

ASSAM LABOUR BOARD

REPORT

ON THE

MEDICAL AND SANITARY ARRANGEMENTS

AT THE

RECRUITING AND FORWARDING AGENCIES

BY

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DURING

The year ending the 30th June, 1920.

Calcutta:
PRINTED AT THE CRITERION PRINTING WORKS,
8, JACKSON LANE

1920.



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WALTAIR—

5th and 7th June 1920.

I visited and inspected this Agency on the 5th June and again on the 7th. Accompanied on both occasions by Mr. Ambler, Local Agent. On the latter date Colonel Tucker I.M.S., Civil Surgeon, was kind enough to join us, chiefly in the inspection of the site to be taken up for new buildings.

The Place of Accommodation is situated in open country beyond the confines of the town within about half a mile from the Jail. The actual position is a good one, the land having a fine natural slope to a road bounding it on one side, and there being no outside habitations of any objectionable character in the immediate vicinity.

The structures embodying the main accommodation are ten shelters arranged at fairly regular intervals on the perimeter of the site. They are each erected on a plinth about 15 inches high of beaten earth faced with brick, 14 feet by ten, and consist of a single palmyra roof up-tilted on light bamboo poles, with, in the case of a few, the addition of mat walls. A cook-shed similarly constructed of palmyra and bamboo, has a pent roof low to the ground covering an area of bare earth, the shed possessing no plinth, no drainage, and no fixed chulas. Latrine accommodation is in the form of two enclosures walled with mats, and containing each a grass-grown trench of uncertain depth. There was some lime strewn about but any effective supervision was obviously lacking, and if such places were used at all they could only serve as a breeding-ground for flies, and constitute a sanitary nuisance of the worst type. Water-supply on the site is non-existent, nor is any provision made for the maintenance of a reserve stock. The main source is a municipal stand-pipe about half a mile away from which each individual fetches water to satisfy his own requirements as occasion arises, and subsidiary sources of supply at the choice of the coolie appear to be in the form of municipal wells, of which there are four scattered at varying distances from the Rest-house. Accommodation for isolation and segregation in the event of any infectious disease occurring takes the shape of a kuteha hut in a ruinous condition on a hillock a little distance away. A stone building with tiled roof has been erected near the centre of the area. It has an earth floor with no plinth, and is strangely designed in the form of a deep shed entirely open at one end. It seems to be used chiefly for medical examination purposes and as a place where vaccinations are performed.

The Agency Office is not on the site, always a grave disadvantage. It is in the town—Vizagapatam—about a mile from the Rest-house, and the Local Agent's residence is in the Civil Station—Waltair—about three miles distant.

An Indian medical practitioner with, I am informed, British qualifications attends at the Place of Accommodation and examines all coolies with a view to their fitness for emigration. He is also responsible for all vaccinations against small-pox. Anti-cholera inoculation is carried out by the Civil Surgeon at the Jail, where the coolies proceed for the purpose. A register recording the result of the medical examination in each case and the fact of inoculation and vaccination is kept at the Agency Office.

From the 1st September to the end of May, 2023 coolies (1460 adults) passed through the Agency, and 1200 sirdars, a total of 3225 souls. Coolies are mainly Khond, Khondodora, Kapu, Mala, Dom, Paidi, Telegu and Goala, and are designed for all districts of Assam Cachar and Sylhet. Under the Madras Government Labour Rules all coolies from Agency Tracts must be detained in the Place of Accommodation for a minimum of seven days, and all others for at least three days. This renders the average daily number resident considerably higher than at Agencies elsewhere dealing with perhaps similar totals.

The conditions prevalent at this Place of Accommodation clearly offend elementary standards of hygiene and comfort, and the arrangements generally are open to considerable exception. It has, however, only been in existence on the present site for little more than twelve months, and it is satisfactory to know that the erection of new buildings is projected on sound sanitary lines. The site now occupied is not available for purchase, but another has been selected of five acres adjoining above it. This is a fine open area of land, high and

breezy, possessing an excellent natural fall. The plot is irregular in shape, mainly a piece more or less square with a long protruding arm, but this should lend itself to advantage in settling the position of the several buildings designed to be erected. The plans, which I have seen, are on the whole good but I have suggested to Mr. Ambler that instead of the main building being erected as a continuous shed on three sides of a square it should be opened out to form separate structures. Considerable gain would result in light and air, for, taking the plan, the space embraced in the quadrangle formed by the building appeared to me limited and confined, being no more than about 24 feet across. Sleeping accommodation is to be provided for 75 people, and actually two buildings might be arranged to furnish this and so much saved, for as I remark later the cost of construction here is extremely high. Accommodation for segregation purposes and for contacts should be in the form of skeleton buildings with brick pillars, tile roof, pucca floors and drains, and these should be placed for preference at the extreme end of the arm mentioned jutting from the main portion of the plot. Latrines should be on the pail system with incinerator, and careful attention should be given to all drainage connected with them. The Agency Office is to be on the site.

Water-supply is apparently a difficult question. Mr. Ambler informs me that the geological formation of the land renders it exceedingly doubtful whether a well could be sunk with success. Rock is very near the surface, and water lies only, it appears, in rifts and fissures which are difficult to locate. The best solution would be the extension of the municipal pipe-line to the site, and there should be really nothing against this although the Local Agent anticipates the probability of objection—or obstruction—from the Municipality. An alternative, which I trust can be avoided as it is extremely unlikely to work out well in practice is the provision of a water-cart to keep tanks on the site replenished from the town supply.

Mr. Ambler informs me that owing to the high local rates the estimate for the new buildings reaches the sum of Rs. 20,000/- with, in addition, Rs. 8,000/- for the 5 acres of land to be acquired, a total of Rs. 28,000/-. It is scarcely within my province to discuss the question of expenditure, but I am bound to express an opinion here, as the sum to be spent is exceedingly high—not to say excessive—for the amount of accommodation to be provided, and to the best of my knowledge compares very unfavourably with that necessitated in the construction of other places of accommodation of similar type. The main building of the Rest-house as designed I cannot approve, but instead of having three separate and expensive buildings as would normally follow from its disjunction economy could be effected, as I have indicated, by furnishing the required sleeping accommodation in the two wings only, the necessary store-room accommodation and peons' quarters being provided elsewhere on a less costly scale. I assume that accommodation for medical purposes—the examination, inoculation etc. of coolies—is to be arranged in the Office building, which would appear spacious enough to permit of it, and the establishment of a small dispensary in connection would prove, I believe, of advantage.

PITHAPURAM—

8th June 1920.

Accompanied by Mr. L. S. Driver, Superintendent of Madras Agencies, I visited and inspected this Agency on the 8th June.

The position of the Rest-house is a bad one, situated as it is in a street of the town closely surrounded by other buildings. It is itself a single-storied bazar house of the slightly better class. Through an entrance block facing the street is a small enclosed courtyard leading into a large central apartment lighted mainly from the roof. This is fitted as the Agency Office, and off it on the right is a dark room of fair size, and another smaller both forming part of the sleeping accommodation for coolies. Out from these again through a verandah used as a cooking-place is a yard partially enclosed by mud walls, which contains a well. Bounding the Office room at the rear are other dark chambers, and outside in an open space a "latrine" with a *kutch*a cooking-place for pariahs at some little distance away. There are five rooms in all making up the sleeping accommodation for coolies and sirdars, two having cement floors and the others earth, lighting and ventilation being bad throughout. The well is in poor repair, with no plinth and no cover. I was informed, however, that it was not in use, water being brought in from outside. The so-called latrine is no more than a space of bare ground surrounded by a mud wall—a dreadful and

pernicious arrangement, or want of arrangement, which I am astonished should have been allowed to exist. No means of segregation or isolation are available in the event of any infectious sickness occurring amongst the people coming in.

Coolies are detained for three days as a minimum, and those from the Agency Tracts for seven. The chief castes recruited are Mala, Kapu, Madiga, Oddi, Kamar, and Telegu, all of poor type for many districts of Assam though they may be suitable enough as labourers in Cachar and Sylhet. For the season up to the end of May 364 (308½ adults) were passed through, and 247 sirdars, a total of 611. Last year the numbers were 4367 coolies (2929 adults) and 435 sirdars.

A local practitioner of the sub-assistant surgeon class examines coolies with regard to their fitness as emigrants and tea-garden labourers. The people are all vaccinated and inoculated on their arrival in Berhampur.

I found it was not the custom here to supply coolies with rations, but to hand them six annas daily in lieu, and let them buy for themselves. This is a bad practice and I recommend strongly that it be put an end to. Coolies especially ignorant people newly brought in from remote out-lying districts are prone to use the money given them wrongly, or even in their attempt to purchase wholesome foodstuffs they are extremely liable to become the prey of rapacious traders. If there is likelihood of misconduct on the part of those of the Agency staff serving out the supplies, there must be at least equal chance of robbery or extortion arising in their handling of the allowance in money. The Local Agent should himself be made strictly responsible for the supply of rations correct in quality and quantity.

It has been recognised that new buildings here are a necessity and arrangements to this end have already been entered upon. The question of a site has been discussed for some time, but from personal inspection I am clearly of opinion that it is unnecessary to look further for this than the position originally selected by Colonel Kennedy. This is a good site amongst mango trees and palms on the side of the railway line away from the town. It is within easy reach of the Station, but has no habitations of any particular account near it. The land has a good natural fall and could never, I think, be under water. There was some question of it being too near the town latrines. These, such as they are, are on the other side of the railway line, and there is no dangerous proximity whatsoever.

I have seen a rough sketch of the buildings proposed to be erected. I would recommend :—

- (1) a building 60' × 14' to accommodate 40 coolies. It should be *pukka* on a 2' plinth with tile roof, cement floor and drain, open arches in front and perforated brickwork in the rear wall.
- (2) a *pukka* cook-shed 40' × 12' with half walls along both sides and perforated brickwork in the gable ends, a double row of chulas on a cement floor sloped to the centre and adequate drainage to the outside away from the building.
- (3) three skeleton buildings, *pukka* plinth with drain, posts and roof—one 12' × 16' and two 12' × 10'—for the segregation of cases of infectious disease and the isolation of contacts.
- (4) a *pukka* well with concrete plinth, parapet, domed cover, pulley lift and drainage.
- (5) a separate bathing-place with cement floor and drain.
- (6) latrine with four places on the pail system, and incinerator.
- (7) peons' quarters and store-godown.
- (8) office building comprehending a verandah suitable for the conduct of medical examinations.

BERHAMPUR—

9th June 1920.

Along with Mr. L. S. Driver I visited and inspected this Agency on the 9th June.

The various buildings are somewhat scattered, but their location generally is a good one well outside the town precincts in the midst of a wide open area of cultivated land.

CUTTACK—

20th April 1920.

Along with Mr. Macpherson, Supervisor, and Mr. D. S. Mackay, Superintendent of East Coast Agencies, I visited and inspected this Agency on the 20th April, 1920.

Emigrants and sirdars are received and pass through on a certain definite plan, which involves the maintenance of three distinct sets of buildings with a separate establishment in each. The majority of the people coming in cross to Cuttack by ferry landing at Chahataghat, where they are received into a "Camp". This is formed in a wide open space of land on a sandy tract adjacent to the river. The buildings stand in separate areas and the coolies pass through in regular series of gradations till they leave after three or four days for the main Rest-house in Cuttack, the idea being to keep each day's batch apart and free from contact with any others, an arrangement, which tends to diminish risk of infection, and which is found also of considerable utility from the administrative point of view. After a night in the main Rest-house the people proceed to the third place of accommodation, situated close beside the Railway Station, whence they are finally challaned.

The whole system has been worked out in singularly able fashion, and has been put into force by Mr. Mackay with the view of preventing the intrusion and spread of cholera and other infections, and in order to deliver the coolie to Assam clean and free from obvious disease of any kind.

The medical arrangements generally are first-rate, and show an intelligent appreciation of all necessary requirements. At the Camp coolies are inspected by the Civil Surgeon, who attends there for the purpose every other day, and they are inoculated against cholera by a sub-assistant-surgeon under his supervision. There is an excellent hospital on the site consisting of four *pukka* buildings, each 40 feet by 18 with a 7 feet verandah along one length. The wards are high and airy, well-constructed with cement floors and ingeniously drained. They are admirably equipped with iron beds fitted with spring mattresses and straw sleeping mats and details are carefully looked to such as the provision of separate utensils for each ward, bed-tickets and charts, screens and chiks. Two sub-assistant-surgeons and two compounders are employed, one officer of each grade being always on duty. A separate *pukka* building of two rooms constitutes the dispensary, which is well-equipped with all necessary drugs and instruments. Registers are satisfactorily maintained, and I found that 376 patients were under treatment in March, and 216 to the 19th of the present month.

The accommodation at Chahataghat, except in the case of the hospital and dispensary buildings as described is entirely *katcha*, and consists at present of twelve houses built with wooden posts, mat walls and thatched roof, each 25 feet by 15. Many others of similar construction which were in use last year are in various stages of decay, or only the earth plinth on which they stood remains. The whole amount of land available is 18½ acres, and the buildings are all well-spaced in regular lines. The administrative buildings on the site are of the same temporary character.

Water-supply is from a number of earthenware ring wells, which are of their kind perfectly satisfactory. Separate paniwallahs are provided to draw the water, and a utensil for the purpose is attached to each source of supply.

Except for the hospital kitchen, which is a separate building possessing its own cook, all preparation of food is done by the people themselves on rows of chulas in the open.

Latrines are on the dry earth system with subsequent trenching of night-soil, and appear to work satisfactorily under the prevailing local conditions with the light earth and sand available. A real safeguard, however, in this system must be the close supervision exercised, as otherwise nuisance would be bound to develop.

A shop for the sale of cloth, miscellaneous articles and small luxuries is established under the control of the Superintendent, and no petty vendors or itinerant traders are allowed near the area. There is a branch shop of the same class both at the main Rest-house, and at the place of accommodation near the Station.

An adjacent village, which might well have been a source of mischief from the sanitary point of view has been taken in hand by Mr. Mackay and cleaned up. It is inspected

regularly by the Agency's medical officers and the people in it receive medical aid from them in case of need. Attention is also given to the river foreshore by the Agency staff of sweepers and it was clear to me that every effort was being put forth to maintain the Camp and its surroundings in a sound sanitary state.

From Chahataghat the people proceed to the *main Rest-house* at Cuttack, three to four miles distant, where they are registered at the Agency Office on the same site, and finally passed by the Superintendent. The accommodation here consists of fine *pukka* buildings, one 80 feet by 15 fronted by open arches, and the other arranged on three sides of a square, 60 feet long on the main side with wings measuring 50 and 40 feet. Sleeping platforms 7 feet wide are fitted, and the buildings are on a two foot plinth, floored and faced throughout with cement. There is a good cook-house provided, 80 feet by 18, with a double row of chulas.

Latrines are *pukka* of excellent design and particularly well drained. They are on the pail system with 26 places. A trenching ground for the excreta is away at some distance. A separate urinal is in use.

Water-supply is from a soundly constructed *pukka* well, fitted with a pump, and a special *pani-wallah* is employed. A bathing platform is provided near.

A sub-assistant-surgeon is on duty, who is responsible for all vaccinations, and there is a small dispensary on the site fitted for emergencies.

The Rest-house is situated on a triangular piece of land between two roads, and the area is surrounded by wire fencing. The whole was in perfect order, and well-cared for. Within a short distance is a set of *katcha* buildings used as over-flow accommodation or for segregation purposes if required. These consist of *katcha* sheds open on one side, one 104 feet by 16, and two 46 feet by 15. There is also a cook-shed 84 feet by 15. Water for drinking purposes is obtained from two pipe wells, and there are also two ablution wells on the site. A separate latrine is provided.

Coolies as a rule come in from Chahataghat in the evening stay the night in the main Rest-house, and leave next morning for *Rest-House No. 3*.—beside the Railway Station. They leave that again on the same night for Khargpur. This final place of accommodation consists of four well-built *katcha* sheds on high earth plinths, each building 45 feet by 16. There are two cook-sheds of similar construction and the whole is well spaced on an open area of land. Water-supply is from four wells, three tube and one *pukka*. Latrines are on the dry-earth system, and the railway trenching ground is used for the disposal of the excreta. The clothing issue is made here and the people are finally challaned.

The average daily number of coolies resident is about 400. For the season to date 6523 souls, as well as 2514 sirdars have been passed through, a total of 9037. For the whole of last year the total was 51,534 (coolies 45,497, sirdars 6037).

The system employed at Cuttack has been excellently devised to meet prevailing circumstances, and it stands as an example of sound organisation. The main impression conveyed by inspection of the Agency is the attentive supervision visible at every point, and this the special character of the arrangements undoubtedly demands if success is to be assured. Results so far as I have been able to judge have been excellent, but it might now well come up for consideration whether the procedure generally could be simplified. I cordially approve of the established camp at Chahataghat. The hospital buildings and medical arrangements there are, as I have stated, first-rate, and while the temporary character of the other buildings might be largely retained, an advantage would lie, I think, in the construction of *pukka* plinths in at least a few of them. The area is liable to flood on the rising of the river, and in deciding on any permanent building operations note would have to be taken of this. The provision of covered cooking accommodation would also be an improvement. Then as regards the period of detention, which is here longer than that usually adopted, it has to be borne in mind that cholera is endemic in many of the areas from which the Cuttack coolies are derived and further that the people are for the main part weakly and of comparatively poor physique. Even with the advent of anti-cholera inoculation a period for observation is, therefore, of pronounced value and it

The Agency Office is on the site of the Place of Accommodation and I found the buildings generally in good repair and cared-for.

With regard to medical matters connected with these small Agencies I have to remark on the excessive cost of the inoculation against cholera, the vaccine being supplied in tubes containing a minimum quantity of 20 c.c. In the vast majority of cases the whole quantity cannot be used at one time, and the opening of the tube renders the remainder—usually the larger amount—worthless. There is thus considerable waste, and taking the number of tubes of vaccine expended and the number of people inoculated the cost per head both at Midnapur and Bankura worked out at eight annas, while at Buxar it reached twelve annas. This is wrong and I recommend that every pressure be put on the Vaccine Stations and Institutes to furnish the material in smaller bulk even although this might entail some slight extra cost for packing.

GAYA—

9th May 1920.

I visited and inspected this Agency on the 9th May, 1920.

The Place of Accommodation is a single-storied dwelling-house in the depths of the bazaar. The Agency Office and peons' quarters take up the entrance front, and behind is a small quadrangular court with a cook-room on one side and a verandah on the other three. Out of this is another similar paved yard with a narrow verandah round it, and on three of its sides a labyrinth of dark rooms for the most part small and opening out of each other. There is a well in the centre of this court which is not used, municipal water being obtained for all purposes from a stand-pipe in the street. A latrine of primitive type is contained in a tiny annex. It has five places on the pail system and is kept in order by the municipality. The local agent's quarters are above in a portion of the building upon which a second storey has been erected.

This, it appears, was the original building in use for about thirty years. It was abandoned for another place situated on the river bank, which was swept away by a flood, and the Agency was then forced to return to its original home. The place is of interest from the architectural point of view as an example of an old Indian dwelling of the better class but it stands as a noxious spot for the reception and housing of coolie labour. It is satisfactory to know therefore that a fresh site is being acquired for the erection of new buildings on ordinary sanitary lines.

An assistant surgeon is employed for the examination of coolies and he carries out all inoculations and vaccination. Any sick are sent to the Government Hospital.

The diet allowed is liberal, and clothing etc. is issued on the usual Association scale.

Coolies are detained on an average 30 hours. They arrive one day, are seen by the doctor on the next and challaned the same evening. For this season to the end of April 71 recruits have been passed through and 97 sirdars have arrived. Last year for the whole season numbers were 844 (coolies 563, sirdars 281). The people are drawn from rather a wide area—from Gaya, Mozufferpore, Darbhanga, Patna, Champaran and Saran. They are chiefly Bhuias, Doms, Kahars and low class Hindus generally.

The proposed new site was inspected by the Chairman of the Board, Mr. Macpherson and myself, along with Mr. Alderson, acting Superintendent of Local Agencies, Bengal & Behar. It is certainly away from the town on the other side of the railway line, but it proved to be about an acre of land in the very midst of a filthy village, and altogether impossible. It would be sheer waste to erect new buildings on a site of this character, as they could clearly never exist in such a place under any sanitary conditions at all satisfactory. On the 10th May an endeavour was made to find something that could be recommended as suitable. An excellent site was discovered three miles from the town on the Shergathi Road about one mile beyond the Jail. It is an open area of land backed by low hills, and between them and the road, with good natural drainage. The only drawback here is the slight extra distance involved, but coolies to reach the place would not have to go near the town, and there is a motor service on the route. There is a second site within a mile of the Railway

Station on a triangular piece of ground between the line and the Chenaputti Road beside a level crossing. This would be perfectly satisfactory in every respect, but it might be more difficult to acquire, and certainly more expensive than the first-named.

LAKHISERAI—

11th May 1920.

I visited and inspected this Agency on the 11th May 1920.

The Rest-house lies in a narrow lane off a side street in the town, and its surroundings are of the worst description, hemmed in as it is by the dwelling-places of harlots, and the hovels of sweepers and dhobies. Entrance is through a gate in an open fence into a quadrangular space with a latrine on the right and the Agency Office on the left. Fronting the space are low single storied buildings of *kat-ha* brick and tile containing sleeping accommodation—three small rooms with earth floors—and within is a small court with a lean to structure round it. This on one side forms two rooms with a narrow verandah space in front of them, on the opposite side a cooking place, and a further small room in the rear wall. The court has a *pukka* drain round it, but the floors of the rooms are of earth throughout. They are fitted with wooden sleeping machans, and vary in size from 16 to 12 feet by 8.

Water-supply is from a well in the outer quadrangle. It has a low plinth, no cover, and the surrounding drainage is bad. No special pani-wallah is employed, and there is no particular provision made for bathing.

The latrine is of *pukka*, badly constructed and foul, with no adequate drainage.

The Railway sub-assistant-surgeon examines the coolies, and performs anti-cholera inoculation and vaccination. Any sick are sent to the Charitable Dispensary about $\frac{1}{4}$ mile distant. There is no segregation place or provision for the isolation of contacts from infectious disease. The Rest-house itself was recently plague infected, and plague in the town is of annual occurrence.

Coolies are normally detained here about 30 hours. 147 sirdars have been received this year and 175 coolies despatched. Recruits are largely Santal, Bhuia, Dosad, Ghatwal and Toori.

With the exception of the condition of the latrine I found the whole place sufficiently clean and in order, but it is obviously extremely unsuitable for its purpose. A new Place of Accommodation for this centre is under consideration, and a site has been selected for it at Kiul on the opposite side of the river. The whole area of country there is exceedingly liable to flood, and the place chosen would appear to be about the best possible. The buildings would, however, require erection on high plinths to avoid trouble from flood water. They need be of no very elaborate or extensive character, as from the numbers dealt with in ordinary years this Agency would not appear to be of any great importance. The site is close to the Railway Station at Kiul, and on an open area of land.

DUMKA—

13th May 1920.

Along with Mr. Macpherson I visited and inspected this Agency on the 13th May 1920.

The Place of Accommodation occupies a fine open site on the slope of a hill outside the town. The buildings are arranged on three sides of a wide square, the fourth side being formed by a low wall with the entrance gate in the centre. Through the gate is the Agency Office on the left, and the sleeping accommodation for coolies stretches away from this to the further angle and along the greater part of the opposite side. It consists of a low building, *katcha pukka*, open in front save for brick pillars at intervals supporting the tiled roof. It stands on a plinth fronted with brick, and has a sleeping platform continuous throughout its length. The platform is faced with cement carried on from the floor in front of it, but its top surface is merely "leaped", and a desirable improvement would be if the *pukka* were completed so that the whole could be flushed out with ease. I recommend,

also, the putting in of a cement drain along the buildings. The general design of the accommodation is satisfactory and with the alteration noted it would fulfil all ordinary sanitary requirements.

