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EDITORIAL.

Retrenchment.

The melancholy forebodings of the leading article in the October number of the Journal have, alas, proved only too well founded. The ten per cent. cut in the pay of all officers and officials is an accomplished fact, and the shorn lambs are now adjusting themselves to an economic blast that shows little signs of being in any way tempered to their nakedness. The essential difference between these reductions in India and those at Home is, that while the cost of living in Great Britain has of recent years steadily gone down, it has in this country just as steadily gone up. Now have been added the new custom duties and the adverse exchange which raise at a bound the prices of many things which are a necessity for Europeans in India. There is only one way to meet this unhappy combination of events and that is to grin and bear it—and reduce our standards of living. This is what the Services have done. There has been extraordinarily little grumbling, but this must not be taken to mean that the cuts are not felt—and in some cases, especially those of married officers with children to educate, felt severely. The reductions have been accepted as unpleasant but unavoidable and as part of a sacrifice required for India and the Empire. But it must be remembered that this ungrudging spirit is based on the assurance that the cuts are temporary, to be replaced immediately the emergency which gave rise to them is passed.

As far as the Army and Royal Air Force were concerned a cut in pay was unavoibable; military officers could not be exempt from a

reduction applied to all civil officials. The grant for military expenditure in 1932-33 is to be below that of the current financial year by no less than Rs. 525 lakhs, a sum that represents the cost of about 80 Indian Infantry Battalions. Of the missing Rs. 525 lakhs the cuts in officers' pay will produce only 75, the rest must be found elsewhere. In deciding what reductions and economies can be made to cover this large deficiency certain principles have been borne in mind. The first of these has been to avoid as far as possible the disbandment of units. The fighting forces in India have already been reduced to a level which leaves little margin of safety over their commitments; further reductions on any considerable scale would definitely endanger that margin. Again, disbandments inflict the maximum hardship on individuals who are thrown out of employment at the worst possible time, and induce a general feeling of insecurity amongst those remaining. Other guiding principles have been that economies likely adversely to affect morale have been avoided: only those accepted which retain fighting efficiency as far as possible unimpared; and existing organisation for war disturbed to the least degree.

In spite of this it has unfortunately been found necessary to disband two Indian Battalions with their Training Companies, two Railway Companies of Sappers and Miners, two Camel Transport Companies, and to reduce each British Battalion by one non-commissioned officer and eighteen men. In addition the re-equipment programme of the Army has had to be postponed, many staffs have been reduced, headquarters re-organised or amalgamated, and the pay of most British and some Indian other ranks reduced in various degrees. Altogether it is safe to say that few, if any, of the charges in the defence budget have escaped the closest scrutiny. Reductions are being made under some two hundred different heads, and the search still goes on. It is here that every officer can help by thinking out savings in his own unit. The cumulative effect of small savings is often overlooked. For instance it is hoped to make an eventual saving of several thousands of rupees by arranging a more economical supply of the tins now issued to hold earth for fire-fighting purposes, and an estimated economy of Rs. 18,000 per annum by using second hand wire instead of new for baling fodder. When it is recognised that the combined effect of a number of such savings, seemingly

trivial in themselves, may be to preserve a fine battalion from disbandment no one can fail to be on the look out for even the smallest economies.

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Mobility.

While economy undoubtedly occupies the leading place in service thought these days, Mobility, at least in India, seems to run it a close second. Wherever service "shop" is talked sooner or later the question is raised, "Is the Regular Army in India as mobile as it ought to be for the tasks it is and may be called upon to perform?" Then the discussion becomes really earnest. To do its part in stimulating this discussion which in itself is a most healthy sign, the Journal has in recent editions published various representative articles selected from the many received on the subject.

It has been asserted that the Army, in spite of, or rather because of, modern developments, has in the last twenty years grown progressively less mobile, and, whether we accept this as true or not, most of us feel that it could with advantage be made more mobile than it is. As so often happens it is comparatively easy to decide what is desirable, the difficulty is to agree on how the end should be achieved. One school of thought plunges boldly for the "de-regularization" of the Indian Army. They picture the wretched sepoy weighed down physically by a multiplicity of weapons and bemused mentally by half understood systems of co-operation designed to meet every phase of scientific European warfare. They argue that the Indian Army's main if not only field of future employment is the North-West Frontier and that, to meet his Pathan adversary on equal terms, the sepoy should be as lightly equipped as he is and trained only in the tactics required to beat the tribesman at his own game. They point to the undoubted efficiency and mobility of the Scouts in their every day duties of 'watch and ward' over the Border. If the Scouts can roam at will over wide areas, covering their twenty to thirty miles a day, why cannot the Regulars? "Because," answer the advocates of 'de-regularization,' "the soldier drags behind him a huge tail of impedimenta and is taught to move only under an elaborate criss-cross of covering fire from all sorts of weapons. Scrap the lot, and let him loose on the hill side with a rifle, fifty rounds, a waterbottle and two chupattis!" But it is not quite so simple as this. No

doubt the regular soldier thus relieved would be better able to perform the functions of the Scouts than he could at present—but is he required to undertake the functions of the Scouts and has he no special functions of his own? There is no doubt a certain overlap between the two forces and suitably equipped regulars could carry out some of the duties of the Scouts, but for local knowledge and as a force at the immediate disposal of Political Officers the regular can never replace the Scout. On the other hand the fire power and striking force of the regular can be replaced by nothing else; they are, as the tribesmen are the first to admit, the decisive factor. Hence it follows that while every effort should be made to increase the mobility of the regular troops, both strategic and tactical, it would be unwise to do so at the expense of their fire power. Similarly any attempt to enhance the Scouts' fire power at the cost of their tactical mobility should be resisted.

The ideal to be aimed at is to get the maximum value and the greatest economy by using both forces in the closest co-operation. Experience has shown that the inclusion of some platoons of Scouts in a Column is of the greatest advantage; the fire power of the regular enables the Scout to retain his mobility in the face of opposition and the local knowledge and reconnaissance capacity of the Scout are at the disposal of the regular.

This does not mean that a regular force, however small, should never divest itself of any of its fire power to achieve greater mobility. It is only against strong opposition that it will require its utmost striking power; for the normal peace time watch and ward regular troops might often with advantage reduce their armament and baggage to the level of that of the Scouts. It would be to everyone's benefit if it became a normal incident for a lightly equipped regular company and a platoon of scouts to go on "gasht" together. The two forces will have to work together under one control in war; the more opportunity they have of getting to know one another and of learning from one another in the comparative peace of the trans-border the better.

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Ordinances.

Government by ordinances is bad, but there are some things a great deal worse, and foremost amongst these, especially in India, is no government at all. The preservation of order, the detection and punishment of crime, the collection of

revenue, the development of commerce, and the progress of the country in civilization, can only continue under the ordinary law as long as Government has the active support of a majority of citizens. When for any reason, such as fear of a violent minority, that support is not forthcoming over a considerable area, a Government must either give up governing or take special powers to enable it to maintain or to re-assert its authority. There can be no question that in India there has been and still is a real danger of certain districts passing completely out of the control of Government into the hands of violent and unscrupulous agitators whose first object is to destroy all legitimate authority.

The Ordinance in Burma was introduced to meet an armed rebellion whose strength lay in an almost incredible and fantastic cruelty which terrified the defenceless country side. In Assam, the Chittagong Ordinance was directed against a small party of assassins whose continued existence threatened all peace. In Bengal, a series of particularly dastardly political murders, the terrorization of witnesses and the impossibility of maintaining control in certain areas through the ordinary law, made the application of an Ordinance unavoidable. In the United Provinces, the Congress leaders have organized a typically cunning attack on the Government revenue by inciting peasants to refuse their rents to landlords, who in turn will be unable to pay their taxes. Any failure to meet this dangerous situation by prompt action under wider powers than are given by the ordinary law could only result in widespread and violent disorder.

The need for these Ordinances is self-evident and it is useless to pretend as the Congress does that the Ordinance produces the violence. It is manifestly the opposite; no Ordinance has been issued until violent and illegal agitation had already progressed so far as to be beyond the control of ordinary methods. The Government by meticulously observing the terms of the Delhi Pact had tied its own hands and those of its subordinate officers in dealing with sedition, while the Congress, unhampered by any such scruples, continued unabated its incitements to anti-Government action which could, as it well knows, end only in violent disturbance. Symptomatic of its attitude has been the fact that no Congress leader has ever come out with a completely unequivocal condemnation of political assassination. Pacts are all very well if both sides observe them; if neither side

observes them no great harm may be done ; but when only one side observes them the sooner they are denounced the better.

Mr. Gandhi's ridiculous attitude towards Government which may be summed up as, " I am a very humble, holy man and, of course, I abhor violence, but if you don't do what I want, by love, I'll give you hell ?" has at last been met by the proper answer. For the first time Government has taken the offensive against its enemies. It is perhaps too early to say that the Congress has been completely broken, but already the effects of the firmness shown have been beneficial beyond most people's expectations. Meanwhile it cannot be too often reiterated that no decent law-abiding citizen has anything to fear from these Ordinances which are directed solely against those engaged in dangerous and subversive activities.

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The Axe.

It was to be hoped that the Indian Army had seen the last of axings—at least of the compulsory kind—for many years. But it was not to be so. Army Instruction (India) No. 132 of 1931 is the latest of the efforts to get rid of surplus officers, and for the first time there is no voluntary element in its terms. While compulsory retirement will inflict hardship on certain individuals, there can be no doubt that from the Service point of view the best method and the fairest is to dispense with the least efficient in all ranks. These retirements are only one phase in the all-pervading retrenchment. Units have been disbanded, staffs have been reduced and officers have thus become surplus to requirements. In happier times it might have been possible to retain some of these officers in the hope of their gradual absorption into vacancies, but the financial situation has left no option but to reduce rapidly to the authorised establishments. An attempt has been made to decrease the number who will have to retire compulsorily by extending Army Instruction (India) No. 101 of 1930 to certain classes of officers up to now excluded from voluntary retirements under its terms. It is doubtful, however, whether a sufficient number will take advantage of this and, even allowing for those that do, there will probably still remain some ninety officers to come under the axe.

The officers to be compulsorily retired fall into two categories, those inefficient in their present rank, and those considered to be unfit for promotion in due course. The latter will receive the same

terms as those who retire voluntarily within the next four years under Army Instruction (India) No. 101 of 1930. The former, that is those inefficient in their present rank, will receive as a maximum, if over fifteen years service, pensions rising from £170 per annum, or, if under fifteen years service, gratuities at the rate of £110 for every year's service. These terms, taking into account the capitilized value of the pensions, are much the same as were offered during the compulsory retirements of 1922. They are stated to be the maximum terms, but it is to be hoped that, with the exception of a few individuals who may have forfeited a claim to them through definite misconduct, the great majority of the officers concerned will receive them. The choice of the officers to be retired rests first and naturally with their commanding officers, who have already been asked to submit special reports. These reports will pass through "the usual channels" to Army Headquarters where a committee of senior officers will examine them and make a final recommendation after a consideration, not only of the special reports, but of the officers' confidential reports and other records over a number of years.

The necessity for this latest axing is as regrettable as it is unavoidable, and our sympathy goes out to the majority of those who are to suffer from it. It is poor consolation to point out that they are in the same situation as innumerable men in other walks of life, but it is permissible to remind them that few discharged employees in civil life would receive such terms. Granted the necessity for the reductions, it is difficult to see how a fairer choice could be made and it must be admitted that to give much more generous terms would be to put a premium on inefficiency. The whole business is unpleasant, even for those not directly affected, and we can only hope for everyone's sake that it really is the last of the axings.

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GOLD MEDAL PRIZE ESSAY COMPETITION, 1932.

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1932 :—

"Disarmament, and its effect on the Foreign Policy of the British Empire."

The following are the conditions of the competition :—

(1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army, Royal Air Force and Auxiliary Forces.

(2) Essay must be type-written and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1932.

(6) Essays will be submitted for adjudication to three judges, chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in edition to or in substitution for the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.

(7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1932.

(8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors wlll not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

MOBILITY.

By " Light Infantry ".

I. Introductory.

During the past year there has been much discussion on the subject of " Mobility, " and the thoughts of officers generally seem to have been directed towards measures to make the Army more mobile. This is a healthy sign.

Certain critics contend that we are still suffering to some extent from the influences of trench warfare and of the deliberate attacks of the Great War, and that many of our methods are inclined to be too slow for warfare in Asia. Others consider that we are overburdened with transport and equipment. Such ideas are welcome, as anything that will lead to greater speed of manœuvre and rapidity of operating is to be encouraged ; provided of course that efficiency is unaffected thereby.

II. The effect of modern inventions on Mobility.

(*a*). Increased mobility can be obtained, up to certain limits, by increased mechanization. These limits are firstly finance, and, secondly, the terrain over which the Army may be called on to operate, and which may be in many parts impassable for mechanized forces. There are many pros and cons, and a satisfactory solution is not easy, and it behoves the higher authorities to proceed cautiously and not commit themselves prematurely.

There is always the danger of over-mechanization. When the emergency arises, one may long for the old mule transport which may then no longer exist ; one may find oneself hung up for want of it on operations, and a decisive advance may have to wait until a track fit for mechanical transport has been made, thus causing undesirable and possibly dangerous delay.

(*b*). Then there is the Air. An article entitled " Modern Mountain Warfare," published in the January 1931 number of this Journal showed in considerable detail the facilities which increased support by air forces will give to land forces in such operations. The article was full of ideas and provided much food for thought (without which

there can be no progress) ; although some of the ideas, such as paper jerkins on cold wet nights *vice* blankets and dependence on local enemy supply for transport, and for meat in local exchange for tea, were doubtless not intended to be taken too seriously.

In the development of the Royal Air Force there are, it is considered, great potentialities towards the more mobile conduct of operations against a semi-civilized enemy (in undeveloped countries). In the course of time it is reasonable to believe that the Royal Air Force will be able to supply a force from the air, and when that day comes the drag of the long line of animal Lines of Communication, and consequently a great deal of animal transport with Columns, will be eliminated, and the mobility of such Columns considerably increased. The Royal Air Force is making progress in this direction. To render further assistance it should be able to pick up casualties in the middle of a fight and evacuate them. This evacuation of casualties is a very serious problem in all warfare against an uncivilized foe. If one could only leave one's casualties on the ground and count on their being evacuated as is done in civilized warfare, one could go anywhere and take on the enemy at his own game. This point is often forgotten. It affects every phase of uncivilized warfare. But, as your Editorial pointed out, the Royal Air Force is a very expensive arm. Under the many varying conditions of service in India one cannot do away with animal transport entirely and replace it by Royal Air Force Troop Carriers. One must be used to supplement the other. What must be aimed at is the reduction of animal transport by making use of modern mechanical devices.

(*c*). The third aspect in the increase of mobility is to make the troops themselves, their method of training, their transport, equipment, and general procedure in the field more mobile. It is with this aspect that it is proposed to deal to some slight extent in this article.

In the same (January 1931) number of this Journal referred to above, there appeared another article on much the same subject, "Babu Tactics," by "Mouse." The general ideas expressed in this article are endorsed by many officers one meets. There appears to be a feeling that, as the article indicated, the Army in India, for its special rôle, has become too regularised and encumbered, and is too much trained to fight a European foe, provided with masses of artillery and mechanical aids, which it will never, it is contended,

have to do. Is this theory correct? Probably not. Surely no one wants an army trained on North-West Frontier mountain warfare lines only. This would be truly retrogade. Then indeed would it become a second rate army. All the cost of higher military education, Staff College and modern equipment, could be economised if we are to limit our horizon to the hills of the Frontier. Even though it may be years before the Army of India fights again outside Asia, there are plenty of potential enemies in Asia, whom it will require all the inventions of the highest form of military science, training, organization and equipment, to overcome.

Any tendency towards specialization for mountain warfare operations on the North-West Frontier must be resisted. These are a very small part of the Army's possible commitments, and specialization means a waste of part of our already very small army. Mountain warfare is much the same as any other kind of warfare, with a few grains of common sense added. The writer has never found that officers of the British Service, who come new and fresh to it, find any difficulty in picking it up. There must be no specialities in personnel, training or equipment.

As for the Mahsud's remarks quoted in Mouse's article, that "300 Mahsuds would take on any regular battalion," they could and always would have given it a bad time if isolated in the Waziristan hills, because a regular battalion would be tied to its Lines of Communication and its wounded, while the Mahsuds would have neither encumbrances to contend with. Read Callwell's "Small Wars." Regulars have always been at a disadvantage when dealing with guerillas to start with, but they have always overcome them in the end, thanks to their training and discipline. There is much to be said for mobility, but it is not everything.

III. The experiences of the summer of 1930.

After the Afridi incursions into the Peshawar District during the hot weather of 1930, many jumped to the conclusion that the regulars were not mobile. The reason for this was that during these two incursions two to three thousand Afridis invaded the Peshawar District and escaped after one day in June, and after one week in August, without being annihilated; though on each occasion they lost heavily, much more heavily than Afridis have ever been accustomed to lose before. Owing to these incursions there was general outcry

for more irregularity ; the Infantry were too hidebound, too weighed down by their many weapons and too complicated in their methods to take on the Afridis successfully. Why were they not more like Scouts ? It was even stated that Scouts were brought to Peshawar to do what the Regulars could not do ! Many uninformed people believed this. But the whole matter was misrepresented, and the criticism misinformed and inaccurate.

Nevertheless, a slur was cast upon the fair name of the Regular infantry, which was quite unjustified. The troops who were undergoing the hardships of hot weather operations round Peshawar, Shabkadr, Mardan, Charsadda, Tangi and Swabi, and were undergoing them cheerfully and with great determination, were never mentioned in the papers. They seemed to have been forgotten. Facts fail to disclose any such contention of lack of mobility on the part of the infantry. They did everything which was required of them, and would have done more, if a less nebulous enemy had provided an objective.

It is only fair to the troops that the facts should be known.

Both in June and August it was reported that about five thousand Afridis had entered British India. Plans of Operations must be based on the information one possesses at the time ; they cannot be based on what is learnt afterwards. Obvious as this may appear, it is often overlooked. Although the figures given were probably an exaggeration, the Afridis did infiltrate into the District like a swarm of locusts, and hid. They hid in the villages, the gardens, the nullahs, and the crops which in August covered the whole country six to ten feet high. The local inhabitants helped them by blocking roads with trees, by cutting communications, by hiding them in their villages, in cellars, and in gardens, by feeding them, and even lending them their clothes. Martial Law had not then been proclaimed, consequently the villagers were immune. A few occurrences will illustrate the situation. The villages close to the Afridi border are inhabited largely by domiciled Afridis, up to ninety *per cent.* in some cases. For instance one of the Afridi Khilafat leaders, who was afterwards killed by a shell on the Khajuri Plain, and his brother, owned land and property in a village ten miles within the border. Such being the case, accommodation in this village was always available for them ; and this the unholy brothers utilized as advanced headquarters.

In June, an informer reported that a gang of forty Afridis were in a certain village, and this was surrounded by the troops. Frontier Constabulary searched the village. The headman, who had an Afridi wife, swore there were no Afridis there, and none was found. The informer was marched away to gaol, but it afterwards transpired that the Afridis were there the whole time. In August, eighty men were seen near Bara in a graveyard behaving in a most suspicious manner. A battalion was sent to investigate, but the men swore they were villagers burying a dead man and this was confirmed by the village headman. After the battalion had gone on, the subsequent conduct of the party made it certain that they were Afridis.

Several times, when a column went out, smoke signals were used by the villagers to warn the Afridis of the presence of troops. These signals were taken up from village to village, up to the border. Those who know the Peshawar Vale country will realise the difficulties with which the troops had to contend in order to comb out a skulking enemy, actively aided and abetted by the local inhabitants. Field artillery, wheeled transport and six-wheelers could not move far off the main roads or off the few tracks. Pack transport could traverse it with difficulty.

The Afridi would not come out and fight. It is difficult to fight an enemy who will not join issue. It was difficult to understand their Congress-fed mentality. On two occasions they refused to fire on Indian troops at close range when they had the chance, shouting out that they were not fighting them. Only on one occasion did they see their chance and take it. To carry out an operation, one must have timely information and an objective. With hostile inhabitants, the information was never exact or in time. In the first Afridi incursion on 5th June, the District Commander could not commit his troops to action before he knew where the enemy was ; and consequently the operation could not commence before 11-30 a.m. of a hot weather day.

Time after time the cavalry and infantry columns went out to drive an area of country and comb out the enemy, often staying out for two or three nights. Every effort was made to render the infantry of these columns mobile, and the greatest care was taken in working out the administrative details of equipment, rations, water, to make the load on the men in the heat as light as possible, and to cut down

transport for the sake of rapidity of movement. Fuller details of this are given later. No kits or tents were ever taken. The Columns were invariably ordered out at very short notice (frequently late at night), to start at daybreak, and consequently excellent practice was afforded in the rapid issue of orders.

Day after day the troops were operating throughout the heat of a Peshawar hot weather day. They always marched, since at that time the calls on Government mechanical transport were too heavy to allow of mechanical transport for the movement of troops. Although they never had the chance of giving the Afridi a real defeat, the latter continually lost heavily from gun fire, rifle and machine gun fire, and air action, and he did no damage except on one minor occasion. Thus, the troops did all that was ever asked of them and did it well. One cannot speak too highly of the spirit and devotion to duty shown by all troops, both British and Indian, all through that hot weather.

For those in authority, both Civil and Military, it was a difficult situation, and one which now affords an interesting study. How, in the circumstances portrayed, could the Afridis have been severely punished for their temerity in invading British India? All along the Frontier, both cis-and trans-border, there was grave unrest and danger of a general rising; not only in Mohmund country and far north of it in Mamund and Sallerzai limits, but also in Tirah, Orakzai and Chamkanni country, in the Kurram among the Afghan border tribes, and finally in Waziristan. Inside the Border, Peshawar, Kohat, Bannu, and Dera Ismail Khan Districts were all suffering from the effects of active sedition and unrest.

Only in Swat, Dir and Buner did two strong rulers keep their people quiet and loyal. Fortunately all the troubles did not come to a head together. In dealing with tribes beyond the reach of land forces, *viz.*, Mamunds Upper Kurram, etc., the Royal Air Force did admirable service. In the Peshawar District the situation was particularly bad. The City was seething with sedition and required a permanent garrison of troops; the Red Shirts were openly defiant and were parading and holding seditious meetings all over the District; the Mohmund lashkar was sitting on the Border hills threatening hostilities, and the Afridi lashkar was hidden in the villages inside the District.

The garrison of Peshawar had to protect a perimeter twelve miles in circumference including the aerodrome, to hold the City and Fort,

and to guard the Supply Depôt which has a perimeter of two and a half miles, and is situated two miles outside cantonments. At one time in August there were six and a half battalions engaged on these duties, and only three battalions and a weak cavalry brigade mobile.

It was the old story of the effect of a fortified Headquarters on strategy, combined with the effect of civil influence when troops are acting in aid of Civil Power. It was essential that the Afridis should be kept out of Cantonments and out of the Aerodrome, against which they had special enmity. It is not for a junior commander to say what should have been done. He cannot know what exactly is in the mind of his Chief, what the exact situation is, what are the orders from above and government policy, and in this case what the civil situation was, and what exactly was the state in Peshawar City. As it was, there was at the time a great deal too much irresponsible criticism flying about, by people who had no idea of the conditions or of the situation. Comment has already been made on the effect the bad state of the Peshawar District, and Peshawar City in particular, had on operations. If there had been three mobile columns operating, one cavalry and two infantry (combined with artillery, etc.), there would have been more chance of rounding up the Afridis, especially if the troops had been co-operating from bivouacs outside Peshawar and had not been tied to the place in any way. Each Infantry Column should have consisted of at least two if not three battalions, together with a proportion of Mountain Artillery, and here it should be noted that Afridi tactics necessitate all-round protection of guns, transport, ambulances, etc., and a Reserve too is required, as is the case in Bush or Arab warfare; in fact troops at rest require a perimeter camp. As it was, there was only one column available, and this largely contributed to the Afridis escaping comparatively lightly. The garrison in Peshawar, being short of transport, could do little in the way of co-operation except in the close vicinity of the station.

Scouts from Waziristan were brought down to Peshawar in August, as they had been brought down in June, to help in rounding up Red Shirts and for operations against the Utman Khel. On each occasion they did admirable work. Their knowledge of Pushtu and of Pathan customs rendered them invaluable. In searching Pathan villages, British troops and Sikhs, Dogras and Gurkhas are greatly handicapped by their ignorance of the language, and their inability to tell

friend from foe when both are so similar. The Frontier Constabulary, who are all Pathans, were equally useful, and on many occasions they co-operated with the Regulars and rendered splendid service. It has for years and years been the custom on the Frontier for Regulars and Irregulars to work together, the alliance has been a happy one and both have learnt much from each other.

In August the Scouts, some six hundred in number, were no more successful at finding the Afridis and bringing them to book than were the Regulars. The Scouts were, in the first case, lucky that they had a call on twenty to thirty hired lorries always at hand during the period under review, while the Regular infantry usually had to march. These invaluable lorries enabled the Scouts to get rapidly about the country, and were a good example of the use of mechanical transport as an aid to mobility. The hiring of these lorries of course meant money, but it was money well spent. The Frontier Constabulary also always had their own lorries and moved in them. While profiting by these experiences, the newly organised Regular mobile columns are mechanised as far as Government mechanical transport is available.

The Scouts are a very fine body of men, officered by a number of keen, active young officers. They are raised and maintained almost entirely for trans-border police duties in the areas where they are stationed. This rôle they carry out mainly by means of platoon "gashts" (platoon patrols), which move about freely over the hills of their particular areas, staying out for a night or two. They can thus specialise in their particular form of employment, and are equipped accordingly. The Regulars can learn a great deal from them as regards mobility, from their sensible equipment, and how to move rapidly and effectively over the Frontier hills.

One cannot, however, compare them logically with the Regulars, who are organised and equipped to carry out any duty which the Empire may require of them, in any part of the world, and to fight in great battles as well as frontier skirmishes. There is no need here to give a list of the many actions performed by the Army during the last hundred years, especially as the writer is confident that such feats will be repeated for the next hundred years if need be. He notes with concern, however, that there is nowadays a tendency to draw disparaging comparisons between such good comrades as Regulars and Irregulars, both indispensable in their own spheres, and whose

duties are so closely inter-locked. Together they stand, separated they fall; to attempt to put one against the other is to do injustice to both. The wise man takes a broad view and accords honour where honour is due. The thinking soldier, if he is to be of any value to his profession, must avoid parochialism. The "khaki" of the frontier is undoubtedly fascinating, but it is not the only topic of thought for the British officer.

It was a remarkable fact how fit the troops, particularly the British troops, Field Artillery and Infantry, kept during these operations when out all day in the sun. Directly they went out from their temporary barracks on columns, the sick rate went down to an astonishingly low figure.

In the Nowshera Column there were only twelve cases of heat exhaustion, and none of these serious, during the whole hot weather operations. It was noticeable that those British units which contained a large quota of young soldiers did not stand the heat as well as those of a more mature age; despite this, results were encouraging and showed that with sensible discipline the dangers from heat can be rendered negligible. Heat casualties are as difficult to evacuate and as crippling as battle casualties. People may say "But why worry about the heat? They carried on in the old days in the Mutiny right through the heat of the hot weather." But in those days the men were much older, they were the survivals of the fittest, men of fifteen to twenty years service. Now the men on an average, British and Indians, have about five years service, and they must be given all the help possible; granted this, they will prove as tough as their forbears.

Regimental and Staff arrangements must be good. For instance, if the men's food and water are carefully arranged for, if they are not overloaded, if they are not kept standing about in the heat, if the times of march and of entraining or embussing are carefully thought out, the troops can stand a great deal of hot weather campaigning, as they did in the dry heat of Mesopotamia in the war. On the Staff work depends their mobility.

Mobility is a relative expression. After a certain point it can only be ensured by sacrificing something which in itself is important. The regular soldier normally carries a heavy load and by reducing this in a hot weather campaign, he will be made more mobile. Certain articles of equipment can well be curtailed in accordance with the enemy

to be encountered. When considering reduction however, it must always be remembered that our scales of equipment have been decided on after countless years of experience in many campaigns, and any reduction of the load on the man cannot but deprive him of some article considered necessary to develop his full fighting efficiency. Similarly if transport, supplies and medical arrangements are unduly cut down to increase mobility, the troops may suffer or there may be failure.

With regard to transport, mobile columns on the North-West Frontier must possess the type of transport which will enable them to move off the road away from their mechanical transport. On the other hand, unless undue extravagance is indulged in, this transport must be reduced to the lowest safe scale. The animal transport of India acts as an undoubted drag to the mobility of a column. Of late years the number of animals accompanying a column has increased greatly. They render our columns most unwieldy and difficult to protect. Also remember that animal transport necessitates the use of many fighting men for its protection, and in difficult intersected country each animal needs a man to lead it. In more open country they can be driven in droves, which is an economical method, but not safe if there is any likelihood of enemy action and consequent stampede and panic. Every superfluous animal then should be eliminated.

No detail which would assist towards the greater mobility of our troops should be neglected. In England, the effect which the experimental brigades and semi-mechanization of certain battalions has had on the general speeding up of operations, the issue of orders and movements of troops, has been remarkable ; and it is for consideration whether some such experiments will not be advantageous in India—the North-West Frontier in particular.

IV. An historical lesson in Mobility. (*See Sketch Map*).

Some of the points noted above, are well brought out in Tonnochy's raid on Makin in Waziristan in November 1901, which is one of the best examples of mobility in comparatively modern times on the North-West Frontier of India. At that time the Mahsuds, who had a big bill of misdeeds up against them, had been blockaded for a year. This blockade had failed in results and it was decided to send into their country light punitive columns on raids of a few days duration. Such columns were sent in simultaneously from Wana,

arwekai, and Jandola in South Waziristan, and from Datta Khel in Tochi in North Waziristan. The last named is that now referred to. It was commanded by Colonel V. C. Tonnochy, C.B., Commandant, 3rd Sikhs, Punjab Frontier Force.

The troops comprising the Column were :—

2 guns Derajat Mountain Battery (7-pdrs.)
1 Section Bengal Sappers & Miners, under Major Sheppard.*
500 men 3rd Sikhs, P.F.F. including 30 Mounted Infantry on mules (now 3/12th F.F. Regiment).
500 men 2nd Punjab Infantry, P.F.F. (now 2/13th F.F. Rifles).
2 Hospital assistants and 82 *Kahars* (*dhooly* bearers).
4 followers per battalion.

There was no transport of any kind and no officers' chargers.

One battery mule carried 18 officers' kits and greatcoats.

One battery mule carried officers' mess.

Otherwise, except for the Artillery, Sappers and Miners and Mounted Infantry, there were no animals.

No reserve ammunition was carried. There was no Field Ambulance. No *dhoolies* were taken, only stretchers by the *Kahars*.

The men were very heavily loaded. They carried one hundred rounds Martini-Henry S.A.A. (a big weight), two days' cooked food, and a great coat or *poshteen*. They wore the " coat, warm, British " with braces over it. The weather was very cold in the hills. One pound of *atta* per man for 1,200 men was carried in 30-lb. bags by the *Kahars*.

There was a full moon. The Column marched from Datta Khel at 9 p.m. on the 23rd November. At 3 a.m. on the 24th November the Column reached Spina Punga Narai (9,000 feet) where it halted until dawn. The moon set at 4 a.m. and the cold was intense. At 6-30 a.m. the Column started again and at 10-30 a.m. reached Shurdar Narai (9-400 feet); much time had been wasted by the guide losing his way. Far below was the head of the Shuran Algad (Spinkamar). The Mahsuds were absolutely surprised. The Column dropped down a steep track into the head of the valley and seized the highest village unopposed. Here it bivouacked.

* Now Major-General S. H. Sheppard, C.B., C.M.G., D.S.O.

On the 25th November the Column moved down the Shuran Algad and destroyed twenty villages, blowing up fourteen towers. The Mahsuds made but trifling resistance.

The Report says : " By the evening the Column issued from the Algad (Shuran) four miles from Makin, but it was too late to do more than seek night quarters. At a rapid rate a move was made on the Mahsud village of Bitt Malik Shahi, in the direction of Razmak Plain." (This village is about two miles north of the present Razmak Camp). As the Column crossed the present landing ground, an officer of the 2nd Punjab Infantry was hit in the leg by a bullet from a Mahsud somewhere about the ridge between the present Upper and Lower camps.

On the 26th November the Column halted and the Pathan company 3rd Sikhs was sent over Razmak Narai to the Wazir village of Mamiroga to replenish supplies. This village owed the Political Officer (Captain Down) a fine and the troops came back with three hundred goats. A small reconnaissance with intent to deceive, was sent over the hills into the Shaktu Valley.

