemployed males by 6,642 or 36.4 per cent. ; and the females by 18,329 or 82.79 per cent.
299. The large increase in the unemployed males may be partly accounted for by the increase in the number of "scholars" returned at this census as against 1921 ; the numbers being 5,085 in 1921 , and 10,067 in 1931 , an increase of 4,982 or 97.97 per cent. In the case of the females the same may be said, the numbers being 2,374 female scholars in 1921 , and 6,232 in 1931 , an increase of 3,858 or 162.51 per cent.
300. The persons described as "unoccupied " include children and persons of all ages returned as of no employment ; scholars of all agee; inmates of the Alms Housc, Mental Hospital and Leper Asylum ; pensioners, paupers in receipt of out-door relief ; prisoners at the Penal Settlement and county prisons ; retired merchants and tradesmen, and also among the females, persons returned as performing "Home Duties."
301. Below are given the main classes and groups in which the occupations of the East Indians hava been classified, and the numbers of both sexes returned under each group :-


[^76]LII. CENSUS REPOR'S OF BRITISH GUIANA, 1931.

| Occupation. | Number of Persons in 1931. | Percentage of East Indian Population 10 years and upwards. | Percentgge of Total Population of Colony 10 years and npwards. | Males. | Wemales. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Class VI.-Forest- <br> 19. Directing and Technical Staff <br> 20. Wood-Cutters and Charcoal Burners. <br> 21. Balala Bleeders | 4 68 6 | $\pm$ $+\ldots$ .07 $+\ldots$. | + + +03 $+\ldots$ $+\ldots$ | 3 67 6 | 1 |
| Total, Forest | 78 | $\cdot 07$ | . 03 | 76 | 2 |
| Class VII.-Meceanics, Artisans and Similar Occupations- <br> 22. Mechanics, Artisans and Engine Drivers ... <br> 23. Other Workers ... | 1,796 454 | 1.95 .49 | 78 $\cdot 70$ | 1,767 319 | 29 135 |
| Total, Mechanics, etc. | 2,250 | $2 \cdot 44$ | 98 | 2,086 | 164 |
| Class VIII.-Domestics- <br> 24. Domestic Servants | 1,327 | 1-44 | . 58 | 436 | 891 |
| Total, Domestics | 1,327 | 1.44 | - 58 | 436 | 891 |
| Class IX.—Other Occupations- <br> 25. Fishermen <br> 26. Not Classiffed ... | 400 280 | .43 .30 | 18 $\cdot 12$ | 377 189 | 23 91 |
| Total, Other Occupations | 680 | $\cdot 73$ | $\cdot 30$ | 566 | 114 |
| Total, All Occupations ... | 65,183 | 70.71 | $28 \cdot 52$ | 44,839 | 20,344 |
| Class X.-Non-Wage-Earners-- <br> 27. Scholars <br> 28. Children and persons who are net wage-earners and follow no occupation ... | 16,229 49,058 | $* 12.49$ $* 37.58$ | $+7 \cdot 13$ +21.47 | 10,067 14,823 | 6,232 34,235 |
| Total, No Occupation | 65,357 | $50 \cdot 07$ | $28 \cdot 60$ | 24,890 | 40,467 |

302. Onder Class IV.-Agricultural, it will be seen that over 50 per cent. of the East Indian populatio are engaged in agricultural pursuits, of which 42 per ceut. come under the division " Labourers." The nes phighest occupation is under Class III.-Commercial, which forms 8 per cent. of the East Indian populatic

## XIII.-COST OF CENSUS.

303. The expenditure incurred in carrying out the Census and in issuing this Repori has been divide into eight heads, i.e., Salaries, Remuneration to Enumerators, Travelling Expenses, Tabulating, Compilin Printing, Stationery, and Miscellaneous.
304. It is worth noting that no prosecutions were taken under the Census Law, and this happy state 1 affirs was in a large measure due to the temper and diplomacy of the euumerators.
[^77]\footnotetext{
305. The sum voted by the Legislative Council to meet the cost of the Census was $\$ 20,145$. The following table gives the actual expenditure together with that of the two previous Censuses in 1911 and 1921 :-


- Inciuded under head "Remuneration to Enumerators."
* Included under head "Remaneration heads Tabulating and Compiling."

306. From the above it will be seen that there has been a saving of approximately 15, per cent. on the estimate, whilst the decrease as regards the cost, compared with the past two censuses is 102.9 and 71.5 per cent. respectively.

## XIV.-CONCLUSION.

307. In concluding this report I have to record my appreciation of the services rendered by Mr. T. A. Wason, the Supervisor and Clerk, under whose supervision was carried out the tabulating and compiling of the tables forming the appendices of this report. Also to be included are the several District and Government Officcrs who performed the duties of Sub-Commissioners, for their willing assistance so readily given.

I have the honour to be,
Sir,
Your Obedient Servant,
C. H. NORTON,
Census Commissioner.

## INSTRUCTIONS

## For filling up Columns 10,11 and 14.

## OCCUPATION OR MEANS OF LIVELIHOOD－Column 10.

1．PERSONS serving in the NAVY or ARMY must state their rank，and the branch of the service to which they belong．

2．MEMBERS of the CIVIL SERVICE，and EMPLOYEES of the GOVERNMENT， MUNICIPALITIES and other LOCAL AUTHORITIES must state thoir official designation． and the department to which they belong．





12．CLERKS and SALESMEN must state the nature of the business in which they are mployed，e．g．；Dry Goods samman，＂ man，＂＂Auctioneer＇s Clerk，＂＂Retail Spirit Shop Salesman，＂\＆c

13．The word＂Engineer＂must not be used alone．QUALIFIED ENGINEERS must state the＂branch to which they belong，e．g．，＂Civil Engineer，＂＂Mechanical ngineer，＂＂Mining Engineer，＂\＆c．Engine Drivers，Stokers and Firemen must be described as such and not as Engineers．

14．ARTISANS and MECHANICS must state the branch of the trade or industry to which they belong，e．！．，＂Tinsmith，＂＂Carpenter，
：：：：：：：
88888gㅛ

：：：：：：：：：：：：


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EXAMPLES OF THE MODE OF FILLING UP THE HOUSEHOLDER'S SCHEDULE.

|  |  |  |  |  |  |  |  |  |  |  |  | Abricy to Read and W |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Name } \\ \text { and } \\ \text { Surname } \end{gathered}$ | Relationship todenhof Household | Sex | $\begin{aligned} & \text { ARe } \\ & \text { Bish } \\ & \text { Birth. } \end{aligned}$ | $\begin{aligned} & \begin{array}{c} \text { candition } \\ \text { Hartion } \end{array} \end{aligned}$ | Birthplace | Race | Nationality | gion | Ocevertion or Livelihood | $\begin{aligned} & \text { Ohter } \\ & \text { Occuphion } \\ & \text { in any) } \end{aligned}$ | Inifruitue | Esgrish | $\begin{gathered} \text { Any of the } \\ \substack{\text { Langrabes } \\ \text { nampacs } \\ \text { Overeaf }} \end{gathered}$ |
| 1. James Adaus | Head of Famils | m | 48 | Married |  | Black | ..' | Anglican | Provision Farmer | ." | ..' | Yes | No |
| 2. Maria Adams | Wife | F | 44 | Married | Barbados | Colourea | ... | Anglican | Home Daties | ... | ... | so | No |
| 3. Allan Adauns | Son | ${ }_{\text {a }}$ | 20 | Single | ${ }_{\substack{\text { Demerara } \\ \text { Buxton }}}^{\text {den }}$ | Colource ${ }^{\text {d }}$ | ... | Anglican | Engine Driver | $\xrightarrow{\text { Provesion }}$ | ... | Yes | No |
| 4. Jane Adums | Daughter | ${ }^{\text {F }}$ | 12 | ... | (Esteruebo | Coloured | ... | ${ }^{\text {angli }}$ | Scebolar | ... | ... | res | No |
| 5. Ellen Adams | Mother | F | ${ }^{71}$ | idow | Africa | A irican | ... | Anglican | Annuitant | ... | ..' | No | No |
| 6. Eiliza Poters | Servant | ${ }_{F}$ | 24 | Single | Surinam | Coloured | $\begin{gathered} \text { British Subject } \\ \text { by Brirh } \end{gathered}$ | Weslegan | General servant | ... |  | No | No |
| 1. Janet Cos | Head of Family | F | ${ }^{49}$ | Widow | Seotland | European | .. | Prestyterian \{ | ${ }_{\text {Boarding }}^{\text {Kecrer }}$ House | ..' |  | yes | No |
| 2. Williarn Cox | Son | m | 28 | Single | Demerara | European |  | Preshysterian | None | ... | ${ }_{\substack{\text { Blind froxa } \\ \text { Birth }}}$ | No | No |
| 3. John Butler | Boarder | m | ${ }^{42}$ | Widower $\{$ | France | Eurovean $\{$ | British subject | ${ }_{\substack{\text { Roman } \\ \text { Citholic }}}^{\substack{\text { a }}}$ | Dry Goods Merchant | ... | ... | Yes | No |
| 4. James Smitia | visitor | н | ${ }_{5}$ | Single $\{$ | New Zealand | European | tion | Anglican | Commercial | ... | ... | Yes | No |
| 1. Beharry | Head of Family |  |  |  |  | E. Iddian | ..' | Hindu | Rice Farmer |  | ... | No | Yes (H) |
| 3. Gupaul | Lodger | M | ${ }_{35}$ | Siusle |  | E. Indian |  | Mohammedan | Cow Minder | $\xrightarrow{\text { Coneral }}$ Libourer | ... | No | но |
| 3. Ah. sin | Lodger | м | ${ }^{30}$ | Siigle | China | Chinese |  | Angliean $\{$ | Shoovereeper $_{\text {Gener }}^{\text {Ger }}$ | ... | ... | Yes | Yes (C) |

## INSTRUCTIONS

For filling up Columns 10,11 and 14.

## OCCUPATION OR MEANS OF LIVELIHOOD Column 10.

1. PEREANS serving in the NayY or ARMY must state their rauk, and the brancl of he setrice to whici they belong.
2. MEMBERS of the CWIL SERVICE and EMPLOYEES of the GOVERNMENT, and lie dopartmentit to which they belong.
3. MINISTERS OF RELGOON mast state the denomination to which they belong.
4. Members of the Legal profession must shite whether they are "Barristers" 9r "Solicituss." ARTICLED CLERKS should be so describe.
state whellier "Barrister's Clerk" or "Solicitor's Clerk."
5. MEEBERS of the MEDCAL and DENTAL PROFESSION must , state whother they practice,
6. CHILDREN or YOUNG PERSONS aitending a school or other educational institution

PLANTERS, FARMERS, \&c., must state their position, and the nature of the prepety e.g." "Manager, Sugar Estate," "Overser, Coconut Estate," "Provision Farmer,"
8. LABOURERS.-The term labourer mast not be used by itself. All labourers employed on

Labourers not engaged in Agriculture mnst state the nature of their employ ment, eq, ": "General Labourer," "Balata Bleeder," "Gold Digger," "Diamoud
9. OFFICE MESSENGERS, CARETAKERS and WATCHMEN nust be returned as such
10. Domestic servants must state the miture of their sel vice, e.g., "Gardener,"
11. MERCHANTS, AGENTS, DEALERS, SHOP-KEEPERS, \&c.. must state the natare of their Shop-keeper (General)" "Betail Spirit Deader", "Rice Niiller," \&c. Dealer,"
12. CLERKS and SALESMEN must slate the, nature of ble busincen in which they aro mpm," "Auctioncer's Clerk," "Reiail' Spirit slop Salesman," \&c,
13. The word "Engineer" must not be used alone: Qualified Encineers mulis
 must be described as such und not as Eugineers.
14. ARTISANS and mechamics must thate the branch of the trate or industry to

15. PERSONS following no profession or calling, het deriving their income from
16. WOMEN and CHLDREN.-The Decupation of those who are resulaty omployced
 see Instruction No. 6 .
17. SALLORS, BOATMEN and OTHERS similarly employed, must state whether they ar
emploged on deep sea, coasting or river service.

ABILITY TO READ AND WPITE ANY OF THE LANGUAGES NAMED OVERLEAF.-Column 14.

| Hiadi *arg | (1) |
| :---: | :---: |
| Hindustani $\left(\begin{array}{c}\text { amer } \\ \text { arta } \\ \text { vin }\end{array}\right)$ | ( H |
| Tamil | (T) |
| Telagu | ( |
| Chiuese | (C) |
| Portuguese | (P) |

To indicate the language use the abbreviation in bracketm


| To be ililed up by the Snimerator. |  |  |  | Eummatiors ititais |
| :---: | :---: | :---: | :---: | :---: |
| Rooma | Malea | Famat | Peronas. |  |
|  |  |  |  |  |

I declare that this Schedule is a true return according to the best of my knowledge and beliet.

4. MEMBERS of the LEGAL PROFESSION must state whether they are "Barristers" or "Solicitors" ABTICLED state whether "Barrister's Clerk" or "Solicitor's Clerk."
5. MEMBERS of the MEDICAL and DENTAL PROFESSION must state whether they practice as "Physician," "Surgeon," "Dentist," "Oculist" or "General Practitioner."
6. CHILDREN or YOUNG PERSONS attending a school or other educational institution or receiving regular instruction at home must be entered as "Scholars."
7. PLANTERS, FARMERS, \&C., must state their position, and the nature of the property, e.g., "Manager, Sugar Estate," "Overseer, Coconut Estate," "Provision Farmer,"
. LABOURERS.-The term labourer mast not be used by itself. All labourers employed on ESTATES, PLANTATIONS and FARMS must be returned as "Agricultural Labourers."

Labonrers not engeged in Agriculture must state the nature of thair employ ment, e.g., "General Labourer," "Balata Bleeder," "Gold Digger," "Diamond Digger," "Wharf Labourer" or "Porter," "Stevedore Labourer," \&c.
9. OFFICE MESSENGERS, CARETAKERS and WATCHMEN must be returned as such.
10. DOMESTIC SERVANTS must state the nature of their seivice, e.g., "Gardener," "Cook," "Butler," "General Servant," \&c.
11. MERCHANTS, AGENTS, DEALERS, SHOP-KEEPERS, \&c., must state the nature of their business, e.g., "Commission Agent"" "Dry Goods Merchant," "Provision Dealer,"

## DRIVERS OF MOTOR VEHICLES must be described as "Whaulfeurs."

15. PERSONS following no profession or calling, but deriving their income from investments must return themselves as "Independent Means."
16. WOMEN and CHILDREN. - The occupation of those who are regularly employed away from home, or who follow any "upme Dutios" this should bome, mu See Instruction No. 6.
17. SAILORS, BOATMEN and OTHERS similarly employed, must state whether they are employed on deep sea, coasting or river service.

## ABILITY TO READ AND WRITE ANY OF THE LANGUAGES

 NAMED OVERLEAF.-Column 14 .| Hindi Naarti | (II) |
| :--- | :--- |
| Hindustani $\binom{$ Mayri }{ Urdu } | (Hdt) |
| Tamil | (T) |
| Telagu | (Tg) |
| Chinese | (C) |
| Portuguese | (P) |

To indicate the language use the abbreviation in brackets.

## INDEX TO APPENDICES.

COUNTY OF DEMERARA.

COUNTY OF BERBICE.
TOWN OF NEW AMSTERDAM-

COUNTY OF BERBICE-

COUNTY OF ESSEQUEBO.

WHOLE COLONY.


## RESULTS OF

TABLE No. 1.--Ages and Conjugal


## THE CENSUS, 1931.

## GEORGETOWN.

or Civil Condition of the People.


Table No. 1.-Ages and Conjugal

or Civil Condition of the People.


Table No. 1.-Ages and Conjugal
$\triangle$ GES.

or Civil Condition of the People.


Table No. 1.-Ages and Conjagal


GEORGETOWN.-(Contd.)
or Civil Condition of the People.


TABLE No. 2.-Races and


## TOWN AND ENVIRONS.

## Ages of the People.



TABLE No. 3.-Occupation


## of the People.



TABLE No. 4.-Birth-


TOWN AND ENVIRONS.
Places of the People.


