JOURNAL

OF THE

United Service Institution of India.

INDEX

VOL. LXI.

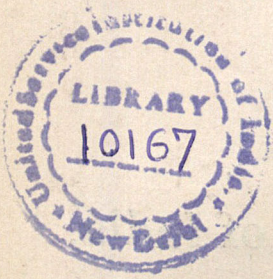
JANUARY—OCTOBER, 1931.

Published under the Authority of the Council.

LAHORE:
PRINTED BY E. A. SMEDLEY AT THE "CIVIL AND MILITARY GAZETTE" PRESS.

1931.

Journal of the United Service Institution of India



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EDITORIAL.

It was at Bombay on the 29th November that the representatives of the Army in India said good-bye to their Commander-in-Chief, and it was with a very real sense of the loss of a personal friend as well of a great Chief that all ranks of the Army and Royal Air Force in India joined them in wishing him God-speed.

Born in India in 1865, of a family which had already for two generations rendered distinguished service to India, Field Marshal Sir William Birdwood returned to this country in 1885, and began a career in which sheer merit and ability were destined to lead him to the highest military rank attainable under the Crown. His first experience of war was the Tirah Campaign of 1897, but it was in South Africa two years later that as a Brigade Major he first attracted the notice of Lord Kitchener, who selected him for his personal staff. Thus commenced a life-long friendship and a close association in military affairs that lasted for some nine years. Sir William held in succession a number of posts of increasing importance including those of Military Secretary to H. E. The Commander-in-Chief, Commander, Kohat Brigade, Quartermaster-General, and Secretary in the Army Department of the Government of India. It is unnecessary to recount the brilliant services he rendered during the Great War in Egypt, Gallipoli and France; they are well-known throughout the Empire. After the War Sir William was General Officer Commanding-in-Chief, Northern Command, throughout a critical period of post-war re-organisation. In March 1925 he was raised to the rank of Field Marshal, and in August of the same year succeeded Lord Rawlinson as Commander-in-Chief of the Army in India.

During his tenure of command the Field Marshal has brought to successful fruition many schemes which his predecessor had initiated and has inaugurated many of his own. The result of his labours has been that he could vacate his high office with the knowledge that the efficiency of the defence forces of India had never reached a higher level. Great strides have been made in the mechanisation of the supply services of the Army, an almost complete re-armament has been unobtrusively effected, the units of the various arms have been re-organised to conform with modern standards, the strength of the Royal Air Force in India has been increased and its squadrons re-equipped with the latest machines—and all this without adding to the burden of the taxpayer. These are no mean achievements, and under a Commander-in-Chief less given to think of the welfare of those under him, might not have been accompanied by an equal advance in the amenities available to the soldier. But throughout the forty-five years of his service Field Marshal Sir William Birdwood seems to have been guided by the very sound maxim that there can be no real efficiency without contentment. He has devoted himself to improving the conditions under which the soldier, both British and Indian, has to serve in this country. A wide scheme of improved barrack accommodation has been largely carried through, electricity made available to replace the old "hat bhatti" and punkha in many cantonments, and a general raising of the soldier's standard of living and an increase in the amenities available for him has been accomplished. A special gift of sympathetic understanding whether the matter be great or small, personal or impersonal, has given the Field Marshal a unique influence with all ranks, and with the Indian soldier in particular. There can be no doubt that this personal influence over not only the serving Indian soldier but over the pensioner has been of the greatest value during the troublous times through which India has been passing. In all his work for the soldier Sir William has been ably seconded by Lady Birdwood, whose interest and help in all that related to the welfare of the soldier's family has been constant, understanding and practical.

Our farewells are said, but Field Marshal Sir William Birdwood takes with him the heartfelt good wishes and thanks of the fighting services in India, and it is very sure that his name will remain enshrined in the hearts of our Indian soldiers whom he knows so intimately and has served so well.

Interest on the Frontier has in recent months centred on the Khajuri Plain. The occupation of the Plain has a triple object—strategical, economic and political. The strategic intention is to make a repetition of last summer's Afridi incursions, if not impossible, at least much more difficult. This is to be accomplished by denying to the hostiles the caves on the western edges of the Khajuri and Aka Khel plains in which they collected and sheltered from the Air Force bombs preparatory to their last advances into the Peshawar District. Already the map of theKhajuri Plain begins to look like a plan of some New Delhi, so many are the motor tracks and roads which cross it. These roads, besides allowing troops to be moved out rapidly against any concentrations in the cave areas or to the support of any posts it may be decided to locate in the plain, will constitute a threat to the rear of any gang that may penetrate into the District. Economic effect is to be gained by depriving the Afridis, until they come to heel, of their winter homes and grazing lands in the two plains. Already to avoid the rigorous upland winter, some Afridis have entered Afghan Shinwari limits, but have received scant welcome, while the larger numbers who have moved into Orakzai country are probably finding themselves equally unwanted. This interference with their normal migration, combined with the restrictions in trade, and the loss of winter work in British India, should do much to bring home to the Afridi, through that sensitive organ, his pocket, the desirability of mending his ways. From a political point of view, it would be idle to deny that the Afridi incursions, of last summer, while they effected little material damage, did for a time at least lower British prestige on the Frontier. To restore this it was imperative that some step should be taken to show that Government still held the whip hand. The presence of Government forces and posts in the Khajuri Plain inside Afridi limits should plainly demonstrate this.

In spite of loud talk, Afridi active opposition has so far been confined to comparatively small gangs of hot heads, who come down to the Khajuri Plain, hang about for a week or so, and are then relieved by others. Their activities have usually been only about enough to keep the troops on the alert, but on a few occasions, when they have attempted to follow up and harass them, skirmishes have resulted. In all of these the Afridis have suffered for their temerity by casualties considerably heavier than those of the troops, and after each little action there has been a trickle of mules back to Tirah bearing

Afridi wounded and corpses. At the moment it appears as if the Afridis intended to take no more vigorous action than a continuance of these harassing tactics. Whether they will be content with this when the hot weather comes, and conditions are more in their favour is another matter. Peshawar District must at any rate be prepared for further attempts in the summer. But by that time arrangements for the permanent control of the Khajuri Plain should have been completed, and should be such as to make the Afridi run very severe risks if he attempts to repeat his previous performance.

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Since the issue of the October number of this Journal there have been published the Despatch of the Government of India on the proposals for Constitutional Reform made by the Simon Commission and the correspondence between the Central and Provincial Governments on the same subject. In commenting on the Commission's recommendations on the subject of defence, Provincial Governments did not go very deeply into the matter but contented themselves with recording their dislike of the proposal to withdraw defence from the control of the Government of India, and with pressing for an increase in the pace of Indianization. As was anticipated the Government of India in their Despatch were also strongly against defence being removed from their control to that of an Imperial agency on the broad grounds that it would be "attempting to detach an important function of Government from its true place in the organic whole." There would also be serious administrative difficulties. Defence is not the business of one particular department of Government; all departments are involved. Under the Simon Commission scheme the Army Department would no longer be part of the Government of India, and the essential co-operation between departments, which is not too easy to attain even when they are all parts of the same whole, would become intensely difficult. Opportunities for friction would be greatly increased and the position of the Army Department representatives in the legislatures would be most difficult and anomalous. In addition Indian soldiers would become the employees of an outside government, and this might tend to deprive them, especially in retirement, of the protection and sympathy of the civil administration. For these and other reasons, therefore, the Despatch recommends that defence should remain under the Government of India's control. The Simon Commission's tentative

suggestion that in addition to the Imperial forces there might be a completely Indian Army, maintained and controlled by the Indian Government, meets with little approval in the Despatch. Indeed on financial grounds it is practically impossible, and on military grounds unjustifiable. On the other hand the Government of India agree that the Commander-in-Chief should cease to be Army Member, and recommend that the defence portfolio should be held by a civilian member of the Central Government. The Commander-in-Chief would retain the right of direct access to the Governor-General and would be present in Council when defence matters were under discussion. This separation of the functions of Commander-in-Chief and Army Member has frequently been urged and has much to recommend it so long as it is not accompanied by any weakening in the position of the Commander-in-Chief as the sole military adviser of the Government. The Despatch further accepts the proposal that a Committee, including members of legislatures, should be constituted to discuss and keep in touch with military questions, and that the "Contract Budget" system for the army should be continued. The question of the grant of a subsidy from the Imperial Government to assist India's defence is tactfully, but it is feared not hopefully, left for that Government to consider.

There is nothing very startling or original in these suggestions, under which, as the Despatch says, "the general position of the legislatures in regard to defence matters remains unchanged," nor are they likely to affect very greatly the majority of officers in either British or Indian Armies.

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Officers will, however, find the portions of the Despatch dealing with Indianization of more direct interest and more likely to affect them as individuals. In November 1929, for the first time, the number of Indians qualifying for Sandhurst exceeded the vacancies open to them. This at once raised many urgent questions. To begin with it is clear that the eight units selected for Indianization will be unable to absorb the annual output from Sandhurst. It will therefore be necessary in any case to increase the number of units earmarked for Indianization.

In addition there is the question of officer establishments for Indianizing battalions. The ultimate object is to produce an Indian Dominion Army similar as far as possible to the forces of other parts

of the Empire. Sooner or later, therefore, the Indian Army system of two types of officers—King's Commissioned and Viceroy's commissioned in one unit, must give way to the normal Empire organization of only one kind of commissioned officer, who begins his career as a platoon commander. The question is whether the change in officer establishment should be introduced now or later. There is much to be said for making a start in the near future by putting the units selected for Indianization on the same footing as British units. There can be no doubt that the best training for a young officer is to be placed in command of a small unit of his own—a platoon or a troop. Indianization is admittedly still something in the nature of an experiment and cannot, until its effects on efficiency are seen, be extended to a very large proportion of the Army. The increase of officer establishments to British standards would however allow a much larger intake of Indian cadets to be absorbed without disproportionately increasing the number of units in process of Indianization. It is calculated that the present output of Indians from Sandhurst would suffice in time to fill all the requirements of sixteen units on the increased officer establishment. Should more vacancies be allotted to Indians at Sandhurst or should, as seems inevitable, an Indian Sandhurst be inaugurated still more units would have to be brought on to the increased establishments and Indianized. The process thus commenced could be continued gradually until a complete Indian Army uniform with other Empire forces had been evolved. In another way, too, both British and Indian King's Commissioned Officers would benefit by an early selection of the additional units for Indianization, rather than from delaying the choice for some years until it is necessary on account of congestion in the already Indianizing units. At present almost every Indianizing unit contains two or three junior officers who differ very little in seniority from one another, and whose chances of company command are thus adversely affected. Supposing a further eight units to be earmarked for Indianization a proportion of these officers could be transferred at once with great improvement in their prospects of attaining company or squadron command in the normal time. British officers would also gain by an early decision as their future would be made clearer. At present newly joining British officers are being posted to units which will at no very distant date have to be Indianized. When this time comes these officers will be liable to see their prospects altered by the sudden Indianization of their units.

It would surely be better to decide now which units are to be Indianized and to post only Indians to them and let the young British officer be sure that he is not joining a unit which may be Indianized before he has more than a few years service.

The Government of India in their Despatch do not, however, commit themselves to this method of advancing Indianization. They are content to say that they have not yet decided whether Indianization should proceed through an increase in the number of units at the present establishment selected for Indianization, through an alteration in establishment of units already earmarked, or through a combination of both these. Eventually it would seem that the last—a combination of the two—will be necessary.

Whatever method is adopted every precaution should be taken to safeguard the rights and prospects of the Viceroy's Commissioned Indian Officers. If it is decided gradually to delete them from establishments steps will also have to be taken to rectify the adverse effect this might have on the sepoy's prospects of promotion and on recruiting. At present many of the very best recruits join the army with the laudable ambition of becoming Indian officers. Something on the lines of the British "Y" Cadets Scheme would have to be devised if these men are to continue to be attracted into the ranks of units on the new establishment.

The whole problem of Indianization in the army bristles with difficulties such as these—all based on the need for balancing efficiency against rapidity. No Government in India, whether British or Indian, autocratic or democratic, could afford to risk the efficiency and reliability of its army. It would be a poor service to the India of the future to hand over to her any defence force below the present high standard of the Army in India. While there can be no going back on our pledge to continue Indianization at the highest rate compatible with maintaining present efficiency, it is to the true interest of India and Indians that we should build the future Indian Army on firm and tested foundations. And the sooner the plan of these foundations and the main lines on which building is to proceed are known, the better for all concerned.

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In this number of the Journal are published two articles, Major Blacker's "Modernised Mountain Warfare" and "Mouse's" "Babu Tactics", which, though approaching it from different angles and treating it in different styles, both deal with the same subject—the need for increasing the speed of action of our forces on the frontier. It is true that during the recent operations troops have, on occasion, thanks to roads and mechanical transport, covered distances in a few hours that would formerly have taken days, but once off the roads our columns are if anything slower than they were fifty years ago. This is because not only do they still rely on pack animals for the carriage of supplies, ammunition and casualties, but the numbers of such animals have increased as a result of the higher scale of supplies and armament demanded by modern conditions. If these pack animals could be eliminated speed of movement over the hills would be considerably heightened, the reduction in the length of the day's march so often caused by piquetting for a long transport column avoided, and more men made available for offensive purposes. Experiments have been carried out which go far to justify the belief that the heavy transport aeroplane will provide the eventual solution of the problem of maintaining small columns in mountainous country. There are, however, three difficulties to be overcome before air supply can be regarded as completely satisfactory. These are the possibility of irregularity in delivery, the difficulty of evacuating casualties, and the high cost.

The Royal Air Force has now attained such an admirable standard of mechanical reliability and navigational skill that, given enough aircraft, there need be little fear of supplies failing a column through any faults in machines or personnel. There remain, however, the weather and enemy action. On several days in the year flying on the frontier, especially low flying of large machines, must be interrupted by reason of sandstorms, mists or low clouds. It is rare for this to occur on more than one day in succession, but in any system of air supply it must be allowed for by giving the troops some reserve actually with them. As far as interruption by hostile action is concerned, this is not likely to be serious in operations against tribesmen alone, though it might, of course, prove very troublesome to aircraft flying low to drop supplies. Should the enemy, however, be one possessed of even a small air force the danger would assume more formidable proportions. There is no reason to doubt that the Royal Air Force would quickly

obtain a decisive aerial superiority over any enemy on the frontier, and a well armed heavy transport aircraft is by no means easy to attack, but a few elusive fighters might make air supply a very anxious business.

The second problem, the evacuation of casualties, is more difficult. If on the frontier our columns could only do as the Boer Commandos did in South Africa and leave the wounded to be tended by the civil population or picked up by an enemy who would give them every possible attention, frontier fighting would be a much simpler matter than it is. But for obvious reasons that cannot be done, and every column must have some means of regularly disencumbering itself of its casualties if it is to retain any degree of mobility. Removal of the sick and wounded by air, besides having to compete with the same difficulties of climate and enemy action as air supply, would require a machine capable of landing in a very confined and roughly prepared space. Whether the *auto-giro* in its present state of development would fulfil requirements is in the opinion of many well qualified to judge, open to considerable doubt. The evolution of some such machine may ultimately provide an answer to this problem, but at the moment it would be unwise to rely on evacuation by this method.

In this, as in every other question of service organisation, finance is a dominating factor. A Squadron of the Royal Air Force costs annually as much as four or five Animal Transport Companies. And this is where the third difficulty, expense, is encountered. If it could be guaranteed that only two or three of the dozen or so frontier mobile columns would ever be operating at the same time, it might be possible, by reducing the animals of all columns, to compensate financially for the transport aeroplanes required to maintain any two or three columns. But of course no such guarantee could be given ; it is essential that all columns should be ready to operate simultaneously in the event of widespread trouble. To hold available enough air transport to ensure this, even were all corresponding animal transport disbanded, would be a large financial commitment.

But difficulties are only made to be overcome, and it is to be hoped that experiment and resear h to solve the problems of air supply in mountainous country will not only continue but will be extended in scope and frequency.

THE DEFENCE OF "K" SUPPLY DEPOT.

(*9th August*, 1930).

By

Captain D. H. Gordon, D.S.O., 4/11th Sikh Regiment.

Time-honoured military tradition has always indicated the hour of dawn to be the most suitable for finding one's enemy in a state of unpreparedness. It must, therefore, have come as somewhat of a shock to Sepoy Mawaz Khan, as he dozed in the uncomfortable glare at the Nowshera Gate of Peshawar "K" Supply Depôt*, to see a number of armed tribesmen spring up from the cover of the Nowshera Road, and advance rapidly in his direction.

With commendable promptness and decision Mawaz shut the gate and secured it with padlock and chain. One glance in the direction of the on-coming Afridis assured him that this was definitely one of those unusual occurrences that one reports to the commander of the guard, and without more ado he took to his heels and lit out for the Godown as fast as his legs would take him. Mawaz felt that he needed company other than that of the ominous figures that he had last seen in large numbers only two or three hundred yards distant. The vast interior of the Depot, one mile long and three hundred yards broad, stretched out before him seemingly devoid of friendly assistance. He must warn the Godown Guard, and then reach the detachment barrack more than half a mile away. All those sheds and dumps—were there not Afridis already lurking in the ample cover that they provided? Unusual occurrence (there was no doubt about that)—warn the Guard Commander—first the Godown Guard, then the Barracks. There was a lot of noise and shouting behind him. That was real, urgent! He shouted—why didn't they answer at once—were they all dead, the silly muts?

Half past four of an August afternoon in Peshawar is an ungirt hour for those not actually on duty, and the Depot Detachment, engaged as they were in bathing, sleeping, and lounging in an advanced state of negligé, did not receive the arrival of our Pheidipiddes with any great show of enthusiasm. The sound of a number of shots fired

*See Diagram.

in rapid succession up at the far end of the Depôt, however, convinced them that all was not well, and sent them scurrying to their rifles and equipment.

The Afridis, who had spent an uncomfortable morning being shelled in the Waziri Bagh to the South of the City, and who wanted to shift their position in any case, had realised that their invasion was threatening to become a fiasco. Now and on a previous occasion they had given out that they would capture and burn the aerodrome, that they would never retire until they had taken one of our posts in the city in open fight, that they would capture the Jail and release the prisoners, that they would storm the Fort and made a number of equally futile boasts, not one of which they had made good.

They were under the impression either that "K" Supply Depôt was unguarded, or that the Indian Troops who were on guard were unreliable, and would assist them in the looting of the Depôt. However, now that they were faced with the job, a certain lack of confidence probably seized them, and it was only when enthusiasm was raised by *Shabash-Wallahs* with standards and drums, themselves well in the back ground, that some fifty stouter hearts made their way up to the gate and there blew away the padlock with two or three rifle shots. In the same state of uncertainty as a burglar enters a dark and unfamiliar house, our stout hearts must have entered "K" Supply Depôt; a rush through the gate, much as a diver takes the plunge, then a certain hesitancy as to what they should do next. Close by the gate they found three small brick buildings, and a large wooden sentry box, which they childishly overturned into a neighbouring ditch. They quickly realised that something must be done soon or the conditions of surprise would be lost, and so, encouraged by a frenzy of exhortation, drum beating and flag waving from the rear, they turned left, spread out, and advanced on both sides of the buildings.

The arrival of Mawaz at the Godown *en route* to the detachment barrack had been nothing if not dramatic. The Godown Guard, girt, but under the sporific influence of the hundred odd degrees of that sunny August afternoon, were roused by someone shouting, "*Tamam dunya agiya*: the whole world's turned up".

A few forcible additions left no doubt in the mind of Naik Surkhru Khan, the guard commander, but that he was "for it" and that the sooner he got busy the better it would be. Having told the

sentry to go on and warn the detachment, it must have been a great temptation to follow him under the excuse of falling back on his main body. Fortunately, however, he decided that he was there to guard the Godown and, with his three *jawans*, guard it he would, which was quite creditable when one considers the highly coloured report of the excited Mawaz, and the Bedlam of sound already raging in the offing. Without further hesitation Surkhru Khan hustled his three, now thoroughly roused, to the top of one of the Godown buildings which had been prepared with sand bags for just such an emergency. From this position, barely three hundred yards from the Nowshera Gate, the noise of tomtoming and more urgently the rifle shots forcing the gate convinced them that they must prepare to face a nasty situation.

It was, therefore, with a sense of rebuff and injury that the advancing Afridis received the first small volley on breaking cover round the sides of the three telegraph stores. They rapidly took cover, pulled their few casualties into safety, and opened a brisk fire in return. Here for some minutes a period of stalemate ensued.

Jemadar Allah Ditta, in command of the detachment, assured by the noise of the firing that the report of Mawaz Khan was correct, realised that if the situation was as bad as it sounded, and it sounded as though Hell itself had broken loose up at the far end of the Depôt, then he must have help and get it quickly. So, with some considerable misgivings as to what might happen in his absence, he ran to the telephone to report the attack to the Brigade. Never had an operator seemed more slow or fat-headed, but at last his message was through, and as he replaced the receiver he realised that he was faced with a problem which must be dealt with at once. An attack was taking place, but so far only at one corner of a two mile perimeter which, we shall see, was penetrable at almost any point. Should he throw the whole of his force, about forty odd strong, into a counter-attack—or what should he do ? He wisely decided that the best course was to make a personal reconnaissance. Having disposed his reserve across the Depôt at a central point, he went forward with one Lewis gun section to see what was going on.

The Afridis, finding that the capture of the Depôt was going to be a much tougher business than they had bargained for, hung fire while they concerted a new plan. Frontal attacks would only become more costly as resistance stiffened, and, as they were out for glory

and loot and not to be killed, they decided to make a feint from their present position, covered by the fire of snipers in trees outside the Depôt area, while a party breached the flimsy north wall and pushed home a flank attack. It was this delay occasioned by the unforeseen resistance of Naik Surkhru Khan and his three men that saved the situation.

Jemadar Allah Ditta and his Lewis gun section succeeded in joining forces with Surkhru Khan on his roof without serious opposition, and from there he was able to size up the situation as it then stood. This, however, was about to undergo a rapid change as the enemy had at last concerted their plans. It was soon apparent to the defenders that something was starting. Fire was opened from two sides and the enemy could be seen advancing from cover to cover among the stacks of iron poles and other telegraph material piled round the sheds. As various small bodies advanced they kept touch with one another by using small signalling flags, and as they were within easy shouting distance, hoping for the best, they called out that they too were Mussalmans, and conjured the defenders by their religion not to fire. Jemadar Allah Ditta, not to be out done, shouted to them to come on, and then opening fire with his Lewis gun, drove them back into cover.

Almost immediately after this the flank attack developed. It must have been shaking in the extreme for those on the Godown roof suddenly to see a large section of the north wall cave in followed by an irruption of Afridis. A few well aimed bursts soon checked this movement, and the enemy were compelled to retire or to take cover. The leading pair through the gap were killed as soon as they appeared, and in spite of great efforts to recover the bodies they were finally abandoned.

The Jemadar seeing that his party at the Godown was in danger of being cut off, and, remembering that his reserves were still quite in the dark as to what was going on, decided to get back by himself and bring up further assistance to deal with the situation. Accordingly he ran back and succeeded in reaching his reserve sections where he issued the following orders. One section was ordered to advance along the north wall and attack the Afridis who had entered by the breach in the wall, while another section was sent along the south wall to advance under cover of fire from the Godown and drive out the enemy at the Nowshera Gate.

By this time matters were beginning to look very bad indeed. Fire was coming from the whole of the eastern area of the Depôt and from trees outside, where enthusiastic though canny snipers had taken up their positions. The Afridis, seeing that nothing was to be gained by a *coup de main*, had started an advance by infiltration for which the terrain of "K" Supply Depôt is well suited. Excellent cover is provided by high grass, parked rolling stock, sheds, platforms and dumps. Already on the south they had managed to work round the flank of the garrison of the Godown and threatened to cut it off from the rest of the detachment.