On the 27th November, leaving all the sick and tired men in the village, the Column raided Makin (sixteen miles there and back). Having no transport to encumber it, it moved straight across country. The Mahsuds were absolutely surprised and were so busy driving away their cattle and camels, and taking their families into the gorges of Pirgul, that they offered little resistance.

Three towers were blown up (no more explosives were left) and three-fourths of Makin burnt. Demolition work began at noon and the retirement under thick clouds of smoke began at 2 p.m. The enemy followed up to the vicinity of Bitt Malik Shahi village but did little damage, as the Column moved too fast. The Mounted Infantry were most useful in piquetting over that open country, their mobility enabling them to be used several times.

On the 28th November, " the retirement over and down the difficult and wooded Narai was strongly followed up " as the Report says—one dead man had to be left behind, the rear guard was hard pressed.

The Mahsuds stopped their pursuit soon after the Column reached Wazir territory in the Khaisora, but the Wazirs of Mamiroga fired heavily into the rear guard as it passed the village. The Column

then pushed on over the Loargi Narai and reached Datta Khel late in the evening, having marched and fought twenty-two miles since dawn.

Casulties were :—

Killed	..	3
Wounded	..	1 British Officer.
		1 Indian Officer.
		13 Indian Other Ranks.
Total		18

Comments.

The above is a good example of a mobile operation and shows how troops can move when unencumbered with transport. It could be done thirty-two years ago when the tribesmen were armed with only Jezails and a few Martinis and Sniders. To carry out such an operation now against modern tribal armament, some reserve ammunition and much more complete medical arrangements would be required. Even with eighteen casualties in this operation on the last day of the march back, every stretcher and every riding mule of the Mounted Infantry were utilized for wounded, sick or tired men. The men were very tired. The writer's opinion is that they were bigger men than our present-day sepoy and men of much more service. In fact there were many men there with the Kabul-Kandahar Star of twenty-one years before.

This little " show " is a good example of the value of " surprise." " Surprise " of the Pathan or other uncivilized foe is not difficult to accomplish and, once accomplished, the results are great. During the recent " Khajuri " operations four night operations against cave villages were carried out. In each case the country traversed was difficult but the villages were successfully surrounded in the dark. The Pathan is alleged to be a " night bird," but like every other human being he usually sleeps at night, hence the dark hours give the best chance for surprising him ; it follows then that our troops must be carefully trained for night operations, making use of the advantages initiative and training give them.

It is suggested that operations might be more frequently planned against an uncivilised enemy on the lines employed by Tonnochy, *i.e.*, extreme mobility, much reduced transport, and offensive action, and produce good results. Such action would demand some changes

in our modern ideas on equipment and so forth, but might well be successful in meeting an emergency, and should therefore be prepared for. In dealing with Asiatics, boldness and speed spell success and ensure a minimum of losses.

V.—Deductions and suggestions.

Fortified by the lessons of history and his own experiences, the writer now ventures to draw deductions from what he has already written and to make certain suggestions which he considers may be of use to those seeking for a solution to the mobility problem.

(a) Load on the soldier.

It has already been stated that the load on the man, and to a certain extent the transport accompanying, cannot be reduced beyond a certain amount without reducing fighting power. These matters were most carefully examined during the hot weather operations of 1930 by formation and unit commanders, in order to reduce both for the sake of mobility and for climate. Certain things the infantryman must carry. They are :—

1. The rifle and bayonet or pistol.
2. S. A. A.
3. Filled water bottle.
4. Emergency ration.
5. 1st Field dressing.
6. Haversack ration.
7. Possibly a bomb or two.
8. Web equipment.
9. Haversack.
10. Mess tin.

Non-commissioned officers, specialists and others have to carry in addition, binoculars, maps, note books, helios, flags, etc., etc.

The amount of S.A.A. to be carried in the field is a controversial matter. Troops may go out day after day and need none at all, and suddenly without warning a small party may need a great deal. Before reducing, the situation must be appreciated, and the chances of enemy action estimated, and undoubtedly it is better carry too much than too little ; also it weighs so light that to lighten a man's load appreciably, considerable reductions must be made, and this is risky. In the hot weather of 1930, the Infantry carried eighty

rounds per man ; this may be thought excessive in view of the fact that reserve S.A.A. was carried, but it was noted that the men did not suffer any inconvenience thereby. Finally, it was considered better to reduce the reserve S.A.A. which is frequently not readily available when actually required in difficult hilly or thick country.

Food.—The haversack ration must be carried. A man cannot go through a long day from early morning breakfast at 6 a.m. or earlier, to the evening meal at 6 p.m. (if he is lucky) with nothing to eat.

Equipment.—It was suggested in the extreme heat of 1930 that the Indian Infantry should operate like Irregulars in *pagri*, shirts, shorts and *chaplis* only, nothing else, with fifty rounds of S. A. A. in a cotton bandolier slung over one shoulder and a water bottle over the other. After experiments this suggestion was discarded, as it was realised that the standard web equipment is the best means invented of carrying one's equipment and load—it keeps the chest free and open, and nothing bangs about. Anything slung across the chest is to be deprecated.

Haversack.—The few personal things a man requires for a day or two's operation can be put in the haversack which is carried on the back, pack-wise. In the hot weather, for a day or two, most of the articles laid down in Field Service Regulations should be left behind, *viz.*, change of underclothes, trousers, waterproof sheet, etc. A towel, soap, pair of socks and, possibly, housewife are all that are needed in the haversack. As the weather gets colder more must be carried, *viz.*, a cardigan jacket and a waterproof sheet. In addition, a blanket or two and the greatcoat must be carried on transport ; in fact for winter campaigning a scale of baggage becomes necessary.

It is not possible for troops to fight over hilly country, or indeed anywhere in the hot weather, carrying a pack. It is hoped that in the near future, allowance will be made in Field Service Manuals for the pack to be carried in the transport, as it is at Home. On the Khajuri Plain 1930/31, troops marched on a permanent move from one camp to another carrying a pack, but they never carried it on a day's operations.

The *Mess Tin* is a convenient way of carrying the haversack-ration and is easily worn.

Footgear.—In actual movement, the wearing of *chaplis* instead of boots in stony, broken country undoubtedly leads to speed and mobility and the reduction of casualties. Boots of course must always be taken for general service wear. But it is worthy of consideration whether, for service on the North-West Frontier and Afghanistan, every man should not carry a pair of *chaplis* in his kit. They are very light and a relief to put on in bivouac after a long day. They add enormously to mobility over bad, rocky ground. They out-last boots in wear and are easily mended. Certain units of the Khajuri Force wore *chaplis*. The stony country wore out three pairs of boots in five months or two pairs of *chaplis*, resulting in a saving to Government of Rs. 27/- per man :—

(*b*). *Transport.*

To increase the mobility of Columns in the very intersected Peshawar country during the hot weather operations of 1930, the transport to accompany battalions was modified to suit circumstances, as under. Three scales were worked out.

(*i*) Cart.

(*ii*) All pack.

(*a*) for 12 hours.

(*b*) for 2 nights.

The country rendered " all pack " far the more suitable.

All pack.—(In proportion to normal)—

(*a*). Vickers guns, Lewis guns and rifle reserve S. A. A. reduced to less than one-third.

(*b*). Tools, (12 hours) nil, (2 nights), full.

(*c*). Signalling, full.

(*d*). Medical and stretchers, full.

(*e*). Water, increased by 10 mule loads.

(*f*). Cooking pots, (12 hours) nil, (2 nights), half.

(*g*). Officers' Mess, three-fifths.

(*h*). Supplies, (2 nights), reduced to about half by carriage of no firewood or fodder (to be obtained locally) and by calculation on actual numbers.

Total mules per battalion, all pack, normal 143. As ordered above ; for 12 hours, 50 ; for 2 nights, 77 ; (of which 21 in each case were water).

(*c*) *Training with special reference to issue of orders.*

There are certain matters of training which it is considered adversely affect Mobility. "Mouse" complains in his article of the complexity of modern tactics, as evolved from the teachings of the Great War, especially in the Attack ; and draws attention to the number of preparations necessary before an attack can be launched. This is the teaching of the Senior Officers' School, but then the Senior Officers' School concerns itself mainly with scientific modern war with all its paraphernalia and armament. An officer is expected to be able to modify this, and to use his judgment when opposed to an uncivilized foe inferiorly armed ; and in the writer's opinion the average officer can do so. There are exceptions of course, and one meets from time to time the unintelligent officer who will make the excuse of his Senior Officers' School teaching when criticised for his slowness in launching an attack in the field. It is very important that no attack shall be launched without proper reconnaissance, but, because it is laid down at a Staff Ride at Home that three and a half hours are required to launch an Advanced Guard Brigade in the attack which is to be carried out mainly by fire, it does not follow that that time must elapse before a brigade can attack on the North-West Frontier. The enemy will have either disappeared or will have trebled his numbers, since all the onlookers sitting on the fence will construe the delay to be caused by fear, and, thus encouraged, will have joined in.

On the other hand, a brigade or a battalion cannot be launched to the attack on the command "*Chelo Bhai.*" Indescribable confusion would result and all co-operation would be lost. Full advantage must be taken of the many weapons—artillery, machine guns, aircraft, which we have and which the uncivilized enemy does not possess ; there must be a detailed plan combining the action of all arms. No company or platoon of infantry can attack without reconnaissance ; they must know where they are going, and what ground they will have to cross. Artillery and machine guns must do likewise. It has been found by the writer, after many trials, that after the Brigadier had made his reconnaissance and his plan,

(provided no complicated fire plan was necessary), the forward infantry could move off to attack in one hour's time. The Brigadier, with his plan in his head, can dictate his orders on the ground in fifteen or twenty minutes, officers can ride to their units, the Battalion Commanders, Company and Platoon Commanders, and Section Commanders, can make their reconnaissance and give out their orders, the Battery and Machine Gun Commanders can do likewise, and gain touch with the Infantry they are supporting; the Infantry can move to their positions and can deploy, and the Signals prepare their communications, in forty-five minutes. But this is quick work and can only be done after much practice—in no circumstances can it be done much quicker for a properly co-ordinated attack.

A " Drive " or a " Reconnaissance in Force " can be started more quickly. Orders can then be issued before troops leave their camp or quarters. But it will take half an hour then for troops to form up at the rendezvous and to get their bearings.

The teaching of the School invaluable. It brings to notice countless points which are often forgotten. But these must be employed with discrimination and must be speeded up to the utmost.

By all means encourage individuality and initiative and freedom of action in young leaders, but they must remember that they are part of a greater whole. Loyalty and Co-operation is the keynote, not Independence. It does not assist the issue in hand if the advanced troops go tearing ahead and chasing some shadow in the form of a few fleeing enemy, and never give a thought to or send word back to the Commander behind. All co-peration is thereby lost, the artillery cannot come into action even. This has happened before now. It is Babu Tactics with a vengeance.

(*d*) *Deliberation in the Advance.*

Another phenomenon which leads to delay in the field is the cautious advance, the advance by " bounds." " Bounds " are very good in a promotion examination or a Staff Ride. They gain many marks. They are sound for Cavalry or Armoured Fighting Vehicles which can bound at a rapid pace. They are sound against a civilized enemy who may deliver a smashing counter-stroke. But for Infantry

against an uncivilized foe, this concertina, caterpillar mode of advance doubles the time taken. By all means "complete a certain phase" or "make good a certain line," but do not close up your whole force or even battalion. The tribesmen normally will not stand up to an advance on a broad front; he fears being outflanked. If by chance he does stand so much the better. Against Asiatics risks must be taken, and the chance of suffering casualties faced—"safety first" will never succeed. Remember Lord Roberts' decision to fight the battle of Charasia and the results achieved.

There is too much thought of the loss of a rifle or of a few men on the North-West Frontier. Covering fire, fire and movement inside a small unit, are necessary in the last isolated advance of a piquet or similar occasion, but in the general advance or retirement in a brigade or battalion operation troops must trust the troops behind them, the artillery or the many machine guns, and neighbouring troops, to cover and support them. If a brigade or unit is trained as it should be, this support will be automatic. If every sub-unit is to think of nothing but itself, to cover itself and act as if it is a hermetically sealed compartment, the advance of an attacking force must be slow, and Mobility will be lacking.

(*e*) *The need for well organized rapidity of action.*

In a brigade or divisional operation time is everything. Everything must be done to ensure speed; not a moment must be wasted. Every officer should continually bear this in mind. The writer contends that officers, as a rule, both in office and in the field, are apt to act too deliberately. Darkness, that friend of the defeated, comes on all too fast: the day is never sufficiently long. It is an urgent necessity that the Signal procedure should be cut down to the absolute minimum necessary. There are too many precautions against possible mistakes. Something similar to the naval procedure and the artillery code, when infantry report targets, is greatly needed.

But the main aid to Mobility and speed of operations is a well-trained brigade and units who know and trust each other and will work without orders in co-operation and mutual *liaison* towards the common end. It should be the object of all that orders in the field should be as few as possible.

Infantry formations and units should adopt cavalry methods to a greater extent. The presence at Brigade Headquarters of Commanding Officers during the approach march, and of the Commanding Officer of the Reserve Battalion during all stages of an action, is an invaluable aid towards rapidity of action. Their presence means personal touch, the secret of Mobility and rapidity of action.

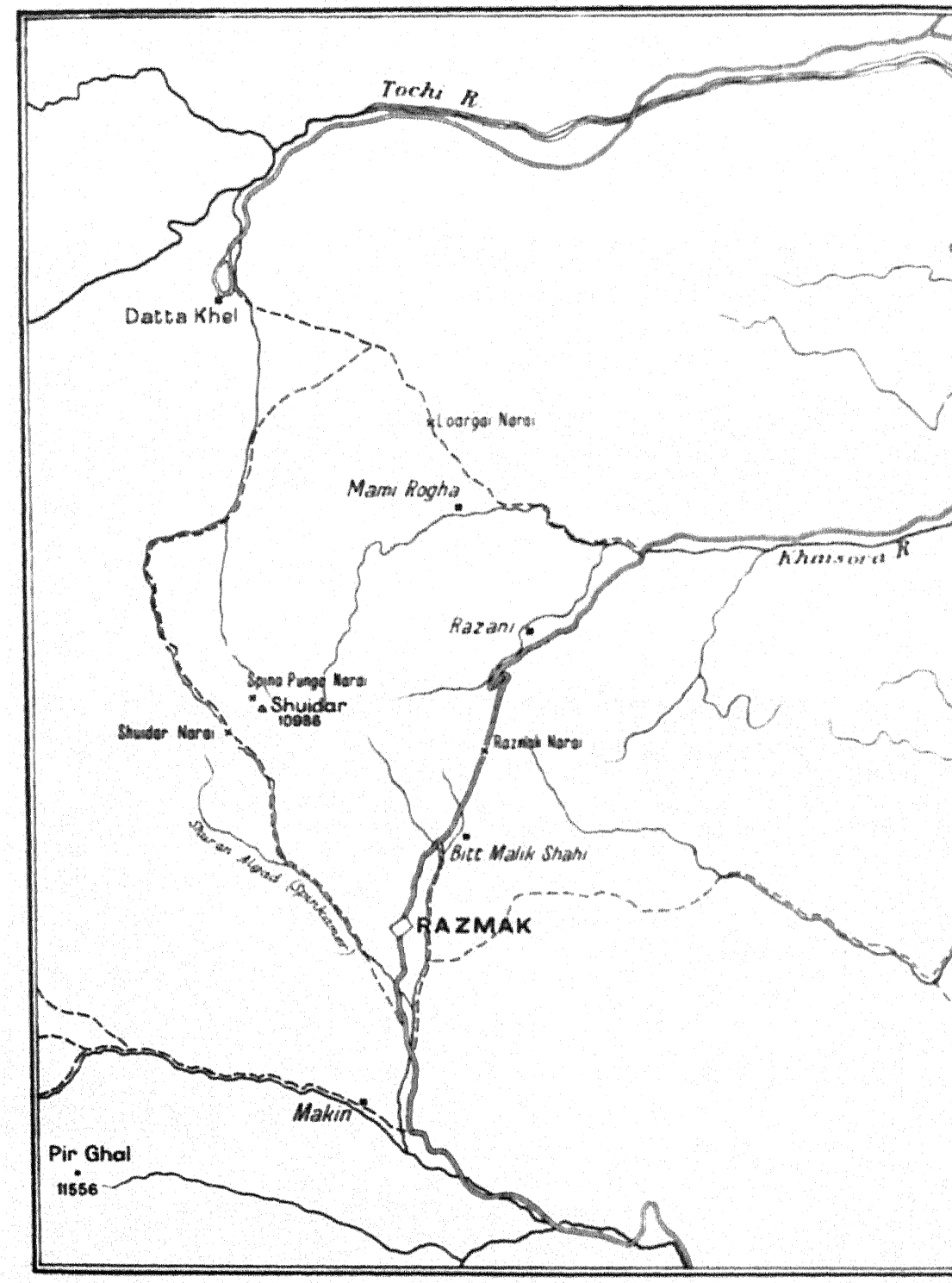
VI.—Conclusion.

What the writer saw of the troops of the Khajuri Force last winter gave him the impression that they were thoroughly mobile, active and energetic.

They frequently engaged the Afridis ; they marched long distances, and when not marching made miles of road, so that mobility might be increased by opening up the country for mechanical transport.

The writer does not agree that they were over-armed and consequently could not move. The Afridis would not agree to this. A modern infantry brigade now possesses much fire power and can deliver an overwhelming blow ; experience suggests that this increase in fire power has not interfered with their pace of movement in rough or broken country. The machine guns and Lewis guns never retarded the riflemen in their movements. Although possibly a machine gun on mules cannot cover so much ground as one in a Carden-Loyd carrier, it can move in places where the latter can not, and usually it can conform to the movements of the riflemen. It is thought that the average Commanding Officer on the Khajuri would not willingly give up a single one of his Lewis guns. It was proved several times that the Afridis respect an automatic ; while they do not fear rifle fire in the same degree.

Troops changed camp frequently and became adept in settling down and making sufficient protection at the end of a long march. The construction of too solid camp defences with huge 5·9″ proof traverses and parados in a perimeter camp, which it is not intended to occupy permanently, is not to be encouraged, as massive fortifications tend to suggest sedentary warfare. One must take precautions, but must be prepared for a few casualties.



G.D.O. S.I. No. 6635, 12-31.

Scale 1 Inch = 4 Mil

Miles 5 4 3 2 1 0

Troops became very skilled in taking down and putting up a double apron wire fence round camp. They could dismantle such a fence in forty-five minutes the day before the move, take the wire by lorry to the new camp and re-erect it there in the same time. A wire fence is not really necessary round a perimeter camp which is only to be occupied temporarily—the Inlying Piquets sleeping on the perimeter (some 25% of the strength of the force), are sufficient protection ; but in a permanent camp wire saves sentries. In Permanent Piquets wire is always necessary to economise garrisons.

Even the fire-places in offices and messes were mobile ; on move of camp these were pulled down, the 400 bricks taken by lorry and the fire-place rebuilt and a fire burning on the second day in the new camp.

Some of the troops made 65 miles of road and marched 845 miles over the Khajuri and Aka Khel Plains. They learnt to manœuvre and operate on a broad front in very good co-operation of all arms, at a rapid pace with very few orders. They attained great physical fitness and habitually moved on marches of often twenty miles or more across very broken and stony country, at a pace of three to three and a half miles per hour including the ten-minutes hourly halt.

Although we failed to catch the Afridis and to annihilate them during the summer of 1930, the writer contends that they had the conceit taken out of them during the ensuing winter. They suffered great material damage and lost all their trade, and they have done nothing since but bicker amongst themselves. They boasted that Tirah was their father, Khajuri Plain their mother, Karawal Hill their son, and Besai Ridge their daughter, and that they would never give up any of them. They have had to give up three out of the four without any option in the matter.

A LITTLE GAS.

By "Mouse."

I know nothing about gas *qua* gas. I don't know how it is made, used, smelled or avoided. (Let me hurriedly add, for the sake of my next confidential report, that I have read the pamphlet, "Defence against Gas," but the mere reading of books doesn't make one a meter inspector). On the other hand, like all other good generals, I am not in the habit of decrying any new gadget in warfare until I have had a look at it, and in the particular case of gas I have kept a mind so open that it is almost vacuous. One's young mind is soft; it ought to be soft and ready to receive or reject impressions. On that amorphous mass the experiences of years should crash, punch and bounce so that in the end it becomes a more solid, splendid thing, fashioned from subaltern clay into a resilient mould destined to fit either a Field-Marshal's hat or a Lincoln and Bennett like mine.

Now, since the war the question of gas has been mishandled most alarmingly. For this state of affairs we must blame the unctuous snobpiddlery of England. Just because the Germans were clever enough to add gas to their armoury, thereby taking France and England by surprise—war's gravest error—France and England appealed immediately to Humanity (*i.e.*, British non-conformists and the U.S.A.) to cover their own egregious lack of foresight by denouncing their enemy's brutality. Personally, I would just as soon have a whiff of gas in the lungs as an Afridi bullet in the guts, but that is because I am not a romantic. War is not a gentlemanly recreation; nor are civil commotions, manœuvres, or inspections. The chivalry and the glamorous history of past ages are employed to hide the dirty work involved in these military affairs with such effect that the civilian population of the world even yet hug to themselves the delusion that war is governed by rules, regulations and codes of precedence. This is why statesmen, whose sense of proportion had been distorted into idiotic phantasmagoriae by their own propaganda, decided after the war that the use of gas was reprehensible, and should therefore be prevented by high-sounding conventions and regulations. Gas is now Taboo. But if a big war breaks out to-morrow every aspirin and cascara factory in the world will be converted to produce high pressure

cylinders of the most death-dealing gases which chemists can imagine, and the civilian population will have no further need of relief from the miseries of headaches or constipation. You can't argue with death.

This sounds very bloodthirsty, but we soldiers in the British Empire are of course pinning our fate on the Disarmament Conference plus the League of Nations to prevent any more international struggles —except, perhaps, scuffles between Russia, Japan and China, with the U. S. A. as referee, and England and France as judges— and consequently the immediate possibility of Merger Gas Trusts is remote. In the meantime we have to serve India, or bits of it, and in this sphere I am desperately interested. Heaven forbid that I should exhume the corpse of the Simon Report to divulge that in India there are a certain number of peoples who don't see tooth to tooth, but most soldiers have rather bitter and unpleasant experiences of helping the civil power to control the "dumb, depressed millions" when they become vocal and exhilarated. If I may be forgiven I would like to quote a couple of trivial personal examples of non-violent operations in which I played a walking-on part. In each case I would have liked to have used gas.

The first example occurred in the south of India two days after certain under-dressed gentleman had his political reputation saved by being entertained in one of His Majesty's rest-houses. A police-station was stormed causing more excitement than damage. A platoon of British Infantry was requisitioned to move down a broad street thronged with several thousand excited Indians, of whom perhaps seven *per cent.* had any political views. A very gallant I. C. S. officer headed the procession in a dilapidated two-seater which was mauled slightly. Events took a more serious turn when a local butcher sought the abode of hour is by attacking the platoon commander with a carving knife. He was eliminated by the "in-out-on-guard" motion of our bayonet fighting manuals and wiped off by a tidy-minded N. C. O. into the gutter. Then the fun started. Three persons, so far as I remember, were killed, one of whom deserved death, the others being perfectly innocent spectators who had the temerity to watch the excitement from their adjacent houses. Once you loose off a bullet you can't control it and ricochets have an incredible ability to do exactly what the firer did not intend. A couple of gas bombs would have cleared that street.

The next example is more personal. Owing to death, sickness and absence on leave of all suitable officers, the duty of commanding troops in aid of the civil power once devolved on me. Naturally enough, the civil powers were rather indignant, but the Area Commander, deciding according to the excellent tradition of the service that Age and not Efficiency is the criterion, pushed me down with a hundred rifles and two well-armoured cars to preserve peace and harmony during a religious festival. The occasion would have been normal, merely the annual veneration of a Sikh Guru's tomb, if it had not been aggravated by the fact that it occurred in the close vicinity of the largest Mosque in the Province on a Friday. Three weeks previously the city had witnessed the greatest Sikh-Muslim riot in living memory, and the situation would have been described by our Intelligence experts as "giving serious cause for anxiety among the local authorities." Only those who have partaken of communal riots in India can realise their hopeless and incredible brutality. One can't write about it. (If I were Dictator of India, I would collect the three hundred leaders of the various religions, lock them all up in a room without food or water, and make them evolve a common religion, which I would christen Common Decency. I would then order them to enforce it. After that I would go down to posterity as the only far-seeing statesman who realised India's need and quietly cut my throat.)

To get back to me as Officer Commanding Troops. Picture a lone infantry officer, of a service within all the axeable ranges peering over the enormously high wall of a great fort. Down below to the right was the Guru's tomb with the close area swarming with enthusiastic Sikhs. A happy crowd, and apparently all out to have a good excuse for making a jolly day of it. A police officer told me that there were five thousand Sikhs and I thanked him for the grim information. Just beyond this medley was the plinth of the Mosque, large enough to hold a Brigade parade, where the excellent police had tactfully interposed a fence of tent walls between the two worshipping peoples. For that I was grateful.

Some time between three and four of this hot afternoon in June six thousand Mohammadans issued from their devotions and crowded the enormous plinth. Although I, Officer Commanding Troops and all, was watching them from the wall of the fort, they advanced in billowing array to the edge, raised their *lathis* and called out, "Allah ho Akbar!" One does not often hear six thousand worshippers giving tongue like

that, and I confess that the roar gave me no spiritual exaltation. My diaphragm slumped like it does when my immediate G. S. O. 2 catches me kissing his typist during office hours. The response from the Sikh crowd was immediate. A shudder ran through them. Then they divided, the women and children taking the safe direction, and the men gathering to face the Mohammadan hosts. Shrill cries of "Sat Sri Akal!" rent the dancing air. Police whistles sounded. A body of armed police ran in a compact mass from the Fort Gate to reinforce the thin line of constables guarding the tent-walls. The Mohammadans gave another throaty roar and a forest of staves was brandished. The Sikhs surged forward. I wished devotedly that I could have a talk with my mother, so I rang up the Brigade Major. In rapid sentences I told him the situation. "Splendid!" he said "We rely on you, old boy." I would have preferred my mother.

About two hundred yards to the right front the frail tent wall collapsed and a scuffle ensued. The District Magistrate, who was holding my sweaty hand, collected his last police reserves and dashed out towards the centre of the religious dispute. Before going he mentioned that if things did not improve I was to take any action necessary, and he politely signed my previously prepared order to fire. He and his little band were then swallowed up in the crowd.

More skirmishes became apparent all along the front line. The time had come for me to do my stuff. Not knowing what on earth to do, I sent out the two armoured cars with orders to cruise up through the Sikh crowd, turn at the entrance to the plinth and move down between the two factions. On no account was fire to be opened by the Armoured Cars, as I would cover the movement from the fort wall. The cars, electrified, moved out with the snouts of their machine guns quivering as if they smelt blood; a thanksgiving spectacle which would have done the Adjutant-General and all others in authority good.

An hour later the Mohammadans had dispersed, the Sikhs were continuing their fun, and I, with a pipe and drum band, was route-marching round the area, looking as if I was doing it for exercise. Now, this is no dramatic story, and has no military lessons. I asked various military officers of senior rank what they would have done in the circumstances and they all assured me they would have done exactly the same. Liars. When I asked them what I ought to have done

if a riot had occurred, I could elicit no satisfactory reply. If a large scale riot had developed my problem was twofold :—

(*a*) Should I have marched my hundred rifles through a mass of eleven thousand men and run the obvious risk of being over-whelmed by sheer weight of numbers ? I could have shot or bayoneted a passage, of course, but *cui bono* ?

(*b*) Should I have lined the parapet in perfect safety, warned the crowd with bugles, and opened controlled fire on the various centres of rioting. This sounds admirable and was disconcertingly feasible, but I would most certainly have killed several policemen and probably the District Magistrate. Then you can imagine what the Court of Inquiry would have said, the lambs. The brave soldiers firing into a crowd from a position of perfect safety, killing Government servants and *not* stopping the riot—Brutality, Sacrilege, Indifference, Incompetence !

Anyhow, I was lucky, but if I had had gas projectors ! In that particular situation gas would have created a panic, but firing from the Fort wall would have also caused a stampede plus a certain amount of carnage.

The politicians are terrified of gas. Propaganda has given it such an ugly reputation that it is now classed with the more bestial things in warfare, such as eating bully-beef and raping nunneries. The bullet and bayonet have acquired the dignity of long usage, and although their use in civil commotion is deplorable, it is considered far safer to employ these weapons which we all know and respect than to risk the hullabaloo which a few gas bombs would certainly raise.

The main objections to gas are :—

(*a*) Its novelty.

(*b*) The unknown consequences which might follow its employment in a crowd—Panic, stampede, death of people by trampling and so on.

Presumably these inadequate reasons are sufficient to prevent even experimentation. This attitude is so conservative that it reminds me of an old Irish woman who refused a lift in my motor car because :—

(*a*) she had never been in a car before, and

(*b*) the bumping of the car might break the eggs in her basket. So she walked.

I have called these reasons inadequate because I think they are the reflection of public opinion which is generally both ignorant and stupid when it is consistently uninformed by the leaders and the press. The use of gas for civil disturbances is not novel. It has been used effectively in Africa, China, Germany and America during the last ten years. In America the latest home of civilisation in its westward trend, tear-gas is now a commercial product, and is used extensively for the protection of banks and bullion go-downs. In Chicago that model of civic virtue which is aped so indifferently by some of the intelligentsia in Bengal, the police are equipped with tear-gas outfits and in encounters with mobs have invariably upheld the honour of law and order without having to resort to methods which leave bitterness behind. The communal riots which occur in America are frequent and take the form of bloodthirsty mobs attempting to lynch negroes in police custody. The tackling of these temporarily maddened crowds is difficult, not merely because the sympathy of the state forces may well lie with the " enemy " but because any deaths caused by force in a democratic country leave a terrible memory which nothing effaces.

In a few years time India will have exactly the same problem. Complete Indianisation of large parts of the armed Indian forces of the Crown and the possible reduction of the British garrison will impose a tremendous responsibility and an unnatural strain on the security services. Are you going to get a Mohammadan armed body to fire on a Mohammadan mob looting a Hindu temple ? Sez I. Are you going to get a Hindu body to break up a recalcitrant Hindu crowd who may be planning the immediate exploitation of their Mohammadan fellow-citizens ? These are not rhetorical questions ; they come through one's mind frequently but are rarely uttered. Human nature being what it is in India I find it difficult to believe that our perfectly fair, impartial, but strong, methods of dealing with obstreperous mobs will be successful under Swaraj. The keystone of British rule in India has been its unimpugnable impartiality to all religions.

When the keystone is removed the arch may cave in. But Indian administrators will in their wisdom shove it up for a while by searching around for different means of crowd dispersion. It has been comparatively easy for us, so-called aliens, because even in those unfortunate occasions when the innocent have had to suffer with the guilty the population have readily conceded the truth that accidents will

happen in even the best regulated riots. The same population will, however, judge their own blood rulers more harshly and will rarely give them the benefit of the doubt. We have taught India a thing or two in our time, but now towards the end we seem to funk showing her the benefits of the most humane weapon, tear-gas. When communal disturbances occur, and in my present mood of justifiable pessimism I foresee riots and bloodshed which will make Cawnpore look like a pleasant little fracas, the civil authorities and internal security services, no matter how idealistic and impartial, will have to use rifles on their own co-religionists, and Heaven knows where it will all end.

If I were the first new ruler in India, I would call to me my Chief of Police. To him would I say "*Dekho, jawan*. I want every provincial police force to have tear-gas squads in every town of over a lakh of inhabitants. They will be equipped with sprayers, bombs, candles, fast lorries and masks. They will be used in all civil disturbances, backed by armed police and the army. The army will be used, as in the times of the British, as the last resort. Their duty will be to kill when these other methods fail. But gas, *insha-Allah*, will never fail. *Bundobust karo*." This action would receive the applause of even the extremist press, and probably ensure my tenure of the *gaddi* for its full span of five years, and I would then go down to history as the King of Gas.

In conclusion, it ought to be stated that the object of writing this grave document is not so much to demonstrate my obvious qualifications for very high office in the new Federation, as to point out that the use of tear-gas in India would help to solve the greatest civil and military problem which will confront the authorities, civil war.

THE PUNCHAYET RULE OF THE KHALSA ARMY, 1841—45.

By C. Grey.