TABLE No．5．－Religions

|  | christian． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 皆 |  | 浐 | 遃 |  |  | － | 豈 | 产 |
|  | M F | M ${ }^{\text {F }}$ | m $\mathbf{F}$ | ${ }^{M} / \mathrm{F}$ | M ${ }^{\text {F }}$ | $\|\mathrm{M}\| \mathrm{F}\|\mathrm{M}\| \boldsymbol{F}$ | M F | M ${ }^{\text {F }}$ | M |
| Kingston  ．．．．Malos <br> Femalos．．．． <br> Persons．．．． <br>  in  | $\begin{array}{\|c\|c\|} \hline 517 & 7 \\ \cdots & 547 \\ \hline 1064 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 236 \\ \cdots \\ -805 \\ -541 \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline 85 \\ \cdots & 86 \\ \hline 171 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 25 \\ \cdots & 24 \\ -\cdots \\ \hline \end{array}$ |  | $\begin{array}{c\|c} \hline 67 \\ \cdots \\ \cdots & 1 i 6 \\ \hline \end{array}$ | $\begin{gathered} 62 \\ \cdots \\ \cdots \\ 90 \\ 90 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|c} \hline 1237 & 1413 \\ \hline 2650 \\ \hline \end{array}$ |
| North Cammingsburg ．．．Males $\underset{\text { Females．．．}}{\substack{\text { Man }}}$ <br> Persons ．．． |  |  | $\qquad$ |  | $\begin{array}{\|c\|} \hline 55 \\ \cdots \\ \hline 141 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 107 \\ \cdots & 14 \\ \hline 251 \\ \hline \end{array}$ | 71 <br> $\cdots$ <br> $\cdots$ <br> 130 | $\begin{array}{\|c\|c\|} \hline 1957 \\ \cdots & 26 i ̈ \\ \hline 4567 \\ \hline \end{array}$ |
| $\begin{array}{r}\text { South Cummingsburg ．．．Males } \begin{array}{r}\text { Memales．．．} \\ \text { Persons．．．}\end{array} \\ \hline\end{array}$ | $\begin{array}{\|c\|c\|} \hline 934 \\ \cdots & 13 i 0 \\ \hline 2253 \\ \hline \end{array}$ | 633 <br> $\cdots$ <br> $\cdots$ <br> 1678 <br> 16 | $\begin{array}{\|c\|c\|c\|c\|} \hline 230 \\ \cdots \\ \hline 560 \\ \hline 300 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 192 \\ \hline \cdots \mid & 281 \\ \hline 473 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|c} \hline 64 \\ \cdots & \text { ni9 } \\ \hline & 178 \\ \hline \end{array}$ | $\qquad$ |  | $\begin{array}{\|c\|} \hline 64 \\ \cdots \\ \cdots \\ \hline 115 \\ \hline \end{array}$ | $\begin{gathered} 23001^{\prime} \\ \cdots \cdots \\ \cdots \\ \hline 5650 \\ \hline \end{gathered}$ |
| Albert Town ．．．Males <br> Femaleb．．． <br> Persons．．．． |  | 464 <br> $\cdots$ <br> 10698 <br> 1062 |  | $\begin{array}{\|c\|c\|} \hline 191 \\ \cdots & 293 \\ \hline 484 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 68 \\ \cdots & 108 \\ \hline 176 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 205 \\ \cdots & 42 \\ \hline 625 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 112 \\ \cdots & 30 \\ \hline 191 \\ \hline \end{array}$ | $\begin{array}{c\|c\|c} 1998 & \\ \cdots & 2726 \\ \hline 4723 \\ \hline \end{array}$ |
| Queenstown ．．．Males <br> Female．．．．． <br> Persons ．．． <br>   | $\begin{array}{\|c\|c\|} \hline 429 \\ \cdots & 6365 \\ \hline 964 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 299 \\ \cdots & 387 \\ \hline 686 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 124 \\ \cdots & 184 \\ \hline 308 \\ \hline 308 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 26 & 79 \\ \cdots & 39 \\ \hline 65 \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|l\|} \hline 3 & 38 & \cdots 6 \\ \cdots & 4 & \cdots \\ \hline 7 & 116 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 146 \\ \cdots & 222 \\ \hline 368 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 65 \\ \cdots & 89 \\ \hline 124 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 1219 \\ \cdots & 1646 \\ \hline 2865 \\ \hline \end{array}$ |
| Bourda ．．．Males <br> Females．．．． <br> Persons ．．． <br>   | $\begin{array}{\|c\|c\|} \hline 812 \\ \cdots \cdots & 1133 \\ \hline 1945 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 565 \mid \\ \hline \cdots \mid \\ \hline 768 \\ \hline 1333 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 212 \\ \hline \cdots \mid 312 \\ \hline 524 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 94 \\ \cdots . .1706 \\ \hline 270 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c} \hline 186 & \\ \cdots \cdots & 3 \ddot{2} \\ \hline & \\ \hline \end{array}$ |  |  |
| Lacytown ．．．Males <br>  <br>  <br>  <br>  <br>  <br> Femalen．．．． <br> Persons ．．． | $\begin{array}{\|r\|r\|} \hline 1044 \\ \cdots & 1486 \\ \hline 2530 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 793! \\ \cdots \\ \hline 18995 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 200 \mid \\ \cdots \\ \cdots \\ \hline 639 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 197 \\ \cdots & 340 \\ \hline 637 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|} \hline 117 \\ \cdots \cdots & 183 \\ \hline 300 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 143 \\ \cdots & 16 \\ \hline 303 \\ \hline \end{array}$ |  | $\begin{gathered} 2565 \\ \cdots \\ \cdots \\ \hline 62020 \\ \hline \end{gathered}$ |
| Robbstown \＆Newtown．．．Meles Females． Persons |  | $\begin{array}{\|c\|} \hline 37 \\ \cdots \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline 4 & 1 \\ \cdots & 95 \\ \hline 9 & \\ \hline \end{array}$ |  | $\begin{aligned} & \hline 6 \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 2.2 \\ & 2 . . \\ & -27 \\ & \hline 27 \end{aligned}$ |  |  |
| Stabroek ．．．Males <br> Females．．．． <br>  <br>  <br>  <br>  <br> Perrans ．．．． |  | $\begin{array}{c\|} 344 \\ \cdots \\ \hline 700 \\ \hline 706 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 98 \\ \cdots & 1 i i z \\ \hline 216 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 6! & 1 \\ \cdots & 64 \\ \hline 125 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 108 & \text { 97 } \\ \cdots & 97 \\ \hline 205 \\ \hline \end{array}$ |  | $\begin{array}{c\|c} 52 \\ \cdots & 6 \\ \hline 116 \\ \hline \end{array}$ | $\square$ |  |
| Werk－an－Rust. Males <br>  <br>  <br> Females．．． <br> Persons ．．． | $\begin{array}{\|r\|r\|} \hline 1302 \\ \cdots & 17835 \\ \hline 30877 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 868 \mid \\ \hline \cdots \mid 1622 \\ \hline 2030 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline \begin{array}{c} 376 \\ \cdots \end{array} & 881 \\ \hline 9577 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 339 \\ \cdots \\ \hline 8122 \\ \hline 8 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|} \hline 326 \\ \cdots & 489 \\ \hline 815 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c} 144 \\ \cdots & 26 \\ -408 \\ \hline \end{array}$ |  |  |
| Wortmanvllle ．．．Males <br> Females．．．． <br> Persong ．．． | $\begin{array}{c\|c\|} \hline 485 \\ \cdots & 648 \\ \hline 1133 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 341 \\ \cdots \\ -1995 \\ \hline 995 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 193 \\ \cdots \\ \hline \end{array}$ |  | $\begin{array}{\|r\|r\|} \hline 110 & 206 \\ \cdots & 206 \\ \hline 316 \\ \hline \end{array}$ |  | $\begin{gathered} 150 \\ \cdots \\ \cdots \\ \hline 382 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|c\|} \hline 27 & 113 \\ \cdots & \\ \hline 40 \\ \hline \end{array}$ | $\begin{array}{\|c\|} 1467 \\ \cdots \\ \hline \end{array} \left\lvert\, \begin{gathered} 2057 \\ \hline 3924 \\ \hline \end{gathered}\right.$ |
| Charlestown …Males <br> Femalea．．．． <br> Persons ．．． <br>   |  |  | $\begin{array}{\|c\|c\|} \hline 278 \\ \cdots & 420 \\ \hline 698 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 218 \\ \cdots \\ -569 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 229 \\ \cdots 347 \\ \hline 576 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 102 \\ \cdots & 20 \\ \hline 308 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c} \begin{array}{c} 2721 \\ \cdots \end{array} & 37 i c \\ \hline 6431 \\ \hline \end{array}$ |
| Albouystowu ．．．Males <br> Females <br> Persons | $\begin{array}{\|c\|c\|} \hline 816 & \\ \cdots & 968 \\ \hline 1784 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 630 \\ \cdots \\ \hline 1124 \\ \hline 1094 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 200 \mid \\ \cdots & 317 \\ \hline 617 \\ \hline \end{array}$ | $\left.\begin{array}{\|c\|} \hline 176 \\ \cdots \\ \hline \end{array} \frac{200}{426} \right\rvert\,$ | $\begin{array}{\|c\|c} 212 \\ \cdots & 303 \\ \hline 616 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c} 1773 \\ \cdots \cdots \\ \hline & 2 \ddot{8} \\ \hline \end{array}$ | $\begin{array}{\|cc\|} 131 & 105 \\ \cdots & 105 \\ \hline 239 \\ \hline \end{array}$ |  |
| Totale of Warda ．．．Maies <br>  <br>  <br>  <br> Females．．．： <br> Persons ．．． |  | 6997 <br> $\cdots$ <br> 143758 <br> 1 |  | $\begin{gathered} 293 \\ \cdots, \ldots \\ \hline 6658 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \|1441\| \\ \left\lvert\, \begin{array}{c} 2177 \\ \hline 2616 \end{array}\right. \\ \hline \end{array}$ |  |  | $\begin{array}{\|c\|c\|} \hline 881 \\ \cdots \\ \hline 1563 \\ \hline 1563 \\ \hline \end{array}$ |  |
| The Shipping Port of <br> Georgetown． Males <br> Femaloe．．．： <br> Peraons ．．． | 205 <br> $\cdots$ <br> 209 |  | $\square$ |  | $\begin{array}{\|r\|} \hline 15 \\ \cdots \\ \hline 15 \\ \hline \end{array}$ |  | $\begin{aligned} & 12 \\ & \cdots \\ & \hline 12 \\ & \hline 12 \end{aligned}$ | $\square$ | $\qquad$ |
| Environs ．．．Males <br> Females．．． <br>  <br>  <br> $\quad$Persans ．．． | $\begin{array}{\|r\|r\|} \hline \mu 166 & 14 i 3 \\ \cdots & 143 \\ \hline 2579 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 128 & 176 \\ \cdots & 176 \\ \hline 304 \\ \hline \end{array}$ | $\qquad$ | $\begin{array}{\|c\|c\|} \hline 91 \\ \cdots \cdots & 13 i 1 \\ \hline 226 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 2421 \\ \cdots \\ \hline 64705 \% \\ \hline 647 \\ \hline \end{array}$ |
| $\begin{gathered} \text { Totol City of Goorge. } \\ \text { town ino fuding the } \\ \text { Environs \& Shipping } \end{gathered}\left\{\begin{array}{l} \text { Males } \ldots . . . \\ \text { Females... } \\ \text { Persons... } \end{array}\right.$ |  |  |  |  |  |  |  | 961  <br> $\cdots$ 1 <br> 1686  <br> 168  |  |
|  | $\begin{gathered} 10891 \\ 13668 \\ \hline 24599 \\ \hline \end{gathered}$ | $\begin{array}{r} 6908 \\ 8862 \\ \hline 15770 \\ \hline \end{array}$ | $\begin{aligned} & 2409 \\ & 3566 \\ & \hline \mathbf{3 5 9 7 5} \\ & \hline \end{aligned}$ | $\begin{aligned} & 2517 \\ & 36164 \\ & \hline 6163 \end{aligned}$ | $\begin{aligned} & 1547 \\ & { }_{2310} \\ & \hline 3857 \end{aligned}$ | 38  <br> 30 877 <br> 494  <br> 68 871 | $\begin{array}{r} 1887 \\ \hline 3027 \\ \hline 4864 \\ \hline \end{array}$ | $\begin{array}{r} 961 \\ { }_{726} \\ -1686^{-} \\ \hline \end{array}$ |  |

GEORGETOWN.
$\overline{\text { of the People. }}$


CITY OF GEORGETOWN

TABLE No. 6.-


## AND ENVIRONS.

## Literacy.

| and Write. |  |  |  |  |  | Total Literacy. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telagn. |  | Chinoso: |  | Portuguese, |  |  |  |  |
| m | F | м | F | м | F | м | F | Persons, |
| ... | $\cdots$ | $\cdots$ | $\cdots$ | $\begin{array}{r}3 \\ \cdots \\ \hline . .\end{array}$ | $\because$ | 686 $\cdots$ | 637 | 1323 |
| ... | $\cdots$ | $\cdots$ | $\cdots$ | 279 <br>  <br> .. | 480 | 2231 $\ldots$ | 3013 | 5244 |
|  | $\because 7$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | 2897 $\ldots$ | 1743 | 4640 |
| $\ldots$ | $\cdots$ | $\stackrel{159}{ } \ldots$ | 20 | $\cdots$ | $\cdots$ | 580 $\ldots$ | 438 | 1018 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 10 <br> $\cdots$ <br> .. | $\dddot{9}$ | 19 |
| $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 6 <br> .. | $\cdots$ | 12814 $\ldots$ | 17645 | 30459 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 35 <br> $\cdots$ <br> .. | 51 | 86 |
| $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | ${ }^{5}$ | $\cdots$ | $5394$ | 7937 | 13331 |
| $\ldots$ | $\cdots$ | $\cdots$ | … | $\cdots$ | 3 | 34 $\cdots$ $\cdots$ | 35 | 89 |
| 3 | $\cdots$ | 161 | $\ldots$ 23 | 294 $\ldots$ | .. 504 | 24681 | … 31528 | $\ldots$ |
|  |  |  |  |  |  |  |  | ${ }^{2} 6209$ |

TABLE No. 7.-Subsidiary or


## GEORGETTOWN.

Other Occupations of the People.
oncopations.


COONTY OF DEMERARA (INCLUSIVE
Table No. 1.-Ages and Conjugal


OF THE CITY OF GEORGETOWN).
or Civil Condition of the People. AGES.

| 8 <br> 8 <br> 8 <br> 8 | 8 8 8 8 | 8 |  | - | Totals <br> All ages, 1931. |  | Tutals <br> All ages, 1921. |  |  |  |  |  | 家 | Total Infirmities. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M | M |  | M $/$ F | M\|F| | M ${ }^{\text {F }}$ | Pers | M | F | Perrons | M $\mid$ F | F $\mid$ M $\mid \mathbf{F}$ | $\|M\| F \mid$ | $\mathrm{M}\|\mathrm{F}\| \mathrm{M}$ |  | Pors |
| $\begin{array}{r} 20 \\ \ldots \\ 118 \\ \ldots 8 \\ 48 \\ \ldots \\ \ldots \\ \ldots \\ \hline 186 \\ \hline \ldots \\ \hline 413 \\ \hline \end{array}$ | 4 1 <br> $\ldots 18$ 1 <br> $\ldots$. 2 <br> $\ldots 1$ 7 <br> $\ldots .$. $\cdots$ <br> $\ldots$. . <br> 33 11 <br> 143  |  |  |  |  | $\begin{array}{r} 24545 \\ 12922 \\ 19 \\ 2492 \\ \ldots \\ 43 \\ \hline \cdots \\ \hline \\ \hline 40002 \\ \hline \end{array}$ |  | $\begin{array}{r} 11914 \\ 6784 \\ \ldots \\ 1634 \end{array}$ | $\begin{array}{r} 2470 \\ 133 i . \\ 236 \end{array}$ |  |  |  |  |  | 76 <br> 79 <br> $\dddot{49}$ <br> $\ldots$ <br> 43 <br> $\cdots$ <br> 8 <br> $\ldots$ <br> $\ldots$ <br> 176 |
|  |  |  |  |  |  | $\begin{array}{r} 5111 \\ 2645 \\ \ldots 35 \\ \hline \ldots \\ \cdots 6 \\ \hline \cdots \\ \hline 8352 \end{array}$ | $\begin{array}{r} 1635 \\ 212 \end{array}$ |  | 3119 <br> 578 | $\begin{array}{r\|r} 9 & . \\ \ldots & . \\ \ldots & . \\ \ldots & . \\ \ldots & . \\ \ldots & . \\ \ldots . . & . \\ \ldots & . \\ \hline 20 \end{array}$ |  | $\cdots$ |  |  | 25 $\cdots$ $\cdots$ $\cdots$ $\cdots$ $\cdots$ $\cdots$ $\cdots$ $\cdots$ $\cdots$ |
|  |  |  |  |  | 1007 2242 <br> $\ldots$ 924 <br> 114 $\ldots$ <br> $\ldots$ 239 <br> $\ldots$ $\ldots$ <br> 3625 $\ldots$ <br> $\ldots$ $\ldots$ | 4743 <br> 1931 <br> $\ldots 53$ <br> $\ldots$ <br> $\cdots$ <br> $\ldots$ <br> $\ldots$ <br> 7030 | $\begin{array}{r} 1100 \\ \ldots \\ 104 \end{array}$ | $\ldots \ddot{8}$ | $210 \ddot{8}$ |  |  |  |  |  | 17 <br> 10 <br> 10 <br> $\cdots$ <br>  <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ |
|  |  | $\begin{array}{r\|r} \cdots & \cdots \\ \cdots & \cdots \\ \cdots 2 & 2 \\ 2 & \cdots \\ \cdots & 5 \\ \cdots & \cdots \\ \cdots & \cdots \\ \cdots & \cdots \\ \hline 10 & \\ \hline 10 & \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 10604 \\ 6763 \\ \ldots \\ 1380 \\ \ldots \\ 23 \end{array}$ | $\begin{array}{r} \ldots 20 \\ 363 \\ \hline \end{array}$ | $2901$ $8 \ddot{6}$ | $\begin{array}{r}8534 \\ \ldots 721 \\ \ldots \\ 1179 \\ \ldots \\ \ldots \\ \cdots \\ \ldots \\ \hline 15434 \\ \hline\end{array}$ |  |  |  |  | 19 $\cdots$ $\cdots$ $\cdots$ | $\ldots$ <br> 42 <br> $\ldots$ <br> 34 <br> $\ldots$ <br> $\ldots 1$ <br> $\ldots$ <br> $\ldots$ <br> $\ldots$ <br> $\ldots$ <br> 97 |
|  |  |  |  |  |  | $\begin{array}{r} 86 \dddot{68} \\ 4+7 \ddot{7} \\ 10 \ddot{6} \\ \dddot{26} \\ \hline \end{array}$ | $\begin{array}{r} 2600 \\ 30 \end{array}$ | 4332 2584 | 9415 5192 |  |  | $\begin{gathered} \ldots \\ 1 \\ \ldots \\ \cdots \\ \cdots \\ \hdashline 2 \\ \hline \end{gathered}$ |  | 20 <br> $\ldots 0$ <br> 10 <br> $\ldots$ <br> 20 <br> $\ldots$ <br> $\ldots$ <br> 0. <br> 0. |  |

## COUNTY OF DEMERARA (INCLUSTIVE

Table No. $1_{\text {f }}$-Ages and Coujugal,


OF THE CITY OF GEORGETOWN).--(Conid.)
or Civil Condition of the People.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ' | Totals <br> All ages, 1931. |  | Totals All ages, 1921. |  |  |  |  |  | Total Infirmities. |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## COUNTY OF DEMERARA (EXCLUSIVE

TABLE No. 2.-Races and


## OF THE CITY OF GEORGETOWN AND ENVIRONS).

## Ages of the People.



TABLE No. 3.-Occupations


## DEMERARA.

## of the People.



COUNTY OF DEMERARA (INCLUDING
TABLE No. 4.--Birth-

(UEORGETOWN, SHIPPING AND ENVIRONS).