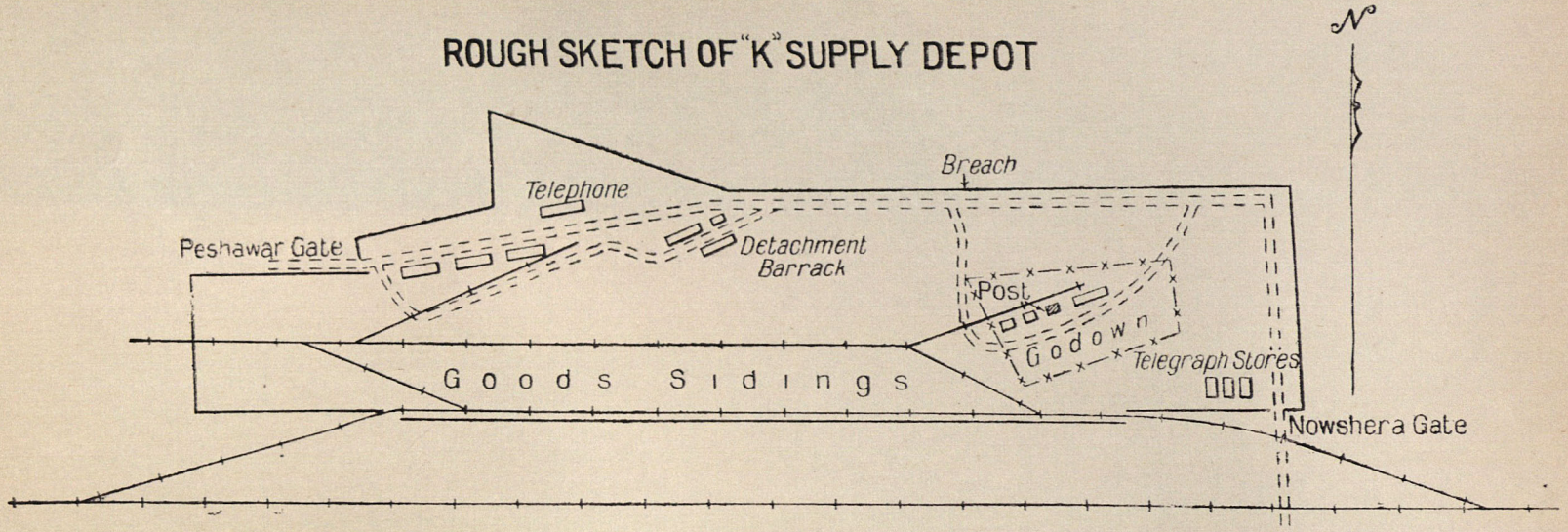
At this juncture in response to the alarm call on the telephone, two armoured cars the, *Ancre* and *Amiens* of the 1st Armoured Car Company, Royal Tank Corps, arrived on the scene, and advanced up the road along the inside of the north wall. They were at once engaged by the enemy who had worked round to the south, but the cars quickly silenced their fire by a few shrewd bursts from their Vickers guns, and moved up past the breach in the wall, all enemy in the vicinity of which had made good their escape in great haste. The snipers in the trees were engaged with excellent effect, and the cars went on to the Nowshera Gate and livened up the retirement of the enemy across the railway and eastward towards the orchards beyond Surbilandpur.

The Supply Depôt area was, however, by no means cleared, and the enemy still held positions from the vicinity of the Nowshera Gate all round the south of the Godown and extending into the coal dumps. During the advance of the cars these had been temporarily silenced, and now that the cars held the Nowshera Gate it must have occurred to them that getting into "K" Supply Depôt was one thing and getting out again quite another. Further attempts were made to carry away the bodies of the fallen at the breach but this was stopped by fire from the Godown.

It must have been at about this time that the raiders broke into and set fire to the centre building of the three telegraph stores, being determined to achieve some damage before being driven out.

Odd Afridis were now scattered all over the Depôt area having made their way west under cover of the rolling stock on the Depôt sidings. One was sufficiently venturesome to reach the vicinity of the barracks, and was playing hide and seek with one of the men of

ROUGH SKETCH OF "K" SUPPLY DEPOT



Scale 6 inches = 1 mile (approx)

Yards 100 0 100 200 300 400 Yards

Note:- Many Sheds and Platforms, omitted for Clearness.

the detachment when another armoured car, the *Arras*, arrived, and the sepoy by signs managed to enlist the effective sympathy of the occupants. A well aimed burst cut short the career of that enterprising cateran. It now became evident that unless they made good their escape immediately, the enemy still inside the Depôt would all be killed or captured, and, therefore, those who were not already in flight outside made their exit over the south wall and away under cover of the neighbouring brick kilns.

The area round the coal dumps and Godown was patrolled and searched but no signs of any Afridis could be seen. It was now about a quarter past five and the 20th Lancers, the first of the relieving troops had just arrived. Since half past four fighting in the Depôt area, though desultory, had been continuous. It was to continue up to eight o'clock, but the work of holding and clearing "K" Supply Depôt had been done by the detachment of the 4/11th Sikhs and the Armoured Cars.

MUTUAL RELATIONS OF THE SOLDIER AND CIVILIAN IN DAILY ADMINISTRATION.

By "Civilian."

At many points in the day-to-day administration of India the functions of military and civil officers are closely inter-related, and it has been suggested that information on this subject might prove useful to the Regimental Officer and the Staff Officer at Brigade or District Headquarters. An attempt will accordingly be made in this article to describe in general terms the extent to which the military officer and his civil confrére cover common ground in their respective duties, and to indicate how easy, given a little knowledge and experience, helpful co-operation should be. The necessity of that co-operation is constantly emphasized and indeed obvious; but while in times of stress complete concord has for the most part prevailed, it unfortunately happens in routine affairs that now and again, and for avoidable causes, temporary friction may arise. In attempting to show that it need not arise, we shall have to traverse some elementary ground.

Framework of the Civil Administration.

The "district" is the unit of the civil administration and the head of the district, often described as the District Officer, and more technically known as the Magistrate and Collector, or Deputy Commissioner, is its most powerful and important civil officer. He is responsible for the maintenance of law and order within his district, for the collection of Government revenue, and for the civil and revenue administration generally. In the suppression of crime and the maintenance of the public tranquility the Superintendent of Police is his right-hand man, as on the revenue side are his sub-divisional officers. Within his purview falls such a variety of subjects as crime, including Jails and Police, the administration of justice, political movements, the maintenance of order, intelligence, land revenue, settlement, village records, excise, Government estates, estates under court of wards' management, local self-government, public health, communal disputes, and a thousand and one other matters. He has wide powers, and outside his sphere of direct responsibility wields considerable influence. He is consulted by the Government and others on every conceivable subject and is regarded as the guide, philosopher and friend of the people of his district. Above

the District Officer, with his multifarious duties, is the Commissioner of the Division in charge of a group of about five or six districts. The Commissioner is not in executive charge and has little direct responsibility. He is rather a supervising and advisory authority and the channel of communication with the local Government, though in revenue matters he is the principal appellate authority below the Board of Revenue. Above the Commissioner is the local Government, *i.e.*, the Governor in Council and in certain Departments of Government the Governor with his Ministers. In Army parlance, on the other hand, the terms "District" and "Division" have a different connotation. Below the District is the Brigade and the unit. A Division does not correspond with a Revenue Division, nor a district with a Revenue District. The military division may in geographical area extend over the greater part of a province, and a military district may comprise a number of civil districts; a brigade will frequently have troops in several civil districts and even battalions are sometimes split up, companies being detatched to outlying stations. In every case however the presence of troops, whether a division, a brigade, a unit, or only a detachment, necessitates the performance of certain administrative functions, and thus leads to inevitable contact with the civil authorities. Having regard to the rôle played by the District Officer in the daily administration, it will be readily realized that this contact is mainly with the head of the civil district. In these mutual dealings between military and civil officers co-operation can be greatly facilitated by frequent discussion of common problems and as close personal relations as idiosyncrasies of temperament will permit. The wheels of administration run with pleasurable smoothness when the personal relations between military commanders, their staff officers, and the civil authorities are friendly, and where neither side hesitates to approach the other on questions or difficulties of common interest.

Main Points of Contact between Military and Civil Officers.

Soldiers are amenable to the law of the land, and, with certain exceptions, are dealt with in the civil courts if they break it. They enjoy civil rights and are under the ordinary obligations of citizenship to support authority. Indian soldiers, moreover, have a more direct concern with the civil administration. Most of them are landowners or tenants, and thus are closely connected with those charged with the revenue administration, from the Collector of the District down to the lowest rank of revenue official—the village patwari. Their

cases are frequently before the Revenue Courts and owing to their constant absence from home on military service, and the consequent intrigues of their enemies and sometimes of their friends and relatives with the local village officials to dispossess them, should receive at the hands of the District Officer particular sympathy and solicitude. Finally, while the military officer's main concern is the production of an efficient and highly trained army, the command of men in large numbers involves attention on the part of their officers to matters which are not in themselves of direct military interest—partly to attain their primary military purpose of creating an effective military machine, and partly to promote the welfare and well-being of the troops as human beings rather than as component parts of that machine.

The general proposition that the functions of the soldier and civilian bring them into mutual and friendly contact at many points needs no further illustration, and it is now necessary to trace its salient features more comprehensively and with reference to matters of almost daily occurrence. The soldier is concerned with internal security, the Magistrate of the district with the maintenance of law and order; the soldier with military intelligence, the civilian with political movements; the soldier with discipline, the civilian with crime; the soldier with military training which involves manœuvres, movements of troops and camps of exercise, the civilian with land revenue and village administration; the soldier with the administration of cantonments, the civilian with local self-government generally. Even in the realm of private, but none the less important, matters of common human interest, *e.g.*, marriage and debt, the soldier and the civilian are frequently brought into official relations, when the latter with his knowledge of procedure and his local influence is in a position to render material help to the former.

We propose to touch briefly on each of these points.

Internal Security.

The Indian Civil Service and the Police Service are known as the Security Services, and their most important duty is the maintenance of law and order, without which the structure of society would lack the stability essential to prosperity and contentment. There are times when drastic measures have to be taken. Political or communal feeling runs high, meetings, processions and demonstrations have to

be prohibited, wild rumours gain currency among the populace and the more lawless elements get out of control. Such an atmosphere is favourable to riots and disturbances and at such times the Magistrate and policeman must remain in close touch with the military authorities. The Magistrate should keep the soldier informed of his policy or of orders issued, as for example, under Section 144, Criminal Procedure Code prohibiting meetings or the carrying of weapons, or the assembling together of more than a certain number of people in public places, or similar orders. The soldier, on the other hand, should take no action without full consultation with the Magistrate. The appearance of the soldiery, a route march through the disaffected portions of a city or district, will frequently have a steadying influence, but if matters grow worse, it may be necessary to call out the troops "in aid of the civil power." The initiative must be taken by the Magistrate, but the task of both is made infinitely easier if the civil authorities keep the military closely informed of the developments of the situation as they occur, and thus give them ample warning of the possibility of their being required. If the Magistrate gives the word and troops are called out, they are called out to aid the civil power and not to supersede it, and must work in close co-operation with the civil authorites and the police. So long, therefore, as internal security is one of the purposes for which the Army in India is maintained at its existing strength so long must the soldier follow the general political or communal situation, against possible requests for his help in the event of disturbances. Thus from the earliest stages the civilian and soldier should work in co-operation. If they do the Magistrate knows that as soon as he gives the word, the troops will work according to arrangement. The soldier is confident in the realisation that he is only called out when required, and that his duties will proceed according to pre-arranged plans. There will be no hasty, haphazard, confused or indefinite action on either side; effective co-operation between the district officer and the local military commander renders friction humanly impossible.

We shall not deal with the position that arises when the situation has passed beyond the control of the civil authorities, nor enter upon the difficult subject of the actual measures to be taken by the Magistrate or the military officer with a view to quelling disorder and of the principles which regulate the use of force and the legal protection afforded to those who are compelled to employ it. Suffice it to say

that all these problems are infinitely less complex when the two work together in harmony in this interesting and important but, to the soldier, frequently distasteful duty.

Intelligence.

In the task of maintaining order it is vital that the civil authorities should keep in touch with the movements of the day and should receive accurate information as to how the people of the district are affected by political developments, to what extent they respond to Congress or subversive propaganda, or are animated by communal hostility, what general or local plans the enemies of Government are hatching and what course general or local politics are likely to follow. To be fore-warned is to be fore-armed—and the closer the district officer's knowledge of the people, the greater his certainty of receiving early information that will be of value. His sources of information are many and various ; on the one hand the police, on the other his own personal touch with the affairs and people of his district keep him well posted with most that is afoot. He ought never to be caught napping and never to be surprised. He does not so much consciously collect information as almost sub-consciously and often indirectly absorb it. On the military side the term intelligence has perhaps a more exact significance, *i.e.*, the systematic collection of information that has a definite or possible military bearing. Except on the Frontier where there is a special military intelligence organization, it is less extensive and less reliable than on the civil side ; and only such information is of value as will help the soldier to an intelligent anticipation of a possible demand for military assistance or as reliable an appreciation as possible of a military situation that may arise in the future. The civil officer, on the other hand, has to keep in touch with every kind of development bearing upon the condition and well—being of the people. But at many points there is a common interest, and in no sphere is the need of liaison more pronounced. The soldier would do well to test his information and the conclusions based thereon by reference to the District Magistrate or policeman, and to obtain from them such information as they are able and willing to impart. The civil authorities on their side should never hesitate to pass on to the military any information which may even remotely possess some military significance. In order to achieve unity of effort to the full extent of their common interest, the practice of personal discussion is of the greatest assistance to both.

Crime.

So far we have dealt with two aspects of the District Magistrate's duty in connection with law and order—his general responsibility for maintaining it and his particular obligation to obtain information on all matters pertaining to it. It is now necessary to turn to a more technical aspect of the same general function, namely, his responsibility for keeping crime in check and bringing the criminal to punishment. The prevalence of serious crime is a menace to society, and the public have the right to demand reasonable protection against the criminal from the police and the magistracy. The state of crime moreover is not infrequently some index to political feeling; when crime statistics go up it may be assumed that the political barometer is high or that economic conditions are causing distress or both. These factors combined produce some disregard for constituted authority and conditions favourable to disorder, which the hooligan and the professional criminal are only too ready to utilize for their own nefarious purposes. The Magistrate must consequently pay the closest attention to the crime figures of his district, and an efficient officer will leave no stone unturned to keep the criminal classes well under control. It may appear at first sight that the Army officer has little concern with this aspect of the District Magistrate's work. This is true as regards crime itself, as military crime is negligible from this point of view and is not due to the causes mentioned above, but for the most part either to temporary folly or to a desire to obtain through conviction and imprisonment discharge from the Army. But the soldier is very closely concerned with the large question of discipline, and military crime is, as it were, a small compartment of that wider subject. When a soldier commits a crime against the ordinary law of the land he becomes amenable to the civil authorities except in certain cases when the military authorities may claim his trial by court—martial. And it is in these cases where the soldier is tried by the civil courts that the magistrate and the soldier have mutual dealings. Arrangements have to be made for the trial and defence of the soldier accused of a criminal offence and tried by the ordinary courts of the land, and military regulations require, and it is obviously a necessary requirement, that reports should be promptly submitted to the higher military authorities of the results of such trials. It is therefore desirable that military officers should have some comprehension of the principles which regulate the administration of justice

and the procedure of the criminal courts, and that Magistrates should realize the importance of giving units early information of the results of trials in which soldiers are involved. If any doubtful point should arise a personal reference to the Magistrate of the District should suffice. This sounds obvious and simple, but is of real importance because there is nothing that creates friction between the civil and military authorities more readily than an intractable attitude on the part of either in the matter of military prisoners charged with civil crime. His commanding officer often thinks that a soldier, if his military record is good, must be falsely charged, and may be denied justice. The Magistrate may not always make allowance for a perhaps excusable partisanship. It is therefore advisable that the military officer should recognise that when once a military prisoner has been handed over to the civil authority for trial he is a civilian amenable to the civil law and that the presumption that the trial will be fair is the only one that may be made. He should further recollect that the law enjoins a definite procedure and that that procedure must be followed—it may be tedious, or seem unintelligent, or involve delay, but the procedure enjoined by the law must be inexorably followed. So far we have dealt with cases when crime has actually been committed, but there are other directions which come appropriately under this heading in which the civil and military authorities come into contact, such as shooting accidents and affrays with villagers. Strict rules have been laid down to regulate the grant of shooting passes to soldiers and the procedure which should be followed when accidents occur, but in spite of these rules nasty situations sometimes arise owing to the ignorance, and sometimes folly, of those who are involved. Whenever a shooting accident does occur, followed as it sometimes is by an affray, a report should be made immediately to the district authorities who, on their part, should, if necessary, hold an immediate enquiry. The prompter the action of both the less likely are awkward consequences to follow, and ugly rumours get abroad. It ought never to be assumed that a Magistrate, enquiring into such matters, is actuated by anti-military bias if he finds the soldier in the wrong. Nothing is farther from the truth. His enquiry is impartial and need therefore cause no apprehension.

Training.

We will now turn to those matters in which the duties of the soldier bring him into contact with the District Officer as a revenue

official rather than as a Magistrate. The training of officers and men in time of peace to fit them for war is one of the essential functions of the soldier. This involves marches, manœuvres, camps of exercise, field firing and the like, and in all these matters the help of the civil revenue authorities is needed. If the Collector or Deputy Commissioner receives information that troops are marching through his district he must arrange to have the camping grounds attended to and the wells cleaned; he must ascertain if there is any epidemic such as plague or cholera in the villages at which halts are planned which would render it inadvisable for troops to encamp there. If field firing takes place, the local civil authorities must be informed well in advance as it is necessary for them to clear the villages in the line of fire and to close the area in question to the casual wayfarer. A police officer is detailed to be present to see that, as far as possible, untoward occurrences are avoided. When a unit, a brigade or a division undertake cold weather training in a camp of exercise the civil authorities are still more concerned: they have not only to assist generally, as stated above, but to help in the matter of transport and supplies, in regard to which a substantial burden is placed upon the subordinate executive staff of the district from the Tahsildar downwards. Further, owing to the fact that the movement of troops over the countryside involves in many cases fairly extensive damage to standing crops, the damage must be assessed and compensation paid. It is always advisable that a civil officer from the revenue staff of the Deputy Commissioner should be attached to the camp to assist the military officers in estimating the extent of such damage and paying compensation promptly to those who have suffered. One of the worst mistakes that can be made is to allow a long interval to elapse between the submission and payment of claims. It causes discontent amongst the villagers who prefer cash payments on the spot, and leads to a mass of belated applications long after the event. We have already referred to the close connection between the civil or revenue authorities and Indian soldiers whose traditional occupation for the most part, other than service in the Army, is agriculture. On this ground alone it behoves the British officer of the Indian Army to interest himself in the revenue administration and to endeavour to arrive at some understanding of its main principles. On this topic generally it is only necessary to emphasize that in marches, in camps of exercise, at manœuvres and at field firing, the

soldier would be greatly handicapped in the pursuance of his own calling if he were unable to rely upon the assistance of the District authorities. It conduces to mutual good will if, instead of demanding assistance in a somewhat peremptory manner or sending in a bald, and sometimes, late requisition, the soldier takes the trouble to appreciate some of the difficulties which the revenue officer has to face. If, for instance, a large number of bullock-carts are required for the march of a regiment or if field firing is to take place, it is only reasonable that adequate notice should be given. In no case should a requisition be sent direct to a subordinate revenue official—a mistake not infrequently made, and one which may involve mutual recriminations. Though wise men will dispense with red tape, the point is important. In this particular sphere the soldier depends to a large extent on the help of the District Officer and his staff of revenue officials and should, therefore, endeavour to acquaint himself with the salient facts and on all occasions show consideration and courtesy.

Cantonment Administration.

The other main direction in which the military officer and the District Officer have mutual relations is in the administration of cantonments. A Cantonment as a portion of the district is under the revenue and magisterial control of the District Officer. But the municipal administration of Cantonment areas is carried on by Cantonment Boards, of which the President is ex-officio the Officer Commanding the station. Certain other military officers are nominated as members and the District Officer nominates a representative. The other members are elected by the Cantonment residents entitled to vote. The Board deals with the affairs of the Cantonment in the same manner in which a Municipal Board deals with the affairs of a town—this is, maintenance of communications, lighting, road watering, municipal dues, local taxation, conservancy, building applications, licensing and similar matters. The proceedings of the Board are submitted to the District Magistrate who is entitled, if he wishes, to comment on them in his reports to the local Government on the general subject of local self-government. Through his nominated representative the District Magistrate is able to keep in touch with the administration of the Board and in this manner it is obvious that he can be of great assistance to the official members of the Board and its President. Participation in local self-government is not a primary

duty of the soldier and is one of the tasks sometimes thrust upon him against his will in India ; it is not an easy task and is frequently complicated by communal and sectional and personal jealousy amongst the elected members, and by intrigue amongst the clerical and executive staff. The support and help of an experienced civil official may, therefore, frequently be a valuable asset to a military President, who as a rule is anxious to secure control by goodwill rather than by authority. And the Magistrate of the district should on his part exercise a wise discretion in nominating a suitable officer, and should himself keep a general watch over the progress of the Board and prohibit his representative upon it from indulging in intrigue or withholding support from the President in matters of policy.

Marriage and Debt.

The last point on which we propose to say a very few words is the extra-official sphere, that is, semi-private matters such as marriage and debt, and after-care of the Indian soldier when he has left the colours. A District Magistrate is as a rule the senior Registrar of Civil Marriages in the district, and as such he is, in stations where British troops are quartered, sometimes asked to solemnize marriage. Not infrequently young British soldiers get involved with undesirable women, and in such cases it is sometimes possible for the District Magistrate by reason of information given him or in virtue of his local influence, if approached by the Commanding Officer, to save them from disastrous unions. Space does not permit us to do more than state the fact, but each year quite a number of young British soldiers are protected in this way : it is probably not until they are older that they realise the fate from which they have escaped. In the matter of debt it is the subaltern who is mainly involved. He will at times recklessly sign a most unconscionable document to raise a comparatively trifling sum. When confronted with a demand for repayment he foolishly lets the matter remain for months and thus allows interest charges to reach excessive proportions. When once a young soldier is involved in difficulties of this kind, he would be well advised to consult the District Officer who may be able, not officially, but through his local influence, to secure discharge of these temporary debts on payment of the principal and a reasonable rate of interest. Lastly, the " after-care " of Indian soldiers has in recent years became a matter of close personal

interest to many civil officers. The soldier on return to his village, after long absence on service, sometimes feels that he is nobody's child, that he is taken insufficient notice of by the revenue authorities in his land disputes, and that his *izzat* suffers. In all these directions the sympathetic District Officer can help to re-establish the soldier's self-esteem.

Co-operation.

We have thus shown that in the District Officer's sphere as a Magistrate the soldier has close dealings with him in connection with internal security, intelligence and discipline—in his sphere as the chief revenue and administrative officer of the district, in connection with the movements and training of troops, and their daily life in Cantonments, and in his sphere as the principal civil officer of a district, wielding thereby considerable personal influence, in connection with the more private affairs of soldiers in trouble, or with the special problems of retired soldiers who have returned to the paths of peace. We have written mainly from the point of view of the civil officer and particularly the District Officer who is chiefly concerned, in the firm conviction that co-operation between soldier and civilian is easy of attainment through mutual appreciation of the organization and mental outlook peculiar to each.

A JOURNEY ENFORCED—A BORDER EPISODE.

By

Major E. L. Farley, M.C., R.E.

PART II.

(In the first part of his narrative, which appeared in the October Number of the Journal, Major Farley described how he and Captain and Mrs. Frere were captured on the road near Chaman, Baluchistan, and carried off by a gang of raiders, led by one, Kher Mohammed, to the village of Kunchai, across the Afghan border. Here the captives were confined in a small hut, and received a visit from the Khan of the village.)

VI.