Owing to the official documents, which contain essential details of these extraordinary organisations, having only recently been made available, the full account of them has not yet been written, a deficiency I propose to remedy, for they should be of great interest to every soldier of any nation, whether as student or casual reader. Besides the official account, I have drawn upon a contemporary book, the material for which was furnished by the European adventurer, Gardiner, who served with the Khalsa Army for many years.

Though the Khalsa army, or anyone connected with it, could have known nothing of the Decline and Fall of the Roman Empire, their proceedings during the decline and fall of the Sikh Domination bear a most extraordinary resemblance to those of the Praetorian Guard of that period in Roman history. Like that body of soldiers, the Khalsa decided the policy, set up and dethroned rulers and ministers, waged a civil war in the interests of the different factions for mercenary considerations, and so increased their own numbers and demands as to become a Frankenstein monster whom its terrified rulers cajoled to destruction against the might of the English.

The value and influence of the punchayets in the affairs of the army and of the nation, was variously estimated by the officers and British officials concerned with the affairs of the Punjab. Some who had forgotten, or never known of the stiff resistance put up by the disciplined troops of the Mahrattas against the British, despised all native ruled armies, and especially one governed by private soldiers which they prophesied would soon cease to exist through internal dissensions amongst unaccustomed rulers, or otherwise would be an unruly mob which a few volleys would disperse. Others, more thoughtful, realised that they were holding the Khalsa army together and by maintaining its training and cohesion, perpetuating an army, which, as early as 1838, Havelock and others spoke of highly.

It was very necessary that the British should keep a vigilant eye on the Punjab and its condition at this period, for they were then engaged in that war with the Afghans which ended so disastrously in the first phase, and for which they had obtained the use of Peshawar as an advanced store depôt and general base. As this was separated

from British possessions by the whole width of the Punjab, it was most vital for the safety of the large numbers of troops passing up and down, and especially for the enormous and valuable convoys, that the Punjab should be peaceful, and the Khalsa troops under control. The magnitude of the latter problem may be estimated from the fact that one convoy alone, which passed the Ravi at Lahore in January 1841, consisted of eleven elephants, two hundred and eighty-seven bullock carts, six hundred pack bullocks and nearly three thousand camels, loaded with ammunition, stores, treasure and supplies, all most tempting to a disorderly soldiery, especially when it was guarded by only four hundred English, and six hundred Indian soldiers.

Those who should have known best from close contact with the Punjab, were contemptuous of the potential danger to the British possessions, believing that the Army of the Khalsa, never formidable (in their opinon), would soon disintegrate, or, if not, could easily be dispersed at any time by a few British guns and a brigade of infantry. Of these was Mr. Clerk, Agent at Ludhiana, who from the very commencement of the anarchy in the Punjab, had pressed the government of India to intervene with armed force pledging himself that the suppression of the army and the restoration of order was merely a matter of a few field days between Lahore and Amritsar. He had actually ordered the Officer Commanding Sirhind and Ambala to advance troops to the Frontier, and called out the levies of the Protected States with that object, and was exceedingly angry when the Government, already regretting their interference in Afghanistan, sternly told him to drop the idea and cancel his orders. What might have happened, a few months later, had he roused the hornets, nest of the Punjab when the disasters in Afghanistan rendered it necessary to send up more troops, is easy enough to understand. Those who had rashly rushed into the restoration of Shah Shuja to an unwilling nation, had now gained ,ense, or prescience.

Of those who had a truer perspective was Henry Lawrence, then Assistant Political Officer at Peshawar, who, in 1846, wrote in the Calcutta Gazette what he had practically told the Agent six years before. He remarked :

"For long before this war, it was the custom to under-rate the valour and deride the discipline of the Khalsa Army. But, anarchy may have its strength. Its wild and convulsive throes may annihilate

all within reach and, by mad assaults, overthrow kingdoms and abolish dynasties. But, it was left for the Centurion and the Soldier of the Khalsa to prove that both alike are possible, while not only preserving their organisation and discipline, but even training themselves for a strong and vigorous offensive, even whilst apparently only intent on murdering tribunes and pro-consuls, and plundering the treasuries of the nation."

Before proceeding with the narrative it is necessary, in order to understand the allusions to the different units, etc., that a brief account of the Army of the Khalsa at the time of the death of its founder, Ranjit Singh, should be given and some explanation of the causes which led the Sikh soldiers, afterwards the most law-abiding and amenable to discipline in the service of the British, to become what they did, and why they resolved themselves into petty republics, governing the nation by their delegates.

At this time there were about thirty-six thousand regular troops infantry, artillery and cavalry, all uniformed, trained and organised by European officers on the French and English systems ; the former prevailing in the infantry and cavalry, and the latter in the artillery, which was trained and, in a measure, officered by British and Indian deserters from the Company's artillery. The infantry battalions were assembled in brigades of two, three or four battalions, a few, used for tax collecting and small expeditions, being left unbrigaded. Amongst these latter was a battalion of Ghoorkhas, the most trustworthy of all, who were usually employed (at the height of the anarchy) in defending the reigning personages and the treasury within the Fort of Lahore.

Each of these brigades was a self-contained small army having, besides the battalion guns (two to each), a battery of field artillery and a proportion of cavalry, regular or irregular, attached to it. The *elite* of the brigades were those bearing the names of the European Generals Avitabile, Court and Ventura, who had raised and trained them ; that of Ventura being the model and training school. The infantry totalled about 27,000 men in thirty-one battalions. They were not all Sikhs, though that of Ventura contained the largest proportion, but comprised Hindustanis (mostly deserted or disbanded from the Company) Pathans, Ghoorkhas and Punjabi Mussalmans.

The artillery numbered 4,500 men manning about 350 guns of all calibres, of which a number both men and guns, were kept in reserve,

near the Fort of Lahore. There were nineteen field batteries mostly 9-pounders on a British model, but far heavier in metal and therefore adapted for a heavier charge, which enabled them to outrange the English guns in the battles of the Punjab wars. The gunners were mostly Punjabi Mussalmans, and Henry Lawrence spoke highly of this arm, a praise justified by the damage they inflicted on the English armies.

The cavalry consisted of seven nominal regiments divided into Cuirassiers, Dragoons, and ordinary cavalry, none very efficient, for Ranjit Singh had only tolerated them to round off the Europeanised part of his army, and had a force better adapted to his needs in the Ghorcharas, or irregulars.

This force was the natural army of the Punjab and the direct successors of the fighting forces of the Sikh Theocracy before the rise of Ranjit Singh. They were organised on the original system of *Derahs* or camps, each of which was sub-divided into *misls*, or units on a clan, district or village basis, each of which was commanded by either its feudal chief or one elected by the men themselves. There was no uniform system of arms, equipment, or training, their tactics of guerilla warfare, or tumultuous charges, being exactly the same as had prevailed in the Mogul and Mahratta Armies. Yet it was these men who did such damage to the British at Chillianwallah, a battle admirable for their tactics, it being fought in a thick thorn jungle. There were a number of *Derahs*, the principal of which were the Khas, or Royal Ghorcharas, forming the bodyguard, and the Charyaree, or Naulakkha Horse, who only come into our narrative. The latter contained a considerable number of Akalis and Nihungs, both religious fanatics by profession, but always robbers on opportunity. The former were at first recruited from the petty nobility, but latterly were of much the same class as the others. In the beginning, the Ghorcharas were paid by grants of land or remissions of revenue, but, for some years before the death of Ranjit Singh, they had come on the cash pay roll, or what purported to be such. There were 10,000 of them.

Lastly there were the *Jaghirdari* battalions maintained for the service of the state by rajas and nobles who received grants of land (*jaghirs*) for that purpose. There were about twenty-four battalions of varying efficiency, the best being those of the Dogra Rajas, Dhian Singh, Golab Singh and Hira Singh who owned sixteen between them.

Their men were all Dogras armed with a long barrelled musket with which they were very expert. Besides these there were about 12,000 men in the different forts, of which there were 130 scattered over the Punjab, and 1,000 camel sowars, manning 350 *zumbaraks* or swivel guns mounted on camels.

The Regular troops of the Khalsa were paid, or rather supposed to be paid, on the following scale :—

	Rs. to Rs.
General	400 ,, 450
Colonel	300 ,, 350
Commandant	60 ,, 150
Adjutant	30 ,, 60
Major (called Sergt. Major) ..	20 ,, 30
Jemadar	21 ,, 25
Havildar	13 ,, 15
Naik	10 ,, 12
Sergeant (drill)	8 ,, 12
Fourrier (Q. M. Sergt.) ..	8 ,, 10
Sepoy	7-8 ,, 8-8

Artillery and infantry were paid at the same rate, but mounted men who supplied their own horses received Rs. 22/- per month.

Though the scale of pay was about the same as that of the Indian ranks of the Company's army, the soldier of the Khalsa was infinitely worse off, for whereas the one was paid regularly, and honestly, the other only received his dues at long intervals and even then only in part. From this modicum, more cuttings, varying with the capacity of pay clerks and officers who worked in collusion, were deducted. Though the intervals were fixed at four months it was usually eight before anything at all was paid, and, as will be seen from the ensuing pages, very frequently eighteen months and even two years elapsed before officers and soldiers received anything.

How the men lived may be imagined from the acknowledgment of Maharajah Sher Singh, that " the passage of a Sikh Brigade was worse than that of a flight of locusts," which was made in open Durbar shortly after his accession. But this system of perpetual arrears and short payments was not peculiar to Ranjit Singh and his successors for, with the exception of the brigades of regular troops commanded by the European Generals in the services of Tippoo, the Nawab of

Hyderabad, Scindiah and Holkar, the standing armies of Indian rulers were similarly treated.

It should be remembered that until the middle of the Eighteenth Century, Asiatic armies were either feudatory troops or levies *en masse*, costing the ruler nothing (in cash) to maintain in peace and living on the country in war. When the necessities for warfare on European standards were forced upon them entailing standing armies of trained troops, they would not, or could not, understand the necessity for regular payments, and evaded them as much as possible. Hence De Boigne, Perron, and Raymond insisted on the assignment of districts yielding a sufficient revenue, which were administered by themselves. The history of native state armies during this period teems with instances of mutinies for pay similar to those now to be chronicled.

Until about six years before his death Ranjit Singh appears to have paid his standing army fairly regularly, for there are no records of mutinies on this account. But with increasing age, his natural avarice so overcame him that he would pay nothing he could possibly avoid, and in this matter his army suffered worst. These are a few instances. In May 1836, two battalions returned from garrison duty in Kashmir eighteen months in arrear, and, in full settlement, were offered three months' pay by their commander, Raja Kharak Singh, son of Ranjit. On their refusal being reported to Ranjit Singh, the commander was told to *pacify* them which he did by surrounding the mutineers with *jaghirdari* troops and opening fire on men having no ammunition. Twenty were killed at once, thirty wounded, and ten more drowned in attempting to cross the Ravi in their flight.

Even this matter was turned to profit by Ranjit Singh, for he fined the commander Rs. 40,000, of which Rs. 100 was paid to the relatives of the killed and Rs. 50 each to the wounded, so leaving a substantial margin, for the men never got their arrears, being possibly glad to depart without more loss. In 1838 he owned to Captain Osborne, a guest with him, that he had just disbanded some battalions eighteen months in arrears, who had taken to plundering for subsistence. In 1837, the cavalry regiment of Jemadar Khushal Singh protested against a cut of ten rupees in their pay for the benefit of the commander, upon which he turned two guns upon them and mowed a number down.

Besides the peculations by the clerks and officers the ruler himself exacted forced contributions for all occasions of state, such as weddings, births, and other rejoicings, deducting them from the amount owed. There are other cases which might be quoted to show how the soldiers of the Khalsa were ill-treated and robbed by their employer and natural protectors, the officers, but these will suffice to show that the guilt for the condition into which the army fell soon after the death of Ranjit Singh was his own. Not only this, but his lifelong policy of eliminating every Sikh of talent, and trusting only to aliens, left none, individually or collectively, capable of ruling the country, save the Dogra Rajas whom neither army nor nation would accept as their supreme head.

Even before his death the spirit of mutiny was abroad, especially at Peshawar where the Ghoorkha battalion of Ventura's brigade turned their commander, Jacob Thomas, son of the renowned George, out of camp, took their guns, and marched back to Lahore to demand their dues; an example followed by others, though they did not quit their stations. Very soon after the death of its founder, the Sikh nation commenced its decline to a fall within seven years. Within seventeen months two successors had died violent deaths and a third had been cheated out of his inheritance, whilst a number of nobles and others were done to death by the contending factions.

During this period the troops stood by fairly quietly save for sporadic outbreaks on account of arrears, appeased by part payments. But they were fermenting with discontent and ready to support anyone who would pay their arrears and promise fair treatment and regular payment in future. For some time before his own appearance the agents of the dispossessed heir had been circulating amongst the troops on his behalf, with the result that when, on the morning of the 19th of January 1841, he appeared in their camps, they enthusiastically accepted his offer of an increase of pay to Rs. 12 per month, payment of all arrears, and a bonus of four months' pay for their aid in placing him on the throne.

The next day some 25,000 troops with over 150 guns, disdaining all control or leadership by their officers, tumultuously besieged the Regent Rani and the hostile faction in the Fort of Lahore defended by Raja Golab Singh, Dogra (later of Kashmir). The details do not concern the narrative save that the lesson taught by the severe losses due to want of leadership, or co-ordination, had much to do with the

future position of the officers whose value as trainers and leaders was recognised. Baulked in the first attack owing to the loss of all their gunners who were ranged with their guns in the open about one hundred yards from the ramparts, the soldiers turned their attention to the city, wherein they murdered, burnt, outraged and plundered indiscriminately in the intervals of the siege of the Fort. Worst of all, they now turned upon the officers and writers, who for so many years had robbed and oppressed them, and wreaked a fearful revenge upon them and all their belongings. On the fourth day the garrison surrendered on terms and, taking advantage of most of the troops being away plundering the city, got safely away at midnight with a vast amount of treasure taken from the Treasury by Raja Golab Singh. After about seven days plundering the satiated troops returned to their lines for a few days, after which they commenced to agitate for the performance of the promises made to them. They were offered, and accepted, on account, a sum of Rs. 10 to each man, with Rs. 50 for the wounded and Rs. 100 for the relatives of the dead.

Finding no more offering, on the 30th January near upon 30,000 soldiers of all ranks and classes assembled on the parade ground outside the Fort and demanded a settlement of all the promises, and their arrears, threatening to storm the fort and kill the new Maharajah and his faction if they were not paid. In the end twenty lakhs of rupees were distributed, with which, satisfied for the moment, the troops returned to duty, or what passed as such. Still there was much owing to them, and now realising that, for self-preservation, as well as successful negotiation, some system of government, and continuance of training, was absolutely necessary, the troops adopted the system of village councils, or Punchayets, so familiar to them in the villages from which the great majority came. As to what these were, and how they functioned let me quote an official report by Mr. Clerk:

"6th October 1841.—At the present time the administration and training of the Army of the Khalsa is carried out by their Punchayets, under whose orders act the commandants, adjutants and other officers of the army generally. These bodies consist of two men from each battery, troop, or company, and virtually form the governing body in the State as well as the Army. All those of each regiment are in constant communication with each other, and their duties to each other and the State are determined by the members, all of whom are private soldiers elected by the regiments. The same system has been

adopted in the irregular horse, though these are subordinate to the infantry, who are the most powerful and influential."

The following report written by Colonel Richmond, successor to Mr. Clerk, shews that the system had come to stay;

"2nd January 1843.—The officers of the Lahore Army have very different functions from those of any other army in the world. Though they are responsible for the training, give the necessary commands on parade, and lead in action, they dare not punish, nor reward. Nor are they permitted to have anything to do with the accounts or interests of the men, these duties being supervised by the Punchayets, composed of men from each company who, occasionally with the whole regiment in council, decide all matters connected with the corps. Nor are the officers permitted to reward or punish, this being only permitted by the general voice of the Punchayets, or the regiment. Civilians having dispute with the soldiers must appear before these tribunals, who, naturally, enforce no decision unfavourable to their clients. The members are changed at intervals."

I conclude the official quotations with one from Major Broadfoot, written in the last year of the full existence of the old Army of the Khalsa :—

"16th March 1845.—In the Anarchy now prevailing in the Punjab, there exists a singular species of order within disorder, the former being maintained by the Punchayets which consist of two men from each company. Except in moments of tumult, these men use the language of subordinates, though, substantially, they command. They profess to require a ruler, as well as a leader, declaring that, without order and subordination, neither state nor army can endure. Up to now they have shewn no desire to give the supreme power to any one of their own body, and though their excesses, in the matter especially of women, in the campaigns in the hills were great, they still maintain sufficient order as to attract grain dealers and shopkeepers whose prosperity is scrupulously respected."

"Again, though their officers are looked upon more as equals than rulers, their orders are scrupulously respected and obeyed, and their authority, in carrying out the orders of the Punchayets, upheld and enforced. Such an appearance of order within disorder, is apt to confuse and perplex Europeans especially when coupled with flagrant mutiny, unless they are acquainted with the Indian agricultural

society from which these men are drawn. The system is due to the instinct of self-preservation, and to the habits of self-government acquired by the landowning peasantry in their villages, and its adoption has bound the regiments together in a manner surprising to those not acquainted with rural India."

To return to the period before the Punchayets had gained authority enough to prevent excesses on the officers. The outrages and murders of the officers soon spread to the outlying garrisons and expeditions. In Kulu, Colonel Foulkes was murdered by his men and two other European officers, Holmes and Mouton, only saved by the devotion of the wife of the Frenchman who gathered a few loyal soldiers and rescued them from the camp where they had gone to attempt to save Foulkes. In the Hazara, Major Ford, commanding a battalion,was so maltreated by his men that he died, whilst in both places a great number of Indian officers and writers were killed. At Peshawar a number of similar outrages occurred, though apparently the number was minimised by the presence of the ferocious old Italian, Avitabile, who dealt faithfully with a battalion of mutineers a trifle later

In Kashmir the Sikh garrison broke into the Durbar Hall with their demands, and when these were refused cut down the Governor and burnt him whilst yet alive. But both at Peshawar and Multan the mutineers came off badly, for at each place there were Pathans ready and very willing to attack the Khalsa soldiers for sufficient inducement. At the former place Avitabile, after paying part of their demands to a battalion refused the remainder, and that night turned loose thousands of Khyberees upon them, their reward to be the Rs. 100 or so each man had upon him. After much bloodshed the battalion surrendered, returned the money, and were then disbanded and sent to Lahore to be absorbed into other battalions. At Multan the Governor behaved similarly, with the exception that the Sikhs were then given leave in small parties each of which was way laid on the road, robbed, and sent back to Multan to work on the roads and ditches in chains. There is another account of the inauguration of the Punchayets by Carmichael Smyth who obtained his information from an adventurer named Gardiner, who served Golab Singh and others for many years. This runs :—

" Very soon after the accession of Maharajah Sher Singh, the soldiers clamoured for the fulfilment of his promises, which he could not, or would not, grant in full. After much angry discussion they

agreed to take one rupee per month of increase and one month's pay as bonus. In lieu of the balance, they demanded permission to attack the Camp of Raja Golab Singh, and recoup themselves from the treasure he had carried off from the fort and would have done so, but for the timely arrival of 10,000 hill men to re-inforce him. Thus cheated on the one side and baulked on the other, the Sikhs were in such an angry mood, and became so clamorous when Sher Singh visited their camp, that he told them to send two men from each company, battery, or troop to represent their grievances. It was proposed by Raja Dhian Singh (the Wazir) that the officers should be included. But to this the soldiers would not consent, and confined the officers to ensure their absence. At this conference, the deputies set forth their claims and the Durbar offered terms, though nothing was settled owing to the delegates having to consult their regiments, etc. Matters seemed to have settled down a trifle when Sher Singh visited the camp, but it was not so, for now the soldiers gathered round and told him there was yet a very serious matter to be settled. They said that during the lifetime of Ranjit Singh they had been very badly treated by a number of officers and writers, whom they would tolerate no longer. Therefore these men must be surrendered to them for punishment, or at least sent away to other corps willing to take them. They were given permission to do as they liked in each case. Great confusion now arose as to what officers each regiment should keep and what they should get rid of. One refused to take officers obnoxious to another, whilst a second refused to give up officers demanded by a third. Such a tumult eventually arose that the drums beat to arms, and the men rushed for their muskets. At last, Sher Singh left the camp, telling the men to do what they liked in the matter. These words were the death warrant of many an officer and writer, for the soldiers proceeded to murder all against whom they had any complaint. " Soon the Punchayets got entire control of the State and the Army for, having great power, the leaders were at their command. This power they used for their own benefit selling appointments to the highest bidder only to side with the one they preferred when the decision had to be made."

But, though fairly correct, this is not entirely so, for the troops commenced the murders and set up the Punchayets without any permission, as the daily news letters to Ludhiana from Lahore shew clearly. Nor were the Punchayets absolute, for there are

several reports of punishments inflicted upon them by their clients, in one case half a dozen being bayoneted for making an unsatisfactory agreement. Usually, however, the punishment consisted in their faces being blackened, the men shoe-beaten, and ridden out of camp on a donkey.

The first bargain was the sale of Sirdar Jowala Singh for Rs. 30,000 by the troops who had joined him in a rebellion against some injustice (to both him and them), and the second the handing over of two more obnoxious sirdars, for the sum of Rs. 5,000 cash and six months' arrears. After this the Punchayets seemed to have got full control and mass bargaining ceased, though the consent of the body of troops was essential. This was obtained to an expedition to Kashmir, ostensibly to punish the mutineers, but really to recover the vast treasure the late Governor had collected. In sanctioning this, the troops stipulated that no punishment should be inflicted on the mutineers except by themselves, and when Raja Golab Singh, to whom curiously enough the expedition had been entrusted, lost his temper and exterminated the lot, they became exceedingly angry and fined him twenty lakhs (which he never paid).

But there is the case of the four mutinous battalions who took possession of the Attock Bridge and road with the intention of paying themselves by the plunder of any convoys that came along. They had already plundered three lakhs from a convoy for Peshawar, when intimation of the approach of a great convoy of nine hundred persons belonging to the Zenana of Shah Shuja came to the Political officer at Peshawar, Captain Mackeson. This officer wrote to the Punchayets asking them to permit the convoy to pass. To his very courteous letter, he received an equally courteous reply in which the regiments agreed to his request and, to give more confidence, actually left the road and camped on the right bank of the Indus above Attock. Unfortunately, this action caused the death of many, for over two thousand were drowned in the great flood which swept the country in July 1841.

During the next two years there is a sorry record of almost continual disturbances for arrears of pay, for the same old system was continued despite the known dangers. Though the army was bad, the condition of the rulers and the court was infinitely worse. Debauchery, license and squandering of public monies went on, with the result that the money due to the troops was squandered. The Court and

Durbar were avoided, or merely tolerated by the more sober and responsible elements, and became the Elysium of the scum, a condition which endured until the end, becoming worse, if possible, under the last Regent Rani, whom Henry Lawrence described as a compound of Faustina and Messalina, but worse then either.

For a time the Wazir, Raja Dhian Singh, strove against the tendencies of the Court, though he too refused to pay the soldiers. At last, the tension between him and the Maharajah became so great that each plotted to destroy the other, but the assassins whom both engaged, murdered, first, the Maharajah and his son, and then the Wazir, both within a few hours of each other. They then shut themselves up in the Fort of Lahore which they had gained over from a section of the troops. The remainder numbering about 20,000 at Lahore were then induced by a renewal of the old promise of increases and bonus, to attack and take the fort. This they followed up by again plundering the city for many days.

Six months later they were induced, by a substantial consideration, to attack the uncle and rival of the new Wazir, whom they murdered with all his followers, taking 15,000 men and twenty guns against 300 men without any guns. The next engagement of the troops was to destroy an Akali priest named Bawa Bir Singh who led a raving band of some 3,000 Akalies and Nihungs, all living on plunder. This man had been joined by some of the out-of-power faction who persuaded him to excommunicate the infant Maharajah and all his supporters. By a promise of a gold mohur to each man, and a gold necklet to each of the officers and Punchayets, the troops were induced to march against the Bawa, who, with nearly all his followers, was killed, the slayers consoling themselves for the sacrilege with the vast booty the Bawa had taken from others.

Not long after, intrigues and bribes, together with the non-payment of their dues, turned the soldiers against the new Wazir, Hira Singh, who was chased for twenty miles from Lahore, and with all his followers, some 200 in number, killed and beheaded. The heads of the principals were brought back to Lahore on pikes, and, after the usual ignominous treatment, given to the dogs of the city. Meanwhile, the Court grew worse. None would accept the Wazirat as too dangerous, until at last the Regent Rani made her brother take the appointment on her behalf. Like herself, he was of the

dregs, she having for years lived in the purlieus of Amritsar, and had lovers innumerable.

The details of the iniquities of the rulers are too much to insert here, so we may pass on to the fall of Jowahir Singh, brought about by his own disregard of the claims of the troops, and his murder of one of their favourites who had become a rival. Early in September, the Wazir was arraigned on the following counts, to answer which he was directed to appear before the Punchayets.

1. "That Peshora Singh (his rival, and son of Ranjit Singh) be immediately released.
2. Fulfillment of the promise that the pay of the troops should be increased, and each man given a gold bracelet, when they had given up Raja Golab Singh (another dangerous rival).
3. To show by what authority he had broken up the Brigade of Jemadar Khushal Singh.
4. To account for his having permitted Raja Golab Singh to depart without permission from the troops, and hand over the money he had received on that account.
5. To explain why, on being summoned by the troops to hear their grievances, he had not done so, but fled after reaching the artillery (They had attempted his life).
6. To explain why he had limited his confidence to the Ventura Brigade.
7. To account for his having carried off the guns of the artillery when they were on leave and for keeping 400 guns in the Fort of Lahore, where Ranjit Singh had never kept any.
8. To account for having ordered the troops to march against the English, when he and the other sirdars were afraid to lead them.
9. To answer for his having sent Lal Singh to Ferozepore to offer tribute to the English if they would invade the Punjab and destroy the army of the Khalsa. But they were not such fools as to attack the English, who had not injured them, save at the bidding of the whole nation expressed at the Dasehra.

10. To account for his having assumed the post of Wazir, for which he was quite unfit, when the troops had given the post to the Rani herself.
11. To answer for his disregard of the rule made by the troops after the deaths of Maharajah Sher Singh and Raja Dhian Singh, that all matters of State were to be settled by the ministers and sirdars in council with the Punchayets.
12. In conclusion, though the troops were well aware that Sirdar Jowahir Singh had neither sense or understanding, they require a full account from him."

On receipt of this extraordinary document, the Wazir, depending on the support of the three battalions raised for him by the adventurer Gardiner, and the reserve artillery men, sent a defiant message to the Punchayets, who, on receipt, formally condemned him to death. For the next few days he remained in the fort until the messengers sent to ascertain the fate of Peshora Singh arrived with the news of his death. Next morning the Wazir was summoned to appear at Mian Mir to meet his fate, and, two days later, finding that his own men, though they took his bribes, would not defend him he accepted the inevitable and went out to Mian Mir with his sister, and the young Maharajah, relying on them to avert his fate.

He was at once murdered, and his body mutilated. The next day the troops formally assumed the Government in the name of the Khalsaji da Punth, the title of the Sikh nation before the rise of Ranjit Singh, and issued documents requiring submission to their orders from all civil and other officers, these bearing the name of *God* only. We must, again, for considerations of space, omit much worth recording and pass on to the final act. Owing to the squanderings of the Court, and the increase of the army to nearly double the numbers of 1841 (added by the men themselves), the small amount of revenue collected from a country in anarchy was quite insufficient to meet the demand upon it Daily the attitude of the troops became more menacing to their so-called rulers, who in very self-defence spared no means to incite them against the English. At last, by representing that their own country could no longer support them, and pointing out that the rich lands of Hindustan, were guarded only by a few British and Indian soldiers who had recently been beaten by the Afghans, they induced the men, in spite of the efforts of some of the Punchayets who knew the inevitable result, to march against the English. The

result is well known. In conclusion, let us quote some extracts which will shew the condition of the army of the Khalsa after five years of Punchayet rule.

Henry Lawrence. "At the first battle the English were surprised by finding themselves confronted by steady ranks of infantry giving forth a fire as rapid and effective as their own, whilst the artillery was even better; their guns, by reason of heavier metal, out-ranging the English. The Sikh battalions formed to receive cavalry in a novel manner, this being a triangle instead of a square. The result of this formation was that when the apex was broken, the cavalry found themselves opposed by another line of unbroken infantry, from whose fire they suffered greatly. Even the Sikhs who had been ridden over, flung themselves on their backs and disembowelled or hamstrung the horses as they passed over, so having the dismounted men at their mercy. When the Sikh infantry sullenly retired before our own, the bodies of the victorious cavalry were more thickly strewn than those of the beaten infantry."

Cunningham. "The guns of the Sikhs were served with precision and rapidity, and their foot soldiers stood between and behind their guns, firm in order, and active with their muskets. The resistance met with was wholly unexpected and all started with astonishment. Gun were dismounted and ammunition wagons blown into the air; squadrons were checked in mid-career; battalion after battalion was hurled back with shattered ranks, and it was not until dark that the enemy's position was taken. For the first time, our Sepoy mercenaries had met an antagonist using their own methods and weapons, *i.e.*, equal ranks of infantry and the effective fire of artillery and musketry."

As showing that the collective efficiency of the Khalsa was equal to their individual bravery, we may quote the remarks of another officer, Major Hough. Though this refers to the Second Sikh War, the battalions were the survivors of the original Khalsa Army not engaged in the First War, which was fought by the troops *south* of the Ravi. The second was fought *north* of that river by the troops from the Hazara and Peshawar.

"An officer, who was taken prisoner in the late war, told me that the march of the Sikh Army from the neighbourhood of Chillianwallah was one of the finest military movements he had seen. The Sikh commander first passed his baggage well to the rear of his line of

march and then commenced his retreat, keeping his line of battle intact. Each battalion kept perfect alignment and distance for the whole twenty miles, and so perfectly was the order of battle march preserved that the captive fully believed that the British Army was marching parallel with the Sikhs, instead of being still in camp at Chillianwallah."

It should be explained, before closing this article, that the acceptance of their peculiar position by the Sikh officers was due to the fact that in all Asiatic armies there was no direct entry to the officer ranks by, what is called in Europe, the "officer class." All came up through the ranks and there are many instances of those entering as common soldiers attaining the highest commands.

Hence it was possible for such officers to accept a position intolerable to those of European armies. None of the Europeans in the service of the Khalsa would do so and all left soon after they realised its permanence. The exemplary conduct and discipline of the Sikhs who fought for us in the Mutiny, shew that such men, many of whom had belonged to the army of the Khalsa, were quite amenable to regular pay and decent treatment, as indeed are soldiers of all nations.

THE DISARMAMENT CONFERENCE.

By Captain J. B. Bettington, m.c., King's Shropshire Light Infantry.

The attention of the World will soon be focussed upon the Disarmament Conference which assembles at Geneva on February 2nd, 1932. This article is an effort to set forth very briefly the origin of the Conference, its remarkable international importance and the very great difficulties with which the delegates will be faced.

The Treaty of Versailles left the Nations pledged by Article 8 of the Covenant of the League of Nations to the principle of the reduction of Armaments. It reduced the Central Powers to virtual military impotence, but it left the victorious Allied Nations with unrestricted Naval, Military and Air Forces. During the deliberations before the signing of the Treaty the Allied Nations made the following observation :—" The Allied and Associated Powers wish to make it clear that their requirements in regard to German Armaments were not made solely with regard to rendering it impossible for Germany to resume her policy of military aggression. They are also the first steps towards a general reduction and limitation of armaments .....which it will be one of the first duties of the League of Nations to promote."

Since the signing of the Versailles Treaty the naval treaties of Washington and London have achieved considerable success in the field of naval disarmament. Nothing, however, has been done with regard to the far more difficult and complex problem of the limitation of land and air forces. On the other hand, since 1924, the general tendency has been for all governments, except those within the British Empire, to increase considerably their military expenditure. In particular the air forces of the continental powers have expanded with great rapidity ; Great Britain, which ended the War with an Air Force which was rapidly becoming the most powerful in the World, has now dropped to the fifth place among the air powers.

The Treaty of Locarno and the Paris Pact have done a good deal to make war less likely. In the latter Treaty the Nations have reasserted their will to peace and their determination to refrain from war as an instrument for the promotion of international policy. But pious assertions are of little value when armaments continue to grow

with their inevitable accompaniment of international jealousy and suspicion. In 1925 the Assembly of the League passed a Resolution "to make a preparatory study with a view to a Conference for the reduction and limitation of Armaments." This Resolution led to the establishment of the Preparatory Commission for the Disarmament Conference which finished its work in December last year. It is beyond the scope of this Article to describe the difficulties which were encountered by the Preparatory Commission. They were many and complex. Some of them were left unsolved. The Commission has, however, produced a Draft Disarmament Convention and this will form the basis upon which the Conference will begin its labours.