The cook-house is on the opposite side of the compound from the Office, and is a building of similar construction to the sleeping quarters. It has a wide *pukka* drain outside throughout its whole length, but within the floor is of earth, and this requires remedying. It should be of concrete laid with a fall to the existing drain.

Water-supply is from a well in the compound. It has a low parapet with no cover, and more efficient surface drainage is called for. It should be fitted with a domed cover and pulley lift. The attendance of a separate *pani-wallah* should be arranged for. A bathing-platform should be made, and properly drained away from the well. The supply of water at this season of the year is scanty. No further depth of this well can be obtained as it is already dug down to the solid rock. Mr. Alderson suggested that an abandoned well on the other side of the road, outside the Rest-house precincts, might be improved and rendered safe for extra supply in time of need, and this would appear sound.

The latrine is placed at one angle of the square. It is *pukka* of fair design, but requires some improvement in drainage as I pointed out to Mr. Alderson.

Coolies are medically examined by a private practitioner in the town, a qualified sub-assistant-surgeon, who attends at the Place of Accommodation daily, and carried out anti-cholera inoculation and vaccination. A few simple medicines and disinfectants are stocked. A desirable improvement would be the construction of a small dispensary. There is ample space available for the purpose, and I have no doubt it would prove itself of value.

Any sick are sent to the Charitable Dispensary, which receives a small monthly subscription from the Agency.

A grass and bamboo hut is provided out on the side of the hill as a segregation house. Two skeleton buildings should be constructed for this purpose with *pukka* floors and drains. The Agency has no spare land, but there is much waste ground round the existing buildings and the small space needful would no doubt be easy to acquire.

Coolies are normally detained 48 hours. They travel to the railhead 40 miles by road, one cart being supplied for every 5 women and children, and one for baggage for every ten men. They proceed by night, resting at Shikaripam about half way where there is a very *katcha* open shed for their accommodation, and where they receive two hot meals. They receive a third meal on arrival at Rampur Hat. These arrangements in order to be satisfactory must require a great deal of supervision, and I would recommend that every endeavour be made to settle for the conveyance of the people with the motor company who run a regular daily service to Rampur Hat. This is done, I may mention, with success at Hazaribagh, which is about the same distance from the railway as Dumka, and it would greatly simplify matters to have the coolies taken straight through in a minimum of time.

For this season to date 1,012 coolies have been sent forward and 768 sirdars received. Coolies are mostly Santal, Ghatwal, Dom, Paharia and Kumar. From the type mainly recruited the Agency is an important one.

I found the whole place thoroughly in order, and presenting a pleasing appearance from the shade trees and rose-garden flourishing in the compound.

AMRAPARA--

14th May 1920.

This is a large market village in the Damin, 31 miles from Dumka, where a local agency for Assam recruiting has recently been opened out. I visited it along with Messrs. Macpherson and Alderson on the 14th May 1920.

Coolies are meanwhile accommodated in an ordinary village house of the class used as a grain gola, or inhabited by a bania. It is *katcha* built with tiled roof, and has three small dark rooms with sunken earth floor in the entrance front through which is enclosed courtyard.

with a similar building behind. Cooking is done in a *katcha* lean-to verandah, and water-supply is from an outside well, *pukka*, but of poor construction with no cover and no adequate drainage for surface washings.

The Agency Office is in a separate building a little distance away. During the four months it has been open for Assam 12 sirdars have been received and 9 coolies sent forward. They travel by road 20 miles to Murarai Station, where they receive a hot meal before being entrained for Naihati. The people likely to be brought in are Ghatwal, Paharia and Santal, and would largely come from outside the Damin. A local sub-assistant-surgeon is engaged to examine the coolies and carry out anti-cholera inoculation and vaccination.

SAIDYANATH—

15th May 1920.

In company with Messrs. Macpherson and Alderson I visited this Agency on the 15th May 1920.

The Place of Accommodation is completely unfenced and occupies an open site on a slope with fine natural drainage. It is well away from the town, the only buildings near being Indian houses, some of considerable pretension, each standing in their own grounds.

The Rest-house buildings are single-storied of brick and tile arranged on three sides of a narrow quadrangular court 40 feet long by 24 wide. The end room is 24 feet by 10, and the side rooms 50 feet by 10, the extremity of one being taken up for a small office. Floors are *pukka* and perforated brick-work is let into the rear walls, so that light and air are fairly well provided for. There are no drains round the buildings. Cooking is done in an open lean-to structure on a slightly lower level against the outer side of one wing. The place has an earth floor and no drainage of any sort. A *pukka* latrine is arranged at each end of this of poor design and in bad repair. Neither latrine, however, appeared to be in use.

Water-supply is from a well on the slope of the hill below the Rest-house. The well is soundly constructed with good plinth and parapet, but it has no cover, and no special *pani-wallah* is employed to raise the supply.

For this season to date 194 sirdars have been received, and 344 coolies (214 adults) recruited. They are mainly Santal, Ghatwal, Bowri, Toori, Goala, Khol, and Chamar.

A local sub-assistant-surgeon is engaged to examine the coolies, and carry out anti-cholera inoculation and vaccination. A few necessary drugs and medical appliances are stocked at the Rest-house.

The place is hired by the Association, and I found it sufficiently clean and in order, but the buildings structurally only in fair repair.

RANCHI AGENCY. (T. D. L. A.).—Local Agent & Superintendent Mr. Allan Mathewson—

23rd February 1920 and 26th February 1920.

I visited and inspected this Agency on this 23rd February and again on the 26th, on the latter date by appointment with Col. Vaughan I.M.S., Civil Surgeon.

The site and general location of the Rest-House is highly congested and most insanitary.

Coolies are largely recruited from Native States (Sirguja, Jaspur, Gangpur,) and are chiefly Oraons and Mundas. They are designed for all districts of Assam.

The daily number being received at present averages approximately 400, and the total from the 1st September to date is 14,084 (coolies 8624 and sirdars 5460). The highest number resident on any one day would be fully 500.

The ordinary duration of stay is 24 hours after medical examination.

The main buildings of the Rest-House are in the form of a square placed in a large quadrangular compound enclosed by a wall about five feet high, and are of substantial

construction with corrugated iron roofs. The buildings on three sides of the square comprehend the sleeping accommodation. This has a narrow verandah running along its inner front, and a brick drain leading into a main channel discharging to the outside at one angle. The central space contains a cook-shed with partially open sides and galvanised iron roof. It would not appear to be rain-proof, and it has an earth floor and defective drainage. The floors throughout the sleeping quarters are of bare earth, the lighting is poor and the ventilation deficient. There are no changes fitted and sleeping mats are not provided.

Latrine accommodation is placed in the compound behind the buildings at a distance of about 25 paces. It is in the form of an iron structure with 16 places on the pail system. Its use was evidently not encouraged, and I gathered that it was impossible to keep it ordinarily clean or remove the excreta, and it was therefore judged better for the people to resort to the paddy fields behind.

Water-Supply is from two *pukka* wells one at either angle of the front portion of the compound. One well is properly-even massively-protected by cement work against possibility of contamination and it has its own bucket and two paniwallahs allotted to it. The other well would require completion. It has a low parapet with no cover, no plinth, and no special bucket, coolies putting down their own utensils to raise the supply. The amount of water would probably be adequate for drinking purposes but there would appear to be little available in excess of that for flushing or bathing.

The diet-scale is satisfactory and the food-stuffs I inspected of sound quality.

Clothing, blankets and utensils are issued on the usual Association scale.

The front portion of the buildings comprise store rooms at either angle, and centrally a dispensary room and a semi-enclosed space where medical examinations, inoculations etc., are conducted. The dispensary is well equipped with a full stock of medicines disinfectants and all necessary instruments. Excellent medical records are maintained of cases treated in the dispensary, and of all detentions for sickness, as well as a register of vaccinations and inoculations. There is a qualified sub-assistant-surgeon in charge as medical officer under the supervision of the Civil Surgeon. He is paid Rs. 150 a month, and in addition to his strictly medical duties directs the management of the Rest-House. Cases requiring in-patient treatment are sent as a general rule to the Saddar Hospital about 3 miles distant. There are, however, three separate hospital buildings on an area of land near the Rest-House in use as isolation and observation wards for cholera, small-pox and general diseases. They are of *pukka* with iron roof but have earth floors and are practically destitute of equipment. A male dresser and sweeper are attached to them. Water-supply is from a well close beside the Agency Office.

All coolie emigrants before leaving for Assam are medically inspected by the Civil Surgeon, who also performs anti-cholera inoculation in every case over 3 years of age. In addition all are vaccinated, and as far as the present system goes methods of medical inspection here leave nothing to be desired. Coolies are detained for 24 hours after being passed as fit.

General.—Taking the Rest-House itself as a Place of Accommodation for coolies in the numbers passing through this Agency I have no hesitation in saying that it is in the highest degree unsuitable and inadequate, and that as regards its immediate surroundings they are grossly insanitary.

A public road a few yards wide runs past the front entrance of the Rest-House. The opposite side of the road is fringed with a line of petty shops fronting a village of considerable size and unwholesome aspect. A line of dilapidated shops and houses runs down from the road on one side of the Rest-House compound, and from these are deposited masses of garbage and filth against the boundary wall itself. Further along the road is a mangoe tope crowded with itinerent vendors, money-changers and miscellaneous harpies, and then the Agency Office. On an area of upland, which would appear to afford good natural drainage, in front of the Office are placed well apart the three hospital buildings, but between this space and the village running down at right angles to the road to a point almost opposite the Office building is a wide ditch obviously habitually polluted by the villagers in the grossest way.

The rows of petty shops on the road, the non-descript dwellings along the side boundary wall of the Rest-House, and the presence of the village itself constitute an intolerable but apparently irremediable nuisance. The local Agent can have no possible control over the shopkeeper or over the villagers, and the whole area is, I repeat, grossly insanitary.

Large numbers of coolies and sirdars pass through this Agency and it must be beyond contradiction the most important centre of recruiting the tea-industry possesses. Owing to the fact of so many gardens obtaining new connections or renewing old connections last year the importance of Ranchi is by no means likely to decrease, far rather the reverse. Coolies drawn from Ranchi constitute in every way the most desirable type of labour for Assam, and I would take it that the Place of Accommodation through which these people pass should be at least sanitary, if not a model for all others.

An alternative to changing the site of the Place of Accommodation would appear to be the demolition of the present out-of-date and undesirable structures and the establishment of new detached or skeleton buildings over and along the perimeter of the existing area. More and better accommodation could certainly be obtained in this way, but I would hold the great and insuperable objection to any scheme of this sort the presence of the village over which no adequate sanitary control can be exercised. An advantage of the present site actually put before me was that the neighbouring villages were of use as overflow accommodation, coolies and sirdars living anywhere but in their proper quarters which could make no pretence of containing them. That coolies and sirdars should be encouraged or compelled from want of adequate Accommodation to herd in the filthy bustis in the vicinity from which admittedly emanate practically all the small-pox and cholera infections which have been a source of danger and loss requires no comment. The saving and avoidance of grave local trouble could only lie in the rapid moving on of the people, but the effect of overcrowding and bad sanitary conditions prevalent at the Place of Accommodation persists, and must have persisted to an enormous extent in the exceptional circumstances of last year and during the Influenza epidemic on the transit routes and into Assam.

I strongly advise the abandonment of the present site and the erection of a Place of Accommodation elsewhere on modern sanitary lines, and I do so in the full conviction that any apparent improvements effected in the present area could be of no real or lasting value owing to the apparent impossibility of control over the grossly insanitary conditions prevalent in the immediate neighbourhood.

**EMPIRE OF INDIA & CEYLON TEA CO., LTD. LOCAL AGENCY,
RANCHI.—Local Agent, Mr. M. G. Watts.**

The general location of the Agency and Rest-House is open, and the site spacious and well-drained.

Coolies are mainly recruited from Native States, the chief castes being Mundas, Oraons, Kheroars & Lohars. They are practically all family groups, and are designed for gardens of the one company.

The average daily number received is 15 in addition to sirdars, and the whole number for the season to date is 608 coolies and 421 sirdars, a total of 1029. For the corresponding period of last year the total was 1103, (304 sirdars & 799 coolies).

The average duration of stay is 24 hours.

The buildings afford accommodation for 205 souls, and are of extremely substantial character structurally. Sleeping accommodation is arranged in quadrangular form with wide verandahs and a central court-yard. Sleeping mats are provided, but all floors should be *pukka*, laid with a fall so as to facilitate flushing out, and increased lighting would be advantageous.

Drainage generally is satisfactory.

A well-constructed *pukka* latrine with four places is provided on the pail system, at a reasonable distance from the sleeping quarters.

Water-Supply is from *pukka* well of sound construction. It has its own bucket for drawing the water, but no paniwallah is employed. An arrangement should be made for a special man always to be on duty for the purpose.

Coolies bathe in a stream near. This is objectionable, and a bathing platform with a cistern water supply should be provided.

The Diet-Scale is ample and the food, which I inspected of first-rate quality. Cooking takes place in a brick building with earth floor and deficient drainage. The floor should be made *pukka* and drains constructed on the plan I recommended to Mr. Watts.

Each coolie receives two blankets and nine yards of cloth, a mug and a plate. The quality of the utensils given might be improved, and I think that the clothing ration might also be on a somewhat higher scale. The blankets are of fair quality.

An isolation building for contacts, etc. is provided of very substantial character as regards walls and roof, but the floors of earth and the lighting poor. These matters should, I think, be remedied.

All cases of sickness go to the Government Hospital, and there is a Government Dispensary within $\frac{1}{4}$ mile of the Rest-House. There is no regular arrangement for medical attendance, but the local Assistant Surgeon is called in on occasion. All coolies are vaccinated and inoculated against cholera by a vaccinating officer engaged for the purpose. There is no special medical inspection, selection as regards fitness being entirely in the hands of the Local Agent.

The site as noted is open and spacious, and the general aspect of the buildings favourable. I found everything spotlessly clean and in order.

The Agency Office is on the site, attached to the main building.

**NAMDANG TEA CO., LTD., LOCAL AGENCY, RANCHI.—Local
Agent, Mr. H. R. Halford.**

23rd February 1920.

I visited this Place of Accommodation on the 23rd February in the company of the Chairman of the Board and Mr. Macpherson.

The Agency recruits entirely for the Namdang Tea Company.

The general location of the Rest-House is away from the town and open, but the site itself is somewhat confined.

There were no coolies resident on the day of inspection, and since the beginning of the current year very few appear to have come in. The total for the season from the 1st July to date is 145, inclusive of rejections, and the number of sirdars 50.

The average duration of stay is 24 hours.

The Place of Accommodation consists of a substantial *pukka* building fronting a quadrangular walled compound. This main building contains the Agent's office, storerooms, and sleeping accommodation for coolies. The lighting of the sleeping quarters is fair, and the ventilation and space probably quite sufficient for the small numbers passing through. Sleeping mats are provided. There is no system of drainage either for the buildings or in the compound. This requires attention.

Two soundly-built *pukka* latrines on the pail system are provided against the further wall of the compound, one for either sex, and kept in order by a sweeper employed for the purpose.

Water-supply is from a *pukka* well, and is apparently plentiful. The well, however, is open, with a low parapet, no plinth and no adequate drain. This requires remedying. A domed concrete cover with a suitable opening in it for drawing the water should be built over the well continuous with the parapet and a pulley-lift provided. Three to four feet

of cement work should be laid round the well, and a drain constructed to carry off all surface washings. In the event of any coolies being resident a special man should be detailed to draw the water. A simple bathing platform should be provided at some safe distance from the well and properly drained.

The diet-scale is ample, and there is an out-building beside the compound wall fitted as a cook-house. It has an earth floor which cannot be satisfactory. I suggest that this be made *pukka* and drained, both requirements being essential if the fly-nuisance is to be avoided.

As regards medical attendance a local practitioner is called in on occasion. Cases of sickness, including cholera, go to the Government Hospital. There is no provision made on the site for contacts from any case of infectious disease. This is a defect. A *katcha* building in a corner site in the compound would serve the purpose. It should have a *pukka* floor, and be walled off from the well.

There is no regular medical examination, selection being performed by the Agent himself. It is satisfactory to note that all coolies and sirdars are vaccinated without exception, and all coolies inoculated against cholera. Sirdars receive this protection before leaving the garden.

The general appearance of the Rest-House was clean and orderly.

**ASSAM FRONTIER AND BUDLA BETA TEA COMPANIES' AGENCY, PALANDU
TEA ESTATE, Local Agent, Mr. D. R. Hazel.**

26th February 1920.

I visited and inspected this Agency on the 26th February 1920. The Rest-House is situated in open country, about 10 miles from Ranchi, adjoining the garden factory.

The coolies recruited are chiefly Mundas, Oraons, and Doms, largely drawn from Native States (Sirguja & Jaspur), and designed exclusively for the gardens of the Assam Frontier and Budla Beta Tea Companies.

The average daily number received is about 6, inclusive of sirdars. From the 1st October to date 820 coolies and 500 sirdars have passed through. Recruitment is mainly in family groups.

The average duration of stay in the Place of Accommodation is 40 hours. Coolies on departure walk the ten miles into Ranchi, are fed there and then proceed to the Forwarding Agents' charge at Purulia.

Accommodation is sufficient for the numbers dealt with, and the sleeping quarters are of *pukka* with concrete floors. Sleeping mats are provided. The buildings generally are in a fair state of repair. Drainage requires improvement. They are completely open and unfenced.

Latrine accommodation is non-existent. I suggest that a simple form of pit-latrine be constructed for use, or, alternatively, that Aqua Privies be put in. The latter are very suitable for the needs of a small population of this character.

Water-Supply is from a large *pukka* well at the tea-house, and appears ample in amount. The well should be improved by the provision of a pulley-lift with own bucket, thus obviating the necessity of a man standing over the water to raise it, a dangerous and objectionable practice. It should further be surrounded by a *pukka* plinth of the usual width of three to four feet, and a drain constructed to carry off all surface washings. A bathing platform is also an improvement to be desired.

The diet-scale is sufficient. A separate cook-shed is provided adjacent to the sleeping accommodation.

Clothing, blankets and utensils are distributed on the usual Association scale.

There is no hospital accommodation. A private medical practitioner resident in Ranchi is at call, and is responsible for all vaccinations and anti-cholera inoculations. All coolies are vaccinated and inoculated without exception.

There is no special medical examination. Selection of coolies as regards fitness is left in the hands of the Local Agent.

General.—This Place of Accommodation would appear to be sufficient for the limited number of people passing through, and with the additions above noted would comply with ordinary sanitary requirements.

DALTONGANJ AGENCY.—Local Agent Mr. L. D. Fox—

I visited and inspected this Agency on the 24th February 1920 in company with the Chairman of the Board and Mr. Macpherson.

The site and general location of the Place of Accommodation is open and satisfactory.

Coolies recruited are mainly Bhuias, but with a fair sprinkling of other castes, and they are designed for all districts of Assam.

The average daily number received this season is approximately 12, the highest on any one day being 37; and the whole number to date 832 (adults 522), and 810 sirdars, a total of 1642. Accommodation would appear to be ample.

The buildings are all soundly constructed of *pukka* with galvanised iron roofing, the sleeping accommodation being mainly a large shed entirely open on one side. There are also 2 houses of fair size, and a separate cook-shed, also of brick and iron. All floors are of earth. This requires alteration, and in the sleeping quarters sleeping platforms should be put in and the whole concreted. Mats should also be provided. *Pukka* flooring is required in the cook-shed and adequate drainage.

Latrine accommodation is satisfactory. It is in the form of a corrugated iron structure on the pail system, with six places, at a reasonable distance from the sleeping quarters. Three sweepers are employed.

Water-Supply is from two wells of correct design. There are no paniwallahs, everyone drawing his own supply in his own utensil, a dangerous practice, the liability of well contamination being always existent. Paniwallahs should be engaged so that one is always on duty for either well in use, and special buckets supplied as fixtures. I consider these points essential if danger is to be avoided.

Coolies go to bathe in a stream fringed with habitations a short distance below the site. This should be discountenanced and bathing facilities arranged for on the site itself with a supply of well water.

The diet-scale is ample, and the quality of the rations excellent. The usual clothing, blankets and utensils are supplied to each coolie.

There is no special hospital accommodation. Cases of sickness including cholera, should it occur, are sent to the Government Hospital about 1½ miles distant. No provision is made for infectious disease contacts in the event of any outbreak. Something of the sort is very necessary and I suggest it might be a skeleton building with cement floor to be walled in with mats on occasion.

Medical Inspection is carried out by the Civil Surgeon, and it is satisfactory to note that all coolies without exception are vaccinated and inoculated against cholera before despatch to their destination.

General.—The site of this Place of Accommodation is a satisfactory one and the arrangements generally good. I approve of the design of the main sleeping quarters, a shed entirely open on one side, provided the flooring is altered as above and mats issued for use. There is no fencing of any kind round the site and there is accordingly an excellent sense of freedom and space. The Agency Office is on the site, always an advantage.

Coolies on departure for Assam leave by train at 2-30 p.m., and reach Son, East Bank at 7-30 p.m. They leave this at 9-30 p.m., and arrive at 10-30 a.m. next morning. According to present arrangements they receive money for the journey to enable them to buy food.

It would be an improvement if, instead of money, they received a hot meal *en route*, and this might satisfactorily be provided from a cookshed at the Junction.

HAZARIBAGH AGENCY.—Local Agent, Mr. W. Thompson—

27th February 1920.

I visited and inspected this Agency on the 27th February 1920, in the company of the Chairman of the Board and Mr. Macpherson.

The site and general location of the Place of Accommodation leave nothing to be desired, being open, spacious and well away from the town, but yet not too distant.

The classes of coolie chiefly recruited are Santals, Chamars, Telis, Jholas, Muchis, etc., largely in family groups, and designed for all Assam Districts.

The whole number recruited for the season to date is 938 (592 adults) and sirdars 1,104, a total of 2,042 souls. To the end of February last year the corresponding total was 3,095.

The average duration of stay is from 2-3 days. Coolies on departure proceed 41 miles by motor to the Railway Station at Hazaribagh Road, being despatched thrice weekly. They receive a hot meal on arrival at the Station and carry with them a dry meal as an extra.

The Rest-House consists mainly of three separate buildings arranged well apart on the sides of an open square. The buildings are excellently constructed of pointed brick with corrugated iron roofs open at the eaves, and are in first-class order as regards cleanliness and repair. They afford accommodation for 152 persons, which would appear to be ample. The general surroundings and drainage are very good, but in two of the buildings the floor is of earth. This should be made *pukka* in each case or "surki" laid down, with a fall for drainage so as to facilitate flushing out. Sleeping mats are provided.

Latrines are satisfactory. They are of corrugated iron on the pail system at a reasonable distance from the sleeping quarters. Three sweepers are employed.

Water-Supply is from two *pukka* wells, and would appear to be plentiful. One well is of correct design and soundly constructed, except that the extension of the drain carrying off surface washings would be an improvement. The other well requires completion. The parapet should be raised and a cement plinth three to four feet wide constructed round it with a drain. Both wells have their own buckets for raising the supply, but there are no paniwallahs employed. It is essential in my opinion that these should be engaged, and no-one allowed to draw water but the man set apart for the purpose. A desirable improvement would be the construction of a bathing-place with a cistern water-supply from the upper well. The diet-scale is ample and the quality of the food excellent.

Clothing, blankets and utensils are issued on the usual Association scale, and are all of good quality.

There is no special hospital accommodation. Cases of sickness, inclusive of cholera and other infectious disease, are sent to the Government Hospital three quarters of a mile away. There is a separate isolation house for contacts on the site.

A qualified medical practitioner is at call in case of need, and he is responsible for all anti-cholera inoculations. A special officer acting under him is retained for vaccinations.