Both before and after the advent of the Khan, all the men of the village crowded after us into our tiny hut and seemed to be curious as to how we would conduct ourselves. After considerable conversation with them, during which they told us the full reasons why they had kidnapped us, we asked them to withdraw so that we could get some rest. About this they made no difficulty whatever and all went off perfectly happily. No sooner had they gone than the women of the village made a bee-line for the hut. Their coming was, I thought, considerably less desirable, for, while the men had come right in and left all the openings free, the women were too shy to do so, and, hanging about all the openings, blocked them up. As a result the hut very soon got extraordinarily stuffy, and when the sun was well up we needed as much ventilation as we could get.

The reasons given us for our capture were three :—

(1) That three of the *Motabirs* (notables) of their tribe in British territory had been flung into jail unjustly. (This was true to the extent that the men were in jail).

(2) That the mosque at Peshin had been closed by the Political Agent for some reason and the inhabitants of the neighbourhood of Peshin could not, therefore, read their Friday prayers ; a matter which was of some concern to their brethren across the border. (This was untrue).

(3) that the village being poor they wanted employment, either with our Levies, Police, or with the Military Engineering Service, for twelve of their number.

As I ran the Military Engineering Services in the Chaman area, this struck me as being rather a monumental piece of cheek.

They demanded the release of the prisoners, the re-opening of the Mosque and a guarantee of employment.

After getting these terms clear, we explained to them that the granting of even one of them did not really lie in the power of any of us and that we could not, therefore, agree to them. Kher Mahommed immediately said that it would be quite allright if we wrote a chit to the Officer Commanding, Chaman, giving their demands so that those who had the power to grant them might have an opportunity of doing so. This chit of course we agreed to write, particularly as Kher Mahommed had told us also to put into it our demands for such food, bedding and other comforts as we wanted sent out to us. He assured us that he would be responsible for the safe arrival of anything we wanted from Chaman. On our asking how long he proposed to keep us, he said that he would not detain us a minute longer than necessary but that he thought it would probably mean a stay of ten days or possibly a fortnight.

As soon as the raiders left us and the women had been finally driven away by the men so that we could get some rest, Mrs. Frere again dressed Frere's feet.

At the Durbar of introduction to the Khan, Kher Mahommed again suggested that a man should be sent into Chaman but said he could not go, as at first suggested, the same day. He promised, however, to send somebody in the following morning, the 6th. The Khan thoroughly approved and we were told to prepare the necessary letter. Accordingly during the course of the day I wrote out a letter to the officer Commanding at Chaman giving our approximate position, which we got off the map which Frere very fortunately had with him, and stating all our requirements. Our primary anxiety was medical comforts; we were very much afraid that what with the treatment that he had undergone, and the lack of disinfectants, Frere's feet might become septic, in which case the situation would really be very serious. Other medical comforts that we needed were something in the nature of salts, possibly chlorodyne, quinine and so on, and in addition some decent disinfectant, boracic, bandages, lint, and water-proof silk. Another very necessary requirement was something to purify our water.

Apart from hospital requisites, we needed various foods as it was becoming increasingly evident that we were going to be very short of eatables, not from any desire on the part of the brigands to starve us, but simply because they themselves had very little and what little they had seemed so very unpalatable. We asked for bread, butter, eggs, biscuits, tinned meats, sardines, vegetables, fruit, sugar, tea, canned milk and a few sweets. Cigarettes formed one item of our list and we had a great discussion as to whether we would try and get out aerated waters. Such drink as we were getting was from a spring about two miles away in the hill of Kunchai whence it came in *mussaks* on a camel. This water was quite sweet but had a darkish gray colour and an amount of sandy sediment; in addition, I do not suppose the *mussaks* made the taste any nicer then it originally was. This water had worried the Freres very much, and they were keen to have lemonade and soda and, possibly, beer sent out. While we needed the beer, etc., very much, I was rather against worrying our captors at this stage with such a heavy consignment; I felt that to do so might make them feel, that they were having their decency imposed upon and I preferred gradually to work up to the heavy consignments after we had been there a day or two. Accordingly, after discussion, we agreed to defer asking for anything of the sort until we could see more clearly how long we were going to be held in the village.

The brigands guaranteed to produce all our requirements on the 6th, and when I expressed some doubt as to their capability to do so, it was explained that a man would walk to the nearest village and thence ride in on a camel to Chaman, where, having presented his chit to the Officer Commanding, he would hire a motor lorry in the bazaar, load up the lorry and bring it out to the edge of the sand-hills where we had entered them, a matter only of three-quarters of a mile from the village. This seemed a satisfactory arrangement and left us comparatively easy in our minds that we should not lack some of the amenities of life, chief of which, apart from food, were under-clothing and bedding.

Later on in the evening, after I had had some further talk with the gang and found out that the hill of Kunchai was absolutely stiff with *chikor*, Kher Mahommed promised to borrow a shot gun for me from friends of his in Chaman and also to get out cartridges. The proposal was that he or one of the raiders should go out with me into the hills so that not only could we get fresh food in the form of *chikor*, but that the tedium of waiting would also be relieved. This was a

very sound proposal but as things turned out, it did not materialize. None the less, I was given a cordial invitation by the gang individually and all together to go out later on, in the winter, and shoot with them. Needless to say, unless I can get some pretty reliable guarantee of security, I do not intend to go. I am bound to say, however, that I should like to go very much, especially since Kunchai looks to be an ideal place for *chikor* and this appearance is backed up so very strongly by every man whom I questioned.

VII.

After the Durbar we bellowed for food and the longed for eggs were produced—most disappointing! quite good and fresh, of course, but for some reason or other none of us could eat more than one apiece. This we helped out by a slice of bread, which the Freres produced from their tiffin basket and with a little tea given us by the villagers. Curiously, the meal, small though it was, seemed to be quite sufficient as none of us seemed to feel particularly hungry till late in the afternoon. The last of my bottles of beer was finished at about noon that day—very grateful and comforting. I may here mention that by mid-day the following day we had drunk up all the tea in the village and used most of their scanty supply of sugar. Kher Mahommed had been at some pains to get more from the neighbouring village from which they had got the eggs, but the second batch of tea was nothing like as good as the first.

Through the day we slept a great deal, but there certainly were minor discomforts which we had to make the best of. It is astonishing how hard a level sandy floor can become, even when covered with a thick layer of *razais*, when one's movements are restricted! In addition, of course, there was the fact of the constant pressure on skin that had been rubbed on the camels; this had a tendency to cause clothes to stick to one! The worst of the whole lot were the flies. There were not very many but about seventy per cent. of them seemed to be of the variety which looks like a house-fly but has a long jagged proboscis, which is formidable enough to go through a single layer of khaki drill and long enough to go through a very thick pair of woollen stockings. To guard against these, the villagers gave us *chaddars* which we spread over our more exposed parts, and I had a spare white linen coat in my kit which I handed over to Mrs. Frere who was in a sleeveless frock. The flies had worried us earlier in the day and when the women came to visit us, they had noticed it. A

genial old dame, old enough to be the mother of the entire village, showed considerable sympathy and produced a bit of mauve calico about two feet long and one foot broad ; this she folded in the middle, putting a short, stout stick into the fold and sewing it there with a coarse thread pulled from one of the goats-hair coverings of our shelter. Thus a sort of flag about a foot square was produced, which was handed over with many smiles to Mrs. Frere and made a very valuable fan. It was in constant use throughout our stay in the village, and the Freres were careful to bring away with them when we eventually left. It is now a valued souvenir.

As the afternoon wore on, the shelter became stuffy, but not nearly as hot as it might have been since a light breeze sprang up. It is to be noted that we were extremely fortunate in that the weather was, for the time of year, comparatively cool. This, combined with our altitude of some 3,000 to 3,500 feet made life not too unbearable.

At about 6 p.m. it cooled off considerably, and we went out to take the air on one of the neighbouring sand-hills. Two men on horses were amusing themselves, galloping up and down, tent pegging, picking up small bushes off the ground at the gallop, and so on. Others were grouped on another sand-hill, playing various games. I strolled over to this latter group to see what they were doing. It appeared to be a sort of cross between Ludo and Draughts which they called "*Qatar.*" The "board" on which this game was played was the sand and consisted of a framework of five lines each way ; the "men" were the dry droppings of either goats or camels, or pieces of stick. Two people play the game, starting with three of their men placed one in the middle of each of the two sides and one at one of the opposite crossings ; each player in turn puts down one of his men at an intersection of the various lines ; as soon as he succeeds in getting one of the lines filled up either vertically or horizontally, he moves one of his men further towards the centre and the whole process is repeated for the smaller square. As soon as the player gets three men in a line right in the centre of the framework, he has won. The game is primitive but to a limited extent amusing. I got bored with it very soon and started off the Mullah on Peggity with a framework, drawn on the sand, the holes of the Peggity board being represented by the intersections of the various lines. At first the Mullah thought this was easy but after I had shown him exactly what to do and how to do it and he thought he was expert at it, we had a game. When he had been defeated three

times, he decided it was not quite so easy as it looked and got fed up, so we abandoned it.

Just about now a 'hi-hi' occurred when a man, who had been left at the edge of the sand-hills as a sentry, came in, calling out that two cars with many armed men were looking for us and had arrived at the sand-hills at the end of the path leading over from the Kunchai valley to our village. Immediately, there was a scurry; all the able bodied men of the village rushed for their rifles which had been left in their own houses. One remained as a guard over us and the rest made haste towards the edge of the dunes. Watching them from the village we could see that they split up into three parties. Kher Mahommed and one went straight down the path towards where we thought the cars must be; the other two took up positions on the highest of the sand-hills overlooking the cars, one party on each side of the path.

At about 7 p.m. all these men came back to camp bringing with them three Maliks, two of whom were, it turned out, from the Afghan side of the border and one from our own. These Maliks, with whom we spoke, assured us that every possible effort was being made to secure our early release, and, after we had assured them of our well-being and comparative comfort, they retired with the villagers to a knoll a short distance away. Long into the night they were discussing matters with the villagers. At about 8 p.m. one of the raiders came over to us and informed us that the following day there would be a Jirga concerning us; he then retired to rejoin the discussion going on with the Maliks. Through overhearing bits of conversation we learnt now that the Hakim of Spin Baldak was himself with the two cars, and also that there were two Afghan regiments in support of him some three miles away. It was encouraging also to hear that our side of the border was bristling with armed men—two Infantry Battalions, Armoured Cars, Cavalry and guns—all waiting to cross the border on the slightest provocation should the efforts directed towards our release prove abortive or should any harm have already befallen us. The bandits seemed very agitated and indeed I am not surprised since they seemed to be in expectation of being surrounded and killed off in short order.

Fortunately the discussion that was going on with the Maliks was at some distance from the encampment; we were weary and would not have appreciated being kept from sleep. The night passed off quietly and on the 6th at about 6 a.m. a man, whose name I ascertain-

ed to be Gul Mahommed, came into the camp and asked to speak with us. He stated that he had been sent out by the Political Agent to locate us and that he was one of several parties of two men which had been sent out with this object. He said he had been going continuously, without rest, since the evening of the 4th and that during the night of 5th/6th he had lost his companion in the dark. This was unfortunate, as it turned out, because his companion was the fellow who had a letter for us from the Political Agent saying what our own people were doing to secure our release. We never got this letter at all. Gul Mahommed had also been given a couple of loaves of brown bread and a tin of fifty cigarettes to hand over to us, but the leader of the raiders informed us that unless we wrote a chit at once saying what their terms for our release were, we would not get the food. Our statement of these terms of release could not possibly affect our case so there were no bones made about writing at once, and we got our food ! In addition to this chit, we handed to Gul Mahommed the letter previously written and the bandits then said that as he was taking it there would be no necessity for them to send in a man for the supplies we wanted. Gul Mahommed went off to report our exact whereabouts to the Extra Assistant Commissioner, Chaman, who, it appeared, was awaiting this news at that Afghan post near the border which we had circled round during our first day's march.

Shortly after the departure of Gul Mahommed twelve of the raiders went off to attend the Jirga which had been arranged the previous evening. One man was left to keep guard over us.

VIII.

This day, the 6th, was trying. In addition to the various hurts the Freres were nursing, the lack of decent food, and the nuisance of the biting flies, we had the trial of a smartish breeze. Starting lightly in the morning by about 9-30 or 10 a.m., the wind had increased to such an extent that it was beginning to shift the sand. As the floor of our shelter was dug down about eighteen inches below ground level, and as the bushes at its sides certainly did not keep out dust, we had either to suffer the discomforts of a continual shower of sand coming through the walls into our faces or to close up the windward side of the *juggi* completely with blankets. We chose the latter alternative, and as a result, the shelter became very stuffy ; furthermore, it was particularly attractive to many flies which would otherwise have remained outside.

The day wore on and we eventually got outside in the evening to cool off. After sitting about and talking to the Freres for a little while, I strolled over to try and find out from the guard and from the old men who were collected on a neighbouring sand dune how the Jirga was progressing. While we were chatting, the Jirga party came back—this would be at about 6-30 or 7 p.m.—and appeared to be very agitated. We were informed abruptly that it had not been possible to reach any agreement whatever with the opposite side. The raiders seemed to feel as if something drastic would have to be done at once. They gave us the alternatives of either paying them as a ransom ten thousand rupees or of being taken immediately on camels a further three to four days march into Registan.

I had of course at once rejoined the Freres and was very much struck with the remarkable change for the worse in Mrs. Frere's condition. She appeared to me to be very much more nervous than she had been earlier in the day. She had felt the heat considerably and, I I imagined, had been increasingly worried as to what was going to happen to us. Altogether I was very much concerned as to her condition. Her husband stated that it was absolutely out of the question that she should be subjected to any further hardships and in this I cordially agreed. The suggestion to go willingly into Registan was to our minds absolutely not to be thought of; the hardships there would be far more severe than any undergone up-to-date and it certainly appeared that were Mrs. Frere subjected to them she could survive only with difficulty.

Frere and I accordingly agreed that a ransom must be paid, but I, having been some time out in this part of the world, boggled at the amount. Frere was anxious to get the whole thing settled at once, but now that the talk about money had started, I felt that we were really on firm ground at last and that we ought to make the best bargain we could. As Frere did not understand Pushtu, and I was conducting negotiations, I was able, to some extent, to over-ride Frere's impatience and to start bargaining. The demand of ten thousand rupees filled me with horror. Children at school, an establishment in Quetta, army pay and the doubt as to whether Government would ever help us with the payment of such a ransom, do not make a very pleasing combination. The position having been explained to Kher Mahommed he agreed to reduce the ransom to some extent and suggested Rs. 8,000 as a suitable figure. To this I could not agree, and he pretended

at once to lose temper and said " All right, quote a reasonable figure yourself." This I was loth to do. Had I offered too low a figure he might have been really annoyed, which had disquieting possibilities ; on the other hand, had I quoted too high a one, he would probably have been blatantly pleased and I should have felt a fool. Accordingly I explained to him that he seemed to be the piper and it was up to him to call the tune, but that he had to be reasonable about it because army pay could not possibly stretch to any fantastic sums. After a certain amount more haggling the price dropped to Rs. 5,000 and we promptly agreed to it. I had been all in favour of going on arguing and getting further reductions, but Mrs. Frere and Frere himself were very much upset at this apparently acrimonious squabbling and urged me to bring the discussion to an end. Had Mrs. Frere not been so very ill, I am afraid I would have indulged in my natural tendency to argue a little longer, but it really seemed as if she could not possibly stand any more of it.

Later I learnt that during my absence from them, just before the raiders returned from the Jirga, the Freres had agreed between themselves that she was to feign being as ill as possible. This pretence apparently came off even better than they expected because it had taken me in as well ! As things turned out this was a little unfortunate, but all is well that ends well.

As soon as the payment of Rs. 5,000 was agreed to, the terms on which it was to be paid were settled. These were that the money would be paid by me to Kher Mahommed personally in Quetta on or before the 27th of the month. This gave us three weeks to collect such funds as we had to if Government were not coming to our assistance. The payment was conditional on the safe delivery of all of us, including the two drivers, together with all our kit and belongings in Chaman Cantonment that night. Kher Mahommed swore on the Quran to fulfil his side of the bargain and asked me for an agreement in writing, which I accordingly produced for him. The agreement was necessarily written in English, but it was first translated by me to the raiders who agreed as to its accuracy. It was then explained in Hindustani by me to Frere's driver, who is a Kakar Pathan, and he then explained it phrase by phrase in Pushtu to the raiders who again agreed as to its accuracy. I was particular about this explanation since it seemed to me that some of the terms were diffi-

cult of fulfilment by Kher Mohommed. However, as he had agreed, there was no more to be said.

IX.

As soon as the agreement had been signed both by Frere and Mrs. Frere as well as by myself, steps were taken to start us for Chaman at once. In about ten minutes all our kit with a few exceptions had been collected and we were on our way across the sand. This took some time since the camels on which we had come into the village had been sent away and we had to foot it. Apart from the heavy going, there was the difficulty of Frere's feet which by now were very painful indeed. Also there was our natural stiffness, still somewhat in evidence. In addition, and by no means least, was the maintenance of the fiction of Mrs. Frere's extreme illness. To cover three quarters of a mile must have taken us about half an hour, and all the time there was the doubt whether this was some fresh trap or not. However, these fears turned out to be groundless on coming over the last sand dune we saw a lorry and a motor car awaiting us at the bottom of the valley. There were also a number of armed and unarmed men, one or two people who had some sort of a uniform, and a decently clothed man who appeared to excite some deference. This gentleman turned out to be the Hakim of Spin Baldak and, with him, he had a Captain of Afghan Irregulars and some ten of his men. The Hakim welcomed us and invited us into the car, while our kit was loaded into the lorry, into which also our servants bundled.

There now occurred a considerable delay while the Hakim talked to Kher Mahommed and the other raiders. There was a lot of whispering of which I could not gather the meaning, but the form of agreement which we had executed was eventually handed over to the Hakim. We then started off for Spin Baldak, followed by the lorry full of the soldiery and with an armed man on each running board of our car. The driver of this car appeared to be familiar to me and, as it turned out, he was the Jemadar of our own levies in Chaman, while the men on our running boards were two of our own levies and the car was actually an old Overland (Circa 1920) in which the Extra Assistant Commissioner, Chaman, has been crashing over all sorts of country for the last six or eight years.

Dusk was now falling rapidly, but as long as we were in the valley the going was good and there was nothing very much to worry about,

except an occasional violent bump over the bund at the edge of some field, which the track we were on seemed to cross quite regardless of the "going." Soon after rounding the northern spur of Kunchai we came to a deep *Lora*, a dry sandy water course, in which the car and the lorry both stuck. The men bundled out of the lorry and tried to push us up the steep bank, but the car simply conked out and ran back; this did not do Mrs. Frere's nerves any good. I, the Afghan Captain, the two levies and the Hakim got out of the car to lighten it and we made another attempt to get up the bank, this time obliquely. The car now showed signs of wanting to turn over, so the Freres also got out; at the third attempt we eventually did get it up the hill, the lorry following us with comparative ease. We turned towards the frontier post where the Extra Assistant Commissioner was said to be awaiting us, the route now being illuminated faintly by a bright moon. We arrived at the rendezvous with the Extra Assistant Commissioner at about 9 p.m., where there were drawn up a number of lorries and a large mob of men. As soon as we halted the Captain got off the step and shouted out some orders; the mob split and about forty arranged themselves in a ragged line. The Captain gave an order, the men presented arms and a bugle, dug up from somewhere, made weird noises. This appeared to be a salute by the Afghan Irregulars in honour of the Hakim. After this we were allowed to get out of the car and were greeted by Sirdar Nur Ahmed Khan, the Extra Assistant Commissioner who appeared to be very pleased to see us. What we wanted most was a civilized drink and, when asked for one, Nur Ahmed told us that he had lorries full of it! After some delay we all had a good stiff peg.

Much delay, much talking and considerable shouting, while we were longing for food, made us impatient, and we urged Nur Ahmed to "get on with it" as soon as he possibly could. After an interminable time he took the place of the driver of his car, the men all bundled into the lorries, and we started off for Spin Baldak. The direction we moved in, however, was not reassuring as we appeared to be pointing to Kandahar. Nur Ahmed explained to us that we were really going to Spin Baldak, but that the road lay first of all in a westerly direction and that we would later on turn northwards.

We struck the nullah, in which we had had so much difficulty already, further down and got into it with comparative ease. Its bed was

hard and made a very good road while we followed it for some three or four miles until just south of Tor Baldak, another of the range of hills I have mentioned before. Here we sought a way out of the nullah, and, having retraced our route for about half a mile, eventually found one, emerging into a chain of small sand-hills interspersed with ground which had been at sometime cultivated. The going was not good, and the car had to be pushed quite frequently. Where we did happen to strike good going the lorries seemed to delight in rushing up on both sides of us and racing with either us or with each other. In the clouds of dust which we were churning up it was quite a frequent occurrence suddenly to see the headlights of a lorry within a foot or so of the tank of the car and, apparently, accelerating on top of us. In spite of this we were fortunate and no actual collision occurred.

We reached Spin Baldak somewhere about 10-30 p.m., and naturally were all for starting for Chaman immediately, but this we were not allowed to do. It appeared that the Hakim had to telephone to Kandahar for permission to release us before he could actually do so. While he was doing this another little drink or two came exceedingly welcome. After about half an hour the Hakim emerged from his house, and we were informed that one of us would have to stop over night in Spin Baldak, pending the settlement of certain formalities ; there was also some vague talk about papers to be signed. In the circumstances, I seemed to be the person to stop behind, and, as soon as this was settled, Nur Ahmed got into the car and started off for the border with the Freres.

X.

When the Freres had gone I got hold of one of Nur Ahmed's henchmen and told him to unpack the lorry with the food in it, intending to make a real meal. Just as I was sitting down the Hakim emerged from his house and asked me what I was doing. On my explanation to him he exclaimed that of course I was his guest and would feed with him. Although I was rather anxious to get some of the type of food that I was used to rather than even superior Afghan variety, I did not want to be rude, so I accepted his invitation and was shown into a guest chamber on the first floor of his house. Having seen me ensconced there, the Hakim disappeared saying that he was going to see after the serving of the food, which was then ready and would be produced in a few minutes. No sooner had he gone than

six or eight armed men walked into the guest chamber and seated themselves round the doorway, the ante-chamber itself probably containing another twenty or so. This did not look particularly encouraging, but I sat down to wait with what patience I could muster.

After about half an hour a very dapper gentleman in uniform and wearing high laced boots appeared and asked me how I was. We conversed for about ten minutes, and then it suddenly occurred to him to ask whether I had fed, whereupon I told him that I had not and he shouted out to the guards in the ante-room for the immediate production of food. The gentleman, who I afterwards learnt was the Afghan Brigadier commanding at Spin Baldak, then offered me some tea. After some delay the Hakim, begging me to excuse the delay in his hospitality, saying that it was only due to his anxiety to give me a good feed, reappeared and, almost immediately, an enormous tray with various dishes upon it followed.

The *pièce de resistance* was a rather dry *pilao*, with this being a *kabab* curry. Both of these were excellent. There was a form of soup and also a kind of jam, a large dish of *halwa*, or something of the sort, which was too sweet for my taste and some really fine *chupattis*, which had been cooked in the same way as the Jews cook their unleavened bread at the Passover in Palestine. Soda water was produced from Nur Ahmed's store in the lorry, and this, with the remains of the bottle of whisky which he had left me, settled the meal down extraordinarily well. I was just composing myself to sleep on the floor when Nur Ahmed returned, having delivered the Freres to the Political Agent at the border. By this time (about 1-30 a.m.) I was thoroughly tired and sleepy and not disposed to talk very much to Nur Ahmed, so he had his own bedding also unrolled in the same room and we went to sleep.

At about daylight the following morning I got up, washed, and shaved and shortly after that Nur Ahmed himself also made a move. He told me that there would only be half an hour's delay before we would start for Chaman, so I was hoping to be there at 8 o'clock or thereabouts. Once they sat down to talk, however, there seemed to be no end to it. I went outside and waited in the car for about two hours. Eventually Nur Ahmed appeared and said that everything had been settled and that we could start at once. This we did. There had been no talk whatever of any papers to sign.