The Draft Convention is divided into a series of Parts. Part I, Chapter A, deals with the limitation of personnel in the Fighting Services. Personnel are to be calculated for purposes of limitation by "average daily effectives." "The average daily effectives are reckoned by dividing the number of days duty performed in the year by the number of days in the year." This provision means that there is no restriction whatever with regard to reservists who do no annual training. This is an aspect of the Draft Convention upon which further comment will be necessary later. In this part of the Convention are a series of Articles which, subject to the limitation with regard to reserves, bind the contracting parties to restrict the total strength of their personnel to certain fixed maxima to be agreed upon at the Conference.

Part I, Chapter B of the Draft Convention arranges for the limitation of the periods of service in conscript armies, and is consequently of no direct interest to the British Empire whose representatives have frequently stressed the view that until conscription is done away with effective disarmament is almost impossible. Part II is concerned with the limitation of war matériel. Under the first Article the contracting parties will bind themselves to a definite limitation of expenditure on the upkeep, purchase and manufacture of war matériel. There follow chapters dealing with the limitation of naval vessels by categories and of service aircraft by numbers of machines and by aggregate horse power. In Part III are provisions for the limitation for budgetary expenditure on land, sea and air forces. This Article is to be implemented by curtailment of expenditure under certain fixed heads as laid down in a model statement prepared by a Committee of Budgetary Experts.

In Part IV are clauses under which the signatories will bind themselves to publish at stated periods information with regard to their strength in personnel, their budgetary expenditure and details of any new naval or air construction which they may undertake. Under Part V they will undertake subject to reciprocity to refrain from Chemical Warfare, and unreservedly to abstrain from bacteriological methods in War. Part VI contains miscellaneous provisions for the formation of a Permanent Disarmament Commission, for derogations and for methods whereby complaints are to be registered.

This Draft Convention will afford the Disarmament Conference a useful basis, but it leaves severely alone several of the problems which are likely to prove stumbling blocks to a satisfactory agreement. The most important omission is perhaps the failure to impose any limit to trained reserves. This omission is the result of the opposition of those countries whose forces are raised by conscription. It is true that every conscript is counted amongst his country's effectives during his period of service with the colours. Consequently the number of serving conscripts is subject to limitation. As soon however as he passes into the reserve he is not counted amongst his country's " daily effectives " except during the short period, if any, in which he may be called up for training. When considering this question it must be remembered that the continental conscript armies rely in war primarily upon their reservists and not upon their serving personnel. Consequently the Draft Convention provides a most misleading basis for comparison between a long service professional army and a short service conscript army. In precisely the same way budgetary figures do not give a true comparative picture, for the pay, rations and amenities which will suffice for conscripts, are inadequate for voluntarily enlisted professional soldiers. The ease with which figures can be manipulated was well illustrated in the recent debates in the French Chamber when some speakers actually claimed that the French Army was smaller than the British. They based this claim upon figures which carefully omitted all reference to French reservists who practically constitute the manhood of the Nation and run into several millions, while every regular, territorial and irregular in the British Empire was counted.

Another difficult point relates to civil aviation. Under certain articles of the Draft Convention the nations are asked to " refrain from prescribing the embodiment of military features

in the construction of civil aviation material." There are also clauses which will ensure the publication of information concerning civil aircraft. There is a body of opinion which asserts that civil and military aircraft design is diverging so fast that civil machines wil' soon be useless for military purposes. Still it cannot be denied that commercial aircraft in the air are a much more potent source ot danger than merchant ships upon the sea. In addition the provisions of the Draft Convention which limit the engine power of service aircraft are dangerous ; for the nearer the performance of civil machines approaches that of military, the greater is their potential value in war.

Another point upon which the Preparatory Commission failed to reach a satisfactory agreement was that relating to the direct limitation of war matériel. The most logical and simple method would have been to have included clauses fixing definite maxima for all important classes of war matériel, guns, tanks, machine guns, etc. The design of war matériel, is, however, constantly changing. Nations not unnaturally are averse to making public their latest developments. For this and other reasons no agreement could be found.

Enough has been said to show the lines on which the technical problems of limitation will be attacked and the difficulties involved. These, however, are not the most fundamental difficulties with which the Conference will have to wrestle. The basic questions upon which the whole matter rests are political. Until a solution is found to the present state of international tension no amount of technical unanimity will be of any value. A few notes on the present European situation may perhaps therefore be of value.

There are in Europe at the present time three major questions which lead to international friction. These are the Franco-German problem, the Franco-Italian problem and the Russian problem. These problems are to some extent co-related.

The position of Germany may well prove the crux of the whole question. As already mentioned the Treaty of Versailles left the Central Powers virtually in a condition of complete disarmament. The German Army is limited to a maximum of 100,000 men, conscription is illegal, and resort to volunteer forces is forbidden. Armoured fighting vehicles of all sorts are forbidden as are all guns of over 4-inch calibre. Preparations for chemical warfare are not permitted and machine guns and small arms are rigidly limited in number. The

German Navy is limited to a little over 100,000 tons in all and she is allowed to construct no vessels over 10,000 tons. Submarines are forbidden. She is allowed to maintain no military aircraft of any kind. She may not manufacture armaments of any description forbidden by the Treaty nor is she allowed to manufacture arms for export.

Tied down by these rigid restrictions she finds herself surrounded by a ring of heavily armed states under the dominance of France. France and her satellites, the "Little Entente" and Poland, can put in the field at short notice forces over a hundred divisions in aggregate. They can mobilize air forces amounting to over 2,000 machines. In addition, Germany finds a constant source of irritation in the question of the Polish corridor. In these circumstances it is not surprising that the German people are united in their determination to end their present state of impotence, and in their belief that the Allies have failed to implement their promises given at the Versailles Conference. They will never agree to a Convention which perpetuates the present state of unilateral disarmament. If agreement is not reached there is the very real danger that Germany will be forced into an aggressive alliance with Russia or Italy against the French *bloc* of powers.

The renaissance of Italy has led to increased antagonism between France and herself. Their interests clash in the Mediterranean and in Africa. The politicians of the Fascist regime are apt to indulge in flamboyant speeches more with the object of raising national *morale* than with a view to irritating their neighbours. The hostility between Italy and Jugo-Slavia is a source of danger. France would probably never allow the former to crush her eastern neighbour. There is a definite tendency for Italy to range herself alongside Germany or even the Soviet against France. Perhaps the greatest safeguard in this direction is Italy's comparative financial weakness.

Russia is perhaps the biggest stumbling block to disarmament. She possesses the greatest standing army in the world, backed by unlimited resources in man power. With her rapidly expanding air force, numerically at least she already stands equal second with U. S. A. amongst the World's air powers. Her whole policy is imbued with a hatred of western civilization and her people are brought up in the belief in the inevitability of war for the overthrow of the

capitalistic system. The bulk of her Army and Air Force is stationed on her western frontier where she faces the French satellites of Eastern Europe. At present her poor communications and her undeveloped industries militate against the efficiency of her Army, and, as formerly, her mobilisation will be slow and cumbrous. She is making great efforts to overcome these difficulties, however, and the successful conclusion of the " Five Year " plan will do much to dissipate these disabilities.

A few years ago when attending a meeting of the Preparatory Commission she proposed a scheme for universal and total disarmament. Such a plan was of course totally impracticable and she received no support except from China. She has utilized the repudiation of this scheme as an excuse for propagation of the idea that the western nations are bent upon war against her. There seems every reason to believe that she will use every device to attain a military alliance with a disgruntled Germany. Faced with her great and expanding military forces it is quite impossible to expect any measure of reduction of armaments by Poland and the " Little Entente."

There remains the consideration of the position of France and her Allies in Eastern Europe. France has always asserted that disarmament is dependent upon security. She recalls the invasions of 1914 and 1870, not to mention 1813 and 1815, and she is determined to run no risk of further incursions from the East. She asserts that her armaments are purely protective. She is not aggressive and only wishes to keep what she has got. Everyone can sympathise with her arguments and there is no doubt that her intentions are pacific. It is a question however whether she is not at the present time over—insured. In her efforts to assure her own security she has hedged Germany with a ring of hostile powers. By the Treaty of Locarno she has gained a very strong safeguard against German aggression in the future. Belgium is her firm ally and Great Britain is pledged to assist her in the event of further invasion by Germany. That her conscience is not quite at rest is seen by her efforts, which are not always quite disingenuous, to spread the theory of her own efforts towards disarmament. It is true that as a result of her alliances and the Locarno Treaty she has been able to reduce the period of her conscript service from three years to one year. This has resulted in a considerable reduction in the numerical strength of her conscript army. But this

reduction has been accompanied by an increase in her professional element and has in no way reduced the strength of her trained reserve which is her real insurance against aggression.

It will be the task of the Disarmament Conference to induce her to enlarge her international vision. She will have to realise that no great nation like Germany can agree to a perpetual condition of impotence *vis à vis* her neighbours, and that it is only by promoting international goodwill that war can be made impossible.

In the preceding paragraphs an attempt has been made to set forth the importance of the Disarmament Conference and the great difficulties which will have to be overcome before success can be achieved. A failure will not only do no good but may even bring a great war appreciably nearer. Before concluding it may be of interest to include a few remarks with regard to India's position at the Conference. As a member of the League of Nations she will send her own delegation and will have to state her own case which is in many respects unique.

India in common with other members of the British Commonwealth has since 1922 considerably reduced the strength of her defensive forces. There has not, however, during the same period been any corresponding reduction in the complexity of her defensive problems. The Defensive Forces of India are faced with the dual rôle of protecting India from external aggression and of maintaining internal order in India and Burma.

On the North West Frontier the ever present problem of controlling the Frontier Tribes has still to be faced. Along the Frontier are over half a million fighting men equipped with not less than 200,000 modern rifles and ample supplies of ammunition. These tribesmen for generations have known no master and have been accustomed to look upon the plains of the Indus as their legitimate hunting ground for loot. They are fanatical Moslems who regard the slaughter of the infidel as the surest means of attaining salvation. International treaties and the ideals of Western civilization are quite beyond their ken. They believe in force and they respect force and any doctrine which fails to recognise this fact will lead to inevitable disaster. The history of 1930 is ample proof that the security of the people of the settled districts along the frontier depends upon the presence of a strong and ever-ready Army and Air Force.

Behind the independent tribes lies Afghanistan. The present ruler, King Nadir Khan, has proved a loyal friend of India and the British. In Afghanistan, however, the political situation changes quickly and drastically. Dynasties are unstable and the policy of one ruler is often reversed by his successor. In 1919 Amanullah, on the murder of his predecessor, immediately took advantage of the disturbed state of India and her pre-occupation in demobilization to launch an invasion upon the North West Frontier. There is no saying when history will repeat itself.

Behind Afghanistan is Russia. Her antagonism to Western Civilization and Great Britain in particular has already been mentioned. She may well take advantage of a change of policy in Afghanistan to instigate an attack upon India: or she may herself attack Afghanistan. India cannot afford to see the latter fall under the dominance of the Soviet.

In the interior of India the rapid advance towards self-government, which is now in progress, has done nothing to assuage the ancient feud between the Moslem and the Hindu. If anything, racial feeling has been accentuated as has been recently proved at Cawnpore and in Kashmir. The responsibility of the Army to keep the peace in the worst emergency remains unchanged. In Burma and on the North East Frontier the problem of protection against external enemies is simplified by the almost impassable mountain barriers. Recent events in Burma have, however, proved that the ignorance and superstition of the Burmese still constitute a menace to internal order. As a result of the recent rebellion it has been necessary to despatch to Burma six battalions from India's already slender Field Army.

These then are the peculiar circumstances in which India finds herself when she considers the question of a reduction of her defensive forces. It seems most improbable that she will be able to contemplate, or indeed will be called upon to make, any further reductions.

TWO RECENT ACTIONS AGAINST AFRIDIS.

I.—The Night Operations against Spintigga.

10/11*th March* 1931.

Reference :—Map " A "—Sketch map of Aka Khel Plain.

Map " B "—Sketch map Mandai—Spintigga Area.

Throughout the Autumn of 1930, the primary efforts of Khajuri Force were directed to reconnaissance for and construction of roads over the Khajuri and Aka Khel Plains. During the whole of that period there were considerable bodies of Afridis in the cave areas which lie along the foot of the big hills fringing the two plains. The tribesmen were sent down regularly in reliefs by the Khilafatists to worry the troops. When troops went out on reconnaissance or to cover working parties on the roads abutting the hills, small engagements with Afridi bands were an almost daily occurrence, especially south of the Bara River where lie, at the foot of the big Aka Khel Range, and connected together laterally by a covered way, the cave villages from west to east of Miri Khel, Alam Killi, Ghazai Killi, Nawe Garhi and Mandai. This big Aka Khel Range rises steeply 1,500 to 2,000 feet above the plain, and below it is a succession of huge nullahs running south-west to north-east. These nullahs are on the average 80 feet deep and 200 yards broad.

The Afridi is an opportunist and awaits his chance, and, true to his usual tactics, in each of these engagements, he waited until he knew it was about time for the troops to commence their retirement to camp, and it was usually about 2 p.m. before he appeared to follow them up. Faced with modern machine guns, howitzers and armoured cars, he wisely would not venture far away from the hills, and although he incurred many more casualties each time than the troops, he never risked the chance of being punished heavily.

After the New Year 1931, the urgency of road construction was slowed down. Further, the orders of higher authority were to be as offensive as possible and to do the Afridi the maximum material damage. The Afridi is as cunning as a fox and it is hopeless to attempt to outflank or envelop him by daylight. True, in a well ordered retire-

ment one can in favourable ground, draw him on, and with modern weapons inflict some casualties on him. But to bring off a "coup" and to make a bag one must "mystify and mislead." The utmost secrecy and stratagem and movement by night give the only chance. By surrounding at night a village among the hills which he thinks cannot be reached, the troops may kill or capture a large number and can carry out the maximum damage to property which, even if of no great value, is with difficulty replaced by this extremely poor race.

Night Operations.

The Nowshera Brigade or parts of it, carried out four such night operations with success during the spring of 1931, advancing across difficult hilly and very broken country by night and surrounding well before dawn, the villages of Zao, Alam Killi, Miri Khel and Spintigga. All these operations afforded most valuable lessons which there is no space to deal with here.

Unfortunately, on account of the Id after the New Year, the Afridi bands became much smaller. Never once was a bag made as it would certainly have been had these night operations taken place before Christmas.

Zao.

Against Zao, a favourite resting place for gangs whence three main tracks into British Territory diverge, it had been the intention to carry out a night operation from Matanni 8 miles away before the Brigade arrived within gun range of the village. Road construction was however urgent and the operation could not be carried out until 5 days later when the Brigade was at Garhi Jani 5 miles away by tracks, 3 miles in a direct line. The birds who had numbered over 100 in the village a few days before had flown and after a most difficult and most successful night operation only 3 Afridis were found in the village and dealt with.

The feature of this operation was the use made by the two leading battalions of air photos for the night march across very broken and unmapped ground which could not be previously reconnoitred.

Alam Killi and Miri Khel.

The operations against Alam Killi and Miri Khel were both made from Camp about 5 miles away. The greatest care was taken to ensure that these areas were left undisturbed by gunners, the

Air Force and the troops for many days before the operation. Until Christmas both these places had been certain "Finds;" they were about 2 or 3 miles apart and one flanked the other so that each had always been used as a reinforcing area for the other by the Afridis whenever we had visited either place. The nearer part of Alam Killi had been visited six times and every time but one had provided a fight. The country round both places had been carefully reconnoitred from a distance by day and, although the ground was again most difficult and broken, the night "round up" 1½ hours before dawn was most successfully carried out. In both instances one flank had to be carefully guarded and occupied during the night advance thus adding to the operation. Both villages were unfortunately drawn blank. but the enemy arrived during the destruction in some numbers and followed up the withdrawal over the deep nullahs down which they attacked our flank. Considerable skirmishing took place and we incurred some casualties.

Spintigga.

The Spintigga operation was the last and the biggest night operation carried out. Full details of this are given later. As it was situated 12½ miles away from the Brigade camp and in the midst of the big hills it was thought that a bag would be made; it is the home of the notorious Afridi leader Mullah Abdul Quddus and it was known to be occupied by men and also by families.

No secrecy precautions were neglected and the operation was an absolute surprise. But by this time the Afridis had learnt the night habits of the Brigade. Although the troops were camped so far away they had piquets out and into one of these on a hill 1,000 feet above the village the flanking column bumped an hour before dawn. Firing on both sides ensued and the alarm was given. Some dogs also were met with by the advanced guard near some unoccupied caves 3 miles from the nearest part of the village and these too gave the alarm.

Precautions taken.

For all these operations the following measures were adopted:—

(*a*) *Date of Operation.*—The date had to be carefully chosen with regard to the moon. These advances across big hills and huge nullahs would have been absolutely impossible without a good moon. On the other hand, it is impossible for anyone to make good shooting

with the rifle even with a full moon at 100 yards. The moon is particularly required in these operations just before dawn; they must therefore take place after full moon, but not too long after, otherwise it will rise too late. A week to 10 days after full moon was found the most suitable time. They can therefore only be carried out during 10 days of each calendar month.

(*b*) *Secrecy.*—Commanding Officers only were told of the scope of the operation three or four days before the date fixed. Company Commanders were told on the morning before the night operation, and all other officers and men only after Retreat before the night march.

The principal source of leakage of information is very often the Rearward Services and in Cantonments. Units taking part in operations can be trusted to keep silent—those behind do not realise the necessity and are apt to talk. Copies of Operation Orders were timed to reach other formations after the troops had started. Operation Instructions to the R. A. F. were sent in the form of a letter addressed personally to the Wing Commander concerned.

(*c*) *Deception.*—On occasions, bogus orders were issued for the day of the operation, and later cancelled. This proved most effective in stopping clerks of unit offices and outside formations and units talking.

The area of operations was carefully 'nursed,' no harassing fire or bombing being allowed for two or three weeks beforehand, while more attention was devoted to other areas.

Many additional fires were kept alight on the perimeter for several nights before the operation and in the camp generally with the ostensible object of keeping sentries and line guards warm, but in reality so that on the night itself the lights of troops preparing to move off would not be noticed as anything extraordinary.

(*d*) *Rate of March.*—Two miles an hour was allowed for the approach march across country, 2½ miles an hour along the new tracks. These rates of marching worked out satisfactorily.

(*e*) *Animals.*—The danger of mules braying cannot be risked. All noisy mules were left behind. No animals accompanied the leading columns, which in each case consisted of the troops detailed to surround the village and whose march was timed to enable this to be done an hour before dawn. Lewls guns were taken by these troops and manhandled anything up to six miles. A supporting column consisting of

Brigade Headquarters and a battalion followed in time to arrive within supporting distance at the same hour. All animals, mountain battery, machine guns, attached transport and Lewis gun mules marched in a column under Officer Commanding Mountain Battery, timed to join the supporting column at dawn.

Topography of the country traversed in the Spintigga Operation.

Spintigga is situated towards the eastern end of the Aka Khel Range, 1½ miles up a deep narrow valley where the range bifurcates eastward into two long spurs, the northern one (Spur 3230) finishing in the Mandai Gorge and the southern one (Spur 3475), in the Zao Plain, just south of the Gorge. These spurs rise 1,500 feet above the Aka Khel Plain. The village itself is a large one, consisting of several huts and many caves. It is built at the junction of two big nullahs and nestles under a high and very precipitous crag of sheer white rocks, from which it derives its name.

To reach Spintigga, the Column marched 6½ miles south from Jhansi Post where the greater part of the Brigade was encamped. At Nowshera Post, 1/1st Gurkha Rifles from Jula Talao and Nowshera Post joined the Advanced Column. From here the newly made track A 8 leads 2 miles south-west over a broken rising plateau to the northern entrance of the Mandai Gorge. This Gorge which is 2 miles long and runs generally north and south has broken hills on either flank culminating on the west in Spur 3230 and on the east in hill 2763. A mule track, probably made by us in 1855, winds through the Gorge, eventually debouching into the plain leading to Zao, 2½ miles further south. To reach Spintigga the troops had to turn off the track at the southern end of the Gorge and proceed 1½ miles westwards up the valley and the big spurs on either side.

Mandai village is a cave area which extends along the greater length of the Gorge. It had been kept under harassing fire from the Nowshera Post guns for some time and was believed to be unoccupied. West of the Gorge and north of Spur 3230 is a corridor of very broken country where lie the cave villages of Anzari Kandarai, Nawe Garhi and Alam Killi. In December 1930 and January 1931, these cave areas had been full of Afridi bands and it was hoped that they might still be occupied. One to 1½ miles east of the Mandai Gorge are the cave areas of Ganderi and Balkhor which had been unoccupied for some time.

Zao is a large cave area and an important junction of tracks and centre much used by gangs intent on raiding Peshawar District. It was frequently visited by Nowshera Brigade when encamped at Garhi Jani in January but had been left alone since then and, it was thought, had probably been partially re-occupied by Afridis. Two much used tracks lead west from Zao to the Mastura Valley. Along these tracks and in the Mastura Valley itself are many caves which all through the winter had contained many Afridis with their families.

Preliminary Preparations and Reconnaissances.

The operation against Spintigga was fixed for the night 10/11th March. On 7th March 1/1st Gurkha Rifles who had only recently arrived in the area, carried out a reconnaissance from Jula Talao and Nowshera Post as far west as hill 2763, from the top of which a fair view of the scene of operations could be obtained, though Spintigga itself and the greater part of the Spintigga Valley could not be seen. The other three battalions of the Brigade, *viz.*, 1/11th Sikhs, 2nd Frontier Force Rifles and 3rd Dogras had visited the Mandai Gorge on several occasions, but knew nothing of the Spintigga Valley. The reconnaissance of 1/1st Gurkha Rifles was therefore unlikely to attract attention.

Three strips of air photos of the valley and flanking spurs were obtained. Unfortunately they were taken on rather too large a scale and each strip had been photographed on different days. No indication of the white crags overlooking Spintigga was given by either air photos or map. Obliques, which might have been useful, were not available. Nevertheless these air photographs were of great value in locating the exact position of Spintigga. Commanding Officers only were informed on 6th March of the impending operation. No other officers were informed till 10th March and many had not even heard of the place until a few hours before the operation commenced.

Troops Available.

The troops available for the operation were :—

17th Light Battery.

One Machine Gun Platoon 2nd Essex Regiment.

1/11th Sikhs (less two rifle companies*) (Strength 200 O. Rs.).

2nd Frontier Force Rifles (less one rifle company*) (Strength 370 O. Rs.).

3rd Dogras ..(Strength 503 O. Rs.).

1/1st Gurkha Rifles (less machine gun company) (Strength 424 O. Rs.).

*In Bara Fort and permanent piquets.

General plan of operations.

The general plan of operation was for the approach march to be carried out in two columns, as follows :—

(*a*) *The Advanced Column*, consisting of—

1/11th Sikh (less two rifle companies and machine gun company.)

3rd Dogras (less machine gun company.)

1/1st Gurkha Rifles (less machine gun company.)

was to concentrate at Nowshera Post at 02-00 hrs. 11th March. Lewis gun mules only accompanied the Sikhs and Dogras to this point. Subsequently leaving all animals at Nowshera Post, the Column was to secure the Mandai Gorge and the two spurs flanking Spintigga by 06-30 hrs. (*i. e.*, half an hour before daylight). The roles allotted to each battalion were as follows :—

(*i*) 1/11th Sikhs were to act as Advance Guard throughout the passage of the Mandai Gorge, subsequently taking up a position about half mile south of the southern end of the Gorge to block the plain towards Zao.

(*ii*) 3*rd* Dogras were to piquet the route through the Gorge including the Hill 2763 but excluding the Spurs leading up to Pt. 3230.

(*iii*) 1/1st Gurkha Rifles were to form the main body of the Column as far as the southern end of the Gorge. The battalion was then to move west along Spurs 3230 and 3475 as far as Spintigga, dropping piquets as the advance proceeded. By 06-30 hrs. it was to be in position to command Spintigga and cut off the enemy retreat westwards from the village by close range fire. A special detachment was to be detailed to command Nawe Garhi by fire from Spur 3230.

(*b*) *The Supporting Column* was to leave Jhansi Post at 01-30 hrs. 11th March as follows :—

Local Advanced Guard—One Company 2nd Frontier Force Rifles.

Main Body (in order of march).

Brigade Headquarter and Signal Section.

2nd Frontier Force Rifles (less two companies and two platoons).

1st Line Tpt. Animals and Machine Gun Company 1/11th Sikhs.

Machine Gun Platoon 2nd Essex Regiment.

17th Light Battery.

2nd Field Ambulance.

1st Line Tpt. Animals and Machine Gun Company 3rd Dogras (to provide local Rearguard).

Right Flank Guard. Two Platoons 2nd Frontier Force Rifles moving about 50 yards clear of the Column and disposed along its length.

On arrival at Nowshera Post a demolition party from 4th Field Company Sappers and Miners, the 1st Line Tpt. Animals, 1/1st Gurkha Rifles and Lewis gun mules 1/11th Sikhs and 3rd Dogras were to join the Column.

Subsequently the Column was to move on through the Mandai Gorge and be in position at the southern end at 06-30 hrs. (*i. e.*, half an hour before daylight).

(*c*) *Action at Daybreak.*

At 07-00 hrs. 2nd Frontier Force Rifles (less one company) accompanied by the Demolition Party, 4th Field Company Sappers and Miners was to advance up the Spintigga Valley, secure the village in co-operation with 1/1st Gurkha Rifles and proceed with the destruction of all cave areas and property found.

Action of the Advanced Column.

The Advanced Column left Jhansi Post at 23-30 hrs. 10th March and reached Nowshera Post at 01-30 hrs. 11th March having covered the 6½ miles along a good all-weather track at over 3 miles per hour. 1/1st Gurkha Rifles concentrated at Nowshera Post at the same hour, and the whole Column, under the command of Officer Commanding 1/1st Gurkha Rifles moved on at 02-00 hrs.

The entrance to the Mandai Gorge was reached at 03-00 hrs. 1/11th Sikhs moving on through the Gorge as Advanced Guard, 3rd Dogras commenced piquetting the hills on both sides. While these piquets were moving out the barking of dogs was heard both from the direction of Gandheri and Mandai, and it appeared likely that the Afridis would be warned of our approach. Nothing, however, happened at this juncture.

The Officer Commanding 3rd Dogras divided his task into two company blocks, using two platoons of his third company to guard the entrances to Mandai Caves, and the remaining two platoons as his reserve. On the north and west sides of the Gorge, piquets had to cross the deep Star River bed. On the south and east sides, some difficulty was experienced in recognizing certain features, owing to the mule track hugging the hills where, in the dark, every small feature

close to the track resembled a mountain. Nevertheless the piquetting of the two miles of the Gorge, including climbing Hill 2763, was completed in 1½ hours and the Advanced Guard arrived in its position blocking the Zao Plain at 04-25 hrs. With the exception of one slight readjustment, all piquets were found at daybreak to be in their intended positions, an accomplishment which reflected great credit on all the Company and Piquet Commanders concerned. The position of piquets is shown on the Sketch Map B.

At 04-30 hrs., 1/1st Gurkha Rifles commenced the ascent of Spur 3230 with Headquarters and two companies while the remaining company moved off across the mouth of the Spintigga Valley to climb Spur 3475.

In the right column, one company was expended before Pt. 3230 was reached. The second company had just passed through when, at 06-00 hrs, its leading platoon was fired on at a range of 40 to 50 yards by an Afridi piquet of 6 or 7 men placed on Pt. 3230. The platoon advanced to a closer position and opened fire at 10 yards range killing one Afridi and mortally wounding another, while the remainder scattered and fled. Two rifles and a bandolier were captured. The Gurkhas suffered no casualties. The advance was continued under a certain amount of sniping and the position gained overlooking Spintigga by daybreak.

The left column (one company) had a few shots fired at it as it crossed the mouth of the valley, but, taking no notice, climbed Spur 3475 without incident. Afridis were found, however, in possession of Hill 3440, but were quickly driven off, the hill being gained just as daylight broke.

Good Lewis gun targets were obtained from both spurs at daylight as the Afridis hurriedly left Spintigga Village in a westerly direction. Securing these two very big and quite unknown features in the dark was a very fine accomplishment on the part of 1/1st Gurkha Rifles. Their dispositions are shown in detail on the attached Sketch Map B.

Action of the Supporting Column.

The supporting Column left Jhansi Post at 12-00 hrs. and reached Nowshera Post at 04-00 hrs. Picking up the demolition party of Sappers and Miners and animals of the Advanced Column, the march was resumed at 04-30 hrs., and the entrance to the Mandai Gorge

reached at 05-35 hrs. At 05-45 hrs. the Column halted near the Knoll and was ordered to wait there till dawn in order to ensure that surprise was not lost. At 06-00 hrs. however, firing on Spur 3230 was heard. It was obvious that surprise was no longer possible and there was no point in waiting any longer. The column accordingly, was ordered to move on to the southern end of the Gorge, which it reached just before daybreak.

At daybreak, 2nd Frontier Force Rifles moved rapidly up the Spintigga Valley. A few shots were fired from the high white cliff as the Advanced Guard approached the village, which was quickly occupied and piquets put out on the surrounding foot hills.

The demolition party of Sappers and Miners and one company commenced work on the destruction of the village and property at 08-30 hrs. and completed it at 09-30 hrs. One Afridi who was discovered hiding in a cave under a pile of brushwood, from which he attempted to snipe any British Officer seen, had eventually to be bombed out. Continuous sniping went on throughout this period but was kept under subjection by Lewis gun and machine gun fire. 1/1st Gurkha Rifles were continually engaged with small parties of Afridis on the spurs west of spintigga and at 09-15 hrs. both 1/1st Gurkha Rifles and the Close Reconnaissance Aeroplane reported a party of 40 Afridis advancing down the Khangi Khwar (south of Spur 3475).

The Withdrawal.

Before the withdrawal, 1/1st Gurkha Rifles on the southern spur asked for an artillery concentration on the hill beyond their furthest piquets where the Afridis were concentrating. This was given, and the withdrawal commenced at 10-00 hrs. 2nd Frontier Force Rifles evacuated Spintigga and the valley by 11-20 hrs., 1/1st Gurkha Rifles retiring in conformity as far east as Points 3230 and 3475. Leaving one Company, 2nd Frontier Force Rifles then passed through 1/11th Sikhs into Brigade Reserve at the Knoll. The Afridis followed up the company 1/1st Gurkha Rifles on Spur 3475 at a respectful distance but made no attempt to follow up 2nd Frontier Force Rifles or 1/1st Gurkha Rifles on Spur 3230.

1/11th Sikhs now took over the duties of Rearguard, with one Company Frontier Force Rifles under their command and supported by 17th Light Battery and Machine Gun Platoon 2nd Essex Regiment.

The first task was to cover the retirement of the Gurkha company off Spur 3475 where they were engaged with several small parties of Afridis. Thanks to the excellent facilities for covering fire from machine guns and 3·7 howitzers this was accomplished without difficulty by 11-55 hrs. After 1/1st Gurkha Rifles had withdrawn from the big Spur 3475, large numbers of Afridis were seen doubling eastward along the sky-line. They were those who had been reported by the air and 1/1st Gurkha Rifles during the morning in the Khangi Khwar. They were just too late.

The withdrawal down the Mandai Gorge now commenced. Spur 3230 and Hill 2763 were rapidly evacuated by 12-15 hrs. 2nd Frontier Force Rifles were sent on to take up a position on the plateau north-east of the entrance to the Gorge to cover the final retirement. while 1/1st Gurkha Rifles were ordered to take up a position along the Star River, protecting the west flank of the Brigade during its retirement to Nowshera Post. The evacuation of the Mandai Gorge was accomplished at great speed without interference from the enemy, the last troops clearing the Gorge by 12-35 hrs. Machine guns 3rd Dogras obtained good long range targets at 2,200 yards at a party of Afridis on Spur 3230.

The Column, covered by 2nd Frontier Force Rifles and 1/1st Gurkha Rifles, then withdrew to Nowshera Post which was reached at 13-00 hrs. and where a long halt was taken for hot meals, which had been specially sent out from Jhansi Post for the troops. At 15-00 hrs. the march was resumed to Jhansi Post which was reached by the tail of the Column at 17-15 hrs.