## Places of the People.



TABLE No. 5.-Religions

|  |  |  |  |  | CHRIS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | M F | M ${ }^{\text {F }}$ / | M $/ \mathbf{F}$ | I/ F |
|  |  |  |  |  | $\begin{array}{\|r\|r\|} 1166 & \\ \cdots .7 & 1413 \\ \hline 2579 \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 444 & \ldots \\ \hline \ldots & 508 \\ \hline 953 \\ \hline \end{array}$ | 128 <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ 176 <br> 304 | $203!$ <br> $\cdots$ |
| Last Coast | ... | ... | ... | $\begin{array}{ll} \hline \ldots . & \begin{array}{l} \text { Males } \\ \text { Females } \end{array} . . \\ & \text { Persons . } \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 4079 \\ \cdots & 4955 \\ \hline 9036 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 1249 & \\ \cdots & 1128 \\ \hline 2377 \\ \hline \end{array}$ |  | $\|$1414 <br> $\left.\cdots\right\|^{17505}$ <br> 3169 |
| Mahaica | ... | ... | ... | $\begin{aligned} \hline \ldots & \begin{array}{l} \text { Males } . . . \\ \text { Females ... } \\ \\ \\ \\ \text { Persons ... } \end{array} \end{aligned}$ | $\begin{array}{\|c\|c\|} \hline 439! \\ \cdots & 437 \\ \hline & 876 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 193 & \ldots \\ \cdots & 140 \\ \hline 333 \\ \hline \end{array}$ | 273 <br> $\cdots$ <br> - <br> 609$\|$ | 561  <br> $\ldots-$ 647 <br> 1208  |
| Mahaicony | ... | ... | $\cdots$ | $\begin{gathered} \text {... Malem .... } \\ \text { Femaleb... } \\ \\ \hline \end{gathered}$ | 221  <br> $\ldots .$. 212 <br> 433  | $\begin{array}{\|c\|c\|} \hline 172 & 1 \\ \cdots & 134 \\ \hline & 306 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 651 \\ \cdots & 696 \\ \hline 1347 \\ \hline \end{array}$ | 708 $\ldots$ <br> $\cdots 778$  <br> 1486  |
| East Bank | ... | ... | ... | $\begin{array}{\|ll\|} \hline \ldots & \left.\begin{array}{l} \text { Males } \\ \text { Females ... } \\ \\ \\ \\ \\ \text { Perreons ... } \\ \hline \end{array} \right\rvert\, \end{array}$ | 1767$\cdots$$\cdots$$\|$1904 | $\begin{array}{\|r\|r\|} \hline 533 & \\ \hline \ldots & 448 \\ \hline 981 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 170 & 1 \\ \hline \ldots & 1 \varepsilon 3 \\ \hline 353 \\ \hline \end{array}$ | 707  <br> $\ldots$ 846 <br> 1553  |
| West Bank | ... | ... | ...* | $\begin{gathered} \text { Males } . . . \\ \text { Females... } \\ \\ \hline \end{gathered}$ | $\begin{array}{\|r\|r\|} \hline 1145 \\ \ldots & 1291 \\ \hline 2436 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 403 & \\ \hline \ldots & 398 \\ \hline 801 \\ \hline \end{array}$ | 451  <br> .. 507 <br> 958  | 325 $\ldots$ <br> $\ldots$ $40{ }^{2}$ <br> -732  |
| Weat Coast | ... | ... | ... | $\begin{array}{r} \ldots . \text { Males } . . . \\ \quad \text { Pemales... } \\ \\ \hline \text { Persons ... } \end{array}$ | $\begin{array}{\|r\|r\|} \hline 1447 \\ \ldots & 1466 \\ \hline 2913 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 231 & \\ \ldots .164 \\ -193 \\ \hline \end{array}$ |  |  |
| Demerara River | ... | ... | ..* | $\begin{array}{cc} \text {... Males ... } \\ \text { Females... } \\ & \text { Peraons ... } \end{array}$ | $\begin{array}{\|r\|c\|} \hline 1706 \\ \ldots & 1206 \\ \hline 2912 \\ \hline \end{array}$ |  |  | 153  <br> $\ldots$ 106 <br> 259  |
| Total Raral Districts ... |  |  | ... | $\left\{\begin{array}{l} \text { Males } \\ \text { Females... } \\ \text { Persons ... } \\ \text { Males } \\ \text { Femoles... } \\ \text { Persons ... } \end{array}\right.$ | 11960 <br> $\ldots 12886$ <br> 1 <br> 24846 <br> 11960 <br> 12886 <br> 24846 | $3787 \mid 3145$ <br> $\cdots$ <br> $\cdots$ <br> 6932 <br>  | 22859 <br> $-\ldots \ldots 1$ <br> $\cdots$ <br> 6040 <br> 2859 <br> 3181 <br> 6049 | $\left\lvert\, \begin{array}{\|c\|} 4247 \\ \cdots \\ \hline 925010 \\ \hline 9257 \end{array}\right.$ |
| Totals, City of Georgetown and Shipping |  |  | ... | $\ldots\left\{\begin{array}{l}\text { Persons ... } \\ \text { Males } \\ \text { Females... } \\ \text { Persons ... } \\ \text { Males } \\ \text { Females... } \\ \text { Persons ... }\end{array}\right.$ | 9725 <br> $\cdots / 12255$ <br> 21980 <br> 9755 <br> 12255 <br> 21980 | $6464 \mid$ <br> $\ldots$ <br> $\ldots 3353$ <br> 14817 <br>  <br> 6434 <br> 3353 <br> 14817 | 2281  <br> 3 $\ldots$ <br> $\ldots 390$  <br> 5671  <br> 2281  <br> 3390  <br>   | 2314 <br> $\cdots 3365$ <br> 5679 <br> 2314 <br> 3365 <br> 6679 |
| Grand_Total | Co | merara | :.. | $\ldots\left\{\begin{array}{l} \text { Males .... } \\ \text { Females... } \\ \text { Persons ... } \\ \text { Malus ... } \\ \text { Females... } \\ \text { Persons ... } \end{array}\right.$ | 21685 <br> $\cdots$ <br> 1 <br> 46826 <br> 2141 <br> 2085 <br> 20141 <br> 46826 | 10251  <br> $\ldots$ 11498 <br> 21749  <br> 10251  <br> 11498  <br> 21749  | 5140 <br> $\ldots$ <br> $\ldots 571$ <br> 11711 <br> 5140 <br> 6571 <br> 11711 | 6561 <br> $\cdots$ <br> $\cdots$ <br> 14930 <br> 1496 <br> 6561 <br> 8375 |

DEMERARA．

## of the People．

| TIANS． |  |  |  |  |  | non－Christians． |  |  |  |  | Total Rhligiovs Prasdagiong． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 容 |  | － |  | 号 |  |  | 富 |  |  |  |  |
| $\mathbf{M} \mid \mathbf{F}$ | $\|\mathrm{M}\| \mathbf{F} \mid$ | $\mathrm{M} \mid \mathrm{F}$ | $\mathbf{M}$ F | M ${ }^{\text {r }}$ | M F | M ${ }^{\text {F }}$ | M $/ \mathbf{F}$ | $\mathrm{M}\|\mathrm{H}\|$ | If F | $\mathbf{M}$ $\mathbf{F}$ | M | F | Persona |
| $\begin{array}{c\|c} 91 \\ \cdots & 135 \\ \hline 226 \end{array}$ | $\begin{array}{\|c\|c\|} \hline 13 \\ \hline & \ldots \\ \hline 15 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 121 & 1.6 \\ \ldots . & 166 \\ \hline .277 \\ \hline \end{array}$ | 208  47  <br> $\cdots$ 342 $\cdots$ 42 <br> 550  89  |  | $\begin{array}{\|c\|c\|} \hline 2421 \\ \cdots & 30066 \\ \hline 5477 \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline \begin{array}{c} 187 \\ \cdots \\ \hline \end{array} \\ \hline 361 \\ \hline \end{array}$ | $\left\lvert\, \begin{aligned} & 1 \\ & \cdots \cdots \\ & \cdots \end{aligned}\right.$ | $\left.\begin{array}{\|c\|c\|c\|c\|} \hline 8 & \cdots & 1181 \\ \cdots & 1106 \\ \hline 17 & - & 2287 \end{array} \right\rvert\,$ |  | $\begin{array}{\|} \hline 3602 \\ \cdots \\ \hline \end{array}$ | $41 \dddot{62}$ | $\begin{array}{r}\ldots \\ \cdots \\ \cdots \\ 764 \\ \hline\end{array}$ |
| $\begin{array}{c\|c\|} 1317 \\ \ldots & 155 i \\ \hline 2868 \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 54 & \\ \cdots & 53 \\ \hline 107 \\ \hline \end{array}$ | 222  <br> $\ldots$ 349 <br> 621  | 805 $103 i$ <br> $\ldots$ 1036 |  | $\begin{array}{\|l\|l\|} \hline 9781 & \\ \hline \cdots & 11428 \\ \hline 21209 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 8176 \\ \ldots & 72 \ldots 2 \\ \hline 15458 \\ \hline \end{array}$ |  |  |  |  | $\begin{array}{\|r\|r\|} \hline 19732 & 20270 \\ \hline . . & \\ \hline \end{array}$ |  | －．． |
| $\begin{array}{r\|r} 117 & 1 \\ \ldots . & 1 \\ \hline 223 \\ \hline \end{array}$ | 42 $\ldots$ <br> $\cdots$ 43 <br> 85  | 2 $\ldots$ 68 $\ldots$ 81 $\ldots$ <br> $\cdots$ $\ldots$ $\cdots$ 88 $\cdots$ 83 <br> 4  156  164  |  |  | $\begin{array}{\|r\|r\|} 1776 & \\ \cdots & 1882 \\ \hline 36688 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 2107 \\ \cdots \\ \hline 3907 \end{array} 1800$ |  |  |  |  | $\begin{array}{r} 4301 \\ \ldots \\ \hline \end{array}$ | $405 i$ | 8358 |
| $\begin{array}{c\|c} 30 & \cdots \\ \cdots & 20 \\ \hline 60 \end{array}$ | $\begin{array}{c\|c\|} 13 \\ \ldots & \cdots \\ -20 \\ \hline \end{array}$ | $\begin{array}{r\|r\|} \hline 6 & \ldots \\ \because & 6 \\ \hline 12 & \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 49 \\ \cdots & 79 \\ \hline & 98 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 163^{\prime} \\ \ldots \\ \hline \\ \hline 274 \\ \hline \end{array}$ | 2013 <br> ${ }_{3}^{1}$ <br> $\cdots$ <br> $\vdots$ <br> 2013 <br> 4 <br> 4026 | 1379 $\cdots$ - ${ }_{2564}$ |  |  |  |  | $\begin{array}{r\|r\|} 3625 & 3405 \\ \hline \cdots & \\ \hline \end{array}$ |  | $7 \overline{030}$ |
| $\left.\begin{gathered} 208 \\ \cdots \\ \cdots \end{gathered} \right\rvert\,$ |  | $\begin{array}{c\|} 14 \\ \cdots \\ \hline 18 \end{array}$ | $\begin{array}{c\|c} 469 & 681 \\ \cdots & \\ \hline 1150 \\ \hline \end{array}$ |  | $\left.\left\|\begin{array}{c}3919 \\ \cdots\end{array}\right\| 4391 \right\rvert\,$ |  | $\left.\begin{array}{\|l\|l\|l\|}\hline 1391 \mid & & 3 \\ \cdots \\ \cdots & 1197 & \cdots\end{array}\right]$ |  | 56 $\ldots$ 5608 $\ldots$ <br> $\ldots$ $\boxed{50} 2$ $\ldots$ 4852 <br> 108  10460  |  | $\begin{array}{r} 9527 \\ \cdots \\ \hline \end{array}$ | $9243$ | 18770 |
| $\begin{gathered} 740 \\ \ldots \\ \ldots 80 \\ \hline 1620 \\ \hline \end{gathered}$ |  |  | $\begin{array}{c\|c} 122 & 17 \\ \cdots & 144 \\ \hline 2666 \\ \hline \end{array}$ | 50 $\ldots$ <br>  47 <br> -97  | $7 \begin{array}{\|c} 3401 \\ \cdots \\ \hline 72410 \\ \hline \end{array}$ |  |  |  |  |  | 7077 $\cdots$ | 718i | 14238 |
| $\begin{array}{\|r\|r\|} \hline 547 & 635 \\ \hline-1182 \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 37 & . . \\ \hline 34 \\ \hline 71 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 4 & \ldots \\ \ldots & \cdots \\ \hline & \\ \hline 10 & \\ \hline \end{array}$ | $\begin{array}{c\|c} 118 & 177 \\ \ldots & 148 \\ \hline 265 \\ \hline \end{array}$ | $\begin{array}{l\|l} 38 & \ldots \\ \cdots & 32 \\ \hline 70 \\ \hline 70 \end{array}$ |  | 5190 4618 <br> $\cdots$ $\cdots$ <br> 9808  |  |  |  | $\begin{array}{\|c\|c\|} \hline 6791 \\ \ldots . & 600 \ddot{8} \\ \hline 12869 \end{array}$ |  |  | 19145 |
| $\begin{array}{r} 351 \\ \because \cdot \\ \because 304 \\ \hline 655 \\ \hline \end{array}$ |  | $\begin{array}{c\|c\|} 11 & \\ \cdots & 14 \\ \hline 25 & \\ \hline \end{array}$ | $\begin{array}{c\|c} 473 \\ \cdots & 467 \\ -940 \\ \hline \end{array}$ | $\begin{array}{c\|c} 247 \\ \cdots & 168 \\ \hline 415 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 3926 \\ \cdots & 2898 \\ -6824- \end{array}$ |  |  |  |  |  | $\begin{array}{r\|r\|r\|} \hline 4627 \\ \cdots & 3367 \\ \hline \end{array}$ |  | $7984$ |
| $\begin{array}{c\|c\|} 3401 \\ \cdots 39 i 0 \\ \hline 7211 \\ \hline \end{array}$ |  | $\left\lvert\, \begin{array}{c\|c} 543 \\ \cdots & 670 \\ \hline 1213 \end{array}\right.$ | $\begin{array}{\|c\|c} 2312 \\ \cdots & 2919 \\ \hline 5261 \\ \hline \end{array}$ | $\begin{array}{c\|c\|} 971 & \ldots 90 \\ \cdots & 790 \\ \hline 1761 \end{array}$ |  |  |  |  |  |  | $\begin{array}{r\|r\|} 62348 \\ . . . & 60937 \\ \hline \end{array}$ |  | $12328$ |
| $\begin{array}{r}3401 \\ 3910 \\ \hline\end{array}$ | 223 177 | 643 670 | ${ }_{2949}^{2312}$ | 979 | 30203 32718 | ${ }_{22509}^{2554}$ | 6076 5400 | 28 16 | 387 294 | 32045 28219 | $\begin{aligned} & 62348 \\ & 60937 \end{aligned}$ |  |  |
| 7311 | 400 | 1213 | 5261 | 1761 | 63021 | 48063 | 11476 ［ 44 |  | 681 | 60264 | 123285 |  |  |
|  | 25  <br> $\cdots$ 28 <br> 53  | 256  <br> $\cdots$ 3 <br> 388  <br> 594  |  | $\begin{array}{c\|c} 914 \\ \cdots & 683 \\ \hline 1597 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 25064 \\ \cdots 3322 \\ \hline \quad 13336 \\ \hline \end{array}$ |  |  |  | 94  <br> $\cdots$  | $\left\|\begin{array}{c\|c} 2051 \\ \cdots & 1522 \end{array}\right\|$ | 27115 <br> $\cdots$ | 34784 | 61899 |
| 3631 | 63 | 594 | 4314 | 1597 |  |  |  |  |  |  | $\begin{aligned} & 27115 \\ & 34784 \end{aligned}$ |  |  |
| 1456 2175 | ${ }_{28}^{27}$ | ${ }_{3}^{256}$ | 1629 2685 | 914 683 | 25064 33272 | 1304 895 | ${ }_{653}^{654}$ | 9 3 | 94 61 | 2051 1512 |  |  |  |
| 3631 | 53 | 694 | 4314 | 1597 | 58336 | $219!$ | 1197 | 12 | 155 | 3563 |  | 61899 |  |
| 10942 | $45 \overline{3}$ | $\begin{array}{\|c\|} \hline 799 \\ \cdots \\ \cdots \\ \hline 1808 \\ \hline 1807 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 1885 & \\ \hline \cdots & 1473 \\ \hline 3358 \\ \hline \end{array}$ | 55367  <br> $\cdots$ 65990 <br> 121357  |  | 12673 | 66 | 836 | 63827 | 185184 |  |  |
| 4857 6085 | 248 205 | 799 1008 | $\begin{array}{r}3941 \\ 5634 \\ \hline\end{array}$ | 1885 1473 | 65367 65990 | 26858 <br> 23404 | $\begin{gathered} 6720 \\ 6953 \end{gathered}$ | 37 19 | $\frac{481}{355}$ | $\begin{aligned} & 34096 \\ & 29731 \end{aligned}$ | $\begin{aligned} & 89463 \\ & 95721 \end{aligned}$ |  |  |
| 10942 | 453 | 1807 | 9575 | 3358 | 121357 | ＇2673 |  | Ef | 836 | 63827 |  | 185184 |  |

TABLE No. 6.-Showing the Population of the Environs of Georgetown and on each Census, 1921,


## DEMERARA.

Estate, Yillage and Farm in the East Coast Fith Comparative Statement as par 1911, 1891, 1881.


