

INDIÁN FRONTIER ORGANISATION

A series of articles contributed to the "Pioneer," Allahabad, by a special correspondent on the Organisation of our Forces on the North-West Frontier with special reference to the campaign of the Third Afghan War

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PREFATORY NOTE.

During the summer of 1919, while the Third Afghan War was being fought upon the North-West Frontier of India, a considerable amount of criticism of the authorities responsible for the conduct of the campaign was published both in India and at Home. The Government of India agreed to the suggestion of the "Pioneer" that it should be allowed to send a special correspondent to investigate the actual conditions; he was to be given every facility for an independent inquiry and permitted to report with complete freedom. We arranged, accordingly, to send a representative who was well acquainted with Frontier problems, and had gained experience of active service conditions in Mesopotamia.

We were convinced of his ability to observe and judge without prejudice, and the full approval of the Government of India and Army Headquarters was given to his appointment. He was touring the frontier in September and October and made a thorough investigation, the results of which we published in a series of articles during subsequent months. These are here reprinted, without alteration, for the benefit of a wider public. As the outcome of personal observation we believe they will appeal to all who were interested in the recent campaign and the controversy which arose out of it: while as a discussion of the more general problem of the defence of our Indian frontier and the organisation of our Forces there we can confidently recommend them to the consideration of all who realise the permanent importance of the subject.

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PREFATORY NOTE.

Our special correspondent, who desires to remain anonymous, asks us to place on record his grateful thanks to the authorities and all ranks in the Field for their courtesy and assistance on his tour, and to the Government, and Army Headquarters for permission to undertake it, a recognition with which we heartily associate ourselves.

THE EDITOR OF THE PIONEER.

CHAPTER I.

THE NATURE AND SCOPE OF THE INQUIRY.

It may be well to define at the beginning of these articles the object of the tour which I have been making as your special correspondent to certain parts of the frontier. As soon as the Afghan war started in May, reports began to circulate through Northern India that arrangements were not working smoothly, and when the operations concluded a number of specific allegations immediately appeared in the Home Press. The criticisms were, many of them, serious in their implications and exceedingly bitter in tone; the word "scandal" was freely used; and the "Times" went so far as to say that the whole campaign had been mismanaged. Public anxiety was soon aroused, nor did the official explanations issued in answer to Mr. Montagu's demands for information succeed altogether in allaying an uneasy feeling that all was not quite right, even yet, on the frontier. The end of a campaign always brings with it a crop of "revelations," and in this case it was natural that credit should be given to all kinds of stories. The early days of Mesopotamia have not been forgotten, and people are still prone to suspicion when the actions of the Government of India are called in question. The efficiency of our frontier organisation is a matter of vital importance, and we cannot afford to leave things to chance, hoping for the best. The charge has been made that we were caught unprepared in May; the Government itself has, indeed, practically admitted the fact. Are we prepared now?

That is the question which concerns us all, and it is to the interest of the Government and the public alike that it should be answered. Scandal-hunting is a waste

of time, though it may serve the purpose of sensational journalism; but if mistakes, were made, we need to know how they were made, in order to avoid a repetition of them on another emergency. For things happen quickly on the frontier; we must be thoroughly prepared for war at a moment's notice; we cannot trust there to a "precautionary period" in which to perfect our preparations. was always believed that we were thus prepared; it came as a shock to find that we were not. That is the principal cause of the popular indignation that has been expressed so widely in newspaper correspondence the last few months. "We can make allowances," said the public, "for the breakdown in Mesopotamia; that was a new theatre of war across the seas: we can understand that Simla was not equipped to deal with a campaign of that kind. But the Afghan danger has been always with us; we have prided ourselves on our frontier arrangements; that sort of warfare we certainly thought was understood in India." This was the general idea; the scheme had been worked out, it was supposed, to the smallest details; when the occasion came, you would press a button and the machine would move forward without a hitch exactly as it was intended.

The crisis came; something went wrong with the machine; the public disappointment was consequently great. Hence the demand, which has been made in various quarters, for an inquiry.

In these circumstances it seemed desirable to investigate the actual conditions existing on the frontier; to find out how things went wrong, if things did go wrong, in the recent campaign; and to collect as many suggestions as possible for an improvement in our frontier organisation, It is obviously impossible for a special correspondent to carry out the work of an expert committee, much less of several; it would be superfluous to attempt it, since there are already several such committees touring the frontier. But it is possible for him to get in touch with the men on the spot and hand on to the public what he hears from them. They have been through the campaign and should know best what was deficient in the organisation. Many of them have had a long experience of the frontier and their views should be worth consideration. Official channels are necessarily slow, and many a scheme that is put up to higher authorities gets into a pigeon-hole and never finds its way out again. There is another aspect of the matter also. All schemes for improvement mean the spending of money, and the chances are that the improvement will not be made until the public realises the need for it and demands that the money shall be spent upon it. The trouble in this country has been the lack of public opinion. Every Government all the world over is financially a coward; it requires public support before it will sanction expenditure. Great is the temptation to shelve schemes that entail a large non-recurring expenditure and to carry on, so far as may be, with smaller recurring Our Council system probably increases the temptation; every Finance Member naturally wishes to show a good account of his stewardship. It is always difficult to find money, and if that necessity can be avoided it will be.

Critics of Government should remember this. It is the public ultimately that has to pay, and if the public is slack and does not insist on proper expenditure for urgent purposes it must take its share of the consequences. Ideally, of course, the Government should lead public opinion and educate it; practically no Government in modern times, except an oligarchical Government like that of Germany, ever does. It is absolutely necessary, therefore, that the

THE NATURE AND SCOPE OF THE INQUIRY.

public should know the needs of the frontier, and if these articles result in a firmer realisation of the necessity of a capital outlay to secure the efficiency of our frontier organisation, they will fulfil the purpose with which they are written. It is not fair to complain of a "breakdown" if we are not prepared to pay for the insurance against a breakdown; and if we are prepared to pay, we should say so with no uncertain voice.

Let me illustrate what is meant by speaking of the lack of public opinion in this country or of slackness in expressing it. A journey from Allahabad to Peshawar gives one plenty of time for reflection, and one's thoughts naturally turn to the subject of travelling. For the last ten years the profits of the railway companies have. I believe, been increasing; has there been any corresponding increase in the conveniences to the public? Most of us travel a good deal and most of us grumble a good deal; but has there been any organised effort to get conditions improved? Take, for example, the food question. One realises the difficulties in the way of providing a first class meal in a dining car, especially in the hot weather; but with a little care the meals might be much better than they are. The suggestion has often been made that trains should carry a cold storage truck and supply stations en route as well as the restaurant car; it would seem a profitable proposition, but no railway has yet taken it up. The food contractor tries to make as much profit as he can; there seems to be little or no medical inspection of his cooking arrangements; and the public goes on paying for meals which would never be tolerated in a private bungalow or decent hotel. Occasionally an individual makes a protest, but nothing will be done until greater pressure is brought to bear. The average attitude is one of discontented acquiescence; this is India, it seems to say, and we

must put up with this sort of thing in India. Consider, again, the state of the carriages. One knows that the railways are short of rolling-stock, but what they have might be kept in repair. The carriage in which I travelled had two fans; one was out of order, and would not revolve at all: the other made so much noise that it had to be stopped. Neither door would close properly; the handles were out of order. No water could be obtained from the tank in the bath-room; the tap was broken, and we had to call for buckets of water at stations if we wanted to wash. There are other discomforts of travelling which could. easily be eliminated; there is no reason, for instance, why sweetmeat sellers and other raucous individuals should be allowed to wander up and down the platforms at night when a mail train is in the station; if their presence is necessary, let them be restricted to a certain place where those who want them can find them; there appears to be no regulation of platform traffic at all. These are inconveniences that have existed for a long time; they are obvious to all, and yet there has been no attempt to reform. Public opinion has not been strong enough in its protest.

I hope I have made my point clear; it is this. If we are content to put up with inefficiency in these small matters, we must not be surprised at a "breakdown" in a crisis; the bigger things will be run in much the same way as the smaller things,

As one goes further north, the impression gains in force. From Lahore onwards there is now apparently a dual control; the unfortunate passenger falls between the R. T. O. and the stationmaster. Again let me illustrate. We left Lahore about half an hour late at night; next morning at Jhelum we inquired about breakfast. A cheerful stationmaster gives the information that the Rawal Pindi refreshment room has been closed for a week on account

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of cholera. He will wire to give notice about passengers, and arrangements will be made. We arrive at Pindi at II-30; nobody there knows anything about breakfast; it has not occurred to anyone that passengers require food! It is suggested that we shall go to Dean's Hotel; the train will wait twenty minutes; by the time breakfast at the hotel is ready the train will be starting! Finally we manage to get something at the Monro Canteen, for which we are very grateful to that excellent institution; but if notice had been given, as the man in charge explains, he could have done better.

This experience is typical. There is the utmost confusion on the N.-W. line at present. Time-tables are a snare; some of the trains marked in the latest edition have not been running for months; none keep time. You can never count on catching a connection; the timings are designed in order, apparently, that you should not. The night train from Kohat is timed to reach Pindi half an hour after the Calcutta mail has left that station; the train from Pindi to Mari Indus almost invariably misses the connection with Bannu by ten minutes or so. All this entails considerable hardship to officers going or returning on leave; a wait of twenty-four hours at Kalabagh is not a pleasure. It might be avoided by better co-ordination.

Of course, there is a reason for the chaos prevailing. A number of troops are on the move; demobilisation is in progress; there is a big amount of traffic. But there must have been more in June, and one wonders how the railway people coped with the situation then. From all accounts they did splendidly, but their task might have been so much easier. Here we come to the crowning example of our Indian attitude of "putting up with things." For years we have talked of frontier efficiency; for years

we have been faced with the possibility of a crisis in which rapid concentration on a large scale upon our frontier rail-heads might be necessary; and for years we have been content with a single line from Lahore! Surely the military necessity of doubling the line must have been apparent long ago; the most unstrategic of men knows that frontier defence depends upon an efficient system of railways to feed the frontier points of concentration. There can be no possible doubt that many of our difficulties in the recent campaign were due to the insufficiency of our railway communications. We must go into the whole question of the frontier railways in a later article; but it may be said here at once that the first step towards real security against a failure in the future must be the doubling of the line from Lahore to Peshawar and Jamrud.

CHAPTER II.

CAMPAIGNING IN INDIA AND THE STATE OF THE ROADS.

In examining the complaints which have been made about this campaign one should bear in mind the circumstances. It occurred in the hot weather, in an exceptionally bad hot weather, and the frontier of India is never a pleasant place at such a time. The old soldier knows that: he knows, too, that he is far away from the resources of civilisation; he has not behind him, as he had in France, a country equipped on the modern scale of comfort: it is deficient, as a long experience of cantonments has convinced him, in many of the necessaries of decent existence. He has had to rough it even in stations that are accounted good; on field service across the border he expects to rough it to a much greater degree. He has learned, too, how to make the best of things, to improvise: he makes his preparations for himself and his unit, and he often manages, by ways that would not always meet with official sanction, to procure things which have been forgotten in the inevitable hurry of mobilisation. We recognise that characteristic when we call the man who can look after himself an "old soldier."

In this campaign, however, there was a large proportion of officers and men that had joined up for the great war and were without previous experience of India; they had never been on the frontier before and were mentally unprepared for what they found there. Naturally they compared conditions with those in France, and the comparison was unfavourable to India. We must remember that the standard of comfort on service, if we can use the word comfort at all in such a connection has gone up during the last five years of war; it has been

found possible to do much more for our soldiers in the field than was ever thought possible before. They expect more when they come to India now and they do not find it. We may explain to them that the general standard of living here is lower than at Home, and that this necessarily affects service conditions also; but our explanations will be met by the query, Why can you not keep pace with the times? Why not improve things? At least, we shall be told, you might have profited by the lessons provided by other theatres of war! That is quite true, we admit, and fall back upon the old excuse that this is India, murmuring a word, perhaps, of the fool who tried to hustle the East; but our complainant, who does not know India as we do, will probably remain unconvinced.

There are two classes into which, after hearing many opinions, I can divide most of them. I have been fortunate in meeting representatives in all ranks from nearly every unit engaged in the operations, and the line is very clearly marked. On the one side are the old Indian Army men and the old soldiers in British units who knew the frontier before the war; things were bad just at first, they will tell you, but that always happens: the muddle soon straightened out. On the other side are the new men whose experience has been confined to other fronts, or even the old army men who have become accustomed to more modern conditions; it is mainly their point of view which the papers have taken up. Much of what they say is perfectly true, but it has to be qualified; there were many things that went wrong, and I propose to discuss them fully in these articles; but some of the complaints, taken by themselves without qualification, give too black an impression, and some are altogether unfounded. We want to find out what was wrong, not in order to damn the authorities, but in order to strengthen our frontier organisation for the future; any exaggeration will spoil the case.