The maximum distance covered by any one unit was 26 miles and the maximum length of time out was 18 hours. The Brigade suffered no casualties. It is impossible to estimate how many were inflicted on the enemy, but six Afridis were actually killed or captured and it is probable that they suffered many more casualties from machine gun, Lewis gun and artillery fire during the occupation, and first stage of the withdrawal from Spintigga.

Some Lessons Brought out by this Operation.

In addition to the points mentioned under 'Precautions taken' the following were well-illustrated.

(*a*) The importance of using artillery screens in hill warfare. They can be easily sited so as to give vital information

to our own automatics and guns without disclosing piquet positions to the enemy. In one case this was not done and very nearly led to a platoon being wiped out by machine gun and artillery fire.

(*b*) The importance of training Piquet Commanders to the change in piquetting withdrawal tactics which has been brought about by the increase in Vickers guns. It is now rarely, if ever, necessary for a piquet to withdraw by bounds, arranging for the covering of its own withdrawal. This was done on one occasion and resulted in a delay in the withdrawal of 20 minutes at a critical moment.

(*c*) 17th Light Battery engaged every target seen and carried out infantry clock code shoots with good effect, but the operation was too big for one battery to tackle. It is useful to determine the correct proportion of artillery to an Infantry Brigade. 17th Light Battery in this operation had to attempt to cover 4 miles of piquets, including a sharp change of direction, and watch a large number of main approaches which the Afridis might have used. The difficulties were accentuated by the narrowness of the valleys and the steepness and height of the hills. 17th Light Battery had, in fact, an impossible task, which might have to lead to serious consequences if the Afridis had shown more enterprise. The need for an additional battery was clearly indicated, and was confirmed in other operations. The correct proportion of artillery to infantry in mountain warfare is two batteries to each Infantry Brigade.

Possibility of Delay.

The destruction of Spintigga was a large and complicated night and day operation well carried out by all troops engaged, and the possibility had been foreseen that, if heavy fighting occurred, the Brigade would have to bivouac for the night either in the Mandai Gorge or at Nowshera Post. The night's rations could then easily have been obtained even at a late hour from Jhansi Post or Bara Fort by M. T. over the newly made tracks.

II. The Action in the Gandao Kotal—18*th March* 1931.

Reference :—Map C. Sketch Map of Khajuri Plain.
Map D. Sketch Map of Gandao Kotal.

During the autumn of 1930 when the 9th (Jhansi) Infantry Brigade was encamped at Miri Khel Camp, the Gandao Pass over which is the main route from the Khajuri Plain into the Bara valley and Tirah. was visited three times. On these occasions, the advance was never carried out more than half a mile beyond the Kotal itself, opposition was never met and no casualties were incurred. The Afridis, who were in some numbers south of the Bara River and further north round the Shinkamar Pass and Tauda China, did not seem to take any notice of our troops on this route.

The 9th (Jhansi) Infantry Brigade left Khajuri Force early in January 1931, and three battalions of Nowshera Brigade were moved up from the southern end of the Aka Khel Plain to Jhansi Post which to a certain degree faced the eastern entrance to the Gandao Kotal and is about three miles from it. On 9th March 1931, 2nd (Rawalpindi) Infantry Brigade left Karawal Camp in the centre of the Khajuri Plain for its peace station. Nowshera Brigade (less one battalion) at Jhansi Post and 1/3rd Gurkha Rifles at Fort Salop were the only troops left north of Bara River.

Object of the Operation of 18th March 1931.

The Nowshera Brigade itself was due to leave the Khajuri and Aka Khel Plains on 24th March, when only two battalions, 1/1st Gurkha Rifles and 1/3rd Gurkha Rifles forming the peace garrison, would be left.

The *Id* was over, and the general offensive, which the Afridis had so long boasted they would make after that festival, was long over due. It was thought that, since the Khajuri Force had been now reduced to one-third its former strength, they really might do something. They had been reported to be occupying the caves in the Gandao Pass and to have observation posts on the Kotal itself. A few had been encountered on 14th March at Dora a cave village 2½ miles north-east of the Pass. Considerable numbers of Afridis were known to be in the villages in the Bara and Mastura valleys near the junction of those two rivers, two miles beyond the Kotal. With few troops left and these shortly to be still further reduced, it was desirable to show the offensive and to impress the Afridis with our ability to go anywhere, inside the operational area (see Map C). It was also advisable that some of the troops who had recently arrived to form the peace garrison of the Plain should know the country as far forward as possible.

It was therefore decided that Nowshera Brigade (less one battalion) from Jhansi Post and the battalion from Fort Salop (1/3rd Gurkha Rifles) should carry out a reconnaissance of the Gandao Pass, proceeding as far west up to the extreme limit of the operational area as the Brigade Commander might decide on reaching the Kotal.

Distances.

Jhansi Post Camp to eastern entrance to Pass—3 miles (open plain intersected with nullahs).

Eastern entrance to Pass to Kotal	.. $1\frac{3}{4}$ miles.
Kotal to final objective	.. 1 mile.
Total to be piquetted	.. $2\frac{3}{4}$ miles.

Topography of the Gandao Pass.

The new main road from Bara runs to within 1,000 yards of the eastern entrance to the Pass. Thence the old track made by our troops in 1897 continues over the Kotal and down to Mamanai. Some repairs were carried out to this track by the Jhansi Brigade and it is now in remarkably good condition and fit for light M. T. for most of its length.

The eastern entrance to the Pass is marked by two distinct features, Jat Ridge (Pt. 2770) 1,000 yards to the north of the track, a large feature rising 600 feet relative to the plain, and Punjab Hill, a smaller but upstanding hill about 400 yards south of the track rising about 400 feet relative to the plain. A few hundred yards from the eastern entrance the track drops into a dry nullah bed about 30 feet broad which forms a well defiladed route for a column, but has the disadvantage that it is impossible to see what is going on from it. The track continues along this nullah bed for about 1 000 yards and then climbs out on to the south bank and ascends by an easy gradient with one or two sharp turns about another 1,500 yards to the Kotal. After passing Punjab Hill, the country becomes a tangled mass of big and small hills with no regular conformation, fairly thickly covered in scrub, with nullahs running in all directions—most difficult ground, ideal for Afridi tactics. After the track leaves the nullah bed, it is bounded on both sides by a series of steep rocky heights which narrow to within close rifle range from each other above the Kotal. The heights to the south of the track are rocky outcrops on a sharp ridge which culminates, at the Kotal, in a big precipitous feature with three distinct peaks 600 feet above the Kotal. Those to the north of the

track are broken and irregular, leading up to a single main ridge overlooking the Kotal and 400 feet above it.

The Kotal forms a vantage point from which a splendid general view of the country to the right (north-west) of the track is obtainable.

The ground on this flank consists of three big main Spurs leading down from the Pakhar Ghar Range, with many isolated hillocks and nullahs in between. The furthest of these main spurs, known as Grey Spur, coincided with the limit of the operational area and was the Brigade objective on the right (north-west) side of the track. Owing to the big three peaked hill, nothing can be seen from the Kotal of the country to the south-east of the track, except a whale-backed grey ridge (Whale Back), 1,500 yards south-west of the Kotal. This also lies on the operational limit and was the Brigade objective on the left (south-east) side of the track. In between these two features, the country is an intricate mass of broken ridges and nullahs running into the Bara River just east of its junction with the Mastura. Grey Spur and Whale Back are within 1,200 yards of Mamanai and offer an almost uninterrupted view of the Bara valley between Mamanai and Sawaikot.

It is impossible to indicate on Map D. the broken and intricate nature of the country through the Gandao Pass. Main features and main nullahs only can be shown.

Troops available.

The troops available for the operation were :—

One squadron Poona Horse.
One section 1st Armoured Car Company.
17th Light Battery.
Machine Gun Platoon 2nd Essex Regiment.
1/11th Sikhs (less two platoons) (strength 400 O. R's).
3rd Dogras (less two platoons) (strength 445 O. R's).
2nd Frontier Force Rifles (strength 500 O. R's).
1/3rd Gurkha Rifles (less one company and one section machine guns) (strength 345 O. R's).
2nd Field Ambulance.

General Plan.

The general plan for the operation was for the main Column from Jhansi Post and 1/3rd Gurkha Rifles from Fort Salop to concentrate on the main road about one mile from the eastern entrance to the Pass,

covered by one squadron Poona Horse and the Armoured Cars. The Column was then to enter the Pass, the Cavalry remaining to watch both flanks of the entrance, towards Dora on the north and the Ant Heap on the south, while one sub—section Armoured Cars patrolled to Wucha Garhi on the north and the other sub-section to Miri Khel Camp site on the south. As there were four battalions available, and the distance to be piquetted was very short ($2\frac{3}{4}$ miles), and as the ground was known to a certain extent, and the return was by the same route, it was decided to employ the Battalion Block system in piquetting the Pass. Some remarks on this system in its relation to the modern organization of an infantry battalion are given later.

The Advance.

(*a*) The two Columns concentrated at 08-30 hrs. During the short halt of a few minutes which ensued, one section 17th Light Battery came into action to cover the advance as far as the Kotal. The Column then entered the Pass at 08-45 hrs. in the following order :—

2nd Frontier Force Rifles, finding own advance guard and piquetting troops for 1st Block.
Machine Gun Platoon 2nd Essex Regiment.
Brigade Headquarters and Signal Section.
One section 2nd Field Ambulance.
1/3rd Gurkha Rifles.
One Section 17th Light Battery.
1/11th Sikhs.
One section 2nd Field Ambulance.
3rd Dogras.

(*b*) 1st *Block.*

2nd Frontier Force Rifles quickly seized Punjab Hill and Jat Ridge, placing one platoon on each. Advancing another 1,200 yards, 5 more piquets were put out without opposition as shown on Map D. These seven piquets absorbed 6 platoons, which together with company reserve used up two companies. The third rifle company hitherto used as Advanced Guard came into Battalion reserve. The Machine Gun Company was disposed to support road piquets, with one section in Battalion reserve. The Machine Gun Platoon 2nd Essex Regiment advanced with the battalion in close support, but was not used in the Block.

(*c*) *2nd Block.*

At 09-20 hrs. 1/3rd Gurkha Rifles passed through 2nd Frontier Force Rifles. As this battalion had only two rifle companies available, it used one platoon only as Advanced Guard. In a further advance of 1,100 yards up to and including the Kotal, eight piquets were put out absorbing a total of 5½ platoons, Machine Gun Platoon. 2nd Essex Regiment assisted the battalion machine guns in covering some of these piquets into position.

The Kotal was seized without opposition at 10-10 hrs. Commanding Officers of rear battalions joined the Brigade Commander who decided to advance up to the limit of the operational area and issued orders accordingly. The short halt was made use of by 17th Light Battery to put its second section into action on the Kotal.

(*d*) *3rd Block.*

At 10-40 hrs. 1/11th Sikhs passed through 1/3rd Gurkha Rifles and continued the advance a further 1,500 yards, putting out 7 piquets, absorbing a total of 6 platoons. The last platoon was used in taking Grey Spur, the final objective on the right (north-west) of the track, which was reached by 11-10 hrs.

(*e*) *4th Block.*

This block was in reality an extension of the 3rd Block. The Advanced Guard Company of 1/11th Sikhs remaining in position as such astride the track, 3rd Dogras were ordered to reinforce and take over the final objective. They despatched—

(*i*) One company to secure Whale Back.

(*ii*) One company less two platoons to strengthen the Sikh platoon on Grey Spur.

(*iii*) One company less two platoons to watch two important nullahs north of Grey Spur.

(*iv*) Two platoons were retained in battalion reserve.

Whale Back, the final objective on the left (south-east) of the track, was secured at 11-25 hours.

(*f*) The advance through the Pass to within ¾ of a mile of Mamanai, a total distance of 4,600 yards (2¾ miles) had taken 2 hours 40 minutes and had absorbed the equivalent of 3½ battalions on the Battalion Block System.

The Halt.

During the advance no Afridis had been seen and not a single shot fired, until the capture of Grey Spur and Whale Back, when large

numbers of Afridis were seen in the Bara valley towards Sawaikot and Mamanai and some fire was opened on the Dogras as they took Whale Back. The appearance of our troops on these two features in full view of their villages, families and cattle was too much for the Afridis. Evidently fearing we were coming on, they beat their war drums, drove away their women and cattle and turned out in considerable numbers. War drums were also heard in the direction of the Shamsa Nala and shortly afterwards the Dogras on Whale Back were being fired into at long range from their left rear.

At about 12-00 hrs., parties of the enemy were seen advancing from the direction of Sawaikot but, as they were outside the operational area, fire was not opened on them. The enemy also attempted to work round the Dogras left and up the Shamsa Nala and were engaged with machine gun, Lewis gun and rifle fire at ranges varying from 800 to 1,700 yards with considerable effect. One such party was engaged at 1,500 yards range by the Essex and Dogra machine guns; several Afridis were seen to fall and the remainder disappeared in disorder. The casualties of this party of Aka Khel were afterwards reported by informers to have been ten. The Dogras suffered two casualties during this stage. In the meantime, 17th Light Battery, the whole of which was now in action at the Kotal, engaged some small parties who were attempting to work round the right flank of the Sikhs.

The Withdrawal.

(*a*) *4th and 3rd Blocks.*

The withdrawal commenced at 12-30 hrs. The Dogra company evacuated Whale Back at high speed, the Dogra platoon on Grey Spur conforming and evacuating one casualty. The Sikh platoon on Grey Spur, after withdrawing one-third of the way down, was observed to halt and then re-occupy the spur. It was thought at first that the platoon had suffered a casualty, but it subsequently transpired that the Piquet Signaller, who was necessarily working single—handed, had intercepted a message " Wait a bit " intended for the Vanguard. The danger of a mixed detachment of two units on Grey Spur had been foreseen and special orders had been issued by the Brigade Commander that this detachment was under the command of the 3rd Dogras, who were to detail a British Officer to take command. This officer however was at the time with the supporting platoon and was not therefore in a position to deal with the mistake immediately.

This unfortunate occurrence, which delayed the retirement for fourteen minutes, allowed the Afridis to close up, and led to the comparatively stiff fighting which ensued for the next four hours. Locally it might have had serious consequences, had not the enemy's pressure from the left flank been dealt with by supporting Lewis guns in positions close to the track.

Throughout the subsequent withdrawal, the Sikh piquets on the right (north-west) flank were not pressed, but their piquets on their left flank were all closely engaged, and, subsequent to the withdrawal of No. 5 piquet on that flank, pressure on the Rear Guard was exerted. The value of supports on the hillocks close to the track was considerable. At one time it became necessary to put Battalion and Company Headquarter 1/11th Sikhs (runners, signallers and stretcher bearers) into the fight to prevent the retirement of a far flung piquet being cut off. The Afridi in this area was not content with the occupation of the high features and utilised to the full the several covered approaches converging upon the tracks.

Machine guns in this area had less scope during the retirement than has usually fallen to their lot owing to the intricacy of the scrub covered terrain. From the Kotal, however, they obtained good targets, dispersing parties of Afridis advancing up the track, very materially relieved the pressure on the Sikh Rearguard by silencing enemy who rapidly occupied the south-west peak of Three Peak Hill on the withdrawal of the piquet in that area.

17th Light Battery in action on the Kotal carried out very effective fire on to each position as the enemy occupied it on our withdrawal. At 12-45 hrs. one section was sent back to its former position at the eastern entrance to the Pass. The other section meanwhile, continued to obtain excellent targets on Grey Spur and Whale Back and along the track in that neighbourhood, all of which were heavily shelled.

The 3rd Block was evacuated by 13-40 hrs., the Sikhs suffering one casualty and 17th Light Battery one officer wounded (at his O. P.) during the final withdrawal over the Kotal. 3rd Dogras who had been initially drawn into Brigade reserve on the Kotal were sent on at 13-15 hrs. to a position on the plain clear of the entrance to the Pass. Two companies 1/11th Sikhs were brought into Brigade Reserve about midway between the Kotal and the entrance to the Pass, the remainder of the battalion being sent on to the entrance. The forward section

17th Light Battery withdrew just as the evacuation of the block was completed, to join the other section at the entrance to the Pass.

(*b*) *2nd Block.*

When the rear guard flag was handed to the Gurkhas, many small parties of Afridis were pressing the retirement from the south and south-west. The rear guard and Gurkha piquets 6, 7 and 8 were all heavily engaged with enemy working their way up the track and to the south of it. The enemy varied from organized uniformed parties to parties containing villagers with axes. Some standards were seen.

The withdrawal from the Kotal commenced at 13-40 hrs. Piquets 8, 7, 6, 5 and 4 (*i.e.*, one company block) were rapidly and very skilfully evacuated by 13-55 hrs. As soon as the Kotal was cleared, a large body of Afridis with drums, tried to cross it with a rush but was driven back by machine gun fire. Small parties, however, continued to follow up the rear guard closely down the track and nullah from the Kotal to within bombing range, while others worked down the ridges on either side of the nullah against piquets 1 and 3. Owing to the broken nature of the ground, these parties were difficult to observe until they were close up to a piquet. The main pressure continued on the south side of the road and Nos. 2 and 3 piquets became engaged with parties who had worked round the southern flank. Several casualties were inflicted and in one case attempts on the part of the Gurkhas to secure Afridi rifles were prevented by covering fire from other Afridis in the vicinity, so closely was the withdrawal followed up. No. 3 piquet was evacuated at 14-00 hrs. and the end of the Gurkha block almost reached, when events further in rear in the 1st Block necessitated a halt.

(*c*) *1st Block.*

The advanced echelon of Brigade Headquarters retired from the Kotal at 13-25 hrs. just ahead of the last section of 17th Light Battery and by 13-40 hrs. had joined the rear echelon on a low ridge above and immediately north of the main nullah about (A), in about the centre of the 1st (2nd Frontier Force Rifles) Block. Ten minutes later, while the tail of the battery was passing along the nullah, both the ridge and the nullah bed suddenly came under heavy fire from the south. One B. O. R. 17th Light Battery was killed, another wounded, and communication from the ridge became impossible. The cause of the trouble was quickly spotted to come from a razor

backed hill about 250 yards long and about 800 yards south of the main track on which 2nd Frontier Force Rifles had placed their No. 6 piquet. The piquet commander had divided his piquet, placing two rifle sections at the south-west end of the hill and keeping the Lewis gun section and one rifle section at the north-east end. The sides of the hill are precipitous, much indented by the heads of small nullahs, and in places covered with scrub. A party of about 50 to 60 Afridis had rushed the two rifle sections off the south-west end of the hill, and could be seen on the crest standing up and firing down at the sepoys below them. Unfortunately, at this moment, the Lewis gun at the north-east end of the hill jammed and for a few moments sufficient fire could not be developed to check the Afridis. The precarious position of the piquet was, however, quickly noticed by F. O. O's. and supporting troops and such heavy artillery fire and machine gun fire from the Essex and 2nd Frontier Force Rifles machine guns brought to bear that the Afridis could not advance from the south-west end of the hill. Taking advantage of this, the piquet, very well led by its commander, counter-attacked. The commander of the company finding the piquet immediately took his reserve (one platoon) to assist. Officer Commanding 2nd Frontier Force Rifles requested Officer Commanding 1/3rd Gurkha Rifles to stop his withdrawal, so as to allow him to use his reserve company to counter-attack. This company had already been disposed to take over rear guard duties from the Gurkhas, and in consequence took half an hour to develop its counter-attack.

The position of the Gurkhas, right under the Kotal and fired into from west and south was now rather a precarious one. Nos. 1 and 2 piquets were, however, ordered to hold on and the rear guard took up a position astride the nullah. Continually pressed from west and south, extra ammunition had to be sent up to the Lewis gun of No. 1 piquet, while both the rear guard and No. 2 piquet had to resort to bombing to clear the main nullah and a subsidiary one, of Afridis who had crept up unseen. Meanwhile the lost piquet position was being rapidly regained by the original piquet reinforced by the company reserve. The reserve company only arrived just as the hill had been regained. So heavy had been the artillery, machine gun, Lewis gun and rifle fire of supporting troops, including the Gurkha No. 2 piquet who gave very material assistance, that the Afridis had no

time to secure the rifles of two of our dead below the south-west end of the hill and left four of their own dead with their rifles on the hill.

By 15-00 hrs. all casualties had been evacuated, 1/3rd Gurkha Rifles recommenced their withdrawal and by 15-30 hrs. had passed through 2nd Frontier Force Rifles. Under Brigade Orders one company 1/11th Sikhs took up a position on a low ridge and astride the track between Jat Ridge and Punjab Hill to cover the retirement of 2nd Frontier Force Rifles, while two platoons Sikhs were sent up to Jat Ridge, a very big feature, to reinforce the 2nd Frontier Force Rifles piquet there. This hill appeared from the entrance to the Pass to be a single peak; seen from half way up the Pass it consisted of three distinct peaks 100 yards apart.

The withdrawal from the Pass continued methodically. Large numbers of Afridis were now following up at a respectful distance both north and south of the track and firing was continuous on both sides. The main pressure continued to be south of the track where the Afridis were constantly trying to work round our flank. They were eventually stopped by the piquet on Punjab Hill, who were much assisted by a Lewis gun of 17th Light Battery which was posted with the F. O. O. on this hill. Towards the end of the withdrawal, the machine guns of armoured cars and cavalry south of the track came into action at long range and materially assisted in checking the Afridi outflanking movements.

At 16-30 hrs. 1/3rd Gurkha Rifles were sent back to Fort Salop. 3rd Dogras, who had been in reserve on the plain, covered the final retirement of 1/11th Sikhs and 2nd Frontier Force Rifles out of the hills, and, with cavalry and armoured cars watching the flanks, troops returned to camp, which was reached at 18-00 hrs.

Ammunition Expenditure.

17th Light Battery	.. 283	rounds H. E.
	120	rounds shrapnel.
Machine Gun Platoon 2nd Essex..	8,700	rounds S. A. A.
1/11th Sikhs	.. 6,100	,, ,,
3rd Dogras	.. 5,031	,, ,,
1/3rd Gurkha Rifles	.. 5,250	,, ,,
2nd Frontier Force Rifles	..19,268	,, ,,
Squadron Poona Horse	.. 359	,, ,,

Casualties.

Our casualties were :—

(*a*) *Killed.*

One B. O. R.	.. 17th Light Battery.
Two I. O. R's.	.. 2nd Frontier Force Rifles.
One G. O. R.	.. 1/3rd Gurkha Rifles.

(*b*) *Wounded.*

One B. O. R.	.. 17th Light Battery.
One I. O. R.	.. 2nd Frontier Force Rifles.
One I. O. R.	.. 1/11th Sikhs.
Three I. O. R's.	.. 3rd Dogras.

It is very difficult to give anything approaching an accurate estimate of enemy casualties. After careful sifting of reports from units and informers, a conservative estimate of enemy dead or died of wounds was 28. It is probable that there were many more, quite apart from the wounded. Close Reconnaisance aeroplanes reported on the following day seeing numbers of Afridis on the hills near the Kotal evidently looking for missing ones and other groups near the villages engaged in funeral rites.

Lessons brought out by this operation.

(*a*) *The Battalion Block System* worked very well in the particular conditions of this operation. It is obviously uneconomical in troops since each Battalion has to keep in hand a definite reserve to use as advanced guard and as rear guard in the withdrawal. Normally with the four rifle company organization one used to reckon on a battalion piquetting three miles of the route. On the other hand, the Battalion Block System is the best way of obtaining full value out of all the machine guns in a mountain warfare piquetting operation. Each machine gun company supports its own battalion block. In the through Advance guard and Rear guard System many machine guns cannot be utilised.

The machine gun platoon 2nd Essex Regiment supported each battalion in turn throughout the advance and withdrawal. The necessity for some of the battalion machine guns to be well forward to support the first piquets up was well illustrated. One echelon should be immediately behind the advanced guard so that it can drop into

position to support the piquets of the leading company. This was not done in one case and caused some delay and a block in the road while the machine guns were brought forward.

(*b*) *Artillery.*

The support given by the 17th Light Battery was invaluable. This operation, however, once again confirmed that the right proportion of guns to infantry in mountain warfare is two batteries to a brigade. During the withdrawal 17th Light Battery practically did not cease firing and by the end had consumed all its H. E. and the greater part of its shrapnel. An additional battery was badly needed.

(*c*) *Position of Reserves.*

As each battalion concluded its withdrawal it came into Brigade Reserve. It is essential that it should not then block the road for a rapid retirement. It was found, however, especially when the fighting in the 1st Block started, that the Brigade Reserve had passed too far through and was not at hand. This is a common error and requires considerable judgment to obviate.

(*d*) *Piquets.*

This operation brought out many lessons as to the degree and extent to which piquetting is necessary. There is a tendency in peace training to make piquets too weak and post them too close in. In difficult country such as this, no piquet should be less than two sections strong (*i.e.*, not less than 12 rifles). No. 6 piquet, 2nd Frontier Force Rifles consisted of one platoon (23 rifles). The hill they held was an isolated ridge 250 yards long with much dead ground behind it, and was commanded by high ground beyond it. It is considered that one platoon was too weak for this piquet. Later it was found necessary to strengthen Jat Ridge piquet. Piquets must be far enough out adequately to protect the road and in very broken country supports must be put out.

Automatic Weapons.

The limitations of automatics in denying ground by fire were well illustrated. Bold unbroken features, bare hill tops and naked ridges can be denied by the fire of guns and machine guns. Broken scrub covered country must be almost as liberally piquetted by riflemen as before the increase in automatics. On the other hand, the Afridi has throughout shown a great respect for the Lewis gun and no Company Commander with actual experience would contemplate with anything

but alarm, a reduction in the number of light automatics in the rifle company.

(*e*) *Signallers.*

The necessity for leaving signallers with piquets was well demonstrated. To enable messages to be recorded accurately they should be in pairs, but the present establishment of signallers in the battalion does not permit of this being carried out. Most of the Battalion Commanders in the Brigade are averse from the use of semaphore, in which proficiency is more difficult to maintain and exposure greater. In consequence, company signallers are now being trained in Morse at the scale of two signallers per platoon.

Some Comments.

The operation which had been planned was successfully carried out. All arms and units of the Brigade co-operated in mutual support to a marked degree with the minimum of orders from the Brigade. Although Brigade Headquarter was well up throughout the operation, only on eight occasions was it necessary to give any orders to units. The advance was rapidly carried out; the withdrawal was steady and continuous, except for the two incidents noted. Such incidents must always be expected and consequently in a mountain warfare operation it is essential always to allow for such delays and to allow plenty of time.

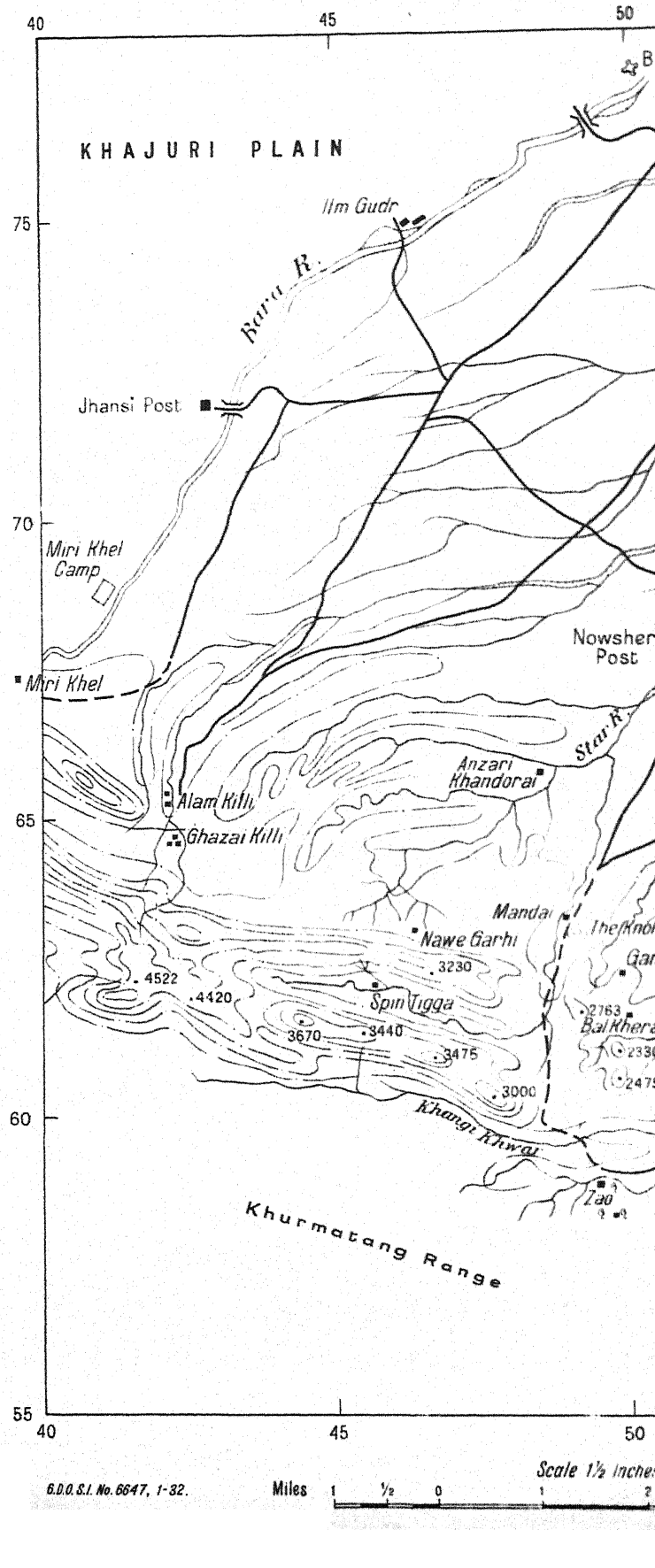
The route through the Pass was more thickly piquetted than will usually be possible on the march. The Brigade consisted of four rather weak battalions and piquetted two and a three-quarter miles. The large number of troops used up was due to—

(*a*) The extremely intricate country.

(*b*) The very big country towards and on the final objective.

(*c*) The fact that there were four battalions available. The final objective was in reality held very strongly as a defensive position by the fourth battalion, which, for the remainder of the day, was superfluous.

In a 'through' march, the necessary piquetting could have been carried out with two and a half battalions.