Spin Baldak Fort consists of a long battlemented wall crowning a low hill and is approached by an obliquely mounting roadway enclosed also between battlemented walls. The whole is at present in a state of most utter disrepair. The telephone line from the Hakim's house to Kandahar is most interesting. How he ever manages to get a message through on it defeats me. The poles seem to be stuck up anyhow in no sort of alignment and without any stays or struts; the line itself literally hangs in festoons from one pole to another and in many places a tall man can easily touch it. In a wind there is no doubt that the two wires would touch each other and make connected conversation over the line impossible. However, it seems to work more or less and is, therefore, very like many other things not only in Afghanistan but also in India.

Leaving the Hakim's house we passed close to the Customs House of Spin Baldak through which all the merchandise passing along the Kandahar road from and to Chaman must go; thence, along what really is as far as we are concerned, the beginning of the Kandahar road. This is not a road in the accepted sense of the term; it is merely a track which has been worn through the superimposed layer of silt on to the bed of primæval gravel which lies from two to four feet below the general level of the plain. This gravel makes a good roadbed, but since the road level is so much below the plain, every shower of rain converts it into a water-course, rendering it impassable and making the traffic take the high ground on each side. This process through the ages has widened the road to as much as a hundred yards in places. As soon as our border is reached a metalled road for the remaining three miles into Chaman is encountered. At the border I was met by Mr. Wingate, the Political Agent, who took me over from Nur Ahmed and delivered me at the house of some friends in Chaman who gave me the best breakfast I have had for years.

XI.

A couple of hours or so after my arrival in Chaman I went over to see the Freres and found them both in bed but already well on the way to recovery; they were, however, still anxious as to whether Government was going to help us in paying the ransom or not. Another point abou which they were both anxious was whether we should obtain any compensation for loss for such of our property as we had not been able to get away, the chief of which was all Mrs. Frere's

jewellery. On leaving Kunchai we had demanded the return of this from Kher Mahommed, but he had asked us to believe that he had dropped it in the sand and lost it.

Leaving Chaman that afternoon we moved in convoy, being escorted by two armoured cars over the hill section for the first thirty miles or so from Chaman. I was fortunate in being offered a lift by Mr. Wingate, the Political Officer, who had taken such a very great deal of trouble to get us back so quickly. He assured me that Government would pay the ransom. The attitude adopted by the authorities on our side of the border was that it was a debt of honour incurred by the Freres and myself, and, in spite of the fact that the raiders had defaulted in the conditions of our release, it was incumbent upon Government to honour the debt at the earliest possible moment. A few days later accordingly the Assistant Political Agent met at the border the Hakim of Spin Baldak in his capacity of accredited agent of Kher Mahommed and the other raiders. Five thousand rupees were handed over to the Hakim and our note taken from him in exchange. As far as we were concerned that ended the matter, but apparently not as far as the raiders were concerned.

After a fortnight or so we heard that Kher Mahommed had again crossed the border and had been publishing threats against the Political Agent for alleged default in the bargain made. Minor raids without any damage being done occurred spasmodically for a few weeks, and in one of these there was rather an amusing incident.

Kher Mahommed having got off lightly after pulling the British lion's tail seemed to have got his own well up in the air and had made all sorts of wild threats against Chaman. These culminated in a challenge issued by devious ways to the Officer Commanding there to the effect that Kher Mahommed would collect a Lashkar of a thousand men and would meet and fight one thousand of our own men on any ground of our own choosing and beat them. This, of course, was not taken seriously, and one officer in Chaman even went so far as to say that, as Kher Mahommed had omitted to say whether they would be wearing "whites" or "colours," the game could not come off. On the date fixed for the challenge, however, Chaman woke up in the middle of the night to an outburst of firing going on near its boundaries which, however, as far as any one could ascertain, did not result in any bullets coming into the station. The mystery was

solved in the morning. The Gurkhas after field firing the day before had left out some new figure targets for another day's practice. These targets were riddled with bullets. It was subsequently learnt that a party of raiders led by our friend, on their way further into British territory had come upon these targets in the dark; thinking them to be troops out to stop their progress they had opened fire! When they found what had happened their rage knew no bounds, but they returned to their own country. The story of the night's doings caused no little hilarity all along this section of the border.

A further development of the situation was the digging of Mr. Wingate's grave near the main road, a few miles from Chaman. On this were put up the usual head and foot stones and sticks connected with string to which little bits of rag were attached. In addition to the rags, however, a letter was also displayed, addressing Mr. Wingate; it stated that the grave was intended for him and that he would be put into it at the earliest possible moment because of his bad faith in not ensuring that the money paid over to the Hakim had reached Kher Mahommed who had earned it!

There is no doubt that the authorities in Kabul brought pressure to bear on Kandahar showing their displeasure. Kher Mahommed has been leading rather a dog's life. I am given to understand that he has been chased about his own country by his own authorities, food supplies have been denied to him and his village, and he has been shown pretty clearly that his actions have made him unpopular. I heard a rumour the other day from one of my employees near Chaman that Kher Mahommed had been sent for by King Nadir Shah and that he is now in Kandahar *en route* for Kabul to answer for his escapades. If true, this is a most satisfactory state of affairs.

The End.

PROBLEMS OF MECHANIZATION WHICH MAY CONFRONT INFANTRY OFFICERS IN THE NEAR FUTURE.

By

Major H. H. Rich, 6th Rajputana Rifles.

The writer wonders if officers of the Indian Army consider in any detail the problems which confront the regimental officers of the Imperial Army with regard to the partial mechanization of infantry battalions. Various articles are published in the Service magazines and, during the collective training season, in the big Home daily newspapers, but the former almost always take a broad outlook and peer into the distant future, and the latter are content to record the actual facts of training garnished with an occasional flight of fancy. This article is an endeavour to put before officers in India a few of the problems which immediately concern officers in England.

PART I.—Mechanization.

What Mechanization Means.

Few perhaps realise what the true picture of mechanization is and many are inclined to over-estimate the strategical mobility which it confers on an army. Most people think in terms of their own motor cars. They have often been over to a neighbouring station which may be some eighty miles away, and they have done the journey in from two to three hours according to their cars and their veracity. This gives an entirely false impression. The journey to and from some popular entertainment like the Aldershot Tattoo gives a better illustration, as here an idea of the actual speed of a number of cars is presented. Although the roads are excellent and there are policemen at all corners, the average driver will be lucky if he does the thirty-five odd miles in two and a quarter hours, that is at the rate of about fifteen miles in the hour. Add to this bad and unknown roads, the possibility of air attack, the ever present fear of an enemy armoured car raid and the probability of some mechanical breakdown, and the rate will work out at nearer six to eight miles in the hour.

The new manual of mechanization states that armoured fighting vehicles in formed bodies have a mobility at least twice that of infantry. This confirms the figure evolved above and shows that a speed of from six to eight miles an hour is a fair picture of the mobility which mechanization confers on an army. This mobility of just over twice that of infantry is for ordinary every day calculations, but, just as special bodies of infantry are capable of doing forced marches when occasion demands it, so can exceptional efforts be required of mechanized units.

Tactically, of course, armoured fighting vehicles can move at much greater speeds and it is not an over-estimate to think of tank attacks in terms of fifteen to twenty miles an hour when the new medium and light tanks have been manufactured.

It perhaps sounds reactionary to think in terms of the speed of infantry when dealing with mechanized forces, but it gives a truer perception of what they can do. Even at this rate of mobility troops who can move two miles to their opponent's one have a winning lead.

Design of Vehicles.

There has recently been published at home a new manual called, officially, "Mechanized and Armoured Formations, 1929 (Provisional)", and, unofficially by some "The Purple Primer." In its introduction it lays stress on the fact that, for a variety of reasons, army equipment must be dependent on civil production. The chief factors for this are financial stringency in peace and the time taken to provide the special machinery for mass production in war. This means that army equipment must lag behind that in civil use, but, and a very big BUT too, it does not mean that military thought must also lag behind. Two quotations from the new manual emphasize this—

"Thought, invention and design follow each other so quickly at the present time that what is impossible to-day may be the commonplace of to-morrow."

"At the present time an open and flexible mind is, therefore, one of the first qualifications of an officer."

A visit to the Mechanical Warfare Experimental Establishment will convince anyone of the truth of the first quotation, as there are to be seen there many vehicles which have become obsolete during the period of their practical test, usually about six months.

Types of Motor Vehicles.

There are three types of motor vehicles in use in the army to-day, and these are :—

(*a*) Armoured fighting vehicles, fully armoured and built to fire during movement.

(*b*) Armoured carriers, slightly armoured for the carriage of weapons and personnel in small numbers.

(*c*) Unarmoured carriers, for the carriage of personnel, equipment and stores.

General Characteristics.

(*a*) *Armoured fighting Vehicles.*

(*i*). Owing to questions of supply and maintenance they must have a protected base from which to work.

(*ii*). They are very sensitive to ground.

(*iii*). In formed bodies their mobility is at least twice that of infantry, and they are less vulnerable to air and gas attacks.

(*iv*). Their moral and material effect is such that they can render immobile, by threat alone, infantry formations unsuitably equipped.

(*v*). As guns will always out-class armour, and the stationary weapon beat that on a moving platform, direct frontal attacks on prepared positions unless supported by adequate covering fire will be costly.

(*vi*). They are in the process of being equipped with radio-telephony. This is only one way at present, and is not suitable for long messages. Anyone who has heard the somewhat curious monologue that goes on when R/T is used will realise that the shorter the message the better.

(*b*) *Carriers.*

(*i*). These are for carriage only and it is not normal for the weapon to be fired from them, but it is possible and will be done in an emergency.

(*ii*). They are more powerful and less vulnerable than the horse, but have greater difficulties as to supply and are more dependent on ground.

Characteristics in detail.

Heavy tanks.—These are for static warfare only and at the moment none is being produced.

Medium tanks.—Their role is to destroy the enemy by fire or shock action. They can be expected to march six days out of seven and go a distance of from thirty to fifty miles a day—again about twice the distance of infantry. Hard roads are not favourable to the track which is still the least efficient part of the machine.

Light tanks.—The design of these has not yet been definitely fixed. Their role will be—

(*i*) Reconnaissance in co-operation with armoured cars, aeroplanes and cavalry.

(*ii*) Close co-operation with medium tanks when they act as the eyes of the latter.

Close support tanks.—Their role is to accompany medium and light tanks to provide heavy covering fire to deal with unexpected targets which the normal supporting artillery is unable to see. They can also provide cover by producing smoke screens.

Armoured cars.—Their chief role is long distance reconnaissance, but in war the heavy demands for duties which are mainly protective, such as guarding convoys and internal security, can be more conveniently performed by armoured cars than by other fighting vehicles They have the additional advantage that large numbers can be produced at short notice.

Organization of Formations.

The new manual seems to contemplate the formations of the future in the field being divided into two main headings :—

(*a*) Mobile troops.

(*i*) Cavalry brigades and cavalry divisions.

(*ii*) Light armoured brigades.

(*b*) Combat troops.

(*i*) Divisions.

(*ii*) Medium armoured brigades.

(*a*) (*i*) Cavalry brigades and divisions as at present.

(*ii*) Light armoured brigades.

Headquarters and signal section.
3 Battalions light tanks.
1 Close-support tank battery.
1 Anti-aircaraft armoured battery.

(*b*) (*i*) Divisions very much as they are at present.

(*ii*) Medium armoured brigades.

Headquarters and signal section.
1 Medium tank battalion.
2 Light tank battalions.
2 Close-support tank batteries.
1 Anti-aircraft armoured battery.

The composition of tank battalions is likely to be changed and the tank battalion may be a medium armoured brigade in miniature consisting of medium, light and close support tanks.

The Organization of Units.

As the organization of units is still in the melting pot it will not be considered beyond noting that the armoured fighting vehicle is on the three basis in contrast to the four basis of the infantry. That is tank battalions have three companies of three sections each an armoured car regiments three squadrons of three sections each. The number of armoured fighting vehicles in a section varying from three in a medium tank battalion to five in a light tank battalion and armoured car regiment.

Although it is not included in this survey, the transport of a completely mechanized infantry battalion, that is one carried in omnibuses, is attached as an appendix as it will be of increasing interest to all infantry officers.

PART II.—The Partially Mechanized Infantry Battalion.

For the purposes of this part of the article the writer is arbitrarily taking the organization of a partially mechanized infantry battalion with which he has actually worked.

Organization.

Battalion headquarters.
Headquarter wing.
3 Rifle companies.
1 Machine-gun company.

The headquarter wing consisted of—
Signallers.
Intelligence section.
Anti-tank platoon. (Mechanized).
Transport. (Horsed).
Band and drums.

Rifle companies were composed of four platoons, each of two rifle and two Lewis gun sections.

The Machine-gun company had—
Company headquarters.
2 Platoons mechanized in Carden-Loyds.
1 Platoon in limbers.
1 Platoon in limbers. (Imaginary).

The officer commanding this battalion had to take into consideration the varying paces of the following —

Men on foot.
Men on cycles. (Intelligence, signallers and scouts).
Officers on horses.
Horsed transport.
Men on motor cycles.
Armoured carriers.
1 Light lorry. (For some unfathomable reason).

The Armoured Carrier.

It has not yet been finally decided what the exact specifications of the infantry armoured carrier will be, but it will probably resemble the existing carrier, known as the Carden-Loyd. At present this has an old Ford engine which is shortly going to be replaced by an air-cooled engine of more modern type. It is fully tracked and carries a driver and one other man. Its circuit of action is about fifty miles, and the petrol consumption 5·3 miles to the gallon. It can drag the fully loaded trailer and the anti-tank machine-gun on its tracked carriage. The trailer carries four men and a supply of ammunition.

The speed of the Carden-Loyd along the road is fifteen and across country six miles an hour. The addition of the trailer and anti-tank gun makes some difference to its cross-country performance and along roads speed is reduced to twelve miles an hour. It is not comfortable to ride in, nor to drive, as its steering is on the same principle as the tank, and in inexperienced hands it is apt to shoot across the road in an alarming way.

	Carrier.	Trailer.	Anti-tank Machine-Gun.
Length	8′ 1″	11′ 1″	8″ 0″
Breadth	5′ 7″	4′ 8″	3′ 0″
Height	3′ 4″	3′ 7″	4′ 4″
Climb	1 in 2½	1 in 3½	1 in 4
Weight	22 cwt.	10 cwt.	1 cwt.

The armoured carrier has the following advantages over the horsed limber—

(*i*) It is small and inconspicuous at rest.

(*ii*) It gives partial armoured protection to two men, and it can advance a short distance under fire to bring its own gun into action.

(*iii*) Its cross-country speed is greater than that of the limber.

(*iv*) In consequence of the above advantages it enables machine-gun support to be more easily given to the rifle companies in all stages of the fight.

Experiments are being made to see if the Carden-Loyd can be used to produce smoke screens, either from a cylinder of chloro-sulphonic gas carried in the vehicle or by means of an apparatus which ignites and then drops smoke candles.

It naturally has many disadvantages, the chief of which are connected with the position of the engine which is in the middle of the machine, a very unpleasant place for the driver who has the radiator at his back and the petrol tank under his left arm. The dust raised and fumes from the exhaust make long distance driving a night—mare for anyone not in the leading carrier. The Carden-Loyd has its detractors, most of whom seem to forget that it is purely an experimental machine and one which has had to try and do the various tasks required by the cavalry, artillery and infantry. Naturally these have their own pet theories and ideas of what the ideal machine should be.

Compared with the other mechanized form of carriage for machine-guns, the six-wheeled lorry, the Carden-Loyd is at a disadvantage when moving along roads at a distance from the enemy; it also means that the gun detachment is reduced to four numbers. Once contact with the enemy has been gained, however, the carrier wins all along the line as can be seen from the advantages it has over the limber, especially as, in an emergency, it is possible and desirable to fire the weapon without taking it off the vehicle. So much is this the case that this year Carden-Loyds are being tried out in the rôle of "in-fighting" weapons, divorced tactically from the normal machine-gun duties. The object of this experiment is to determine whether machine guns carried in and fired from armoured carriers in close support of infantry, have a rôle useful to the infantry and different from that of the normal employment of machine-guns.

The Anti-tank Platoon.

Organization.

Platoon headquarters.

1 Officer on a horse.

1 Orderly on a motor cycle.

Two sections each consisting of—

2 Carden-Loyd carriers.

2 Trailers.

2·8-inch tank machine-guns, on their tracked carriages.

Each gun is thus at the end of a little train of three vehicles—

The Carden-Loyd carrying the driver and an N. C. O.

The trailer carrying four men and ammunition.

The gun.

As the total length of the train is 27 feet 2 inches, it is somewhat unwieldy, but has the same performance as the mechanized machine-gun sub-section. In motion the gun is let down so that a portion of the breech is covered by the tracks, while in action it is raised up considerably and makes a conspicuous target in the open. It is comparitively easy to tuck away the gun itself, but the problem of concealment is complicated by the fact that there are two other vehicles which must be hidden near at hand.

The question of the most suitable means of conveyance for the platoon commander is one which will equire thought. He must be

able to move quickly along roads and at the same time have a good cross-country ability. In practice he will undoubtedly make use of the motor cycle for any road work, and his horse is as useful as a carrier over rough country, and less conspicuous. So, at the moment, it appears that he is suitably equipped in this respect. Whether some form of modified Austin scout will be the eventual solution remains to be seen.

The Machine-Gun Company.

Organization.
Company headquarters as at present.
Platoons.

2 Mechanized.
1 Horsed.
1 Horsed. (Imaginary).

The horse-drawn platoons are as in the remainder of the army at home.

Composition.

A mechanized platoon consists of five carriers and four trailers. The platoon commander has his own carrier, and the four guns and their teams are carried in the remaining vehicles. The carriers and trailers are exactly the same as those used in the anti-tank platoon. The gun when carried on the Carden-Loyd is fixed on a mounting in ront of the passenger and can be fired while the carrier is in motion. The carrier is normally only a means of transport and the gun is fired from the ground except in the case of an emergency. The section is reduced to ten in all, section commander, range taker and eight gun numbers. This does not allow of a very long carry of the gun by hand, so the utmost use must be made of the carrier, if necessary the trailer can be temporarily dumped while the gun is rushed forward. Herein lies the value of the carrier in that it presents a small target and should be able to get the machine-gun to its approximate position. In addition each platoon has a man on a motor cycle for inter-communication.

The question of the best means of conveyance for the company and platoon commanders is an interesting one. Taking the former first, he has to make his reconnaissance with his commanding officer

who is mounted on a horse, so he will need a charger, and normally in battle he will remain near battalion headquarters and move when they do. This would seem to point to the fact that until the commanding officer is given other means of locomotion, a machine-gun company commander is as well off on a horse as on anything else. During a march when his command is split up, as it must be, he can always use one of the motor cycles for rapid movement. There is no doubt that the commanders of horsed platoons should be mounted on horses. The commanders of mechanized platoons have their own carriers, and in these they can actually lead their commands, and probably this is their best means of conveyance. The trouble comes when the company commander has done his reconnaissance and wants to give out his orders. Time is bound to be short so he must give them out to all platoon commanders at the same time and everyone must know the whole plan. He has to select a place from which he can get a good view of the ground and which can be reached by both horses and Carden-Loyds. If there is any complication, say that one mechanized platoon has to be sent wide on a flank, he must choose a place from which he can point out tasks and areas to the majority of his platoons, and then fix a rendezvous for the last platoon. As both commanders are differently mounted and do not view the ground from the same angle they will choose different lines to the rendezvous. This leads to loss of time as no targets can be indicated and points discussed until a meeting is again effected.

PART III.—Tactical Problems.

When considering the tactical problems a force consisting of the following troops will be taken in order to give concrete examples—

Brigade headquarters.
Signal section. (Horsed).
4 Infantry battalions. (Partially mechanized).
1 Field brigade, R. A. (Horsed).
1 Battery, R. A. (Mechanized) (Guns).
1 Light mortar battery. (Mechanized)
1 Company, Light tank battalion.

The Road Problem.

The question of an advanced guard will be discussed later and for this problem it will be assumed that there is an advanced guard already detailed and in position. The commander o ithe mixed force

has to deal with two very distinct rates of movement, men marching at three miles an hour and vehicles going at twelve to fifteen. He obviously cannot make the vehicles reduce to the rate of the men's marching as it at once considerably impairs their efficiency, at the same time he does not want to let such an important portion of his force get beyond his control. His problem is further complicated by the fact that there are two rates of movement within his infantry battalions. This means that the mechanized portion of the infantry must be divorced from their battalions during the march and move with the mechanized column. Assuming the clock hour halts it can be calculated that during the fifty minutes of marching the men on foot cover two and a half miles. The mechanized column moving at about twelve to fifteen miles an hour covers this distance in ten minutes. This rather points to a possible solution that generally the mechanized column moves while the marching column halts. Take the case of a column moving off at a clock hour. The marching column does its two and a half miles in fifty minutes and then halts. The mechanized portion halts until fifteen minutes to the hour and then moves on with the result that at the end of the clock hour the commander has complete control of his whole force. It may be argued that control only once an hour is insufficient, and in that case there is nothing to prevent the mechanized column doing two bounds in the hour, and reaching the tail of the marching portion at the hour and at thirty minutes after. It is purely a matter of taste, and, of course, depends on the tactical situation. It must be remembered that even with the hourly bounds the commander can count on the major part of his mechanized troops being up with him in from fifteen to twenty minutes of his sending off the despatch rider to call them up, a period of time which will about coincide with that spent on his personal reconnaissance so probably no time will be lost.

Two Advanced Guard Problems.

(*a*). When dealing with a force of this sort the first problem that the commander has to solve is what advanced guard shall he detail. Field Service Regulations II, 38 (3) gives certain hints as to the composition of the advanced guard, and it will be assumed that the country is such that a battalion of infantry is definitely required. Taking the artillery next, some guns are needed, and is it better to detail horsed or mechanized, guns or howitzers ? Broadly speaking there

is not much finesse about advanced guard work, simple straight forward tactics are the order of the day and it is only when the whole force has to be put into the attack that the more subtle flanking movements come into play. If this is the case it would be better to keep the mechanized battery for this and to give the advanced guard a horsed battery. Other matters being equal howitzers can more easily take up semi-concealed positions quickly, and this kind of battery would appear to be the solution to the problem. The advanced guard may require some form of close support that the artillery is unable to give and this brings up the question of the light mortar battery. Its action may easily be such that it can enable the advanced guard to get on without the deployment of men, and consequently time will be saved. The force commander has to consider if he will allot the whole battery of two sections or only one section. As his force is already dwindling it is more than probable that the advanced guard will only be given one section, but here again it is a matter of choice and depends on the personalities of the commanders concerned. Field Service Regulations, II, 38 (3) states—"If the commander of the force considers it essential to overcome opposition quickly or if there is a likelihood of the advanced guard encountering hostile tanks, he will be justified in allotting tanks to the advanced guard." Tank and Armoured Training recognizes that tanks may have to be allotted to the advanced guard, but is not very enthusiastic about it. The smallest sub-unit that could be allotted is a section which, in this case, is a third of the available tanks. Again if there is a likelihood of hostile tanks being encountered, the force commander can always make some of his A. F. Vs. move in the gap between the advanced guard and the main body, where they are under his control yet available quickly in an emergency. It must be remembered, however, that the advanced guard commander will have designs on this gap as he has some of his own mechanized vehicles to cater for.

As there seems to be no material reason for allotting tanks to the advanced guard, its final composition will be taken as—

1 Infantry battalion.
1 Howitzer battery (horsed).
1 Section Light mortar battery.

and this leads up to the second problem, that of the distribu ion of troops between the main and van-guards.