All coolies are medically examined by the Civil Surgeon prior to their departure for Assam. This examination should preferably be carried out at the Agency Office, where already all vaccinations and inoculations are performed. In addition to attending at the Office coolies have at present to proceed to the Government Hospital, which means going for some distance through the bazaar. A register of detentions for sickness is maintained.

The buildings generally give a very favourable impression, being well kept in excellent repair and spotlessly clean. The site is, as noted above, away from the town on open uplands. No petty shops or itinerant vendors are allowed.

I would only add that the amenities of a good position would be further improved if the stream running below the approach to the site were opened up and the collections of foul water in its course dispersed. This would be a decided sanitary gain.

CHAIBASSA AGENCY.—Mr. C. M. Taylor, Local Agent—

1st March 1920.

I visited and inspected this Agency on the 1st March in the company of the Chairman of the Board and Mr. Macpherson.

The Place of Accommodation occupies a high clean site immediately outside the town, and is surrounded by a satisfactory open area of land.

Coolies are largely drawn from Native States, the chief castes being Munda, Bhumij and Tanti, and they are designed for all districts in Assam.

The daily number being received at present averages approximately 150, inclusive of sirdars, the highest number on any one day being 250. The whole number for the season to date is 2,644 (coolies 1,166 and sirdars 1,478). The total for last year for the whole season was 11,427.

The average duration of stay is something less than 24 hours. Coolies are sent to the Railway Station at Chakardharpur, a distance of 16 miles at 6 p.m. They take a seer of dry food with them, and leave by train at 2-30 a.m., to arrive in Asansol at 12-30 p.m.

The principal buildings of the Rest-House occupy three sides of a square with a low wall on the fourth side, and are constructed of sun-dried bricks with *katcha* partitions and tiled roof. The main walls are sound enough, but the partitions are in bad repair and the roof would appear scarcely to be storm-proof. All floors are of earth, and any special drainage of the buildings is non-existent. There are no changes but sleeping mats are provided. The amount of accommodation would seem adequate for ordinary needs, and the site itself affords good natural drainage. *Pukka* floors are, however, a necessity, and these should be laid with a fall so as to enable the sleeping quarters to be thoroughly washed out.

Latrine accommodation consists of a substantially built stone and cement structure on the pail system. Three sweepers are employed.

A serious defect is that there is no Water-Supply on the site. I understand that an endeavour has been made to sink a well, but no water could be found at any practicable depth.

Water has to be carried from a municipal well about $\frac{1}{2}$ a mile distant, and four men are engaged for the purpose. It is stored in three cylindrical iron tanks with a total capacity of about 150 gallons fitted on a *pukka* platform at one end of the cook-shed. Under the circumstances this would appear about the best arrangement possible, but it is urgent that further steps should promptly be taken to establish a supply that would be fully satisfactory, and the opinion of the local P. W. D. officials should be obtained regarding a new well-site.

Coolies bathe in the river about 300 yards away, where there is a fairly abundant flow of water.

Feeding arrangements are generous, and clothing, etc., is issued on the usual Association scale.

A cook-shed with open sides and a tiled roof supported by brick pillars is provided, but it has an earth floor. A *pukka* floor should be put in and an efficient drain constructed. The water-supply, as noted above, is stored at the end of this building on a concrete platform, the drain from which should be extended further down the slope.

There is no special hospital accommodation. All cases requiring in-patient treatment are sent to the Saddar Hospital about $1\frac{1}{2}$ miles distant. There is an excellent dispensary in the compound of the Agency Office. It is newly-built of sound design and well-equipped with medicines, disinfectants and all necessary instruments. In charge is a whole-time fully qualified

man of the sub-assistant surgeon class. There are no records of cases treated or of detentions for sickness. A register of the people vaccinated and inoculated is maintained, but the other records are equally desirable and should be started and kept up to date.

A segregation house with two compartments is provided on the Place of Accommodation site. It is substantially built, but floors should be *pukka*, and laid with a fall so as to ensure efficient cleansing.

Medical inspection of emigrants is carried out by the Civil Surgeon, and the coolies are examined by him at the dispensary in the Office compound. All coolies and sirdars are vaccinated and inoculated against cholera by the Agency's own medical officer.

General—The site of the Place of Accommodation is in itself a good one. It is some distance from the Agency Office and dispensary—a disadvantage—but the pressing difficulty is the trouble about water-supply. From the lie of the land, however, I think this could be overcome, and, as I suggest, the opinion of local experts should be obtained regarding the sinking of another well with the possible provision if necessary of a piped supply. The Rest-House buildings are certainly susceptible of repair, and of being put into a sound sanitary state. I am not actually aware if there has been any question of total re-building, but I would not consider this necessary nor likely to be for some time to come.

SAMBULPUR AGENCY.—Local Agent, Mr. J. Heron—

3rd March 1920.

I visited and inspected this Agency on the 3rd March 1920.

The site of the Rest-House is outside the town, 3½ miles from the Railway Station, and upwards of a mile from the Local Agent's office. It is on a very confined area with no room for expansion and the general location is most unsatisfactory.

The coolies mainly recruited are second and third class, and come very largely from Native States. They are chiefly Gonds, Pan-Tantis, Tossas, and Kharias, with few Mundas and Oraons, and are designed for all districts of Assam.

The average daily number of souls received for this season is 19, the highest on any one day being 92, and the whole number to the end of February 4,126 (coolies 2,704 and sirdars 1,422). The whole number for the corresponding period of last year was 4,409 (coolies 2,806 and sirdars 1,603).

The average duration of stay is 24 hours. Coolies leave Sambulpur by rail at 5 P.M., reach Jharsagudda Junction at 8 P.M., remain there all night and depart by train for Asansol at 3 P.M. next afternoon. They have a meal at the Rest-House before leaving, carry a dry meal with them, and there is a cook-house and rest-shed for their convenience at Jharsagudda, where a full *khoraki* is provided.

The Rest-House is essentially a high wall on three sides of a square with a wide lean-to-shed running along the whole of its inner aspect forming the living accommodation. This has a stone floor and a tiled roof. Except for a storehouse at either angle the fourth side of the square is open and the centre is a gravelled court-yard. A continuous wooden *chang* is provided in the shed for sleeping purposes. The court-yard itself is well drained, but the main drain from it would require considerable extension in *pukka*. At present it terminates rapidly in a *katcha* drain which I found in a foul and insanitary state. The Rest-House would provide, I should say, fair accommodation for about 100 people, but the general surroundings are very unsatisfactory. The hind wall abuts on premises belonging to a local contractor, and in front the Government road passes within a yard or two of the entrance. There is a channel of the River within a few hundred feet on one side, and the ground between and on the further side of the road is low lying, broken, and liable to flood. There is in fact little but the actual space the buildings stand on, and this itself would appear to be only just above flood level.

Latrine accommodation is provided in the form of a sound structure in stone with six places. It is on the pail system and kept in order by the municipality.

Water-Supply is from a *pukka* well in an angle of the court-yard. This is in course of being protected by a cover, and a pulley lift is being put in. The immediate surroundings and drainage of the well are satisfactory, and there is no danger of it becoming contaminated by surface washings. A special bucket is provided for raising the water, but there should also be a *paniwallah* engaged and allotted for the purpose.

Coolies have no special bathing facilities. They use the river for this purpose, which I consider a dangerous practice, as it must be for a very large part of the year, as it was at the time of my inspection, nothing but a series of shallow pools at this point, and risk of cholera infection under such conditions is grave. In the present site, however, even if proper bathing facilities could be provided it would be exceedingly difficult in actual practice to prevent people from resorting to the river.

The diet-scale is satisfactory and the food-stuffs provided of excellent quality. There is, however, no cook-shed and coolies prepare their food in the sleeping quarters or anywhere, a practice much to be deprecated. There is a shop in the buildings under the control of the Local Agent where sirdars and coolies can obtain food and small articles of luxury at reasonable prices. Itinerant vendors are discouraged.

Clothing, blankets and utensils are on the usual Association scale.

There is no special hospital accommodation. A segregation room is attached to the outer side of the wall of the main building, and there is a *katcha* shed for contacts on the broken land about $\frac{1}{2}$ mile away in front. This is at present in bad repair, and unfit for use.

Serious cases of sickness, cholera and other infections are sent to the Government Hospital.

A dispensary for the treatment of minor illness is maintained at the Agency office, and here all vaccinations and anti-cholera inoculations are carried out by the Agency's own Medical Officers, a legally qualified and registered medical practitioner. The dispensary is temporarily in an out-building of the Agent's bungalow, a new building for the purpose being in course of erection in the compound. This is of *pukka* with a thatched roof, and its dimensions are 15 feet by 12 feet. It has no verandah and I do not consider it adequate in size or likely to be adapted for the purpose for which it is intended. A useful supply of ordinary medicines and disinfectants is stocked, but there is no supply of necessary instruments. There should be at least a minor operating case provided, a small steriliser, and an apparatus for the treatment of cholera by intravenous injection.

Medical inspection is carried out by the Agency's own Medical Officer as above, and a satisfactory record is maintained of this, and a register of sick. All coolies are vaccinated and inoculated by him assisted by a vaccinator. The fact of these operations having been performed should be recorded in each case, and this might well be done by a note in the medical inspection register.

The site and general surroundings of this Place of Accommodation are by no means satisfactory, and I would recommend that steps be taken to acquire a better and more sanitary position where buildings of approved type could be erected. The site should be nearer the railway, and the Dispensary and Agency Offices should be in the same place as the Rest-House, which would centralise control, in my view a very important advantage. Structural improvements and additions are necessary but under existing conditions of site it would appear impossible to bring arrangements up to a correct sanitary standard, there being no adjoining land at all suitable that could be acquired for the purpose.

Along with Messrs. Mcpherson and Heron I visited the rest-shed at Jharsagudda Junction, where, as detailed above, coolies from this Agency have to remain for nineteen hours, en route to Asansol. The place is about a mile from the Station on the further side of a village through which the people have to pass. It is a *katcha* house in poor repair, about 30 feet by 12 feet, with a portion eight feet by twelve feet partitioned off. A hole in the ground with some filthy liquid at the bottom of it constitutes the water-supply. As a fact coolies have to resort for water to a tank near. The party I travelled with were 38 souls, and I observed that they halted to eat their food in the village beside a doubtful tank from which they drank. It would appear of slight value to build a Rest-House at

Sambulpur with all sanitary improvements if such conditions are allowed to persist at Jharsagudda. I would consider the matter most urgent, and I would suggest that the Railway Company be approached to build at once a Rest-Shed on or near the Station platform with a piped water-supply and proper latrine accommodation. The only third-class waiting room accommodation at present is the entrance hall of the Station inadequate enough as I could observe for the ordinary traffic. The Railway Company would probably see it their duty to provide the necessary accommodation, and that there is room on or near the platform for the erection of a suitable shed I am satisfied.

PURULIA—

19th and 20th February 1920.

I left Calcutta on the 19th February arrived at Purulia on the 20th, and along with Mr. Mcpherson and Mr. Peppé, Local Agent, visited the Place of Accommodation and Forwarding Agencies there on the same day.

The Rest-House is situated on the open area of land immediately outside the town. Messrs. Logan & Leslie's Agency is on the same site, and the Agents, Messrs. Mukerji & Medland Bose, each have Places of Accommodation in the vicinity.

Various classes of people are dealt with here, but the main castes are Bhumijis, Santals, and Doms. For the current season to date the average daily number received is 21.7, the highest number resident on any one day being 100, and the whole number to date 3,982. The average duration of stay is twenty-four hours.

The main Rest-House is arranged on three sides of a quadrangle, the demolition of a wall on the fourth side giving a desirable sense of freedom, and improving the light and ventilation. Except that in the centre of the quadrangle is a large shed with iron roof and concrete floor used for cooking, the buildings are of *katcha* brick roofed with country tiles. They are long and narrow, but appear adapted for the purpose for which they are designed, and light and ventilation is on the whole satisfactory. Sleeping accommodation is in the form of an earthen platform running more or less continuously along the entire length of the buildings. I cannot think that this being of bare earth is satisfactory. It certainly prevents the accumulation of filth or rubbish under changes but it would be well, I think, if the sleeping platform and floor space were concreted, and boarding which could be removable in sections for cleaning fitted on the former, or mats supplied which could be burnt on occasion.

No arrangements exist for the separation of the sexes, but I can well understand that under the present system of recruiting this is not called for. The people come forward almost wholly in family groups and these naturally prefer to stay by themselves, and it is desirable they should do so.

There is little or no provision for drainage in the buildings. If drains were put in and the interior concreted as I suggest the whole could be readily washed out and kept wholesome.

There is at present no adequate latrine accommodation, but I am given to understand that iron latrines on pail system are shortly to be erected and that arrangements have been made with the Municipality to keep them in order. It is essential that these should be available as soon as possible.

Water-supply is from two *puhka* wells, both soundly constructed and protected from any reasonable possibility of contamination. Each has its pani-wallah and own bucket for raising the supply. There is a well of similar character in Messrs. Logan & Leslie's premises.

There is no special provision made for bathing. Coolies go for this purpose to the edge of a tank some little distance away. Simple bathing facilities should, I think, be provided.

The diet-scale is ample, and the rice, etc. I saw of good quality. The cooking is carried out in the iron and concrete shed referred to above, which makes an excellent place for the purpose, if the drainage were to some extent improved.

As regards hospital accommodation there is a dispensary in a separate building on the site admirably equipped for treating ordinary minor cases of sickness and for rendering first-aid. Cholera is sent to the Municipal Hospital, which is within a few hundred yard of the Rest-House, and any serious cases of disease to the Municipal Hospital in the town. This arrangement appears to work satisfactorily.

A legally qualified Sub-Assistant-Surgeon is employed on a salary of Rs. 50 per mensem, with a compounder under him, is in the charge of the dispensary. A record of the cases seen by him should be kept, as well as the vaccination and inoculation registers. He carries out all vaccinations and the anti-cholera inoculation of sirdars, while for the inoculation of coolies coming in the Civil Surgeon is directly responsible. It would appear a simpler arrangement if all work of this kind were done by the Sub-Assistant-Surgeon, and I am strongly of opinion that, especially just now when small-pox is widespread, more attention should be given to vaccination. I recommend that unless they show distinct signs of recent re-vaccination all adults and half adults should be vaccinated without exception, and every child also vaccinated unless marks are satisfactory.

A small Rest-House about half a mile away has been acquired as a segregation hospital in case of need. I inspected this and found it well adapted for the purpose.

Medical inspection is carried out by the Civil Surgeon, and I had an opportunity of seeing a batch of coolies examined by him on what, I understand are in the ordinary lines. I would leave any remarks on this question over as the matter is of importance, and I would propose taking it up later as a whole.

General.—I found the Rest-House itself and the Forwarding Agencies clean, well-cared for and in order. As far as the site of the Rest-House goes it is a good one, with ample room for extension. I gather there have been some complaints from the Municipality as to its nearness to the town, and I took the opportunity of enquiring from the Civil Surgeon what the real grounds of objection could be. He agreed that there could be none. He mentioned the use of the edges of the tank by the people from the Rest-House, but when the latrines are put in, and some kind of bathing facilities provided there can be no ground for objection on this score.

The Manager of the Place of Accommodation is in receipt of Rs. 14 per mensem. From the point of view of the well-being of the coolies and the correct ordering of the place generally this is a position of importance, and I should not consider the right stamp of man could be procured for the pay. Under existing conditions the doctor, assisted by a compounder, has no pressure of strictly medical duty, and it might be well for him to be in responsible charge with, if necessary, an assistant of the type of the present manager. Thus any divided control would be done away with, which, I think, would be an advantage.

A matter for consideration is the present ordinary duration of stay (24 hours). This is insufficient for the detection of possible disease.

A shop conducted by a selected banian has been established on the site, where the people can obtain ordinary articles at a reasonable charge. Mr. Peppé has taken the excellent view that it was desirable to do something to prevent coolies becoming the prey of outside shop-keepers, etc.

MIDNAPUR—

4th May 1920.

I visited this Agency on the 4th May 1920. The place of Accommodation is situated on an open area of land near the railway and away from the town. The site is in many ways a satisfactory one, but a disadvantage is that there are no shade trees on it, and the place stands therefore, bare and comfortless.

The accommodation for coolies consists of four sleeping sheds each 40 feet by 15. These are exceedingly well built with corrugated iron roof and cement floors. They are fitted with double sleeping platforms, faced and laid with cement, and each affords accommodation for 30 people. The sheds are open in front except for a low parapet, and the rear and side walls are

constructed of perforated brick-work which furnishes light and air in abundance. The buildings are well spaced on the site but they require drainage, and a cement drain should be constructed round and away from each. Roofing of corrugated iron in buildings of this class always seems undesirable if tiles can be obtained. This is doubtless a minor point but tiles do not tend to such extremes of temperature, and they present possibly a better appearance.

The latrine is of *pukka* on the pail system with eight places. It is wrongly designed as I pointed out to Mr. Alderson, and any sort of satisfactory drainage for urine or ablution water is non-existent. It requires re-construction.

Water-supply is from a good *pukka* well with domed cover and pulley lift. Surrounding drainage is satisfactory. No paniwallah is employed, and there are no special bathing facilities provided.

One of the sleeping-sheds at present takes the place of a cook-house.

A local practitioner of the sub-assistant-surgeon class examines the coolies, and carries out anti-cholera inoculation. Vaccination is done by a special officer. Any sick are sent to the Government Hospital in the town.

For the season to the end of April coolies sent forward total 235 (adults 177½), and sirdars received 371.

The maximum challaned in any one day was 10. For the whole of last season the number dealt with was 1869 (coolies 1163, sirdars 706). Coolies are mainly Santal, Bhumij, Kamar, Lodha Goala and Keot, and they are designed for all districts of Assam, Cachar and Sylhet.

The Place of Accommodation here is at some little distance from the Agency Office. This is always a disadvantage, and there was evidence at the Rest-house of the desirability of closer supervision.

BANKURA—

6th May 1920.

The Rest-house here is situated immediately outside the town, the buildings being on a narrow strip of land leading down from a main road to the banks of the river. I inspected the Agency on the 6th May 1920. The buildings are constructed of *katcha* brick and thatch with earth floors, and possess no special drainage. The whole of the space they occupy is bounded on one side by a brick wall eight feet high shutting off a private residence, and on entering a gate in an open fence the cook-house is seen directly in front across a small quadrangular compound. The sleeping accommodation forms the side of the compound opposite the brick wall, and consists of a building of three rooms affording accommodation in all for 19 people. The rooms contain *pukka* sleeping platforms, and sleeping mats are provided. The partitions in them are not carried sheer to the roof, but they have only tiny windows in the rear wall and lighting and ventilation are deficient. Enlarged windows would be an advantage and further benefit would arise from the floors being made of cement and laid with a fall to a *pukka* drain. The cook-house should also have a *pukka* floor to a drain, and the hind wall should be re-constructed with perforated brick-work.

The latrine is a *pukka* building on the pail system with two places. It is kept in order by the municipality. It is antiquated and unsatisfactory in design, and owns no drainage. As a fact, however, it would appear scarcely to be used, coolies resorting to some scrub jungle leading down behind the Rest-house to the river.

Water-supply is from a stand-pipe on the main road outside.

In an orchard adjoining the Rest-house proper is a *katcha* building 40 feet by 14 designed for occupation in emergency with a disused well beside it. The emergency appears never to have arisen. Near here also is a small *katcha* segregation shed with thatched roof and earth floor. The floor of this should be made *pukka* and drained.

Medical attendance is rendered by a local practitioner a fully qualified man, who performs anti-cholera inoculation and vaccination at the Rest-house. There is no dispensary on the site,

a few drugs and simple appliances being kept only for emergency. The Civil Hospital is about a mile distant and any sick are sent there. A useful addition to the medical resources, however, would be an apparatus for the intravenous treatment of cholera.

Coolies are ordinarily detained 24 hours. They are chiefly Santals, and Bowris, all from British districts, and the total number sent forward this season to date is 173 (137 adults). Sirdars received number 322.

The Agency Office is on the same site as the Place of Accommodation, and although the buildings generally are antiquated and not of sound design I found everything clean, in order, and well cared for. From the numbers dealt with this is a centre of evidently no outstanding importance, and with the alterations indicated above the buildings should, I think, continue to serve their purpose.

The district is a healthy one, and I gathered that since the introduction of a municipal piped water-supply cholera has ceased to be endemic in the town, and outbreaks are unknown.

RAMPUR HAT—

12th May 1920.

This is the local agency for the Boloma Tea Company and recruiting is here carried out for that company alone. I visited and inspected it on the 12th May, 1920.

The Place of Accommodation is an ordinary bazaar house of poor type, *katcha* built with thatched roof, situated on the outskirts of the town. Entrance is through a front building, used as the Agency Office and storerooms into a small oblong yard with, on the opposite side, a low house of three small rooms. This comprises the sleeping accommodation for coolies. The house has mud walls, thatch and bamboo roof and a narrow verandah along its length. The rooms have earth floors; and each a diminutive window in the rear wall. Lighting and ventilation are deficient. There is no existing drainage of any kind, except a partially occluded hole in a side wall of the yard, and place generally was not in a satisfactory condition of cleanliness. Water-supply is from an outside well. A badly-constructed *pukka* latrine occupies one angle of the court-yard, and on the opposite side is a lean-to *katcha* shelter fitted with a chula for cooking purposes. There appeared to be no special ration-scale. Coolies receive one blanket, two dhoties or their equivalent, a kurta, and the usual two utensils.

There is no medical examination of recruits. Vaccination is done "of most challans" by a special vaccinating officer. No inoculation against cholera is carried out, and this is a grave omission, which should be at once rectified. The Agency has only been operating since the 1st March last, and the total number of recruits sent up to date was stated as 21. If recruiting is to be continued at this centre much work will be necessary on the Place of Accommodation to bring it up to a passable sanitary level.

RAIPUR—Local Agent, Babu Moreshwar Rao—

16th March 1920.

Along with Mr. P. D. Kirkham, Supervisor to the Board, I visited and inspected this Agency on the 16th March, 1920.

The site of the Rest-house is limited to the actual area on which the buildings stand and its immediate surroundings are not satisfactory.

Coolies are largely recruited from Feudatory States, and are chiefly Chamars and Gonds. They are designed for all districts in Assam.

The total number passing through the Agency from the 1st September to date is 3719, made up of 2889 coolies (adults 1910) and 830 sirdars. The average daily number resident is at present about 45.

The average duration of stay is rather less than 24 hours.

The Place of Accommodation consists of a rectangular walled space with a lean-to shed, 40 feet by 14, on either side comprising the sleeping quarters. These sheds are entirely open in front, have earth floors and little or no plinth. They are roofed with corrugated iron supported by *pukka* columns. The Agency Office and godown complete the arrangements on one side. There are no changes but sleeping mats are provided. One sweeper is employed.

The general surroundings are unsatisfactory, the place being closed in on three sides by stores, general buildings and dwelling houses. Some of the houses have very lately been demolished by the Municipality. There are no drains and I was informed that in the rains the area is commonly under water. **

There are no latrines. Coolies are conducted at some fixed hour of the day some distance to open country beyond the Railway. Pollution of the site itself and its immediate surroundings must thus be high.

Tap-water is laid on from the Municipal supply through a stand-pipe.

There are no bathing facilities. There is no cook-shed. The people cook their food in the open court-yard on chulas arranged for the purpose.

There is no special hospital accommodation, and there is no provision made for isolation of cases of infectious disease or contacts. Cases of sickness go as in- or out-patients to the Saddar Hospital.

All emigrants are medically inspected by the Civil Surgeon, who also carries out anti-cholera inoculation in every case, at a total fee of one rupee per head. Vaccinations are performed by a special officer (fee four annas).

The site, surroundings and general arrangements are obviously highly defective, and it is satisfactory to know, therefore, that a new Place of Accommodation has been taken in hand for erection. The site of this, which I inspected is on an open plain outside the town with excellent natural drainage. It is three miles from the Railway, but within one mile of the Government Hospital, 700 yards from the Municipal Cholera Hospital, and about one-third of a mile from the Local Agent's bungalow.