SKETCH OF ROADS & TRACKS SOUTH O
40
45
50
KHAJURI PLAIN
Ilm Gudr
Barra R.
Jhansi Post
75
70
Miri Khel Camp
Miri Khel
Nowsher Post
Star R.
Anzari Khandorai
Alam Killi
Ghazai Killi
65
Nawe Garhi
.3230
.4522
.4420
Spin Tigga
3670
.3440
.3475
.3000
2763
60
Khangi Khwar
Zao
Khurmatang Range
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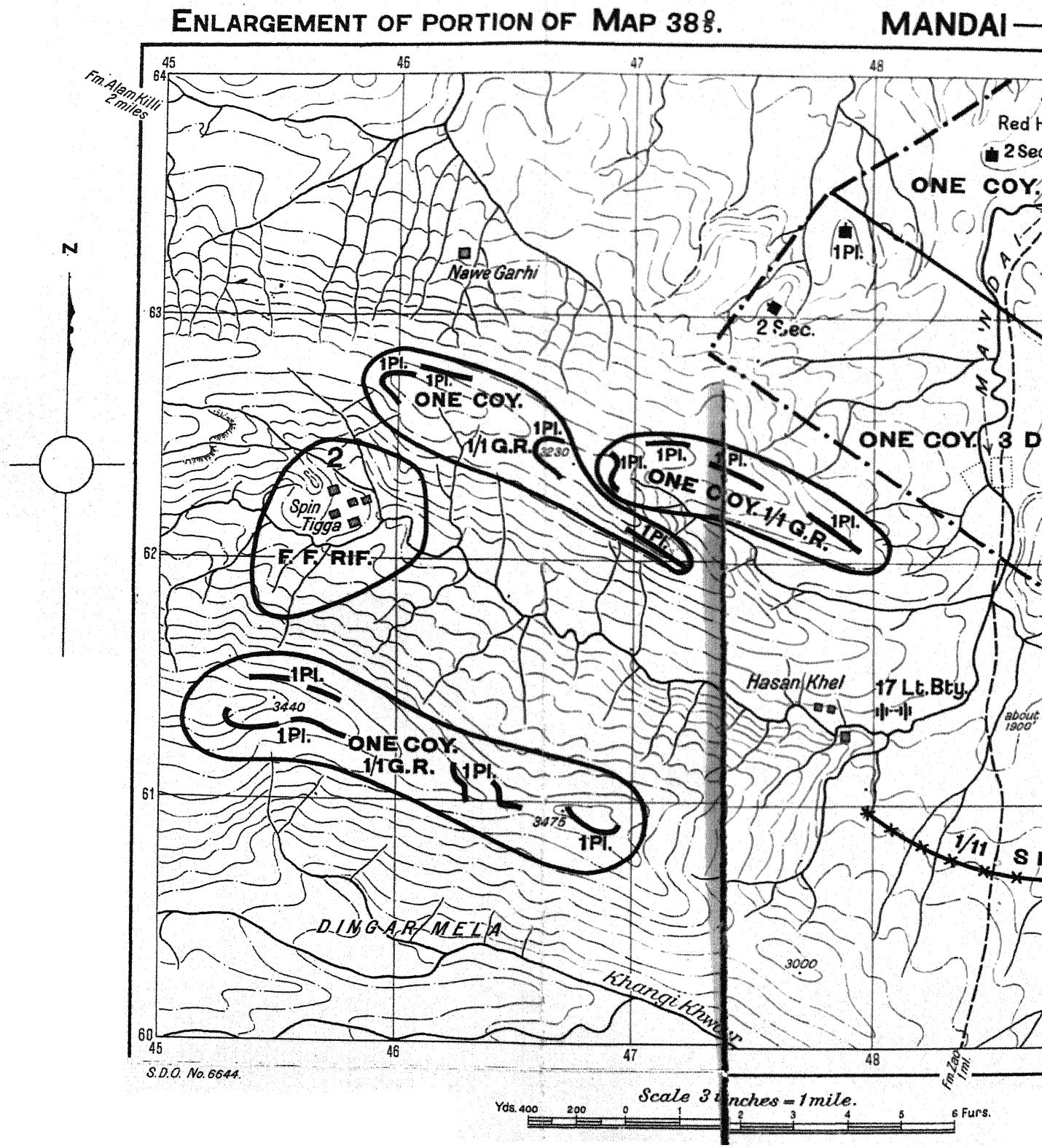
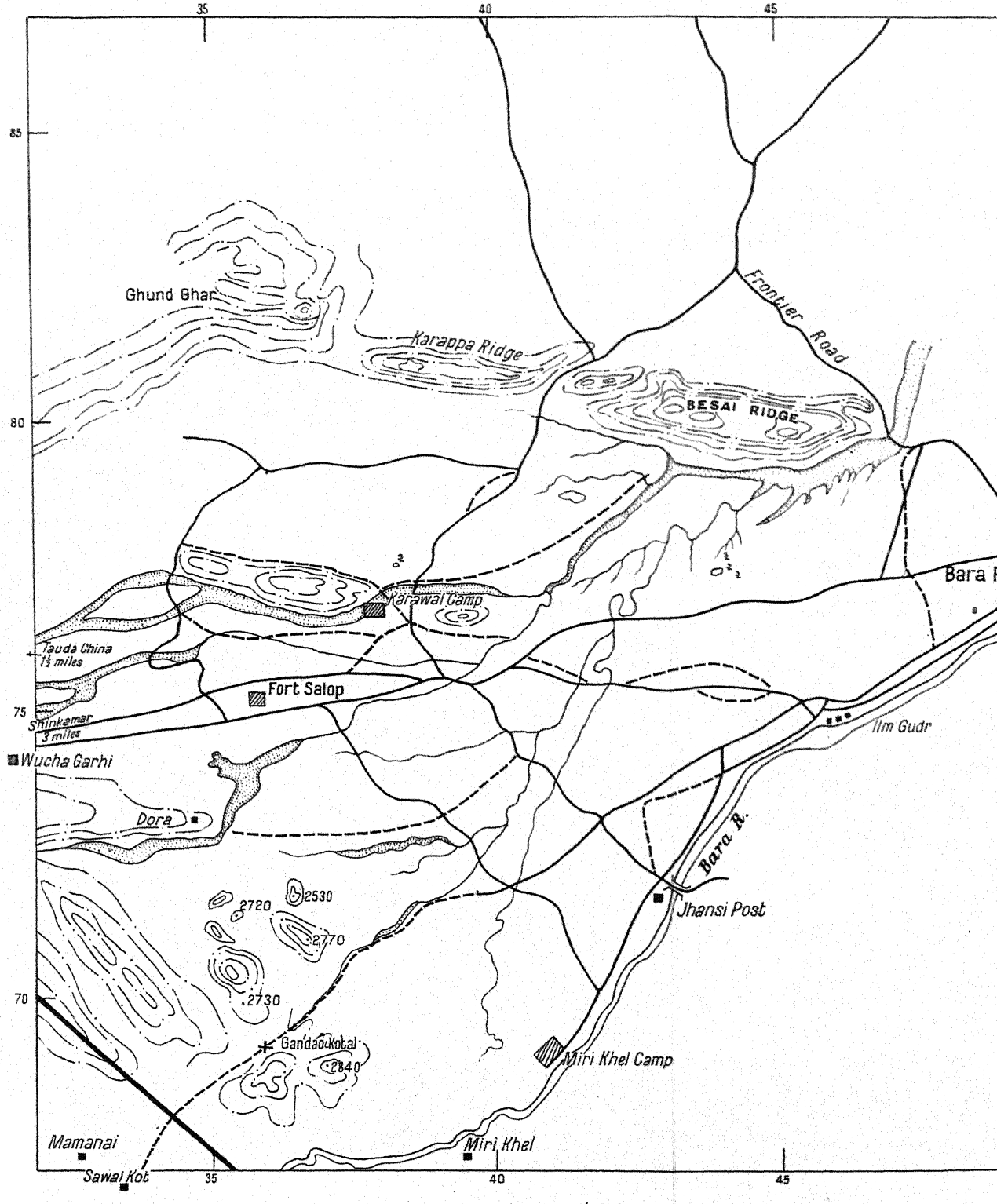
2
G.D.O.S.I. No. 6647, 1-32.

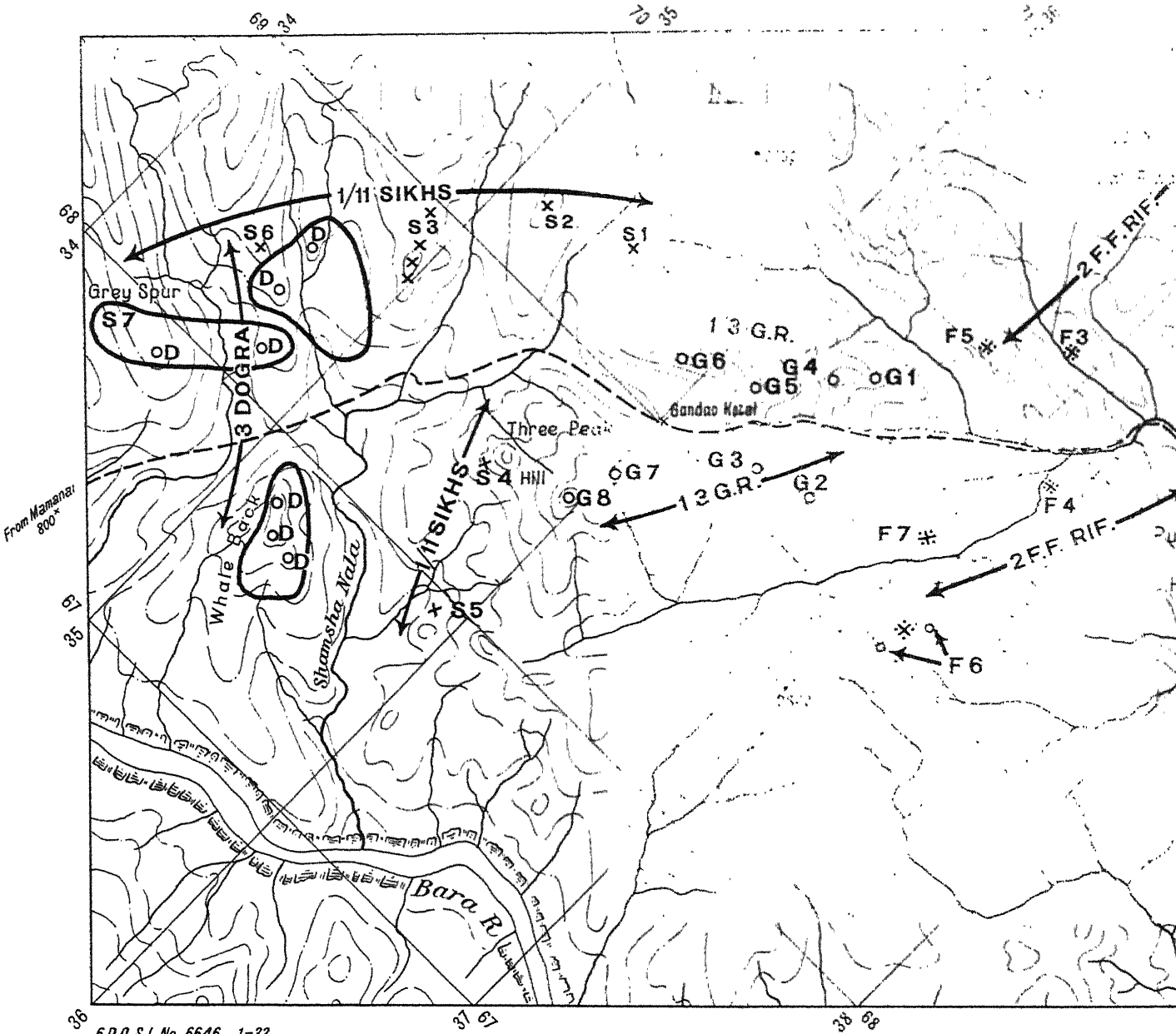

ENLARGEMENT OF PORTION OF MAP 38 N/S.
MANDAI
Fm. Alam Killi 2 miles
N
45
46
47
48
64
63
62
61
60
Nawe Garhi
Red H
2 Sec
ONE COY.
1Pl.
2 Sec.
1Pl.
ONE COY.
1/1 G.R.
3230
ONE COY. 3 D
2
Spin Tigga
F. F. RIF.
ONE COY. 1/1 G.R.
Hasan Khel
17 Lt. Bty.
about 1900'
3440
ONE COY.
1/1 G.R.
3475
1/11
DINGAR MELA
3000
Khangi Khwar
Fm. Zao 1 mil.
S.D.O. No. 6644.
Scale 3 inches = 1 mile.
Yds. 400 200 0 1 2 3 4 5 6 Furs.

SKETCH MAP OF THE KHAJURI PLAIN. N.W.F.
1930-31.



6 D.O.S.I. No. 6645. 1.32.

ENLARGEMENT OF PORTION OF MAP 38 — GANDAO



6 D.O.S.I. No. 6646, 1-32.

Scale 3 Inches = 1 mile.

Yds. 400 200 0 1 2 3 4 5

Machine Gun Positions.

F = 2 F F. Rif. S = 1/11 Sikhs
G = 1/3 G.R. D = 3/11 Dogras.

THE BATTALION INTELLIGENCE PERSONNEL, AND THEIR TRAINING.

Major D. B. Mackenzie, 5th Bn., The Frontier Force Rifles

At the end of the Great War, battalions of the Indian Army possessed, for the most part, a small body of highly trained Observer-Scouts, who, as a result of war experience and of the excellent eyesight common among Indians, were of great value to the Battalion. The writer had experience of a Sepoy Observer being recommended for an award by an Artillery Forward Observation Officer for valuable assistance given during an action. The assistance in this case, took the form of repeatedly drawing the attention of the Forward Observation Officer to targets. The latter had the morning of his career, first shelling a counter—attack by a German battalion off a ridge, and then getting the howitzers to shell the *nallah* behind. Since the war a higher standard of map reading and sketching has been reached, which should make the Intelligence Personnel of more value than before.

As regards the use of the Intelligence Section in war two things are obvious: first, that observation to be complete and accurate must be continuous, and, secondly, that neither the Commanding Officer nor the Adjutant can do this. It is in this way that the trained Observer can prove his worth. Picture the Commanding Officer of a battalion at the outset of an encounter battle. He gets his orders from the Brigade, makes his personal reconnaissance and appreciation, "*liaises*" with flank units, prepares his orders, issues them, dictates some messages, and so on. During all this time things of which he must be acquainted are happening, enemy troops appearing and disappearing, machine guns taking up position, forward troops gaining a small success or being pressed back, cavalry coming in, flank units moving to their forming up positions. When the Commanding Officer returns to a position from which he can observe, he is out of touch with the situation. The observers, however, have seen all happening, and, if they know their work, can give him an accurate picture of the situation, and answer any questions which he may have to ask them about matters concerning which he is anxious. They are, in fact, the eyes of Battalion Headquarters.

On the North West Frontier we are up against all-round defence, and, therefore, all-round observation, not only of our own troops, but

of the enemy as well. The Battalion Observers then become even more necessary and valuable. Every piquet must be kept under constant observation by day and night. The numbers of the Intelligence Section may then require to be increased. Infantry Training is silent on the subject of Company Observers, but it is hard to see how a Company Commander can carry on without at least one, even when he is not writing a message, or giving orders. Two pairs of eyes are better than one, and it is often possible among Indians to find a sepoy who can see almost as well with his naked eyes as the average European can with the aid of field-glasses. It is true that to employ a man in this way takes a bayonet out of the firing line, but it is well worth it.

Organization.

The Field Service Manual allows us in peace, one Educational Jemadar, one Havildar, six sepoys, and three bicycles, and in war one Jemadar, (the Educational Jemadar), one Havildar, and eight sepoys—of which two go to the Brigade Intelligence Section—and nine bicycles. This establishment admits of one, two, or three observation posts being opened, but, if three are used, there are no reliefs or reserve, the men will speedily tire, and their work deteriorate. Normally, in each post, there should be one man observing, and one man noting down what is seen on an enlargement of the map, or on an eye-sketch. A Log Form can be kept if desired (a suggested-specimen is given at the end), in duplicate, and the original sent in to Battalion Headquarters as often as necessary. In addition, urgent information, such as the occupation or vacation of an important position by our troops or by the enemy, should be reported verbally, or by message, as rapidly as possible. The Jemadar, after hearing the battalion orders, and consulting the Adjutant, must site the observation posts as near as possible to the Battalion Report Centre, must reconnoitre alternative sites, and also make up his mind where the observation posts will go when the Report Centre makes its bound forward. The best observation is usually obtained obliquely, and the Jemadar must arrange this when detailing the frontage of each observation post. He must also ensure that the men in the observation posts receive all the information available about the enemy, the battalion objectives, boundaries, and dispositions, so that they know what to look for and can report the arrival of each company at its objective. No inter-communication personnel are included in the section, and it is unlikely that signallers would be available for this purpose. Therefore

the observation posts must be near the Report Centre if this is at all possible. If not, then they must be near the Runner Route, otherwise the information they obtain is likely to be of little practical use by the time it reaches an officer in executive command.

Training.

Their elementary training is comparatively simple provided the Educational Jemadar has passed well in map reading and reconnaissance at Belgaum, and has a graduate of the Roorkee Survey School to assist him. Infantry Training, Volume I, Section 149, 4, gives us a guide as to what to teach, the training of an observer being largely similar to that of a scout. The following subjects must be included :—

(*a*) Observing with eyes and ears, including the use of field-glasses and telescope.

(*b*) Use of ground in siting observation posts.

(*c*) Judging distance. Note that although a limit of 1,400 yards is sufficient for a N.-C.O., it is not so for an observer, who must use his skill in judging distance over longer ranges to enable him to recognise features on ground and map, and his skill in map reading to assist him in judging distances.

(*d*) Estimate numbers correctly. Practise in this is not easy to obtain.

(*e*) Read a map, make enlargements and eye-sketches, and, if possible, panorama sketches as well. Provided efficient instruction in panorama sketching can be given, men can be found who speedily become proficient in it. It is of great value in hilly ground.

(*f*) Know what to report and how to report it.

(*g*) Know semaphore.

The Jemadar should also be practised in reading aeroplane photographs.

All the above are important, but, in making up the programme of training, the most generous allotment of time should be given to map reading. In this the standard must be really high ; at least second class certificate standard. This includes identifying features ; all and any features, not easy features only, grid co-ordinates, horizontal clock code, taking and plotting compass bearings, and range cards. A King's commissioned officer should assist the Jemadar in the

preparation of the programme, and supervise the training to ensure that it is kept on the simplest and most practical lines and that the ultimate objective is maintained throughout.

General.

A fifty *per cent.* turn-over of the personnel should be the rule every year. Thus, well trained men will not be lost to the rifle company for long, and a reserve will be built up. This should encourage company commanders to part with their best, as they must, if the observers are to be of real use.

If the Intelligence personnel is properly trained, it is not too much to claim that the successful passing of a Battalion Intelligence Course, and service in the Intelligence Section should be one of the best qualifications obtainable by an ambitious young soldier for accelerated promotion. He gets education as he does in the signallers, but he also gets the habit of working on his own and of thinking for himself, in addition to a high standard of map reading, sketching, and report writing, all of which will be of great value to him in every rank from section commander upwards. If he is outstanding in any way, he is certain to catch the eye of the Adjutant, if not of the Commanding Officer himself.

LOG FORM INTELLIGENCE GROUP KE LIE.

Group ka number. . *Naksha jis ka hawala dia hai.*

Group ki position. *Tarikh.*

Wakt.	Kia dekha hai.	Compass bearing.	Position. *a.* Naksha se. *b.* Pari Ghari ke Tarike se.	Is ko dekhkar kia kia.

SEA BREEZES.

Being Extracts from the Diary of an Army Officer at Sea with the Mediterranean Fleet.

BY

Major T. A. Lowe, D.S.O., M.C.

The Highland Light Infantry.

"How these curiosities would be quite forgot, did not such idle fellows as I am putt them downe."—*John Aubrey.*

It is common knowledge that there is an interchange of officers yearly between the three Services. The Navy sends two to Camberley, and the Army sends two to Greenwich, while both send two to the Royal Air Force Staff College at Andover. This system has been adopted since the Great War, and although it has not yet been proved in practise, at least it can be said that there is a better understanding between the Services to-day than in the past.

The writer had the priviledge in 1924, of being sent to the Royal Naval Staff College for a year's study in Naval Staff work. The College is at Greenwich, and is part of a huge block of buildings which used to be called Greenwich Hospital, but is now known as the Royal Naval College. Innumerable courses of one kind and another are held there; Sub-lieutenants do their promotion studies, Lieutenants and Lieutenant-Commanders attend to learn about Cyphers and Naval Intelligence, Captains go for what is called a "War Course," (really very similar to our Senior Officers' School), and, last but not least, about thirty officers between the ranks of Lieutenant and Commander, become students of the Staff College. Though occupying a portion of the main buildings, the latter is an entirely separate entity.

Unlike the Army there is no age-limit for entrance to the Royal Naval Staff College, nor is there any preliminary examination. Officers go there by selection, and this is influenced by past records and by confidential reports. Specialists have no extra "pull": an equal number of Gunnery, Torpedo and Navigation experts, are balanced with "Salt-Horses" (equivalent of Regimental Officers), and Marines. The principal feature of the Royal Naval Staff College

is the lectures one hears there. The "silent" Navy tradition has proved a failure in an age when everyone talks, and Naval Officers are now encouraged to speak in public—the more lucid their speech the better! Each officer is required to give a lecture, (apart from the Staff lectures and those of many distinguished visitors), and one is amazed at the range of subjects covered. There are discussions afterwards at which any one in the audience may be nominated to speak, while the officers from the other Services attending are often closely cross-examined on such technical points as war establishments, armaments, etc., relating to their particular branch.

The sea is a romantic subject, even when it is being considered, from the point of view of International Law, strategy, trade, bases or fuel. Even as an attached soldier one gets impregnated with the romance of the sea at the Royal Naval Staff College. It takes some time though, to acquire the habit of thinking in ships instead of in men. A ship is victualled direct by the Admiralty before she starts her cruise, and that is the end of the business for a very long time. In the Navy you do not "march on your stomach." In this way Staff Officers escape much of that grinding "Q" work, which is inseparable from the Army. A ship is also oiled by the Admiralty before she starts her cruise, but that is quite a different box of tricks. The writer was by no means the only student who found himself, during a tactical exercise, with empty oil tanks in the middle of a vast ocean. How one wished that oil fields and re-fuelling centres were in more accommodating localities! For these reasons a naval tactical scheme becomes a much more concrete thing than a military one; the "nature of the ground" has not to be considered, nor has one the bugbear of "flanks" to worry about. At sea, if an enemy fires at you from a flank, all you have to do is to make a turn of 180 degrees and he becomes no longer on a flank but either straight ahead or astern, whichever suits you best.

We spent the first term in working up for the second term in which the three Staff Colleges met at Camberley for a big combined scheme. The third term (April-July) was one of pure joy. This was a term of travels and visits. At Weymouth we embarked in destroyers for a battle with submarines. We played the "Blues" at cricket at Windsor. We went to Portsmouth for a fortnight and studied all the organization of the shore establishments there. Living in the Royal Naval Barracks at Portsmouth was quite an experience. The

dining-room there is a wonderful place, decorated with an enormous frieze, hand-painted by the famous Wylie, of ships of the sailing era. A laborious work, but a work of love ! You can sit at meals and visualize great sea actions of Nelson's time, and sailors of the present day are proud to point out how every detail of the sails and rigging is technically perfect. A Marine band plays twice a week at dinner, and once a week at luncheon (this being the routine of big-ship life at sea), because the Navy is extremely fond of music at meal times. The rooms are furnished like cabins, though of course, much larger than actual cabins in a ship—except in such monsters as *Nelson* or *Rodney*, where the architecture is altogether different from that of other ships.

We visited the Depot of the Submarines and put to sea, somewhat timidly on my part it must be confessed, for an exercise beneath the surface. A most uncomfortable and stuffy proceeding, terrifying when torpedoes were being fired. A destroyer dropped a depth charge on the submarine I was in and although it was reckoned to be a harmless charge our starboard light was stove-in and some damage done on deck. Even our "Captain"—an enthusiastic Lieutenant—struck me as being delighted to get to the surface again and to make signals to the effect that he was out of the game. Then we went to Felixstowe and flew about the coast in flying boats, my pilot taking great delight in descending from the skies upon parties of ladies bathing and apparently trying to cut their heads off. Judging by the screams and hasty dives, (in which I was longing to join), he very nearly succeeded.

Yes, that summer term was a real, swell term, and when, at the end of it, Admiralty told me I could do my practical training with the Mediterranean Fleet instead of the Atlantic—always provided I found my own way to Malta—I was enchanted. H. M. S. *Ceres*, a cruiser belonging to the Mediterranean Fleet, had just been recommissioned, and her Captain was a friend of mine. We left Sheerness on the 20th July 1925.

What follows is extracted from a diary I kept for the months I was with the premier Fleet. It will be noticed perhaps, that, with the exception of a little about the voyage in the *Ceres*, it chiefly concerns life in battleships, the reason being that these have by far the most comfortable places to write in. In the *Marlborough* (now

alas! in the ship-breakers' hands), I had most palatial quarters as she had been built for a Flagship but was not being used as such at the time, but in cruisers and destroyers one had to take one's chance, and sleep anywhere. However, I managed to keep my own little "log" as I went along, and it affords me infinite entertainment now. It is to be hoped that a few extracts may do the same to others.

The Diary.

23*rd July* 1925.—Bay of Biscay.—In H. M. S. *Ceres*. Attended "Divisions." (Morning prayers held on quarter-deck, usually about 9 a.m. in which all ranks on duty form a hollow square and the Captain with his officers in rear, reads prayers, or, if no chaplain is available, passages of Scripture on Sundays). On this occasion the Captain rebuked boys' division for not repeating responses, and again for not singing in the hymn "Onward Christian *Soldiers*."

Spent most of the morning on bridge watching ship's routine. Heavy swell, but sunshine.

Deck games during afternoon. Dinner a very cheerful meal owing to animated discussion amongst several Naval Officers about being called to the Navy in their youth. One described how he had been walking with his nurse in Portsmouth and had seen a drunken sailor fighting two policemen at once, and ever since then his one idea was to become a sailor too. Another related how a huge sailor with a great beard has lifted him up and kissed him as a child, and from that moment he knew his vocation to be the sea.

25*th July* 1925.—Gibraltar. Ship arrived about 5 a.m., and only stayed for four hours. The "Rock" and Spanish coast wreathed in mist. A cloud like a dirigible balloon was poised on the top of the "Rock" in spite of a strong westerly trade wind blowing the Mediterranean into a short, steep sea. This is cleaning-day in the ship, which is just as uncomfortable as spring-cleaning at home because every part of the ship seems to be getting cleaned at once and there is nowhere for a "passenger" like myself to go. So driven to see the engine-room with "Hugh" a large, bony Scot, who described his engines haltingly but with great affection. While we were in the boiler room a water gauge burst and boiling water seemed to squirt all over the place so that stokers ran for the ladders with

their arms covering their faces. What with the temperature of the boiler-room like an inferno and the glare from the oil fires making the place look devilish, my impulse was to bolt for a ladder too, but fortunately I didn't because "Hugh" treated the matter as normal, and gave some quiet orders for repairs to be carried out immediately.

26*th July* 1925.—A Sunday.—The Mediterranean very blue and calm. Ship's company dressed in white, with white *topees*—very smart! Walked round the ship with the Captain on his inspection. A bugler blew a "G" as we reached each deck. When the inspection was finished there was a muster of the ship's company on the quarter-deck. A circle is drawn on the deck and the men fall-in in single file looking aft. In turn, each man steps into the circle and recites his rating and badges, etc., to the Captain. The latter stops some of them and asks questions, or suggests a hair-cut or something of that kind. After this ceremony was completed we had a Church Parade for which benches were brought and arranged in hollow square. The Captain took the service himself, and in the middle of same published the banns of marriage between a seaman and a Maltese lady.

In the afternoon the ship suddenly slowed down and a boatswain ran about piping "All 'ands to bathe." The ship stopped, a bugle blew and in a moment the sea was full of shouting, splashing, laughing men. I got in as soon as possible, the water was deliciously warm. Another bugle blew and we all swam back to the ship. There was no officers' ladder so I had to take a chance of climbing the hanging ladder from the boom—a hazardous proceeding when you are not accustomed to it. Sailors are no respecters of persons and it was a case of the survival of the fittest. The ship was already under way by the time I regained the decks.

27*th July* 1925.—Watched section of Maltese stewards (including fat Carlos, the Captain's personal steward, fall-in for stretcher drill. The Instructor tried to teach them to "form-fours" but soon gave it up as impossible, his pupils seemed to be enjoying themselves so much, grinning happily and showing flashing gold teeth. Everybody was watching this pantomime, though of course pretending to be busy at something else, and when a sailor was detailed to be a "corpse" and to be carried by these Maltese to the Sick Bay, he first assumed an attitude of prayer which caused a roar of laughter fore and aft. When

the parade was over Carlos came up to me and said, "Me servee as officer in the Italian Navy allee great war, Sir. But these sailors they only laugh when I tell them and call me Bandy Beggar."

One of my shipmates has just finished an appointment as A.D.C., a shore job where his Commander-in-Chief had do a lot of entertaining. I walked the quarter-deck with him and asked him how he liked the job, to which he replied, "It was rather fun speeding the parting guests and welcoming the new arrivals with open arms. Just like an hotel porter." And again, "One got sick of sitting down to every meal with strangers. The way drunkards drink may be disgusting, but the way teetotallers *eat* is more disgusting still." We were joined by another officer who remarked, apropos of nothing, "When I grow a beard I look like the King." My companion enquired politely, "Which king?"

28*th July* 1925.—Captain invited me on bridge to watch approach to Valetta. We passed close to a yacht race, and General Congreve, who was then Governor of Malta, waved to us from the stern of one of the yachts. The Captain remarked how beloved Congreve was to the Navy, and how his enthusiasm for yachting was a great link between the Services. We received bugle salutes from two battleships lying outside the breakwater, and when we entered the Grand Harbour we had a great reception, as the *Ceres* was rejoining the Mediterranean Fleet after a long refit. The bands of the *Iron Duke*, the *Queen Elizabeth* and the *Eagle*, all turned out and played "Here we are again." One felt that the ship was coming home to a big family all of whom were glad to see her again.

30*th July* 1925.—My orders have come through. I am to be "discharged" from the *Ceres* to the *Marlborough*. I feel sad at leaving so many good friends and plunging into a completely new routine. We have a loving-cup in the ward room while my luggage is being piled into a piquet boat, then I dash for the ladder and disappear to a new world.

31*st July* 1925.—Went ashore to be introduced to the Island of Yells, Bells and Smells, as the Navy describes Malta. Two Greenwich colleagues acted as guides and pointed out (*a*) the goats for which Malta is so famous, (*b*) the tin cans upon which they browse. Visited Union Club for the first time and met about a hundred naval officers all of whom seemed to regard a soldier attached to their Fleet as some-

thing of a curiosity. (It isn't in the Atlantic Fleet, as nearly all the military graduates at Greenwich go there.) Afterwards spent a strenuous afternoon paying calls.

2*nd August* 1925.—The Commander-in-Chief (Sir Roger Keyes), came on board. He has recently taken command and this is his first visit to the *Marlborough*. He was received at the ladder by a massed piping of boatswains, the shrill sound of their whistles rising and falling like the wind shrieking round a house in winter. Then the band played a few bars of "A Life on the Ocean Wave," and the Marine Guard-of-Honour "presented." After the inspection all officers were fallen-in and introduced according to their Navy-list seniority. Commander-in-Chief very affable to me and hoped I was enjoying myself, which I assured him I was. The entire ship's company formed up and marched round the ship passing the Admiral, and saluting as they did so individually. A magnificent sight. Turn-out and physique wonderful!

3*rd August* 1925.—Visited the *Queen Elizabeth* for a discussion of coming cruise and exercises. Watched the ceremony of all the Admirals in the Fleet being piped on deck on the starboard side, while all the Captains scrambled up the port side without any ceremony. Managed to follow most of the technical side of the discussion. Coming cruise promises to be very interesting.

5*th August* 1925.—The Fleet put to sea. Went on bridge to watch, at the Captain's invitation, a marvellous sight. The cruisers left their anchorages and formed up outside the breakwater in line (known technically as the A—K line, in Army phraseology a protective screen), and then as the two battle squadrons got under way destroyer flotillas formed up as flank guards. The *Eagle* an aircraft-carrier, busy tossing off aeroplanes one after the other in quick succession, looked an ungainly sight in the centre of all. The first exercise was a scheme to defeat submarines (who were already in some unknown position), but one of them got through our defence and inflicted some damage. Stayed on bridge all day (my job was to keep the narrative of the entire cruise), and watched searchlight work at night. 'Snotties' in charge of searchlights got cursed (deservedly), for not repeating orders after Captain. Ship changing station the whole time by fixed navigation lights and W/T, otherwise total darkness. One W/T signal miscarried and the *Marlborough* got out of station. Glorious cursing match in which all ranks seemed to join!

6th August 1925.—At sea. Exercises continued. Visited various gun turrets in action, also ammunition magazine (beautifully cooled and ventilated). Watched charges and projectiles put into the lifts for the turrets. In the afternoon the *Emperor of India* suddenly dashed out of the line to help a destroyer save an aeroplane which had crashed. Pilot was saved but the tail of the plane was to be seen buoyed up and floating. In the Dog Watches the entire Fleet hove-to for bathing which was great fun as there was a heavy sea running, but smooth-topped so that swimming felt like a switchback. While we were dressing on the quarter-deck the sun set suddenly, and there was no following twilight. This was the first time this had happened: we were somewhere near Corfu.

After dinner went on bridge and watched night operations. The scheme was that the squadron was being attacked by a flotilla of destroyers. Searchlights were trained on bearings, both sides of the ship, from the bridge. Orders such as "Suspicious object, Green 40," or "Ditto, Red 20," were given, and star shell batteries trained on simultaneously. The formation of the Fleet was single line ahead, *Iron Duke* leading and giving the navigation signals. "*I. D.'s*" searchlights picked up attacking flotillas on both sides very quickly, and the lighting of targets was taken on by each battleship in turn. The destroyers looked very grim and sinister as they turned away to fire their torpedoes, the range being about 3,000 yards. Suddenly the whole squadron turned 180 degrees, steamed back on same course for half-an-hour, and then repeated the operation. This time the flotilla was located on the port side, and after a preliminary failure by *Iron Duke* was soon lit up again.

7th August 1925.—Woke to find land visible through cabin scuttle. Went on deck to watch Fleet being navigated into Corfu Harbour. The work of navigating on bridge was incessant for about two hours, the Pilot having to take bearings with the land as well as keeping distance and dressing with the other ships of the Fleet. Speed was constantly changed by signal until "Stop engines," was signalled. After that the ships ran on under their own speed for a few cable lengths, and then all dropped anchors together the anchor chains making a huge cloud of rusty dust. Each ship now dropped a cutter which rowed off to the *Queen Elizabeth* for orders, and we earned disapproval because ours got off clumsily. Dined that night in the

Barham, and had to jump for it in mess kit as there was a very heavy sea running and th' 'Snotty' in charge of the boat wouldn't go along-side.