Let us examine some of the complaints. There is one which I should like to refute at once for it is utterly without foundation. That is the complaint about the roads. It has been asserted that they broke up under the strain of the heavy traffic. I think most people who have been over them will agree that they have stood remarkably well, especially the roads in the Khyber. A good deal of work has been put in upon these since the early days of the campaign; the Pioneers and the Labour Corps have been hard at it and deserve the highest praise. Bridges have been built, sharp corners have been cut away and other improvements made; but the roads were essentially good at the beginning. The motor traffic in the Khyber has been continuous and many of the drivers are reckless about speed; where the surface has "rippled" at the corners the damage is due to this bad driving and not to faulty construction. The road has lately been tested; there was found to be six inches depth of "soling." while the metalling was not less than eight anywhere. In returning from Landi Kotal I motored down the south road, which has been reserved for animal transport, and the surface was wonderfully good. There are certain places where a wash-out is bound to occur in a flood and a diversion has to be made, but the road is always clear again in two hours. There are some nullahs between Kacha Garhi and Jamrud which will always give trouble after rain in the hills when a spate comes down and fills them up; these will have to be bridged. At present the whole road is being re-metalled and the work will be completed, it is hoped, by the end of November. Beyond Landi Khana the road was not under our control before

the operations; it is bad in many places, but this is not our fault. We can keep it in order up to our new boundary post; beyond that it is the concern of the Afghans. On the whole, we may be proud of the Khyber roads. Damage is inevitable when a storm bursts and a flood comes down into the hollows; if we are to construct a railway up the pass we shall have to provide dams and outlets to divert the spates, but otherwise there should be no insuperable difficulty. An aerial line is now in course of construction, but it remains to be seen whether it will prove a success.

Of the road from Kohat to Parachinar one cannot speak too highly; it is excellent throughout and the bridge work at Raisan and other points seems excep-I understand that an engineer of the tionally good. N.-W. Railway, was responsible for the steel work of most of these frontier bridges; he has done it well, and all those who designed and carried out the construction under many difficulties are worthy of more recognition han has been accorded to them. The road from Kohat to Bannu is also good; on the plain south of the salt hills the sand silts across it in various places, but a certain amount of protection against this is being provided by stone work. Of the roads beyond Bannu I cannot speak from personal experience, but the reports I received were not very favourable; it was doubted if they would stand the strain of the motor traffic now going over them, and the need for more labour, was said to be urgent. One thing is essential for the upkeep of all these frontier roads, and that is a bigger reserve of metalling all long their length; unless that is kept there is sure to be delag in repairing a break, for the stone has to be brought from the river-beds and the process of crushing it is slow.

The roads have not failed; that is clear; but it is a question whether there are enough of them. At present Kohat and Peshawar are connected by one road only and part of that runs through independent territory. The road from Khushalgarh to Pindi is only fit for pack transport, and there would seem to be need for a road to supplement the railway from Bannu to Kalabagh.

The whole system should be revised to meet the new conditions: the introduction of mechanical transport has altered so greatly the problem of communication on the frontier. In the hills across the border we shall always require pack; but elsewhere, apart from the railway, we shall come to depend more and more upon mechanical transport. We must look to our roads accordingly; the system must be adapted to modern needs. In the Khyber we have already two roads, the one for animals and the other for motors; we should double all the more important routes in the same way. The expense need not be a serious item, since an unmetalled track will suffice for the supplementary road; but the need for this diversion of the pack transport is apparent. In motoring from Nowshera to Peshawar, for example, one is constantly held up by a string of camels across the road or a similar obstruction, while there is plenty of space on either side for a track to provide for this traffic. We have yet to realise in India the full significance, the uses and the needs of mechanical transport, and the necessary diversion or regulation of traffic on the roads which it entails.

CHAPTER III.

THE RATIONING OF THE FORCE.

Nowhere is that division of opinion which I mentioned in my last article more marked than in the discussion about rations on the Khyber to Dakka line. It has been asserted that "for three weeks the British troops at Dakka had no rations save bully beef, biscuits, tea and sugar." There is no doubt that for the first few days, the troops had to live on their iron rations, but that is to be expected during an advance. A bakery was soon working at Dakka and supplies were purchased locally. It is not a sound principle to depend on local supplies, for it is always a gamble; they may or may not be available, but in this case they were. Certain units complained of the cooking. but that, after all, is a matter for the regiment itself to arrange. Potatoes were scarce throughout, but otherwise as far as I could gather from many different sources there was no essential shortage.

Some of the old army men, indeed, declared to me their surprise at the excellence of the rations after the first few days; they had never, they said, believed it possible to feed troops so well on service in this country. They attributed many of the difficulties to the inexperience of those in charge of the arrangements; if they do not "know the ropes" their units are sure to suffer. In the army it is necessary to be a master in the art of "wangling"; in all regiments now there is a large proportion of young officers who have not had the training in details which years of routine alone can give. A considerable strain must be put upon the machinery when such men have to work it, and this in fairness we should remember.

Many of the complaints can be attributed to a very simple cause. Early in the campaign an order was promulgated that a new scale of rations would be issued. It included various items, like bacon which were not then procurable in anything like sufficient quantity and could not consequently be issued. Substitutes were given, but these were often unsatisfactory and sometimes bad. The result was that the troops, in many cases, felt themselves defrauded; they objected to the public being told that a certain scale of rations was in force when it was not that order had never been made we should have had fewer complaints. It was a blunder, but it should not blind us to the fact that the shortage was not in essentials, but in additionals. It is, of course, an open question whether the so-called luxuries are not really a necessity in a modern campaign; they certainly make all the difference to the cheerfulness of the men. The decision must depend largely on the amount of transport available; in this campaign the transport was insufficient even for necessaries and it would have been wiser to define clearly what was and what was not officially considered to be a necessary. Take ice for example. It must undoubtedly be provided for hospitals and heat-stroke stations; that is admitted by all; but there is a difference of opinion about the necessity or possibility of issuing it to troops on service. Many will tell you that chagals are sufficient; there are several ways of obtaining quite a cool drink without ice, by hanging the chagal on a tripod in the wind or swinging it. As it was. the attempt to provide ice proved a failure;" it took up transport that was needed for other purposes and much of it melted on the way; the issue was too small to be appreciated. At the same time it was costly because no preparations had been made for its manufacture in Peshawar. The A. D. S. and T. has been blamed for the contract

rates fixed. There was only one ice factory in Peshawar, a small private concern; the bulk of the ice had to be brought in from Pindi. The rates were naturally high, but before blaming the A. D. S. and T., I should like to ask whether he made any request to the authorities in Peshawar to control the price or to establish a Government factory there, and what was the answer that he received. If ice was not officially considered to be necessary, a statement to that effect should have been made; it would have been understood in the circumstances of the case: but the half-measures actually adopted could only produce irritation. A need of the future is the establishment of a Government ice factory in all our big frontier stations: the hospitals should not be dependent on a private source as they have been hitherto on a peace basis. The same may be said about mineral waters. It is not right that a hospital should draw its supply from a private factory which may or may not be clean in its methods. The army has its own soda-water factories on field service; it should retain them permanently. We shall then be able more easily to determine whether ice and soda-water can be given to troops in the field and make provision accordingly.

An example of the need for caution in sifting statements made about this campaign may be furnished by the discussion on Madan's contract. Protests against the monopoly granted to this firm have been published and everywhere I went I met with a certain amount of discontent with the arrangement. It was made in the first place to break the profiteers in Peshawar; the Calcutta firm of Madan was given the monopoly of the field force canteens, with the concession of free carriage for their goods; they could afford to cut local prices and did. So far the scheme was a gain to the troops, but there were complaints regarding the arrangements at Dakka where it is said the things

wanted were soon sold out and were not replaced, while these things could be bought from other dealers at an enhanced price. The canteen was too far off for some units and the men found it closed at the hours when they came off duty. Such were the complaints I heard about Dakka and I can only give them for what they are worth. There are complaints still made about charges and these I could investigate for myself at Landi Kotal and elsewhere, I talked with men actually using the canteen at the moment, and I must say that in every case I found them satisfied; they could get what they wanted and were satisfied with the price. This makes me cautious about accepting all that has been alleged; but, whatever may be the value of particular complaints, the main question is unaffected. A firm of contractors is making a profit on the sale of goods to the army which might have been made by the army itself. Many of us have had experience of the E. F. Canteen in other theatres of war. We know how it could sell at remarkably low prices because it paid no duty on its stores; and we know how it served exactly the needs of the Force, while the profit that it made was considerable and went to the benefit of the army. I have heard many people ask why the E. F. Canteen organisation could not have taken over the canteens of our frontier force and run them on the same lines as they were run elsewhere in the war: whether it is too late even now for the scheme to be introduced either by the E. F. organisation or by the S. and T.

It is probable that we shall have troops mobilised on the frontier for some time to come, and this provision for their convenience is worth making; it will cost trouble in organising, but it will save money. No doubt the authorities were caught unprepared for the campaign in May and the arrangement with Madan was the best that could be made in an emergency. There was probably no time to arrange with the E. F. Canteen, or, for all we know, a request for its services may have been sent and some difficulty subsequently arisen. But there is a feeling abroad that something could and should be done now. Life on the frontier is none too comfortable at the best of times, and when prices for those on service there could be reduced by the E. F. Canteen system, the authorities should, at least, give some reason for their inability to introduce it; otherwise there are people who will think, quite unjustly, perhaps, but not unnaturally, that the reason is indifference.

CHAPTER IV.

THE CHOLERA IN THE KHYBER.

After an attack of influenza it is, perhaps, appropriate that I should deal next with the medical scandals of which we have heard so much; but I must confess to considerable diffidence in approaching the subject. So many false issues have been raised, both in attack and defence, that the greatest care is necessary in attempting to disentangle the truth. An allegation may be inaccurate in details; on this account it is easily refuted and may even be branded as an "impudent lie"; yet there may still be plenty of foundation for the complaint, and an alteration in those details would make the statement undeniable. The authorities are, no doubt, justified in taking full advantage of the inaccuracies or exaggerations of their critics; but the public is not really satisfied by a clever debating point. It is not greatly concerned with the truth or untruth of a. particular statement; it wants to know whether, on the whole, everything possible was done to prevent disease among the troops, and whether the medical arrangements throughout were, on the whole, adequate.

The White Paper was issued, presumably, to answer this broad question and to supply the public with the facts. Has it done this? After reading it again in the light of what I have seen and heard on the frontier I feel compelled to say that it lamentably falls short of what an official document like this should be. The defence offered is so manifestly inadequate. If this is the best that can be said, it is clear that the requirements of a frontier campaign of this size were not realised and that preparations had not been made to meet them. It would have been better to

admit this in so many words. Instead, an attempt has been made to represent as unavoidable events which could, as I shall show, have been avoided, and to plead in extenuation circumstances that should have forewarned and stimulated to greater efforts of preparedness. It would be amusing to expose the White Paper's fallacies paragraph by paragraph; nearly every species of dialectical ingenuity is employed. But it is information we want, and for that we shall have to travel far beyond the scope of its elusive arguments.

The beginning is characteristic of the whole. "Taking the allegations in order there is no indication as to place at which arrangements for water-supply are alleged to have been defective, so we will deal with the cholera outbreak as a whole." One can imagine the writer chuckling as he wrote that! "Found a gap in the first fence all right," he probably exclaimed; "we need not say any more about the water-supply now." There follows the perfectly true information that "cholera is endemic amongst civil population in whole area," with more about the lack of "water discipline or ideas of sanitation" amongst transport and other followers. All the more need, obviously, for a water-supply, replies the layman; what water-supply was there? He may ask in vain: " piped water-supply for troops is installed in recognised camps." When was it installed and what constitutes a recognised camp? These are pertinent questions; the White Paper passes over them to congratulation that the outbreak of cholera has not been worse, for the best of discipline is not proof against the pangs of thirst, and a thirsty man, especially a follower, in an Indian July, does not pause to consider source at which he quenches his thirst."

The smug complacency of this irrelevant "explanation" is to be noted: this is the manner in which the most important of the charges is dismissed; this is all the information

we are given on the vital subject of the water-supply! Is it surprising that indignation has been aroused among those who know the facts? There can be only two places that the allegations have in view, the Khyber and Kohat; why could not the Government tell us plainly what provision for a water-supply had been made in those places? The information which the Government has withheld I shall try to give, for it is essential to an understanding of the cholera epidemic. I have done my best to find out the facts from the men who were present in June (not July) when the cholera started, and you may take it that this account is substantially correct; here and there a figure or a date may be found wrong; that is inevitable, but I trust it will not invalidate the main conclusion which is based, not on isolated statements, but on a consensus of facts and opinions.

With that conclusion I can confidently affirm every medical man on the frontier will agree; it can be stated in one sentence; sporadic cases of cholera were inevitable, but an epidemic could have been avoided. Everything depended on the water-supply; had piped water been available in sufficient quantity, there would have been no epidemic; as soon as it was available, the epidemic was stamped out. I find it difficult to believe that it was a shortage of pipes which prevented the supply being ready; as soon as the cholera broke out the pipes were discovered quickly enough and the work of putting them down took a remarkably short time. Let us review what happened.

The water-supply of Peshawar comes from Bara, about 7 miles to the S.-W., by an aqueduct. When the Afghan war started a new pipe was being laid in place of the aqueduct; this was a peace project, however, and had nothing to do with the scheme for concentration. That scheme disregarded Peshawar altogether; it provided for mobilisation

at Kacha Garhi, a bare stony plain six miles from Peshawar on the road to Jamrud, and at Jamrud itself. A pipe line from Bara brought down water by gravity to Kacha Garhi; the supply was ample, but the site was not ready in any sense for occupation; the scheme allowed for a fortnight's work to put up stand pipes, tanks, and the other arrangements for a camp. From Kacha Garhi water was pumped up to Jamrud and the supply there was estimated as sufficient for a division and a cavalry brigade.