Accommodation is to be provided for 125 persons in the form of a *pukka* building with tiled roof about 75 feet long with two wings each about 47 feet. It is to be 14 feet wide, and entirely open on its inner aspect. Windows are to be set externally for light and air. Floors are to be of local slate laid with a fall into a sound system of drains conducted to a saok-pit. Water will be obtained from the Municipal supply through stand-pipes, and a bathing-place is to be made. A separate cook-shed (30 feet by 15 feet) is to be erected at a distance of 30 feet from the main building. The Agency Office, store-rooms and peon's quarters are to be on the same site.

With the exception that an Aqua Privy is to be set up for the use of the Office staff the provision of latrine accommodation is not contemplated. I cannot agree that this is satisfactory. It is true that here is a vast open space to which coolies can resort, and the difficulty of ensuring that latrine accommodation will be used is doubtless great, but I would consider that opportunity should be afforded, and the evils of soil and dust pollution being so manifest as much as possible done to encourage correct habits. From the situation and character of the soil a simple form of trench latrine might be suitable. These could be arranged with portable erections of corrugated iron over them, say with four places in each, to be shifted on occasion. A certain amount of supervision would be necessary, and care would be required to obviate danger from fly-breeding. On the whole a sounder alternative would probably be latrines on the pail system, and the provision of an incinerator for the disposal of the excreta.

Mr. Kirkham agrees that a necessary addition to the plans is an isolation house for contacts. This might be in skeleton form with *pukka* floor.

An area 250 feet by 250 has been acquired as sufficient for the buildings to be constructed. I would have considered it policy to have taken up more land for emergency buildings and to guard against encroachment, but Mr. Kirkham informs me that the town is extending in the other direction and that there is no danger of any over-building in the

vicinity. It further appears there is little likelihood of objection arising to the erection of any other buildings that might be required in the way of extra accommodation.

BILASPORE—

18th March 1920.

I visited and inspected this Agency on the 18th March, 1920, in company with Mr. Kirkham, Supervisor, and Mr. Holmes, Local Agent.

The site of the Place of Accommodation is fine, open, and well away from the town. It is about one mile from the Agency Office, and two miles from the Railway Station. Unfortunately, however, it is about half a mile from the main road, and there is no by-road or path of any sort to it. The approach lies partially through rice-fields, and in wet weather in the heavy soil that exists here this must give rise to considerable difficulty. With the best of intentions it is not encouraging to the constant daily supervision desirable, and the provision of reasonable means of access would appear to me to be urgently called for.

Coolies are largely recruited from Feudatory States, and are chiefly Gonds, Panikas, and Chamars. They are designed for all districts in Assam.

For this season to date the average daily number received is about 15, the highest on any one day being 55, and the whole number 4303, made up of coolies 2942 (adults, 1936,) and sirdars 1361.

The average duration of stay has been four days, but it has just now been reduced to 24 hours after medical examination and inoculation. The longer period was judged necessary owing to the fact of cholera being epidemic in many of the areas from which the coolies come, and the people were detained in segregation. The Civil Surgeon now believes that risk of infection has greatly diminished, and that the shorter period is sufficient. He is doubtless correct.

The main buildings of the Rest-House are of *pukka* brick, with tiled roof, and are arranged as usual on three sides of a square. They are entirely open on their inner aspect except for the brick pillars supporting the roof, and the shelter area is twelve feet wide, inclusive of an eight foot sleeping platform which runs continuously through their whole length. This platform is faced with brick but is of bare earth, and no sleeping mats are provided. The court-yard slopes somewhat towards the centre and out to the open side of the square, but beyond that any form of drainage of the buildings is non-existent. The sleeping-platform should have a concrete surface, the floor should be made *pukka* throughout, and all laid with a fall to a system of drains. The buildings are on "black cotton soil" which would appear to render the laying of surface drains a little difficult, as cracks and slight alternations in level are of frequent occurrence, but I consider that this trouble can be overcome. Sleeping-mats should be provided.

Well designed latrines of corrugated iron are provided at a reasonable distance from the sleeping quarters. They are on the pail system with 16 places, and four sweepers are employed. Mr. Holmes agrees with me that an incinerator for the disposal of the dejecta and general rubbish could be readily constructed, and this would be a valuable sanitary addition.

Water-supply is from a large *pukka* well. It has no cover, but is protected by a parapet and plinth. A pulley-lift is provided for raising the supply, and a paniwallah allotted to be always on duty. The drain carrying off the surface washings from the plinth would require further extension in *pukka* down the slope. An open platform affords facilities for bathing. The drainage of this requires attention, and an improvement would be the provision of walls and simple partitions.

All cooking is and has hitherto been done on chulas in the open between the buildings, but a cook-shed is in course of erection. This is to be of brick with tiled roof and would appear to be designed on sound lines. A necessary addition to the estimate, however, is a *pukka* floor, and adequate drainage should not be overlooked.

The food-stuffs which I inspected I found of excellent quality, and the diet-scale is liberal. Clothing blankets and utensils are supplied on the usual Association scale.

There is no special hospital accommodation and dispensary. Sick cases are sent to the Saddar Hospital. On the site, however, are seven detached buildings used for segregation purposes and for contacts from cases of infectious disease. They are well-spaced and were, I understand, erected last year during a severe cholera epidemic that prevailed. They are constructed with wooden posts, tiled roofs and bamboo walls, and have earth floors with low plinth faced with brick. Cholera appears to be epidemic in many of the areas from which the coolies in this Agency are drawn, and the disease is subject to severe exacerbations especially in the Feudatory States. This is, further, a collecting point for coolies from Jubbulpur, Raipur, and possibly Chanda, and I would recommend that these buildings be retained. *Pukka* floors would, however, be necessary for each with adequate drainage, and iron posts are desirable. Five of the buildings could well remain in skeleton form and mat walls put in as might be required.

All coolies are medically inspected by the Civil Surgeon before despatch to Assam and all over three years of age are inoculated by him against cholera. Vaccinations are performed by a compounder employed under his supervision on a salary of Rs. 40 per mensem. This work is wholly carried out at the Agency Office. The Civil Surgeon should preferably attend at the Place of Accommodation and I recommend that a dispensary be built there, furnished with necessary medicines, disinfectants and instruments, and a whole-time medical officer of the minimum status of a sub-assistant-surgeon appointed in lieu of the compounder now acting. This officer would attend all minor cases of sickness, would perform vaccinations and possibly inoculations and be responsible for the general sanitation and good order of the Rest-House. He should, therefore, if possible have quarters on the site. His services would be instantly available in the event of any out-break of infectious disease, and the grave difficulty in obtaining medical aid that appeared to be the case last year could not again occur. The Municipal Hospital for Infectious Diseases is in the town—in the compound of the Charitable Dispensary—and I understand from the Civil Surgeon, whom I had the opportunity of meeting, that the accommodation there is only just sufficient for their own requirements. There is thus evident need for the Agency to have its own resources and the procedure above indicated would, I think, meet every likely eventuality. I would suggest that no better plan for the Dispensary could be adopted than that of the one newly erected at Chaibassa.

I also inspected Messrs. Logan & Leslie's and Messrs. Medland Bose's Forwarding Agencies, both of which are adjacent to the Place of Accommodation. The former consists of a heavily built brick and tile shed, open along one length with a wide verandah and earth floor. It contains an earth sleeping platform. There is no adequate drainage and cooking is done in the open on a line of chulas. Messrs. Medland Bose's place is on a smaller scale but very similar, except that wooden changes are provided for sleeping purposes. There is here again no cook-shed, and drainage is defective or wanting. The accommodation provided would appear ample in amount, but in both cases much would require to be done to the buildings and surroundings to bring them up to anything like a satisfactory sanitary standard.

JUBBULPORE—

22nd March 1920.

Along with Mr. Kirkham, Supervisor, and Mr. Wight Boycott, Superintendent & Local Agent, I visited and inspected this Agency on the 22nd March 1920.

The Place of Accommodation has been newly erected and only very recently come into occupation. It is excellently situated in open country about three and a half miles from Jubbulpore Station on land with first-rate natural drainage. The Agency Office is on the same site.

Coolies recruited are of miscellaneous castes but mainly Gonds, Chamars, Bhaigas, Khols, and Kurmis. They are designed for all districts of Assam, Cachar, and Sylhet. At present the average daily number coming in is approximately 24, the highest on any one

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day being 78, and the whole number from the 1st September to date 3,543 (sirdars, 1,020). The usual duration of stay is 24 hours.

The main buildings of the Rest-House are soundly constructed of brick and tile, and afford accommodation for fully 200 persons. They are in the form of a continuous shed, 14 feet wide, set on three sides of a square, and open on the internal aspect. Floors are of cement and there is a satisfactory plinth. There are, however, no drains and these should be put in. The end of the wings on each side is taken up by store-rooms, and in the quadrangular space enclosed by the building is a *pukka* cook-shed. This will require a *pukka* floor and adequate drainage, and it would probably have been more satisfactory if it had been erected at a little further distance from the sleeping-accommodation.

Except for an Aqua Privy fitted for the use of the Office staff, there are no latrines. I believe that on the whole the best form these could take would be the pail system with an incinerator for the disposal of the dejecta. With regard to this question I visited the Central Jail at Jubbulpore by the courtesy of the Superintendent on the 23rd March. They have there a population of about 1,000, and use a dry earth system with subsequent trenching. It works excellently, but a good deal of supervision is necessary to ensure this, and in the matter of discipline things are obviously very different at the Jail than they can be at the Place of Accommodation, even taking into account the far smaller numbers concerned, at the latter. A staff would be required to carry out the trenching of the night-soil, which requires careful doing if the fly danger is to be avoided, and the pail system with incinerator would appear to me simpler, cheaper, and far less likely to fail.

Water-supply is from a large open *pukka* well, 14 feet in diameter. It has a parapet, plinth, and pulley lift. A cover would be an advantage, and it requires fencing and the extension in *pukka* of the drain carrying off surface washings. Bathing and washing of clothes on the well plinth should be absolutely prohibited, and a separate place for the purpose should be provided. No special paniwallahs are at present employed. Arrangements should be made to remedy this. Mr. Boycott informs me there is great difficulty in obtaining such labour as a permanency. In that case a pump should be supplied fitted properly away from the well. There is no more constant source of danger than the approach of everyone in general to a water-supply.

The diet-scale is satisfactory and the food supplied of excellent quality. Coolies are allowed their choice of rice or wheat-flour.

Clothing, blankets and utensils are supplied on the usual Association scale.

There is as yet no hospital accommodation. Mr. Boycott is proposing to extend the area of land taken up, and I would recommend the erection on the site of four small detached buildings, probably 12' x 15'. One of these should be completed in *pukka* as a ward for general diseases, and the other three left in skeleton form for cases of infectious disease or contacts. They should all have cement floor and *pukka* drains.

A small dispensary room and verandah is provided in the office buildings, and medical attendance is in the hands of the Agency's own medical officer, a qualified practitioner of the sub-assistant-surgeon class. Coolies are medically inspected by him, and he carries out vaccination in all without exception and anti-cholera inoculation in all over four years of age. He receives an inclusive salary of Rs. 100/- a month, and the arrangements on the whole works well, about the only disadvantage being as Mr. Boycott pointed out to me the difficulty of obtaining a substitute for him on occasion, the Civil Surgeon having no official connection with the arrangements. I refer to this matter later in my general report.

I was very favourably impressed with the site of this new Place of Accommodation and the buildings generally are well planned and spacious.

I inspected the old Rest-House now abandoned. It is three to four miles from the town on a retired site off the Katni Road, and is built in the old style of open sheds with earth floor facing a high-walled enclosure. Except for the galvanised iron in the roof dilapidations are extreme. There is no drainage beyond a *semi-katcha* pipe drain leading from a bathing platform in the enclosure, no cook-shed, and no spare land for any extra

accommodation if required. A row of antiquated inefficient latrines adjoin, and the buildings border on a foul tank beside a village. I congratulate the Agency on the possession of its new accommodation on a really excellent site.

HOSHANGABAD—

24th March 1920.

This is a sub-agency of Jubbulpore, and I visited and inspected it on the 24th March 1920 with Messrs. Kirkham, and Wight Boycott.

The Place of Accommodation is a two-storied house at the end of the main bazaar, fronting an open space. It has a small enclosed court-yard at the back containing a *pukka* latrine with two places on the pail system. One sweeper is employed. Water-supply is from a common well near. Cooking is done on a row of mud *chulas* in the balcony of the upper storey.

The house is an ordinary bazaar dwelling-place with various rooms, one of fair size, the others small and dark. All have mud floors, and ventilation is defective throughout. The structure is ramshackle, and the roof not weather proof. It is plainly unsuitable as a reception house for coolies. It is the case, however, that very few people come here. Only 23 coolies have been recruited this season from the 1st September to date, and only 30 sirdars have passed through. For the whole of last year (1918-19) the total number of coolies received was 227 (175½ adults), and sirdars 192. It must thus be a question whether any new housing arrangements in a centre of this kind, which appears to be diminishing in popularity can advantageously be carried out.

Coolies are mainly Lodhi, Kurmi, Kachi and Gor. They are drawn from the neighbouring British districts and from Bhopal and Indore, and proceed to Assam, Cachar, and Sylhet. The average duration of their stay in the Rest-House is 24 hours. They are medically examined by the Civil Surgeon locally, but are vaccinated and inoculated against Cholera at Jubbulpore, where also they draw their clothing ration, etc. There were no coolies in residence at the time of my visit.

GONDIA—

17th March 1920.

This is a Railway Junction where coolies *en route* for Bilaspore come in from Jubbulpore and Chanda—chiefly from the former place, as I understand that at the latter so far there has been little or no recruiting. The majority of the people arrive at Gondia by the morning train from Jubbulpore and leave at 11 P.M., and a Rest-Shed is in use where they receive a full day's meal.

This Shed has not been deemed satisfactory from a sanitary point of view, and a new building is about to be constructed. I inspected the site of this on an area of waste land north of the Railway, and fully 500 yards from the edge of the less densely populated portion of the town. The ground is low-lying, and part of it would no doubt be swampy in the rains, but the actual site of the Rest-Shed has been chosen on a somewhat higher area, and provided a fairly high plinth is put in it should, I think, be safe. The new Shed is to have accommodation for 50 persons. It should be built with an open front and have a tiled roof and *pukka* floor laid with a fall to a suitable drain, a separate cook-room and peon's quarters. A well will also be necessary, and this should be constructed with due regard to the safety of the supply. The site is a reasonable distance from the Railway Station. It is backed by a wide area of cultivated land, and further building between it and the town would appear unlikely.

The present Rest-Shed consists of three compartments, each 12 feet by ten with a four foot verandah. They are in a singlestoried building of *katcha* brick with tiled roof and earth floors. Light and air in the rooms are very deficient. A fourth compartment is used as a dwelling house. The building fronts on open fields, but elsewhere is closely shut in by other houses, and the water-supply is from a common well, open and unprotected. The provision of the new Rest-Shed will thus meet a distinct sanitary need.

PENDRA—

20th March 1920.

The Pendra Rest-House is situated in the town of Gaurela close beside Pendra Road Railway Station. It is under the Bilaspur Agency, and I visited it on the 20th March 1920 with Messrs. Kirkham and Holmes.

Sirdars bring coolies here chiefly from Rewa and Sirguja. The highest number resident this season on any one day has been 50, but numbers are very variable and there may possibly be only 30—40 a month. Mr. Holmes informed me that ordinarily the place is only open for three to four months in the year.

Coolies rest here usually for something under 24 hours, and receive a full day's khoraki. They then proceed by rail to Bilaspur.

The Rest-House consists of a wide shed open on one side to a small unpaved yard. It is built of *katcha* brick and tile with an earth floor and no special drainage. The place itself I found clean enough but the immediate surroundings filthy. It has buildings and *katcha* huts closely attached on either side and faces the village market-place. Water-supply is from a common well adjoining, the structure and arrangements of which afford no guarantee of safety.

The Rest-House as it stands is unfit for the reception of coolies, and its position is very unsuitable and dangerous. I recommend its abandonment. Numbers of pilgrims pass through this town, a most insanitary place, and cholera is endemic. It is of importance, therefore, that any new Rest-House be built well outside town limits, and I inspected a site to the south on a triangular area of waste land where the Amarkanta Road crosses the Railway line. The position would appear a good one, away from the town and still conveniently near the Railway Station. The lie of the land is suitable and sound drainage could readily be secured. A Rest-Shed would probably be required with accommodation for 50 coolies, a separate cook-house, peon's quarters, and a well.

KATNI—

21st March 1920.

This Rest-House is attached to the Jubbulpore Agency, and along with Mr. Kirkham I visited and inspected it on the 21st March 1920.

Coolies are mostly drawn from North Rewa, and from the Katni and Sihora Tahsils of the Jubbulpore district. They are largely Gonds and Khols.

Sirdars proceed from the gardens to Jubbulpore for registration. They then come to Katni and thence reach the villages. Coolies are brought into Katni Rest-House, remaining there for about 24 hours on an average, and are taken thereafter to Jubbulpore, when they are challaned *vid* Gondia.

The Place of Accommodation is a range of low buildings with partially enclosed verandah facing a high-walled compound. Rooms within are small and dark, and split up irregularly by tiny court-yards. A *pukka* latrine with two places on the pail system is provided, and a bathing-place of sorts. One sweeper is employed, part-time, at Rs. 2/- a month. No sleeping mats are supplied to the coolies. The buildings are largely of *katcha* brick roofed with tiles, and have earth floors on a low plinth. There is no special drainage.

Water is drawn from a common well of unsatisfactory character some little distance away, and each individual fetch his own supply.

No special arrangement exists for medical attendance. Any sick are sent to the Municipal Hospital, and there is no segregation house for infectious disease or for the isolation of contacts.

The highest number of coolies received this season on any one day was 65, and the total from the 1st September to date 1621.

The site of this Place of Accommodation in the town is a bad one. It has lofty buildings on either side, and a Hindu temple in front. Further, the general style of the Rest-House from a sanitary point of view is faulty and out-of-date, and it is satisfactory to know, therefore, that its abandonment has been decided upon. I inspected a site for the new buildings about one mile from the Railway Station, and about two miles east of the town on the Barhi Road. An open position with good natural drainage is obtainable here and probably a piece of land 300 feet by 180 would be amply sufficient for the buildings required, viz., a rest-shed, cook-house, peon's quarters with small office, and well.

ALLAHABAD—

27th March 1920.

I visited and inspected the sub-agency here on the 27th March 1920, along with Mr. Kirkham, Supervisor, and Mr. Tweedie, Superintendent of Local Agencies, U.P.

The Place of Accommodation in the form of a two-storied house built round a paved court is situated in a narrow street just off one of the principal bazaars of the City. The whole upper part of the building and a portion of the lower storey are used as dwelling-houses, and the sub-agency office occupies the entrance front. The sleeping accommodation for coolies faces the court-yard at the rear, and is a room 18 feet by 12 feet with a verandah six feet wide in front of it. There is a separate cook-room on one side of the court, and opposite this a latrine with two places on the pail system kept in order by a sweeper. Floors throughout are of cement. Water is laid on from the Municipal supply through a stand-pipe.

Coolies mainly concerned are 3rd, and 4th class, and are largely Chamars, Kholas, and Lodhia. They are designed for all districts of Assam, Cachar, and Sylhet. The whole number received for this season to date is 236, plus sirdars 108 a total of 344. The average duration of stay is 12 hours, and all are despatched to Ghazipur by rail receiving a dry ration for the journey.

As I saw it the place was spotlessly clean and in order, but a house of this kind cannot be passed as affording satisfactory accommodation for coolies, and its situation in a crowded bazaar is very undesirable. At the same time having in view the comparatively small numbers dealt with any severe criticism of the arrangements is not called for. Further the period of detention is short coolies being sent forward rapidly to the main agency at Ghazipur, where medical inspection, vaccination and anti-cholera inoculation are all carried out. It would be well, however, if the question of building a new Place of Accommodation could be taken up, and even if difficulty arose about securing a suitable site in a large city like Allahabad this recruiting centre might conceivably be removed elsewhere. In itself this would probably be of advantage, as I take it that cities of this size cannot carry the best of facilities for obtaining the right type or correct class of coolies.

FYZABAD—

28th March 1920.

I visited and inspected the Place of Accommodation here on the 28th March 1920, in company with Messrs. Kirkham and Tweedie.

It takes the form of a well-built superior class house situated in a fairly wide street off the main bazaar. It is in reality a detached single-storey dwelling-house, which has been adapted for the reception of coolies. The Agency Office occupies a room at the front entrance, and immediately behind is the sleeping accommodation facing a paved court-yard flanked by high walls. The sleeping quarters are bright and airy and have a broad verandah in front of them. On the opposite side of the court-yard is a cook-house with peon's quarters beside it, and in one angle a *pukka* latrine for women with three places on the pail system. A separate latrine is provided for men on the outer side of the boundary wall, and this is reached by an exit at the back of the court-yard opening into the wide and spacious compound of the Government Hospital. All the rooms are floored with tiles, and drainage is satisfactory.

Sleeping mats are provided for the coolies and the diet-scale is liberal. One sweeper is employed. Water-supply is from a municipal well close beside the front entrance.

Last year 527 coolies (377½ adults), and 136 sirdars passed through the Agency, but only 6 coolies (4 adults) have been sent forward this season, and sirdars to date are only 45. The coolies recruited are chiefly Ahir, Pasi, and Chamar, and they are largely designed for Sylhet. The average duration of stay is from 8—10 hours. No coolies are sent direct to the gardens. They receive a dry ration for the railway journey; and proceed to Ghazipur for medical inspection, etc., and to draw blankets, clothing and utensils, when they are finally challaned.

It is not good practice to have a Place of Accommodation in the bazaar, but I have no further remark to make nor any recommendation. I found the whole house in excellent repair, very bright, clean and orderly.

BASTI—

30th March 1920.

Accompanied by Messrs. Kirkham and Tweedie I visited and inspected this Agency on the 30th March 1920.

The Place of Accommodation is a new one, the buildings being in fact only in course of completion. Coolies are, however, already in residence, having been driven out of the old Rest-House owing to the suspected presence of Plague. The site is a good one on the main road leading through the town with open cultivated land behind and on either side. It is a few hundred yards from the Civil Hospital, and about one mile from the Railway Station.

A brick wall seven feet high connects the two main buildings of the Rest-House, *viz*, the sleeping accommodation and the cook-house, and this wall is continued round the whole area forming a spacious enclosed compound irregular in shape. The only entrance gate faces the high road, and immediately within it, at a distance of ten feet, is the Office building. The main building lying furthest from the road comprises the living and sleeping accommodation for coolies. It consists of a row of ten compartments, each ten feet by ten, fronted by a six foot verandah. Each compartment has a window, 3 feet by 2, opening in the blank wall at the rear, and a fitted wooden door from the verandah. At each end of the row is a recess, 18 feet by 8, leading into a latrine. Reason for the existence of this is not apparent, and it is difficult to see what useful purpose the space can serve. The cook-house is constructed similarly to the sleeping accommodation, but without the front verandah. It is a row of six rooms, ten feet by ten, with each a fitted door but no window.

The buildings are of brick and tile on a plinth a foot high, and floors are of bare earth throughout. Their general construction is substantial, not to say remarkably so. All partitions are 18 inch both in the sleeping rooms and in the cook-house, and the roof ridge is supported by brick pillars 22½ inches square central in the partitions, at ten foot intervals. The latter may or may not be necessary, but the partitions as they are cannot be, neither are they desirable for the sake of space and air.

I regret having to record my opinion that this Place of Accommodation has been planned on wrong lines, with much wasted space and, as I would take it, at great unnecessary cost. The small rooms designed for sleeping accommodation are undesirable. Each has a window and door as described but the main and partition walls are carried sheer to the roof with consequent loss of free air space. This is also the case, strange to say, in the cook-house. and the idea as was suggested to me by the Local Agent, Babu Ranajit Kumar Bagchi, of small multiple rooms being advisable from the point of view of different castes not caring to cook together is wholly erroneous. A low wall of no more than a foot high between each pair of chulas is amply sufficient to overcome any prejudice of this kind. In any case heavy partitions carried to the roof should not have been deemed necessary.