13*th August* 1925.—Fleet left Corfu at 6 a.m. A scheme of firing at targets in the air towed by aeroplanes was tried, but unsuccessfully as the wire tow ropes parted with the strain. No actual shooting was done, but it was interesting to watch the *Eagle's* huge flying deck cleared for action. The 'planes came up in lifts and the ship turned into the wind, steaming at a high speed, to let them off quickly. We arrived at Argostoli at about 6 p.m.

14*th August* 1925.—Went ashore at Argostoli to see a quaint water-mill which is built on a stream that runs from the sea *inland!* This stream describes a zigzag course through a deep channel, turns the wheel of the mill in passing, and then completely disappears into the earth.

19*th August* 1925.—At sea. Big manœuvres start. We are the "Red" Fleet (*Q. E.*, *Marlborough* and *Emperor of India* with one cruiser squadron and attendant destroyers). We have no aeroplanes and an attack from the air develops against us by torpedo 'planes. These dropped from the air straight at us and discharged their torpedoes at about 200 yards range. Our gunners say they could have hit the 'planes in the air, but it all happened so quickly that I doubt it. Extraordinary sensation of watching the "Fish," *i.e.*, torpedoes, running towards us and the battleships being too big and clumsy to get out of the way. *Q. E.* was narrowly missed by a "fish" that passed just under her stern, but none of us were hit that time. The second attack, which developed about an hour later, was much more deadly and we had to turn 180 degrees to avoid the torpedoes. The "Battle" continued all night. I spent all the time in the Gunnery "Top," from which I had an excellent view—when it was light enough to see anything at all. We shall not know who won the great struggle until all the reports and plans have been received and discussed by the Directing Staff.

23*rd August* 1925.—Lemnos. Am detailed to join a destroyer which is making a day trip to Gallipoli so that officers may study the campaign. Early breakfast difficult to obtain as Maltese servants are at their worst at 4 o'clock in the morning. Joined the destroyer about 6 a.m., and found about 20 officers and 100 ratings from other

ships in the Fleet. Arrived off Cape Helles about 10-30 a.m., and landed at small jetty on " V " Beach. Coast still presents an extraordinary sight—a French warship sunk as breakwater with curious superstructures sticking out of the water, also some sunken British ships. On shore a great litter of railway lines, rusty old shells, barbed wire, scraps, etc., and a guard of dark-visaged, contemptuous-looking Turkish soldiers with rifles and fixed bayonets. Sergeant in charge of the Guard took an immediate dislike to me, and refused to let me land on Peninsula. He recognised at once that I was an Army Officer, which was clever of him considering there were Marines present and our tropical khaki was not vastly different. At length an Admiral persuaded him to let me land provided I was accompanied everywhere by two Turkish soldiers. Fortunately these soon grew tired of carrying their rifles in the heat and were easily persuaded to sit down and wait for me, when they were out of sight of their Sergeant. No one seemed to be able to explain why a large number of Naval Officers and Marines were allowed to do what they pleased, while one British Army Officer should be so suspected. I walked to each stage of the Helles attack and could read the history of the fighting by the graves (very well kept) *en route*. There are two big cemeteries on the final British line where terrific fighting took place. This was a first visit to Gallipoli and very impressive. Returned to coast by road to monument erected to commemorate the dead. This monument is built of white stone in the shape of a plinth about 100 feet high. Each stone rough-faced, but squared off neatly and very thinly mortared. Great slabs at the base bear the names of every unit which fought there. The whole plinth is enclosed in a beautiful wall of stone and approached from the front by tiers of steps. There was an eagle sitting on the top stretching his wings in the sunlight—an amazingly beautiful sight.

Returned to ship which now steamed along the coast of Gallipoli, past " W," " X " and " Y " beaches, and on to Anzac where spots like " Quin's Post," " Lone Tree," etc., are marked out by memorials. On all the beaches are scattered sunken ships and lighters: even a solitary mine lay stuck in the sand. The history of the Gallipoli campaign is very clearly written on the land, and every trench system was possible to follow. It will probably be so for many years to come.

(NOTE.—This was written in 1925, and probably the restrictions about British Officers visiting the Peninsula have now been removed.

The Turks chief fear at that time seemed to be espionage of the Straits).

25*th August* 1925.—All detachable material in the *Marlborough* has been dismantled as the heavy guns are to be fired. Carpenters have been strengthening the ward-room ceiling with enormous girders, and the scuttles have all been closed and screwed tight. My cabin presents a miserable sight, with the doors taken down and laid on the floor. The Captain ordered me to climb up to the Gunnery Top, and to ram cotton wool in my ears, which I did, and watched the Gunnery Officer and everyone working at their proper war stations. The ships of the 3rd Battle Squadron, (*Iron Duke, Marlborough,* and *Emperor of India* deployed to port and fired 13-inch salvos in succession. Great spouts of fire and golden-brown smoke would shoot out from the gun muzzles, and the ship recoiled to the shock like an earthquake. Noise awful; one's teeth rattled in the jaw bone, and every muscle and nerve seemed to jangle. This happened nine times so one felt limp, as if beaten, then the wireless failed so that we had to " go to bed " with one salvo still to fire—for which I felt profoundly thankful! Followed broadsides (eighteen in all) by the 6-inch batteries, but these were not so noisy, and I found it possible to observe the shooting, which was very good. The 13-inch were firing at targets over twelve miles away, so it was not possible to see how successful they were, though I heard afterwards it was very good.

30*th Aiigust* 1925.—Salonika.—A day's shooting leave. Left ship at 6 a.m., four guns in all. Drove through Salonika and eventually struck the fine military road made by the British Army during the war as their line of communication to the front. Old dumps, etc., still there. About five miles out a strong covey of partridges crossed the road so we got out of car and tried to walk them up, but could not get near. Walked miles all morning but only managed to shoot a few snipe and three pigeons, though there was plenty of game and good sport could have been arranged with beaters. A ' snotty ' bagged a goldfinch and a bullfinch and was very pleased with himself. Seemed quite upset when I cursed him. We drove on to a village called Lahana where I searched for the grave of a relative killed in the Struma show. Drove on through marvellous country over which the great retreat has taken place. Wonderful fertile valleys with maize crops and melons. The temporary wooden bridge over the Struma, was very

shaky but we got the car over. There was hardly any water and herds of hogs lay in the mud endeavouring to absorb some moisture. Long drive back to Salonika ; too late to go on board for dinner so had some food in a Greek cafe.

2nd August 1925.—Mount Athos. Steamed along shore of the Peninsula which is very beautifully wooded. Knife-edged hills with concave and convex slopes alternating, the many monasteries glistening red-roofed amongst cultivation. Some of these monasteries are on the shore, some inland. Went ashore with Admiral's party and landed at a place called Vatopedion, where we were received by a deputation of monks and all the church bells pealed a welcome which sounded very musical. A mad monk, picturesque in tattered black gown and tall black hat, preceded the party to the monastery. He had a yellow, grimy face, black whiskers and a shaggy beard, a tooth missing in front and a genial "Beggar's Opera" smile. The other monks seemed to take his presence for granted and nodded at us gravely tapping their foreheads with their fingers. A large parade of monks received us at the monastery, but none of them could speak anything but Greek, and modern Greek is a very difficult language.

Inside, a beautiful courtyard, with chapel in centre. Bells, very soft and musical, again pealed a welcome. Orange trees grew in the courtyard around the chapel. The buildings are of various heights, giving a picturesque, broken skyline ; each group has little wooden verandahs on the top floor, not the bottom. We entered one building ; a vile smell in the lower storeys but the air grew fresher as we mounted the stairs. Party ushered into the Guest Reception Room : arm-chairs ranged round walls, and many windows wide open giving wonderful views of the sea coast. We were all asked to sign the visitor's book and an interpreter mentioned that as no women were allowed at Mont Athos he hoped there were none in our party disguised as men, otherwise the monks would be very offended. At this announcement several of us had some difficulty in containing our mirth. We were then entertained to glasses of fresh water and red Turkish delight ; this refreshment was described as "Eucharist" or thanksgiving.

4th September 1925.—Kavala. Went ashore to meet G-O-C. Greek Fourth Army, who was giving a tea dansant in honour of the Fleet. He was dressed in olive-coloured uniform with numerous

decorations, and received us at the Town Hall, with great cordiality. Upstairs a number of people were gathered nervously in a semi-circle. Talk rather strained to commence with. I talked to a small, watery-eyed, fair, little Greek who had lived in Corfu and had learned to play cricket there. He chewed garlic. Tea consisted of Benedictine to start with, followed by tea and then liqueur brandy. Met a Greek Divisional Commander, who invited me to witness some manoeuvres of his Division on the following day. This invitation was cancelled the next day and, I fancy, the General got " ticked off " for his impetuosity.

14*th September* 1925.—At sea. Gun practice with the 1st Battle Squadron (*Queen Elizabeth, Barham, Valiant* and *Malaya*). We were what is called a " throw-off " target for them : they were shooting with 15-inch guns at a range of about 13,000 yards. Their shells fell just ahead of us as we steamed in line and when we made a turn of 180 degrees there was an intense concentration at the turning point. (This was apparently done with great success by the Germans at Jutland). Very impressive to watch their guns belching fire and smoke on the horizon, and then to see the great shells, deadly accurate, hitting the water ahead of us. If the slightest mistake had been made we should have been hit. A 15-inch shell makes a crackling noise as it hits the water and great fountains spurt into the air. Our decks were drenched with spray.

6*th October* 1925.—At sea (now in the *Malaya*,) " Guns" described exercises to be carried out, and firing at target ship—known to all as the ' *Aggie Weston*.' The *Malaya* slapped along at about 24 knots for 4 hours, as she was doing high-speed trials as well. Very interesting to watch the *Aggie* steaming at about 15 knots and guided entirely by wireless, letting off her own smoke screens. She was fired at by our 6-inch guns which got several direct hits.

7*th October* 1925.—Malta again ! Went ashore with a number of Naval Officers and met a great many more in the Union Club. Dined there and found the change of food very agreeable, after a long period at sea. Talk all about the cruise and the various exercises and manoeuvres, and general sympathy expressed for the " Staff," who had months of work ahead of them to bring out all the valuable lessons learned.

" Yells, bells and smells," still the predominating feature of Malta.

NINETY YEARS AGO.

By

Colonel M. A. Carlisle Crowe, (Late R. A.)

Two old letters that have survived the passage of the years recall an incident in the pacification of Baluchistan. The story is worth retelling as there are lessons to be learnt from what befell those who took part in this small affair. The artillery details in the letters are interesting from an historical point of view.

The writer of the two letters, Henry Stamford, was commissioned the 9th June 1821, served in Burmah 1824-25, Kolahpoor Field Force 1827, Adjt. and Qr. Mr. 4th Troop H. A. Jan. 1832—3rd October 1835, Sind 1839-40 (attempt to relieve Kahun), Ordnance 1841-49, retired 31st March 1849. He had therefore seen a considerable amount of service at the time when he wrote.

That part of Baluchistan lying to the East of the Bolan Pass, is inhabited by the Bugtis and the Marris, two warlike and turbulent Baluch clans. After the operations against Khelat, which are too long to give here, it was found necessary to deal with these tribes. They were nominally, at any rate, tributary to the Khan of Khelat and like other frontier people were too much given to raiding their more peaceable neighbours in the plains.

A force under Major Billamore passed successfully through their hills in 1839, defeating the Bugtis and occupying Kahun, the Capital of the Marris, who had retreated with their families and cattle to the Northern part of their country. This occupation took place on 29th December 1839. Leaving at Kahun a detachment of one hundred men of the 1st Bombay Grenadiers under Ensign Peacocke, the Billamore Force left the hills in February 1840. A road over the Nuffosak Pass (Nuffosk in the letters) was made with some slight opposition from the Marris.

In the month of April 1840, a detachment was sent under Captain L. Browne, 5th Bombay Native Infantry to occupy Kahun permanently. It was composed as follows :—Three hundred bayonets 5th B. N. I. under Ensign W. W. Taylor, two 12—pr. howitzers under Lieut. W. Erskine (one was sent back from Surtof), fifty Sind Horse

under Lieut. W. H. Clarke, fifty Pathan Mounted Levies. It was to convoy six hundred camels with four months supplies for Kahun and then Lieut. Clarke was to return with fifty horse and eighty infantry to escort supplies for another four months. Owing to various delays the expedition did not start until 2nd May.

Poolagie lies about thirty miles north of the present site of Jacobabad; thence the road to Kahun runs over two difficult passes, the Surtof and the Nufossak—in all, a further distance of about fifty seven miles. Captain Browne forced these passes with some difficulty and occupied Kahun on the 11th May.

On the 16th Lieut. Clarke, 1st Bombay Grenadiers, left for Poolagie with one hundred and sixty bayonets 5th B. N. I. and fifty sabres Sind Horse. Having surmounted the first pass he sent back eighty bayonets and seven hundred unladen camels. This party fell into an ambush of two thousand Baluchis and was cut to pieces, only one doolie bearer escaping. Lieut. Clarke with the remainder were also attacked. Lieut. Clarke was killed and twelve men only escaped, together with the cavalry. The Marris, however, lost three hundred killed. Thus Lieut. Browne was left with one hundred and forty bayonets and one howitzer to defend Kahun. In the end, however, he held out till the 28th September, when he capitulated and marched out with the honours of War—an arrangement, it should be noted, which was honourably observed by the Baluchis.

This brings the story to the events related in the two letters. A relief expedition was organised, consisting of:—four hundred and sixty four bayonets 1st and 2nd Bombay Grenadiers, three 12—pr. howitzers with thirty four gunners under Captain Stamford, the whole under the command of Major T. Clibborn. At Poolagie this force was increased by two hundred sabres of the Poona Horse and the Sind Horse under Lieuts. W. Loch and G. Malcolm respectively. They had charge of a convoy of twelve hundred camels and six hundred bullocks.

They reached the foot of the Surtof Pass in five marches, it took them fourteen hours to get the convoy through. What follows is vividly related by Captain Stamford, though he hardly does justice to himself or to his gunners, for the reports, both official and private, agree in saying that it was the well-directed fire of canister shot from his howitzers that broke up the Baluch swordsmen and drove them back

with a loss of three hundred dead. John Jacob wrote :—" In fact, Major Clibborn gained a decisive victory, but was in turn, defeated by thirst and want of water."

Another who was present, wrote " We beat the enemy, but heat and thirst killed us. The men were frantic, mad ; Major Clibborn's conduct was capital—coolness itself, and he only abandoned his material to save the lives of the enfeebled and frantic survivors, after all his guns, horses, camels, camel drivers and followers had either fled or been killed. We have a nation in arms against us." The Baluchis had in fact, suffered severely, as was evident from the fact that they allowed the garrison of Kahun to march out unmolested later on.

Major Clibborn's loss was :—Officers killed—Captain C. B. Raitt, Lieut. R. R. Moore, Jemadar Jurakin Singh 1st Grenadiers ; Lieut. H. F. Franklin, Ensign A. Williams, Subadar Guru Baksh 2nd Grenadiers and one hundred and seventy nine killed and ninety two wounded, out of a force of about six hundred and fifty men.

Delay in starting the first force would appear to be the main cause of all the subsequent troubles, as it involved exposing troops to the summer heat of Sind. In that part of India the heat is appalling, unendurable. John Jacob wrote :—" The thermometer in the hospital shed (at Shikarpore in 1839) commonly stood at 130, and on several days it reached the astounding height of 140 ; one memorable day it touched 143 ! Dust storms like the blast from a furnace were common, sometimes accompanied by the *Simoom*—a poisonous wind which is equally destructive to animal and vegetable life." What must it have been in the narrow rocky passes without water !

The second mistake was sending small detachments hither and thither. The result of the employment of inadequate force is always the same—the loss of gallant lives and the work left to be done over again. After this affair the Marris and Bugtis considered themselves invincible and it was nearly forty years before they were finally brought to order.

Such are the lessons of Kahun and Nuffosak.

Letters from Captain H. Stamford (Bombay Artillery list No. 271) relating to the disaster at NUFFOSK in the attempt to relieve KAHUN, on 31st August 1840.

CAMP PHOOLAGIE,
September 5th 1840.

SIR,

I have the honor to report the death of two golundauz privates, of 5 artificers, 2 store laskars, 25 horses, 27 horsekeepers, 2 Artillery drivers, killed by the enemy on the 31st August, on which day the force under Major Clibborn was repulsed with terrible slaughter in an attempt to take the mountain pass of Nuffosk on the road to Kappun. I regret to state that the 3 howitzers, limbers etc.etc., were left behind on the retreat of the forces and that the enemy, following us up and harassing our rear succeeded in carrying off both the first, and on our disastrous retreat, nearly the whole of the armoury (sic).

All the stores, baggage and in fact nearly everything, every book, paper and document belonging to the 5th Company has been captured by the enemy, and I have nothing left but the clothes on my back.

We took ten days marching from this to Nuffosk, we retreated back in 48 hours. My exhausted state will account for this hurried letter and on my arrival at Sukkur I will endeavour to give a more detailed statement. Captain Brown and Detachment have been left to their fate which is, I fear certain death.

Yours obediently,

To Lieut. Hutt. (Sd.) H. STAMFORD, CAPTAIN,
Commdg. 5th Company.

CAMP SUKKUR,
September 28th 1840.

SIR,

In reply to your letter of this day's date I have the honor to state that I wrote to you officially on the 3rd from Phoolagie and again on the 13th from Shikarpoor on the subject of the late unfortunate affair in which I was engaged with the Force under the command of Major Clibborn. These two letters were addressed to you at Kurrachee, as I was not aware that you had left that station in order to proceed to Sukkur. I have not transmitted any official report to Regimental Head-Quarters as I conceived the proper channel of communication was through you.

It is my belief that the causes which led to the failure of the attack on the hill of Nuffosk were, first and chiefly, the smallness of the Force, the extremely difficult nature of the Country, particularly

for guns and laden camels and the scarcity of water. On arriving at Nuffosk the men were completely exhausted from fatigue in dragging the guns up steep and stony hills and lowering them down deep ravines (no water on line of march) and from exposure to a dreadfully hot sun, which was unavoidable owing to the time it occupied in bringing up the guns and the immense train of about eleven hundred camels laden with grain, etc., which it was found necesssary to guard by dividing the Force into three detachments so as to have an advanced guard, centre and rear guards, and with each of these was a gun.

Shortly after the rear guard came up the attack was made upon the hill by the advance of a body of infantry in three parties, and during the advance I was directed by Major Clibborn to keep the top of the hill clear by throwing shells.

The infantry advanced steadily up the hill to the attack and when they had arrived near the summit the guns ceased firing. Within a short distance of the top of the hill the progress of the infantry was impeded by breastworks built across the hill and other obstacles thrown in the way which were not perceived by us from the plain below, and it was when endeavouring to surmount these difficulties that a continued shower of immense stones was thrown in amongst them with incredible force and a fire of matchlocks opened upon them and a crowd of 500 or 600 Beloochies rushed impetuously down the hill and completely overwhelmed the advance already exhausted by a severe march, the want of water and the fatigue in getting so far up the hill which is very steep, and they were driven back with terrible slaughter, followed up by the enemy who, after driving the detachment from the gun on the left pushed on till they came to the other two guns and the main body of the infantry, where the fight was obstinately maintained for some time, the enemy coming close to the bayonets and the muzzles of the guns within a few yards of which many of them were killed.

When the advance fell back I loaded with canister but owing to the enemy being mixed up with our own infantry and scattered over the face of the hill I could not then fire. But afterwards and when they had nearly surrounded us and we were for a little time thrown into confusion I had an opportunity of firing on an opening presenting itself, and again on the retreat of the enemy up the hill.

I should have mentioned that we had been attacked the night before this and were under arms the whole night and that during the

latter part of the march on the following morning (the day on which we arrived at Nuffosk) we were also engaged with the enemy and several men were wounded.

As well as I am able to judge, the range from where the guns fired to the top of the hill might be between 300 and 400 yards and I had to give all the elevation the guns were capable of and for one of them I dug a hole to let the trail in so as to give more elevation. Spherical case, common shell and canister were fired and nearly all the ammunition in the limbers was expended, but a quantity equal to that contained in the wagon bodies of the two howitzer wagons and which was carried on camels (the wagon bodies having been left behind at Sukkur on account of the great weight) fell into the hands of the enemy during our retreat that night, or, rather very early on the following morning.

I am not able to state the quantity of ammunition expended and captured by the enemy, for the whole of the books and documents of the Company were captured by the enemy and the remnant of the Force arrived at Phoolagie after marching night and day with only occasional short halts for a few hours, with merely the clothes we had on when we commenced our retreat.

Many of the fuzes were cut and set when the Battery arrived here from Tatta (*a*) in May last and the number wanting to complete the quantity directed to be kept ready cut and set by Regimental order, was done by me before leaving Sukkur from a printed " Table of Ranges, lengths of fuze and elevations for field guns " given me by Captain Stanton before I left Bombay in February 1839, but I do not recollect the different lengths of fuzes. The Spherical case were fuzed for three different ranges, three shell for each range. I think the ranges for the former were 500,800,1000 yards (for howitzers 12 pr). and for the latter 800 and 1000 yards, but they were certainly according to the Regimental order when I cut the fuzes.

The greater number of the shells went over the hill which sloped down on the other side and I could not see the effect, but of those that struck the hill many of the fuzes did not ignite and I am inclined to think that many of them must have been loosened by the constant shaking in the boxes (one gun with horses and drivers rolled over down a hill during the last march and when in front of the enemy) and when fired must have fallen out.

(*a*) At the mouth of the Indus.

With regard to the behaviour and exertions of the men, I am sorry to say that they appeared to be quite overpowered by the heat of the sun and the constant marching, and they did not display that energy and willingness that might have been expected from the golundauz in getting the guns over difficult places on the line of march. They behaved well during the action (the latter part of it they fought for their lives) but after it was over every man laid down on the ground and when asked to get up the only answer I received was that they were unable to move and were dying for want of water, and I opened on the ground about 4 dozens of hot beer which many of them rushed at more like madmen than rational beings. The other officers also opened a great quantity of beer and distributed it in small quantities.

About sunset Major Clibborn received a report that the party of camelmen with the Puckauli camels, the gun horses, many of the officers' horses, a strong guard of Irregular Horse and a great number of followers who had gone to a place where it was reported by one of the guides that water was to be procured, had all been cut off in a ravine. Major Clibborn then decided on retiring to our last halting ground for water and he directed me to spike the guns and the order was given to commence our retreat as silently and as expeditiously as we were able, about 8 o'clock at night.

The enemy soon discovered that we had taken our departure and they followed up and eventually succeeded in capturing nearly the whole of the remaining camels and about Rs. 20,000, the latter belonging chiefly to the Commissariat Department.

The next day we were joined by some of the party who went to the watering place and who had contrived to escape the massacre in the ravine, and among them some 38 drivers and horsekeepers with 25 horses (one wounded), out of 65 of the former and 50 of the latter, and on the road as we continued our retreat we found many camp followers dead and dying, who had fled from Nuffosk when they saw the rush down hill.

Accompanying is a list* of the killed and wounded and missing of the Detachment of Artillery on the 31st August 1840, the day of the attack on the hill of Nuffosk by Major Clibborn.

I have the honor to be,
etc., etc.,
(Sd.) H. STAMFORD, CAPTAIN,
Commdg. Detachment Artillery.

*No list with the letter.

LETTERS TO THE EDITOR.

Emergency rations for Indian troops.

SIR,

As far as I know no tinned emergency ration acceptable to all classes of Indian troops has as yet been produced.

Chenna Chabina, gur, tea, etc., are not satisfactory and the jam tin type of containers are far too bulky. Many battalions make up their own emergency rations as does my battalion. These consist of a kind of biscuit, which, however, only lasts at the most three months and is spoilt by any moisture reaching it. Also, being carried in the aluminium tumbler or lota and easily accessible, it is liable to be eaten surreptitiously.

Any form of tinned meat is out of the question to all classes unless they are serving out of India, and biscuits, with which experiments have been carried out, are viewed with the gravest suspicion by Hindus unless again serving beyond Indian limits.

An emergency ration acceptable to all Indian troops is a great necessity, almost more so in peace in India than in war owing to the continual demands on troops for duties in aid of civil power necessitating detachments being despatched with little notice in different directions and with their communications liable to be interrupted for some hours.

The emergency ration must be acceptable to all classes so that the changing over of units in stations does not complicate supply arrangements.

My solution is an emergency ration consisting of cheese (tinned) and raw onions. Cheese is eaten by Mohammedans, Sikhs and most Hindus. European butter is readily eaten in place of ghi by all classes of Hindus and all troops prefer condensed milk to fresh, so that educating a taste for cheese should not be difficult, especially if the men become really hungry. There is nothing in its preparation that is obnoxious to any class.

The type of cheese and its packing which I have in mind is Nestle's Swiss Gruyere cheese (I have no interest in the company). Its packing is extraordinarily good; even after opening the tin it can be closed again with a close fitting, well overlapping lid thus protecting the remainder of the contents. Consumption can be controlled.

The type referred to has a key attached to open it; this could easily be replaced by a longer tab for finger and thumb.

The sustaining properties of cheese and onions are well known and raw onions have a great advantage in that they assuage thirst—a most important consideration—and are often eaten raw by all Indian troops; they are also an ordinary ration issue. Before, therefore, troops go off anywhere their aluminium tumblers or lotas should be filled with onions (at least three large ones) from the ordinary supplies in hand.

The production of a suitable type of cheese in India should not be difficult as tinned butter is already produced by several firms. This cheese would probably appear on the tables of some messes and the contents of the emergency ration would become known to all through the medium of the Mess Havildar and orderlies.

I do not know whether the claims of cheese as an emergency ration have been put forward before, but I have always carried cheese as my own emergency ration when operating several days away from my headquarters in the jungle during the past four months, and the above ideas occurred to me when, late one evening and far from home, I invited an Indian Officer to share the contents of my tin; this he did and was easily the faster eater! My men have also nearly always carried raw onions on their own initiative and eaten them like apples as sustainers.

Yours faithfully,
K. GODDARD, CAPTAIN.

RANGOON:
21*st October* 1931.

U-Boat Stories.

SIR,

In W. E. M.'s review of *U-Boat Stories*, published in your October Journal, occurs the passage, "That U-Boat Commanders were guilty of the greatest brutality and a cynical disregard for the exiguous decencies of war cannot be denied; neither can it be denied that this very savagery brought its own retribution in the shape of the United States of America."

May I be permitted to enter a mild protest on behalf of a very gallant body of men, who merely carried out the orders issued to them, as soldiers and sailors of all nations are expected to carry out the

intentions of the higher command. When those orders enjoined ruthlessness, some ruthless deeds were done. On the other hand there were very many instances when German submarine commanders risked everything by their humanity.

From the German official point of view, essentially logical, though by no means always wise, there was little ethical difference between ruthlessly blockading, with intention to starve, a civilian German population, and ruthlessly blockading, also with intention to starve, a civilian British population. Britain had command of the surface of the sea, Germany strove to attain command of the depths. On the surface, Britain could bring enemy vessels into port without undue risk; a German submarine could very rarely do so. In many cases a submarine after ordering a crew to take to their boats wirelessed an enemy port to send help, and there is no recorded instance of such help being interfered with, when it was sent. Neutrals were warned to keep out of certain areas at their risk.

The sinking of the Lusitania should not be taken as typical of the action of German submarine commanders. There is little doubt, that this was a genuine mistake, besides a fatal error of judgment, caused by very bad visibility, and nerves highly strained by long under-sea campaigning. Most of the 'savage and brutal' German submarine commanders are to-day living quietly and peacefully in Germany, with little on their consciences except perhaps anxiety for the future, 'axed' and forgotten like the 'savage and brutal' sailors of other countries. The U-Boat men and the Q-Boat men have the greatest respect for each others war-time courage and endurance.

To those who are interested in the actions of the German submarines, I would recommend the book *Raiders of the Deep*, by the American, Lowell Thomas. The chapters dealing with the trans-Atlantic raids and with the sinking of the Lusitania are especially worth reading.

MAYMYO, BURMA: Yours faithfully,
18*th October* 1931. KENNETH MASON.

MILITARY NOTES.

BELGIUM.

Appointment of Chef de Cabinet.

The new Minister for National Defence has selected as his *Chef de Cabinet* Major-General Maurice Tasnier, lately commander of the infantry of the 4th Division at Namur, in succession to Colonel de Grox, the *Chef de Cabinet* of the ex-Minister, Comte de Broqueville.

NOTES ON MILITARY REVIEWS.

"Bulletin Belge des Sciences Militaires."

Published by Imp. Typo. de l'Institut Cartographique Militaires, Brussels.

Price, 1·50 Belga.

August, 1931.

The Belgian Defensive System.

Explains the General Staff plan for the defence of the country which has received the sanction of the Chamber of Deputies through the vote of a portion of the credits necessary to put it into effect.

An interesting summary of the geographical considerations, which have always made Belgium a theatre of war in the past and are likely to do so in the future. Contains extracts from the statement made by General Galet, Chief of General Staff, before the Mixed Commission of 1928.

The fact that modern inventions, particularly submarines and aircraft, have made the neutrality of Belgium more than ever vital to Great Britain is duly emphasized. Considerable stress is laid on the suggestion that Germany's best lines of attack on both France and England lie through Belgium.

FRANCE.

NOTES ON MILITARY REVIEWS.

"REVUE MILITAIRE FRANCAISE."
Published by Berger Levrault. Price, 5·50 francs.
July, 1931.

1. *Strategical Success—Tactical Successes.* (Part VIII.) Conclusion. By Colonel Loizeau.

In his summary the author deals with two theories of war; Falkenhayn's, which he calls attrition with limited objectives, and that of Foch, the destruction of the enemy forces. He sums up that strategic success can be obtained only by efforts directed towards a single objective inspired by a central idea following a plan which aims at the end of the war. Moltke failed through not controlling his army commanders; Falkenhayn was paralysed by the failures of his subordinates, while Ludendorff was led astray by the tactical successes he obtained. Foch alone followed his plan, kept to his idea, and reached strategic success.

2. *Geographical Objectives.* By Contre-Amiral Castex.

This article by the well known naval writer quotes many interesting historical examples, and arrives at the somewhat obvious conclusion that a strategic geographical objective is only legitimate when its attainment definitely assists towards the main objective—the destruction of the enemy forces. He then discusses at length Corbett's theory of limited war, which he considers a rather artificial definition, but concludes by giving the conditions under which he considers it might arise.

3. *The First Commander-in-Chief of the Russian Army.* (Part II.) Conclusion. By General Danilov.

The author carries forward the story of the war on the eastern front up to September, 1915, when the Emperor took over the nominal command, with Alexeiev as Chief of the General Staff. Throughout this period, the East Prussian salient was a constant menace to the Russian right flank, and there were insufficient forces to reduce this and at the same time maintain the main offensive against Austria, whom it was hoped to force out of the war. The state of the Russian

Army in 1915 is described as most lamentable; divisions were 5,000 men under strength, and the lack of rifles, machine guns and ammunition of all kinds was most marked. For instance, against a monthly consumption of 300,000 to 350,000 rifles, the factories could only produce 60,000 a month. The value to the allied cause of the Russian co-operation is shown by the claim that while in 1915 the German divisions on the western front remained at 83, on the eastern front the number of German and Austrian divisions increased from 50 to 137.

4. *The Reality of War.* By Major Delmas.

The thought in this article is somewhat confused, but it is intended to show that war is a matter of hard fact and reality, and must not be treated too much on the mental plane. The author considers it a combination of power and speed, and that the commanders require courage and imagination to make use of these factors, while the principal requirement in the leaders of small units is common sense and the ability to impress their personality on the men they lead.

5. *Marshal Macdonald and the Defence of the Lower Rhine.* Part I. By Captain Regnault.

Shows the complete state of disorganization of Napoleon's armies and of the frontier after the defeat of Leipzig.

Reviews.

Recent instructional methods in the British Army are analysed. German military papers are as usual fully reviewed, and there is a long precis of an article on artillery and tanks from the journal of the Royal Artillery.

GERMANY.

Combined Training.

The following account of a combined naval and military landing operation, carried out on the early morning of 15th July on the Baltic coast north-west of Swinemünde, is derived from the press.