At the last minute the scheme of concentration was altered. The rail-head at Jamrud was not ready; some one discovered that there were no trees at Kacha Garhi and the place would be hot! Orders were given to concentrate at Peshawar. Had this decision been made before, camps could have been prepared; as it was, only one site, I believe, was ready for occupation, the Taikal camp for two battalions. Sites had to be chosen as troops came in and the work of preparation went on as they were occupied. The water arrangements even in Peshawar itself were, consequently, not satisfactory during the early part of the operations. This was due to the general state of unpreparedness of which I shall have to speak later. Up the line things were. however, far worse. At Kacha Garhi, as I have shown, the water-supply was sufficient, but taps and receptacles were lacking. At famrud when the troops began to come in the water-supply became short. At certain times the piped water was cut off and then the troops used an open channel which flowed down from Bara through irrigated fields and below villages. The danger of this channel is obvious and it was from this source that the cholera probably started.

At Ali Masjid a beautifully limpid stream flows past the base of the hill on which the Fort stands and right through the camp; it comes down from a spring which bubbles out of a rock about a mile up the Pass and the source is therefore, absolutely pure; but the stream crosses the road twice before reaching the camp and runs close to it the whole way; when there is much traffic on the road the chances of contamination are considerable. This was recognised as soon as the operations began, and early in May four tanks with a capacity of 400 gallons each were put up at Ali Masjid; water from the stream was pumped into these and chlorinated; here was the official watering centre for the whole camp.

The scene in June can be imagined, A long line of men who are waiting their turn at the taps; they have just come off a hot and dusty march; there is a clear cool stream flowing at their feet; who could resist the temptation? The obvious did not go unnoticed; a proposal was made to put down a pipe from the spring and wire off the stream in the camp. The proposal was negatived. Had it been sanctioned the whole of the cholera at Ali Masjid might have been avoided.

At Landi Kotal a pipe line already existed. The water comes down from the Bagh springs and Tangi into the hollow below the road to Landi Khana and is thence pumped up to the fort and camp at Landi Kotal. But the pipe was only a four-inch one and the supply of water insufficient. At the end of May the supply worked out at about 12,000 gallons a day; the population of the camp was then about 9,000. A man needs at least two gallons a day on active service at that time of year; it is clear that a large number of men would either have to go short or get water from the hill-sides round the camp at doubtful sources. All the animals had to be taken' down to the hollow I have mentioned where there are lines of watering troughs; this meant an addition of some three miles at the end of the day's work or before starting off in the morning.

This summary of the state of the water-supply on the Khyber line will show that there were deficiencies everywhere, all of which might have been avoided had the water scheme for the Khyber been carried out before the operations. The scheme is no secret; it provided for a pumping station at the spring at Ali Masjid and a pipe line right up the Pass. It was sanctioned, I believe, in 1914 and the work started later: it was abandoned for reasons unknown. I am told there were political objections; and if one puts a wide interpretation on the word "political," that reason will do as well as any other. Whatever the cause of the delay it disappeared under the pressure of events. The first case of cholera was reported at Jamrud on the 4th June; on the next day there were thirteen. The contamination was carried at once up the Pass, an imported case occurring at Landi Kotal on the first day of the epidemic at lamrud. The first water-borne case at Ali Masiid was on the 7th; at Landi Kotal on the 9th. On the 13th there were 99 cases at Ali Masjid and the epidemic had reached its height. The work on the water-supply was hurried on; a pipe was put in to the spring a mile above Ali Masjid, and water brought down by gravity to tanks in the camp, while a police guard was set to prevent men drinking from the stream. This work was finished within five days, the actual laying of the pipe taking only 72 hours. The result was immediately apparent; by the 20th June there were no new cases at all. At Landi Kotal a six-inch pipe was put in at the same time, and the water is now pumped up to a reservoir above the camp whence it runs by gravity into every section. The work was done rapidly enough once it was started; the tragedy is that it was not started before.

The whole of the cholera epidemic on the Khyber line from Jamrud to Dakka could have been prevented, in all human probability, by an adequate supply of water.

As soon as the outbreak occurred the supply was rapidly improved and the epidemic ceased; the conclusion is that the supply might have been improved before, and the outbreak prevented altogether. I shall speak later of the medical arrangements to deal with the cholera; in this article I wish to make clear the point that the cholera scandal is not primarily a medical scandal; the responsibility for the avoidable deaths from cholera on the Khyber line rests with those who were responsible for the delay in carrying out the scheme for a water-supply. Granted that there were grave reasons against work in the Khyber during peace these could no longer hold good when the decision for an advance had been made, and considering the speed with which the work was put through when once the necessity for it had become grossly apparent, it is difficult to conceive why it was not begun a month earlier, as soon, in fact, as the operations commenced.

CHAPTER V.

THE CHOLERA AT KOHAT.

In the last article I tried to show the causal connection between the deficiencies of the water-supply in the Khyber and the cholera epidemic in that area. A similar connection will, I think, be apparent on an investigation of the epidemic at Kohat. The mobilisation camp there is well situated on the south of cantonments and west of the railway station. The line is continued into it, and there are sidings to serve the various dumps. The site had been selected and partly prepared before the orders for concentration were issued, and Kohat was altogether in a better position than Peshawar. Much, however, remained to be done, and the influx of a larger number of troops than the original scheme had contemplated necessarily put a strain upon the small staff available for work on the camps. In frontier bases like Kohat the concentration area should ideally be always ready but there are many difficulties in the way of this. The land, as a rule, does not belong to Government; guards would have to be placed over any structures erected and even then removable fittings would probably be stolen. In practice, therefore, a camp never is ready; cooking sheds and incinerators have to be put up, and even if all material is stored at hand, time will be required to sort it out and distribute it. The personnel at Kohat was, as I have indicated, small, and all ranks deserve credit for the hard work done in the short period of preparation.

The water-supply for Kohat itself, to the city and cantonment, is good. It comes from the Bona spring, about four miles out, by gravity, and there was a scheme in existence to continue the main to the mobilisation

camp. This, however, had been held up and the water available in the camp was not sufficient for the number of troops mobilised there. Many irrigation channels come down from the hills and spread out through the whole district; these had been cut off from the actual camp, but flowed through the transport lines, and the animals, indeed, were watered from them. A three-inch cast-iron pipe from the springs to the camp was started on the 21st May and the distance of 51 miles had been covered by the evening of the 25th, a notable feat. About 20 tanks received the water and to these the troops came for their supply. But the pipe was laid on the surface, there was no time to dig it in, and the water was consequently hot when it reached the camp. It is not surprising that many 'men preferred to drink from the irrigation channels. As soon as these were contaminated, cholera was certain to spread. Again, as in the Khyber, a deficient water-supply was the cause of the epidemic.

· Cholera started at Hangu with six cases on the 1st June. On the 4th there was a suspicious case at Kohat and a cholera camp, the site of which had been selected in May, was set up with 160 lb. tents. By the 7th there were cases in every unit and the camp had to be expanded rapidly as the numbers rose The Ordnance supplies were not equal to the demand; there was a shortage of buckets. cooking utensils and sanitary equipment. These had to be purchased or provided by the Red Cross, while tents which should have been available from the Ordnance were borrowed, as the demand came, from the Indian General Hospital. On the 16th there were 339 cases and the strain on the personnel of the hospital was considerable, menials especially being difficult to procure. The arrival of the 16th Division had complicated matters, and it is clear that the failure to increase the original Kohat staff as the units

in the area were multiplied caused confusion. As the water difficulty, however, was overcome and troops moved into camps where the supply was sufficient, the epidemic diminished, and the duration of it was only three weeks instead of six. The inference is that the epidemic might have been avoided had a proper water-supply been available, from the first, throughout the camps.

Wide publicity has been given to complaints about the treatment of British patients. A Commission was busy investigating the matter when I was at Kohat and their report will doubtless be published: but meanwhile a few words on the subject may be of interest. The allegations will be remembered. One officer was dumped in a field and left all night without treatment; such was the published account. I was able to interview the medical officer who treated this case. I have every confidence in his version of the facts, and I am glad to take this opportunity of exposing a grossly exaggerated complaint which should never have been made. It was on the evening of the 6th June, I believe, that this patient was brought in to the cholera camp. There were then three medical officers on duty, one British (R. A. M. C.) and two Indian (I. M. S. temporary); of the latter, one had only just arrived. The others had been hard at it for the last two days; cases had been coming in rapidly; the staff or orderlies and sweepers was insufficient; and it is clear that everybody in the camp had been overworked was, as I have already shown, a difficulty in procuring tents, and none was ready for this particular patient that night. It is quite true, therefore, that he remained in the open till the morning, when a tent was put over him between seven and eight o'clock. The readers of "Truth" accustomed to the inclemencies of an English summer, may think a night in the open a hardship; but in the

month of June in India it is to be preferred to a night in a tent. As for the second part of the allegation, that he was left without treatment, there is no truth in it; if there were, he would not be alive now, for his condition was critical. During the night he was twice transfused; the British medical officer sat up with him, giving him iced water and attending to all his wants in the place of a servant, till seven in the morning. Before noon the patient was removed to the officers' cholera hospital and as he had no topee the British Medical Officer lent him his own, doing his work meanwhile without one. That is the true story of this case as I am assured of it from the evidence given to me, and in the interests of justice it deserves to be known.

Now let us turn to the officers' hospital, of which the other complaints speak. The first British cases were treated in tents in the compound of the Circuit House: on the 9th June a bungalow next the Circuit House was converted into a British cholera hospital and all the British cases that occurred were treated there. The total number of cases was not large; there were 12 British officers and 13 British other ranks under treatment between the 7th June and the 11th July, the busiest time being between the 9th and 21st June. Of these 25 cases, 8 proved fatal. This rate of mortality is not high but normal, and no deduction can be drawn from it. The hospital was worked at first by the Medical Officer and staff of the Officers' Hospital, which was located in the Circuit House. but on the following day two more medical officers were placed on duty and the whole of the British section of No. 60 C. F. A. was detailed to assist. Furniture was supplied from the British General Hospital which had come to Kohat on the 15th May and sheets were also obtained from this hospital and from the Red Cross. There were

over 200 of these, so there cannot have been any shortage, Five Jost fans were received from the Red Cross and used till punkahs were installed on the 12th June. Ice was procured from Rawal Pindi by train, and the supply broke down one day owing to delay on the line; ice chests were not available, and there was some wastage of ice in consequence. There was no soda-water till the 9th July because the local supply was not considered safe and the Government machine was not working till that date. As I suggested in a previous article, it is necessary that every frontier base should have its own ice and soda-water factories under Government control, if hospitals are to be certain of a proper supply, and the sooner this is recognised the better.

There can be no doubt that in the hospital, as in the camp, there was a shortage at first in equipment; things were indented for, but were not available; crockery, etc., had to be bought and sent in from Rawal Pindi. Here, as elsewhere, the advanced medical store depôt was inadequate, and items were supplied by the Red Cross which should have been supplied from Government stores. A reliance on voluntary aid is to be deprecated, and the Medical Department should be made independent of other departments. In all stations like Kohat, Peshawar, Bannu, a permanent medical depôt should be established where everything, except food, required by hospitals and medical units generally could be obtained; otherwise some shortage in equipment is almost unavoidable in an emergency.

In the case of the officers' cholera hospital at Kohat the actual complaints do not amount to very much on investigation, and most of them may be referred to the period of convalescence. A good deal of the discontent can be traced to the detention of convalescents in Kohat.

Arrangements had been made to send convalescents to depôts in the hills, but these were cancelled; it was feared, one may suppose, that the cholera might be carried from Kohat elsewhere. Convalescents were therefore kept in Kohat till they had been tested and declared clear: this work of testing a number of cases imposed an additional strain on the medical staff; accommodation was not set free by evacuation; and the convalescents themselves felt aggrieved at not getting away. Hence the complaints about the cooking. This was, I am told, a difficulty for a time, but one can easily understand how the arrangements might go wrong in the circumstances The basin incident, of which so much was made, proved rather difficult to date, but I think it has been run to earth. It happened apparently on the 9th June, when there were six patients in the hospital, two of whom were already convalescent. The basin provided for the patient was being used by the medical officer to wash his hands in after treating the case, and the patient's own basin was therefore "seized." as he described it, to take its place for the time being. Out here, where we habitually travel with our own basins, bedding and beds, there does not appear to be anything astonishing in this incident, but one can imagine that the Home public, unfamiliar with our usages, might wonder at it. Most of these complaints, in fact, seem to have been meant for Home consumption, and an investigation of them does not increase our sympathy with those who made them. There is only one other to which I need refer, the allegation that the beds of patients were touching one another. This is perfectly true; in one room three beds were placed head to feet in order that all might get the benefit of the punkah and for convenience in treating the cases, This apparently is the only ground for the statement that cases were mingled together.