It is hard to imagine a situation in which the advanced guard commander will not detail infantry for the van-guard, and the company is about the smallest unit that can be allotted for this work. The van-guard is in the same relation to the main guard as the later is to the main body hence it requires its share of fire power, certainly machine-guns and possibly artillery. Taking the former first, the choice lies between a horsed and a mechanized platoon. It is entirely a matter of opinon which to allot. There are certain disadvantages in giving a mechanized platoon, as it is almost sure that that the vanguard will not go in much for manoeuvre, and the horsed platoon will be able to produce the necessary fire, and it has the additional advantage of being able to march with the vanguard. If a Carden-Loyd platoon is allotted it will have to march in the gap between the van and main guards as there is no other place for it. When contact with the enemy is imminent the advanced guard commander may want to get his other mechanized platoon forward, and this rapidly filling gap is the only place for it. The result of this will be that there are two machine-gun platoons each under a separate commander moving by bounds in the same rather limited space. It must be realised that the distance between the van and main guards with partially mechanized battalions will be greater than is the case at present. The length of the gap is based on the time taken by the main guard to deploy and, to a certain extent, on the time taken before the van-guard can be supported. The best and quickest method of supporting the van-guard is by fire, and the mechanized platoons can cover an increased distance in the time now taken by the horsed platoons; the principle is that so long as the fire support can be given in the present timings the gap can be increased. The existing distance appears to be in the neighbourhood of 800 yards or, say five minutes of time for the horsed platoons. In five minutes the mechanized platoon can move about a mile, so that as long as the gap does not exceed one mile the vanguard is in the same position as regards fire support as it is now. However the bulk of the battalion is still infantry and whereas formerly they could arrive in eight minutes, a gap of a mile means eighteen minutes which is, perhaps, rather a long time to wait. This might point to a suitable distance between the van and main guards as being 1,200 yards. Carden-Loyd carriers can move comfortably at six miles an hour, and they should not make a bound of under six or seven minutes otherwise their mechanical efficiency will be seriously impaired. The distance of

1,200 yards works in well with the bounds of the mechanized machine-gun platoons. The picture presented of the now somewhat mythical gap is of mechanized platoons moving forward as soon as the main guard reaches them and halting when they bump the tail of the vanguard.

The advanced guard commander has now to consider if the van-guard wants more fire power. He has only a battery of howitzers, which can probably give the necessary support from the main guard, and the section of the light mortar battery. At first sight the light mortar seems the ideal weapon to give the van-guard, but on going deeper into the question it is found that it takes some fifteen minutes to come into action and it has only the gap in which to move. The commander must weigh up the reasons for and against and then decide whether to give it to the vanguard or not. The balance is, perhaps, slightly against allotting it.

The result is that, in spite of all the mechanized weapons, the van-guard appears to remain the same as it would without them—

1 Infantry rifle company.

1 Horsed machine-gun platoon.

While on the subject of the vanguard its anti-tank defence must not be overlooked. The next problem discusses the anti-tank protection of the whole force, but does not consider the guns allotted to the advanced guard. The commander of the latter has two alternatives, either he can give a portion of the anti-tank platoon to the vanguard—the most he could spare is one gun—or he can arrange to protect the whole of his command with his available resources. This last method appears the more economical as often a gun sent forward to cover the vanguard at some danger point can remain there for the main guard and enable the platoon to be continually leap-frogging, so that a proportion of the ·8-inch machine-guns is always in action. While discussing anti-tank defence it must be remembered that most commanding officers will insist, and rightly so, on one anti-tank machine-gun being on wheels as a mobile reserve, and this will leave three guns to protect both sides of a column 2,500 yards long.

*Anti-tank Defence.**

The question of movement along the road has already been discussed and it was suggested that the mechanized portion of the force moved during the clock hour halts, and this will be taken as the solution when considering the problem of anti-tank defence. As was mentioned in the preceding paragraph it will be assumed that the advanced guard has been allowed to keep the anti-tank machine-guns of its infantry battalion. The means at the disposal of the commander for protection of the remainder of his force are the anti-tank platoons of the three infantry battalions of the main body, the mechanized battery and the company of light tanks. As the last two are in the mechanized column, this can be considered reasonably secure at the halt, as the guns can be placed to cover likely tank approaches and the light tanks are available as a mobile anti-tank defence, but it must be remembered that any attempt to use them for purely passive defence is uneconomical and, one might almost say, definitely wrong. On the move it is another story as the guns are useless, and tanks in column of route, as they may have to be at times, are a conspicuous target, and space for their initial manoeuvre, if they have to be used, is very cramped. The result of this is that the force commander will probably have to include the mechanized column when on the move in the general scheme of the, his anti-tank defence.

All operations of war are largely influenced by conditions of time and space, and the road space of the force has to be considered. Without going into details and working on home establishments the length of the marching column is 4,200 yards and the mechanized portion about 1,200 yards, making a total of 5,400 yards or about three miles. Unfortunately this space is not constant as it varies from three miles at the clock hour to nearly five miles at the fifteen minutes to. The commander has to arrange for the continuous anti-tank defence of this space with only three platoons of ·8-inch machine-guns. There is little doubt, when looking at a problem like this, that the only econo-

* *Editor's Note* :—As a result of experience gained with the 6th Infantry Brigade at Aldershot last year the method adopted for protecting a column on the march was for the route to be divided into Anti-tank Sectors (given in Operation Orders) allotted to units. The senior Anti-tank Section Commander was made responsible for the co-ordination of the defence and for the successive leap-frogging of the Anti-tank Sections as soon as the column had cleared their sectors.

As it was considered necessary to provide Anti-tank defence for the artillery (mechanised) when on the move, the sectors mentioned above were often very large for the four guns of an infantry battalion. As it was also found that the cordon system in many types of country would not give complete immunity from attack by hostile A. F. V.'s some kind of inner defence in the form of Anti-tank weapons moving in the column was also found to be necessary.

mical method is to place all platoons under a selected officer and make him responsible for anti-tank defence. Even with the best will in the world, leaving the platoons with their battalions can only lead to inefficient protection and waste of effort. The next question to decide is whether the marching and mechanized columns shall be considered separately and each given a portion of the anti-tank machine-guns, or whether the force be considered as a whole. The former solution would, perhaps, make for better liaison and more intimate protection; against this comes the question of the more economical method, and as long as it provides the necessary protection, the latter is possibly preferable. It is, however, a controversial point, and for the purposes of this article it will be taken that the anti-tank defence of the whole column is being arranged by one officer, under the force commander, with the three ·8-inch machine-gun platoons.

It is manifestly impossible to arrange for any moving protection in the shape of anti-tank flank guards as the guns must be unlimbered to fire. Also every possible tank approach in a five mile stretch cannot be guarded by twelve guns. The most that can be expected is that certain important points and approaches will be piquetted. The best system appears to be that in use by infantry on the North West Frontier of India. The anti-tank guns would be put into position from the head of the column and remain out until the mechanized portion passed through their area when they would move forward to the head of the column, and start their task again. In this way there would be a continuous leap-frogging of platoons in large bounds, with always a proportion of the guns in action while others were moving. In this way, too, there would probably be an ever-changing reserve, but still a reserve, at the head of the column. The tail of the marching column would not be so well off, but in an emergency attack by large numbers of enemy tanks, the light tanks and mechanized battery would be available in a short time, provided of course, liaison was good, as it should be.

Conclusion.

Although the tactical problems discussed may appear new it must always be remembered that the principles that underlie them are old and unchanging. Field Service Regulations II lays down the common-sense principles of war, and of these two have been emphasis-

ed in this article, the principle of security and the principle of economy of force or, as it might better be named, the principle of economy of effort.

APPENDIX.

Transport of a completely mechanized infantry battalion.

Personnel carried in—

One section of an omnibus company, R. A. S. C., which consists of—

Motor cycles	2
Motor cars (Two seaters).	1
Omnibuses (Troops).	27
Omnibuses (Spare).	2

Transport, first line—

Six-wheeled light lorries	13
Reconnaissance car	1
Armoured M. G. carriers and trailers	16
Armoured officers carriers and trailers	10
Armoured anti-tank carriers and trailers	4
Mechanized travelling kitchens	2
Water tank trailers towed by lorries	4
Motor cycles	23

A total of 105 vehicles of all kinds for the battalion.

Transport, second line—

Six-wheeled light lorries, for baggage	2
packs	3
supplies	2

BABU TACTICS.

By

"Mouse."

When one is not accustomed to writing serious articles there is a danger of one slipping by the wayside into unbecoming flippancy; if such a catastrophe occurs in the following pages it is hoped that the reader will understand that the painted smile on the face of the clown often "'ides a bleeding 'eart."

Quite recently I was chatting with a friend of many years' standing, a Mahsud from the town of Kaniguram. During the course of our conversation he made an astounding remark: "Give me three hundred Mahsuds and I will take on any battalion in the whole of the Waziristan District." I blinked sorrowfully at him, then I reproved him for his insolence, I stormed at him, and I accepted the challenge vicariously. He kept perfectly calm and serene, and when he went away I scratched my head violently. This is the result of my scratchings.

The Army in India is coming in for a certain amount of publicity at the present moment because the problem of Indian Defence is an Imperial matter agitating statesmen, politicians, retired generals, journalists and all sorts of other people, who until now did not know the difference between the Army in India and the Indian Army. In this welter of wise and foolish opinions there is tremendous confusion of thought, and arguments are put forward by one side categorically in opposition to equally well-sustained arguments by another side. To this confusion I would like to add my bit.

The problem, essentially a military one, is now intensely political and as such is affected by three main considerations:—

1. Role.
2. Finance.
3. Indianisation.

In theory the role of the Army in India is to fight anywhere and anybody in defence of the British Empire, but actually it is very doubtful if Indian troops will ever fight again outside Asia. Even the minor advance to the Khajuri Plain has been the subject of angry comment by

respectable Indian journals which refer to it as "a wild-cat adventure abroad." One can grin at this, but unfortunately such views are symptomatic of a considerable amount of Indian opinion towards the employment of the army, and this opinion is now carrying increasingly great weight with the British Parliament.

The financial question is a hardy perennial growth and in India receives the same annual devastating criticism that is levelled at it in every other country in the world. The Indian critic's stand-point is clear and perfectly honest; he has little or no interest in Imperial concerns and cannot see any reason why he should have to pay more for his salt so that artillery may be mechanised. He does not want an expensive first-class modern army to fight against border tribes or slave-traders in Burma—the only enemies he envisages. He dislikes the army and the spirit of force and militarism which it represents. Non-violence is much cheaper, but in the secret depths of his soul he admits wistfully that Mr. Gandhi's creed is somewhat too high-falutin' for Pathans in the present state of their evolution. Afridis and Ahimsa do not mix, and therefore he is prepared to tolerate for a time the minimum cheapest army to deal with them.

Indianisation is the greatest problem and those who are striving for its more rapid introduction have a distinct modicum of logical reasoning on their side. They consider, rightly or wrongly, that Indian King's commissioned officers are perfectly capable of training and leading an army against India's local enemies, and that such officers should be cheaper to maintain than their British comrades. Therefore by their more rapid introduction economy will be effected as well as the raising of the prestige of Indian nationality. We must not minimise the latter consideration, the most potent and the most vocal aspiration of Indian consciousness to-day. It is possible, however, to infer that this class of military pundit reckons that the likelihood of India being invaded from either East or West is so remote that such a hazy threat will be easily repulsed by strong non-violent resistance.

Shamelessly I confess to having sympathy with all these Indian aspirations, not because I believe in them, but because I do not think they are so very much worse than our present system of training. My Mahsud friend's remark rankles. For the sake of argument I am dealing with only the Indian Army on the frontier which is to my mind

the sole theatre of operations in which the Indian Army can hope for any clean fun. When New India is evolved in London the chances of sepoys going to Flanders or East Africa ever again are nebulous.

(The worst of writing a thoughtful article of this kind is that one gets so tied-up in side issues and cross purposes that the main train of thought gets shunted into a siding and forgotten. I started off on a clean sheet of paper to write the most dreadful things about our training which I called Babu Tactics, and before I knew what I was doing I found myself reclining in the Opposition Benches in the Legislative Assembly hobnobbing with all sorts of people who fill me with the deepest suspicion).

Pulling myself together I will resume.

At the moment the sepoy is being taught to fight anybody from the French General Staff down to Ayab Gul, Malikdin Khel. He is given instruction by his omniscient young officers on how to defend himself against anything from Trynocthecene gas ejected by electrical generators to boulders shoved over the edge of a khud. He is taught how to advance steadily in tidy formations under a barrage of bullets, shells and smoke,—and, a week later when he comes off guard duties, he learns how to evacuate a picquet like a scalded cat. Fortunately the sepoy's mind being like a loofah no great harm results. Does it do any good ?

I apologise for mentioning the fact that the principles of war never change-presumably that is why one was left out of the latest edition of Field Service Regulations,—and that only in their application do they vary. Therefore we ought to apply the principles differently on the frontier from the way they are applied at Aldershot. We don't. Our present day training is still based on what somebody called " the meticulous formula for massed attacks," which owes its birth to France, its adolescence to the aftermath, and its maturity to post-war training. Personally I would like to strangle the darned thing. It is all right for continental armies ; it is heinous for the small formations that have to operate on the frontier.

I am not putting up an Aunt Sally just for the fun of knocking it down. The reader may think that this is gross exaggeration and that our text-books which harp on the importance of the junior leader, freedom of action, individuality, bold initiative and all other urges to egoism refute this contention. The books do, but our training

does not. Read over the Method paragraph of the type of attack orders you would write for your promotion examination and you will see what I mean. Most of it eye-wash and the remainder babuism.

Let us take an illustration. Supposing a brigade of all arms is advancing into enemy country against the Hocki Khels and is held up by a thousand of these hardy fellows who have chosen a commanding position athwart the line of advance. The O. C. Advanced Guard stabs at them and finds he needs support. The Force Commander rides forward, glares all round, and decides to attack. Then follows the formulae :—Reconnaissance, consultation with the mechanical aiders, including tricky wireless communication with the R. A. F., and the issue of orders to the battalion commanders. Then, more reconnaissance, recognition of forming-up places, starting-lines, headquarters ; more orders to company commanders, more reconnaissances, more recognition of places to note, detailed descriptions of the mechanical aid to be expected to disbelieving Indian Officers—and so on down the tortuous chain to the sepoy whose section commander has time only to give the most important order of the lot, "*Chelo, bhai.*"

Two and a half hours have been spent and the enemy has either been reinforced or has gone home to tea. If the Force Commander in the first place had said "*Chelo, ji*" and the brigade staff had been trained to direct *cheloing* troops, the force would have shaken out into battle formations and gone forward without losing its momentum and with its tail up to deal with the traffic block. We seem to be suffering from a mechanical-aid complex, and no troops can budge until the elaborate mosaic of covering fire has been settled. We are obsessed with our artillery, and forget that it is generally inadequate in India. Its task must of necessity be limited but should not include paralysis of infantry movement.

The principle of Security seems to be the dominant note in our tactics ; Mobility and Surprise are now muted strings.

This is what I call Babu Tactics. Text books, written orders, telephone wires, codes, artillery programmes, co-ordinates on inaccurate maps and all the erudite backwash of the Staff College and the Senior Officers' School. They admittedly are all right in their own way and proper place, but I would respectfully submit that they are almost a nuisance when fighting an elusive and illiterate gentleman

like the Pathan. They blur initiative and knot 'guts' into tangles. Our tactics are fluent when they should be fluid.

Is there a remedy? I think there is. Before suggesting it I would like to state again that I am writing of the Indian Army on the Frontier where most, if not all, of its future lies. The remedy is to make the Indian Army more irregular. Our great job, (sorry for using a word frowned upon by the promotion examiners), is now to civilise unadministered territory. We shall never do it by aircraft, or by sitting behind perimeters training for warfare in Yugo-Slovakia or Guatemala. We may do it in a few generations by building roads and moving down them solemnly in strong columns and showing a tentative flag with the deepest suspicion in our hearts. This latter policy seems to be favoured because the Indian Army can move down roads and picquet heights, and still remember that its stern destiny is to fight against worthier and more literate foes.

Let us go back to the last century when the Native Army (a distinctly irregular organization) made its reputation under men like Napier, Hodson, Outram, Edwardes, Nicholson, Lawrence and all those other soldiers whose tactics were based on common sense and common or garden 'guts.' Their work was exactly the same as our's is. They had to go into hostile country, build roads and bridges, and civilise the inhabitants. They did it in the Punjab and right up to the foothills of unadministered territory. Then they died and left us to hold the baby.

The baby, a very fractious child, has never grown up and we have remained too terrified to handle the brat in a strong fatherly manner. In Waziristan nothing short of a strong brigade can move off the roads with felonous intent. This means that battalion commanders are tied to the red-tape strings of the brigade commander's apron. It means also that company commanders have to be wrapped in binders, with comforters stuffed in their mouths, and only allowed to perambulate under the direct supervision of their Commanding Officers. It means finally that the sepoy gets an inferiority complex.

If battalions could be sent out alone through the country with a battery of guns (to train), and permitted to wander about as they liked; if companies could be pushed off into the blue; if company commanders could be allowed out at night with their men to '*gusht*' about the hills, mixing with the inhabitants, shooting with them and

eating with them ; if Captain Snooks could be encouraged to emulate Nicholson in a quiet way ; if the forward policy would look backwards for one hundred years and ignore what has occurred in the interim ; if we could have an enormous bonfire.....The result would be that officers and men would develop individuality, initiative, a lasting knowledge of the country and its inhabitants, and eventually the frontier problem would cease to exist.

There are risks of course in this proposal, horrible risks which violate the sacrosanct principle of Security. Some British officers would be killed. (I understand however that several can be spared during the next few years), rifles would be stolen and various regrettable incidents would occur to mar the annual report on the North West Frontier Province. But such occurrences would not be many if the right procedure were adopted. Those excellent people the Scouts stroll about where they like around the country every day. Do they suffer ?

To those of my readers who have read this far and are convinced that I am talking through my hat, I would like to give one final illustration to prove that more ' irregularity ' is desirable in the regular army. In the last Afridi invasion of Peshawar several hundreds of Scouts were transported from Waziristan to give assistance to the several thousand regular troops. If the Scouts can do what trained troops *cannot* I feel that there must be something wrong with the training, and that something I have irreverently called Babu Tactics.

THE BALTIC STATES.

By

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During the summer of 1930 the writer spent a part of his leave in the Baltic states; and this article is an endeavour to describe the more interesting features of this erstwhile portion of Imperial Russia. Statistics and guide book facts have been omitted as much as possible, since those who so desire can unearth them with little effort. The recent history of these states, however, is obscure, and so has been dealt with at some length.

Huddled round the eastern edge of the Baltic littoral are the three young republics of Esthonia, Latvia and Lithuania. They have been called, not inaptly, the "New Balkans." In area the three states together are approximately the size of England and Wales, but their total population is only five millions. Riga, the capital of Latvia, is the only really big town. It is a well equipped port and is, normally, kept open during the winter. Reval, the capital of Esthonia, once much favoured by the Tsars, is, as far as the old town is concerned, the most beautiful city the writer has ever seen. Its old time quiet and restful atmosphere are most impressive. Kaunas, the capital of Lithuania, formerly the Russian frontier fortress of Kovno, is merely a small country town.

History.

The history of these three small states has been one long story of alien domination. In more recent times the various orders of Teutonic knights held the countries, and established a class of German land-owner everywhere except in Lithuania, where the aristocracy was Polish. These land-owners survived successive invasions until after the Great War, when they were dispossessed of their land by the nationalist governments. The inhabitants of these three states come of widely different stock. The Esthonians are of Mongol origin, and, together with their brothers the Finns across the Gulf of Finland and

the Magyars of Hungary, came out of Asia last of all the present European races. The other two states are inhabited by Letts and Lithuanians, Aryans, who have escaped becoming Germanized like Pomerania and the areas to the west.

Later Poles and then the Swedes superimposed themselves on the German knights. The Swedes ruled until, after nine years fighting, Peter the Great at Poltava in 1709 broke the power of the brilliant young Swedish king, Charles XII, the "Lion of the North." Commencing from Peter, Russian rule continued until after the revolution.

Lithuania the most southerly and westerly of these three states gained her independence first. This Russian province lying on the frontier was occupied by the Germans in the early days of the war. The Lithuanians were not hostile to their captors whose domination could not be more distasteful than that of the hated Polish landowner and Russian ruler. The Germans decided to form out of Lithuania a state to provide a buffer against Russia, and a pawn to play off against Poland. Once constituted this state survived the aftermath of the war and retained its independence despite the covetous eyes of Germany, the Soviet and Poland.

Latvia gained her independence after a long and heroic struggle which may one day form an epic of history. The Letts fought well for their Russian masters, and their record is generally considered to have been better than that of any other Russian troops. In fact the transfer, in the middle of the war, of most of the Lettish troops from along the whole Russian front up to the north for the defence of their native country is usually cited as a reward by the Tsar for their conduct. In 1917 when the Russians were driven out of Riga and Livonia, the two northern provinces of Latvia, the Lettish troops were forced to abandon their native homes. In fact, virtually the entire male population was deported into Russia. Thus, is it strange that they were quick to turn against Russian imperialism? They certainly did not spare their former masters and the savagery of their deeds in the early days of the revolution has probably never been surpassed in history.

Having occupied the country, the Germans endeavoured to bring Latvia under the jurisdiction of Kaiserdom. No doubt the presence of the German land-owners, and a large German business community

in Riga did much towards the adoption of this policy. Thus, although a large degree of autonomy was granted to the Letts, the Germans packed the local councils with their partizans, and were even preparing to settle numbers of German peasants in Latvia. The Letts, however, organized in secret their own nationalist propaganda which was soon to stand them in good stead. The war ended and so arrested any idea of a German province on the Eastern shores of the Baltic. The German forces were, however, still retained in Latvia. The allies wished these troops to remain in Eastern Europe as a bulwark to stem the tide of Bolshevism from advancing westwards. The German aristocracy, on the other hand, endeavoured to use these forces to establish their rule in the country. Finally, the Lettish nationalists had to fight a force of two German divisions, first under Marshal Von Der Golz, and later under General Bermondt. These troops were assisted by considerable volunteer forces from the German landowners. In addition, the Soviet occupied Riga for four months and were only driven out after much fighting. Out of this last evil probably arose good; for no Lett will now ever countenance Bolshevism; he has seen it at close quarters in his own land. Thus, only after six years of war did Latvia obtain her independence; and, moreover, this freedom was obtained by her own efforts virtually unaided by the Allies who were almost hostile.

Esthonia was untouched by a foreign invasion until 1918, but from the outbreak of the Russian revolution, a year before, the Nationalists had opened their campaign, and thus were in a much stronger position than Latvia to assert their independence when the German occupation ended. Nevertheless the Bolshevists who invaded the country on the retreat of the Germans almost reached Reval the beautiful Esthonian capital, and even when the Bolshevists were expelled the German forces under Von Der Golz, to which reference has already been made, invaded the country from Latvia. Nor was the task of the young Esthonian government rendered any easier by the presence of a White Russian army under General Yudenitch, which was operating against Petrograd from Esthonia. Finally, however, after reaching within a few miles of the capital, Yudenitch was defeated, and Esthonia secured peace with the Soviet by undertaking to disarm the White Russian forces should they recross the frontier into Esthonia.

Climate.

The summer climate is much warmer than England, and in 1930 the weather was perfect. The winter is long and intensely cold, the rivers freezing to a great depth. The best season is the summer, which lasts from May to September.

General Description of the Countries.

The Baltic littoral is flat with scarcely an undulation beyond the sand dunes on the seashore. Actually some forty miles from Riga on the Leningrad road there are some hillocks, a few hundred feet high, and the locality is known as the Livonian Switzerland ! This flatness combined with the enormous forests intersected by numerous streams fully expresses the impenetrability of Russia. Except for a few communications, such as the main road from Kaunas to Riga and the Leningrad *chaussee* from Riga, the roads are mere tracks, inches deep in dust in the summer, and seas of mud in the spring when the snow melts.

In many parts, especially near the coast, there are large areas of swamp, often thickly wooded. In the north, in Esthonia, the country is more open with large tracks of rugged heathland.