TABLE No. 6.-Showing the Population on each of the Estates, Yillages and Farms 1821, 1911,


## DEMERARA.-(Contd.)

in the Mahaica and Mahaicony Districts with Comparative Statement as per Census 1891, 1881.


COUNTY OF

TABLE No. 6.-Showing the Population on each Estate, Yillage and Farm in the


DEMERARA.-(Conid.)

East Bank District with Comparatixe Statement as per Census 1921, 1911, 1891, 1881.


COUNTY OF

TABLE No. 6.- Showing the Population on each of the Estates, Yillages and Farms in the


DEMERARA.-(Contd.)

Yest Bank District with Comparatiye Statement as per Census 1921, 1911, 1891, 1881.


COUNTY OF

TABLE No. 6.-Showing the population on each of the Estates, Yillages and Farms in the


DEMERARA.-(Contd).

West Coast District with Comparative Statement as per Census 1921, 1911, 1891, 1881.


TABLE No. 6.-Showing the Population on the Farms, Grants, and Settlements in 1921, 1911,


## DEMERARA.-(Contd.)

the Upper Demerara Riyer District, with Comparatiye Statement as per Census, 1891, 1881.


TABLE No. 7.-

|  |  |  |  |  |  |  | Abilir | Rea |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Hin |  |  |  |
|  | M | F | M | F | M | F | M | F |
| Europeans | 180 | 110 | $\ldots$ | $\ldots$ | 1 | $\cdots$ | $\cdots$ | $\cdots$ |
| Portuguese | 746 $\ldots$ | 603 | $\ldots$ | .... | $\ldots$ | $\cdots$ | $\cdots$ | ... |
| East Indians | 9738 $\ldots$ | 4062 | 3284 $\ldots$ | 680 | 945 $\ldots$ | 217 | 41 | 12 |
| Chinese | 385 $\ldots$ | $3 \dddot{60}$ | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | " | $\cdots$ |
| Africans | 3 $\ldots$ | $\ddot{2}$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Blacks |  | 17800 |  | $\ddot{i}$ | 1 | $\stackrel{\square}{2}$ | 1 | ... |
| Aboriginals | 177 $\ldots$ | 139 | $\ldots$ | $\ldots$ | $\ldots$ | .... | $\ldots$ | $\ldots$ |
| Mixed Races | 2423 ... | 2459 | 2 .. | $\cdots$ | 1 .. | $\ldots$ | ... | $\ldots$ |
| Not Stated | 10 | 14 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... |
|  | 29685 | ... | 3294 | ... | 948 | ... | 42 | ... |
|  | ... | 25554 | ... | 683 |  | 219 | $\cdots$ | 12 |
| Persons | 55239 |  | 3977 |  | 1167 |  | 54 |  |

DEMERARA.

Literacy.

| and Write. |  |  |  |  |  | Tótàl Literacy. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telagu. |  | Chinese. |  | Portuguese. |  |  |  |  |
| M | F | M | F | M | F | M | F | Persons. |
| ... | $\ldots$ | ... | $\cdots$ | $\cdots$ | $\cdots$ | 181 $\ldots$ | 110 | 2901 |
| $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 58 .. | $\dddot{50}$ | 804 ... | 658 | 1462 |
| 19 | $\ddot{4}$ | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | 14027 $\ldots$ | 4975 | 19002 |
| $\ldots$ | $\ldots$ | 49 .. | $\dddot{12}$ | $\cdots$ | $\cdots$ |  | $37 \%$ | 806 |
| ... | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 3 <br> .. | $\stackrel{.}{ }$ | $\ddot{j}$ |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 <br> $\cdots$ <br> .. | $\dddot{1}$ | 16036 $\ldots$, | 17809 | 33845 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | 1 | $\ldots$ | 178 $\ldots$ | 139 | 317. |
| $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 3 <br> $\cdots$ | $\ddot{2}$ | 2429 $\ldots$ | 2463 | 4892 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 10 ... | 714 | 20 |
| 19 | -i' | 49 | ... | 65 | $\cdots$ | 34102 | . | ... |
| ... | 4 | ... | 12 | ... | 58 | ... | 26542 | 60644 |
| 23 |  | 61 |  | 123 |  |  |  | 60644 |

TABLE No. 8.-Subsidiary or


DEMERARA.
Other Occupations of the People.


TABLE No. 1.--Ages and Conjugal


## AMSTERDAM.

or Civil Condition of the People.


TABLE No. 2--Races and


## AMSTERDAM.

Ages of the People.


TABLE No. 3.-0ccupations


## of the People.



TOWN OF NEW
TABLE No. 4.-


## AMSTERDAM.

Birth-places of the People.

| Cainesx. | Apricans. |  |  | Mixed Races. |  |  |  |  | $\begin{aligned} & \text { Torats, } \\ & \text { aLL RAOKE, } \\ & \text { 1931. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 浐 |  |  |  |  |  |  |  |  |  |
| $\mathbf{M}$ $\mathbf{F}$ $\mathbf{M}$ $\mathbf{F}$ | M $\mathbf{F}^{\mathbf{F}}$ | M $\mathbf{F}^{\text {F }}$ | M ${ }_{\text {F }} \mathbf{F}$ | $\mathbf{M} \mid \boldsymbol{F}$ | $\mathbf{M} \mathbf{F}$ | M $\mathbf{F}^{\mathbf{F}} \mathbf{}$ | M ${ }^{\text {F }}$ | $\mathbf{M} \mid \mathbf{F}$ | M | F | Persons. |
| 62 $\ldots$ 46 <br> $\cdots$ 76 $\cdots$ |  | $\begin{array}{l\|} \ldots \\ \cdots \\ \cdots \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 473 \\ \cdots & 7 \% \\ \hline \end{array}$ | $\begin{array}{c\|c} 33 & 78 \\ \cdots & 38 \\ \hline \end{array}$ |  | $\begin{array}{c:c} \hline 4 \\ 4 & \cdots \\ \hline 8 \\ \hline \end{array}$ | $\ldots$ | 2871 $\cdots$ | 3774 | $\begin{array}{r}\text { ". } \\ \hline 6845 \\ \hline\end{array}$ |
|  |  | ... $\ldots$ <br> 256  | 10 $\ldots$ <br> $\cdots$ 6 | 46  <br> $\cdots$ 7 <br>   |  |  | $\begin{array}{l\|l\|} \hline \cdots & \ldots \\ \cdots & \because \\ \hline \end{array}$ | $\begin{array}{l\|l\|} \hline . . \\ \cdots & \cdots \\ \hline \end{array}$ | 215 | 273 | $\cdots$ <br> $\cdots$ |
| $\begin{array}{\|l\|l\|l\|} \hline 4 & \cdots & \ldots \\ \cdots & \ldots & \cdots \\ \hline & 7 & \\ \hline \end{array}$ | $\begin{gathered} 247 \\ \cdots \end{gathered} 3$ |  |  | 17  <br> $\cdots$  |  | $\begin{array}{c\|c} . . & \cdots \\ \cdots & \cdots \\ \hline \end{array}$ | $\begin{array}{l\|l} \hline \cdots \mid \\ \cdots \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline . . & \ldots \\ \hline \end{array}$ | 394 | 475 | $\cdots$ <br> $\cdots$ <br> 869 |
| $\begin{array}{c\|c\|c\|c} \hline 66 & & 46 & \cdots \\ \cdots & 78 & \cdots & 3 \\ \hline 112 & & 81 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|c\|} \hline 1960 \\ \cdots \\ \hline 2762 \\ \hline 2042 \\ \hline \end{array}$ |  | $\begin{array}{c\|c} 82 & 7 \\ \cdots & 7 \\ \hline 2836 \end{array}$ | 536 $\ldots$ $-\cdots$ -571 | 36 $\ldots$ | $\begin{array}{r\|r} 1 & \ldots \\ \cdots & \cdots \\ 1 \end{array}$ |  |  | $\begin{array}{r} 3480 \\ \cdots \end{array}$ | 4522 | $\begin{array}{r}\text { … } \\ \cdots \\ \hline 002\end{array}$ |
| $\begin{gathered} 112 \\ 81 \end{gathered}$ | $\begin{aligned} & 2042 \\ & 2836 \end{aligned}$ |  |  | $\begin{aligned} & 571 \\ & 914 \end{aligned}$ |  | 1. | 4 4 4 | $\cdots$ | $\begin{aligned} & 3480 \\ & 4522 \end{aligned}$ |  |  |
| 193 | 4878 |  |  |  |  | 1 | 8 |  |  | 8002 |  |

TABLE No．5．－Religions

| WARDS． | OHRISTIANS． |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 宦 |  |  | 灾 |  |  | 宮 |  |  |  |
|  | M $\mathbf{F}$ | M ${ }^{\text {F }}$ | M F | M ${ }^{\text {F }}$ | $\mathbf{M}$ $\mathbf{F}$ | ｜M｜F｜ | $\mathbf{M} \mid \mathbf{F}$ | $\mathbf{M}$ $\mathbf{F}$ | M ${ }^{\text {F }}$ | M $\quad \mathbf{F}$ |
| $\begin{array}{ll} \hline \text { Smythstown }{ }^{1} & \begin{array}{c} \text { Males } \ldots . . . \\ \text { Femalen... } \\ \\ \end{array} \\ \hline \end{array}$ | $\begin{array}{r\|r\|} 1039 \\ \cdots & 1355 \\ \hline 2394 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 304 & \\ \cdots & 428 \\ \hline 7822 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 323 & 479 \\ \cdots & 479 \\ \hline 802 \\ \hline \end{array}$ | $\begin{array}{\|r\|c\|} \hline 180 \\ \ldots . & 267 \\ \hline & \\ \hline \end{array}$ | $\begin{array}{r\|c\|} \hline 377 \\ \cdots & 582 \\ \hline 959 \\ \hline \end{array}$ | $\left\lvert\, \begin{gathered} 13 \\ \cdots \\ \hline 20 \\ \hline 2 \end{gathered}\right.$ | $\begin{array}{c\|c\|} \hline 13 & \ldots \\ \ldots & 20 \\ \hline 33 & \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 256 & 367 \\ \hline \cdots & 363 \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 80 & \\ \cdots & 80 \\ \hline 160 \\ \hline \end{array}$ | $\begin{array}{r} 2635 \\ \cdots \\ \cdots \\ \hline 6220 \\ \hline \end{array}$ |
| Queenstown <br> ．．．Males ${ }_{\text {Females．．．．}}$ <br> Persons． | $\begin{array}{\|c\|c\|} \hline 75 & \ldots \\ \cdots & 95 \\ \hline 170 \\ \hline \end{array}$ | $\begin{array}{c\|c} \hline 5 & 98 \\ \cdots & 8 \\ \hline \end{array}$ | $\begin{array}{c\|c} 51 \\ \cdots & 7 \\ \hline 72 \\ \hline 123 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 6 & \\ \cdots & 18 \\ \hline 24 \\ \hline \end{array}$ | $\begin{array}{c\|c} 23 \\ \cdots \\ \cdots \\ \hline 66 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 10 \\ 3 \\ \cdots \\ \hline 122 \\ \hline 22 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ .1 \\ \hline \end{array}$ | 16  <br> $\cdots$ i 9 <br> 35  | $\begin{array}{\|r\|r\|} 1 & \cdots \\ \ldots & 2 \\ \hline \end{array}$ | $\begin{array}{r\|r\|r} 188 \\ \ldots & 265 \\ \hline 453 \end{array}$ |
| Stanleytown Males $\ldots$ <br> Females．．． <br> Persons $\ldots$ <br>   | $\begin{array}{\|c\|c\|} \hline 96 & 173 \\ \cdots & 121 \\ \hline 217 \\ \hline \end{array}$ | 31  <br> $\cdots$ 3 <br> 64  <br> 6  | $\begin{array}{c\|c\|} \hline 35 & \cdots \\ \cdots & \\ \hline 89 \\ \hline \end{array}$ | $\begin{array}{c\|c} 17 & \text { 719 } \\ \cdots & \\ \hline 36 \\ \hline \end{array}$ | $\begin{array}{c\|c} 60 & \ldots \\ \ldots & 102 \\ \hline 162 \\ \hline \end{array}$ | （．．． | $\begin{array}{r} 1 \\ \cdots \\ \hline 2 \end{array}$ | 33 <br> $\cdots$ <br> 79 |  | $\begin{array}{r\|r} \hline 282 & \ldots \ddot{3} \\ \cdots & 393 \\ \hline 675 \\ \hline \end{array}$ |
| $\begin{gathered} \text { Totals, Town of } \\ \text { Nuw AmsTradam } \end{gathered}\left\{\begin{array}{l} \text { Malen } . . . \\ \text { Females... } \\ \text { Persons ... } \end{array}\right.$ | $\begin{aligned} & 1210 \\ & 1571 \end{aligned}$ <br> 2781 | $\begin{aligned} & 390 \\ & 469 \end{aligned}$ <br> 859 | $\begin{aligned} & 409 \\ & 605 \end{aligned}$ <br> 1014 | $\begin{aligned} & 203 \\ & 304 \end{aligned}$ | $\begin{array}{r} 460 \\ 717 \\ \hline 1177 \end{array}$ | $\begin{gathered} 23 \\ 19 \\ \hline 42 \end{gathered}$ | $\begin{aligned} & 15 \\ & 27 \end{aligned}$ | $\begin{gathered} 305 \\ 432 \\ \hline 737 \end{gathered}$ | 90 99 | $\begin{aligned} & 3105 \\ & 4243 \end{aligned}$ <br> 7348 |

## AMSTERDAM．

of the People．

| NON－CHRISTIANS． |  |  |  |  | TotalRrifitods Prrsuasions， |  |  | HOUSES． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 品 } \\ & \text { 品 } \end{aligned}$ |  | 产 |  | 咢 |  |  |  | Inha |  | Unin | bited． |
| M ${ }^{\text {F }}$ | $\mathbf{M} \mid \mathbf{F}$ | M ${ }_{\text {F }}$ | M｜E｜ | $\mathbf{M} / \mathbf{F}$ | $\mathbf{M}$ | F | Persons | Houses | Roome | Houses | Houses Building |
|  | $\begin{array}{c\|c} 85 & \text { } \\ \cdots & 84 \\ \hline 169 \end{array}$ | $\begin{array}{c\|c} \ldots & \ldots \\ \cdots & 1 \\ \hline 1 \end{array}$ | $\begin{array}{c\|c} 13 \\ \text { … } & \\ \hline 24 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 236 & 189 \\ \ldots & \\ \hline 425 \\ \hline \end{array}$ | $\begin{array}{r} 2871 \\ \ldots \\ \hline \end{array}$ | $3774$ | $\begin{gathered} \cdots \\ \cdots \\ \hline 6645 \end{gathered}$ | 1094 | 3679 | 82 | 2 |
| $\begin{array}{\|c\|c\|} \hline 18 & \ldots \\ \ldots & 3 \\ \hline 21 & \\ \hline \end{array}$ | $\begin{array}{r\|r} 9 & \cdots \\ \cdots & \boxed{b} \\ \hline & 14 \end{array}$ |  |  |  | $\begin{array}{r} 215 \\ \ldots \\ \hline \end{array}$ | $273$ | $488$ | 96 | 358 | 9 | 1 |
| $\begin{array}{\|c\|c\|} \hline 76 & \\ \ldots & 47 \\ \hline 123 & \\ \hline \end{array}$ | $\begin{array}{c\|c\|} 24 \\ \cdots & 21 \\ \hline 45 \end{array}$ |  | $\begin{array}{c\|c\|} 12 \\ \ldots \cdot & \\ \hline 26 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 112 & \ldots \\ \ldots & 82 \\ \hline 194 & \\ \hline \end{array}$ | $\begin{gathered} 394^{\prime} \\ \cdots \end{gathered}$ | $\begin{array}{r} 7 \\ 475 \\ \hline \end{array}$ | $\begin{array}{r} \cdots \\ \cdots \\ \hline 869 \\ \hline \end{array}$ | 194 | 428 | 14 | ． |
| $\begin{aligned} & 232 \\ & 143 \end{aligned}$ | $\begin{aligned} & 118 \\ & \underline{110} \end{aligned}$ | $\dddot{7}$ | $\begin{aligned} & 25 \\ & 25 \end{aligned}$ | $\begin{aligned} & 375 \\ & 279 \end{aligned}$ |  | $\begin{aligned} & 3480 \\ & 4522 \end{aligned}$ |  |  |  |  |  |
| 375 | 228 | 1 | 50 | 654 |  | 8002 |  | 1384 | 4465 | 105 | 3 |

TOWN OF NEW

TABLE No. 6.-


## AMSTERDAM.

Literacy.

| and Write. |  |  |  |  |  | Total Literacy. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telaga. |  | Chinese. |  | Portuguese. |  |  |  |  |
| M | F | M | $F$ | M | F | $\because$ | F | Persons. |
| ... | $\cdots$ | ... | … | - ... | $\cdots$ |  | $\dddot{28}$ | $\dddot{64}$ |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... | $\dddot{16}$ |  | 111 | 202 |
| 1 | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 403 $\ldots$ | 277 | 680 |
| $\cdots$ | $\cdots$ | 45 .0 | $\ddot{4}$ | $\cdots$ | $\cdots$ |  | $\dddot{62}$ | 167 |
| $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | .... | $\ldots$ | $\ldots$ | $\cdots$ |
| $\ldots$ | $\ldots$ | 1 $\ldots$ | $\cdots$ | 1 .. | $\cdots$ | 1672 $\ldots$ | 2461 | 4133 |
| $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | . 1 | $\ldots$ | $\ddot{1}$ |
| $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | 1 | $\cdots$ | 474 $\cdots$ | 751 | 1225 |
| $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | 2 $\ldots$ | $\cdots$ | 4 |
| 1 | ... | 46 |  | 10 | ... | 2784 | ... | ... |
| $\cdots$ |  |  | 4 |  | 17 |  | 3692 | ... |
|  |  |  |  |  |  |  |  | 6476 |

TABLE No. 7.-Subsidiary or Other


## AMSTERDAM

Occupations of the People.