It is much to be regretted that incidents such as these were magnified into scandals; in the controversy aroused the real issue has been obscured. It is essential. however, that it should be made clear, for we have the present and the future to consider. Wherever, as in Kohat, there are a number of irrigation channels in the neighbourhood of the camps, it is practically impossible to avoid some cases of cholera among the troops if cholera breaks out among the civil population; but it is possible to avoid a general epidemic if the water-supply for the troops is adequate. On a general survey of this campaign I think we are justified in saying that insufficient provision was made at first for this important need. I am quite prepared to be confronted with figures proving that the water-supply for Landi Kotal, let us say, was far in excess of the amount of gallons I have stated; I am quite aware of the official estimate, but I have also heard what the men on the spot in May and June have to say about those official figures, and however we may account for the discrepancy the fact remains that a deficiency was recognised and speedily remedied. Let us acknowledge that things were put right quickly, and full credit must be given for the manner in which they were put right; but this cannot blind us to the initial unpreparedness, and it is futile to point to what was done subsequently in order to maintain that we were fully prepared for the campaign. There are other facts that must be considered in dealing with this question. It cannot be controverted that some units at least were sent up the Khyber in May without chagals and not provided with them till after cholera had broken out. while a month later, in June, troops were again sent up the Tochi, where water is exceptionally scarce, without chagals.

It is not the object of these articles to criticise the policy of the past, but to help in securing a recognition of the necessities of troops on the frontier. It is for this reason that I have devoted so much space to this subject of the water-supply, for I am not sure that even now its vital importance is fully realised. Let me refer in illustration to the state of Bannu. It is notoriously one of the most unhealthy of frontier stations; at the present time it is full of troops concentrating for the Tochi Valley and Waziristan. The arrangements for supplying them with water may be better now, but when I was there at the beginning of October they were most unsatisfactory. The main source is a well in the Fort from which the water is pumped up into a tank. There is only one engine, and if anything goes wrong with that, a temporary breakdown is inevitable. A few areas are connected by pipe with this source, but the stand-pipes are necessarily few. In No. 38 Indian General Hospital, for example, outside the Fort, there is only one stand-pipe and the water from this is used for bathing purposes only; the drinking water comes in carts from the Fort. The old Indian Station Hospital in the Fort itself has two taps of drinking water; the sections outside the Fort have none. The other sources are a second well in the Fort worked by hand, and the well in the Cavalry lines which was being fitted with an engine and a pipe system to supply that area. Besides these there is a well at the Kutchery which serves the civil population. The majority of units have therefore to fetch their water from the well in the There were not enough water carts when I was in Bannu; a number had been ordered two months previously but had not yet arrived; meanwhile open canvas tanks in A. T. carts were being used to convey water to the camps. This method of carrying water for drinking was

the best that could be improvised in the absence of proper water carts, but it is obviously dangerous. Bannu is a terribly dusty place, and the nuisance has been increased by the passage of heavy lorries on the roads; the air is full of dust and if germs are about they will get into the water during its transit. An epidemic might break out in Bannu at any moment, and under present conditions it could not be prevented from spreading to alarming proportions. The whole place is overcrowded, and with a deficient water-supply the consequences would be serious. A scheme to bring water from the Kurram river has been long under consideration, but two measures of relief might with advantage be undertaken at once. In the first place, proper water carts for the conveyance of water should be provided, and oil should be used to treat the roads in order to lessen the dust; application for both of these improvements has been made. Secondly, tube wells should be sunk to supplement the existing wells; there may be some technical difficulty about this, but I was unable to learn what it was. At present the state of Bannu is decidedly unpleasant. I shall return to the place later in these articles, but never, I hope, in the flesh, notwithstanding the excellent hospitality I enjoyed there. I trust that conditions will be improved for its inhabitants: as an important base of frontier operations it deserves more attention than it has received. One may suppose that in normal times the provision is adequate, but the population has lately been much increased and expansion to meet that increase is urgently needed. More land should be acquired on the east of cantonments. . All this land is, I know, under cultivation, and this constitutes the difficulty in the way of acquiring it; but additional space is necessary to relieve congestion and the difficulty must be evercome. The White Paper refers to Kohat F.o.

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as being "little more than a frontier outpost" where "the amenities of civilisation are not forthcoming." It is an astonishing confession to find in an official defence. Such stations as Kohat and Bannu should be much more than frontier "outposts"; they are advanced bases for concentration, and should be thoroughly reorganised on modern lines.

CHAPTER VI.

THE MENACE TO INDIA AND THE STANDARD OF PREPARATION.

The last article in this series appeared in the "Pioneer" of the 30th October and I feel that some apology is due to those friends on the frontier, who gave themselves the trouble of assisting me in my investigations, for the long delay in making use of the material so readily put at my disposal. At the same time I should like to thank those readers who have written to the editor and myself for the kindness of their appreciation and for the additional facts supplied by them. I must plead as my excuse for this long silence the evil effects of influenza which compelled me to take a complete rest and to abandon reluctantly the original scheme. Since October there have been many changes on the frontier and much of what I should then have written would seem out of date and stale if written now; another campaign has been in progress, and many of the deficiencies previously apparent have been, it is understood, remedied. Yet the main subject of frontier organisation is of as great importance as ever, and I need not, I think, ask pardon for returning to it even after this interval. Indeed, the situation Central Asia and Afghanistan is such that no attempt to stimulate an interest in the efficiency of our border defences can be without some public utility. Some of the improvements which I shall recommend may have already been made; but in that case no harm can be done by eliciting a little more information about them from the authorities, who are apt to be as reticent where nothing need be hid as on less fortunate occasions. The risk of

unnecessary repetition here may, perhaps, be compensated by the advantages of additional emphasis on certain lines of reform. This is all that I shall now attempt; the time for a detailed examination of past grievances is over; but I may ask my readers to remember that when general recommendations are made they are based on a real investigation of details and on a consensus of opinions expressed by men engaged daily on the working of details. Your special correspondent is, in fact, a kind of gramophone, giving out what has been received on the record; he has, it is true, to collate, select and modify, but in the main his function, like that of the instrument, is faithful transmission; the needle may be a little worn and the sound come to you faulty; but it represents, as best it can, the voice which it has heard, the voice of your army on the Frontier.

Meanwhile, in the interval between my last articles and this, the "Times" and other Home papers have kept up their attack on the Government of India, an attack which one cannot but regard as characterised more by political animus than a genuine desire for information. is not by methods of this kind that we shall get things improved; but at the same time it is to be regretted that the Government have not replied to the attack in a more satisfactory manner. The second White Paper, issued at Home on the 30th October and recently available in this country, is an improvement on the first, but the main point is still unanswered. Let me try to make that point clear. for all discussion hitherto has avoided stating it in definite language and yet the feeling that it exists is the ultimate cause of the public dissatisfaction over the Afghan campaign.

Here, as in most disputes, the trouble has arisen from a difficulty in language. The critics have accused

Government of unpreparedness and a consequent breakdown; the authorities reply that they were prepared and deny that there was any breakdown. The difficulty lies in the fact that both sides do not give the same meaning to the word "preparedness." It must in fairness be said that the Government have defined what they mean by the word. You will find the definition in the telegram, dated the 20th August. "The standard of preparation for the Indian Frontier was that set by the Secretary of State in 1916, viz., passive defence of frontiers. Transport and medical arrangements have met that standard satisfactorily." But that statement is not quite enough for the layman; it needs more explanation and it suggests an inevitable question. The explanation, as I conceive it, is this.

It has always been recognised that we must be prepared for anything on the N.-W. Frontier. We have had small campaigns; we have had big campaigns; the possibility of a bigger campaign still has always existed and the elaboration of schemes to meet every contingency has occupied the General Staff for years. Plans offensive and plans defensive were worked out to the smallest detail; among them, of course, provision (on paper) had been made long before 1914 for an advance into Afghanistan if the necessity should arise. Into the nature of the approved scheme there is no need to enter; circumstances compelled a modification of all our frontier projects. Increasing demands from various theatres of war had to be met, and in order to meet them it was necessary to limit our frontier policy. "We reduced ourselves to the narrowest margin of safety in respect of personnel and munitions of War" (vide White Paper 1). "During the war India's resources have been tapped, as you are aware, in every possible manner, and devoted without stint to meeting the needs of the Imperial troops overseas" (White Paper II).

Offensive schemes could obviously never be carried out under such conditions; the standard of preparation had to be modified; a scheme of passive defence was adopted for the duration of the war.

It was an anxious time; how anxious you may judge by weighing well those words "the narrowest margin of safety.' Whether that margin was in reality wide enough could only be decided in the event of trouble with Afghanistan and we were spared that test. But one could never be certain what was going to happen and there were very critical periods. All depended on the attitude of the Amir Habibullah, Fortunately the late ruler of Afghanistan was a man of character and ability; he had read the history of the last century and deduced from it the belief that the British always win in the end. His declaration of neutrality, therefore, fairly represented his intentions. We were reasonably justified in assuring ourselves of the personal attitude of the Amir so long as the tide of war did uot too obviously flow against us and bring self-interest in conflict with the somewhat shadowy obligations undertaken by him; the best of intentions would break down under that strain.

Provided, however, the worst did not happen, we could, without undue optimism, count upon him exerting his influence to maintain the neutrality of his people. But it was by no means certain that other influences might not prove the stronger, in which case he might be compelled to choose between the abandonment of neutrality and the loss of his throne. The war party was powerful and popular; it was headed by his brother Nasarullah Khan who appears to have furnished no exception to the rule regarding fraternal conduct in Eastern dynasties. The outlying tribes, whose allegiance to Kabul has ever been loose, were excited by the prospect of a raid on rich India;

in the capital itself intrigue was rife; no man knew clearly what the Amir himself intended, and the more violent of the war party openly declared that he meant to proclaim a "Jihad." Into this troubled scene, still further to confuse it, entered the German mission.

Such was the state of affairs in Afghanistan early in 1915, and the difficulty of the Amir's position can be conjectured. It was a critical time for us. Three things might happen. The Amir might keep to his pledge, make himself master of the situation, and preserve the neutrality of his country in spite of internal and external influences; or he might find himself forced to yield to these influences in order to save his own power, and declare war to preserve his dynasty; or the power of decision might be taken from him altogether through a revolution or by the hand of an assassin. Well, we know now what happened; the Amir did make himself master of the situation; the turbulent elements were controlled, the Germans dismissed, the promises of neutrality preserved. How it was all done remains to be told. That account when it is written should form one of the most romantic chapters in the history of the War; we owe it to the memory of Habibullah, our staunch ally, that it should be written; it is to be regretted that the Army Department has not yet permitted it to be written. The material exists; there is no valid reason now why it should not be published: when it is, I feel confident that the Amir Habibullah will be recognised to have played the part of a great statesman. From the little I have said here it will be evident how much depended upon him and how precarious was his position. You can now understand better the narrowness of our margin of safety on the frontier during the war. When one considers how the Mahsud campaign of 1917 interfered with the despatch of troops destined for other fronts oversea, one

can imagine the immense relief felt by the Government of India when the armistice was concluded; the strain had been great, but the ties had held; a war with Afghanistan had not been added to our difficulties; the adequacy of our margin of safety had not been put to that supreme test.

The war was won, the great danger past; but the special menace to India still remained. That the Government was fully alive to the reality of that menace is clear; otherwise the grave warnings uttered by the Premier and His Excellency the Viceroy in the spring of 1918 were nothing more than recruiting speeches. We know, however, that they were justified; India was threatened then and is threatened still by the advance of the Bolshevist forces through Central Asia. Against that advance Afghanistan was but a flimsy barrier. The danger to India was in no measure abated by the armistice; but the anxiety was relieved because it seemed at last possible to widen that narrow margin of safety on which we had been living throughout the war; we could now take more adequate measures for the defence of our frontiers and revert to the old principle not of "passive defence" but of "preparedness" for any event.

Now for the question which I said above would suggest itself. Why, when the armistice was concluded, did not the Government of India insist upon widening that narrow margin of safety? Surely they had every right to insist? "We have been risking a great deal," they might have said, "all through the war in order to supply men and material for Imperial purposes overseas. We must now put our own house in order. Our own military system must be brought up to date. Much necessary work on the frontier has been postponed on account of commitments elsewhere and for political reasons,—we could not risk offending tribal susceptibilities during the war,—but

now we must put ourselves in a state of complete preparedness. We cannot, in view of the situation in Central Asia, tolerate any longer this 'narrowest margin of safety.'" Yet what actually happened? As soon as the armistice was concluded expenditure was cut down. All work on the Khyber and Jamrud was stopped; the medical training schools were closed; a general reduction was everywhere ordered.

It may be said that this policy was justified by the prospect of peace. Afghanistan had not given trouble during the war; there was less likelihood of trouble now. So be it. Pass on a few months. Early in 1919 came the news of the assassination of the Amir. Could anyone, knowing what we know that the Government knew, viz., that the neutrality of Afghanistan depended solely on the personal influence of the Amir Habibullah, doubt that his removal meant a very serious danger of a rupture? It did not matter in the slightest whether the cause of the assassination was political or not; the effect was the same; the steadying factor had been taken away. The wise course would have been to prepare at once for the worst; if it did not happen so much the better; at any rate, one way, a very old way, to prevent it happening was to be prepared.