The exercise was under the orders of the Artillery Commander of the 2nd Division and of the Commandant of the Swinemünde Defences. The army units engaged were a battalion of the 3rd Infantry Regiment which was on its way from East Prussia to Königsbrück Camp in Saxony to carry out its annual month's field training, and a pioneer detachment.

The battalion with its transport and equipment was conveyed from Königsberg to the Pomeranian coast in two hired transports, the rotor-ship "Barbara" and the s.s. "Stern," each of 2,000—3,000 tons displacement. The covering naval units of the landing force and the coast defence artillery of the defending force were imaginary, in order to avoid unnecessary expenditure.

Shortly before 3 a.m., as it was just getting light, the two transports approached the shore of the Island of Usedom in the neighbourhood of Bansin and Heringsdorf, under a smoke screen produced by a flotilla of six fast U. Z. mine-sweeping motor launches. With a view to economy, the smoke screen was only produced during the initial landing, instead of during the whole operation.

Under cover of the smoke screen, ship's boats and pneumatic rafts were lowered into the water, manned, and towed to shore by the coastal motor boats. The covering parties were opposed by troops of the 2nd Division, but made good their landing. The horses in box crates and vehicles were then lowered into six special horse-lighters, which were also towed until a depth of 2 meters was reached. They were then hauled further towards the shore by means of 6 hauling tackles constructed by the pioneers. The lighters had high flat sterns which were lowered to form a ramp. Each lighter took 6 to 8 horses only. Weather conditions were favourable and the landing was completed by 11 a. m.

SPAIN.

Ministry of War.

One of the first acts of the Provisional Government was to alter the name of the Ministry of the Army to that of the Ministry of War.

A Military Cabinet, details of which are not yet known, has been formed to come directly under the orders of the Minister of War. The officer personnel may belong to any corps or arm of the service.

SPANISH ARMY.

Pledge of allegiance to the Republic.

A. The following decree has been issued by the Provisional Government :—

Article 1.

All general officers on the active or reserve lists, and all senior officers and officers who have retired or been dismissed from the army, must, within four days of the publication of this decree, make a solemn promise of allegiance and loyalty to the Republic.

Article 2.

The text of the pledge will be—

"I promise on my honour to serve well and faithfully the Republic; to obey her laws and defend her with arms."

Article 3.

In all corps and military establishments officers will sign the pledge in the presence of the commanding officer or his delegate.

This article further refers to the facilities provided for officers, whether sick or abroad, to sign the pledge. Those abroad will do so in Spanish Embassies and Consulates.

B. The following is taken from the preamble to this decree :—

"The Revolution of the 14th April, which by the will of the people established the Republic in Spain, extinguishes the oath of obedience and loyalty which the armed forces of the nation had sworn to the institutions which have now disappeared. It is not in any way to be understood that the nation's forces on sea and land were bound by that oath by ties of allegiance to a dynasty or to a person. Article 2 of the Constitutional Law states that "the mission of the Army is to maintain the independence of the country.'

"The Government of the Republic has pleasure in making known its satisfaction at the behaviour of the 'military' during the recent crisis."

"The Republic, respecting individual conscience, does not enforce this promise of allegiance. Those who opt to serve her must make it; those who refuse to do so will prefer to leave the service. The Republic is for all Spaniards, but only those may serve her in confidential posts who unreservedly and fervently adopt the *régime*. The withdrawal of those who refuse this allegiance does not imply sanction but the ending of their engagement with the State."

The Provisional Government has issued orders to the effect that attendance at Mass in corps and military establishments shall in future not be compulsory.

Officers and other ranks who wish to attend Mass will do so without arms and not in formation, when the service is held inside the barracks. When held outside barracks tactical units will be formed, parade dress will be worn, but no arms carried.

It has further been decreed that military authorities shall, in future, not attend religious services officially, nor may they order the attendance of forces under their command. Officers and other ranks are free to attend such services individually, provided their duties permit.

Military bands will take no part in religious services either inside or outside barracks.

Reductions in the Spanish Army, the "Guardia Civil" and "Carabineros."

A decree has been published by the Provisional Government offering facilities for all officers, so desiring, to pass to the reserve or retired lists on full pay. This applies to the army, the *Guardia Civil* and the *Carabineros.*

This is the first step of the Provisional Government towards reducing the armed forces to a size proportionate to the needs and resources of the nation.

The Government's policy of reducing the army is being put into effect still further by the cancellation by decree of entrance examinations to the General Military Academy for the June term, for which 100 vacancies had been announced.

Disbandment of the Royal Escort and Halberdier Corps.

The Provisional Government has ordered the disbandment of :—

(*a*) The Royal Escort.

(*b*) The Royal Corps of Halberdiers.

The officers of these corps will be placed in the situation of "compulsorily unemployed."

The other ranks of the Royal Escort will be distributed amongst the other cavalry units in the Madrid garrison.

The other ranks of the Halberdier Corps will remain on full pay at the disposal of the Captain-General of the 1st Region.

Disbandment of the "Somaten" Corps.

The Provisional Government has decreed the disbandment throughout Spain, with the exception of Catalonia, of the *Somatenes.*

This semi-military corps was originally created, about 1875, as a local force in Catalonia. In 1923 General Primo de Rivera increased

its organization to a national one for the purpose of assisting in the suppression of disorders.

The personnel carried a rifle, but wore no special uniform.

The regular army officers who were detailed for service with this corps, numbering some 300, are being placed on the "compulsorily unemployed" lists.

District commissions are being appointed to check the disarming of the members of the corps and the handing over of accounts and property.

The colours are being placed in the infantry museum.

Centre of Higher Military Studies.

A Decree of 21st July provides for the organization of a centre, under the Central General Staff, to be known as the *Centro de Estudios Militares Superiores* (Centre of Higher Military Studies). This centre will be responsible for the preparation and carrying out of courses for preparing colonels for promotion.

The Chief of the Central General Staff will be the Director of the Centre.

The *Centro de Estudios Militares Superiores* will suggest annually a suitable date for the course for preparing colonels for promotion, the duration of the course, and the officers who should attend.

Engineer Corps.

In a recent Circular Order of the Ministry of the Army, provision was made for the creation of a "Centre for Signalling and Tactical Study for Engineers."

This centre will embrace the existing

Signal School.

Permanent W/T, Telegraph and Telephone Services.

Permanent W/T School.

Tactical School for Engineers.

The new centre will be located in Madrid in the premises of the former signalling school.

Changes in Organization.

By a decree dated 16th June, 1931, the following are abolished :—

The 50 recruiting and reserve zones with their infantry reserve circumscriptions.

All cavalry, artillery and engineer reserve depots.

All organizations responsible for the census and statistics of animals, vehicles, material and supplies.

Instead the decree creates 16 mobilization and reserve centres responsible for the preparation for mobilization of men ; the requisitioning of animals, vehicles, material and supplies of all kinds ; and the organization of the reserve units.

Mobilization and reserve centres will be administrative units. Each will be under the command of the G.O.C. of the division which includes the brigade it serves. The centres will be commanded by infantry lieutenant-colonels assisted by officers of all arms other than aviation.

The recruiting stations are reduced in number from 120 to 60.

The total reduction in personnel resulting from the above changes include 110 colonels and lieutenant-colonels, 40 majors, 210 chaplains, 220 corporals, 310 privates and 6 clerks.

SWITZERLAND.

Military Obligations.

Under the Federal Law of 12th April, 1907, every male Swiss citizen is liable to military service for a period of 29 years, commencing with the year in which he reaches the age of 20. In time of war or of national emergency men of 18 and 19 years of age may also be called out for service by order of the Federal Council (Cabinet).

The military liability covers both personal service, during periods of training or active service, and also the obligation to observe certain regulations at other times. Thus a man, when not undergoing training, is responsible for the care of his rifle and equipment : these are provided by the Government but become the man's personal property at the conclusion of his service. Men in the cavalry must keep and feed their horses, which they either purchase from the Government at reduced rates or provide themselves in return for some monetary compensation.

Members of the Federal Council, directors and staffs of public hospitals, and certain other officials whose services are indispensable, *e.g.*, police, are temporarily exempted from military service. Clergymen of recognized denominations must pass a recruits' course, but are otherwise exempt, except those who are military chaplains. Men physically or mentally unfit, those deprived of their civil rights on account of criminal offences, and those whose conduct whilst serving is unsatisfactory, are not called upon to serve. With these exceptions, the principle of obligatory military service applies universally, though in practice only about 60 per cent. of those eligible are normally required to serve. The yearly intake of recruits is at present about 25,000. All men who are exempted from actual military service for any reason, except employment in other branches of the public service, must pay an annual tax: this consists of a per capita charge and a supplementary tax on property or income and varies from a minimum of 6 francs (say 5*s.*) to a maximum of 3,000 francs (£ 120). During the 1914—1918 mobilization this tax was doubled. In addition, certain military obligations are laid upon the whole population, such as the provision of billets, and the supply of rations in return for payment: communes have to provide, free of cost, rifle ranges and suitable places for the examination of recruits.

Categories of personnel and strength of the army.

(*a*) *Permanent corps.*—The permanent corps is a small body of professional officers and non-commissioned officers, selected from volunteers. Besides forming an instructional cadre for the various arms, it provides the corps and divisional commanders, the general staff and certain other permanent personnel of the Federal Military Department (War Office). In 1930 the strength of the permanent corps was 301 officers and non-commissioned officers.

(*b*) *Categories of militia personnel.*—The Swiss Army is divided into :—

(i) Elite—first line	..Men aged from 20 to 32 (cavalry from 20 to 30); officers up to 48 according to rank.
(ii) Landwehr—second line	..Men aged from 32 to 40 (cavalry from 30 to 40); officers up to 48 according to rank.
(iii) Landsturm—third line	..Men aged from 41 to 48; officers up to 52.

Since 1925 the Elite and the younger classes of Landwehr have been to some extent amalgamated and a number of mixed units and formations of these two categories exist.

In time of war men of the Landwehr may be employed in the Elite and men of the Landsturm in the Landwehr.

(*c*) *Total strength of the army.*—The estimated total strength of the Swiss Army is as follows :—

Recruits under training	..	25,000
Elite	..	210,000
Landwehr	..	120,000
Landsturm	..	90,000

It is estimated that of the above, 300,000 would be required initially on mobilization. In addition, the strength of auxiliary services, particulars of which are given below, is about 200,000.

Periods of service.

The following details apply to all ranks ; additional courses and training carried out by officers and non-commissioned officers are described below. Men are enlisted in the year in which they reach the age of 19 and are classified as—

Fit for service.
Fit for auxiliary service.
Unfit for service.

The periods of service, which those passed fit have to perform, are—

(*a*) *Recruits' course.*—Each man is posted to one of the arms of the service on enlistment and is called up for his recruits' training during the ensuing year. The length of this course varies from 60 to 90 days according to the arm.

(*b*) *Repetition courses.*—Men of all arms except the cavalry attend seven repetition courses whilst in the Elite and one whilst in the Landwehr ; men of the cavalry attend eight such courses whilst in the Elite and none in the Landwehr. The duration of these courses is 11 days, excluding days of joining and dismissal, except for air force, artillery and fortress troops of the Elite, for whom it is 14 days. Men in the Landsturm attend no repetition courses.

(*c*) *Musketry courses.*—All men armed with the rifle fire an annual course in a rifle club during their service in the Elite and the Landwehr.

(*d*) *Inspection of arms and equipment.*—Every man in the Elite, Landwehr and Landsturm must attend an inspection of arms and equipment held one day in each year in which he performs no other training.

Training and promotion of officers and non-commissioned officers.

(*a*) *Elite.*—Officers and non-commissioned officers, whilst they serve in the Elite, attend various schools and classes of instruction, and also undergo an extra number of repetition courses additional to those mentioned in paragraph 4 (*b*) above. During their time in the Elite the total number of extra days' service thus performed is as follows, the difference in the number of days depending upon the rank and arm of the service of the individual :—

Officers	..200 to 499 days.
N. C. Os.	.. 80 to 262 days.

(*b*) *Landwehr.*—During their time in the Landwehr captains carry out two extra repetition courses; subalterns and N.C.Os. above the rank of corporal, one extra course. This does not apply to the cavalry

(*c*) *Air Service.*—Prospective pilots, who are either officers attached from other arms or promoted from the ranks of the Air Service, attend a flying course lasting 173 days. Pilots are divided into :—

(i) *Monthly pilots.*—These carry out two days' training per month and must complete 100 hours' flying per annum for two years. Monthly pilots after competing their two years as such may, if they wish, become reserve pilots not detailed for regular flying.

(ii) *Reserve pilots.*—Reserve pilots detailed for regular flying carry out 50 hours' flying a year. Reserve pilots not detailed for regular flying are only trained during the Air Service repetition courses.

(*d*) *General Staff.*—The following special courses are provided for the training of the General Staff :—

(i) Staff Course No. I, 70 days, for officers intending to join the General Staff. This qualifies for service on the Staff.

(ii) Staff Course No. II, 42 days, for captains, for qualification for promotion to Staff major.

(iii) Staff Course No. III, 21 days, for officers who have passed Courses Nos. I and II. This qualifies for promotion to Staff lieutenant-colonel.

In addition, Staff officers are called up every other year for 11 days' tactical training.

(*e*) *Promotion.*—Every Swiss soldier is bound to accept promotion, both to non-commissioned and to commissioned rank.

Only non-commissioned officers may be selected to pass through an officers training school. The conditions for an officers subsequent promotion are 4 years' service in his present rank and satisfactory attendance at the various schools and courses referred to in sub-paragraphs (*a*) and (*b*) above.

Army organization in peace.

(*a*) *Higher command and organization.*

(i) *The Federal Council*, or Cabinet, is the supreme head of the military administration.

(ii) *The Federal Military Department* is the military executive organ of the Federal Council; the head of the Department is a Federal Councillor. It is divided into 13 branches, including the General Staff Branch under the Chief of the General Staff, and the Infantry, Cavalry, Artillery and Engineer Branches under the chiefs of these arms. The Military Air Service is under the General Staff Branch. The duties of the chiefs of the arms comprise the study of general questions and the supervision of training affecting their respective arms.

(iii) The *National Defence Committee*, of which the head of the Military Department is the Chairman, considers all questions affecting national defence and consists of:—

The Chief of the General Staff.
The Chief of the Infantry Arm.
The Army Corps Commanders.

(iv) *The Army Corps Commanders* are 3 in number. They exercise no actual command in peace time, but supervise training, preparation of the troops for war, and the direction of manœuvres. The 6 divisions, most of the army, or non-divisional troops, and the fortress garrisons are distributed among the corps commands for these purposes.

(v) *The Cantonal Military Authorities* constitute a small military department in each canton. They keep lists of all those liable to service and ensure that the obligation to service is not evaded. They are charged with a number of administrative duties and are responsible for calling out the troops on mobilization.

(vi) *Territorial organization.*—The country is divided into 6 divisional districts from which units of the divisions recruit. For the purpose of organizing the auxiliary services in time of war the country is also divided into 8 territorial areas, each under a commandant and staff appointed in peace.

(*b*) *Divisional Troops.*

There are 6 divisions, each comprising—

(i) *Field Troops.*

2 Elite infantry brigades, each of 2 regiments (each of 3 battalions) and 1 Landwehr park company.
2 Landwehr infantry regiments, each of 2 battalions.
2 cyclist companies.
1 group of 3 machine-gun companies.
1 group of 2 dragoon squadrons.
1 field artillery brigade of—
2 regiments each of 2 groups of 3 field gun batteries (4 guns).
1 group of 2 field howitzer batteries (4 howitzers).
1 engineer battalion of 3 companies.
1 bridging train.
1 telegraph company.
1 medical group of 4 Elite companies and 1 Landwehr company.
1 field hospital with 4 ambulances.
1 medical transport group of 8 ambulance columns.
1 supply group of 2 Elite companies and 1 Landwehr company.
1 motor transport group of 4 columns.
1 mountain train group of 2—4 columns.

(ii) *Mountain Brigade.*

1 Elite mountain infantry brigade of 2 regiments (each of 3 battalions), 1 park company and 1 mountain transport column.

Note.—The mountain infantry brigade in the 5th Division has an extra regiment.

1 Landwehr mountain infantry regiment of 2 battalions.
1 mountain artillery group of 2 batteries (4 guns).
1 mountain engineer company.

1 mountain telegraph and signal company.
1 mountain medical group of 3 companies.
1 mountain supply company, with 1 motor transport section.

(*c*) *Army Troops.*

Army troops, other than those which form part of the Fortress Garrisons, comprise—

(i) *Elite, or Elite and Landwehr mixed.*

3 cavalry brigades.
3 cyclist groups.
1 motor cyclist company.
4 heavy artillery regiments, each of 3 groups, each of 2 batteries.
1 balloon group of 3 companies.
1 searchlight group of 3 companies.
3 army bridging trains.
1 telegraph company.
1 wireless group of 3 companies.
1 mining battalion of 6 companies.
9 bakery companies.
Aviation troops (*see* sub-paragraph (*d*) below).

(ii) *Landwehr.*

6 infantry brigade staffs.
6 machine-gun companies.
30 dragoon squadrons (dismounted).
6 machine-gun squadrons.
6 engineer battalions, each of 3 companies.
7 telegraph and signal companies.
28 ambulance trains.

(*d*) *Aviation troops.*

The Military Air Service, as stated in sub-paragraph (*a*) (ii) above, is directly under the General Staff Branch of the Military Department, and is commanded by the Chief of the Military Air Service. It is organized into 5 aviation groups, each of 6 aviation companies: of the 5 groups 1 is a group of fighters and 4 are observation groups. At present only 3 group headquarters, 6 fighting and 12 observation companies exist. An observation company has 6 or 8, and a fighting company 9 or more, aeroplanes.

(*e*) *Fortress garrisons.*

The St. Maurice and St. Gothard fortresses are situated on the southern French and on the Italian frontiers respectively. The garrison of St. Gothard is approximately double the size of that of St. Maurice. The fortress garrison troops comprise—

(i) *Elite or Elite and Landwehr mixed.*

2 mountain machine-gun groups, each of 2 Elite companies and 1 Landwehr company.

5 fortress artillery groups, each of 2, 3 or 4 companies.

4 tractor-drawn artillery regiments, each of 2 or 3 groups, each of 2 or 3 batteries.

1 or 2 artillery observation companies.

2 mountain searchlight companies.

2 mountain engineer companies.

3 telegraph and mountain signal companies.

2 supply companies.

(ii) *Landwehr.*

3 mountain infantry regiments, 2 of 2 and 1 of 3 battalions.

4 telegraphs and mountain signal companies.

(*f*) *Landsturm.*

Since its reorganization in 1930, the Landsturm forms an integral part of the army and is under the control of the General Staff Branch of the Military Department, but in principle the cantons are responsible for administration. It consist of men who have completed their Landwehr service, men prematurely discharged from the Elite or the Landwehr, men unfit for the Elite or Landwehr, and volunteers, who are accepted as conditionally suitable but undergo no training, inspection or medical examination in peace. Its tasks on mobilization are two-fold, *viz.* :—

(i) To cover the mobilization of the field army by guarding the frontiers and important points, and by carrying out special missions.

(ii) To reinforce the technical arms of the Landwehr and to carry out particular duties, such as demolitions.

In consequence of the first of these tasks, the Landsturm infantry and cavalry are organized on a Territorial basis, and the men belong to units in their home districts. In order to fulfil the second task, the organization of the Landsturm technical corps (artillery, engineers, signals, aviation, transport, &c.) is based on that of the Landwehr ; for each technical unit of the Landwehr, or Landwehr and Elite combined, there is a corresponding Landsturm unit designated by the same number.

The Landsturm is organized into—

70 infantry battalions of from 2 to 6 companies.
60 machine-gun companies.
15 companies of dragoons (dismounted).
43 field and mountain artillery companies.
35 medium and heavy artillery companies.
15 fortress artillery detachments.
20 engineer detachments.
8 bridging detachments.
Ancillary troops and services.

(*g*) *The Auxiliary Service.*

This is composed of men who are medically unfit for the Elite, Landwehr or Landsturm, but who are capable of performing non-combatant services for the army or the Government in the event of mobilization. They undergo no military training and pay the military tax for any year in which they perform no duties.

The obligations of these men extend until the end of their 48th year ; when called up they are subject to military law. They are classified in various categories according to the nature of their duties ; but in peace only those classified as " Pioneers " are organized into cantonal detachments of 250 men. Personnel of the auxiliary service wear plain clothes, with a Federal brassard, a cantonal cockade, and a band on the head-dress indicating the category to which they belong.

Mobilization and war organization.

(*a*) *Higher command.*

As soon as the mobilization of the army is ordered, the Federal Assembly (Parliament) appoints a Commander-in-Chief and the functions of the National Defence Committee cease ; pending his nomina-

tion, the Military Department assumes command of the army. The Federal Council, after consulting the Commander-in-Chief, appoints a Chief of the General Staff, and an Army Staff is formed, presumably from the General Staff.

(*b*) *Mobilization procedure.*

(i) *General.*—The mobilization of the Swiss Army is exceptionally rapid for the following reasons :—

The army is organized almost entirely on a territorial basis; men live near their centres of joining; distances are small.

The war establishment of every existing unit is the same as its peace establishment.

No increase in the number of formations or units is contemplated.

Every man keeps his own arms and personal equipment and, in the case of cavalry, his horse.

The mobilization arrangements are put to a practical test every year when men are called up for repetition courses and manœuvres. The general procedure, both in peace and war, is the same.

If the order to mobilize were issued in the early morning, infantry, cavalry and engineer units would be ready to move from their places of assembly the same evening under normal circumstances, the whole army would be completely mobilized by the end of the third day. On mobilization, the whole frontier would be immediately occupied by covering troops from the Landsturm, who, if seriously attacked, would probably withdraw to the mountainous regions surrounding the central plateau.

(ii) *Landsturm.*—As stated above, one of the duties of the Landsturm is to cover the mobilization of the field army, and with this object in view, it is organized so as to mobilize with an absolute minimum of delay. Every Landsturm man joining for active service must bring with him two days' rations, and units organized on a territorial basis must take up their duties by the morning of the first day of mobilization. It is, however, problematical whether all Landsturm units could arrive on the frontier in time; to meet this difficulty it has been suggested that patrols armed with light automatics and consisting of men from the Elite, Landwehr and Landsturm, who know the country well, should be

organized at once and pushed forward to act as a delaying force. Wherever independent rôles have been assigned by the General Staff, all preparations to carry out such instructions are worked out by Landsturm unit commanders in peace, for which special purpose the law provides for practice exercises of from one to three days' duration. It is open to question whether men of the Landsturm, in view of their long absence from training, are really qualified to play this vital rôle. Another difficulty is the fact that volunteers accepted as conditionally suitable for the Landsturm in peace only undergo their medical examination on mobilization, after which their allotment is to be decided by G.H.Q., at a time when it would be already preoccupied with other and more important problems. When the mobilization of the field army is completed, the Landsturm would be available to work on the lines of communication.

(iii) *Auxiliary Service.*—All men of the Auxiliary Service report on mobilization to the headquarters of their Territorial Area, where they are mobilized into detachments.

The Military Police Force, which does not exist in peace time, is recruited up to requirements on mobilization from the cantonal police forces and volunteers among the troops. It comes under the Commander-in-Chief.

(c) *Territorial Service.*

The Territorial Service system is one of the most important features of the Swiss military organization. As already explained, the country is divided into eight Territorial Areas. The Territorial Service is responsible for supply, and assures the rearward services up to the point where the lines of communication service commences its duties. The cantonal military authorities become the executive organs of the eight Territorial Commandants for carrying out orders received from the Military Department. The duties of the Territorial Commandants include—

(i) Calling out the Auxiliary Service.

(ii) Total or partial evacuation of particular regions.

(iii) The military control of their areas, control of foreigners and the press, protection of the frontiers by police.

(iv) Requisitioning.

The territorial commandants command the Landsturm and Auxiliary Service in their areas; if necessary, elements of the Elite and Landwehr may also be placed under them.

Training and tactics.

(*a*) *General.*

Military activity plays a leading part in the life of every male Swiss citizen. Before his actual militia service he undergoes preparatory military instruction, and he belongs to a rifle club and attends meetings organized by the numerous military societies which form part of the social life of the country. Officers' societies exist for the purpose of carrying out exercises on the map, staff tours and lectures.

(*b*) *Preparatory military instruction.*

In view of the small amount of time available for the training of recruits, great importance is attached to preparatory military instruction, which is supervised by the Military Department.

This consists of :—

(i) *Obligatory gymnastics.*—A minimum of two hours a week in all public and private schools for all boys between the ages of 7 and 15, unless exempted by the Military Department. Instruction is in accordance with a Federal Manual and the Federal Council has the right to order inspections. Cantons render reports to the Council every three years. Instructors are trained in the schools and in advanced courses organized by the Military Department.

(ii) *Voluntary courses* after leaving school. These comprise :—
Gymnastics.
Preliminary small arms training.
Musketry courses.

The inculcation of patriotism and a high *morale* plays a large part in these courses, which are organized by a Central Committee in each Canton. These Committees must be approved by the Chief of the Infantry Arm. The first two of the above courses may be taken in 1 year, but the third cannot be taken till the year after. The Government defrays all expenses and provides arms, ammunition and equipment, and insures participants against accidents; it also grants a subsidy to rifle clubs for each member who carries out the full programme. The instructors (except in gymnastics) are subject to military law.

(*c*) *Rifle Clubs.*

The rifle club organization, which dates back to mediæval times, is a valuable adjunct to military training. The membership in 1929 was 205,000. The Government subsidises approved rifle clubs by the provision of free ammunition, free instruction, free accident insurance, and monetary grants. Only army rifles may be used. Men of the Elite and Landwehr fire their annual musketry practices in these clubs and, if they fail to complete them, must attend a 3 days' musketry course, without pay, in the autumn. Every commune has to erect and maintain a 300 metres range. The private competitions of the rifle clubs are one of the principal events of the year in Switzerland, but are of a festive and patriotic character and the conditions under which they are held are not of a practical nature from the military point of view.

(*d*) *Army training.*

The training of recruits and units up to brigades is in the hands of the militia officers and non-commissioned officers, who are likewise responsible for the administration of their units, and must consequently perform a considerable amount of unpaid work. The supervision and general direction of training is carried out by the Permanent Corps.

In order to utilize to the full the short periods of training available, all non-military duties in the army are carried out by civilian personnel.

The organization of the training in the repetition courses is designed to ensure that each man undergoes progressive stages of individual and collective training. There are three such stages, *viz.* :—

Elementary training.

Detachment training—including battalion training, brigade or inter-regimental training, and divisional or inter-brigade training.

Manœuvres.

A division carries out one stage each year, two divisions in any one year being engaged on each of the three stages. Thus, in 1929 and 1930, divisions were trained as follows :—

—	Elementary training.	Detachment training.	Manœuvres.
1929	4th and 5th Divisions	1st and 3rd Divisions	2nd and 6th Divisions
1930	2nd and 6th Divisions	4th and 5th Divisions	1st and 3rd Divisions.

Army Budget.

The Swiss Army budget amounts to nearly 23 per cent. of the total national expenditure; the Swiss Army is committed, to a greater degree than in most other countries, to meeting—

(i) The cost of civilian officials and employees to take charge of barracks, stores, &c., and carry out duties of a non-military nature. The explanation of this is the militia organization, under which military personnel do not serve continuously and are therefore not available for such duties.

(ii) The expenses connected with preparatory military instruction.

The gross expenditure since 1926 on the army, including the air force, is as follows :—

	Millions of francs.	
1926	91·5	Closed Accounts.
1927	90·1	
1928	91·2	
1929	89·4	
1930	86·7	Estimates.
1931	92·9	

The increase in 1931 over 1930 consists of an extra 5·6 million francs for training and ·6 millions for equipment. Small sums of 45,000 francs for pensions and 1,000 000 francs as grants on account of permanent disablement are included in the 1931 estimates.

Apart from the above expenditure, a special credit of 20 million francs for the re-equipment of the air force was passed by the National Assembly in June 193), to be spread over three or four years.

Another special credit of 16 million francs was granted in 1930 to be spread over the two following years for the replenishment of stocks of clothing and equipment. According to the League of Nations Armaments Year Book, among the annual subsidies granted by the Government to the cantons, a sum of about 49 million francs is devoted to military and physical training; but it is not known whence this sum is provided, as it does not appear to figure in the Federal Budget.

War material and resources.

(*a*) *Armament and equipment.*

The armament and equipment of the Swiss Army are generally speaking sufficient for its needs, though they do not compare with those

of the more highly developed forces of the great nations. The infantry possess machine-guns, light automatics, gas masks and steel helmets. They have no trench mortars or anti-tank guns. The proportion of field artillery to infantry is very small, namely 64 field and mountain guns and howitzers to the 24 battalions in each division. The so-called "heavy artillery" is in reality only medium, the heaviest piece being the 15-cm. howitzer. Much of the second line transport is mechanized and most of the heavy artillery is tractor drawn. There are no armoured fighting vehicles, either tanks or armoured cars, and no anti-aircraft artillery. The Swiss military authorities are now considering further developments in armament, particularly in aircraft, and in anti-tank, anti-aircraft and anti-gas equipment. Though formerly sceptical as to the value of tanks in their country, on account of the snow conditions rather than of the terrain, they now appear anxious to test the performance of track vehicles on their mountain roads.

(*b*) *Resources.*

Generally speaking Switzerland is dependent upon foreign supplies of food and raw materials, in which her resources are limited, though she is well equipped as regards industry and skilled labour. The question of food supply might be a serious problem in war. As regards horses, the cavalry only is in permanent possession of horses in peace; horses for other arms required for training are procured from the Horse Regie, Thun, which hires as necessary from private individuals and contractors. In time of war the Government has the right to dispose of all horses in the country, registers of which are maintained by cantons and communes. Riding horses are all imported. Mechanical transport is ample and civilian vehicles are registered and liable to requisition on mobilization. There are no internal supplies of oil and coal, but the lack of these commodities is being largely made good by the development of water-power and consequent electrification of the entire railway system, already more than half completed. All military necessities except actual guns and heavy gun parts can be produced in the country; the principal government arsenals are at Berne, Thun and Bienne. Aircraft have hitherto been usually purchased abroad, but all new machines are to be manufactured in the country, mainly in the State factory at Thun and also by private firms.

REVIEW.

THE INDIAN CIVIL SERVICE. 1601—1930.

By L. S. S. O'Malley, C.I.E.

(*Murray, London*) 12*s. net.*

Amongst the gaps in the administrative history of modern India none has been more remarkable than the lack of any self-contained account of the civil service of Crown and Company. As Sir W. W. Hunter wrote more than a generation ago, "the Bengal army, the Madras army, the Company's artillery and navy has each its separate historian; the soldier politicals have an honourable literature of their own. The Indian Civil Service has found no annalist." Since Hunter's day, too, yet another service has found its historian, for Colonel D. G. Crawford's *History of the Indian Medical Service* (1914) and *Roll of the Indian Medical Service* (1930), have completely eclipsed every other work of their sort, in their full treatment of all the facets of a vast subject, the manifold evidences of wide and deep research which they contain, and, above all, their extreme accuracy.

There is no doubt that in nothing short of a history on Colonel Crawford's ample scale could justice be done to the I. C. S. But as a precedent to the production of such a book it would be necessary to devote say thirty years to intensive research (as Colonel Crawford did), and the financial problems of publication would moreover not be easy to surmount. Mr. O'Malley has—rightly, in my judgment—therefore decided on a compromise. In a book of just under 300 pages, of the format of an ordinary novel, and costing only twelve shillings, he has assembled a dozen chapters on the history and activities of his former service.

It would be absurd to pretend that he has done more than provided the briefest sketch of the development of the I. C. S., and he has perforce only brushed the fringe of a multitude of interesting subjects. What he has done is to describe what was first essentially a merchant service (1601—1772); to show how it became a civil administration (1772—1793): how it developed under the East India Company (1793—1857) and under the Crown (1858—1914). Then he takes us through

the actions and reactions of the War (1914—1918) and post-War (1914—1930) periods : discusses bureaucracy in one chapter and " the Service and the people " in another ; and then turns to Indianization and its implications. After a note on selection and training, he adds two chapters of considerable personal interest, one on those Civilians who have distinguished themselves in other spheres of activity—as the Civilian always has done and still continues to do, for have we not two Governors-General in office to-day who only left the I. C. S. a few years ago—and, lastly, the chapter on Civilians and literature.

Taking every difficulty into consideration, I think that Mr. O'Malley has produced a remarkable summary of the I. C. S. from its earliest days. Possibly the *magnum opus* will never be written ; but we shall miss it the less now we have this fine pioneer effort, which can be recommended with confidence to every Mess and Brigade library.

H. B.