COUNTY OF BERBICE (INCLUSIVE
Table No. 1.-Ages and Conjugal

| AGES. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distriots. |  |  |  | -180 | ¢ 0 8 0 0 | ¢0 <br> 8 <br> 8 <br> 8 <br> 8 | 8 + 8 8 | \% | 0 0 0 8 0 | - |
|  |  | M F | M $\mathbf{F}^{\mathbf{F}}$ | M ${ }^{\text {F }}$ | $\mathbf{M}$ F | M $\quad \mathbf{F}$ | $\mathbf{M} / \mathrm{F}$ | M ${ }^{\text {F }}$ | M $\mathrm{F}^{\text {F }}$ | $\mathbf{M} \mid \mathbf{F}$ |
| West Coast. |  |  |  |  |  |  |  |  |  |  |
| East Coast. | Unmarried $\left\{\begin{array}{l}\text { M } \\ \mathrm{F} \\ \text { Married }\end{array}\right.$ <br> M <br> F <br> WidowedM <br> F, |  | 150  <br> $\ldots$ 163 <br> $\ldots$. $\ldots$ <br> $\ldots$. $\ldots$ <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> $\ldots 150$ $\ldots$ <br> $\ldots . .163$  <br> 313  |  |  | 82 $\ldots$ <br> $\ldots 9$ 72 <br> 96 $\ldots$ <br> $\ldots 1$ 138 <br> $\ldots$ $\ldots$ <br> $\cdots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> 180 $\ldots$ <br> $\ldots .$. 217 <br> 397  | 37  <br> $\ldots$ $\ldots$ <br> 107 $\ldots$ <br> $\ldots$ 92 <br> 5 $\ldots$ <br> $\ldots$ 14 <br> $\ldots$ $\ldots$ <br> 150 $\ldots$ <br> $\ldots$ 139 <br> 289  | $\begin{array}{r\|r\|} 31 & \ldots \\ \ldots 9 & 17 \\ 92 & \ldots \\ \cdots & 65 \\ 6 & \ldots \\ \cdots & 20 \\ \ldots & \cdots \\ \hline 130 & \ldots \\ \hline \ldots . & 108 \\ \hline 238 & \\ \hline \end{array}$ | $\begin{array}{r\|r\|} 7 & \ldots . \\ \ldots & 9 \\ 62 & \ldots \\ \ldots & 39 \\ 4 & \ldots \\ \ldots & 29 \\ \ldots & \ldots \\ \ldots . & \ldots \\ \hline 73 & \ldots \\ \ldots . . & 73 \\ \hline 146 \end{array}$ |  |
| Corentyne Coast. |  |  | $\begin{array}{r\|r\|} 2537 & \ldots \\ \ldots & 2439 \\ \ldots & \ldots \\ \ldots & \ldots \\ \ldots & \ldots \\ \ldots . . & \ldots \\ \frac{\ldots}{2537} & \ldots \\ \hline \ldots & \ldots 39 \\ \hline 4976 & \end{array}$ |  |  |  |  |  |  |  |
| Corentyne River. |  |  | 80 $\ldots$ <br> $\ldots .$. 98 <br> $\ldots .$. $\ldots$ <br> $\ldots$. $\ldots$ <br> $\ldots$. $\ldots$ <br> $\ldots .$. $\ldots$ <br> $\ldots 0$ $\ldots$ <br> 80 $\ldots$ <br> $\ldots$ 98 <br> 178  | 82 <br> $\ldots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> $\cdots$ <br> 82 <br> $\ldots$ <br> $\ldots$ <br> $\cdots$ <br> 158 <br> 1 |  |  |  |  |  |  |

OFIAHE HUWNOF NEWO AMETERDAM). or Civitcondition of the People:


## COONTY OF BERBICE (INCLUSIVE

Table No. 1.-Ages and Conjugal

| AGES. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Districts. | 䔍 |  | . | ¢ <br> O <br> O <br> 0 <br> 1 | ¢ 0 0 0 ¢ | +1 <br> 8 <br> 0 <br> 0 | 10 <br> 0 <br> 8 <br> 8 <br> 8 | 8 8 8 8 8 | 8 <br> 8 <br> 8 <br> 8 |
|  | M ${ }^{\mathbf{F}}$ | M $\mathrm{F}^{\mathbf{F}}$ | $\mathrm{M} \mid \mathrm{F}$ | $\mathbf{M}$ $\mathbf{F}$ | M $\mathrm{F}^{\mathbf{F}}$ | $\mathbf{M}$ F $\mathbf{F}$ | M $\mathbf{F}$ | M F | M $\mathbf{F}$ |
| Berbice River, East Bank East Bank. |  |  |  | $\begin{array}{r\|r\|} 311 & \ldots \\ \ldots \ddot{0} & 20 \\ 29 & \ldots \\ \ldots & 91 \\ \ldots & \cdots \\ \ldots . & \ldots \\ \ldots . . & \ldots \\ \hline 340 & \ldots \\ \ldots . . & 341 \\ \hline 681 & \end{array}$ |  | $\begin{array}{r\|r\|} 165 & \ldots \\ \ldots \ddot{149} & 104 \\ \ldots & 149 \\ 16 & \ldots \\ \cdots i & 26 \\ \ldots . & \ldots \\ \hline 331 & \ldots \\ \ldots & 279 \\ \hline 610 & \end{array}$ |  |  |  |
| West Bank. |  | $\begin{array}{\|r\|r\|} 180 & \ldots \\ \ldots & 170 \\ \ldots . & \ldots \\ \ldots . & \ldots \\ \ldots . & \ldots \\ \ldots . & \ldots \\ \ldots . & \ldots \\ \hline 180 & \ldots \\ \ldots . . & 170 \\ \hline 350 & \\ \hline \end{array}$ | $\begin{array}{r\|r\|} 197 & \ldots \\ \ldots & 173 \\ \ldots . & \ldots \\ \ldots . & \ldots \\ \ldots & \ldots \\ \ldots . & \ldots \\ \hline 197 & \ldots \\ \hline \ldots . & 173 \\ \hline 370 & \\ \hline \end{array}$ |  |  | 85 $\ldots$ <br> 180 $\cdots$ <br> $\ldots$ $\ldots$ <br> 23 127 <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> 290 $\ldots$ <br> $\ldots$ 214 <br> 504  |  |  |  |
| Upper Rirer. |  |  |  | 165 $\ldots$ <br> $\ldots$ 146 <br> $\ldots .$.  <br> $\ldots$  <br> $\ldots$ 8 <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> $\ldots$ $\ldots$ <br> 165 $\ldots$ <br> $\ldots$ 154 <br> 319  |  | 89 $\ldots$ <br> $\ldots$ 32 <br> 57 $\ldots$ <br> $\cdots$ 50 <br> $\ldots$ $\ldots$ <br> $\ldots$. 11 <br> $\ldots$ $\ldots$ <br> 151 $\ldots$ <br> $\ldots .$. 93 <br> 244  |  |  |  |
| Canje Creek. |  |  |  |  |  |  | $\begin{array}{r\|r\|} 841 & \ldots \\ .417 & \ldots \\ . & \ldots \\ 59 & \ldots \\ \ldots & 119 \\ \ldots & \ldots \\ \hline 717 & \ldots \\ \ldots & 541 \\ \hline 1258 \end{array}$ |  |  |

OF TOWN OF NEW AMSTERDAM)-(Contd.)

## Civil Condition of the People.



Table 7 No. 1-Ages and Conjugal


OF THE TOWN OF NEW AMSTERDAM)--(Contd.)
or Civil Condition of the People.


TABLE No. 2.-Races an


## JF NEW AMSTERDAM).

Iges of the People.


## COUNTY OF BERBICE (EXCLUSIVE

TABLE No. 3.-Occupations


OF NEW AMSTERDAM).
of the People.


COUNTY OF BERBICE (INCLUSIVE
TABLE No. 4.--Birth-


OF THE TOWN OF NEW AMSTERDAM).
Places of the People.


COUNTY OF BERBICE (INCLUSIVE
TABLE No. 5.-Religions


OF THE TOWN OF NEW AMSTERDAM）．
of the People．

| tians． |  |  |  |  |  | non－christians． |  |  |  |  | TOTAL Religious Pezasuasions． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { á } \\ & \text { a } \\ & \text { 免 } \end{aligned}$ |  |  |  | $\begin{aligned} & \text { 总 } \\ & \text { 品 } \end{aligned}$ | 易 最 易 或 | ( |  |  |  |  |  |
| M  | $\|\boldsymbol{M}\| \boldsymbol{F} \mid$ | M ${ }^{\text {F }}$／ | $\mathbf{M}\|\mathbf{F}\|$ | M ${ }^{\text {r }}$／ | $\mathbf{M}$（ $\mathbf{F}$ | M ${ }^{\text {a }} \mathbf{F}$ | M ${ }^{\text {F }}$ | ｜n／5 | M F | $\mathbf{M}$ $\mathbf{F}$ | M | F | Person＊ |
|  |  | $\begin{array}{\|c\|c\|} \hline 177 & \ldots \\ \cdots & 190 \\ \hline 376 \\ \hline \end{array}$ | 52  <br> $\ldots .$.  <br> 69  <br>  111 | $\begin{array}{\|c\|c\|} \hline 11 & \\ \cdots & 13 \\ \hline 24 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 1879 \\ \hline \cdots & 1695 \\ \hline 3474 \\ \hline \end{array}$ | 564 <br> $\cdots$ <br> $\cdots$ <br> 10066 | $11$ | $\begin{array}{\|c\|c\|} \hline 8 & \ldots \\ \cdots & 3 \\ \hline 11 \\ \hline \end{array}$ |  | 6507 <br> $\cdots$ | 6384 | 91 |
| $\begin{array}{\|c\|c\|} \hline 16 & \\ \cdots & 22 \\ \hline 38 \\ \hline \end{array}$ |  |  |  | $\begin{array}{\|c\|c\|} \hline 10 & \cdots \\ \cdots \\ \hline \end{array}$ | 488  <br> $\cdots$ 51003 |  | $\begin{array}{c\|c} 89 \\ \cdots & 106 \\ \hline 195 \end{array}$ | $\cdots \cdot \cdots$ |  | 686 716 <br> $\cdots$ 7 <br> 1402  | $\begin{array}{r} 1174 \\ \ldots \end{array}$ | 1231 | ． $\ldots$ $\ldots$ 2405 |
| $\begin{array}{\|c\|c\|} \hline 802 \\ \cdots & 917 \\ \hline 1719 \\ \hline \end{array}$ | $\left\|\begin{array}{l} 148 \\ \ldots \\ \frac{1129}{267} \end{array}\right\|$ | $\begin{array}{\|l\|l\|} \hline 34 & \ldots \\ \ldots & 23 \\ \hline 57 & \\ \hline \end{array}$ | $\begin{array}{c\|c} 88 & 7 \\ \cdots & 74 \\ \hline 162 \\ \hline \end{array}$ |  |  |  | $\left\lvert\, \begin{gathered} 1474 \\ \cdots \\ \cdots 2824 \\ \hline 13000 \end{gathered}\right.$ | $=\frac{3}{\cdots}$ | $\begin{array}{\|r\|c\|} \hline 118 & \ldots \\ \hline \ldots . & 107 \\ \hline 225 \\ \hline \end{array}$ | 12070  <br> $\cdots$ 105066 <br> 22576  |  <br> 17345 | 15932 | 33277 |
|  | $\begin{array}{\|l\|l\|} \hline 1 & \ldots \\ \cdots & \ldots \\ \hline 1 & \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline . . & \ldots \\ \cdots & \cdots \\ \hline \end{array}$ |  |  | $\begin{array}{\|c\|c\|} \hline 257 & \\ \cdots & 226 \\ \hline & \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 320 \\ \cdots & 273 \\ \hline & 593 \\ \hline \end{array}$ | $\begin{aligned} & 66 \\ & \ldots \\ & \hline \end{aligned}$ |  |  | $\begin{array}{\|c\|c\|} \hline 386 & 12 \% \mid \\ \ldots & 32 i n \\ \hline 711 \\ \hline \end{array}$ | 643 $\cdots$ | 551 | $\begin{array}{r}\text { ．} \\ \ldots \\ \ldots \\ \hline 1194\end{array}$ |
|  | $\begin{array}{\|c\|c\|} \hline 26 & \ldots \\ \hline & \cdots \\ \hline & \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 33 \\ \cdots & 49 \\ \hline 82 \\ \hline 820 \end{array}$ |  | $\begin{array}{c\|c\|} \hline 18 & \ldots \\ \cdots & 8 \\ \hline 26 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 1095 & \\ \cdots & 1165 \\ \hline 2260 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 816 \\ \cdots & 661 \\ \hline 1477 \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline 179 \\ \cdots & 106 \\ \hline 333 \\ \hline \end{array}$ |  |  | 1003  <br> $\cdots$ 817 <br> 1820  | $\begin{array}{r} 2098 \\ \cdots \\ \hline \end{array}$ | $1992$ | 4080 |
| $\begin{array}{r\|r\|} \hline 212 & \ldots \\ \ldots & 263 \\ \hline 475 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 2^{4} & \cdots \\ \cdots & \cdots \\ \hline 2 & \\ \hline \end{array}$ | $\begin{array}{c\|c\|} \hline 67 \\ \cdots & \ldots \\ \hline 45 \\ \hline 112 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 10 & .7 \\ \cdots & 8 \\ \hline & 18 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 748 & 6 \\ \cdots \cdots i i \\ \hline 1359 \\ \hline \end{array}$ | $\begin{array}{r\|r} 219 & \ddot{6} \\ \ldots & 16 \\ \hline 386 \\ \hline \end{array}$ | $\cdots \cdot \cdots$ |  |  | $\begin{array}{r} 1664 \\ \cdots \\ \hline \end{array}$ | $14 \ddot{0}$ | 3104 |
| $\begin{array}{c\|c\|} 122 & \cdots 3 \\ \cdots & 83 \\ \hline 205 \\ \hline \end{array}$ |  | $\begin{array}{\|r\|r\|} 1 & \ldots \\ \cdots & \cdots \\ \hline 1 & \\ \hline 1 \end{array}$ | $\begin{array}{\|c\|c\|} \hline 343 \\ \cdots & 358 \\ \hline 701 \\ \hline \end{array}$ |  |  |  |  |  | $\begin{array}{\|c\|c\|} \hline 7 & \ldots \\ \ldots & \ddots \\ \hline 10 \\ \hline 1 \end{array}$ | $\begin{array}{\|c\|c\|} \hline 11 \\ \cdots & \cdots \\ \hline & \\ \hline \end{array}$ | $\begin{array}{r} 957 \\ \cdots \end{array}$ | $\mathbf{7 0 7}$ | $\underline{1664}$ |
| $\begin{gathered} \hline 153^{\prime} \\ \ldots 1 \\ \ldots \\ \hline 275 \end{gathered}$ | $\begin{array}{\|c\|c\|} \hline 10 & \ldots \\ \cdots & \text { 关 } \\ \hline 18 \\ \hline \end{array}$ |  | 136  <br> $\cdots$ 117 <br> -253  |  |  |  | $\begin{array}{\|c\|c} 455 \\ \cdots & 426 \\ \hline 830 \\ \hline \end{array}$ |  |  |  | 4781 $\cdots$ | 4521 | 9302 |
| $\begin{array}{r\|} 2304 \\ \cdots \\ \hline \end{array}$ | $\because 263$ | 285  <br> $\cdots$  <br> $\cdots$ $31 i$ | 825 <br> $\cdots \cdots 85$ | $\begin{array}{c\|c\|} 333 & \ldots .53 \\ \ldots & \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 17104 & \\ \ldots & 14884 \\ \hline \end{array}$ |  | $3 .$ | $\begin{array}{\|c\|c\|} \hline 155 & \ldots \\ \cdots & 140 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 20309 \\ \ldots & 17782 \\ \hline \end{array}$ | 35169 $\cdots$ | 32748 | ．．． |
| 2304 2542 | $\begin{aligned} & 329 \\ & 263 \\ & \hline \end{aligned}$ | 285 211 | 888 | 333 153 | 14860 14966 | 17104 14884 | 3047 2757 | 3 1 | 155 140 | 20309 17782 |  | 35169 32748 |  |
| 4846 | 592 | 596 | 1610 | 486 | 29826 | 31988 | 5804 | 4 | 295 | 38091 |  |  | 67917 |
| 460  <br> $\cdots$ 717 | ${ }^{23} \times 1.19$ | $\begin{array}{l\|l\|} 15 & \\ 15 & \ddot{2} \\ \cdots & 20 \end{array}$ | 305 <br> $\cdots$ <br> $\cdots$ |  | 3105 ．． <br> $\ldots 23$  | 232 173 <br> $\cdots . .143$  | 118 <br> $\ldots . .110$ | ． | 25 $\ldots$ <br> $\cdots$  | 375  <br> $\cdots$ 279 | 3480 $\ldots$ | 4522 | ．．． |
| 480 | 23 19 | ${ }_{27}^{15}$ | 305 432 | 90 99 | 3105 4243 | 232 143 | 118 | i | 25 25 | 375 279 |  | $\begin{aligned} & 3480 \\ & 4522 \end{aligned}$ |  |
| 1177 | 42 | 42 | 737 | 189 | 7348 | 375 | 228 | 1 | 50 | 654 |  |  | 8002 |
| $\begin{array}{r\|} \hline 2764 \\ \ldots 1269 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 352 \\ \cdots 282 \\ \hline \end{array}$ | 300  <br> $\ldots .$. 338 |  | 423  <br> $\cdots$ 252 | $\begin{array}{\|r\|r\|} 17965 \\ \ldots & 19209 \\ \hline \end{array}$ | $\left\lvert\, \begin{array}{r\|r\|} 17336 \\ \cdots & 15027 \\ - \\ \hline \end{array}\right.$ |  | $\begin{array}{\|l\|} 3 \\ 3 \\ \cdots \end{array}$ |  |  | 38619 $\cdots$ | 37270 | ．．． |
| 2764 3259 | 352 282 | 300 338 | 1130 1217 | 4253 | 17965 19269 | 17336 15027 | 3165 2667 | 3 3 | 189 | $\begin{aligned} & 20884 \\ & 18061 \end{aligned}$ |  | $\begin{aligned} & 38649 \\ & 37270 \end{aligned}$ |  |
| 6023 | 634 | 638 | 2347 | 675 | 37174 | ${ }^{32363}$ | 6032 | 5 | 345 | 38745 | ． |  | 75919 |