Yet the warning was disregarded. The young Amir's vague messages were interpreted in the most favourable light. Our strength, it must be remembered, had been admittedly reduced; it was still further reduced, "in response to the popular demand for demobilisation," though that plea cannot apply to the Indian Army. A critic has pointed this out and the White Paper replies that the process of demobilisation "was influenced by a desire for economy." This is obvious, for as late as the 8th of April, 1919, a memorandum was sent round to all branches of the Military works, including the Frontier areas, calling F.O.

attention to the necessity of rigidly following existing regulations regarding allotments and expenditure, and stating that no funds would be available from reserves with the Government of India. We do not question the motive for economy; the question is whether that motive should not have yielded to the more urgent necessity of increasing rather than reducing our narrow margin of safety. The failure to do this was the real cause of all the trouble in the Afghan campaign. It is not denied that "those in charge met a difficult situation with resource and promptitude and utilised to the best advantage the means available (vide White Paper II). The public appreciates fully the excellent work of the men in charge, but it cannot understand why the "means available" were not more, and better organised; it asks why "the standard of preparation" continued to be that "set by the Secretary of State in 1916." And before condemning the Government of India in this country the public will be well advised to ponder that latter phrase, which appears for the first time in this recent White Paper. It seems somewhat significant. may be that the Government of India did after all realise that the standard of preparation was not adequate; it may be that the responsibility for keeping us on this "narrow margin of safety" lies with the Secretary of State. know nothing about it, but a desire for fair dealing prompts the suggestion. The fact, however, remains that this "standard of preparation" is not what the public generally means by "preparedness"; hence the criticism of the campaign expressed so continuously and the failure of official replies to satisfy the critics.

CHAPTER VII.

TRANSPORT ARRANGEMENTS.

In the last article I explained how our frontier schemes had to be modified during the war and showed how this necessarily limited standard of preparation set by the Secretary of State in 1916 was not raised after the armistice but rather lowered by the reduction of expenditure and the process of demobilisation. This standard of preparation did not provide for a big advance across the frontier; it was confined to the passive defence of frontiers. This difference in preparedness was the main cause, I suggested, of our difficulties in the campaign. Let me now illustrate this.

The case of the transport may be taken first. We have heard a good deal of the "breakdown" of the transport. The word is misleading and the use of it quite unjust to the men who kept the transport going under great difficulties. High praise is due to the motor drivers and mechanics who had to work continuously, and to the humble "drabis" whose daily labour was increased by the distance they had to take their animals for water after the journey's end. I do not think sufficient appreciation has been given either officially or by the press to the British and Indian transport workers; they deserve special recognition. I shall now give my reasons for saying this. The provision for transport was based on the frontier scheme mentioned above. It was sufficient to carry out that scheme, but it was not sufficient for an advance into Afghanistan. Actually an advance was made to Dakka, but I think most people who know will agree that our advance to Jellalabad would not, with the transport

available, have been possible. The old scheme contemplated the occupation of the Khyber with one Division and a Cavalry Brigade at Landi Kotal and two-thirds of a Division on the Line of Communications. Jamrud was to be the rail-head for troops and Kacha Garhi for animals It allowed for a preparatory period of six weeks to get covering troops up and for the necessary work on the The transport arrangements were based on that programme. The change in the programme naturally disorganised those arrangements. The prearranged plan of concentration had to be altered suddenly. The reason given by the Government includes the defection of the Frontier Militia and the threat of rebellion in Peshawar itself. One cannot quite understand how the defection of the Militia affected the situation so vitally; it can hardly be supposed that the scheme had relied upon the Khyber Rifles alone to provide the covering troops. A more urgent reason would seem to be found in the fact that Jamrud was not ready, as a rail-head, owing to the stoppage of work after the armistice. However that may be the scheme was altered. Peshawar itself became the concentration base, and as I have pointed out in a previous article adequate preparations had not been made there for the reception of troops and animals. Camps were not ready; there was a shortage of materials, tools and labour; there were not enough carts; timber and matting or grass for the erection of "chappers" were lacking. The sudden, change in the plan of mobilisation caused, it is clear confusion in every department. This was increased by the necessity of sending off the striking force at once; the attempt to concentrate and despatch both the striking force and the covering troops as well as the supplies and necessary materials for the line could not but result in a certain amount of disorganisation. It is not surprising

that it occurred; it is a matter both for surprise and for congratulation that Dakka was occupied eight days after mobilisation in spite of the difficulties. Those in charge may well be proud of this achievement, but it is no proof that the authorities were adequately prepared and there can be no getting away from the fact that much unnecessary strain was put upon the force and difficulties (to use no stronger word) were endured which might have been eliminated by the maintenance of a higher standard of preparation.

I have said there was no breakdown of transport, but I have shown how disorganisation was caused generally (a) by the change of plan regarding concentration, and (b) by the despatch at the same time of striking force. covering troops, stores and equipment. The transport was specially affected by the latter cause. The crisis, it must be remembered, had not been foreseen and there was no precautionary period such as the scheme had contemplated At the time of mobilisation, therefore, the camels which should have taken up the second line transport were still at Campbellour and it was not till the 12th of May that they were available. In the circumstances this was inevitable. The Peshawar area is irrigated and for fear of "surra" camels are usually removed elsewhere from May to October. Their absence necessitated improvisation Pack mules had to be worked in carts and substituted on the march for camels. The flying column was moved to Landi Kotal in Star lorries which were then employed in bringing up supplies. On the 13th May the cavalry and a motor convoy arrived at Dakka; the camels were employed on the line of communications where the work was so heavy that they had little rest and would have been unfit for their proper duties as second line transport had an advance beyond Dakka been necessary. Without

going into further details I think it will be conceded by those in a position to know that it would have been very difficult to provide transport for the advance of the Dakka force and to keep up the work of supply for it and the Khyber line at the same time. If there was no actual shortage, the margin was, at any rate, very small, and it is doubtful if a sudden move could have been carried out.

It is clear that the M. T. Companies did excellent work under great difficulties. These had been caused mainly by demobilisation. The establishments were under strength and workshop mechanics had to be taken in as drivers. The repair lorries were understaffed and the consequence was that drivers had to employ their scanty periods off duty in doing their own repairs. There was some difficulty in obtaining spares, and this should be avoided in future by a system of standardisation according to localities. Experience will show and has in part shown already what types of car or lorry are suitable in various regions; M. T. Companies can specialise, each in one particular type and be assigned to work in the localities for which they are adapted; this will simplify the business of providing spares and the whole work of repair. On the Khyber in the recent campaign there were various makes in use, Stars, Thornycrofts, Albions, Leylands, Fords; on the whole the solid-tyred Thornycrost came out best.

It is hardly fair to say, as some critics have said, that the authorities had not realised the importance of mechanical transport in India. There are indications that the importance was realised. For example, we read in the 2nd White Paper that Ford vans were ordered in July 1918; "some three months' delay then occurred in placing the order"; the first consignment (which consisted of chassis only) did not reach India till the 11th March

1919. There were obviously difficulties in the way of putting our mechanical transport on an efficient basis. It has been asserted that the Government were offered lorries from Mesopotamia. Anyone acquainted with the demand for mechanical transport in that country will probably be rather sceptical about the condition of the lorries offered. But with every allowance for difficulties one cannot quite agree that any expansion at all commensurate with the needs had been effected before the Afghan campaign. There were, I believe, four M. T. Companies actually on the road in the Khyber area. At Kohat when operations started on that line there was practically no mechanical transport. One small military works lorry took 'ata' to Parachinar, but the bulk of supplies went by train to Thal and thence on by mule and camel. The road to Parachinar is adapted for mechanical transport, and it would have been a saving to supply it while a few five-ton lorries are still needed for the purposes of military works on this It cannot be necessary at this time of day to emphasise the importance of mechanical transport. Not only does it bring greater mobility, but it is actually more economical than animal transport.

A pack mule corps lives on the grain and fodder carried by it for about six days only: after that more supplies must be sent up to feed it unless local stuff is available. The life of a draught corps is longer, about 12 days, and that of a camel corps longer still, about 16; but in each case the question of watering has also to be considered; it added much to the difficulties of the transport on the Khyber, especially at Landi Kotal, where the watering place was some two miles from the camp.

We undoubtedly need a still greater expansion of our mechanical transport in India, but there is also a need for caution in making it. Organisation is wanted, and the personnel must keep pace with the material. During the Afghan campaign the M. T. worked under the S. and T. and there was no expert inspection at all. It is to be hoped that it has now been put on a separate establishment under an organiser possessing special experience. We need also enlarged training schools for drivers and workmen. As a result of demobilisation a number of Indian drivers had to be brought in and they did a good deal of damage; on a drive to Parachinar in September last one passed many derelict cars by the wayside hopelessly crashed through bad driving. It will pay us to spend money on the men of the M. T. service, on the driving-schools and on the equipment and personnel of the repair depôts.

There is only one thing to be added to this discussion of the transport. It is essential that medical units should have their own transport permanently. Under the present system application is made for transport as needed on mobilising; but that is just the time when transport is needed by every department and delay must occur. If a Field Ambulance does not get its transport till it is wanted up the line there can be no training of the staff in loading up, and this again will be a cause of delay. The need of mechanical transport for this department bas now been recognised. "Throughout the operations," says the and White Paper, "we have felt the need of more motor ambulance convoys which should be maintained in peace if they are to be available at the outbreak of hostilities." This statement virtually admits the principle of a separate and permanent medical transport which I am here advocating. The reorganisation of medical transport was undertaken in France during the first six months of the war, but in our Afghan campaign the Cavalry ambulance. were sent on service with bullock tongas instead of motors.

Riding ponies and mules will still be required for work in the hills, but Ford vans should be substituted for the tongas; experience has shown that they can go practically anywhere a tonga can go.

But on the line of communications and wherever there are roads, motor ambulance convoys must take the place of the old animal transport. The one M. A. C. which was available on the Khyber at the start of the operation saved the situation. The White Paper significantly forecasts that "until we can arrange for employment in peace of sufficient motor ambulance to meet our needs in war and our frontier communications have attained requisite mechanical transport standard, wheeled ambulances (sic) must continue to make up the deficiency with unavoidable delay in evacuating sick." It is this kind of scruple about transport or equipment lying idle in peace time which has vitiated our whole system of preparation for war in India. It cannot be too often reiterated that on the frontier we must always be prepared for operations, and no consideration of this sort should be allowed to lower the standard of preparation. If employment cannot be found in peace time for these motor ambulances, then they must remain unused; the essential thing is that they should be ready when required. afford to wait for an emergency and then improvise; such economy has already been proved too costly. In addition to these motor ambulances mechanical transport is needed for medical supplies and stores. Only three Ford vans were detailed for this work, I believe, on the whole of the Khyber line; there were complaints about lack of medical supplies in certain places, and the reason for that lack, if it occurred, is apparent; the stuff was lying at the base depôts but there was delay in getting it up the line. Each hospital also should have at least one Ford van for F.O. 7

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fetching its supplies. A liberal scale of provision for mechanical transport throughout the medical department in the field and at the base will make for efficiency and should be sanctioned as part of our necessary expenditure on preparedness. Our ambulance trains are excellent; it remains to modernise also our ambulance system on the roads.

CHAPTER VIII.

THE CASE OF THE MEDICAL SERVICE.

Attention has already been invited to the statement in the telegram of the 20th August last, quoted in the 2nd White Paper, that "the standard of preparation for the Indian Frontier was that set by the Secretary of State in 1916, viz., passive defence of frontiers," and I suggested that this revealed the true cause of the difficulties in our Afghan campaign. There is another equally interesting remark on the deficiency in medical officers and subordinate staffs. This deficiency in personnel was, as everyone will admit, the main trouble, and the Government of India have been blamed for allowing the Indian medical service to become unpopular through the inadequate remuneration offered. It is, therefore, enlightening to read that this deficiency " has caused the Commander-in-Chief infinite anxiety since he took up his duties. The needs of India have been represented to the authorities at Home repeatedly (vide the request in May 1917 for 366 medical officers). We recognise that general Imperial situations precluded compliance with our demands and we were compelled to draw personnel from medical sources locally What those sources were we know. available." to the shortage of British I.M.S. officers, temporary I.M.S. commissions were given to men who would formerly have ranked as Assistant Surgeons. This created a shortage among the subordinates, and to make this up men were appointed with the title of "dresser" to take the place of those promoted; they had little training and were generally less efficient than good ward orderlies. The result was that the Indian General Hospitals were short of regular I.M.S. officers, and the attempt to make

good the deficiency was not only inadequate but also reacted upon the quality of the subordinate staff.

A discussion was started by Sir Henry Burdett in the "Times" on the subject of the qualifications of these temporary I.M.S. officers. The question is irrelevant. They held medical degrees from Indian universities and better qualified men were, apparently, not available. The Government of India had represented the need for men: they were informed that the demand could not be met: they were "compelled to draw personnel from medical sources locally available." It is, therefore, futile to discuss qualifications; we had to use what we could get. But there can be no disguising the fact that the personnel thus drawn "from sources locally available" did not prove particularly satisfactory. Exceptions apart, the temporary officers had neither the training and experience nor the professional traditions of the regular I.M.S. men. They were not equal to a strain. It is unpleasant to chronicle this, but I cannot disregard the evidence on every side. The Indian sepoy is wont to take everything as it comes and not talk about it, but it is probable that if he had possessed the same facilities for ventilating his ideas about hospital treatment as some British officers had we should have seen something on the subject in "Truth" or its vernacular equivalent, if there is one. There is no question of racial disability; it is mainly a matter of experience and tradition; our medical schools in India on English lines are yet young; there is occasion neither for disparagement on one side nor for resentment on the other.