The latrines are well constructed and each contains four places on the pail system. They are designed to be kept in order from the outside as is correct practice, but the whole of the land taken up has been enclosed by the wall, and it will now, I fear, be necessary to acquire a surrounding strip in order to admit of the approach of the conservancy cart.

Water-supply is to be from a *pukka* well, 5 feet in diameter, now in course of construction in the compound. It should have a two foot parapet with domed cover, a four foot plinth, and a *pukka* drain made to carry off all surface washings. A bathing-platform is estimated for. It should be constructed near this drain between the well and the boundary wall. There are no paniwallahs on the establishment. These should be provided so that one can always be on duty.

There is no special hospital accommodation. The Civil Hospital as stated above is close at hand. A building for the segregation of contacts is necessary. This should be put up on a corner site in the compound and fenced off. It should have a *pukka* floor and be properly drained.

All coolies are medically inspected by the Civil Surgeon before despatch, and all over three years of age inoculated by him against cholera. Vaccination is performed by a special officer engaged for the purpose.

Coolies are mainly 3rd and 4th class, and are chiefly Ahir, Kurmi, Chamar, Dhobi, and Kahar. They are designed for all districts of Assam, Cachar, and Sylhet, the majority, however, proceeding to the last-named. The total number received to date is 526 (sirdars, 261). For the whole of last year the number was 4159 (sirdars, 868). The average duration of stay is about two days, coolies being detained for 24 hours after medical examination.

Although new this Place of Accommodation presents grave sanitary disadvantages, and it would unfortunately appear difficult to effect improvements without extensive and costly re-construction. The design of the roof is such as to render the substitution of brick or masonry arches necessary if the partitions between the small ten foot rooms are taken out. The removal of the present roof and the framing of a truss roof of sounder design is an alternative, but both procedures would, I fear, be equally expensive. The design of the cook-house is truly extraordinary. It should be of general acceptance that this, while weather-proof, should be as open and well-drained a structure as possible. Here we have a row of compartments ten feet by ten entirely closed in except for the door-space and with earth floor. The roof construction is the same as in the sleeping quarters, and the conditions would appear to be in the same way all but irremediable, although as a partial measure large openings might be made in the main wall behind to improve ventilation and facilitate the exit of smoke. *Pukka* floors are necessary throughout, laid with a fall, and if *pukka* drains round the buildings have not been provided for in the estimates these should be put in. The high surrounding wall might come down by half for the sake of appearance, clear passage of air, and general sense of freedom.

I would say that Basti affords an example of the desirability of buildings being standard and of approved design. It is regrettable to see a new Place of Accommodation of this kind the cost of which can be in no way commensurate with its value.

The old Place of Accommodation lies on the opposite side of the road. It has recently been abandoned for coolies and the Agency Office which is still being conducted there will shortly be removed to the new building.

The old buildings are largely *katcha*, and form a confused labyrinth of small dark rooms with earth floors. Ventilation is defective or wanting, and from a sanitary and administrative point of view it would appear that conditions must have been most unsound.

GORAKHPUR—

31st March 1920.

I visited and inspected this Agency on the 31st March 1920, with Messrs. Kirkham and Tweedie.

The Place of Accommodation occupies an unwholesome site in the town about half a mile from the railway station. Entrance from the front is through a gateway in a two-storied

building into a quadrangular space with low single-storey buildings on the remaining three sides. The sleeping accommodation on one side consists of two separate rooms open in front to an eight foot verandah, a closed room at the angle, dark and dirty, and a row of seven dark hovels with some verandah space in front of them on the side facing the entrance block. There are two other dismal rooms on the remaining side and a dispensary, the latter clean and orderly. A filthy latrine occupies an angle, a dark room with earth floor. It has three places but no pails or utensils are in use. It is supposed to be kept in order by a sweeper. There is another latrine outside for men and sirdars. Buildings are of *katcha* brick with tiled roofs. Floors are of earth throughout on a low plinth, and drainage of any sort is non-existent. Cooking of food is done in the sleeping quarters or on the verandah. Water-supply is from a common well in the street. This well is in wretched repair with no adequate protection to the supply and stands as a disgrace to the municipality. The front building contains the Office and storerooms on the lower storey, and the Agency Babu resides above.

Coolies are mostly 3rd and 4th class, and are mainly Chamar, Kyot, Mala, and Mussulman. The whole number received this season to date is 519, and sirdars 245, a total of 764. The average duration of stay is over two days. Coolies appear to be kept back till a sufficient number are ready for challan with one peon, and there is also delay with the view of making the most of the anti-cholera vaccine which is normally supplied in too large bulk.

Medical arrangements are in the hands of a local practitioner, who receives a salary of Rs. 175/- a month, with station travelling allowance of Rs. 20. He carries out medical inspection and all coolies are vaccinated and inoculated by him. Serious cases of sickness are sent to the Saddar Hospital about one mile distant. A segregation house is provided in the form of a small bazaar house some little distance away in the same street as the Place of Accommodation.

In addition to coolies recruited for garden labour Nepalese pass through this Agency intended for work in the mines of the Assam Railways and Trading Company, and about 1,580 have been sent forward this season. In the case of these coolies medical examination has been in force only since the 19th December last, and they are neither vaccinated nor inoculated against cholera. It is clear that this matter should be put on a better footing, and whether responsibility for their recruiting remains with the Tea District Labour Association or not this Company should conform to all measures designed to prevent the introduction of disease into Assam. There has hitherto been failure to observe that laxity on the part of any individual garden or company tends to react adversely on recruiting and on the industry as a whole. All, therefore, should come into line as well for their own interest as for that of others.

A new Place of Accommodation at Gorakhpur is urgently required, and it is satisfactory to know that this is already projected. There has been delay, however, in securing a suitable site. I inspected one proposed site in an orchard on the out-skirts of the town. I am not satisfied that it is altogether desirable, although it would appear to be the only available position in that quarter near the railway, where the bulk of the property belongs to one landed magnate. A little further distance from the railway station can be no decided disadvantage, and I suggest that enquiry be made elsewhere in another direction away from the town. Action should be prompt as the present Rest-House is exceedingly insanitary and the arrangements generally bad.

GHAZIPUR—

1st April 1920.

I visited and inspected the Agency here on the 1st April 1920, with Messrs. Kirkham and Tweedie.

This is the chief administrative centre of United Provinces recruiting, and coolies come in from Allahabad and Fyzabad, as well as a few from Basti, and Gorakhpur. The duration of stay is on an average two days, and medical inspection and inoculation are carried out by the Civil Surgeon. Vaccination is performed by a special officer engaged for the purpose. Sick cases are attended to at the Civil Hospital about 3 miles distant.

Housing arrangements are at present of a purely temporary character, and coolies are accommodated in the stable and out-buildings of a bungalow, which contains the Agency Office and quarters of the Head-clerk. The coolie buildings are *katcha pukka* with tiled roof, and consist mainly of an open shed of four compartments, which is in fair repair but possesses no drainage and has only an earth floor. No special cooking-place is provided. Water-supply is from a *pukka* well in the compound. Two aqua privies are fitted, and there is also a latrine with two places on the pail system kept in order by a sweeper.

The bungalow stands in a compound of fair size, partially enclosed by low walls. I gather that no definite plan or estimate has yet been formulated for new accommodation, but I think the present site would be satisfactory enough. Rest-sheds could be erected in the compound and the present coolie quarters adapted for a cooking-place. A *pukka* floor and adequate drainage would of course be necessary. A separate segregation house for contacts could be constructed on the area, and a dispensary built. The well would require improvement to render it safe, and a separate bathing-place should be made.

For this season to date 337 coolies and 188 sirdars have been passed through. The total number for last year was 2623, made up of coolies 2100, and sirdars 523. Coolies are chiefly Ahir, Kahar, and Khol, and the majority proceed to Cachar, and Sylhet

NAIHATI—

24th April 1920.

Every emigrant to Assam, Cachar and Sylhet passes through this Junction, except a few, mostly Nepalese, who travel direct to Assam from Ghorakpur *via* Katihar.

Coolies coming from Asansol arrive at Naihati by special train at about 7-30 P.M. Those *en route* for Assam *via* Amingaon are de-trained, stay the night at one or other of the Rest-houses and leave next morning at 10 o'clock. The people going *via* Goalundo remain in the train, which leaves about 11-30 P.M. to arrive there at 4-30 in the morning. Coolies coming from Khargpur arrive at Naihati at 8 A.M., leaving at 10 A.M. for Amingaon, and at 11-30 P.M. for Goalundo.

Rest-houses here are owned by the three Forwarding Agents, and are all situated at a little distance from the Station on a narrow strip of land lying between the main road and the line. They adjoin each other, the nearest to the Station being that of Messrs. R. D. Mukerji, which has accommodation for 38 people in the form of two buildings with earth floor, mat walls and corrugated iron roof. They are fitted with wooden sleeping machans. A separate cook-shed is provided, a small segregation house and a latrine with four places. Water-supply is from a Municipal stand-pipe.

Messrs. Medland Bose's place is the next, and it affords shelter for 193. There are three large coolie sheds with mat walls, and earth floors, two roofed with corrugated iron and one with thatch. They possess bamboo sleeping machans. An iron latrine is provided with 10 places on the pail system, and two sweepers are employed. An "incinerator" is in use, so-called, a small space bounded on three sides by a few bricks in which rubbish is burnt, and there is a "soak-pit" for waste water from the cook-shed, in the shape of a kerosine oil tin sunk in the ground. A *katcha* segregation house with corrugated iron roof is placed a short distance away across the road.

Messrs. Logan & Leslie's Rest-house is the furthest away, and occupies a larger, more open site shaded by fine trees. There are 7 sleeping sheds accommodating 500 people. All have mat walls with earth floor on a low plinth, and are fitted with bamboo machans. Sleeping mats are supplied. Four of the buildings are roofed with corrugated iron, one with tiles and two are thatched. Two large iron latrines are provided—Burns' standard pattern—with 26 seats, and a third constructed in *pukka* on a cement plinth with 12 places. Reserve water supply is in a 400 gallon tank fitted with taps. There is a cook-house on the site with earth floor. Two cooks and two paniwallahs are employed. The cooked food, which is excellent in quality, is placed before distribution on a cement platform on cloth and covered with mull-mull. Waste water from cooking is led into a *katcha* soak-pit.

The arrangements generally might be improved, as they are by no means of the best. Segregation accommodation is furnished by a *katcha* house within a fenced space.

A local medical practitioner is retained by Messrs. Logan & Leslie to attend any sick. Ordinary cases are sent across the river to the Chinsura Hospital. There have been 23 this year and an arrangement exists with the Railway Company to deal with all cases of infectious disease at their special hospital where ample accommodation is available. This is mainly in the form of sheds on a brick plinth with cement floors built with mat walls, wooden posts and thatched roof.

Immediately over the boundary fence of Messrs. Logan & Leslie's premises is the night-soil depot of the Bhatpara Municipality. This at the best would be loathsome and offensive in such proximity to a reception house for coolies, but to add to the abomination the arrangements are bad and the general administration faulty. From what I could gather the Municipality would appear to have no sense of their duty in this respect, and it would be well if some effective pressure could be brought upon them, for as matters stand the place exists as an intolerable nuisance and danger to health.

The immediate surroundings of the Railway Station are unclean, and would seem to me to require more attentive sanitary supervision. The main road leading from it towards the Rest-houses is fringed for the greater part of its length with foul hovels and dingy shops. Over these, however, I fear no effective control is possible as they would appear to be out-side the area of Railway settlement.

ASANSOL—

25th April 1920.

At this important railway centre coolies are collected from Local Agencies throughout the Central Provinces, the United Provinces and Behar.

All three Forwarding Agencies are represented and they each have a Place of Accommodation for the reception of emigrants and sirdars. From the 1st July to the 24th April, the day of inspection, the numbers passing through under the care of Messrs. Logan & Leslie were 43,705 (36,188 coolies & 7,517 sirdars), of Messrs. Medland Bose 19,310 (15,771 coolies & 3,539 sirdars), and of Messrs. R. D. Mukerji 8,638 (7182 coolies & 1456 sirdars), or a grand total of 71,653 souls.

Messrs. Logan & Leslie have accommodation for 300, and their Rest-house is contained in a spacious quadrangular area enclosed on three sides by a wall, and with an open fence as boundary at one end. The sleeping accommodation ranged along the wall on two adjacent sides, and partially on a third, consists of wide open sheds with cement floor containing wooden *machans* with loose removable boards forming their upper surface. These *machans* should preferably be in the form of cement platforms, and sleeping mats provided which could be burnt on occasion. Wood is difficult to keep clean or free from vermin. The buildings are roofed with corrugated iron and they are well-drained. There remains considerable scope for extended accommodation on the third side of the area, where as well as the boundary there exists another brick wall parallel to it which would appear to have been part of a building in use previously. A cook-house occupies a site in the central space. It is of *pukka* with tile roof, and contains a cement recess enclosed by fly-proof gauze for the cooked food, but it has an earth floor, which is very unsatisfactory. The waste water from cooking is conveyed to a soak-pit of faulty construction, and the drainage of the house and surroundings generally is deficient.

Two *pukka* wells form the water-supply, only one however being at present in use. Both have wide cement plinths, parapets of sufficient height and possess proper drainage for surface washings. They have covers, however, which are badly fitting, allowing the ingress of foreign matter and spill water from the pump on top. This requires attention and I recommend that a close cover be fitted on each well and the pump removed to the side. The pumps are of the "pitcher" variety, a cheap bad type, the use of which should never be countenanced in any public supply. The temptation always exists of filling the draw-pipe with water through the open top of the pump to start the flow, and this water will be obtained from any spot

convenient, clean or unclean. The well is thus extremely liable to contamination. Two pani-wallahs are employed and a bathing-platform is in use.

Latrines are provided, but they are in bad repair and evidently never used.

Outside the enclosed area are the Agent babu's and peons' quarters, and the hospital which latter is a *pukka* building of two rooms and verandah with cement floors. Equipment is scanty, and it would appear seldom if ever in use. At some distance away are isolation buildings—two open lean-to sheds constructed of brick with corrugated iron roof, cement floor and drain. They face each other across a wide unfenced space, and would accommodate 125 persons. They also would appear never to be in use.

Messrs. R. D. Mukerji's Place of Accommodation consists essentially of two rows of buildings flanking a narrow space with entrance through a gateway in an open fence limiting the area on one side. Sleeping accommodation is in the form of an open shed on a raised plinth with *pukka* floor and drain. Windows fitted in the rear wall afford light and air in abundance and except that wooden *machans* are in use the buildings are excellent throughout. A separate cook-house contains a fly-proof safe for cooked food, and a cook and pani-wallah are employed. A *pukka* latrine is in use on the pail system with three places, and kept in order by the Municipality. Water-supply is from a first-rate *pukka* well with pulley lift, and an enclosed place for bathing is reserved away from it. The buildings and courtyard throughout are well drained and I found them in an unexceptionable state of cleanliness and order. They afford accommodation for 64 people, and through an arch in the end boundary wall is an extension with sleeping accommodation of the same character and a separate well. This was used on occasion for any excess numbers or for segregation purposes.

Messrs. Medland Bose's buildings are those nearest the Railway. The entrance front is used as an Office and peons' quarters, and behind is a compound bounded laterally by the sleeping sheds, and enclosed at the further side by a light fence. The sleeping accommodation consists of sheds of brick with corrugated iron roof, partially open in front. They contain wooden *machans*. Floors are *katcha-pukka* in bad repair and the drainage of the buildings and compound generally is poor. Water is from a well fitted with a pump discharging into a *pukka* tank, from which the supply is obtained by baling—a pernicious arrangement, which should be at once abolished. The water should be obtainable direct or else from a closed tank furnished with a tap or cock.

A small *katcha* cook-shed is provided, fitted with a *chula*. Drainage is defective or wanting. A cook and pani-wallah are employed.

A latrine is arranged outside, springing from one side of the enclosure. It contains twelve places on the pail system, and is kept in order by the Municipality.

Segregation accommodation is in the form of a lean-to *pukka* shed with corrugated iron roof and *pukka* floor. It is provided with a separate latrine, with four seats.

As regards medical arrangements a qualified Sub-assistant-surgeon attends the three Rest-houses. Ordinary cases of sickness are treated on the spot and cases of infectious disease go to the Leighton Hospital, which is administered by the Asansol Municipality. Largely owing to the separate existence of the three Agencies provision for sick tends to be ineffective and lacking in economy. Medical equipment is scanty, a few disinfectants are stocked in a casual sort of way, and necessary medicines are said to be procured only as required. The accommodation at the Leighton Hospital would appear to be sufficient for the needs of the ordinary resident population, but to allow little or no margin. It is a fact that among the thousands of coolies passing through the number detained sick has so far been remarkably small, but provision that would meet any reasonable emergency has to be made for their reception and treatment. When the Forwarding Agencies are amalgamated under the new scheme opportunity will be afforded of constituting medical arrangements on a sound and economical basis. A whole time sub-assistant-surgeon should be engaged to attend to all medical and sanitary matters, with possibly a compounder to assist, and with certain alterations Messrs. Logan & Leslie's hospital and segregation buildings could be adapted for the accommodation of all likely sick, including cases of infectious disease. The buildings belonging to all

three Agencies are near each other, and their general surroundings are the same and not altogether favourable, the whole area being strewn with dwelling-houses, and miscellaneous structures, stores, etc. There is no actual congestion, but a sound alternative would be the construction of a dispensary and hospital buildings a little further away on an open area of ground belonging to the New Beerbhumi Coal Company, where a site might be available free from any likelihood of encroachment.

Whatever arrangement may be come to with regard to buildings a sub-assistant-surgeon could scarcely be left in charge without supervision, and it might be possible in this respect to obtain the services of the Chief Sanitary Officer of the Asansol Mines Board of Health on a retaining fee to give whatever might be necessary.

Coolies travel by rail to reach Asansol a varying time of from three to forty-three hours, or, on an average, 19 hours from all Agencies concerned. The journey, in the case of the longer distances, must inevitably be an exhausting one, but much thought and care have been taken to mitigate its hardships as far as possible. The people are fed at certain points, and where it is not possible to supply them with a hot meal they receive a ration of dry food to take with them.

Coolies from Ranchi, Purulia, Sambulpur, Raipur, Chaibassa, Bilaspur and Jubbulpur arrive at Asansol by slow passenger train at 12-30 p.m. The coolie special leaves at 1-30 p.m., and as the former train may often be late, there is little time for a proper meal. The food, however, is cooked ready, and the coolie special can often be detained a short time. If the train is missed the coolies remain at Asansol all night to leave next afternoon.

Coolies from other Agencies arrive at from 6 to 11 a.m., or from 3 p.m. to 10 p.m., in the latter cases staying at one or other of the Asansol Rest-houses all night.

The coolie special is timed to reach Naihati at 7-30 p.m. The coolies proceeding via Amingaon go to the Rest-house and leave next morning at 10 a.m. to arrive by the mail on the following day at 10-40 a.m. Those going to Goalundo, carry a dry ration with them from Asansol, remain in the train at Naihati and reach their destination at 4-30 a.m. The Kharipur coolies arrive at Naihati at 8 a.m. Those of them proceeding via Goalundo remain in the Rest-house all day, entering the train at night. The people travelling via Amingaon leave almost at once at 10 a.m.

The whole arrangement is a complicated one as so many railway systems are involved, but it would appear that the best timings possible have been adopted to save the people undue fatigue or delay.

GOALUNDO—

29th April 1920.

Coolies arrive here in the morning by train at about 4-30 a.m., and proceed directly on board the steamer. The Assam steamer leaves only every other day, but, there is always a boat waiting which serves to accommodate them. The arrangements made for the coolie passengers on the steamers are satisfactory. Particular attention is given to the water-supply. It is permanganated and pumped up to locked tanks on deck fitted with cocks. Food is cooked in steam-boilers, and latrine accommodation on the two steamers I inspected was sufficient and orderly. The hose is turned on, on the steamers and coolies have an opportunity of bathing on coming aboard after their railway journey. Those travelling via Chandpur are fed before leaving the boat, and they receive food again at Badarpur and Lumding. The arrangements for the latter meals are in the hands of the Assam Bengal Railway, and the cost is charged in the railway ticket.

Coolies are medically inspected after arrival on board by the Embarkation Agent and the inspection is done carefully and systematically. Any sick are detained and sent to the Hospital on shore. The hospital occupies an open breezy site on the banks of the river. The buildings are entirely *katcha*, and they are designed to accommodate 80 patients. The

highest number under treatment on any one day this season was 54. The general equipment of the hospital is very fair. There are a few iron beds in use, and there is good stock of necessary drugs and instruments. The whole place was in first-rate order, and though obviously cramped for room the condition of the dispensary out-patient dressing room and operating-room was a credit to the sub-assistant-surgeon in charge. The Staff consists of sub-assistant surgeon, two compounders and a qualified dresser. About 16,000 coolies have passed through Goalundo this year, and Lieutenant Marshall the Embarkation Agent, considers that sufficient hospital accommodation would be 60 beds—22 being reserved for cholera and small-pox, and 38 for other diseases.

The several Forwarding Agents, Messrs. Logan & Leslie, R. D. Mukerji, and Medland Bose possess Rest-houses here. The first-named has accommodation in their place for 60 people, the second for 8, and Messrs. Medland Bose for 30. Coolies, however, do not in reality halt at this place, and the accommodation is, therefore, only of use for downward sirdars, and even in their case there can be little or no delay as there are 12 trains in and out of Goalundo daily. The buildings are all *katcha* and necessarily so owing to the temporary character of the whole Settlement, but they are perfectly satisfactory of their kind, taking into consideration their limited sphere of usefulness. Each Rest-house has a ring well for water-supply, and is provided with latrine accommodation.

The difficulty with regard to Goalundo lies in the fact that the whole place has to be shifted twice yearly owing to the changing character of the river. The hospital buildings as they stand cost approximately Rs. 5,000 to 6,000, and at a certain season they have to be moved some miles and set down on a fresh site with great resulting loss, dislocation of work and general inconvenience. The only solution would appear to be the provision of a hospital flat, which could be towed and moored with facility to whatever point the Steamer Ghat happened to be at the time. This has been under consideration for some time past the main impediment being the prime cost of a suitable vessel which must necessarily be high. The hospital, however, is by no means wholly designed for the care of tea-garden emigrants and sirdars. The great part of its work is connected with the community in general and the preservation of the public health. It is reasonable therefore to look to the provincial Governments concerned for a grant-in-aid. Once the initial cost was defrayed considerable saving in up-keep would result in comparison with the sums that have to be expended under existing circumstances, and indeed the provision of a hospital flat would appear to be the only solution likely to lead to ordinary economy and efficiency.

KHARGPUR—

5th May 1920.

This railway junction is the halting place for coolies from Vizagapatam, Berhampur, Cuttack, Balasore, and Midnapur, and they here come under the care of one of the three Forwarding Agents who have each a Rest-house at this point.

The Rest-houses are on a strip of land in juxtaposition to each other about $1\frac{1}{2}$ miles from the Station, immediately beyond the boundary of the Railway Settlement.

Messrs. Logan and Leslie's place affords accommodation for 200 coolies, and consists of four *katcha* buildings in an enclosure. The buildings are each on a high plinth, they have earth floors, contain sleeping machans of mud open underneath, and lighting and ventilation generally is fair. Water-supply is from an earthenware ring—well fitted with a pitcher pump. The design of the pump is bad, but the well itself is in good order, and a special paniwallah is employed to attend it. There is no bathing-place provided. Cooking of food is carried out in a similar *katcha* building, and two cooks are engaged for the purpose. The cook-house is inadequately drained, and a further noticeable defect is the lack of any fly-proof protection for the cooked food. The provision of a cupboard for this or something similar fitted with wire-gauze should be looked upon as a necessity. Latrines are of *pukka* with 12 places on the pail system. There seemed to be no proper arrangement existing for the disposal of the excreta. An incinerator would furnish the best solution to this difficulty as a considerable amount of careful supervision is essential if trenching is to be satisfactorily carried out. A segregation house shared by Messrs.