Agriculture and lumbering are the main occupations, and the latter is greatly assisted by the numerous rivers. The River Dwina is used extensively to raft wood from Russia ; and during the summer Riga port contains large quantities of Soviet timber.

Under such conditions the task of the agricultural population is a hard one. The short summer calls for strenuous work, always against time, and during the winter the peasant must work in the forest. The lot of the peasant is made worse by his lack of capital. In Esthonia and Latvia the confiscation of the land from the Baltic Baron land-owners and its division into small holdings among the peasant soldiery who fought for their country's independence has proved a mixed blessing. The German barons have in the past, done much to educate the peasant to introduce him to modern methods of farming ; and, although the new governments are doing all they can to carry on this work, many small freeholders are finding it impossible to continue.

In Lithuania the soil is richer, and the Polish land-owners, who never evinced any interest in their peasants, have not been missed.

Riga and the Strand.

Riga is one of the old German Hanseatic League towns founded in the early twelfth century some twelve miles up the River Dwina. In the old town which is clustered round the river front there are still many fine specimen of old gabled houses with their large roomy lofts, and pulleys by which to hoist goods into these warehouses. Bounding the old city is a canal, once the line of the fortifications and now the main feature of the public gardens. To-day the city has extended on the far side of the canal for several miles. Riga with its tiny replica of "Unter den Linden" has been called the miniature of Berlin, and the many fine buildings do leave an impression of the German capital. Prior to 1914 the city was highly industrialized, but the now empty factories testify to the effects of the war. Undoubtedly Riga will regain its industrial importance; and much has already been done. The ravages of the Imperial Russians, German and Bolshevists, however, cannot be repaired rapidly. The population of the town was reduced by some three hundred thousand between 1914 and 1916, until it stood at under half its original size. This decrease was further intensified by forced evacuations when the Russians retreated in 1917. Nor did the Russians confine themselves to the population; machinery, metal, in fact everything moveable, were withdrawn. The final calamity occurred in 1919 when Bermondt's Germans, enraged at their failure to seize the town, shelled it.

Some twelve miles west of Riga across the Dwina, which in summer is spanned by a floating bridge as well as the permanent road and railway bridges, is the Strand. This is a sandy bar, some fifteen miles long and half a mile broad, separated from the main land by the Kurland Aa, the river which eventually forces its way through the sandbank and joins the Dwina at the latter's mouth. The length of the Strand is dotted with little villas and Russian *datchas* (country cottages) hidden in the pine woods which cover the area. This is the summer resort for the inhabitants, not only of Riga but also of the rest of Latvia. In the winter the Strand is almost deserted owing to the intense cold, but during the short hot summer it is an ideal locality for a holiday. The bathing is excellent. Certainly one must wade out 100—150 yards to get into deep water, but what of it? The sea

is warm and like everywhere else in the Baltic not very salt. Further, there is practically no tide. The woods come right down to the sandy beach which is nowhere more than fifty yards wide. There is but one drawback ; it is difficult to get exercise other than walking and swimming. On the Kurland Aa there is excellent sailing. The entire population bathes but so long is the beach that the crowd is easily avoided. Some of the costumes, or rather the total lack of them, would put even Deauville on its metal ; but little attention is paid to such details, and the dress of Venus passes the censor.

Before the war Riga Strand was the summer resort for the rich Russians from Moscow and Petersburg, but to-day such a community does not exist, and if it did the Soviet would not allow its members to go abroad.

Flight from Riga to Reval.

Certain restrictions regarding touring the country are imposed, and the best way to obtain a good general idea of Latvia and Esthonia appeared to be to fly from Riga to Reval. The German Derluft Company runs daily services from Berlin to Moscow and Leningrad. Riga to Reval is the penultimate stage on the Leningrad route. The flight occupied two and a half hours, and lay across the estuary of the Dwina below Riga, up the sea coast to Pernau just over the Esthonian border, and then across Esthonia from south to north to Reval on the Gulf of Finland. The pilot was a Russian who had flown in the war. He flew between two rain storms with some skill, and except for a disagreeable habit of flying low over the almost interminable forest, the journey was very enjoyable.

From the air an excellent impression was obtained of the enormous areas of forest, which stretched across the land as far the eye could see. Clearings there were, and the lumbering and drainage in progress testified to the efforts of the Latvian government to assist the peasants and open up the land and develop agriculture. Even from a height of 3,000 feet, which under pressure the pilot was induced to gain for a few moments, the drainage ditches looked very large. By far the greater proportion of the land is virgin forest, and villages are few and much dispersed ; in fact, frequently they are mere hamlets consisting of a house and one or two barns. In the vicinity of Riga, although of wood, they appeared stoutly built, but nearer the Esthonian border the houses became even scarcer, and, those there were, mere log cabins.

The only town met in the course of the journey was Pernau at the northern extremity of the Latvian arm of the Baltic. From the air this appeared a small country town.

Esthonia was even wilder than Latvia and during the later half of the flight hardly a village was seen. Despite the assistance of the pilot's $\frac{1}{4}$ inch map, and for the first part of the journey the sea coast, it was extremely difficult to locate one's position in the endless forest.

The first sight of Reval with the tall spires of the churches of St. Olaf and St. Nicholas, the cupolas of the Russian cathedral and rocky hill surmounted by the Domberg is most impressive.

No time was wasted in ascertaining the direction of the wind before landing, nor was there an indicator. The pilot just dropped his machine on to an aerodrome which for sheer unevenness outrivalled many of our north-west frontier landing grounds.

Reval.

Few cities in the world can be more beautiful than the old Russian port of Reval, or as the Esthonians call their capital, Tallinn. It is the centre of the town consisting of the Domberg fortress and the buildings immediately surrounding it which is the gem. It is built entirely of stone. The outer portions of the town have been built since the Russian occupation and the buildings are therefore mostly wooden, small and shoddy. The picturesqueness of the central portion is difficult to exaggerate. The Domberg stands on a hill rising only a few hundred feet above the general level of the plain, and overlooking the Gulf of Finland. Round the base of the hill run the city walls still in a wonderful state of preservation. The walls of Reval are not the least of its attractions. Even to-day, some of the cannon balls fired by the army of Peter the Great when beseiging the Swedes in the early years of the eighteenth century can be seen embedded in the masonry. Round the walls, and in many cases built into them, are rambling stone gabled houses with red roofs, mellowed by age, and for all the world like red faced old men leaning up against the fortifications for support. In this lower town are the Rathaus and several Lutheran churches with high copper coated spires. The Rathaus is particularly interesting. Its architecture, except for the tower, is the plainest Gothic ; but this tower is reminiscent of Persia and Hamadan. MacCallum Scott in his fascinating book "Beyond the Baltic" states there is a legend to the effect that this

oriental tinge is due to the architect who designed the building in the fourteenth century having been a prisoner for some years with the Turks.

In the old town the streets are narrow, cobbled and winding, and the general effect is that of a mediæval fairy tale. Tortuous side streets lead up to the Domberg, to the Russian cathedral, the Domkirche, the Parliament buildings and the castle. Here the motor finds it difficult to penetrate, in fact there is little traffic of any kind. From a terrace under the battlements a magnificent view was obtained of the harbour and along the coast in the direction of Kronshtadt and Leningrad in which under the blazing summer sun the red roofs and cold grey stone of the buildings intermingled with the blue of the sea and the green of the forest in a galaxy of colour.

In great contrast were the Russian cathedral with its green cupolas like leg of mutton sleeves and the grey walled Domkirche; the one blatantly ornate, the other plain, severe and solid, in fact almost British. Nor did the inside of the church alter the impression. The extreme simplicity was maintained in the unadorned walls and the heavy uncarved wooden pews. Around the walls were hung the crests of the old Baltic Baronial families, such as Wrangel; the families which in the past kept the eastern frontier of Europe.

A few miles outside Reval is the Katerintal, the palace built by Peter the Great for Catherine the Lettish peasant who became his queen. The palace and the beautiful grounds, formerly a kind of Sandringham for the Tsars, are now a summer residence for the president of the republic, and a museum and park for the people. Almost adjoining the palace is a little cottage where Peter preferred to live while consolidating his conquests from Sweden.

Just outside the grounds of the palace on the seashore is a Russian memorial to the crew of a destroyer lost off the coast some thirty years ago. The two-headed eagle, the Imperial arms, still adorns the monument on which the inscription runs "Russia never forgets its martyrs and heroes;" but the general ill-cared for aspect brings to the mind the question, "who remembers Imperial Russia?"

Inter-mixture of Languages.

The inter-mixture of languages in the Baltic is very confusing. In the few big towns, Riga, Reval and Memel, there are large German business communities. Actually in Riga before the war, despite the

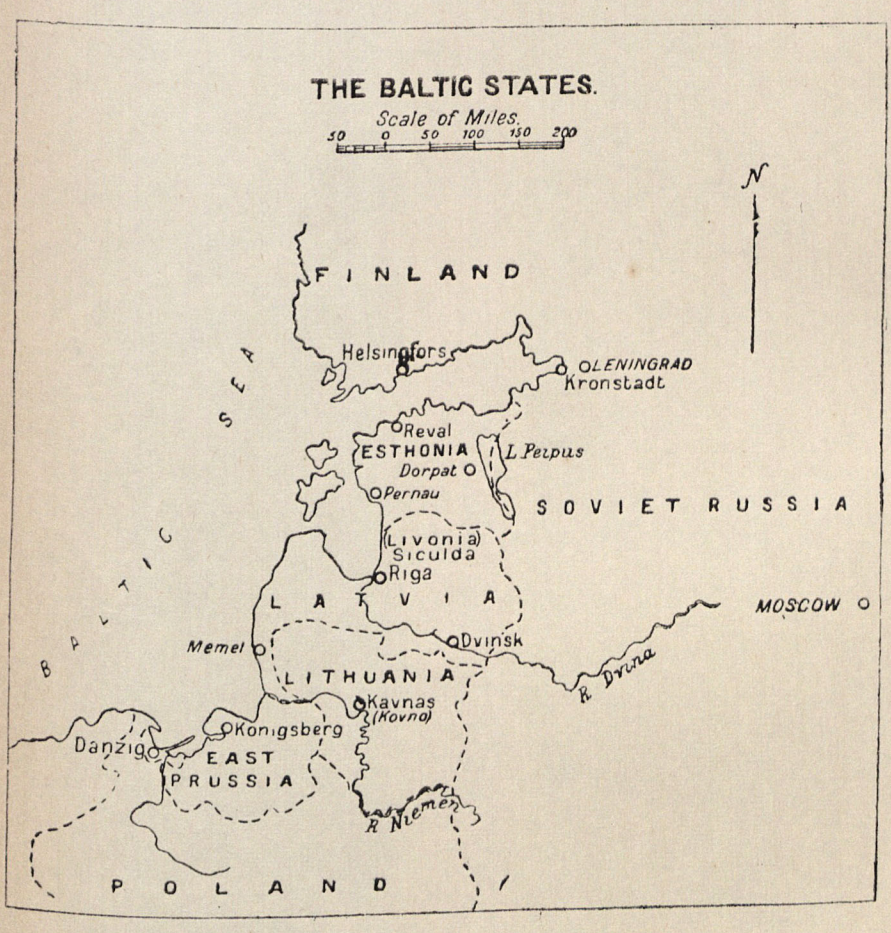
fact that Latvia was a part of the Russian Empire and that a Russian governor supported by Russian troops lived in the city, all municipal affairs were in the hands of the German population. To-day much German is heard in the streets ; and certainly in the vicinity of Riga there are villages almost entirely composed of Germans. This intermixture of languages hampers the officer who wishes to learn Russian. Certainly a great deal of Russian is spoken ; in fact almost the entire population understands Russian, and the Russian *emigres* in Riga alone number several thousands. Besides Russian and German there are also the native languages of the three states which are spoken extensively. Moreover the nationalistic tendencies of the age increase the use to which these languages are put. This intermingling of languages is exemplified by the fact that in the Latvian cinemas Lettish, German and Russian are all shown on the screen.

The Dwina Front.

For two years from 1915 the River Dwina in the vicinity of Riga constituted the Russo-German front. The evidence of the devastation is still visible. During the hard winter and the wet spring conditions in the low-lying area must have been appalling. Except for the plank roads, narrow and dead straight through the forest, there were no communications ; and, in the spring, to leave the track meant marooning in the mud. From the evidence of the peasants they had as much to fear from their own predatory Cossacks as from the Germans. Nothing was safe ; and an example of this was the wanton destruction of the library belonging to one of the oldest Baltic Baronial families, whose estates were at Sigulda, forty miles from Riga. This family lost their entire estates in the general confiscation of land after the war, and to-day, while the head of the family resides in Paris, his eldest son lives in a small cottage and farms a few acres of his father's former large property. Their house is now a convalescent home run by the Latavian government for needy journalists ! !

* * * * * * *

Such are the Baltic states. Established in the aftermath of a European war, theirs has not been a peaceful lot. Nor has the world-wide trade depression left them unaffected ; in common with the rest of the world, they are suffering acutely from falling prices, shortage of ready money and restricted markets. Created out of


THE BALTIC STATES.
Scale of Miles.
50 0 50 100 150 200
N
FINLAND
Helsingfors
LENINGRAD
Kronstadt
SEA
Reval
ESTHONIA
L. Peipus
Dorpat
Pernau
SOVIET RUSSIA
(Livonia)
Siculda
Riga
LATVIA
MOSCOW
BALTIC
Memel
Dvinsk
R. Dvina
LITHUANIA
Kavnas
(Kovno)
Danzig
Konigsberg
EAST
PRUSSIA
R. Niemen
POLAND

the ruin of Imperial Russia and living almost under the shadow of Bolshevism, any move on the part of the Soviet must affect them acutely. The largest town, Riga, is the port for much of the trade of the U. S. S. R., and their rivers and railways carry this trade. Actually the Soviet has no Baltic port except Leningrad which is ice-bound for many months in the year.

Yet, whatever their troubles, the Baltic states can offer a pleasant, and not expensive, change to the trials of an Indian hot weather.

NOTES ON PREPARATION FOR THE STAFF COLLEGE EXAMINATION.

By

Major B. C. Dening, M.C., R.E.

A new edition of the Regulations for the Staff College having just been issued, the moment is perhaps not inopportune for the study of the problem of preparation for the Staff College Examination under present conditions. Undoubtedly more and more officers are convinced each year of the need for making an attempt at this examination. While only a small percentage of the candidates can be successful, there can be no question that the amount of study put in by the unsuccessful is of the greatest value to the Army as a whole. Such being the case, it is obvious that assistance should be given in every possible way to officers preparing for this examination. These notes have been written with that object.

This need for assistance has, of course, been widely recognised and is already partly provided for by the special preparatory courses which are organized each year in commands at Home and abroad, and in certain centres such as Simla. For such as have the opportunity to attend, these can only be of the greatest value, but the majority of officers are unable to do so and require help from other sources. It is principally to the needs of these officers that this article has been devoted.

Initial Consideration of the Problem.

As will appear when the matter is examined, an officer intending to go up for the Staff College requires to make up his mind in very good time. The longer he has been thinking in terms of the Staff College syllabus, the easier he will find his final studies. The ideal age at which study should commence is a matter of opinion and of circumstance, but it is certain that preparation cannot be rushed. Generally, for financial and other reasons, it is desirable that a 2nd grade staff appointment should be held by a Major and a 3rd grade appointment by a Captain. On leaving the Staff College, an officer should be of the right seniority to fill what is likely to be available, *i.e.*, a 3rd grade vacancy. For this he should at that time have five years

to go before his majority (one year, as prescribed, regimental duty on leaving the Staff College and four years in his first 3rd grade staff appointment). Allowing for the two years at the Staff College and the three permissible attempts at the examination, we find the officer should first sit ten years before his expected majority and start his studies perhaps two years before that. In the case of regiments in which majorities are given at seventeen years service or under, the calculation above may need adjustment. It is probably a mistake to attempt the Staff College before adequate experience has been obtained.

The Syllabus.

Having decided that the time has come to work for the Staff College, the beginner is faced with the problem of how to plan his campaign of study. Obviously his first act should be a careful perusal of the syllabus. The second should be preliminary reading of the papers set at one or two previous examinatons in order, early on, to obtain a correct impression of the type of questions set. * In going through the syllabus it is to be noted firstly what a large proportion of marks are given to obligatory subjects (7,500) while only 1,820 can be obtained in voluntary subjects and secondly, of the obligatory marks, what a high proportion (4,000) are allotted to strategy and tactics.

These proportions it is important to remember throughout the course of study in order to direct effort to where it will be most profitable.

Having examined the syllabus and papers, the candidate needs at an early stage to decide on his voluntary subjects. In order to stand a reasonable chance of success, voluntary subjects must be taken. Where study is commenced early enough, those subjects should not unduly jeopardise the obligatory ones.

The major languages carry a possible 140 more marks than other voluntary subjects and any one possessing a knowledge of these should certainly select them. French and German have the advantage that other portions of the syllabus, *e.g.*, military history, can be studied in them, killing two birds with one stone. Failing the major languages, candidates may have a minor one to offer, perhaps Arabic or Urdu. It is to be noted that there is no oral part to the language examination

* Both syllabus and papers should be available in regiments. They can be obtained also from H. M. Stationery Office, London, for a few shillings.

for the Staff College but that the written part is of a high standard As to standards, a 2nd Class Interpreter in German, to judge from one case in the writer's knowledge, might obtain 750 marks (*i. e.*, 450 to count).

Unless two languages are taken, a candidate is required to enter one subject each from Categories II and III, and even with two languages, he must qualify in a third, chosen from either Category II or III. In choosing subjects from these two Categories, it is suggested that a candidate should select ones with which he is partly familiar, which help in the study of his obligatory subjects and which will be of use to him in his after life. Business Organization or Political Economy in Category II, the History of Europe and U. S. A. or of British India in Category III are all suitable. They assist the obligatory part of the syllabus, either in the Imperial Organization paper or in the military history questions.

The General Organisation of Study.

After arriving at a decision on the subjects to be taken, the next difficulty is the organisation of the preparatory studies, spread, as they must be, over a long period and perhaps much interrupted through unavoidable causes. It is certain that a haphazard method of preparation will leave a gap, often causing failure in one subject while excellent results have been obtained in all the rest.

In a table attached to these notes an attempt has been made to analyse the characteristics of the obligatory subjects. The voluntary subjects have been omitted as they cannot be treated in the same manner, depending entirely as they do upon the choice and circumstances of the individual. One object of the table is to ascertain to what extent subjects can be prepared by private study and where outside help is necessary. It will be seen, as expected, that most of the ground has to be covered by private study. In the 2nd and 4th papers on Strategy and Tactics, dealing respectively with tactics on a map and staff duties, map reading and training in peace, it is submitted, however, that some outside guidance is essential. In three of the other subjects also lectures have been indicated as probably the only means of broadening the candidate's point of view.

The Organisation of Special Instruction.

In small stations, the problem of assisting Staff College candidates is certainly a very difficult one. But it is suggested that even in the

one unit station the possibility should be considered. The larger the station, probably the larger the instructional talent available. Certainly it is utterly wrong that candidates should have to look outside the Army to crammers for help, especially with the post-war syllabus which has removed subjects like mathematics from the obligatory portion of the examination and left purely military ones.

Now-a-days, all unit Commanders are responsible for the training of their officers and usually arrange each year a series of tactical exercises without troops for that purpose. These are excellent practice for Staff College candidates who should endeavour to attend as many as possible. Staff College tactics papers usually deal with forces of the size of a brigade group. These may sometimes be above the size of those considered regimentally. Nevertheless regimental exercises should deal very thoroughly with problems such as the use of machine guns, co-operation with artillery and aircraft inter-communication, etc., and consequently should be of great assistance.

It is certainly of great value if in a station some officer can be found to supervise a class, even a very small class, of officers intending to go up for the Staff College. Often officers will attend such a class only the year they are taking the examination. It is advisable to attend, if possible, one or two seasons before going up. Candidates for promotion can also usefully join such classes.

Where an officer could be found to take such a class, his duties would comprise firstly, supplementing the local tactical exercises that had been held with others on maps. Secondly, he might set and criticise appreciations, orders and essays written by the class. Thirdly, if the station is not too isolated, he may be able to arrange lectures which are required on subjects such as mechanisation policy, wireless progress, intelligence duties, effect of inventions on war, world economics, disarmament and the activities of Foreign Powers. For some of these there may be partly qualified lecturers procurable. In some cases members of the class can be set in turn to read up a subject and lecture on it. Lectures are also desirable on the employment and recent changes in each arm. Usually a member of that arm can be found at least to lead a discussion.

In connection with such lectures, the issue of a full precis is highly desirable. Candidates are not expected to have great detailed

knowledge except in certain limited directions, but rather to possess a sound general knowledge of all matters of military importance, and lectures, and precis should be prepared with that view.

Private Study.

The question of finding the hours for private study is in India, one of the hardest in connection with this examination. The hot weather months in many localities are manifestly unsuitable. In the cold weather regimental officers have a very full day. The size of establishments and the need for a proportion to be always on home leave make British Officers very scarce in Indian Army units. Nevertheless something has to be done if officers are to compete successfully with those at home, who have every advantage that climate, long winter evenings, and adequate facilities can give.

The writer would suggest that the whole preparation be divided roughly into two parts, the first to consist of that work requiring assistance, *e.g.*, study of tactics, co-operation of all arms, staff duties, etc., already indicated, the second that requiring mainly private study. Then, it is suggested, the candidate should look ahead a couple of years before his first attempt, divide such period into two also, one part spent in his station and the other on long leave at home. Broadly speaking, the part of the work requiring assistance should be undertaken in the period in India and the private study in the period at home. Where officers cannot get home, some leave in a hill station is perhaps possible for private study.

The Organisation of Private Study.

Apart from the general arrangement of the preparation, the private study requires special organisation. Especially where periods of study are disjointed is some system desirable. Probably various equally good systems exist. The one the writer has found useful is to start a file for each paper taken, *i.e.*, eight obligatory files and three voluntary. The file is well started with a cutting from the syllabus referring to that paper and copies of the last two years' papers as set. All information pertaining to one paper can be then collected, *e.g.*, in Military History file, notes on campaigns as studied, in Tactics file, copies of schemes attempted, in other files copies of lecture precis and so on.

This filing system is particularly important for (as shown in the attached table) the 3rd paper, Strategy and Tactics, the paper on Organisation, Administration and Transportation (Peace) and the paper on the History and Organisation of the Empire. The questions on these three papers are set out of no known text books. They are deliberately set widely to test candidates in broad discussion of the important matters of the day. The only possible method of preparing for them is to record information as to the big current problems. This can best be done by a regular perusal of the press,* cutting out and placing in the appropriate files articles on subjects worthy of study. In deciding on the type of subject to be considered the problem should be looked at from the examiners point of view. A year or two before the examination he is secretly appointed examiner. He wishes, in his subject, to set broad, fair questions. He considers what are the big topics of the day in that subject and sets his questions. As an example we can take the 1929 paper in Organisation, Administration and Transportation (Peace). The five questions dealt respectively with Lord Haldane's Army re-organisation, the changes in the Cavalry, the permanent staff of the Territorial Army, the change of duties between the M. G. O. and Q. M. G. and recruiting difficulties. Every one of these questions had been before the public just previously in the Press and had been discussed in Parliament. A candidate applying the filing system should that year have had all those questions in his file.

The great value of such a system is that, at busy times of the year, cuttings or notes can be slipped in the file and studied at leisure. Otherwise some matters are missed. Just before the examination, such files are most useful for rapid revision.

As regards the type of subjects to look for, for the 3rd paper, Strategy and Tactics, reports of new inventions, wireless, air craft, mechanical vehicles, are useful; for the paper on Organisation, Administration and Transportation (Peace), all articles referring to current changes in our army and foreign armies, particularly the annual changes forecasted in Army Estimates; for the paper on the organisation of the Empire, information on changes in Imperial communication, internal and external political relationships, Empire economics. The

* It may be worth, while abroad, taking in the daily *Times* and some journal such as *Army, Navy and Air Force Gazette* for purpose of cutting.

subjects to look out for are largely dictated by common sense and a knowledge of the type of questions set in previous years.