Meanwhile, however, the sepoy or sowa is entitled, I contend, to the best medical treatment we can give him, and the substitute for the regular I.M.S. officer supplied in the Afghan campaign was not of the highest quality. We

cannot, as I have explained, blame the Government of India for this in the circumstances which they had to face; but the present conditions should not be allowed to continue. Recruits for the I.M.S. are few and the reason is not in doubt. Good men, British or Indian, want good pay. The Secretary of State declares that before and during the war "grave discontent existed throughout the service as to the conditions and prospects." That discontent has not been removed by recent official efforts to diminish it, but it is of the utmost importance that it should be removed and the service once more rendered attractive to talent. The I.M.S. scale of pay does not compare favourably with the general standard of incomes in India and is certainly not high enough to tempt any but those who despair of building up a private practice. Now that the Secretary of State has deprecated, in his recent interview with the " Pall Mall Gazette," the tendency observable " in certain quarters" to grudge pay to the services, we may hope that this long-standing grievance of the I.M.S. will be remedied. It lies with Mr. Montagu: for one cannot suppose that the Government of India, who have represented the needs of India to him " repeatedly," are the "quarter" to which allusion was made.

The public is directly concerned in the matter. The I.M.S. not only provides the civil surgeons, but also the teachers in our medical schools and the workers on tropical research; the whole standard of medical efficiency in India is set by the service. For the Indian Army this efficiency is also vital. Not only does the health of the army in peace depend upon it, but also, to some extent, the morale of the fighting troops in war. The soldier does not fear death, but he cannot avoid thinking at times of the possibility of disablement by wounds; it fortifies his courage on such an occasion to know that if anything

happens to him in action he will receive prompt and skilful treatment. An economy on medical expenditure is the worst possible policy in an Army. That is obvious.

But medical efficiency does not depend solely on the superior service. While many of the difficulties experienced in the Afghan campaign may be attributed to the shortage of regular I.M.S. officers, much must also be set down to the inadequacy of the subordinate establishment. and by inadequacy I mean not merely deficiency in numbers, but also insufficiency of training. Take the case of ward orderlies. In an Indian General Hospital 30 of these are allowed for a hospital of 500 beds. In addition to the whole work of the nursing these men have various other duties to perform; they must take patients in and out of the reception room; they must attend the dispensary: some of them must be detailed to look after infectious or dangerous cases. No margin is allowed for sickness. man cannot be on duty all the time; divide these thirty into three shifts of eight hours each and see how many are left to nurse your 500 patients! Consider next the training these men have received. The ward orderly is a sepoy who has been trained in a regimental hospital where he may or may not have received attention. He may be a pensioner, in which case he is probably a tired man; or he may be detailed from his unit, in which case he moves on when his unit leaves the area. In the present nursing establishment there is no guarantee of training and no continuity of personnel; the hospital officer has very little time to spend on personal training; if he has, the chances are that his pupil will be transferred before he has learned The result is that there is a certain percentage much. of preventible mortality, especially in pneumonia cases. from inadequate nursing.

Here again it is a matter of expenditure. For ward orderlies we need intelligent men with a certain amount of education; we must, therefore, make the pay of a ward orderly sufficient to attract the type of man we want. He must then be trained in a hospital—the bigger the better—and pass some standard of qualification in nursing before leaving it. Finally, he must belong to a service and quit his unit altogether. We must have, in other words, an Army Hospital Corps for India. A scheme for this is already under consideration in the India Office, and it is to be hoped that funds will be forthcoming to make it a success.

The establishments of our Station and General or Field Hospitals must be enlarged and must be capable of expansion in an emergency. We need altogether more liberty and elasticity. In matters of staff and pay a scale should be merely a normal guide, not a restricting limitation. There were considerable difficulties, for example, at Peshawar in getting menial servants for the cholera hospital, because men would not come for the pay that was sanctioned; that pay had ultimately to be increased, but the officer in charge should have had power to increase it at once on his own discretion. So strong is this fetish of a sanctioned scale that it is, I believe, a fact that when a proposal was made to give a small reward to those servants who had stayed on during the epidemic and not bolted as so many will do when cholera is about the proposal was rejected.

Not in the medical department alone, but throughout the Army, there should be more delegation of responsibility and greater decentralisation. Give rope to the man who is running his job; if he hangs himself, that is his affair. The present system encourages the quietist; it is always safe, in the absence of "sanction," to do nothing.

while to act may be dangerous. A business concern worked on the same principles would never prosper. How ' would a bank, for example, get on if a branch manager had to consult the Directors every time a client applied for an overdraft? One can understand the desire to check expenditure and the disinclination to allow inexperienced men a free hand; but the principle can be carried too far; personal responsibility must come in somewhere, and at present it does not extend downward far enough. is this true of responsibility for expenditure only. familiar with the routine of Army Headquarters will, I think, agree that much unnecessary office work could be avoided if the system allowed more power of dealing with correspondence to juniors. Civil secretariats are by no means free from red-tape, but much of the work which is there disposed of by Under-Secretaries would, under the Army system, have to go up for signature to the C.G.S. or some other high authority. This means more work for everybody and inevitable delay. An official letter is sent upon its way through "the usual channel," and, like bread upon the waters, may be found after many days.

To sum up the matter of this article, let me repeat that the standard of medical efficiency in India depends upon the I.M.S.; the efficiency of the I.M.S. depends upon the quality of its regular officers; to get good men we must offer good pay. Secondly, the efficiency of a hospital depends very largely on the quality and quantity of the subordinate staff; we should see to it that the establishment throughout all its ranks is properly trained and kept up to an adequate strength. Finally, whatever scale of pay and numbers is laid down for this establishment it should be capable of revision by the medical officer in charge of the hospital when in his opinion it is necessary in the interest of the patients to vary it.

CHAPTER IX.

MEDICAL ARRANGEMENTS AND SOME SUGGESTIONS.

In my last article I treated the medical questions generally; in this I propose to put down briefly some of the specific suggestions which were made to me. subject of the cholera was discussed with a certain amount of detail in my fourth and fifth articles: the main lesson which emerged was the need of a good and plentiful water-supply. But for the prevention of cholera among troops on service chlorination will usually be necessary. Each regimental unit should have its chlorinating apparatus as part of its equipment. It may consist of canvas tanks and bleaching liquor, one ounce of which will chlorinate 200 gallons. When I was at Kohat the Harper Nelson apparatus was in use up the line, but the bottles were considered too small. The Morrison suction chlorinator is liable to get out of order and I gather that the ideal apparatus has yet to be invented. It would be interesting to know what is being used in the present campaign. Whatever the system of chlorination, an ample supply of "chagals" will be necessary for the men to carry with them drinkable water on the march; otherwise they are sure to drink at any available source without consideration of its purity. I mention this because "chagals" were not provided in all cases at the beginning of the Afghan campaign.

A point made in the first White Paper was the danger to the health of the force arising from "the presence of transport and other followers without any water discipline or ideas of sanitation." The danger is obvious enough. The transport men go up and down the whole line; their opportunities for transmitting cholera F.O.

are unique. They are recruited from the most ignorant classes, and are under less supervision than the sepoys. A transport corps may consist roughly of 900 camels or of 800 draft mules, or of 700 pack mules; in each case it will have about 500 men. There are nominally two officers in charge of a corps, but in practice one of these is often away. Supervision cannot be very close. It is, therefore, all the more necessary that the men should have some sort of training in sanitary discipline, that each transport unit should have its own medical personnel, its own sanitary section and its own sanitary equipment. At present it is dependent, I believe, on the sanitary section which serves the whole of the force.

The fighting units are better off, for they have their own sanitary squads; but each unit should carry with it its own sanitary equipment and thus be independent of the sanitary section in case of a sudden move. The sanitary section, for its part, should be independent of the military works; the sanitary organisation should have its own workshops at the base and advanced base as it had in France. There is a reference to the establishment of a "separate superior sanitary organisation and staff' in the second White Paper, but I do not see anything about the points noted here. They are, I think, worth consideration.

This principle of departmental independence is capable of wider application. In the Afghan campaign it was found that the advanced depôts of medical stores were not big enough nor sufficiently equipped. Supplies from the base depôt at Lahore were delayed in transit; in some cases material from Bombay destined for the front was unloaded at Lahore, and there remained for some time. Delay is inevitable when a big concentration is in progress, and in this case there was a shortage, as

we know, of supervising officers at the base and of personnel on the railway (vide second White Paper). But such disorganisation could probably be avoided by adopting the principle that medical depôts should stock everything, except food, required by the hospitals. At present the responsibility is divided between the Military Works section, the Ordnance and the S. and T., the medical officer must indent on one or the other for such necessaries as crockery, beds, linen and the like. As the medical demand for transport is made just at the time when everybody wants transport, so these indents come in just when everybody is crying out for this kind of thing. The only way to avoid a shortage such as occurred at the beginning in Peshawar is to equip the advanced medical depôts with everything required in the hospitals as well as definitely medical stores, and thus make the medical department independent. At Peshawar, as I have said, the hospitals wanted lamps, feeders, cooking utensils, tables and similar material; the ordnance could not supply them. The deficiency was ultimately made up by local purchase and the gifts of the Red Cross; but had the principle which is here advocated already been adopted the advanced medical depôt would have had the supplies; if it had not, the medical people alone would have been responsible.

In alluding to the necessity of maintaining motor ambulance in peace I said that it was a false economy to wait for an emergency and then improvise. The truth of this may be seen if we consider for a moment the hospital arrangements in Peshawar. No war hospital existed when mobilisation commenced. The old station and section hospitals were sufficient to form a British hospital at once, No. 35 B. G. H., and I heard no complaints about this, except that the officers ward was not

large enough. For an Indian hospital the old Indian Station Hospital was utilised, this being combined with No. 13 I. G. H. to form the Indian War Hospital. Temporary barrack huts were taken in, and accommodation for seven hundred beds thus made available. was later expanded to 1,050 beds. The chief difficulty in the early days was the shortage of personnel which I have already mentioned, and on the 18th May, when the greatest number of casualties came in, a breakdown was only avoided by the help of volunteers. But the temporary nature of the building itself increased the difficulties of the staff. On that date, I believe, only hurricane lamps were available; wounds had to be dressed and operations performed by the light of these. Petrol lamps were purchased afterwards, but it was not till July that electric lights and fans were put in; even the punkahs could not at first be used because there were no coolies to pull them.

A situation of this kind can only be avoided if buildings are equipped ready in peace time. These buildings need not stand empty; they can be constructed in such a way that they can be used as barracks and converted rapidly, on the order for mobilisation into hospitals. One block in the Khyber Barracks at Peshawar I saw had been made ready in this way and fitted with electric fans; the practice should be extended to provide for Indian War Hospitals also. One effect of the war has been the abolition of the regimental hospitals and the adoption of the Station Hospital system for Indian troops on a scale of accommodation " as nearly as possible up to the same standard as the hospitals for British troops." It is to be hoped that provision will also be made for the speedy conversion of barracks into war hospitals in order that temporary structures such as No. 13 I. G. H. at Peshawar will never again have to do

duty as such. At the same time the question of isolation hospitals might be considered. Would it not be possible to set aside some building for use as an isolation hospital in case of necessity? The present system is to improvise with tents or huts when the emergency arises. I have already referred to the recommendation that the nucleus of a cholera hospital with medical personnel of its own should always be sent up to the advanced base in operations; let me now add that a military isolation hospital," or a building capable of conversion for that use, should form part of every large cantonment; isolation wards will not suffice in a serious epidemic.

On the suggestions which I have already made in this article there is not likely to be much serious difference of opinion. There was another put to me which is more controversial; it concerns the Combined Field Ambulance system. At present there is in each C. F. A. one British section and three Indian. These sections may, and probably will, be separated during operations, and it is suggested that it would be more convenient to make each section combined, that is, British and Indian, so that it may deal with cases from either portion of the Force. Apart from the sections there should also be a supervising staff and office establishment; at present these duties usually devolve on the officer in charge of the British section. There is a good deal to be said for the . proposal, and it was the direct result of experience in the Afghan campaign, but it is, of course, a matter for expert decision. So, in fact, are all the suggestions which I have, greatly daring, ventured to make, but in extenuation of that daring I would remind my readers that I am only transmitting, in most cases, what I have received, from more than one person more entitled to speak on these subjects than " a child among you taking notes."

CHAPTER X.

THE USE OF AIRCRAFT: THE REAL CAUSE OF OUR DIFFICULTIES: THE SIEGE AND RELIEF OF THAL.

It does not seem necessary to say much here on the subject of the aircraft. It had been admitted that we did not have enough machines in India on the outbreak of war and that those machines we had were obsolete. "The General Officer Commanding, Royal Air Force, cabled to the Air Ministry," according to the White Paper, "on the 23rd January and 25th February 1919, for their replacement by Bristol fighters." That deserves to be known, but at the same time one would like to see some refutation of the persistent rumour that the Air Ministry had made an offer before this of 200 machines which was refused. If the offer was actually made, the machines were presumably of the R. E. 8 type, and this may account for the refusal, but such machines would have been quite useful. All that remains now, however, is to give due recognition to the work of the airmen who had to fly the machines that were available and to the mechanics who were considerably under strength owing to demobiisation. The raids on Dakka and Jalalabad had a great effect in demoralising the Afghan forces, and the photographic survey carried out was extremely valuable. All this work was done under difficulties; the machines had to come down into the valleys from which it was doubtful if they could climb out again; the journey to Kabul and back in the Handley Page, afterwards broken up at Lahore, must have been a risky business. Conditions are now more satisfactory both at Risalpur and Bannu. I found everybody content with the machines supplied and pleased with the prospect of getting everything that was wanted. A

new system of insurance seemed desirable, however, and the distance of the aerodrome from Bannu was an inconvenience to the men as well as a danger to the planes from tribesmen.