R. D. Mukerji is on a site some little distance away. It is a small *katcha* building with mud walls, thatch roof and earth sleeping machans. The Assistant Superintendent of Emigration attends daily from 12 o'clock to 4 p.m., and sees all coolies. Any sick are transferred to the Railway Passengers' Hospital near the Station.

Messrs. R. D. Mukerji's Rest-house accommodates 100 people and consists of *katcha* buildings of the same character as above with earth floors and sleeping machans open underneath. Water-supply is from a ring well with domed top and pulley lift. A special pani-wallah is employed. There is no bathing-place. Latrines are *pukka* with 6 places on the pail system, and are arranged for the drainage of ablution water, etc., to a small *pukka* tank to be emptied by baling. This is, of course, wrong practice and should be put an end to.

These Rest-houses belonging to Messrs. Logan and Leslie and R. D. Mukerji are badly designed and their faults from a sanitary point of view many, but I found them clean, well-cared for and in excellent order. I regret I cannot say the same for the place owned by Messrs. Medland Bose. This affords accommodation for 200 people, and consists of low *katcha* buildings facing each other across a narrow quadrangular space, constructed with mud walls, earth-floors and thatched roof, and containing earth sleeping machans open underneath. The cooking-place is a dilapidated *katcha* building with earth floor and no drainage, and an abominable *katcha* latrine is provided, with mud floor, which would appear to be flooded in the rains. Water is drawn from a well of bad design with no adequate protection to the supply, and in a disgraceful condition as regards surrounding drainage. These Agents, in my opinion, deserve severe censure for the state of affairs here, and for the sake of the large number of coolies that pass through their hands I trust it will be brought home to them.

From the 1st September to date Messrs. Logan & Leslie had charge of 9,000 coolies and 1,804 sirdars, a total of 10,804, Messrs. Medland Bose 5,107 coolies and 974 sirdars, a total of 6,081, and Messrs. R. D. Mukerji of 1,150 coolies and 237 sirdars, a total of 1,387. The first named had 3 sick and no death, the second firm $\frac{4}{5}$ sick and three deaths, and the last 2 sick and one death. The sick comprised 4 cases of dysentery, the other five cases reported being of non-infectious disease.

Coolies coming through Khargpur have travelled for from 26 to 32 hours by rail from Vizagapatam, from 17 to 20 hours from Berhampur, $12\frac{1}{2}$ hours from Cuttack, and from about 2 to 4 hours from Balasore. They receive a dry meal *en route* at Khurda Road. They remain at Khargpur about 12 hours or less, leaving for Naihati at 9. p.m.

As will be seen from the total given, 18,272 coolies and sirdars have passed through the Junction this season to date. Sick have been extraordinarily few, but provision has to be made for them, and reserve accommodation is essential in view of the possibility of outbreak of infectious disease, such as cholera or small-pox on the transit routes. The existing accommodation available is in the form of the Passengers' Hospital and Government Dispensary kept up for the reception of cases of infectious disease and general sickness removed from passing trains. This consists of several *katcha* buildings with mat walls and thatch roof, close to the Railway Station, and for the most part in a remarkable state of dilapidation. There is one building of some size with cement floor but it is largely in a ruinous condition, minus walls, the roof not weatherproof and the flooring itself broken and useless as an impermeable surface. An iron latrine of the usual railway pattern with 4 places on the pail system is on the site, and this would appear to be the only structure having any pretension to be other than temporary in character. The whole place requires urgent repair or re-construction if it is to be of any real value as a hospital, and on this being done a subsidy might be paid by the Association as a contribution towards its upkeep, or in lieu of this a daily payment of *e. g.*, twelve annas might be arranged for each case under treatment. Any arrangement of this sort should be looked upon, however, as purely temporary, and the construction of a new Place of Accommodation kept in view which should have its own hospital and staff. The proper position for the new buildings would appear to be at Hijli, the new Civil Station now planned and under construction near Khargpur. An excellent site would, I believe, be available here near the proposed railway station on a large triangular space of land originally taken up for a Government

Farm. All coolies, except the few travelling from Midnapur come in on the line from this direction and they could be readily de-trained and despatched. In the meantime I would suggest that when the Forwarding Agencies are taken over by the Association the best possible be done with the present buildings on ordinary sanitary lines until definite arrangements can be entered upon for the erection of a new and correctly designed Place of Accommodation on the new site. I gather that it will be a year or more before matters are sufficiently advanced at Hijli to allow of the occupation of the new Station.

GENERAL REPORT.

In the conduct of the work assigned to me as Special Medical Officer to the Board, viz., the inspection of Recruiting Depôts and Forwarding Agencies with a view to the improvement if necessary of the medical and sanitary conditions prevailing in them, I visited Places of Accommodation attached to 36 Local Agencies, (including 3 rest-houses) spread over Behar & Orissa, the Central Provinces, the United Provinces, Bengal and Madras, as well as the several Forwarding Agencies at Purulia, Bilaspur, Khargpur, Asansol, Naihati and Goalundo. The chief general impression conveyed to my mind was, with very few and unimportant exceptions, the earnest endeavour plain on every hand to promote the comfort and well-being of the coolie at the places of reception, and deliver the emigrant to Assam healthy and contented. In the methods employed to these ends, however, there was, it appeared, considerable lack of unity, and I would believe that there is yet much to be done to co-ordinate and centralise recruiting efforts. As matters stand each Recruiting Agency is to a large extent a law to itself, and in this I refer particularly to questions of hygiene, including the design of buildings for the accommodation of coolies and arrangements for their medical care and examination, and while local conditions no doubt often have to receive very definite consideration I am of opinion that unified or standard practices would as a whole best conduce to efficiency and economy.

To carry out the work deputed to me a schedule of inspection was adopted, and I propose now to take up each of the points in it in an endeavour to obtain some general standards of value.

1. The Site and General Location of a Place of Accommodation.
2. Buildings and Housing.
3. Feeding Arrangements.
4. Latrine Accommodation.
5. Water-supply.
6. Hospital & Dispensary Accommodation.
7. Examination of Emigrants & Medical Attendance at Places of Accommodation.
8. General.

1.—THE SITE & GENERAL LOCATION OF A PLACE OF ACCOMMODATION.

The general location to be chosen for a Place of Accommodation is in open country away from any congested area but accessible by a good road and conveniently near the railway and town. It should be near the railway for the sake of the easy arrival and despatch of coolies and sirdars, but at a point where the people in coming and going are not compelled to pass through crowded bazaars, and it should not be too far from the town for the sake of the Office staff. In no case should the Agency Office be divorced from the Place of Accommodation, and the desire of the clerks and others for the amenities of life has always to be adequately recognised. The site should be on land affording sound natural drainage, dry throughout all seasons, and there should be ground in plenty round about for the erection of temporary buildings in case of emergency. An abundant water-supply should be obtainable, but the proximity of streams and tanks should be as far as possible scrupulously avoided. Attention should be paid to the risk of encroachment, and in the case of any town a position should be adopted towards which building in general is not in course of extension. There often appears to be difficulty in the acquirement of land when once selected, especially if the desired position is not actually on waste ground. In many cases land values have gone up to an extraordinary degree, and particularly with regard to the smaller agencies there must be an early limit to what is economically sound in expenditure, but often wilful and irrational obstruction has to be contended against in addition to heavy cost, when the question of coolie emigration is involved. The Local Authority, however, should never lose sight of the fact that the aim is the maintenance and promotion of the public health, and it therefore stands as their duty to see that no reasonable facilities are withheld in the matter.

At 14 Agencies the site of the Place of Accommodation is unsatisfactory or bad, in the large majority of cases because it is in the midst of a town, or has other buildings of miscellaneous character up to it. This occurs largely in the smaller Recruiting centres, and where the Rest-houses are of the old insanitary type handed down from the past generation. In nearly all of these steps are now being taken to acquire other land for the erection of modern buildings. In 6 agencies the general location and site of the buildings are fair, and 16 occupy desirable situations, many of them excellent in every respect, these comprehending almost all the centres of present recruiting importance.

2. BUILDINGS AND HOUSING.

It is necessary in all Agencies to provide accommodation for coolies, a separate building for cooking, peons' quarters and store-godown, segregation and isolation buildings, besides latrine accommodation and water-supply.

Accommodation for coolies should be as nearly as possible in the form of sheds with arched openings along their length in front and windows or perforated brick-work in the rear wall, the perforations being put in on the slant to prevent the ingress of rain. Alternatively the sheds might have a half wall along their front and the roof supported by iron columns or brick pillars, the eaves being brought down low enough to render the interior storm-proof. Good examples of the former are seen at Cuttack, and of the latter at Midnapur, although here I doubt if the sheds as built can be entirely rain-proof, and in time of storm they would probably require some other protection in the shape of mats or screens to keep them dry. At Hazaribagh and Daltonganj the accommodation is also well-designed, and the small sheds at Buxar are of good type. The new buildings at Basti are disappointing and stand as an example of what should be avoided—a row of small compartments heavily built and confined with no free air space above. The new Place of Accommodation at Jubbulpore and to a lesser degree that at Bilaspur are excellently constructed in the form of a continuous shed open on one side, the roof supported by brick pillars, the building occupying three sides of a square. At Jubbulpore the accommodation is exceptionally spacious and airy, but I think the most useful type of housing to be provided takes the form of separate buildings, and I would suggest as the unit for future construction a building sixty feet by fourteen to furnish accommodation for 40 people. Such buildings could be put up as a unit, or in duplicate or triplicate according to the size of the Agency to be served. In the erection of a single building with wings enclosing a quadrangle, unless it is on really a large scale there is danger of getting the central space small and confined as is in the case of the old building at Baidyanath, and in the plans proposed for the new Place of Accommodation at Waltair. Sleeping platforms may or may not be fitted, although I think that on the whole they are of advantage, but if put in they should be solid structures, no openings underneath them for the retention of filth or rubbish, and the introduction of wood should be carefully avoided as it is impossible to keep it satisfactorily clean or free from vermin. Sleeping mats should be provided in all cases, whether platforms are there or not.

In general design the aim should be light and air in abundance, and of equal importance are facilities for washing out and cleansing the interior. Buildings should, therefore, possess an impermeable floor and any sleeping platforms fitted should be covered and faced with cement, all corners should be rounded off, and the floor laid with a fall to an outside drain, which should in every case surround the whole structure. All buildings should be on a high plinth, 18" to 2', to keep them free from damp. For roofing there is nothing better than tiles, which are almost universally obtainable. Corrugated iron is inferior in that it is subject to induce extremes of temperature.

The provision of separate accommodation for families and for the sexes under the present improved system of recruiting is totally unnecessary, not to say undesirable. There is nothing so likely to check tendency to immorality than publicity by night and day, and when the people are coming forward in family groups any compulsory separation of the sexes would be resented, and, I think, rightly.

3. COOKING ACCOMMODATION.

Properly designed covered accommodation for cooking is requisite in all Agencies, although it is held at times and that usually in places where it happens no cook-house or shed is existent, that coolies much prefer the open for the purpose, and fancy the use of *katcha* chulhas of their own construction or a hole in the ground. The people are, however, entitled to shelter, and nuisance of exceedingly objectionable character will occur if they are compelled to use their sleeping-quarters for the preparation of food, or in the open the promiscuous and unregulated disposal of refuse water and waste will eventually give rise to squalor, and serious sanitary trouble. Therefore a cooking-place is a necessity and this should be a *pukka* building with cement floor. The floor is best laid with a fall to a wide shallow channel running centrally along the length of the house to discharge into an outer drain to carry all refuse water as far away as possible to a soak-pit. The unit cook-house should be forty feet by twelve to correspond with the unit buildings furnishing sleeping accommodation for 40 coolies, and the space along each side wall should be utilised for a row of chulhas, entrance to be effected from the end of the building. It is held by some that certain castes object to cook their food side by side with others. If there is any reality in this with regard to coolies it can be met by the erection of a low wall, no more than 2' high, between each pair of chulhas, as has been done to everyone's satisfaction at Daltonganj. The roof of the building should be supported by brick pillars, and half walls should be fitted with widely perforated brick-work above, or the eaves brought low enough to render the interior weather-proof and the space above the half walls left open. Abundant light and air should again be the aim, and if the walls are carried up space should be left between them and the roof to permit of the free exit of smoke. Roofing may be either of corrugated iron or tiles, although I take it that the latter style is the more durable and better likely to withstand the corroding effect of fumes and smoke. Special care, as I have indicated, has to be taken in drainage in and around the building to avoid nuisance and fly-breeding from the refuse water and waste from cooking. All drainage should be conducted well away from the cook-house precincts to a soak-pit of proper construction, which will require inspection from time to time to keep clear of choking. The function of a soak-pit is to allow soakage and it is not to be constructed as in one or two instances I have observed too extensively in concrete or cement. It is essentially a pit containing rubble or broken brick, but its actual construction must follow the character of the soil dealt with, and the vital point to understand is that the value of the pit depends on the facility with which it admits of free soakage.

No cook-house should have other than an impermeable floor, a matter, which has been overlooked in many Agencies, and the chulhas should be of the simplest pattern to support an ordinary cooking-pot and placed in pairs. Water-supply should be convenient, and latrines at a distance.

At the Forwarding Agencies in Khargpur, Asansol, and Naihati cooking is not done by the family or individual coolie, but by specially engaged cooks in a kitchen, and here the same principles hold as to character of building, drainage, etc. In addition clean fly-proof accommodation should be provided for the retention of the food until it can be served out, and this has been sufficiently attended to in some cases by placing the rice, etc., after cooking in fly-proof gauze cup-boards. This is a salutary practice to be noted for general adoption.

Feeding and Diet.—In the various Places of Accommodation food is issued to the coolies on a fixed scale, and I found food-stuffs throughout excellent in quality. At two of the minor agencies money is given in lieu of rations, a practice much to be deprecated, and one which I recommend should be abandoned.

A great deal of thought and attention has been given to the rationing of the coolies on the transit routes. They are supplied with hot cooked meals at various points *en route*, for example at Hazaribagh Road, Jharsuguda, Gondia, Shikarpam, and Sorbhog, and on journeys where the provision of a hot meal is not practicable the people receive an issue of dry food to take with them. This consists usually of parched rice, or even a loaf of bread, and country sugar. Although no doubt cooked food is preferable it is a question of the possibility of supplying it or not, and under such circumstances I can see no clear objection to the dry meal.

The railway journey when of any length is unavoidably exhausting, but up to date as much as possible appears to have been done to mitigate its hardships. Improved conditions

may, however, be worked out under the unified system of control of Forwarding Agencies, and it may be possible to avoid for good and all the evils attending the exceptional rush last year, when coolies had to travel at times in trucks with no sanitary arrangements, and when overcrowding and congestion on the transit routes generally were intense.

4. LATRINE ACCOMMODATION.

This should be supplied to the extent of about ten places for every hundred persons resident, and thus four places would suffice for the unit building, two for each sex. The best form is the pail system, with galvanised iron buckets, and construction should be as simple as possible. The iron latrine Burns' "Standard" for example—is probably the most satisfactory, though an equally good pattern can be readily constructed in *pukka*. Examples of *pukka* latrines of sound construction exist at Cuttack, at the main Rest-house of the Labour Association, and the Rest-house of the Salona Tea Company, also at the Empire of India and Ceylon's Place of Accommodation at Ranchi, and at Chaibassa and Sambulpur. Good iron latrines are fitted at Ranchi (T. D. L. A.) Daltonganj, Hazaribagh, Bilaspur, and Naihati (Messrs. Logan & Leslie's Rest-house). There are no latrines whatsoever at Raipur, Jubbulpore, and Balasore, and in many of the smaller agencies in the Central and United Provinces they are of varying bad design or poorly maintained, as is also the case at Midnapur, Bankura and Lakhiserai, while at Ghorakhpur, Pithapuram, and Khargpur (Messrs. Medland, Bose's Rest-house), conditions are scandalously bad. At Dumka the latrine is only fair, and at Berhampur accommodation is extremely insufficient.

On the whole the soundest form is the iron standard latrine, but whether *pukka* or iron the latrine should be set on a cement plinth which should be properly drained and be capable of being flushed down, all washings being conveyed as far away as possible to a soak-pit. For the disposal of the excreta nothing can equal an incinerator in simplicity and efficiency, and I recommend that one of these useful appliances be attached to every Place of Accommodation. Trenching of night-soil, if properly performed and suitable land is available is no doubt perfectly satisfactory, but to avoid nuisance and danger the most careful supervision is necessary. For example, trenching should be carried out in the following way:—a piece of land is taken, say 6' x 4½', which is dug down uniformly to 18", the top half of the soil removed being placed on one side, and the lower half on the other. The night-soil is spread in the cavity thus made, the half of the earth first removed laid on it and tamped down, followed by the second half and the whole firmly beaten in. Anything short of this procedure will encourage fly-breeding, and be ineffective from the sanitary point of view. It will thus be clear that much care is required, more indeed than can often be expected, if safety is to be attained. On the other hand in the use of the incinerator nothing can well go wrong and the procedure is simplicity itself, all the dejecta and rubbish generally being burnt up and finally rendered harmless, and a further advantage not to be overlooked is that labour saving is considerable. Iron incinerators can be purchased, or they can be constructed of other materials locally to work with equal efficiency.

In defence of having no latrines, or in plea for not encouraging the use of those already there, I am quite frequently informed that coolies, especially wild "jangli" people from remote districts will not use them. No doubt classes and castes vary very much in their adaptability to reason, but it is astonishing how effective a little good advice and a good example are to the most untutored, and I hold strongly that all should have at least the opportunity of acquiring correct habits. The pernicious effects of soil, dust and water pollution are so wide spread and intense that every effort should be made to encourage the people and educate them, and the foundations of the good work should be laid in the Rest-house where coolies may first come under the influence of a regulated life. The practice of allowing people, not to say encouraging them, to go promiscuously hither and thither for the purposes of defaecation should be looked upon by all as a sanitary offence of the worst type, not to say a crime, and the sooner it is put an end to the better.

5. WATER-SUPPLY.

It has to be recognised at the outset, what is repeatedly lost sight of to an extraordinary degree that a sound water-supply is not one that satisfies even the most rigorous

tests of purity at a particular time, but one that is wholly free from the possibility of contamination or infection, and the provision of a supply in this manner safe for drinking, and abundant for all purposes such as personal ablution, washing of clothes, and cleansing of buildings is at the basis of all sanitation, and every effort should, therefore, be made to secure it.

At certain Agencies, as for example at Raipur, Allahabad, Bankura, Gaya, Waltair and Naihati water is obtained through pipes from municipal water-works, and the Local Authority is responsible so presumably the supply is wholesome and free from danger. In some Agencies, mainly at Chaibassa, Ghorakhpur and Katni, as well as in a few of the smaller centres, such as Hoshangabad, Fyzabad, Pendra and Pithapuram water is brought in from outside wells, which may be more or less unsafe, while in the large majority of Places of Accommodation, including nearly all of pronounced importance, the supply is on the site in the form of wells, over which full control is possible, and with regard to these I found on the whole an excellent appreciation of all factors necessary to ensure safety.

A well should be constructed of first grade brick-work laid in cement mortar, pointed and lined on the inside, and between this impervious casing and the outside earth the space should be filled with well tamped soil, clay-soil if procurable. The well casing should be carried up to a height of at least two feet above the surface, and a concrete shield brought out in a circle three to four feet all round, making an impermeable joint at its junction with the ground. This shield or plinth should be drained to carry off all spill water and surface washings, and the well should have a domed cover of re-inforced concrete and pulley lift with own bucket for raising the supply, or alternatively a closed cover with a pump placed at the side, not on top. The pump in this case should not be of the "pitcher" variety. In these the temptation always exists of filling the draw-pipe with water from any convenient spot through the open top of the pump to start the flow, and the well is thus liable to contamination or infection. Special attendants should be employed to work the well, and no other persons should be allowed access to it. The well should preferably be fenced, and no personal ablutions or washing of clothes permitted on or near the plinth. A bathing-place should be provided conveniently near the supply, but at such a point that drainage from it cannot under any circumstances flow towards the well. The bathing-place should be essentially a *pukka* plinth, well-drained, and if thought desirable some sort of arrangement may be made for privacy and the separation of the sexes. Water-supply to the bathing platform from the well through a galvanised iron or *pukka* tank would in many cases be a boon, but it is not always possible to arrange this unless a force-pump is in use. Bathing in streams or open tanks that may exist in the vicinity of the Rest-house should be strictly prohibited, as all such are liable to be infected and may be the start of disease amongst the coolies, if not in the Rest-house, then in Assam.

6.—HOSPITAL AND DISPENSARY ACCOMMODATION.

At the vast majority of Places of Accommodation the arrangement for sick is that they are sent for care and treatment to the local Government Hospital or Charitable Dispensary, and a certain sum disbursed for their daily maintenance. There are exceptions to this proceeding, however, and at Ranchi (T. D. L. A. Agency) a building is set apart for the purpose of receiving sick coolies, but it is not satisfactory and is practically destitute of equipment. There is also a special hospital building in course of erection by the Salolah Tea Company at their small agency at Cuttack, and at the T. D. L. A. Agency there, in Cuttack, a hospital is in existence at Chahataghat, excellent in design and complete in equipment and general detail. Agencies at Purulia, Ranchi, Chaibassa, Sambulpur, Jubbulpore, Gorakhpur, Cuttack and Berhampur—eight in all—possess dispensaries, some of the buildings first rate as at Purulia, Chaibassa, Cuttack and Berhampur, equipped with all necessary medicines and appliances and others not quite up to the same standard either in accommodation or furnishings.

As regards segregation accommodation for infectious diseases and isolation of contacts ten agencies are destitute of either in any form, and in the case of many of the others the accommodation that is provided is very poor and unsatisfactory. The main agencies that have no accommodation of the kind are Daltonganj, Raipur, Basti, and Midnapur. At

Jubbulpur and Ghazipur segregation and isolation accommodation are to be early additions to the buildings, and at Balasore, Lakhiserai, Gaya and Pithapuram entirely new buildings are proposed for erection and all will doubtless possess it in due course. Amongst the remaining agencies the accommodation provided for these special purposes is poor at Gorakhpur, Bankura, and Dumka, and still worse at Sambulpur and Waltair.

Accommodation for the segregation of cases of infectious-disease and for the isolation of contacts should be furnished in proper form at every Agency. It need be of no elaborate character, and best takes the shape of small skeleton buildings erected on a pukka plinth, 18" to 2' high and well drained, with posts—iron columns or brick pillars—and a roof. Mat walls can be put in on occasion, and probably the most suitable dimensions for the houses would be 12' x 10', or 12' x 16'. Three such would ordinarily be required—one reserved for cholera, one for other infections or for observation, and one for contacts. They should be placed on the site as far from other buildings as possible, and remote from the water-supply.

7.—EXAMINATION OF EMIGRANTS AND MEDICAL ATTENDANCE AT PLACES OF ACCOMMODATION.

In rather more than one third of the Recruiting Agencies—actually in 13—the Civil Surgeon of the district carries out medical examinations, namely, at Ranchi, Purulia, Daltonganj, Hazaribagh, Chaibassa, Bilaspur, and Cuttack, also at Raipur, Hoshangabad, Basti, and Ghazipur, including at the last-named coolies from Allahabad and Fyzabad. The Civil Surgeons employed, however, are only in three cases officers of the Indian Medical Service, namely, at Ranchi, Hazaribagh, and Cuttack, and one officer of the R. A. M. C. at Hoshangabad, the remainder being Indian Assistant-Surgeons who may, or may not possess British qualifications. At Bankura, Gorakhpur, Berhampur, Waltair and Gaya the examining officers, although non-officials, are fully qualified medical men, graduates or licentiates of an Indian University. At all other Agencies, except at four minor centres recruiting for single gardens or for groups of gardens of single companies, where there is no medical examination of any kind, emigrants are examined by medical practitioners of the sub-assistant-surgeon class.