TABLE No. 6.-Shewing the Population on each of the Estates, Farms and Yillages
1881, 1891,


## BERBICE

in the West Coast Berbice District with Comparative Statement as per Census 1911, 1921.


## COUNTY OF

TABLE No. 6.-Showing the Population on each of the Estates, Farms and Yillages


BERBICE.-(Contd.)


TABLE No. 6.-Showing the Population on each of the Estates, Farms and Yillages per Census 1881,


## BERBICE.-(CONTD.)

on the Upper and West Bank Berbice River District, with Comparative Statement as 1891, 1911, 1921.


COUNTY OF

TABLE No. 6.-Showing the population on each of the Estates, Yillages and Farms in the


BERBICE.-(Contd.)
Canje Creek Distriot, with Comparative Statement as per Census 1881, 1891, 1911, 1921.


TABLE No. 6.-Showing the Population on each of the Estates, Farms and Yillages 1881, 1891,


## BERBICE.-(Contd.)

in the East Bank Berbice River District, with Comparative Statement as per Census 1914, 1921.


## COUNTY OF

TABLE No. 7.-


BERBICE.

Literacy.

| AND WRITE. |
| :--- |
| Telagu. |
| $\mathbf{M}$ |

TABLE No. 8.-Subsidiary or


## BERBICE.

Other Occupations of the People.

|  |  |  |  |  |  |  |  |  |  |  |  | Totala. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{\mathbf{M}} \mid \mathbf{F}$ | M $\mathbf{F}$ | M $\boldsymbol{m}$ | $\mathbf{M} \mathbf{F}$ | $\boldsymbol{M} \mid \boldsymbol{r}$ | m ${ }^{\text {a }}$ | \| M $\mathbf{F}^{\text {P }}$ | M $\mathbf{F}$ | m $\mathbf{r}$ | m $\mathbf{r}$ | ${ }_{\text {m }} \mathbf{F}^{\text {r }}$ | m $\mathbf{F}$ | m | F | Persons. |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\ldots$ | $101$ | 11 | $\underline{\square}$ | $\underline{\square}$ | ${ }_{5} 6$ | ..... | ${ }_{3}{ }^{1} . .15$ | - 4. | $\cdots$ | $\square \begin{aligned} & 1 \\ & \cdots\end{aligned}$ | ${ }^{1}$. | 926 | 38 | $\cdots$ |
| 4 | 10 | 1 | 2 | 12 | 5 | 3 | 1 |  |  |  | 1 |  |  | 964 |

TABLE No. 1.--Ages and Conjugal


ESSEQUEBO.
or Civil Condition of the People.
AGES.


Table No. 1.-Ages and Conjugal

| AGES. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Districts. |  |  | ¢ ¢ ¢ ¢ |  <br> 8 <br> 8 <br> 8 <br> 0 | 8 8 8 8 | 8 <br>  <br> $\$$ <br> 0 | 8 <br> 8 <br> 8 <br> 8 |
|  | 1 $\mathbf{M}$ $\mathbf{F}$ $\mathbf{M}$ $\mathbf{F}$ |  | $\mathbf{M}$ $\mathbf{F}$ | $\mathbf{M}$ F $\mathbf{F}$ | $\mathbf{M} \mid \mathbf{F}$ | M F M | M F |
| Essequebo Coast and Tiger Island. |  |  |  |  | $\begin{array}{r\|r\|} 323 & \ldots \\ 615 & 228 \\ 6 & \ldots \\ 117 & 472 \\ \ldots & 211 \\ \ldots & \ldots \\ \ldots 056 & 1 \\ \hline \ldots & 912 \\ \hline 196 \mathrm{~S} & \\ \hline \end{array}$ |  |  |
| Pomeroon, Moraca Rivers and North West District. |  |  | $\begin{array}{\|r\|r\|r\|} 814 & \ldots \\ \ldots . . & 600 \\ 250 & \ldots \\ \ldots & 3 \\ 922 \\ \ldots & \ldots \\ 1 & \ldots \\ \ldots . & \ldots \\ \hline 1074 & \ldots & \\ \ldots & 1044 \\ \hline 2118 & \\ \hline \end{array}$ |  | 188 $\ldots$ <br> $\ldots 25$ 116 <br> $\ldots$. $\ldots$ <br> $\ldots 5$ $\ldots$ <br> $\ldots$. 81 <br> $\ldots$. $\ldots$ <br> $\ldots 548$ $\ldots$ <br> $\ldots$. 433 <br> 981  |  | 32 $\ldots$ <br> $\ldots 3$ 22 <br> 83 $\ldots$ <br> $\ldots 3$ 35 <br> $\ldots$ $\ldots$ <br> $\ldots .$. $\ldots$ <br> $\ldots$ $\ldots$ <br> 147 $\ldots$ <br> $\ldots$ 90 <br> 238  |
| Grand Total of County. |  | 2882 $\ldots$ 4839 $\ldots$ <br> $\ldots$ 2845 $\ldots$ 3831 <br> $\ldots$ $\ldots$ 200 $\ldots$ <br> $\ldots$ 1 $\ldots$ 1022 <br> $\ldots$ $\ldots$ 4 $\ldots$ <br> $\ldots$ $\ldots$ $\ldots$ 16 <br> $\ldots$ $\ldots$ $\ldots$ 6 <br> 2882 $\ldots$ $\ldots 094$ $\ldots$ <br> $\ldots$ 2846 $\ldots$ 4875 <br> 5738 9969   |  | 1825 $\ldots$  <br> 2069 93  <br> $\ldots$ 1  <br> 169 $\ldots$  <br> $\ldots$ 290  <br> 6 $\ldots$  <br> $\ldots$ 10  <br> 4069 $\ldots$  <br> $\ldots$ 2805  <br> 6874   |  |  |  |

OF ESSEQUEBO.-(Contr.)
or Civil Condition of the People.
AGES.



## COUNTY

TABLE No: 2.-Races :


Iges of the People.


TABLE No. 3.-Occupations


## ESSEQUEBO.

## of the People.




ESSEQUEBO.
Birth-places of the People.


## COUNTY OF

TABLE No. 5.-Religions


## ESSEQUEBO．

of the People．

|  |  | non．OERISTIANS． |  |  |  |  |  | Total <br> Reliaiods Persuasiong． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 㝘 |  | 宫 | 宮 |  |  |  |  |  |  |
| $\mathbf{M}$ $\mathbf{F}$ | M $\mathbf{F}$ | M ${ }^{\text {F }}$ | m ${ }_{\text {a }} \mathbf{F}$ | M ${ }^{\text {F }} \mathbf{F}$ | $\mathbf{M}\|\boldsymbol{F}\|$ | M $\mathbf{M}$ | M | F | Pexrong |
| $\begin{array}{r\|r\|} 719 & \\ \cdots \cdots & 110 \\ \hline 829 \\ \hline \end{array}$ |  | $\begin{array}{\|r\|r\|} \hline 766 & \\ \hline \ldots & 65 i \\ \hline 1417 \\ \hline \end{array}$ |  | $\begin{array}{c\|c\|} \hline \ldots & 1 \\ \cdots & \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 26 & \ldots \\ \cdots & 9 \\ \hline 35 \\ \hline \end{array}$ |  | ${ }^{7734}$ | $\dddot{3773}$ | 11597 |
| $\begin{array}{c\|c\|} \hline 27 & \cdots \\ \cdots & 30 \\ \hline 67 & \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 626 & 686 \\ \cdots & \\ \hline 1312 \end{array}$ |  |  |  | $\begin{array}{\|l\|l\|} \hline 15 & \\ \cdots \cdots & 10 \\ \hline 25 & \\ \hline \end{array}$ | 1208  <br> $\cdots$ 1057 <br> 2265  | 1834 $\ldots$ | 1773 | 3577 |
| $\begin{array}{\|c\|c\|} \hline 10 & \cdots \\ \cdots & 7 \\ \hline 17 & \\ \hline \end{array}$ | 796  <br> $\ldots$ 928 <br> 1718  |  | $\left\lvert\, \begin{array}{c\|c} 258 \\ \cdots & 232 \\ \hline 480 \\ \hline \end{array}\right.$ |  | $\underset{16}{9}$9 <br> $\because$ | $\begin{array}{\|c\|c\|} \hline 1278 \\ \ldots \ldots & 1104 \\ \hline 2382 \\ \hline \end{array}$ | 20174 .. | 2026 | 4100 |
|  | $\begin{array}{r\|r\|} \hline 4183 & \\ \cdots \cdots & 4681 \\ \hline 8864 \\ \hline \end{array}$ |  | 802  <br> $\ldots .$. $\ldots 98$ <br> 1500  |  | 62 7 <br> $\cdots$ 64 <br> 126  | $\begin{array}{\|r\|r\|} \hline 5258 & \\ \ldots \ldots & 4578 \\ \hline 9836 \\ \hline \end{array}$ | 9441 ... | 97259 | 18700 |
| $\begin{array}{c\|c\|} \hline 843 & \ldots 3 \\ \ldots & 332 \\ \hline 675 \\ \hline \end{array}$ | 5805  <br> $\cdots$ 5606 <br> 11411  |  |  |  | $\begin{gathered} 5 \\ \cdots \\ \cdots \\ \hline \end{gathered}$ | $\begin{array}{\|r\|r\|} \hline 381 \\ \cdots & .164 \\ \hline 635 \\ \hline \end{array}$ | 6186 $\ldots$ | 57760 | 11946 |
| $\begin{array}{\|c\|c\|} \hline 4196 & \\ \cdots & 648 \\ \hline 1744 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 18043 \\ \ldots & 14766 \\ \hline 32809 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 7435 & \ldots \\ \hline & 628 \\ \hline 13713 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 1667 & \\ \cdots \\ \cdots & 120 \\ \hline 3087 \\ \hline \end{array}$ |  | $\begin{array}{\|c\|c\|} \hline 117 \\ \cdots & 91 \\ \hline 218 \\ \hline \end{array}$ | $\begin{array}{r\|r\|} \hline 9226 & 7795 \\ \cdot \cdot & 7795 \\ \hline 17721 \\ \hline \end{array}$ | 27269 $\ldots$ | 225661 | 49830 |
| ${ }_{E 48}^{1196}$ | 18043 $1+766$ | $\begin{aligned} & 7435 \\ & 6278 \end{aligned}$ | $\begin{aligned} & 1667 \\ & 1420 \end{aligned}$ | 7 | ${ }_{91}^{117}$ | 9226 7795 |  | 27269 22661 |  |
| 1744 | 32809 | $1 \overline{13713}$ | 3087 | 13 | 208 | 17021 |  | 49830 |  |

TABLE No. 6.-Showing the Population on each of the Estates, Yillages and Farms in the tive Statement as per Census


## ESSEQUEIBO.

Essequebo and Potaro Rivers, and Cuyuni, Mazaruni and Puruni Riyers with Compara1881, 1891, 1911, 1921.


TABLE No. 6.-Showing the Population on each of ths Estates, Yillages, and Farms Statement as per Census,


ESSEQUEBO.-(Contd.)
and Settlements in the Essequebo Coast and Tiger Island District, with Comparative
1881, 1891, 1911, 1921.


CUUNTY OF

TABLE No. 6.-Showing the Population on each of the Estates, Yillages and Farms per Census 1881,


ESSEQUEBO.-(Contd.)


TABLE No. 6.-Showing the Population on each of the Yillages, Farms and Settlements Statement as per Census


## ESSEQUEBO.-(Contd.)

in the Pomeroon and Moruca Rivers and North West District, yith Comparative 1881, 1891, 1911, 1921.


## COUNTY OF

TABLE No. 7.-

|  | Ability to Read and Write English. |  | Ability to Read |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Hindi. |  | Hindustani. |  | Tamil. |  |
|  | M | F | M | F | M | F | M | F |
| Europeans $i\}$ | 71 $\ldots$ | $\dddot{29}$ | l ... | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| Portuguese $\{$ | 278 $\cdots$ | 212 | $\cdots$ | $\cdots$ | .... | $\cdots$ | $\cdots$ | $\cdots$ |
| East Indians $\{$ | 3572 $\cdots$ | 1533 |  | 142 | 474 .. | 124 | 2 | ... |
| Chinese $\quad\{$ | 158 $\cdots$ | $\ddot{89}$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ |
| Africans $\{$ | 2 $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... | $\ldots$ | $\ldots$ | ... |
| Blacks $\{$ | 8448 .. | 567 | 9 $\cdots$ | $\dddot{4}$ | 2 .. | ... | $\ldots$ | $\ldots$ |
| Aborigines $\{$ | 1064 | 10.9 | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... |
| Mixed Races $\quad\{$ | 2200 $\ldots$ | 1697 | 10 | $\cdots$ | 1 .. | $\cdots$ | $\cdots$ | $\ldots$ |
| Races Not Stated \{ | 11 | $\dddot{6}$ | $\cdots$ | $\cdots$ | $\cdots$ | ... | ... | $\cdots$ |
| $\text { Totals }\left\{\begin{array}{l} \mathrm{M} . \\ \mathrm{F} . \end{array}\right.$ | 15804 | ... 10232 | 956 $\ldots$ | … | 477 $\ldots$ | $\cdots$ 125 | 2 $\cdots$ | ... <br>  |
| Persons $\quad .$. |  |  |  |  |  |  |  |  |

ESSEQUEBO.
Literacy.

| and Write. |  |  |  |  |  | Total Literacy. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telagu. |  | Chinese. |  | Portuguese. |  |  |  |  |
| M | F | M | F | M | F | M | F | Persons. |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\stackrel{2}{ }$ | $\cdots$ | 74 | $\dddot{29}$ | 103 |
| .... | $\cdots$ | $\cdots$ | $\cdots$ | 17 | 93 |  | 225 | 300 |
| . 6 | $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | 4990 $\ldots$ | 1798 | 6788 |
| $\cdots$ | $\ldots$ | 8 .. | $\cdots$ | $\cdots$ | $\cdots$ |  | $\dddot{89}$ | $2 \ddot{5}$ |
| ... | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ | $\ldots$ | 2 .. | $\cdots$ | $\because$ |
| ... | $\cdots$ | $\ldots$ | $\cdots$ | 5 <br> .. | $\cdots$ | 8864 | $56 \dddot{21}$ | 14085 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 2 $\cdots$ | $\ddot{2}$ | 1066 $\ldots$ | 1052 | 2118 |
| ... | $\cdots$ | 1 .. | $\dddot{\square}$ | 46 $\cdots$ | $\dddot{22}$ | 2258 .. | 1724 | 3982 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 $\cdots$ | $\cdots$ | 14. | $\because$ | $\dddot{22}$ |
| 6 | ... | 9 | $\cdots$ | 75 | $\cdots$ | 17329 | $\cdots$ | $\cdots$ |
| ... | ... | ... | 1 |  | 39 |  | 10546 | ... |
| 6 |  | 10 |  | 114 |  |  |  | 27875 |

TABLE No. 8.-Subsidiary or 0ther


ESSEQUEBO.

Occapations of the People.


## COLONY OF

Table No. 1.-Ages and Conjugal


## BRITISH GUIANA.

or Civil Condition of the People.