Raids over Waziristan had only just begun when I was there, but the pilots were enthusiastic about the possibilities of air work in climatic conditions which some of them described as the best they had yet known anywhere, and it would be interesting to know what opinions further experience has produced. The course of the present campaign has, however, demonstrated, I fancy, that the use of aircraft will not solve all the problems of frontier warfare as some people predicted it would; a valuable arm of the service it undoubtedly is, and a squadron of battle planes may well be put as equal to a division of troops in effect upon the enemy; but raids from the air will not suffice to compel submission, and we must be prepared, as in the past, for punitive expeditions and the occupation of hostile territory.

After dealing with this question of the aircraft I come to the end of most of those subjects upon which public controversy has fastened. I have tried to investigate fairly the conditions of service on the frontier, to state clearly what was and to suggest tentatively what might be. It would be possible on the evidence which I collected to carry this investigation much further. I might show how the reduction of expenditure, when the armistice had been signed in 1918, affected adversely the process of concentration and supply; this could be well illustrated by the difficulties at the Engineer Base Park at Lahore where an insufficient staff and personnel were suddenly confronted with the task of unloading tons of stuff and sending them on again, with the result that much failed to reach its destination or arrived late, and I could give specific

instances of this. Or I might show how mobilisation of various units was hampered by previous orders for a reduction to cadre strength and early disbandment, and how some units in consequence went on service with men insufficiently trained or equipped with rifles of a different pattern from those used during their musketry course. Or I might illustrate the measure of our preparedness by reference to cavalry squadrons without horses utilising A. T. cart mules as chargers and to the provision of Mark VII ammunition for Mark VI rifles. But I do not think that any useful purpose can now be served by going further into detail.

Certain main conclusions should by this time be apparent. Difficulties, let us say, that were not altogether inevitable, did exist in the Afghan campaign. Various reasons for their existence have been given and some attempts to show that they were not to be avoided have been made. Let us give their full weight to the arguments based on the undisputed fact that India had contributed "without stint to meeting the needs of the Imperial troops overseas." There has been a tendency in certain quarters to disparage the material supplied by India because it was not up to European standards. I have met with criticism of that kind more than once outside India, and in every case it has been due to ignorance of conditions in India where we live habitually, as I suggested in the first article of this series, on a level of civilisation, materially considered, that would not be tolerated in Europe or America. Nor should we minimise the effect of the demobilisation which was proceeding when the war started; that was evident in every department and especially in the administrative services.

But with every allowance for adverse circumstances one cannot, I think, avoid the conclusion that our chie

difficulties were due to the fact that our standard of preparation was still the standard set by the Secretary of State in 1916. There may have been insuperable obstacles in the way of raising that standard after the armistice; one has not the evidence to judge. But the evidence that it had not been raised is, I submit, practically convincing. The fact that Dakka was occupied within eight days of mobilisation and that the Amir sued for an armistice a fortnight later is not of itself sufficient proof to the contrary. The armistice with the Amir did not bring peace to our frontier; that has yet to be established. Nor can we legitimately congratulate ourselves on our organisation because the Afghans were hopelessly incompetent. The Napoleonic maxim of winning by means of the mistakes made by the enemy must not be pressed too far; one cannot always be sure that the enemy will make mistakes. In this, perhaps, we had luck. Affairs might well have taken a more serious turn. Let me illustrate what I mean by the story of Thal.

This has not yet, I think, been officially given: I may therefore, go wrong in some details; if I do I ask pardon; the story should be told because it demonstrates completely the splendid pluck of our Army. Dakka, it will be remembered, had been occupied by our force on the 13th May, and on the 17th the Afghan forces in that region were dispersing; the menace to the Khyber had passed away. But there are other vulnerable points on our frontier, and of these the Khost salient has always been regarded as a danger. A glance at the map will show how close Afghan territory comes to Thal. On the north, the Kurram valley is held by us, chiefly by the Kurram Militia, to Parachinar This outpost station guards the exit from the Palwar Kotal, one of the passes to Kabul, and a valley route to Ghazni through Kharlachi; there also emerges, a little

below Parachinar, a short way over the hills from Jalalabad, but this would be impossible for any but a light'raiding party. South of Thal the Kaitu river flows down from Afghanistan to Spinwam, and this region is always in a state of more or less unrest. Thal is obviously a key position; a successful attack upon it would cut off Parachinar and bring in the tribes round Kohat.

After the Afghan forces in Ningrahar had dispersed owing to their defeat at Dakka, Nadir Khan was still threatening Thal from the direction of this Khost salient, Varying accounts of the numbers with him were received. He was said to have with him as many as nineteen thousand. Probably his effective force amounted to about nine thousand, composed partly of Afghan regulars and partly of Khostwali tribesmen. But the other tribes were watching and waiting; a small success would have seen them flocking to join his banners. The men of the upper Kurram were loyal enough; their only fear was that we might retire and leave their villages to the mercy of the invader.

The line to be held at this time by General Eustace, at Kohat, amounted to about 150 miles, from Khushalgarh on the Indus to Parachinar. General Fagan with the 60th Brigade arrived on the 19th May and went on to Parachinar. This addition did not, therefore, relieve the situation at Thal and Kohat, nor was the staff at Kohat increased to meet the needs of a force which was now doing the work of more than a brigade as well as of the lines of communication. The danger was realised in the area affected but higher authorities considered that the advance to Dakka had so demoralised the Afghans that no further trouble was to be apprehended; reinforcements were not sent to Kohat.

On the morning of the 27th May the shelling of Thal began. On the afternoon of that day General Eustace

arrived from Kohat, and the position was so serious that he decided to stay. The fort at Thal is not in a good position. Immediately to its front, or west, is the village of Thal and the road to Parachinar; beyond this the ground slopes down to the Kurram River which is turning here towards the south; beyond the river rises the commanding hill of Khapianga, and on this the Afghans had suddenly appeared. They had brought with them two large guns, probably 3.8, on elephants, and about six mountain guns. They could out-class anything we had in Thal, and could concentrate their fire on any point at which we might attempt an attack on their position. In a short time they had seized the village and its police post which held out gallantly till overwhelmed.

The perimeter of our camp behind the fort was large. It was bounded on the east by the rising ground above the road to Kohat where Roberts had his camp in the old days. Below this, and outside the perimeter, were the water springs. Nearer the fort is the Political Rest House. and, nearer still, the Railway Station, between which and the walls of the fort itself were stacks of "bhoosa" and dumps of supply. On the north of the camp there is low, broken ground to the hills beyond: on the south the Singroba nullah, beyond which rise the Ish Kalai heights, a long ridge of hills flanking this nullah and the left bank of the Kurram. The picket hill above the junction of this nullah with the river came in for special attention from the enemy, and our men had to withstand some ugly rushes here. But the nature of the country all round the camp. is favourable to snipers, and our pickets were kept busy night and day.

Our fighting strength in Thal amounted to about 2,000 rifles, many of these young troops. It was impossible with such a force to take the offensive. The enemy were

able to cross the Kurram, by a ford below the picket hill mentioned above, and occupy the Ish Kalai heights; they swarmed across, as one of the garrison described it, "like , a football crowd," while our men could do nothing to prevent it. Seven guns were concentrated on the fort and pickets from Khapianga; the fire was remarkably accurate, better, it is said, than the fire of the Turks in Mesopotamia which is high praise. They used shrapnel, however, or we should have suffered more severely. The "bhoosa" stacks were soon set alight, but the chief danger was to the water-supply. The fort has a pumping station just outside it; this was fortunately untouched. But the camp supply came from the springs outside the perimeter; it was necessary to lay down pipes to these, and snipers constantly barassed the party engaged on this work. At last the dangerous job was accomplished, thanks to the perseverance of the "plumber" as the young sapper officer in charge was familiarly called; he deserves special recognition for an excellent piece of work.

On the 29th our men were put on half rations; on the 30th the bombardment was severe and things began to look serious. But the road and rail to Kohat were still uncut; one theory suggests that the enemy hoped to obtain a surrender and use the line themselves. They delayed too long, however; on the 31st General Dyer was already moving up with his relief column. On the 1st June a vigorous offensive cleared the Ish Kalai ridge, the garrison was liberated and an advance on the enemy immediately commenced. Nadir Khan did not await the attack; his camp in the hills behind Khapianga was hastily evacuated; tents were left standing and animals tethered; office yakdans full of papers lay about on the ground. Among these were found copies of German newspapers of recent date, a significant discovery. Thus ignominiously ended

the Afghan thrust upon Thal. But the lesson for us should not be obscured by its failure. Our luck held; the enemy did not use the advantage that was, undoubtedly, theirs. had they pressed it, one cannot say what would have happened. An assault on Thal would have been resisted to the last man; that may be taken for granted; but the position of the garrison would have been then apparent and the tribesmen would no longer have hesitated; the whole countryside would have risen. On the other hand, a more aggressive attitude by General Eustace might, have led to equal disaster; a sally from Thal with the inadequate force at his command against the guns that could be concentrated upon it could have had but one result; that would have been a retirement to the fort tantamount to a defeat and would have been interpreted as such by the spectators on the hills, the wavering neutrals. As it was, General Dyer's relieving force arrived just in time.

There is only one inference to be drawn from the story of Thal. We must be prepared for anything at any moment on our frontier; we must not presume that a victory in one sector will ensure immunity from attack in another; we must be ready everywhere and all the time. It remains to discuss in the concluding articles how this preparedness may be secured.

CHAPTER XI.

A DISCUSSION OF FRONTIER POLICY.

In the last article I illustrated the necessity of preparedness on the frontier and made the somewhat obvious remark that we must be ready everywhere and all the time-That is obvious enough to all acquainted with the conditions, but the general public of India is not fully acquainted with the conditions. There is much ignorance, even among the educated classes, on the subject of our frontier problems, and that ignorance should be removed. Reference was made at a recent Council meeting in Delhi to the establishment of a special staff to deal with Bolshevik propaganda and secret agitation; an attempt should also be made to educate the public in the nature of our difficulties on the frontier. These are not generally understood, and the consequence is that extremist politicians can refer to the army as "an expensive luxury" and 'maintain quite plausibly that it should be reduced; the audience does not realise the importance of our frontier organisation. Delhi is far, Peshawar is farther; the down country man has never experienced a border raid; he knows nothing of those savage forces ready to pour down upon his fields and cities if once the vigilance of our defence be relaxed. It may be argued that the educated man who has read history must know better; but it is doubtful if he really faces the facts. A typical instance of this failure to understand the danger may be given; quite recently I was told that the tribes of the frontier were "extremely ignorant and fanatical in their religion, but inclined to keep the peace if we did not interfere with them." That, I believe, is not an isolated opinion; a number of intelligent Indians seriously consider that it is only a deliberate policy of provocation which causes unrest upon the frontier.

It is specially important at the present time that our frontier policy should be not only firm and definite, but also clearly defined and understood by the public. We are entering in India upon a political phase which is admittedly experimental, and the changes here cannot be without their effect upon the restless movements of the border. They may easily be misinterpreted there. The most cordial co-operation between politician and permanent. official may be secured; but if the "self-determination" of the Afghan and Pathan tribesmen takes the direction of India and loot, the success of the new administration will be sorely imperilled. The adjustments that are to be made will need careful attention; we must have peace on our borders if the work is to proceed smoothly. It is also necessary that the public should understand how difficult it is to maintain that peace, and realise the true nature of our frontier problems. There will be a demand for more money by every department, and unless the work which the army has to do is estimated at its right value we shall be constantly disturbed by an agitation to reduce expenditure on military purposes. The time when Government could say "This is necessary," and leave the matter there, is now over; it must now not only define, but also explain its policy.

For several reasons, therefore, it is desirable that we snould have clear ideas on the subject of the frontier. The problem is easy to state though difficult to solve. There are, as everybody knows, three policies that may be followed. The first is not likely to commend itself, though its adoption originally would have saved us most of our difficulties. It would fix our frontier at the Indus. This is a natural line and would be easy to hold; but to give up the Trans-Indus country after seventy years of occupation would weaken too much the prestige of the Indian Empire and

would, moreover, be grossly unfair to the present inhabitants; we could not abandon them to the fury of their hereditary foes; such a refusal of responsibilities incurred would seem but a feeble beginning of responsible Government.

The second policy has found many advocates; it is commonly known as the Forward Policy. It has all the merits of logical consistency and the disadvantages of impracticableness.