At Ranchi a whole time sub-assistant-surgeon is engaged under the supervision of the Civil Surgeon to attend the sick and generally be responsible for the sanitation and good order of the Place of Accommodation. There are three similar officers employed at Cuttack, another whole-time sub-assistant-surgeon at Chaibassa, and a compounder at Bilaspur. Amongst the other Agencies—Sambulpur, Jubbulpur, and Dumka—possess their own medical officers, a sub-assistant-surgeon, whole-time on a fixed salary, who is entirely responsible for the medical examination of emigrants, for anti-cholera inoculation and general medical attendance at the Rest-house, and at Berhampur the same arrangement holds except that here the medical officer is better qualified being a graduate in medicine. All remaining Agencies employ a part-time medical officer for the examination of coolies, inoculation and vaccination on a *per capita* fee, except at Gorakhpur, where the arrangement is for an inclusive monthly salary. At Bankura, Gaya, Waltair, and Gorakhpur qualified practitioners of the assistant-surgeon grade are engaged for the work, but elsewhere the medical officers are sub-assistant-surgeons, who likewise are under no supervision, and themselves bear full professional responsibility.

To sum up :—Certain agencies employ the local Civil Surgeon on a *per capita* fee to examine emigrants, and carry out anti-cholera inoculation. This officer is, as it happens, in only three cases a member of the Indian Medical Service. The Civil Surgeon, again, may be responsible only for the examination of coolies, the sub-assistant-surgeon attached to the Agency on fixed pay, performing inoculation on his own account. An exception is at Cuttack, where the Civil Surgeon supervises the anti-cholera inoculation, which is actually carried out by the Agency sub-assistant-surgeon. A few Agencies have their own whole-time medical officer in sole charge, a sub-assistant-surgeon on a fixed salary, who carries out all examinations, inoculation, etc., but the majority of Agencies employ an outside practitioner who may be fully qualified, but who is usually merely of the sub-assistant-surgeon grade, to examine coolies, inoculate and vaccinate them on a *per capita* fee.

The standard fee throughout is 8 annas for examination, the same amount for inoculation, and 4 annas for vaccination.

There is thus in medical matters considerable deviation in method. This may doubtless be often ascribed to diverse local conditions, and differences in the relative size or importance of the Local Agencies concerned, but these varying methods lead at the same time to considerable variation and inequality in the character of the work done. The examination of emigrants stands out as the most responsible part of the medical officer's duty, and the responsibility is the same whether the examiner is an officer of the Indian Medical Service with the highest qualifications, an assistant-surgeon, or a sub-assistant-surgeon with the minimum that entitles him to practice. The prime end and object of recruiting is to obtain coolies, but it is necessary also that recruits be of the right stamp, fit and ready to endure life and labour in the districts for which they are designed, and it is here where the knowledge and experience of the examining officer should play such a great part. This is emphatically the case even taking into consideration the fact that the Local Agent, as I suppose, has the final decision in his hands whether the coolie is to be accepted or not. As a layman the Local Agent cannot be expected always to appreciate the merits or demerits of a case, and when the examining medical officer has no more than the status of a sub-assistant-surgeon dependent for his livelihood on the Agency to which he is attached, and when he has no higher professional authority to whom he can look for guidance it is clear that the medical examination of the coolie must often be more of nominal than real value. This by no means follows only in the work of the sub-assistant-surgeons for whom as a class from long personal knowledge of their capabilities I have high respect, nor is it for me to animadvert on the work of certain distinguished Civil Surgeons, who have done service of outstanding excellence, but I have to record my opinion that, taking the medical examination of emigrants as a whole and as present carried out there is necessity for improvement, and wide scope for rendering it of more positive value to the industry and to Assam, and now when it is compulsory on all gardens recruiting the T. D. L. A. to have their coolies examined it appears correct to get it established as a system on the best basis possible.

In the examination of people for tea-garden labour there is slight possibility of laying down standards. There can be at most a statement of points to be noted by the examining medical officer and it is true then that matters must be left very largely to his own discretion and judgment. He has to ascertain not merely whether the coolie is fit to travel but whether he or she is fit for the particular kind of labour in view. He should further decide whether there is freedom from obvious disease, and this not only from the point of view of the capacity or incapacity of the individual but also with regard to the risk of communicability of infection to others, and he should be able to judge of the general physique of the recruit, with the understanding that, for example, in certain aboriginal tribes the intending emigrant although he may be weak and lacking in this respect, is yet susceptible of improvement, whereas poor physique in others such as low-caste Hindus from the United Provinces, and Ouryas and people from the East Coast generally is a final disability. There is also the important question of the suitability of different classes of coolies to different areas, not merely the consideration of the wide differences between Assam, Cachar and Sylhet, but the appreciation of differences that exist in districts and in gardens of the same district. Here the knowledge and experience of the Local Agent can prove their value, and to pursue this matter further, which under the system of sirdari recruiting now in existence might well appear to lie in the hands of the Managers of the gardens, there is room for more earnest attention being paid to the question of the ease of acclimatisation or otherwise in different races and classes. Such gross facts as that Tamils, or people from the West Coast of India are unable profitably to labour or even to exist in Assam are well enough known, but that there are great differences over a much smaller field does not always seem to be recognised to the extent their important demands. It is not a question of grading coolies, as in the old "arkati" days into first, second, third and fourth class. It is a question of the selection of sirdars, and there is no more important part of a tea garden Manager's duty. It is unfortunate that coolies of the weaker races, who present the most difficult problems for their acclimatisation are usually the easiest to obtain for Assam, and on the opening of a recruiting season, when prospects are often doubtful and anxious or when a garden's recruiting connections are not all they might be, sirdars may be sent down of the wrong class, an ill-advised proceeding

sacrificing quality to quantity in recruiting often with pernicious effect. The medical service, the local agent, and the garden Manager can all co-operate in avoiding evils of this kind.

As a basis for improvement in the character of the medical examination of emigrants, and to render medical and sanitary work in recruiting matters more uniform in quality, and therefore of greater value, I suggest the expansion of the system already adopted in several Agencies of having their own medical officer on a fixed salary. In the larger Agencies the service should be full time, in those of less size the medical officer might be allowed the right of private practice so long as it did not interfere with his special duties, and in the recruiting centres of least importance the medical officer might be part time to attend the Agency at a certain fixed hour of the day or when called upon. Salaries should be fixed throughout, the system of *per capita* fees being finally and entirely abolished, and the Agency Medical Officer's duties should include, in addition to the examination of emigrants, the performance of any required inoculation and vaccination, the general medical care and treatment of coolies and sirdars, inmates of the Rest-house, and attention to all sanitary matters. In a few of the largest Agencies two medical officers might be required, a senior and a junior, and possibly also a compounder, or in others a compounder assistant alone. The medical officer must in all cases be a qualified practitioner, a graduate or licentiate in medicine, or a selected experienced sub-assistant-surgeon, the former necessarily being paid on a somewhat higher scale. In the smaller or smallest Agencies the medical officer engaged might well be the Civil Surgeon of the district, for here the work would not be onerous, and the Civil Surgeon with all his multifarious official duties would likely have time to attend to it. In certain Agencies as might be considered advisable the Civil Surgeon of the district could be asked to accept a retaining fee to be called upon by the Local Agent in emergency or as occasion might demand, or to make a periodical inspection of the Agency and the medical work carried on in connection with it.

A regular medical service could thus be established, which I feel sure would conduce to increased efficiency and economy, and to co-ordinate the whole, to supervise and direct the Local Agency Medical Officers in the discharge of their particular duties, and to act as medical and sanitary adviser in all matters connected with the recruiting and forwarding of coolies the appointment of a Chief Medical Officer is emphatically called for. An important part of such an Officer's duties also would be following up to the gardens the medical history and ultimate fate of coolies from the different Agencies. This would throw light on questions of moment, the success of different Agencies in sending up coolies of the right stamp and people in sound health, and the suitability of different districts and gardens for particular races and castes, a matter, to which I have already referred.

The Chief Medical Officer should, I take it, be attached rather to the Labour Board than to the Association, but, however, this might be, the institution of a medical service with a supervising medical authority, would lead to higher efficiency, *first*, in the medical examination of intending emigrants, which, speaking from my own experience as a tea-garden medical officer, has hitherto lamentably failed to inspire confidence or to be of the best value to the gardens. The present form of medical certificate should be abandoned and re-placed or if not abandoned as a legal document it should be supplemented by a certificate for each coolie of a kind similar to that given in the Appendix. It will be said that in any large Agency, passing numbers of coolies daily, there is no time for anything of the sort, and this is perfectly and unmistakeably true under the present system, when the examination is in the hands of a Civil Surgeon, who, with the highest intentions, is already sufficiently burdened by pressure of his own official duties, but matters will be different under the system I recommend, and the form of certificate is not perhaps so elaborate as it appears, but serves in a general way to demonstrate that nothing of importance has been overlooked by the examining officer, and indeed takes cognisance of no more than is absolutely necessary if the medical examination is properly to fulfil its function.

Secondly, there would be increased efficiency in the medical care and treatment of sick, and in the general control of the sanitary arrangements connected with the Place of Accommodation. In smaller Agencies it would be sufficient, as is the general practice at present, to convey any sick to the Government Hospital or Charitable Dispensary. In larger centres, however, it is of decided advantage to have accommodation for the sick, and retain the treatment of all cases in the hands of the Agency staff. Results will be better, and with a hospital

and medical officer on the site there will ever be more likelihood of the sick being discovered early, and of coolies being challaned in better condition to the districts for which they are designed. The medical officer would be responsible also for the sanitation of the Rest-house, and it would be his duty to give it that daily supervision, which it demands, and with regard to this it would seem scarcely necessary at this time to emphasise the absolute necessity of sound sanitary conditions in a Place of Accommodation for coolies. The points that have at times been suggested to me, in excuse perhaps for possible deficiencies, that sick in the Rest-house have been few, and deaths unknown, mean of course nothing. The consequences of evil sanitary conditions are far-reaching, often remote but none the less certain. Cholera with its rapid onset is not the only danger to be guarded against, for there are filth diseases and infections developing later, which when carried into Assam breed incapacity and death, and under the conditions with which we have to deal in Recruiting Agencies there is no other safeguard against them than constant unremitting supervision and care. In this we have the main reason why the Agency Office should invariably be settled on the same site as the Place of Accommodation, for the eyes of the Local Agent should supplement the skilled observation of the Medical Officer, and both will be found continually in demand.

Finally, to turn to the question of economy, my information in this respect is scarcely complete, but from what I have been able to gather I believe that the abolition of the *per capita* system of fees for medical examination, inoculation and vaccination, and the substitution of fixed salaries or the payment of fixed retaining fees will result in pronounced gain financially. At least the charge can, I think, be anticipated not to increase costs when taken over a period of years. This is a question, however, that can be worked out with ease, and to afford some idea of expenditure under the new conditions recommended the salaries of whole-time medical officers might fairly be fixed at for fully qualified men, graduates or licentiates in medicine (assistant surgeons), Rs. 180 or Rs. 200 rising to Rs. 350, for sub-assistant-surgeons Rs. 120 to Rs. 250, and for compounders from Rs. 20 to Rs. 40. Pay for part-time officers, who would be largely in the majority, or for officers to whom the right of private practice is conceded, would be on a lower scale, say from Rs. 50 or Rs. 60 to Rs. 180, according to qualifications and length of service, and retaining fees for Civil Surgeons for occasional inspection duties only would range from Rs. 30 to Rs. 60 a month. The salary and allowances of the Chief Medical Officer would be an extra charge to be taken into consideration, but this must be a necessary expense as no beneficial result can possibly follow from the appointment of Agency Medical Officers of the Assistant-Surgeon or Sub-assistant-Surgeon class to act under no professional control, without supervision or guidance.

8.—GENERAL.

Since about the end of March 1919, all emigrants have been inoculated against cholera before leaving the Place of Accommodation, and the results of this proceeding have so far been eminently satisfactory, as shown in the figures published by the Sanitary Commissioner of Assam. The present year, fortunately, has not been a cholera year, so proof of the value of the inoculation has not actually been continued, but enough has been shown to establish it meanwhile as a settled measure. Coolies have accepted the inoculation readily. Very rarely, I understand, has objection been made at any Agency. The people are all likewise vaccinated against small-pox, and with the menace of influenza again this year the question of inoculation against this disease has been brought forward. Influenza vaccination is, however, unfortunate in not having the determined value of the other measures mentioned, either for prophylaxis or treatment, and until more complete evidence can be shown of its utility even in the presence of an outbreak of the disease, I am of opinion that its general employment should not be entered upon. Further it seems scarcely feasible or politic to inflict a third operation on the labour, and there can be no justification whatsoever for the substitution of influenza inoculation either for inoculation against cholera or for vaccination against small-pox or for both, as has been suggested. Lately, however, a combined non-toxic vaccine has been prepared against cholera and influenza, and provided the specific value of the influenza inoculation can be taken as settled this would furnish means of avoiding the triple operation, but again the utility of the combination as such awaits demonstration. Finality in the matter of a vaccine may be far to seek, and there may yet be hope of securing a supreme combination conferring immunity against a multitude of diseases by one simple injection! This is as may be, but I wish again to

record my opinion strongly against the general adoption of any measure of the kind until such time as its value has been established on a reasonable basis of proof.

The duration of stay of coolies in a Place of Accommodation is variable. The tendency has been marked to shorten it as much as possible and hurry the people through. There is reason for this in that by avoiding the massing of people in one place there is less risk of the inter-communication of infection, but on the other hand the period of stay can be reduced to such an extent that the possibility of the detection of disease is destroyed before the despatch of the coolie, and thus greater evils may later ensue on the transit routes or in Assam. I meanwhile suggest, as a minimum, for the duration of stay in a Place of Accommodation the period of twenty-four hours after medical examination and inoculation.

In conclusion I have to express my best thanks to all Local Agents for the courtesy and kindness, with which I was everywhere received. I am also deeply indebted to Messrs. Macpherson and Kirkham, Supervisors to the Board, for the very generous assistance lent me throughout, and to Colonel Kennedy I am more than grateful for all the wise counsel offered me, for the kindly consideration and friendly aid so freely and continuously extended to me, which ever rendered my duties under the Board far more of a pleasure than a burden.

CHARLES E. P. FORSYTH,
M.B., M.R.C.P.LOND., D.P.H.,
Special Medical Officer,
ASSAM LABOUR BOARD.

FORM OF MEDICAL CERTIFICATE.

Name.....Father's name.....Age.....

Sex.....Caste.....Village.....Sirdar.....Destination.....

General physique.....

Chest.....Abdomen.....

Skin.....Scabies.....Chronic ulcer.....

Eye disease.....Defective vision.....Hearing.....
(Obvious defects)

Locomotory system.....

Mental state.....

Vaccination.....Inoculation.....

Evidence of—

Ankylostomiasis.....

Tuberculosis.....

Malaria.....

Kala-Azar.....

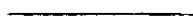
Venereal disease.....

Fitness for journey.....

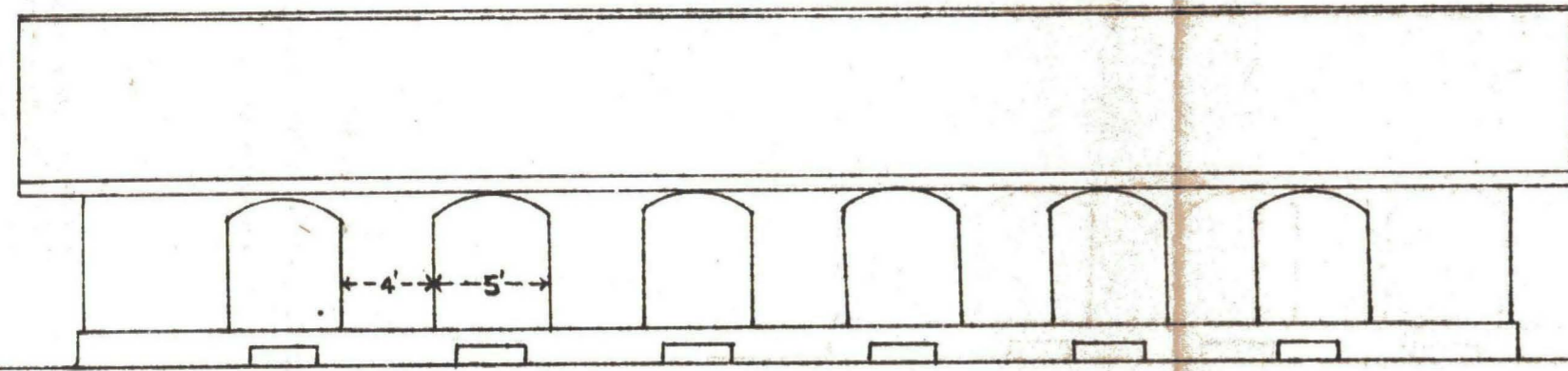
Passed.....Rejected.....

Date of Examination.....

Signature.....



FRONT ELEVATION.



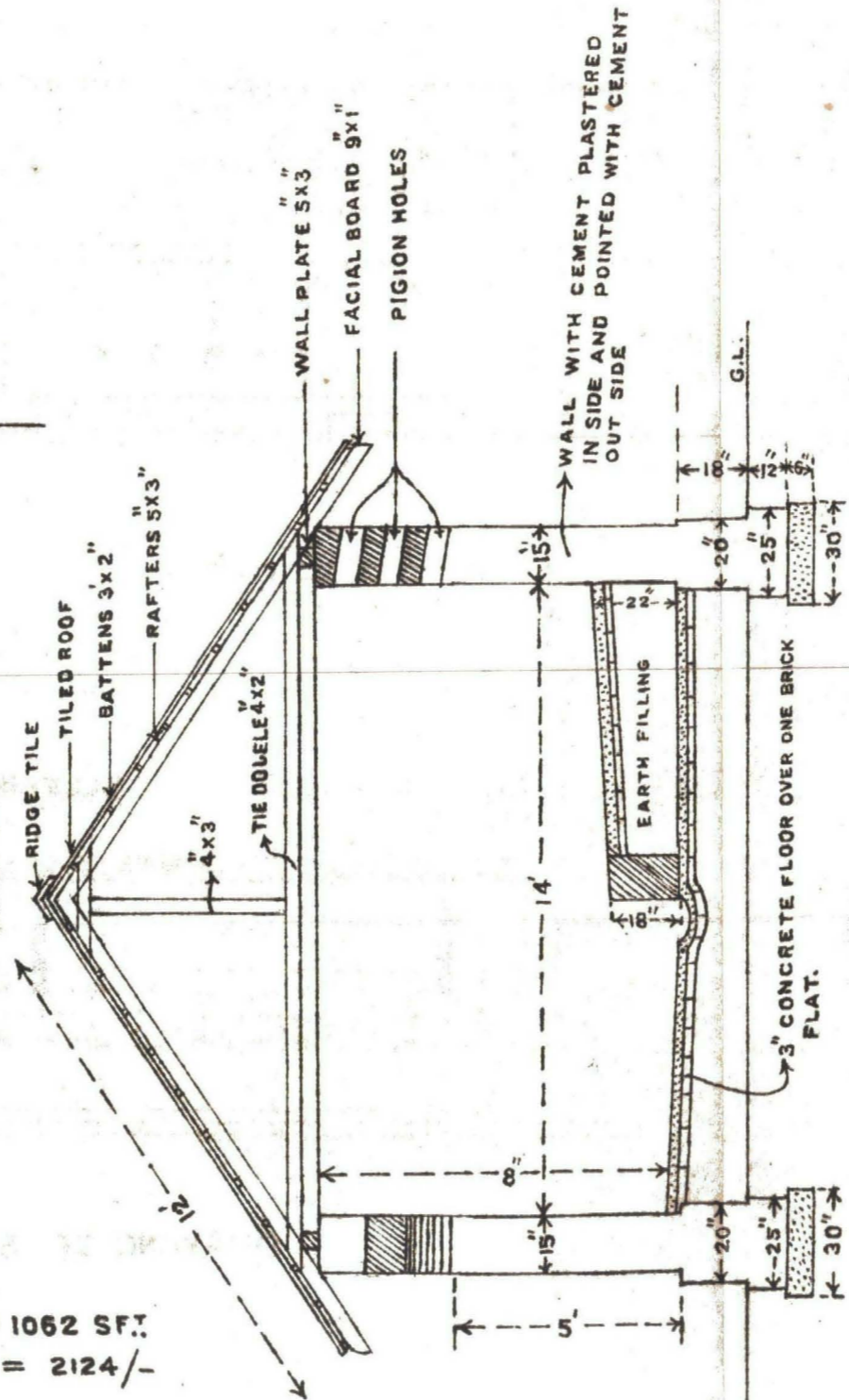
PLAN.