It is of course not sufficient merely to file articles which, in the main, are written from a civilian point of view. As information accumulates, the effect of the reported changes upon organisation, strategy, or whatever it may be, needs to be thought out from a military point of view and a paper written upon it.

Conclusion.

It is interesting to record that, according to the Memorandum on the Examination for Admission to the Staff Colleges at Camberley and Quetta. February 1929, in both 1928 and 1929, about 26 per cent. of the candidates who sat for Camberley qualified and 18 per cent. of those who sat for Quetta. Facilities for study at home may be one of the reasons for the greater proportion of successes at home.

In the same Memorandum, attention is drawn to the importance of legibility in handwriting and the need for style in writing. In conclusion here it is perhaps advisable to draw attention to these points. It is true that style in writing is largely a matter of practice for which many officers have little opportunity. At the same time the value of a report or essay depends mainly on its frame work and it should be within the power of every officer working for the Staff College to master the art of putting down headings for an answer and sorting them out in the correct order. Once that has been done an answer will always read well.

Table Showing Characteristics of Obligatory Subjects.

Subject.	Marks.	Method of Study.	Sources of information.	Remarks.
(*a*) *Strategy and Tactics*—1st paper—Military History and principles of war.	1000	Mainly private study-instructor *not* essential.	Specified books on the campaigns set.	The broad lessons of each campaign only required.
Strategy and Tactics.—2nd paper Tactics on a map.	1000	T. E. W. Ts.—some instruction essential.	F. S. R. Vol. II and Manuals of each Arm.	Practice in writing appreciations needed.
Strategy and Tactics—3rd Paper—Military evolution and inventions.	1000	Mainly private study-lectures by specialists-reading journals.	R.U.S.I., U.S.I. India, Army Quarterly, Special collection (See text.)	The art of essay writing especially required here.
Strategy and Tactics.—4th Paper—Staff Duties, Map Reading, Training in peace.	1000	T.E. W. Ts.—Schemes on maps, instructor essential.	F.S.R. Vol. II, F.S.P.B. ..	Especially required how to write orders and use of Signal Service.
(*b*) *Organization, Administration and Transportation.* (i) Peace.	1000	Mainly private study-instructor *not* essenital.	M. M. L. Army list, books on Army administration, special collection (see text).	Knowledge of annual changes important.
Organisation, Administration and Transportation. (ii) War	1000	Mainly private study-lectures by specialists.	F. S. R. Vol. I Movements Manual.	Effect of inventions on supply, organisation and movement to be studied.
(c) *Military Law* ..	500	Mainly private study. ..	M.M.L., K. R. attendance at Courts Martial.	Practice and familiarity with books essential.
(d) *The History and Organisation of the Empire.*	1000	Mainly private study-lectures by specialists.	Stateman's Year Book, Whitaker's Almanack, selected books, special collection (see text).	World economics, disarmament, acivities of Foreign Powers all all important.

PATHOS AND BATHOS.

THE MINOR POETRY OF THE GREAT WAR.

By

Philip C. Pratt.

If, at a future time, a second Dante making a personally conducted tour through the infernal regions should chance to meet therein, Kaiser Wilhelm II, it is probable he will find his Imperial Majesty condemned to read and re-read for ever the war poetry of the allied nations. One can wish him no worse fate ; for after skimming the cream of some hundreds of volumes of British and American verse, one is compelled to recognise that ninety-nine per cent. of the contents is the weakest of weak skim-milk. And even the remaining one per cent. is scarcely to be called " cream."

When England 's Poet Laureate can be guilty of such a verse as this :—

" Up, careless, awake !
" Ye peacemakers, fight !
" England stands for Honour :
" God defend the Right ! "

one cannot expect very much from the rank and file of versifiers ; and it may, in any case, be unfair to blame too much writers of verse who fail to reach Pierian heights during a mental, moral and physical upheaval such as was experienced during the war years. Writing during the only period in English history comparable to those five years, Cowley declared that " A warlike, various, and tragical age is the best to write of but the worst to write in." And it is natural that when the emotions are stirred and the passions inflamed—and deliberately so—to an all-important end, perspective and proportion should, to some extent, be lost. One could, indeed, forgive an agitated spirit striving to express itself through a comparatively unfamiliar medium if only the pride of creation did not run away with it, so that such a one can, without a blush, complacently regard its mediocre performance placed side by side with work of the masters, and fail to

realise the difference. Some, such as Wilfred Campbell, whose "Langemarck" strikes so deep a note of tragic sincerity that its crudities and unintended humour are forgotten, are obviously men untutored at least in the rules of rhyme and metre. To these may be forgiven failure to realise that in the following trochaic form the second and fourth cannot be "run-on" lines.—In a prayer for peace John Hartley says:—

"Then once more the hands extended
"To receive or give the shake.
"Of true friendship, and intended
"As a pledge of "give and take"!

And Henry Henderson manages to cram most forms of metre into four lines:—

"Let me sing of the lads of Seaforth
"The brave gallant sons of the North
"Who fought so bravely and fell
"So thickly at Neuve Chapelle."

These, I say, may be forgiven, but not so the many who, careful as they seem to have been to make known the honours that in other spheres are doubtless their due, make it still more clear that the bays of a poet must definitely be withheld. The galaxy of reverend and learned gentlemen, their names attended by imposing arrays of letters, whose effusions, earnest and sympathetic though they be, show forth such abysmal ignorance of the very rudiments of prosody, and present withal such a sorry spectacle of bathos and bad taste, is a grievous thing, and compels one to regret they were not more conscious of their own limitations. That I am not exaggerating may be perceived from the following stanzas: First, the "Young Recruit's Farewell" by John Rowlands, F. R. S. L.—

"Farewell, my sweet Mary,
"My darling, my dearie,
"I'm off to the grave o'er the wave
....
"So now my sweet lassie—
"Your eyes they are glassie—
"Tell others to follow the band."

or the soppy sentiment of "The Soldier Boy's last Letter" by the Rev. J. G. Gibson, L L. D.—

"Ask them to take the place I lost
"When for you all I fell.
"Give them my love; kiss Nell good-bye
"Poor little sister Nell."

We have, too, the Rev. Launcelot Dowdall, B.D., LL.B. with his un-accountable lament for Bayard: "Whose bones, alas! lie in the grave." But why alas? And for freedom of rhyme it would be hard to beat the Rev. Richard Bell, M.A., in his "Heroes of Hill 60":—

"They who joined the greater armies,
"Who, in spirit, with us march on,
"In a land where no more war is,
"And no causes are lost or won."

And try saying quickly this couplet of Frederick Anderson's on "Belgium":—

"On her fair bosom German hooves
"Print "conquered" in great gory grooves."

The question of rhyme proves troublesome to most, including the Rev. F. St. John Corbett, M.A., who in one "poem" ends every first and last line of each verse with "grave of the brave." That certainly is one way out of the difficulty. Then there is William Cryer's well meaning "Have faith in God," unfortunately turned to bathos for lack of a ryhme—or of a saving sense of humour:—

"Where are pity's mighty forces?
"Are they lost to men and horses?"

Which reminds one, that the punctuation of these writers is some times weird and wonderful.

Another immortal failure in the matter of rhyme was that of James Nicol in "Armageddon."—

"Like wolves men spring to battle
"Like tigers make their kill"—

Then he was stuck; but refusing to be beaten, ended:—

"Like snakes that sport no rattle
"Each rends from each their will."

Well for him had he stopped half way!

Many of the most successful efforts are adaptations, unintentional, doubtless, of some greater poem, such as "Balaclava" or "Scots wa' hae" and might have attracted attention had the model not been so much in evidence.

Thomas Grey, for instance, transcribes "I stood on the bridge at midnight" as "I stood in the night-time silence," while Tennyson and Macauley find many followers; and also Burns, for is there not Sergt. W. M. Bryden's ballad "To a soldier's louse?" Not so bad either.

Well, well! One could go on, but to what purpose? It is true the Editor of an anthology containing many of the verses quoted declares complacently—or is it in apology?—that the majority are "well-known in the world of Literature, and are writers of repute, most of them have published volumes of verse." Alas! F. Ph. S., F. R. I. B. A., B. Lit. LL. A., F. R. Hist. S. and even M.R.C.S., M. P. S., and F. S. P., will not avail to impress us, as they seem to have done their Editor, with any feeling beyond one of regret for their misplaced energies.

Let me end this catalogue of misdeeds masculine, before passing to a consideration of those feminine, with the first verse of a poem "To the Kaiser" by the Rev. Abel Aaronson, D. Sc., which for a reverend gentleman is not doing so badly:—

"You shameless perjured soul-lost renegade,
"You vile abortion in the form of man.
.....
"You loathsome monstrous most unholy thing."

Yes, one would hate really to get on the wrong side of this poet!

And now we arrive at the ladies. On the whole, and as most will think, strangely enough, their verse is less revolting than the men's. True, much sentimentality is there, but for sheer sloppiness, the sentimental male wins everytime. However, Miss Tiny Leslie would take some beating in "A letter from a young officer (mortally wounded) to his mother." It is too painful to quote!

Generally speaking, the women appear less sophisticated than the men and their verse seems more spontaneous, being consequently more readable. But they have the corresponding weaknesses of trite moralising and an irresistible tendency towards personification, "Bellona," "Germania," and "Albion" being much in evidence. Their taste also is even less sure than the majority of the men's but

none other quite plumbs the depths reached in this direction by Minnie Milnes, M.A., in her boast; "Were I a man."—

"Were I a man I'd march away
"And be the foremost in the fray.
.. ..
"Most willing to the ranks I'd run
"Nor dread nor danger fearful shun."

One would like to scent a joke but alas, there is no lightening line.

Florence Poole's verses "To H. I. M." (without permission), is a specimen of the stilted style adopted by some. It opens:

"Caitiff! false to knightly devoir....."

The majority, indeed, may be summed up in Joyce Precious's lines:

"Had I the magic of the deathless muse
"That sang the splendour of eternal Greece...."

They haven't; but each one seems to think she has a very good substitute. All save one. L. Lydia Arcadia Panter—one hopes she is an American—deserves a paragraph to herself. Here is the female Browning—without his strength, without his music, even without his meaning. One verse should suffice. The piece is entitled "Make Fate thy friend," and continues:

"To mock her be Germania's jest,—
"Next, droop her sink a slave detest!
"Now, ban the breed did thus betray,
"To snake thi land their swallowed prey:
"Who treach'ried the Wave
"The "Lusitania's" grave,
"And gas the clouds
"Weave coffin shrouds."

This surely might have been appealed against by the Germans as contravening the Hague Convention.

And now, is anything to be gained in reviving these "painful memories of the past?" There is this to be said in its favour: The writers mentioned and many hundreds like them do represent the point of view of the man in the street—however much they may be inclined to see themselves on an individual pedestal. What they wrote was what one heard in the Club, the public-house, and the home circle. As poets they may be negligible; but in perpetuating the war-time outlook and the war-time spirit, they fulfilled a purpose and deserve our thanks.

MODERNIZED MOUNTAIN WARFARE.

By

Major L. V. S. Blacker, O.B.E., Guides Infantry.

The short-comings and deficiencies of the old fashioned muscle-propelled infantry battalion are no less pronounced when the unit is employed in mountain fighting than when it takes part in "regular" warfare over more or less flat country. Modernization and mechanization have to a great extent passed by the sphere of mountain warfare. Their protagonists have been too busily occupied with the "unlimited" war, whilst the tax-payer has had to be content with the "suggestio falsi" that, whilst the armament of the mountain tribesman has made great strides forward, it is out of the question to expect that the equipment of the King's forces should make corresponding progress.

Deficiencies in Mobility.

The principal deficiencies of present-day troops in the mountains are :—

(*i*) In mobility.

(*ii*) In fire power.

Mobility is primarily a question of transportation, though in Asia the matter of recruitment has an influence of great importance. In every campaign since Alexander small well equipped forces of good quality have always defeated larger numbers of lower grade.

Tactical Mobility Lacking.

In the tactical sphere it is the mule that is the great enemy of progress. Every move is hampered by his slowness, long hours of men's energy are wasted in fooling about with his loads, and two-thirds of the "ration strength" of the force is occupied in leading him about, or in guarding him, or in guarding his drivers. Eliminate the mule, replace him by supply aircraft and immediately two-thirds of the long cortege which now crawls along the *bottom* of the valley

(and chatters about " mountain " warfare) becomes redundant. The task of supplying ammunition and a modicum of food to the remaining third calls for no great number of heavy aircraft.

Fifteen hundred real fighting men, unhampered by any animals, could well develop much more fire and fighting power than the orthodox " brigade of all arms." To drop 4,500 lbs. of rations and 1,000 lbs. of ammunition (and spare parts) each day would not over-tax a couple of large modern aeroplanes. These machines themselves need not even be a diversion of air strength from the main objective in a major war, because impressed civil aircraft will serve our purpose, when big bombers and troop carriers have become highly specialized types. The converse is a fundamental objection to " air control " pure and simple, on the North-West Frontier of India. Besides this, in small wars, air forces by themselves cannot seize the opposing leaders, who are often the keystone of the trouble, *e.g.*, the Haji of Turangzai, nor can they " by assault or the immediate threat of it " inflict real military defeat on a determined opponent.

Up till recently, however, the way was not altogether clear. Severely wounded men could not easily be evacuated by air, except by the clumsy airship. To-day the perfected Auto-giro has changed that, and there is no doubt that air-ambulances of this type could find the small patches of level ground they required in the near neighbourhood of the fighting troops. We no longer need field ambulances, or even ambulance animals, for hill warfare. The lying down casualty can be shipped in a positively luxurious manner direct to a general hospital.

A minor point is that up to now the clothing and blankets of the soldier have been of cheap and coarse materials, suited to the conditions and wastage of mass warfare. Their weight has demanded transport animals to carry some of the man's covering from the weather. The means of avoiding this drawback are described in Appendix " E " to this article.

Given the acceptance of air supply in principle, the technical obstacles present no vast difficulties. A parachute, opening at a pre-determined height from the ground, has already been developed which drops its package accurately on the required spot. By virtue of this, it will not be necessary for a mountain battalion to possess a

quartermaster organization to distribute supplies from bulk; each company or even each platoon, can put out its call sign and receive its own.

Ammunition Supply.

As far as ammunition is concerned, this opens the door to very valuable possibilities. The fighting man need no longer be burdened with a whole day's reserve of ammunition: he may reasonably ask for a renewal two or three times in a day's fighting. Still more valuable is the fact that we can re-design his weapons to suit his ammunition supply. In the past he had a comparatively heavy weapon such as the machine-gun, carried on mules, and calling for great economy in, and control of, ammunition expenditure, and very restricted use of ammunition for ranging. In the future we can use a weapon of the Thompson or the Villa Perosa type. Ammunition being practically unrestricted, ranging will be carried out unhampered by the need for economy, and it is very probable, that, given a tracer or a target indicating bullet of large calibre, the target will be brought into the beaten zone more quickly than with the heavy flat trajectory machine-gun used in conjunction with a range finder and a confusing procedure of unwarlike "fire orders." The long range of the present-day gun is redundant in mountain warfare, but on the other hand the steeper angle of descent of the pistol-type bullet used from the Thompson or Villa Perosa will be of the greatest value against an enemy who is chronically behind a boulder.

Air supply of ammunition will not only make possible the introduction of the Thompson, or similar gun, for hill warfare, it will permit us to use a perfected rifle grenade on a grand scale. Like the Thompson gun, this is characteristically a light weapon, needing no animal carrier, but one calling for a considerable weight of ammunition. In both cases, the ammunition can be delivered from the air to the troops in good quantity, and from the troops to the enemy in a manner far more effective than the present day flat trajectory ·303 inch bullet, which merely splashes on the rocks in front of him.

A rifle *qua* rifle, will still be required, but it must be of the "one shot one funeral" type. Hence it does not concern ærial transportation, but rather the matter, to be discussed hereafter, of increased fire effect.

Advantages of Air Supply and Transportation.

The advantages of air supply may then be summarized :—

i. Tactically quickening up the speed movement of the ground soldiers by releasing them from the drag of their animal transport, thereby rendering them able to deal sharper and harder blows and at the same time reducing the number of their own casualties.

ii. Strategically, it permits a force to be moved over routes at present impossible for an animalized column.

iii. The supply of munitions is so much facilitated, that fire weapons, more effective on account of their portability and their power of searching ground, can be employed.

Air transportation, its corrollary, has these advantages :—

i. A small force can be moved, landed, and after landing, be supplied at such a distance from its base, as to give it a radius of action incomparably greater than anything now contemplated.

ii. Politically, not only is there a prospect of making any enemy of the King feel insecure, however remote his fastness, but also of carrying political officers in the least dilatory fashion to treat with and to persuade the doubters.

iii. The Commander is relieved from anxiety about his wounded, and the wounded from the effects of a journey on animal transport.

These possibilities would be of incalculable value in any war in an Asiatic theatre, where the enemy might be protected by great distances, by mountains and, still worse, by deserts. Given an air transported special force, vital localities could be seized in advance of the main army. All over Asia, such areas,which produce the water and supplies necessary for the support of a large ground force, are the strategical equivalents of the Islands of the Pacific in an American-Japanese War. It is to seize these that the U. S. Marine Corps has been worked up to its high state of development.

Fire Power and its Augmentation.

Whereas air transportation of troops discloses quite new strategical possibilities, air supply not only gives the ground force an undreamed of freedom of manœuvre, but it will also enable us to arm them in a more effective manner.

Abolish the bogey of ammunition supply and you are at once able to use a far more portable automatic weapon. There is no need for very high velocity because the flat trajectory is merely a penalty imposed by the need for economising ammunition in ranging and the impossibility of manufacturing a really good tracer in the very small calibre of the high velocity weapon. A sub-machine-gun of pistol calibre, such as the Thompson, given tracer (or "target-indicating") ammunition, is immune from all these disadvantages. The range-finder, the processes of ranging and fire direction, and the confusions of fire orders all become equally superfluous. The steep angle of descent searches out the enemy behind his cover, whilst heavy consumption of ammunition is provided for by air supply. Such a "sub-machine" gun, sighted to 800 yards will carry out all the defensive tasks put before it, and will provide thoroughly good covering and neutralizing fire to support the bayonet attack, especially will it fill the great existing need for a "rush-stopper."

Something more than this is required to deal with really stubborn resistance which may be met with from an enemy behind good cover, such as deep boulder strewn hillsides covered with thick bush. A "hand-howitzer" has been invented by the present writer to perform this task. It is described in detail in Appendix "D." It is capable of throwing a two pound projectile to a maximum range of 500 yards, with considerably greater accuracy than any existing weapon. It is simpler in manipulation than any other and is provided with a sight capable of taking full advantage of its potentialities. A target-indicating bullet is used for ranging purposes and there is every reason to expect that next to an actual artillery barrage, this grenade-thrower will constitute the best weapon extant for breaking up strong points of enemy resistance. It furnishes a projectile immediately available to the forward attacking units capable of producing real effect against targets behind cover such as the mountain tribesman invariably chooses. Against such cover the actual destructive power of existing infantry weapons is almost entirely ineffective.

The sub-machine gun constitutes the weapon of predominantly defensive characteristics, and one also adapted for neutralizing fire, whilst the grenade thrower is essentially the weapon for offensive fire against the kernel of the objective over the heads of the

bayonet men launched against it. It is proposed that each of these weapons should constitute the armament of 25 per cent. of the company.

The remaining 50 per cent. need a weapon of more generalized characteristics. It is not needed to produce "volume," this rôle is well filled by the "sub-machine" gun, nor for covering fire, for which the grenade-thrower is amply adequate. It must be especially deadly in deliberate fire at the longer ranges, in order to keep the enemy from neutralizing our other two weapons by his rifle fire, and to prevent individuals and small parties from taking liberties. It must carry the bayonet. Clearly, no magazine is needed, whilst the weight of this and of the cumbersome action which goes with it can best be utilized in lengthening and stiffening the barrel in order to give us the maximum velocity and, hence, flatness of trajectory and accuracy. A weapon having a muzzle velocity of 3,700 feet combined with a trajectory rising not higher than a man at 800 yards, will, if really accurate, inspire a mountain enemy with a wholesome respect, quite irrespective of its rate of fire. The rifleman must in fact be trained to make twenty rounds last through a whole day's fighting. A rifle with a slightly improved Martini action combined with a barrel 32 or even 36 inches in length will probably provide the required performance firing Magnum ammunition and equipped with a good aperture sight.

The muzzle velocity and ballistics required are to-day obtainable from the .244 Halger ammunition, with its appropriate barrel. The bayonet can be that provided for the Mark *VI* S. M. L. E. rifle, being quite long enough and not heavy.

Organization of Fire Units.

The inter-co-operation of these three weapons will probably best be secured by organizing them into complete platoons; two platoons of rifle (*i. e.*, bayonet men), one of sub-machine guns, and one of grenade-throwers in each company. A company ration strength of about 84 should be sufficient to man 36 rifles, 6 grenade-throwers and 6 sub-machine guns, each of the latter weapons having 3 men allotted to it, *i.e.*, 1 gunner and 2 ammunition carriers. Commanders and runners are armed with pistols. The whole battalion organization is described in Appendix "F".

It is unlikely that any "battalion" weapons will be needed, but if so, these should take the form of a pair of modernized mortars of about 2½ inch calibre firing a 6 lbs. bomb and adapted for man-pack. No load should be heavier than 25 lbs. otherwise the man carrying it will form a drag on the general mobility of the unit.

A considerable practical advantage attaches to the armament of the battalion with three weapons in no great disproportion. Men whose natural characteristics fit them for using one weapon more than another can be detailed to that weapon permanently. For instance no time need be wasted in trying to make into riflemen any but the best natural shots. Correspondingly, when the operation is likely to be predominantly an offensive one, the "number threes" of the sub-machine guns may be given grenades to carry for the grenade throwers instead of magazines of cartridges for the sub-machine gun with its more defensive characteristics.

Artillery Support.

It is not proposed to use artillery save in exceptional cases. Aircraft carry bombs, and these contain far more high explosives than any mountain artillery shell. For very close support the infantry will have their own grenade throwers, and, if necessary, mortars. For destruction of a strong point such as a tower, a mortar of 3 or 4 inch calibre, with its bombs could be dropped by aircraft especially for the occasion.

A persistent chemical sprayed from aircraft would usually, however, be more valuable than high explosive. It could be used not to inflict casualties but rather to deny ground or to block defiles and thereby to bring the enemy to action and to force him to stand when and where we wish. The "political" value of such an employment would be of no small importance and would exercise a depressing moral effect on the enemy. This would be preferable to the alternative use, which is not only liable to cause casualties to women and children, but would tend to lead the tribesman to tell himself that the troops were unwilling to close with him. Having provided the troops with the culinary apparatus required to cook their hare, it is fitting that the aircraft should provide the (chemical) net which constitutes his first step towards the pot.

Relative Fire Power.

It is of interest to compare the weight of fire which could be developed by the battalion under the proposed organisation and that of the present battalion :—

Proposed :

From Rifles	.. 144 at 10 rounds per minute. = 1,440 rounds	= 38 lbs. per minute.
From Sub-machine guns	.. 24 at 200 rounds per minute. = 4,800 rounds	= 160 ,,
From Grenade-throwers	.. 24 at 3 rounds per minute. = 72 rounds	= 144 ,,
	Total	.. 342 lbs.

of projectiles per minute.

Present :

The present day battalion can develop :—(Indian Pack Scale).