Table No 1.-Ages and Conjugal

| AGLS. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| District |  | -18089 | -10 | ¢ <br>  <br> 8 <br> -1 | $\begin{aligned} & \dot{m} \\ & \dot{0} \\ & 0 \\ & 0 \end{aligned}$ |  |  | 8 8 8 88 |  |
|  | M F | M | M ${ }^{\text {F }}$ | M F | M $\mathbf{F}$ | M ${ }^{\text {F }}$ | M $\quad$ F | F | M ${ }^{\text {F }}$ |
| City of Georgetoxn. |  |  |  |  |  |  |  |  |  |
| Town of Newr Amsterdam. |  |  |  |  |  | 225  <br> $\ldots$ $\ldots 05$ <br> 209 $\ldots$ <br> $\ldots$. 259 <br> 8 $\ldots$ <br> $\ldots$. 47 <br> $\ldots$ $\ldots$ <br> $\ldots 44$ $\ldots$ <br> $\ldots$ $\ldots 11$ <br> 1055  |  |  |  |
| Totals of Urban Population. |  |  |  |  |  |  |  |  |  |
| Grand Total <br> of Colony |  |  |  |  |  |  |  |  |  |
|  | $\left\|\begin{array}{rr} \text { Per centic : ratio } \\ \text { of each ag↔ on } \\ \text { Total Popula-- } \\ \text { tion } & \ldots \end{array}\right\| \begin{array}{cc}  \\ & 2.776 \end{array}$ | 11.721 | 11-999 | 19.693 | 17.769 | 13656 | 10.812 | 6727 | 3073 |

BRITISH GUIANA-(Contd.)
or Civil Condition of the People.
AGES.


COLONY OF BRI'ISH GUIANA

TABLE No. 2-Races and


## NCLUSIVE OF GEORGETOWN AND NEW AMSTERDAM).

ges of the People.


TABLE No. 3.-Occupations

| OCOUPATIONS. | Ase |  | $\stackrel{1}{2}$ | -10 | -15 | -20 | -25 | -30 | -35 | -40 | -45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

PUBLIC SERVICE.-Government, Municipal and other Statutory Bodic.

1. Officials and Olerks
2. Messengers and Similar Grades
3. Police, Prisons and Militia (Permanent Staff)

Totals
Clase II.
PROFESSIONAL OCCUPATIONS.
6. Clergy
6. Teachers
7. Medical
8. Legal
9. Engineers and Surveyors
10. Other Professions

Totale
Class III.
COMMERCIAL OCCUPATIONS.
11. Herchants, Shopkeepers and Agents
12. Clerks and Shop Assistants
13. Cranss and Shop Assistants (Rorkers (Road and Water)
except persons employed by Govern-
ment, Town Councils \& other Statutory
Bodies
14. Other Workers
Totals

## Class IV

AGRICULTURAL OCCUPATIONS.
15. Landed Proprietors Agrioulturi
15. Landed Propriet
16. Labourers

Totals
Olass V.
MINING AND QUARRYING.
17. Directing and Technical.Staff
18. Labourers

Totals
Clase VI.
FOREST OCCUPATIONS.
19. Directing and Techuical Staff
19. Directing and Technical Staff
21. Balata Bleeders

## Totals

Class VII.
MECHANICS, ARTISANS AND SIMILAR OCCUPATIONS.
22. Mechanics, A tisans and Engine Drivers.. 23. Other Workers

## Totals

DOMFSTICS Claes ViII.
24. Domestic Servants

Totals
Class IX.
OTHER OCCUPATIONS.
25. Fishermen
26. Not Classified

## Totals

Class $X$.
NON-WAGE EARNERS.
$\qquad$ 28. Sholars . Persons who are not wage earners and follow no occupation

Totals
$\left.\begin{array}{r|r} \\ \ldots \\ \ldots \\ \ldots \\ \ldots \\ \ldots \\ \text { M. } \\ \text { F. } \\ \\ \ldots \\ \ldots \\ \ldots \\ \ldots \\ \ldots\end{array}\right\}$
( $F$ :
$\left\{\begin{array}{l}\mathrm{M} . \\ \mathrm{F} .\end{array}\right.$




$\qquad$ | 7 | 20 | 96 |
| ---: | ---: | ---: | ---: |
| 2 | 4 | 99 |
| 1 | $\ldots$ | 8 |
| 1 | $\ldots$ | 3 |
| 171 | $\ldots$ | 3 |
| 1 | 24 |  | $\frac{88}{18}$ | 144 | 52 |
| ---: | ---: |
| 106 | 22 |
| 197 |  |
| 63 | $\ldots$ |
|  | $\ldots$ |
| 480 | $\ldots$ |
|  | $\ldots$ |
|  |  | | 117 |  |
| ---: | ---: |
| 81 |  |
| 176 |  |
| .. | 61 |
| -435 |  | $\begin{array}{rr}104 \\ 69 \\ 151 \\ . . & 43 \\ \cdots & 367 \\ 34 & \cdots\end{array}$




## BRITISH GUIANA.

of the People.


## COLONY OF

TABLE No. 4.-Birth-


## BKITISH GUIANA.

Places of the People.


## COLONY OF

TA BLE' No. 5.-Religions


BRITISH GUIANA.
of the People.

| trans. |  |  |  |  |  | r On-OHRISTIANS. |  |  |  |  | $\begin{gathered} \text { Total } \\ \text { Relioioves Persia. } \\ \text { siong. } \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \|l |  |  |  | 首 |  |  |  |  |  |  |  |
| M $\mathbf{F}$ | $\|\mathrm{M}\| \mathrm{F}$ | / M $/ \mathrm{F}$ | / M $/ \mathbf{F}$ | /M\| m | $\mathbf{M} \mid \mathbf{F}$ | $\mathbf{M} / \mathbf{F}$ | M $\mid \mathbf{F}$ | $\|\mathrm{M}\| \mathrm{F}$ | / M $/ \mathrm{F}$ | m ${ }^{\text {m }}$ | M | F | Persons |
|  | $023$ |  | $\|$2312 <br>  <br>  <br> 1899 | \| ${ }^{971}{ }^{1} 17$ | ${ }^{3} 303138718$ | $\|25554\|$ \|22009 ${ }^{\text {a }}$ | [ 6076 | ${ }^{228}$ | $\|$387  <br> $\cdots$ 294 |  | 62348 $\cdots$ | 60937 | 123288 |
| $\begin{array}{r\|r\|} \hline 2304 & 2542 \\ \hline . . & 2442 \\ \hline \end{array}$ |  | $\left\|\begin{array}{c}280 \\ \cdots\end{array}\right\| 311$ |  | $\|$333  <br> $\cdots$ 15 <br> 15  | 4860 ${ }_{1}$ | 17104  <br> $\ldots$ 14884 | $\left\|\begin{array}{r\|r\|r\|}3047 \\ \cdots\end{array}\right\| 275$ | \% 3 | 155 | 20309  <br> $\ldots . .17782$  | 35169 $\ldots$ | 32748 | 67917 |
| $\begin{array}{c\|c} 575 \\ \cdots & 357 \\ \hline \end{array}$ | \|153| $\ldots 141$ | 45 $\cdots$ | $\|1212\| 1081$ | $\left\|\begin{array}{r}11.96 \\ \cdots\end{array}\right\|$ | ${ }_{18043}{ }_{1}^{11766}$ | 7435  <br> .. 6278 | 1667 <br> $\cdots$$\| 142$ | $7{ }^{7} 9$ | $\|$117  <br> $\cdots$ $\ldots 1$ <br> 91  | 9226 <br> $\ldots$ <br> $\ldots 795$ | 27269 <br> $\ldots$ | 225661 | 49830 |
|  |  |  |  |  | $\begin{gathered} 33206 \mid \\ \ldots \\ \hline \end{gathered} 62400$ | $\begin{array}{\|c\|c\|} \hline 50093 \\ \cdots & \\ \hline \end{array}$ |  | 38 | $\left\lvert\, \begin{gathered}659 \\ \cdots\end{gathered}\right.$ |  | 124786 $\ldots$ | 11624 |  |
| 13087 | 1286 | 1857 | 9164 | 3991 | 125656 | 93764 | 20367 |  | 1184 | 115376 |  |  | 24103 |
| $\begin{array}{r\|r\|} \hline 1456 \\ \ldots & 2175 \\ \hline \end{array}$ | 25  <br> $\cdots$  <br> 18  |  | ${ }^{629}{ }^{2685}$ |  | $\left\lvert\, \begin{array}{r}25064 \\ \cdots \\ \cdots 33272\end{array}\right.$ |  | 644 $\cdots$ | 9. | $9+$ $\ldots$ <br> $\cdots$ 61 <br>   | $\left\lvert\, \begin{gathered}2051 \\ \ldots . .1512\end{gathered}\right.$ | 27116 <br> .. | 34784 | 61899 |
| $\begin{array}{c\|c\|} \hline 460 \\ \ldots & 7 i 7 \\ \hline \end{array}$ | $\left\|\begin{array}{c\|c}23 \\ \cdots & 19\end{array}\right\|$ |  | $\left\|\begin{array}{c}305 \\ \cdots\end{array}\right\|$ | 90 $\ldots$ <br> $\cdots$ 98 | 3105  <br> $\ldots$ 4243 | 232  <br> $\cdots$ 14.3 | 118 <br> .. | $\ldots$ |  | 375 279 <br> $\cdots \cdots$ 279 | 3480 $\ldots$ | 4522 | 8002 |
| 1916 <br> ... 2892 |  |  | ${ }^{1934} \ldots 31 i 7$ |  | $\left\lvert\, \begin{array}{r} 28169 \mid \\ \cdots \end{array}\right.$ | $\begin{array}{\|r\|r\|} 1536 & \\ \cdots & 1038 \\ \hline \end{array}$ | $\begin{array}{r\|r} 762 & 6 \\ \cdots & 6 \\ \hline \end{array}$ | 9 | 119  <br> $\cdots \cdots$ 36 | 2426  <br> $\cdots$ $179 \%$ | 30595 <br> $\ldots$ | 39306 |  |
| 4808 | 95 | 636 | 5051 | 1786 | 65684 | 2574 | 1425 |  | 205 | 4217 |  |  | 69901 |
| $\begin{array}{r\|r\|} \hline 8196 \\ \ldots 9701 \\ \hline \end{array}$ | $1753$ | $144 \text { (1344) }$ | $\begin{array}{\|c\|c\|} \hline 6283 \\ \ldots 932 \\ \hline \end{array}$ |  | $\begin{array}{r\|r\|} \hline 1375 \\ \cdots 99965 \\ \hline \end{array}$ | $\begin{array}{\|c\|c\|} \hline 1629 \\ \cdots & 47709 \\ \hline \end{array}$ | $\begin{array}{\|r\|r\|} \hline 11552 \\ \cdots & 10240 \\ \hline \end{array}$ | $47(27)$ | 778 <br> 611 | $\begin{array}{\|r\|r\|} \hline 64006 & \\ \hline \ldots 5687 \\ \hline \end{array}$ | 155381 $\cdots$ | 155562 | $\cdots$ |
| 17897 | 1381 | 2493. | 14215 | 5777 | 191340 | 96338 | 21792 | 74 | 1389 | 119593 |  |  | 310033 |
| 5\%66 | '444 | -802 | 4.572 | 1/958 | 61:537 | 30.983 | 7-008 | $\cdot 023$ | $\cdot 446$ | 38-463 | 49:972 | 50.028 | 100.00 |

TABLE No. 6.-Inmates of


## BRITISH GUIANA.

Public Institations.


THE COLONY OF

TABLE No. 7.-

|  | Ability to Read and Write English. |  | Ability to Ryad |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Hindi. |  | Hindustani. |  | Tamil. |  |  |
|  | M | F | M | $F$ | M | F | $\mathrm{m}^{\text { }}$ | F |  |
| Europeans $\{$ | $1031^{\circ}$ $\ldots$ | 819 | 4 | $\cdots$ | 7 .. | $\ldots$ | 2 |  | $\ldots$ |
| Portuguese $\quad\{$ | 3134 $\ldots$ | 3522 | $\ldots$ | $\cdots$ | 1 $\cdots$ | $\cdots$ | $\cdots$ |  |  |
| East Indians $\{$ | 22865 <br> $\ldots$ | 9856 | 7286 ... | 1423 | 2263 $\ldots$ | 554 | 122 $\ldots$ |  | 29 |
| Chinese $\quad\{$ |  | 1013 |  | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  |  |
| Africans $\{$ |  | ii | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  |  |
| Blacks $\quad\{$ |  | 52498 | 40 .. | 11 | 12 | $\ddot{2}$ | 1 |  |  |
| Aborigines $\{$ |  | 1468 | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ |  |  |
| Mixed Races | 11673 $\ldots$ | 14030 | 24 $\ldots$ | $\dddot{8}$ | 4 . | $\cdots$ | $\ldots$ |  |  |
| Race Not Stated \{ | 67 | \%2 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ |  |  |
| (M. | 89227 | ... | 7355 | ... | 2287 | ... | 125 |  |  |
| (F. |  | 83303 | ... | 1442 | ... | 560 | ... |  |  |
| Persons | 172530 |  | 8797 |  | 2847 |  | 154 |  |  |
| $\begin{array}{cr}\text { Percentage of } & \text { Total } \\ \text { Population } & \text {... }\end{array}$ | $55 \cdot 49$ |  | $2 \cdot 83$ |  | . 92 |  | . 05 |  |  |

## BZITISH GUIANA.

Literacy of the People.

| and Write. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Telagu. |  | Chinese. |  | Port |  | Totals. |  |  | Percentage of Literacy in the English Language in each Race Division. |
| M | F | M | F | M | F. | M | F | Persons. |  |
| ... $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 6 $\cdots$ | $\because$ | 1050 $\ldots$ | 820 | 1874 | 86.98 |
| $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | 377 $\cdots$ | $\mathbf{7 7 9}$ | 3512 .. | 4101 | 7613 | 77-28 |
| 48 $\cdots$ | 18 | $\cdots$ | $\cdots$ | 1 .. | $\cdots$ | 32585 $\ldots$ | 11880 | 44467 | $\stackrel{\square 0}{25 \cdot 06}$ |
| - $\quad .$. | ... | 283 $\ldots$ | 36 | $\ldots$ | ... | 1393 | 1049 | 2442 | 71.90 |
| $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ |  | 11 | 26 | $\mathbf{3 8 . 8 0}$ |
| ... | $\ldots$ | 2 .. | $\cdots$ | 15 $\cdots$ | $\cdots$ | 47874 $\ldots$ | 52519 | 100393 | 80.80 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 4 $\cdots$ | $\cdots$ | 1533 $\ldots$ | 1470 | 2903 | $\stackrel{\square}{35 \cdot 90}$ |
| $\cdots$ | $\cdots$ | 2 $\cdots$ | $\cdots$ | 56 .. | $\ddot{34}$ | 11759 $\ldots$ | 14082 | 25841 | 76.05 |
| $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | 3 $\cdots$ | $\cdots$ | 70 $\ldots$ | $\ddot{87}$ | 157 | 4233 |
| 48 | $\cdots$ | 287 | $\cdots$ | 462 | $\ldots$ | 99791 | $\cdots$ | $\cdots$ | ... |
| ... | 18 | $\ldots$ | 40 | $\ldots$ | 633 | ... | 86025 | $\cdots$ | ... |
| 66 |  | 327 |  | 1095 |  | 185816 |  |  | ... |
| . 02 |  | 10 |  | . 35 |  | 5976 |  |  | ... |



## WHOLE

## ABSTRACT

Showing the Population of the Towns, Estates, Villages and Settlements


## COLONY.

## B.

$\qquad$
in the Colony of British Guiana according to the Census Returns of 1931.


ABSTRACT
Shewing Birthplaces of the


People as per Table No. 4.



| Total-County Demerara Total-County Beibice ... Total-County of Essequebo |  | 21685 | 25141 | 10251 | 11498 | 5140 | 6571 | 6561 | 8375 | 4857 | 6025 | 248 | 305 | 799 | 1008 | 3941 | 5634 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ... | 7918 | 8311 | 1105 | 1103 | 3360 | 3667 | 613 | 780 | 2764 | 3259 | 352 | 28.2 | 310 | 338 | 1130 | 1217 |
|  |  | 8500 | 7309 | 3557 | 2868 | 1506 | 135x | 1299 | 1101 | 575 | 357 | 163 | 141 | 45 | 3 | 1212 | 1081 |
| Grard Total-Britisa Guiana | 38103.. |  | 40761 | 14913 $\ldots$ | 16499 | 10006 $\cdots$ | 115906 | 8473 | 1026i | 8196 $\ldots$ | 9701 |  | 628 |  | 1319 | 6883 ... | 7933 |
|  |  | 78 |  | 313 |  | 21 in |  | 1872 |  | 178. |  | 1381 |  | 24 |  | 1421 |  |

the People as per Table No. 5.


## WHOLE ABSTRAU1

TABLE No. 3.-Shewing the


## OLONY.

## E.

## cupations of the People.



## RETURN

SHEWING THE NUMBER
OF

## EAST INDIANS

IN THE COLONY OF

## BRITISH GUIANA,

WITH THEIR
AGES, CONJUGAL CONDITION, OCCUPATIONS, BIRTH-PLACES
and
RELIGIOUS PERSUASIONS, AS PER THE

CENSUS, 1931.

EAST INDIANS IN THE


COLONY OF BRITISH GUlANA.



OLONY OF BRITISH GUIANA.
ations.


EAST INDIANS IN THE
BIRTII-


## COLONY OF BRITISH GUIANA.

Places.