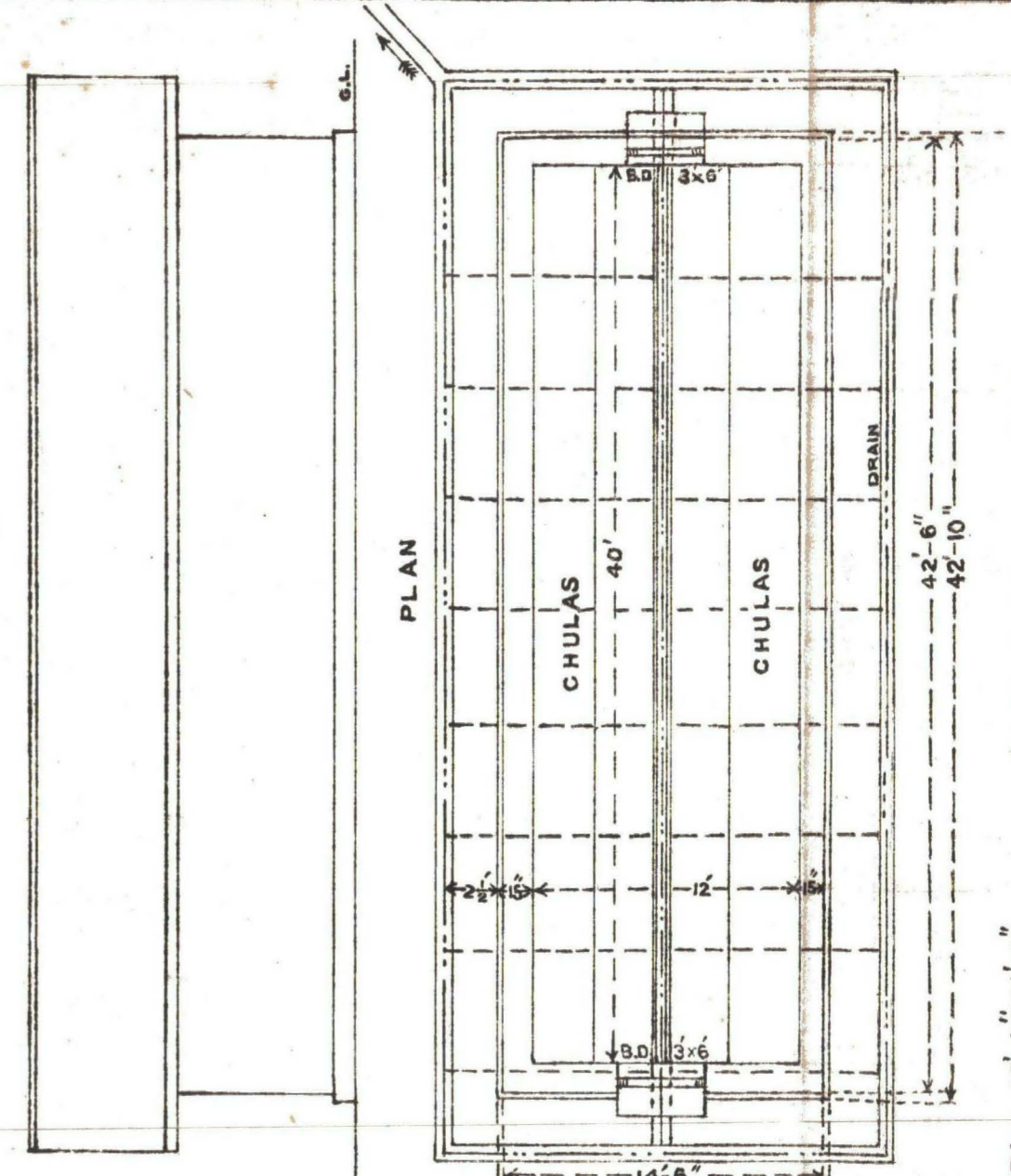
DRAWING OF SLEEPING ACCOMODATION
SCALE 8' = 1"

PLINTH AREA - 62'-11" x 16'-11" = 1062 SF.
COST @ 2/- PER SF. = 2124/-

CROSS SECTION
SCALE 4' = 1"



SIDE ELEVATION

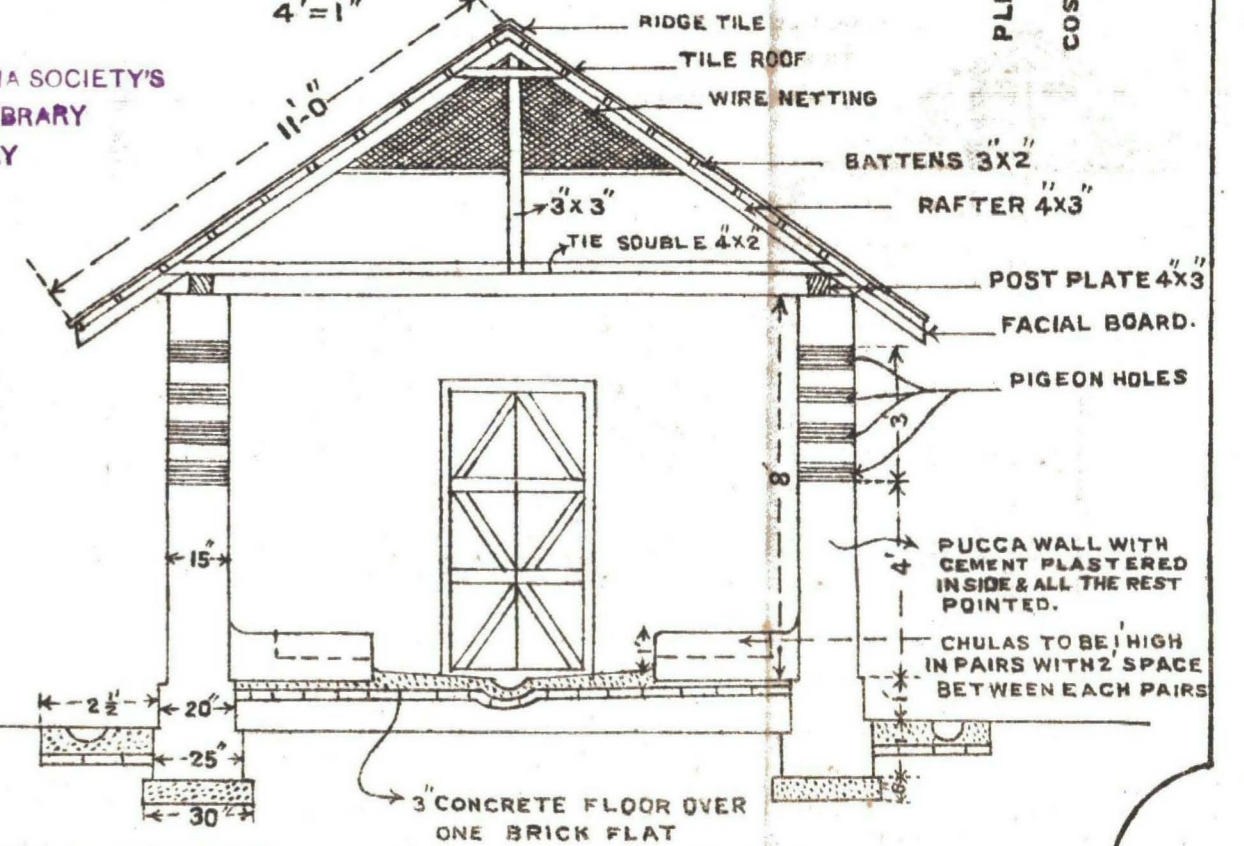


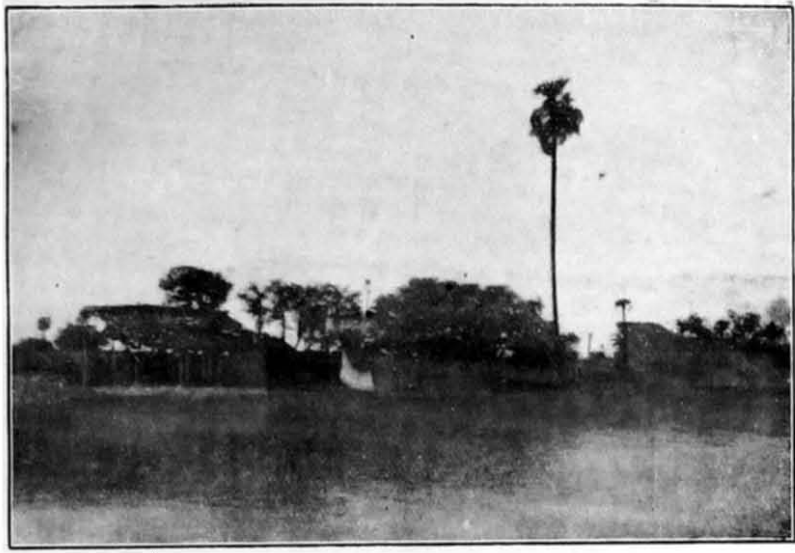
DRAWING OF COOK SHED
SCALE 8' = 1"

PLINTH AREA = 42'-11" x 14'-11" = 640 SF.
COST PER SF. @ 2/- PER SF. = Rs. 1280/-

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BOMBAY

CROSS SECTION
4' = 1"





WALTAIR.
General view of buildings.



WALTAIR.
General view of buildings.



BERHAMPUR.
New sleeping accommodation on right.



CUTTACK (T. D. L. A.)
Dispensary at Chahataghat.



CUTTACK (T. D. L. A.)
Main Rest House—at entrance.



CUTTACK (T. D. L. A.)
Main Rest House—Dispensary on left.



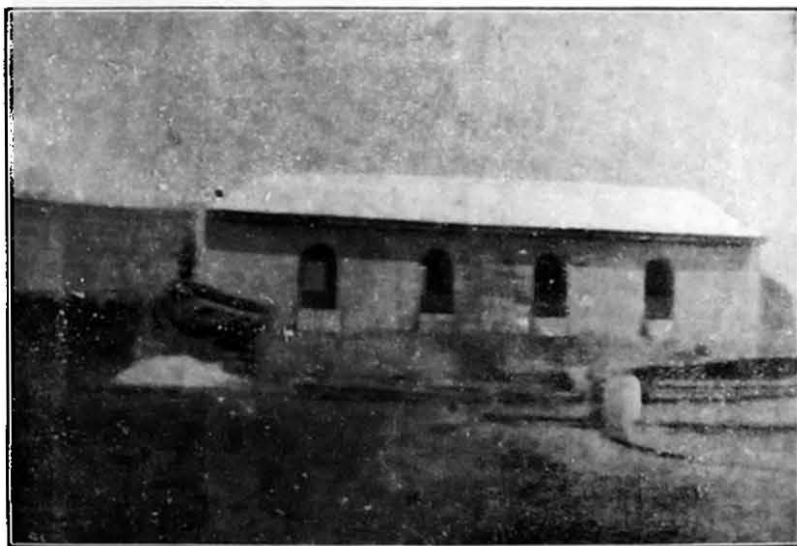
CUTTACK (T. D. L. A.)

At Main Rest House—Sleeping accommodation on right—Cook shed on left.



CUTTACK (T. D. L. A.)

Sleeping accommodation—Store godown on left.



CUTTACK.

Monah's Tea Company's new place of accommodation—One of the sleeping sheds.



BUXAR.

Showing sleeping and cook-shed—Galvanised iron water tank on left.



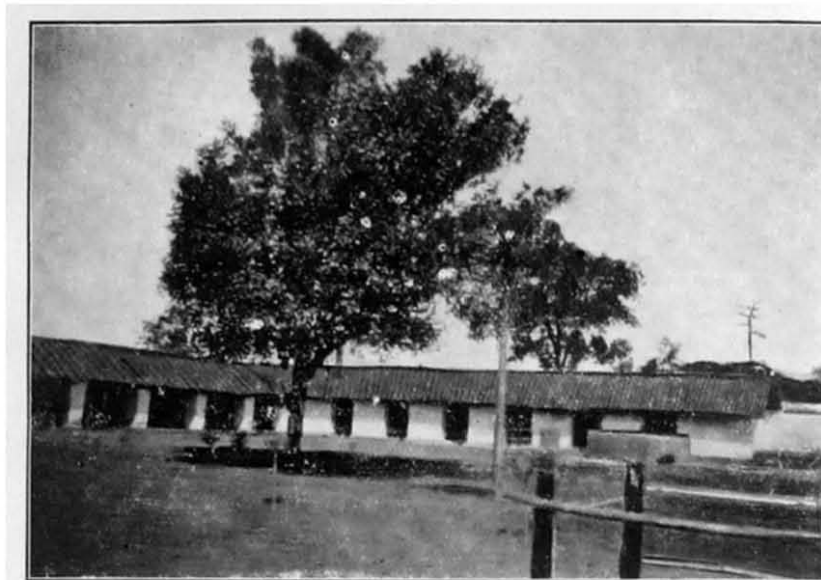
GAYA.

Interior Court—Showing part of sleeping accommodation.



LAKHISERAI.

Showing well and entrance to inner court through sleeping accommodation.



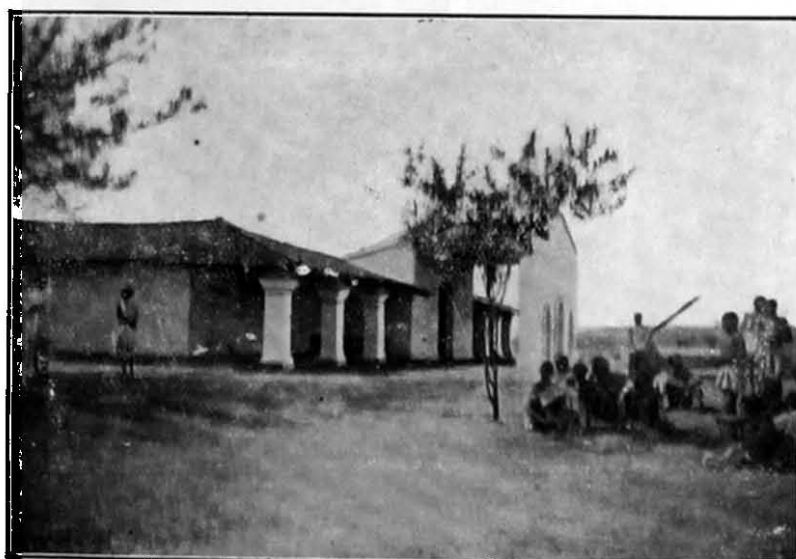
DUMKA.

Sleeping accommodation and well.



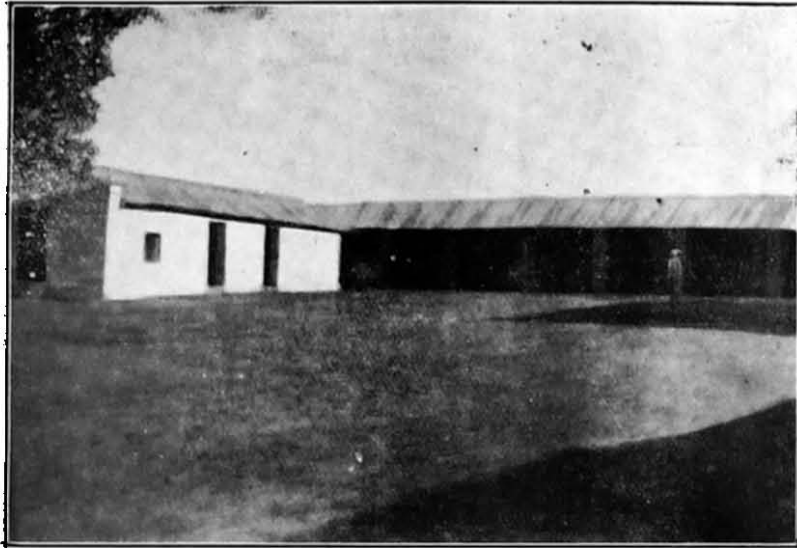
RANCHI (T. D. L. A.)

Entrance to Main Rest House showing character of road, drain and non-descript shops.

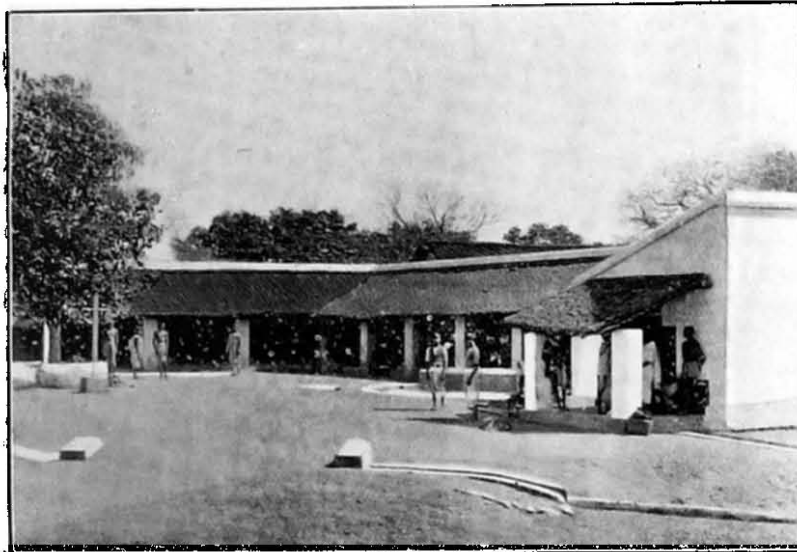


RANCHI.

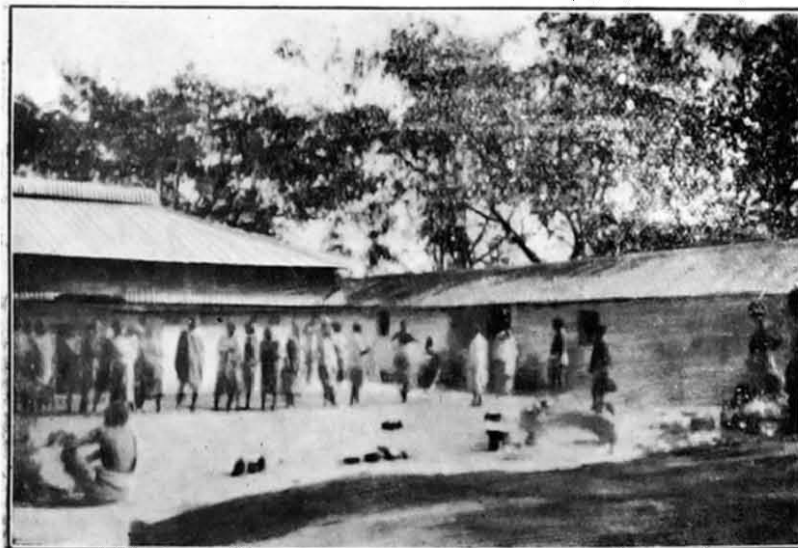
Empire of India, Ceylon Co.'s Rest House.



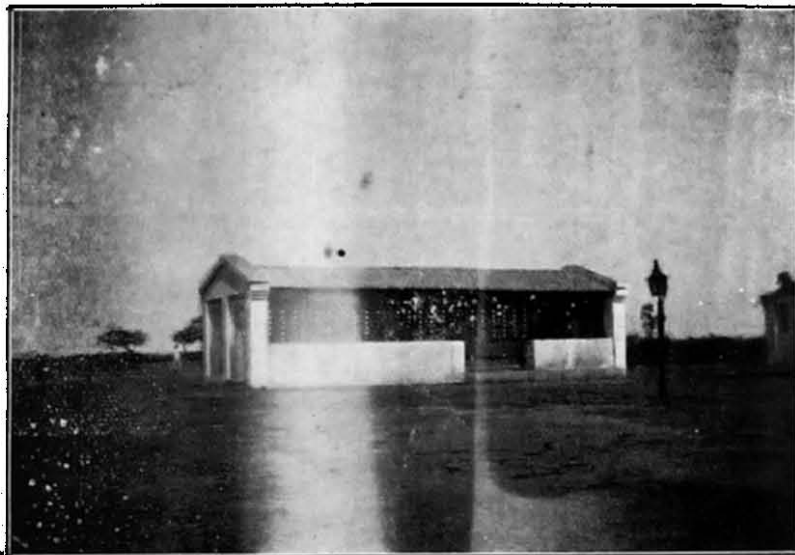
DALTONGANJ.
Sleeping Accommodation.



SAMBALPUR.



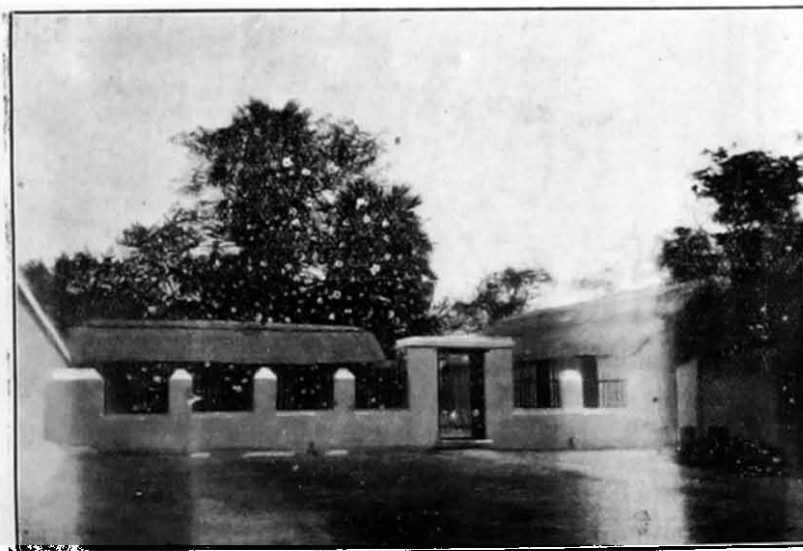
PURULIA.
Cookshed on left part of sleeping accommodation on right.



MIDNAPUR.
One of the sleeping sheds.



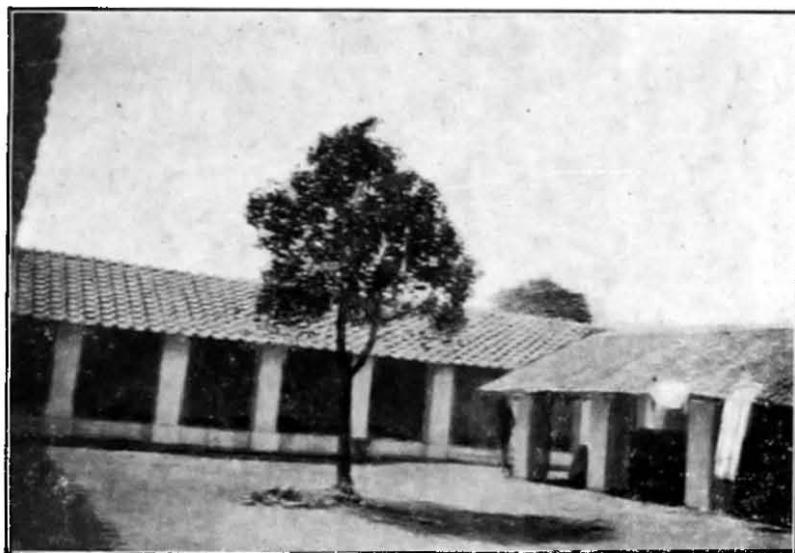
BANKURA.
Showing boundary wall—Cook shed.



BANKURA.
Cook shed at back—Sleeping accommodation on right.



RAIPUR.
Sleeping Accommodation.



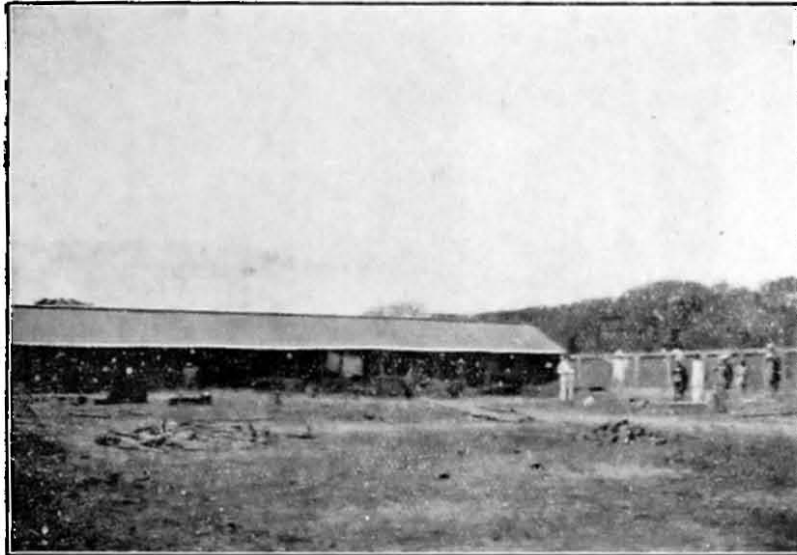
BILASPUR.
Sleeping Accommodation and on right Cook-shed.



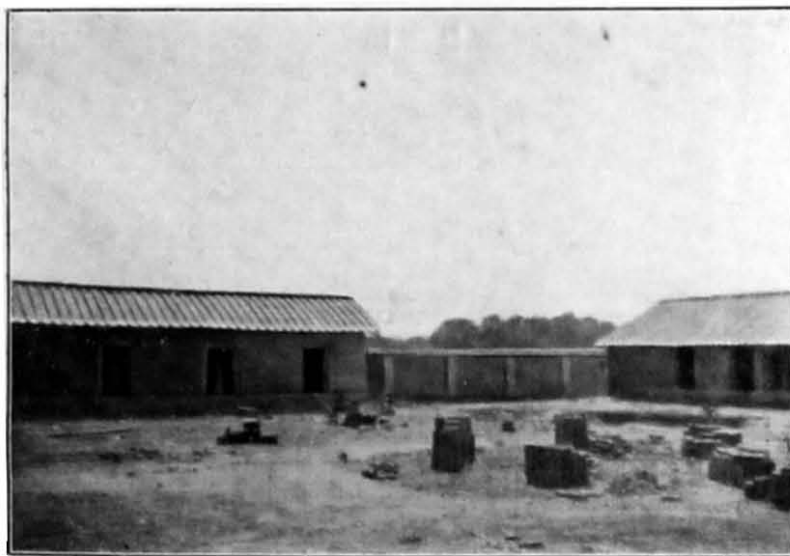
BASTI. UR.
New place of accommodation—New cook house on left.
Part of sleeping quarters on right.



HOSHANGABAD.
Cooking in Verandah above.



BASTI.
New place of accommodation. Sleeping quarters under completion and site of well.



BASTI.
New place of accommodation—New cook house on left.
Part of sleeping quarters on right.