According to this we should extend our administrative control from the present line which skirts the hills, to the Afghan boundary, which was defined in part by the pillars set up by the Boundary Commission of the Durand Agreement, and completely delimited by the additional pillars on the further side of Landi Khana, erected after the recent compaign. This would entail the exercise of effective control, by occupation and disarmament, over all those wild and difficult tracts of hill territory at present in the possession of the independent tribes. The initial undertaking would involve the expenditure of large sums of money either by way of compensation or on military expeditions to compel submission. In order to keep what we had thus bought by , blood or money we should have to maintain permanent garrisons in the conquered territory. The resistance would at first be fierce and never entirely die down. The Durand line is not a natural boundary like the Indus, offering physical features of defence; to hold it we should need strong forts at frequent intervals. The tribes on the further side of it cannot be controlled from Kabul, and, whatever our relations with the Afghan Government, we should be liable to constant raids and occasional attempts to cooperate with the malcontents on our side of the border. Nor would the expense and harassment of this permanent occupation result in any greater security in time of invasion. We should either have to retire to a more defensible front

or keep up long lines of communication through country most favourable to snipers and ambuscades among a population which would almost certainly rise against us. Previous disarmament would count for little; arms can always be smuggled through a mountainous region. We might, of course, follow the Roman example, make a desert of the independent territory and call it peace; but, however logical may be the maxim, "Krieg ist Krieg," it does not ultimately pay, and our Imperial policy has definitely refused to adopt the methods which the Germans practised in Africa. That is inconceivable, but it is difficult to see how on any other method the Forward Policy can be practicable. It may work well on certain parts of the frontier; the Sandeman settlement of Baluchistan has been, on the whole, a success; but this does not guarantee that similar measures would produce similar results elsewhere. There is an extraordinary diversity of temperament, if one can call it that, on the frontier, and it often happens that an administrator who is popular with one set of tribes will fail completely with another. The policy is in many ways attractive: it seems the strong thing to do; but a consideration of the practical difficulties, in the way of extending our administrative control up to the Durand line will, I think, diminish the attraction.

There remains the third policy which has, in fact, governed our relations with the tribe since the time of Lord Curzon. We have endeavoured to limit our interference with them "so as to avoid the extension of administrative control over tribal territory." It may be argued that this policy has not been justified by results and it is true that we have not enjoyed unbroken peace upon our borders; but the trouble has been sporadic and local; we have had no widespread rebellion such as occurred in 1897. The state of the frontier, however, is far from satisfactory, as the

inhabitants of Peshawar and other border districts will, I am sure, agree. There would seem to be no practical alternative to the policy, but the methods of giving effect to it need revision. We must stand fast where we are; but we can, and must, strengthen our position. Let me suggest here some possible ways of improving our frontier organisation.

When the new policy was inaugurated in 1901 one of its main principles was the withdrawal of regular troops from the outposts and the substitution of tribal militia. this means, it was considered, we should at the same time give employment to the most energetic of the tribesmen and keep them out of mischief, while the whole tribe would have an interest in the preservation of peace in its locality. The plan might succeed in peace but there were always grave doubts of what would happen in time of invasion; if Afghanistan began to move, the strain put upon the lovalty of our levies would be intolerable. Recent events have shown that these fears were not fallacious; during the European war the Mahsuds in our militia proved treacherous and had to be dismissed; on the outbreak of the trouble with Afghanistan the defection of the Khyber Rifles caused a dislocation of our arrangements. The Kurram Militia have been loyal and keen throughout; there are, however, racial and religious reasons for this which do not apply in other areas. It is plain that we should be well advised in future not to rely upon tribal militia as covering troops; we should in fact revert, with necessary modifications, to the scheme of Lord Roberts. We should have regular troops brigaded in certain areas during 'peace ready to move forward and occupy strategic points, thus providing cover for the striking force. The present system of movable columns might suffice, if these columns were regarded purely as covering troops and not as a striking

force; the essential thing is that our advanced posts of strategic importance should be held by regular troops and not by tribal levies.

The importance of special training in frontier warfare has always been recognised, but never before has the difference between experienced and inexperienced troops been so amply demonstrated. Nearly every communication from Waziristan refers to this. Here again it seems that it would be wise to revert to the old system and revive the Frontier Force. Let us create a specialist army, a Trans-Indus Force, which shall serve habitually on the frontier so that officers and men may become thoroughly familiar with its conditions. We should offer special terms, giving a Trans-Indus allowance, and increase the amenities of life in cantonments. Frontier service has lost much of its old glamour; prices are higher in these districts than elsewhere in India; some additional inducement should be held out to attract the best men. The frontier hills for all their stark austerity will always have a fascination for certain types, and it is to these we should commit the duty of defence on our borders. Nor should these officers be restricted to purely military organisation: on the frontier the military and political problems are so closely connected that the same man, if possible, should deal with both. Is it altogether impractical to suggest that we might train up a body of men in this Trans-Indus army who should be qualified to deal with both? I would suggest that the army be made responsible for the whole administration, political, civil, and military beyond the Indus. The famous man of the old frontier days combined civil and military duties. I cannot believe that the breed is extinct. To this suggestion I hope to add some details in my concluding article.

CHAPTER XII.

THE ORGANISATION OF FRONTIER DEFENCE.

In the last article I advocated the establishment of a Trans-Indus army on special rates of pay, officered by carefully selected men to whom should be entrusted the whole administration of the Trans-Indus districts. may sound a revolutionary proposal, but I submit that it is worth consideration. Already many of our political officers on the frontier are army men, and it would be easy to give the requisite training to all who entered the Trans-Indus Force. It is always a gain to get rid of divided responsibility, and all students of frontier history will, I think, agree that it would be an advantage for the general officer in command of an expedition to possess. full political powers in addition to his military authority, provided that he had the preliminary experience in political administration. At present it is always possible to complain that military measures would have succeeded if the politicals had not forbidden this or that movement, and vice versa.

Whatever may be thought of this proposal—and I am quite prepared to hear that it is ridiculous!—there can be no doubt that the amenities of life on the frontier must be increased. Whether we have a Trans-Indus Force, such as I have suggested, or not, it must be recognised that the standard of living in the army has gone up during the last few years, and that for Britisher and Indian alike better conditions will have to be provided if our troops are to be content. That unfortunate description in the White Paper, of Kohat "as little more than a frontier outpost" where "the amenities of civilisation are

not forthcoming" must be made obsolete as soon as possible. Our frontier bases must be rendered not only efficient as areas for mobilisation, but also tolerably convenient for permanent residence. Let us take Peshawar as an example. The present cantonment must be extended and there is a scheme, I believe, in existence. It should provide for standing camps to be used on mobilisation; when the Afghan campaign started, the polo ground had to be requisitioned. And here I should like to put in a plea for some substantial compensation for the damage done to this and similar sites in frontier stations. A polo ground is not made in a month, but it can be ruined very quickly. At Bannu, again, the golf course was taken over by the authorities for camps. It had been laid out at the expense of the local Club, and I trust that adequate compensation has been given to the members. One recognises the necessity of the time but my point is that these sudden requisitionings should not be necessary; provision should be made in peace for the requirements of war.

Other improvements at Peshawar readily suggest themselves. I have referred before to the conversion of barracks for hospital use; to this end they should be built with good floors and equipped throughout with lights and fans. In the cook-houses of British barracks, like the "Khyber," Warren stoves or ranges should be substituted for the present "chula" system. The Nicholson Lines for Indian troops should be pulled down and rebuilt; the married quarters are particularly bad. Additional accommodation is required for the M. T. Companies and the armoured car brigade, but the new scheme has, doubtless, provided for this. I venture to suggest that the supply arrangements might be brought up to date. The Makri godown is too far away, but a light railway could be constructed to carry rations and other supplies round to

the barracks, hospitals and camps. A separate Engineer Park is needed. The new Indian Station Hospital should have connected with it bungalows for the medical staff. The bungalow question at Peshawar is acute; those that exist are, most of them, in a ruinous condition, and more are urgently wanted. At the same time the Government might make some arrangement about furniture; it is hardly fair that young officers should have to hire stuff at exorbitant prices.

Kohat is in a better condition. The chief need here seemed to be the removal of the Roberts Lines and the conversion of the site into a hospital area. At Bannu the extension of the defence limits would solve many of the difficuties, but the provision of a larger water-supply was the most urgent matter when I visited the place. It is unnecessary, however, to go further into detail; Peshawar, Kohat, Bannu and every other cantonment on the frontier should be enlarged and improved to meet all possible demands that may be made for accommodation and rendered adequate to the standards of the twentieth century. At the same time more provision should be made for the recreation and amusement of the troops; one could not but notice a lack of such facilities. I should like to mention here the public spirited efforts of Mr. Lintott, the cinema proprietor who was providing free shows to the men up the Khyber line during the autumn, a form of entertainment which was much appreciated. The authorities would be well advised to organise an amusements department; frontier cantonments offer few opportunities for relaxation, and such an organisation could make life considerably easier for the troops. In this respect, again, our standard has risen, and the men look for more than they were accustomed to expect before the war.

So much for our frontier bases. The actual peace of the frontier will depend upon the effectiveness of our control over the tracts on our side of the Durand Line. For the adequacy of our defence at strategic points I have advocated/ the-location of covering troops in certain areas; where they should be placed is a question for the experts to decide. Obviously, the Khyber is of the first importance; one may take it that we shall aways keep a strong garrison at Landi Kotal and an electric scheme for the Khyber should be seriously considered.

To the south the next area is the Kurram valley. Here it would seem desirable to shift the post at Thal to the other side of the Singroba and crown the heights of Khapianga with a fort. The broad-gauge should be carried on thus far at least; it would, I believe, cost about 80 lakhs, but the existence of the line would increase our security, and there are indications that it might prove commercially remunerative. The extension of the railway to Parachinar has also to be considered; but that is a matter that depends upon the importance to be attached to the cantonment there; it would be possible to make Parachinar our main post in the district, and in that case it would supersede both Thal and Kohat. Whatever may be decided, it is necessary to strengthen our defences against the Khost salient, and Spinwam on the Kaitu should come in for attention.

Further south we have the passes afforded by the Tochi and Gomal valleys, for the defence of which Bannu and Dera Ismail Khan are our bases. The most urgent work here is the construction of a bridge between Kalabagh and Mari-Indus and the extension of the broad-gauge to Bannu. The present line can carry a maximum of about 400 tons only and frequent wash-outs occur. The bridge could be combined with the irrigation scheme for a dam.

and the expense would, therefore, be compensated by the additional acreage brought under cultivation. Both the Tochi and the Gomal have been surveyed for railways both are trade routes of considerable popularity and the existence of lines along them would have the usual civilising effect; but the question of construction has to be considered together with other projects, and it would be futile to speculate on the chances, of any scheme at present. Enough has been said to show that the efficiency of our defence system depends very largely upon the efficiency of our communications. We must have the necessary railways and we must have roads fit for mechanical transport. There is no need to labour this point; it is universally recognised.

There remains the vital question. How are we to keep the independent territory quiet without extending our administrative control over it by occupation right up to the Durand Line? In general, it may be said, the improvement of our communications and the strengthening of our garrisons at certain points will diminish unrest among the tribes; it is ill kicking against the pricks, and the tribesmen are not fools; if they can speedily be punished for offences against the peace, they will be the more inclined to keep it. But the strong hand will not altogether restrain them; the lawlessness of centuries is in their blood; the raiding of caravans and the villages of the Daman has been their hereditary occupation. There are also economic causes at work. These may be discerned most clearly in the case of the Mahsuds. The outer portion of their territory is, for the greater part of it, a region of barren hills and stony ravines; the interior has stretches of alluvial land and fertile tracts in the valleys; but of the country as a whole one is justified in saying that it does not support the population. It might possibly

be made more productive if the sections of the people were more in unity and gave themselves whole-heartedly to its development; it contains mineral resources, and the iron of Kaniguram was once considerably worked before the factory on the Kohat Pass became popular. But whatever might be made of the country it does no at present pay. In the old 'days the tribesmen could take toll of the Powindah caravans passing down the Gomal: from that source of revenue they are now debarred nor do we allow them to raid the plains. From their point of view they have a grievance. We have endeavoured to meet the situation in several ways, by offering the tribesmen service in the Militia, by employing them as navvies in road making and other work, by giving allowances of money either to selected maliks or certain tribes for nominal services. At one time the experiment of a Mahsud colony on our own land was tried; its failure may have been due in part to the quality of the land and the conditions of selection of the colonists, but fail it did. The system of allowances would seem to be equally unsuccessful, and is in principle unsound; the sums do not work out satisfactorily to individuals; in any case they are tegarded as bribes and have the effect of producing intrigue for more.

It is difficult to avoid the conclusion that the alternative must be tried; we have marched into their country more than once, and as soon as the troops have withdrawn the old trouble has commenced again. To maintain a cordon of posts round Waziristan is a costly business and has not hitherto proved effective; for the pacification of the Mahsuds we must establish a permanent post at some central position, such as Razmak, from which we can control the interior; when this sanctuary is no longer safe for outlaws the Mahsuds may change to a more reasonable frame of

mind and consent to develop the resources of their country with the assistance that we shall be ready to give them.

The same policy should rule all our relations with the frontier tribes. Let us make it quite clear that we do not intend to be intimidated and will not give bribes wholesale to avoid a breach of the peace; let us leave the tribesmen in no doubt that it will pay them to develop the resources, however scanty they may be, which they possess, on friendly terms with us, and that if they persist in an attitude of hostility we shall be equally prepared to exact the uttermost penalty for any damage they may do. A strong policy does not necessarily mean an aggressive policy; I have shown that this should be avoided; but in the manifestation that we are prepared for an aggressive policy if need be lies our only chance of peace upon the frontier.