Religious


- Includea Chriatians and Non-Christian•


## COLONY OF BRITISH GUIANA.

Persuasions.



[^0]:    - Lord Sinha on August 7th, 1917, in his reply to the British Guians Deputation had said: "We have been greatly impressed by what Jou have pointed out as regards th: present position of Indians in British Gaiana end also as regards what their future position will be if there is further emigration into British Guians from India." "The Secretary of State for India will communicate with the Indian Governnent with regard to the proposals which you have made. He will certainly commend your proposala to them and ask them to oonsider them and if they can to further your wishes in any of the way you suggest. I think I can say that for hila and that it will be do日e as early as possible."

[^1]:    -Not printed.
    HHad I known in London that such a depatation was to be sent at that time direct from Fiji to India I would have advised the abandonment of the British Guiana deputation as hopeless.
    -

[^2]:    The actnal resolution is printed as Appendiy C. (It had not reached Leadon when above report was written).
    tThis promise was subsequently withdrawn by the Indian cevernment on political grounds pending the. Indian Committee's Report on the Colong.

[^3]:    *Note.-Emigration for the purposes of naskilled labour in British (iniana by the Indian Emigration Bill introduced on $\% 1$ st March, 1921 , required approval by Resolution of both Chambers of the Indian Legislatare. Ihe writer assumes that this proposal is now in force. 1 he despatch of the Indian Committee was posunomed inThe writer assumes that this proposal is now in force. The despatch of the Indian Commitiee was posupaned in September, 1920 , on political grounds and it eventually reached the Colony in January, 19.2 , two years after the
    Select Committee's resolution and at a time of severe agriculinral depression cansed by the prices of fhe colony's Select Committee's resolution and at a time of severe agriculinal depression eansed by the pric
    staple products having reached bedrock and by the temporary loss of the export market for fice,

[^4]:    *Now Lieutenant-Governor of the Frontier Province,

[^5]:    *There. were some obvions misprints which were pointed out orally to the Select Committee, e.g., pounda for rapees. It was clearly understood that there were large areas of suitable land where no expenditure was rupees. It was clearly understood that there were large areas of suitabiate anltivation protected from or not liable to flood.

[^6]:    - Notr. - We reached Marseilles on 7th March at the time of the railway, strike. The retarn vosaga like the outgoing in an overcrowded ship, was one of the most trying experiences of the ontire journey.

[^7]:    - Lord Sinha aud his colleaguen informed the Deputation that the Secretary of State for India (Mr. Montagu) would immediately recommend the Depatation's proposals to the Indian Government for their early and fayourable consideration.

[^8]:    Whils it was within the authority of the Deputation to put forward nther terms to the Indian Government and leaders bejond those of the Crown Land Regulations, it was not possible to do so from the outset and least of all in so critical and unsympathetic an atmosphere as that of the Indian Legislative Council. The offer of land in India at the outset had specified "nomingl terms" with beneficial occupation, the cost of pre paration to be borne by the Colony (Address of the Deputation to Sir George Barnes, 4th December, 1919). When pressed subsequently

[^9]:    "7. The Committee consider subject to the qualification expressed below that the terms are in themselves fair and reasonable. The Committee however feels that the effect of the scheme on the Indian emigrant will depend more on factors that can only be gauged on the spot than on written provisions of rules and laws. The Committee will endeavour to explain the difficulty it has in the matter by examples.

[^10]:    * Notr.-This account of the reception of the Deputation had already been given to the Press by the Official Preas Buraan but advantage was taken of the issue of a Congress Special Namber of The Libaral to have it repablished. This issue was the official organ of the Amritsar Congress and published the apeech of the Chair-

[^11]:    (1) The Hons, S. Sastri, Sir D. E. Wacha, Dr. Tej Bahadur Sapru, S. Sinha, Asad Ali Khan, Mir W. E. Cram, N. E. Marjoribanks, K, Chanda, S. N. Banerjee, Mir B. N. Sarma.
    (2) The Hon. Dr. Sapru did not attend the meetinge of the Committee.

    For (3) see Appendix "G." (4) not printed.

[^12]:    Men.-(1) Skilled, 72 cents per day ; (2) unskilled, 60 cents per day.
    Women.-(1) Skilled, 60 cents per day ; (2) unskilled, 48 cents per day.
    Boys.-14 to 16 years of age, 48 cents per day.
    Girls. 14 to 16 years of age, 36 cents per day.

[^13]:    - Norg,--The original misprint of " pounde per plot ". for "rupees per aore" was:oorrected verbally and offers no difficulty, The words in brackets were bared upon the Intser-Departmental kepurt and merely mean "suitable for oultivation." To avoid
    quibbling over interpretation these words can be substituted. In oane of dispute as to what ooustitutea suitability for cule fivation the India Agent can decide.

[^14]:    - Mr. Sapro is now Legal Memher pf the Viceroy’a Council. Mro Sarma is now Member for Agrieultare an Pablic Workm Mr. Malaviga through a misunderntanding deelined to serve. Mr. Crum, Member of the Calcutte Chamber of Commeree weanded. Mr. Majoribankw wan acting Chief Seoretary for the Madras Provinces.

[^15]:    *Notx.-Tne pamphlet bore the address of the Association by some inadverteace.

[^16]:    - Not reproduced.

[^17]:    -Note. - The Sugar Planters'. Association Council on 7th June, 1923, reported that a dollar a day was still apossible remaneration for piece work. The ordinary daily wage howerer was about 74 cents.

[^18]:    -NuTe.-It is not a bar. An Indian doctor can be admitted to the Register.

[^19]:    * Acquired by private owneri for one-fourth that anm in 1992.

[^20]:     Numan (Attorney General).

[^21]:    -Vide Propialons of Immigration Ordinanoe of 1891, an to the fixing of Wegen by Magiatrate,

[^22]:    * One dollar in British Guiana is equivalent to 4 s. 2d. in English money.

[^23]:    * In a letter written to me by the Colonial Ottice since this report went to press it is stated that "the Colomal Government accept Your view that the terms set forth in Sir Joseph Nunnn's report of the 20th November, 1924 , mast be offered to all immigrants introduced under the proposed scheme." This is satisfactory.

[^24]:    * It seems to be commonly supposed that the intention is to provide prepared land fres and that consequently the expenditure to be incurred by the Colony in acquiring and preparing the land would reuder the cost of the Scheme prohibitive, penditure to be incurred by the Colony in acquiring and preparing the land would render the cost of the scheme prond and therefore the providing of prepared land on rent at the outset, instead of (in the shape of Reward. Grants) at the end of the three yorer period, will only affeat expenditure under the heads here noted, for those who work with employers, in common with those who take up land at the outset, will be entitled to receive Reward Grants after three years. Those who take up prepared land on arrival will, at the end of three years, be alloted as Reward Grants the land they are occupying.

[^25]:    *Vide Supplementary Note of 30th April, 1923, to Report of 31st March, 1920. Sessional Paper No. 12 of 1923 , p. 14.
    Note.-This reference to immigrants being penniless and therefore unable to take advantage of the offer of unprepared Crown land is omitted in the reprint of the Supplementary Note in the later Sessional Paper N.
    tAppendix "B" Sessional Paper, No. 12 of 1923.
    $\ddagger$ +Sessional Paper No. 58 of 1924 p. 20.

[^26]:    *Note.-Mr. Koatinge considered that the circumstances would have to be very unusual in any Colony to enable the Gov ernment to settle immediately on the land, as independent farmers, all immigrants who might choose to come whether they were possessed of capital and agricultural skill or not, and he therefore thought that the terms offered by the Collet Scheme were "as good as the physical and economic facts of the situation at present make it possible to offer," a view which coincides With that held by the writer who considers that any scheme of immigration which seeks to establish as independent smal proprietors, newly arrived Indian immigrants, nacclimatised and ignorant of loaal methoas of work, instead of ass axperi-
    

[^27]:    - See Minates of proceedings of a Conferenoe between Mr. Singh and a Committee appointed by the Officer Administering the Government to consider the essential difference between the terms of the offer to the Government of India to which the Sugar Plantera' Association regards itself as committed; the terms as set out in Sessional Paper No. 58 and the views expressed by the Indian Delegate, Kunwar Maharaj Singh.

[^28]:    * Fide proceedinge of a Conference between Government and the Representatives of the Sugar Industry held in the Court of Policy Hall on the 24 th November, 1924, to consider whether the conditions which had led up to the Scheme had undergone any modifications of such a nature as to require a reconsideration of the principle of the Scheme.

[^29]:    *Note.-This Fatimate of $\$ 25$ per acre does not represent the cost of preparing Crown land. Unprepared Crown land within the Coastal Helt is in all cases swamp and is in addition in most cases forest oovered. The cost of clearing, empoldoring, and draiuing jungle and swamp land of this kind would be considerably higher. The figare here quoted represente the estimated cost of acquiring and putting in order already empoldered and partially drained privately owned land on the Coast of which it is estimated it will be possible to acquire an acreage saffient in the aggregate to accommodate the total of 7.500 femilies to be introduced under the Scheme.

[^30]:    An Export Tax on produce of $1 \%$ based on the existing volume of exports would yield in a normal year $835,000-$ £36,000.

[^31]:    *In this year the portion of the Colonisation Fundinvested at $4 \%$ and over ( $£ 68,161$ marlet value at 31 st December, 1925) s realised.
    Nots.-At 31st December, 1925, the Colonisation Fund amounted to $£ 137,099$ (face value) made up as follows:-£60,166.13. invested at $6 \%$; $£ 600$ at $4 \frac{1}{8} \%$; $£ 3,000$ at $4 \%$; $£ 300$ at $38 \%$; $£ 71,674$ at $3 \%$ and $£ 1,359$ in cash.

[^32]:    *Not printed.

[^33]:    "The regular use of grasslands for agricultural purposes is confined "to temperate regions and to high altitudes in the Tropics. Plowing or "some equivalent operation must be performed in order to uproot, burs, " or otherwise destroy the grasses before crops can be planted. But plows " and harrows are worked with draft animals, which primitive tribes do not " have."

[^34]:    - i.e., containing $19.29 \%$ mlqmina and $6.27 \%$ iron and hardening to a briok-like congistenoy on exposure to the air.

[^35]:    ${ }^{*}$ Not printed.

[^36]:    (") Joint Report on the Geology of the N.W.D. by Professor J. B. Harrison and H. I. Perkins,

[^37]:    1. REPORT Supdt. Forest Survays

    REPORT Geological Survey.
    2. The mapa and diagrams accompanying the report are not here reproduced.

[^38]:    - Anslyses of the olay separated from a sample of the soil of Hosororo Hill showed that the molecular 18 tio of silioa to aluming was 1,97. Under the classifioation anggested by Martin and Doyne the aoil may be desoribed eas a lateritio olay.

[^39]:    "RAMANN: The Evolation and Olasalfostion of soils. p, L09.
    L. Thet reproduced.

[^40]:    1. HARDY, F. J. Agric. Sci. XVIII, p. 252. 1928.
    2. The results obtained for reaction erchange reaction, $\%$ atones and gravel and the Indox of Texture are filed at the office of the Director of Agrioulture.
[^41]:    1 CAMARGO, BOLLINGER \& MELLO:
    Influence of $\mathbf{H}$-ion concentration of culture media on the development of the coffee tres. (C.A, XXIII 2779) Compt. rend. 183, 876 (1929).
    rend. 183,876 (1929).
    Notr-(The organic matter content of the aoil bas been obtained by multiplying the figure for per cent. carbon by the conventional factor, if 1.724 . It is of interest to note that in this series of soils the lowest value (1.72) for the ratio loss on ignition' to 'eper cent carbon' is cbtained with a soil having a lost on ignition value of $95,1 \%$ of the soill.

[^42]:    1. ALLINOF, BRYAN \& HUNTER. The stimulation of plant reaponge on the raw peat soila of the Florida Everglades through the use of copper sulphate and other ohomioala. ${ }^{2}$ Florida Exp. Sta. Bull. 190 (1927) pp. 33 et aeq.
[^43]:    ${ }^{2}$ HARRISON. Reyort Bntan. Gdns, and Govt. Lab. 1896-1902. Part II. and III. pp. 47-49.
    HARRISON. Report Soile of Rupununi Savannah District. Combined Court No. 744, 1914. (Quoten other authoritiea In mopport of his contention).
    harrison. Memo. Soils of Cattle Trail. Comb. Court No. 111925.

[^44]:    , ${ }^{2}$ Rept. on the Analytical Examination of mamples of soil from the Rupununi Savannah District. Combined Court No. $744-1914$. A WILL ATERS . The maintenance of fertility by rotational.green manuring. Proo. First West African Agricultural Conference, 1927. POYNTER 7th Ann. Buil, Agri, Dept. Nigeria 1928 p. 65 et seq.

[^45]:    The Honourable
    The Colonial Srobetary.

[^46]:    - Not reprodicod.

[^47]:    "If the people could be settled in the vicinity of their own land, say " at Craig, I have no doubt the propristors of the estate would be prepared "to purchase all the cane they might produce at the price advertised "weekly, besides providing them with all the facilities set out in your "questionnaire."

[^48]:    - These are Village landa.

[^49]:    32. We have already indicated (paragraph 20) what the cost to Government of organised migration is likely to be and, therefore, do not recommend the second course.
[^50]:    * Appendix I.
    + Appendix
    Appandix
    II

[^51]:    *The original Letters Patent under which the Council was oonstituted are dated 5th March, 1891. These were revoked by Letters Patent deted the 25th Febraary, 1911, in tarn revoked by those dated íth Febraary, 1920.
    $\dagger$ Royal Instructions 14th Febraary, 1920-Clause IX.
    $\$$ Ibid., Clanse XI.

[^52]:    * Royal Instractions 14th February, 1920—Clause II.

[^53]:    * British Gaiana Constitution Ordinance, 1891, Amend ment Ordina nce, 1909 (No. 24), -Section 5.

[^54]:    * British Guiana Constitation Ordionnce, 1891 (No. 1)-Section 54.

[^55]:    - British Guiana Constitution Ordinance, 1891, Amendment Ordinance, 1909 (No. 24)-Section 11.
    $\pm$ British Guiana Constitution Ordinance, 1891 (No, 1)-Seotion 56_(1).
    I Ibid.--Section 56 (2)
    § Ibid.-Section 67.

[^56]:    All the estates pay their nurse-midwives regular monthly salaries ranging generally from $\$ 14$ to $\$ 18$. Some estates also pay their midwives for deliveries in estate hospitals at rates from 50 cents to $\$ 1.50$ for each delivery, while others pay for deliveries in ranges at rates from $\$ 1$ to $\$ 2$; and finally the majority permit their midwives to receive private fees from cases in the ranges of amounts varying from 72 cents to $\$ 3$ for each confinement. In this connection the position might be examined with a view to standardising the salaries and readjusting the allowances at present given to estate midwives for attendance on hospital and yard maternity cases.

[^57]:    - Not Priuted.

[^58]:    *The composition and powers of this body are described in Chapter IV.-Administration.
    tIn this cannection we desire to call attention to the possibility of reducing the incidence of Hook-worm disease among school children, by means of some regulated form of mass treatment to be carried out in the schools, (vide memorandam from the Surgeon General dated 31 st December, 1994. We have not considered it necessary to work out a detailed scheme for the medical inspection of school childrea which is obviously the duty of the Lepartments concerned), but reference may be made to the report of the Trinidad Ankylostomiasis Commission for the year 19.23 (pp, 9-13), which contains a scheme for the inspection of schools in Trinidad. In considering the introduction of a similar schene in this Colony, the Trinidsd proposals would form a useful basio of discussion.

[^59]:    - Not printed.

[^60]:    - The holders of Government Primary Scholarshipa raceive free secondary edacation and a mainteanace allow-

[^61]:    - Wa have made an exception in the mattere of the dismissal of teachers, and the cancellation of their certificater. (See paragraph 7 of this chapter.)

[^62]:    * A proposal that the existing trained teachers should be considered as havirg a special qualification withia the meaning of para. 7 (b) (i) was discussed, and approved by a majority of votes.

[^63]:    Reform in Administration.
    42. So much for educational policy. It now remains to consider hos best to secure administrative efficiency. The history of previous attempts to devise some machinery for carrying out educational enaotments has already been referred to at the

[^64]:    E. F. MfCDA VID, Colonial Treasarar (Aoting).

[^65]:    - A full report of the work of this Committee, of which the Director of Agriculture was member, will be found in Sersional Paper No, 6/34.

[^66]:    Single transplanting at 4 weeks old.
    Single transplanting at 5 weeks old.
    Double transplanting, 1st at 3 , weeks, 2nd 3 weeks later.
    Double transplanting, 1st at 3 weeks, 2nd 4 weeks later.
    Double transplanting, 1st at 4 weeks, 2nd 3 weeks later.
    Double transplanting, 1st at 4 weeks, 2ad 4 weeks later.

[^67]:    "Instead of Rhynland acres in acoordance with new legislation. A. Rbynland acre $=\mathbf{1 . 0 5 2}$ English acres.

[^68]:    - Thla Distriot emme into operation on 1at May, 1924

[^69]:    Vi.

[^70]:    *Available for 1931 only.

[^71]:    - Percentage of total Popalation.

[^72]:    *No records available.

[^73]:    - Available at this Census only.

[^74]:    Too small to be of any practical use for statistical purposes

[^75]:    *Women engaged in "Home duities" included.

[^76]:    *Omitted, too amall to be of any practical use for statistioal purposes

[^77]:    * Percentage of total East Indian Population
    $\pm$ Porcentage of total population of too mmall to be of any practical use for statistioal purposes.