From 288 rifles at 12 rounds per minute (36 sections at 8 each).	= 3,456	= 84 lbs. per minute.
12 Lewis guns at 100 rounds per minute	= 1,200	= 30 ,,
6 Machine-guns at 400 rounds per minute	= 2,400	= 60 ,,
24 Bomb rifles at $1\frac{1}{2}$ rounds per minute	= 36	= 54 ,,
	Total ..	228 ,,

In both cases it is assumed that every weapon is firing as fast as possible. This can naturally be kept up for a matter of a few minutes only. As soon as the question of replenishment arises, however, the comparison is once more all in favour of the air-supplied unit, which can receive a continuous supply, irrespective of ground or enemy fire.

APPENDICES.

Appendix A.

General Note on Armament, Equipment and Material.

To develop the maximum mobility of which troops of the best type are capable they must be relieved of the drag caused by transport animals. The men must be preserved from becoming pack animals themselves. To achieve this only light weapons are employed, the Vickers and Lewis guns being eliminated. Each man is asked to carry no more than—

18½ lbs. of arms and ammunition.
4½ lbs. of "plaid-blanket."
1½ lbs. of waterproof ground sheet.
2½ lbs. of equipment, including haversack.
5½ lbs. of clothing.
2 lbs. of footwear.
1½ lbs. of water or food.

Total 36 lbs. In contrast to the 64 lbs. now carried.

Several articles are now, in India, carried on pack mules in first-line transport. Such are :—

i. Ammunition and grenades.
ii. Water.
iii. Cooking pots.
iv. Blankets.
v. Signal equipment.
vi. Medical equipment.

It is proposed to supply *i*, and if necessary, *ii*, in the form of ice at frequent intervals, from the Air. Ammunition is called for by the platoon putting out a call-signal.

iii. Cooking pots are not required. Rations are to be packed in seamless tins, which when empty are used for cooking in.

iv. Blankets are replaced by jerkins or sleeping bags of waterproofed tough paper, which are dropped in bales each evening by supply aircraft. They are expendible.

v. Signal equipment is basically re-designed, and so lightened that all can be carried on the man.

vi. Wounded are evacuated by Auto-Giro ambulances, hence no medical equipment is required, except what can be carried in surgical haversacks by dressers.

Appendix B.

Transportation by Road.

It will clearly be illogical to endow, on the one hand, the new battalion with great mobility by relieving it of animal drag, whilst on the other hand making it march long distances in approaching its task, over roads passable for wheels.

The best results will probably be achieved by mounting the entire battalion on cross-country motor cycles, two men with their armament on one machine. In this way, the entire unit could be moved in a matter of a couple of days from rail (or road) head to such places as Chitral, Gilgit, Bazar, the Peiwar Kotal or Kaniguram. The necessary intermediate petrol dump or dumps are well within the capacity of reasonable air-supply.

There are some areas, *e.g.*, Badakshan, or the Pamirs, or the Tian Shan, where it would be advisable to mount the unit on horses. These animals would be the ponies of the country, who would subsist on local supplies. Hence nothing need be carried for them by air or otherwise. Their saddlery will also be a local supply.

When local purchase is called for in order to obtain supplies, the most advantageous method is to issue an extra quantity of tea and sugar to the troops, and to permit them to exchange these for mutton, flour, etc., with the inhabitants, who always prefer this to actual cash.

Appendix C.

Signals.

i. A man pack radio-telephony station is necessary when the unit is working alone. No load should weigh more that 20 lbs.

ii. For communication between battalion and company Headquarter, the staple means are a special helio, and a daylight lamp. The helio has mirrors of stainless steel and is thereby reduced in weight to 6 lbs. The stand is reduced to 2 feet in length and lightened.

iii. Flags are replaced by improved shutters. By a means devised by the writer, their range has been increased by 25per cent.

iv. Research is required to replace the helio and lamp by instruments capable of transmitting speech, *i.e.*, photophones employing selenium cells.

v. By means of a special letter system all procedure and message work is very much shortened. Work is thereby accelerated, and one man can take in a message single-handed.

Appendix D.

Armament, Personal.

Rifle, carried by 50 per cent. of all ranks below platoon Second-in-Command in two platoons per company. Modified Martini action, chambered for Magnum H. V. or Halger ·244 cartridge, 36″ barrel, aperture sight, mark *VI* bayonet, jointed cleaning rod, sighted to 1,400 yards.

Hand-howitzer, i.e., Grenade-thrower carbine, carried by one platoon per company at one per 3 men. ·450 inch Martini, with cup-discharger. To fire ·450 inch tracer and bullet-less cartridge for grenade throwing. Aperture and high angle sights, long bayonet, jointed cleaning rod, sighted to 500 yards for grenade throwing and to 1,400 yards for tracer bullets.

Sub-machine-gun, carried by one platoon per company, one per 3 men. Thompson or Villa Perosa pattern. ·450 or ·380 inch. Sighted to 800 yards to fire ball and indicating bullets. (Possibly with anti-air-craft sight).

Pistol, ·380 *or* ·450 inch with the same cartridge as the sub-machine gun. For commanders and signallers, except those armed with ·450 inch carbine, *i.e.,* section commanders of grenade and sub-machine gun sections.

Grenades—Carried,
No. 54—Hand.
2″ H. E. long ranging, from cup discharger
2″ Smoke " " " "
2″ Illuminating " " " "
2″ Signal " " " "
} All fired from grenade carbine.

S. A. A. Carried :—

Ball for rifles.
Tracer ·450″ for carbines.
Bullet-less ·450″ for grenade throwing.
Ball ·450″ or ·380″ for sub-machine guns and pistols.
Indicating ·450″ or ·380″ for ditto.

Scale of cammunition—

Pistol.—24 rounds per commander and signaller, in cotton bandoliers. 3 rounds in a semi-circular clip.

Rifle.—48 rounds per man armed with a rifle or 36 rounds and two No. 54 hand-grenades. Carried in two cotton bandoliers.

Grenade-thrower—

H. E. 2″—Ten per each No. 2 and No. 3 in grenade platoons (=120 per platoon)—in two cotton bandoliers.

Smoke 2″—Four per each No. 1, in grenade platoons (=24 per platoon)—in two cotton bandoliers.

Signals, and illuminating—as required.

Note.—Bullet-less cartridges ·450″ at one per grenade.

Cartridges, Sub-machine Gun—

Ball ·450″, combined with 20 per cent. tracer or "strike" indicator bullets, in magazines, in cotton bandoliers. 300 rounds per each No. 2 or No. 3, of sub-machine gun platoons (=3,600 rounds per platoon).

Note.—Each round weighs half as much as ·303″. 150 rounds per each No. 1 (=900 per platoon). Total 4,500 rounds per platoon (=750 per gun).

Tracer ·450″, for grenade-thrower carbine. 50 per section commander in rifle platoons. 20 per section commander in grenade platoons. 20 per section commander in sub-machine gun platoons for target indicating purposes.

Note.—Whenever possible, all above quantities are doubled by air-supply prior to an operation.

Appendix E.

Clothing.

Summer.

Pagri, silk, khaki, shrapnel proof. (Portion of netting for use as mosquito net).

Blouses (2) cotton, matte, with detachable shoulder straps, pockets for field dressing, whistle etc.

Knickerbockers, cotton, matte, with pockets; made with waistband. Reinforced at knees and seat (or shorts).

Hose-tops, with thorn-proof reinforcement.

Chaplis, (special) or highland shoes.

Winter, (Modifications).

Cap, comforter, worn in lieu of pagri.

Blouses, (2 or 3) flannel, reinforced with drill collars, elbows and cuffs, detachable shoulder straps—worn one outside another when cold. Pockets as on cotton blouse.

Half-puttees, with flash.

Socks, existing pattern.

Plaid-blanket, (special). Rolled into a long thin cylinder worn over each shoulder and crossed diagonally across the back.

Equipment (Personal).

Belt, waist, leather, $2\frac{1}{4}$", with 1" tabs for haversack and canteen.

Bandoliers, cotton, L. shaped (?) for S. A. A. or grenades (attached to belt below and to braces above). Expendible. No "Cartridge Carriers" are required.

Sheet, ground and cape, aluminium proofed, (strapped on belt).

Haversack, khaki drill, with tabs, supporting, worn on back or side.

Canteen, aluminium, "billy" pattern, with water-tight lid, also for use as water-bottle, with tabs supporting.

(*Note.*—A proportion of men carry water in the canteens, the remainder rations, according to climate and circumstances).

Field-dressing.—Compressed.

Jerkins, paper, proofed. For sleeping purposes. Dropped by supply aircraft, as required. Expendible.

Note.—It should be observed that the following portions of the present equipment become superfluous:—

i. Braces—replaced by long "plaid-blanket" which is worn in the same way. To it are attached the cotton bandoliers, haversack or canteen whilst it is itself connected to the waistbelt before and behind in four places.

In summer this "plaid blanket" is replaced by two shelter tent sections of æroplane fabric which are similarly rolled and worn in replacement of the braces of the web-equipment.

ii. Carriers cartridges, right and left. Replaced by L. shaped "cotton bandoliers" which are expendible. These are worn like the carrier cartridge, strapped to vertical portions of "plaid-blanket" and to the waistbelt.

iii. *Pack.*—Not needed; as "plaid-blanket" replaces the great coat, whilst canteen which replaces mess tin is carried in lieu of water-bottle.

iv. *Scabbard.*—Not needed as quadrangular bayonet is carried in a recess in fore-end, under point of balance of rifle.

v. *Water-bottle.*—Not needed, since "canteen" is deep and has a water-tight lid, "man-hole" pattern) and can be used to carry water by a proportion of the personnel, varying according to climate.

Appendix F.

War Establishment and Organization.

The battalion consists of—

i. Headquarters.
ii. H. Q. Company.
iii. 4 companies.
iv. Second Echelon.

Headquarters comprise :—

Battalion Commander.
Adjutant, who is Signal Officer.

H. Q. Company comprises—

(*a*) Signal platoon.
(*b*) Medical platoon.
(*c*) Mortar or M. G. platoon, if specially requi ed.

A company comprises :—

Company H. Q. Company Commander, C. S. M. or C. H. M., 4 runners. 4 platoons, *i.e.*, 2 rifle platoons of 18 rifles each. 1 grenade platoon of 6 grenade-throwers. 1 sub-machine gun platoon of 6 guns.

A platoon (rifle) consists of—

1 Platoon Commander.
1 Runner.
3 Sections each of 1 Commander and 5 Riflemen. (Platoon has 18 rifles, 1 carbine and 1 pistol).

A platoon (grenade) consists o —

1 Platoon Commander.
1 Runner.
3 Sections, each of 1 Commander and 5 grenadiers. (Platoon has 7 carbines, including 6 as grenade-throwers and 14 pistols).

A platoon (sub-machine gun) consist of—

1 Platoon Commander.
1 Runner.
3 Sections each of 1 Commander and 5 gunners. (Platoon has 6 guns and 14 pistols).

Signal Platoon comprises—

i. One R./T. section when battalion is acting alone. (6 O. R.'s).

ii. One V./T. section of 18 O. R.'s (8 sets V./T. equipment).

Medical Platoon comprises—

One M. O. 4 dressers and 16 bearers.

Second echelon remains at advanced base (*i.e.*, ærodrome) and includes second-in-command of battalion, companies and platoons, also 10 per cent. first reinforcement, quartermaster and 12 O. R.'s of Q. M. branch.

INDIAN REGIMENTAL HISTORIES: II.

By

'Hyderabad.'

In a recent number of this Journal the writer ventured to set forth his views, for what they are worth, on some aspects of the compilation of Regimental Histories of the units of the Indian Army. Since that article was written, several new books of this class have been published; and I have also had the advantage of visiting once more some of the libraries in England which possess good collections of Indian regimental histories. The following reflections are therefore offered in the hope that they may give assistance, however small, to anyone who may be contemplating a new edition of regimental records, or the preparation *ab initio* of a new history.

The first step which can profitably be taken by anyone in such a position, however experienced he may be, is the examination of a representative collection of existing books of this nature. Such collections are to be found at Simla in the Army Headquarters Central Library and also in the Library of the United Service Institution of India; and in London at the War Office Library and in the Libraries of the Royal United Service Institution and the East India United Service Club. The last two are open to members only. The Imperial Library at Calcutta and the libraries at the British Museum and the India Office should also repay a visit; but of these I cannot speak from personal knowledge. It should, however, be noted that though each of the libraries mentioned has a good collection, none has a complete one: and in each there will be found several histories which are lacking from the other libraries. It is not easy to account for this, but it is a fact which I can vouch for.

An examination of any of these collections will proclaim the peculiarity which I stressed in my first article—that these regimental histories are astonishingly uneven in quality. Some are badly-printed pamphlets in flimsy paper wrappers: others are handsome quartos with coloured and photogravure plates. The first would be dear at sixpence apiece, and their plenteous store of misprints renders them useless even from the narrowest regimental point of view. The majestic works in the second class will usually be found to have been publish-

ed in the spacious days before 1914, when printing, binding and the making of process-blocks cost about a quarter of what they do now. By all means let your regimental history be on the most sumptuous scale possible ; but if you publish it at thirty-five rupees a copy (as one distinguished regiment did, four or five years ago) you must not expect to sell any to " outsiders," and your total receipts will probably be restricted to the proceeds of the twenty to forty copies bought by past and present officers.

It will be best, in most instances, to strike a " happy medium " and to aim at producing a book which, though it contains all essential records of the unit's existence, yet also may appeal to the Service in general. From the range of regimental histories in any of the libraries I have mentined, I suggest two may be selected as examples. Take, for instance, Mr. Rawlinson's *Napier's Rifles*, and Lieut.-Col. Kirkwood's history of the *97th Deccan Infantry*, both published in 1929. These two are representative of the most practical type of such works : they are not examples of perfection, but instances of what may be achieved at a reasonable price and in a sensible unassuming fashion. Both are unpretentious but adequate : handy in size and well printed. (It is especially to be noted that both are printed in India, where printing is far cheaper than in England but—usually-far worse executed. The prudent regimental historian would do well to make a note of the printers (two different firms) of these two books. They are models of what may be done in India under skilled supervision).

The secret of the success of these two histories lies in their careful planning. The text is in easy flowing English, free from the staccato machine-gun style so prominent, alas ! in many military publications. All matter, irrelevant to the main issues which are discussed in the text proper, is relegated to classified appendices at the end of the work. The general rule seems to be—devote a chapter to each campaign or to each period of peaceful progress. By the adoption of this rule it is safe to say that the record is made both easier to write and easier to read. Indications of the sources from which the information in the narrative text has been drawn are given in footnotes, or better still, as Mr. Rawlinson has done, at the end of each self-contained chapter. At the end of the book are appendices giving that information which is of little, if any, interest to the general reader, but which is essential to the completeness of the record from a regimental and historical point of view. Here we may expect to find : succession of

colonels and commanding officers : biographical notices of British and Indian officers : list of stations the corps has served at : changes in uniform and equipment : colours and badges : historic mess plate : class composition of the regiment at various periods : and so on.

* * * * * * *

The probable sources whence a regimental historian may expect to draw information for his record are not easy to indicate in a short sketch such as this is. I can do no more in the space at my disposal than give the briefest of summaries.

These sources may be divided into two main categories, (*a*) printed and (*b*) manuscript. The general printed sources include official histories of the old Bengal and Madras Armies (by Cardew and Wilson respectively), but there is no history of the Bombay Army, a gap which must seriously handicap the historian of a Bombay regiment. These histories, as well as Fortescue's *History of the British Army*, will be of principal value in providing a conspectus of the general course of events, a background against which the story of an individual unit will stand out more clearly. Their value to the regimental historian will also lie in the bibliographies which are appended to each chapter : it is to the books mentioned in these bibliographical lists, rather than to the general histories themselves, that the compiler of a regimental history will look for his information. Narratives of the several campaigns will also be of great assistance : in some instances, *e.g.*, the Abyssinian War, the official history is the only important source of information. Biographies and memoirs of distinguished commanders and others will often provide incidents of regimental interest and should be searched assiduously. Many libraries in India are well stocked with books of this class. The regimental historian should not fail to look through every published life of a soldier who has taken part in the relevant campaigns. Prints and engravings of battles and uniforms must be sought for. The first sources to be explored for these are the Parker Gallery's catalogues and Colonel Crookshank's *Prints of British Military Operations* (a copy of this latter is in the library of the U. S. I. of India). More extensive research is not easy. The vast collections at the British Museum are indexed only under artists' names, a course which, for all practical purposes, precludes research on historical lines. The Parker Gallery, (Berkeley Square, London), is, however, always ready to answer inquiries and can be relied upon to say whether

any given uniform or battle has ever been depicted in an old engraving or lithograph. For the propounding of general historical conundrums the columns of the *Journal of the Society for Army Historical Research* (Editor, 8, Palmerston Road, Sheffield) and of *Notes and Queries*, (14 Burleigh Street, Strand) are always open to the serious inquirer ; and answers to even the most abstruse military historical questions may be obtained through one of these mediums. For biographical particulars the *Dictionary of National Biography*, the *Dictionary of Indian Biography*, and Major V. C. P. Hodson's *List of Officers of the Bengal Army* are invaluable.

The manuscript sources for Indian regimental histories, vast though they are, are almost unexplored by the military student. They include the contents of the Record Offices at Calcutta, Lahore, Bombay and Madras ; and the old records of John Company at the India Office. Various press lists and guides to these collections have been printed, but, speaking generally, the best course for a regimental historian to adopt will be for him to write to the keeper of the Records at each of these places, stating very concisely the exact nature of the subject regarding which he is seeking information. A personal visit would indeed be preferable to a letter, but it will rarely be practicable to visit more than one or two of these centres.

Above all, the most valuable MS material is a carefully kept contemporary diary ; and inquiries should be diligently pursued amongst the descendants of old officers of the regiment to see if any such journals or letters have been preserved. For a vivid picture of regimental life in the old days nothing can surpass a diary or series of letters : no modern compilation can approach either of these.

In conclusion, I venture to disclaim any intention to "lay down the law" in these notes : my sole object has been to crystallize a few personal experiences and ideas in the hope that they may be suggestive, or even, perhaps, helpful to others interested in the history of the Army in India.

A WHITE MUTINY IN THE BENGAL ARMY, 1764.

By
C. Grey

Amongst the French military adventurers of the mid and late eighteenth century, whose interesting careers are chronicled by Keane, Compton and others, is one Rene Madec, whom all dismiss with a few curtly contemptuous lines as an obscure adventurer, who for a time led a small Free Company, from whose command he retired to France, there to be killed in a duel.

This is hardly correct. Madec commenced life as a ship's boy in the mercantile marine of France, served as a soldier with the French Army in the wars of Southern India at various times from 1752 to January 1761, and afterwards with the French Company in the British service. His later career was most varied and interesting, quite equalling that of George Thomas and other well-known European adventurers.

With the English, he took part in the battles of Rajmahal and Patna, the sieges of Monghyr, and the recapture of Patna. After quitting them he raised a Free Company, at times totalling as much as ten thousand men, with whom he fought against the English at the battle of Buxar, afterwards serving the Moghuls, the Jats, the Rajputs, and others, gaining from the Moghul Emperor the title of Nawab, and from the Jats a large district in *Jaghir*. Not only this, but he was a central figure in a vast plot to land ten thousand French soldiers of all arms at Tatta in Sindh, whence they were to march on Bengal, forming the nucleus and spearhead of an ever increasing Indian army, which was to drive the English from the shores of India into the clutches of a vast French fleet. Of all this there is unimpeachable documentary evidence in the French archives at Chandernagore and Paris, and also with Madec's descendants, who still live at Quimper in Brittany, where he died a Chevalier of France, and an Honorary Colonel in the Infanterie de la France.

For the moment we do not propose to deal with Madec's romantic career, except for his part in the mutiny of the white soldiers of the East India Company's army in February, 1764, when some eight hundred infantry and cavalry openly mutinied, and two hundred

actually marched away from Sawath in Bengal to the enemy, under the leadership of Rene Madec.

Before proceeding we should explain the peculiar composition of the European portion of the Bengal Army at this particular period, and for this it is necessary that we should travel south to Madras, and go back to the French and English struggles for Southern India from 1752 to 1761. The latter years of this period were disastrous to the French who lost a considerable number of prisoners to the English, all of whom were confined at Madras, where they suffered the hardships attendant on their position at a period when humane treatment of such men was not to be expected. With the fall of Gingee Fort on the 5th of April, 1761, the last of the European soldiers of the French in Madras, amongst whom was Madec, surrendered to the English, and were sent to join some thousand more at Madras.

A number had already renounced their allegiance and turned over to the English, just as a fair number of English prisoners in the hands of the French had done. For instance, the French expedition to Ganjam, in which both Madec and Claud Martin took part, had with it a "Company Etrangere" of English soldiers, taken at sea by the French war ships.

Though Madras was, for the time, finished with in a military sense, there were other battlefields where the English were engaged, and their need for European soldiers very great. Recruiting for the Company's forces at home was slack, the Royal Army requiring all that could be obtained, and, not only were there no men forthcoming from the Home country, but the home Government was withdrawing its regiments, or disbanding them. White fighting men were imperatively needed, so, in accordance with the slack military morality of the period, when each nation endeavoured to seduce its military prisoners of war to its own service, French emissaries who had already gone over, were sent into the prisons, and, by promises of high bounty, discharge when the war was over, and that they would never be employed against their own countrymen, succeeded in gaining over about four hundred French prisoners. These men were formed into three companies, two of which were sent to Manilla with an expedition, and the third, with whom Claude Martin was an officer, despatched to Bengal. Here we might quote Madec's version of this transaction :—

"The unfortunate prisoners of our nationality were subjected to the most horrible ill-treatment in the prisons of Madras. Many perished; others, to avoid a like fate, and in the hope of bettering

their condition in the future, agreed to serve in the English Corps of Bengal. Seeing no other alternative, Madec, in company with one hundred and five other French prisoners, took service as Sergeant in an English Company commanded by Martin-Lion, his old comrade in Masulipatam. For a considerable time the English had been sending emissaries to these prisoners, assuring them that they would only be obliged to serve in Bengal (where France had no longer, alas! any interests) and to serve solely against Indians. They could, therefore, enrol themselves in the English ranks without patriotic scruples.

"I put this proposition to several of my companions, representing to them that it was the only way out of our difficulties, and of regaining our freedom at the earliest possible opportunity. We made between us a species of pact, in which we determined to take the very first chance of breaking the engagements forced upon us by a frightful necessity."

On the 23rd of August 1761, the French Company and about three hundred and fifty men from the English 84th foot, who had volunteered for the Company's Bengal Europeans, when that regiment was sent home for disbandment, left Madras for Calcutta in two ships. A letter in Colonel Coote's life affirms that the whole of the men of the 84th, and the French Company, with the exception of Claude Martin and one private, were drowned in the wreck of the *Fateh Salaam* off Point Palmyras. This is, however, incorrect, for Broome states that the men from the 84th arrived at Calcutta in September 1761, and that the French Company, numbering in all one hundred and eighteen arrived soon after in boats.

Soon after the death of Mr. Amyatt, who was killed at Muzaffarabad by Kassim Ali Khan, Major Adams was appointed to the command of the Force sent against Kassim Ali Khan. Kassim Ali's army was commanded by the Armenian Gourjin, and, after his murder, by the renegade Walter Reinhardt who massacred the English at Patna, (some with his own hand). The European force accompanying this expedition was composed of a number of artillerymen, two troops of dragoons, and about seven hundred and fifty infantry, of whom the French Company formed part. The latter distinguished itself at the taking of the strong position of Rajmahal, where Reinhardt (Sumru) was badly defeated and lost a number of guns. After this it took part in the various actions up to the final taking of Patna, meanwhile being joined by the survivors of the companies sent to Manilla, who had earned a very

bad character for insubordination, though they had some cause for complaint in their treatment by their English officers.

Mutinies *en bloc* were not a novelty to these men, for all of them had been concerned in that of the whole of the Europeans in the French army before the battle of Trichinopoly, when, being many months in arrears of pay, the whole of the two thousand men marched off six miles from the main army, appointed Sergeant Major La Joie their general, with a complement of officers from the sergeants, and then sent in an ultimatum for their pay, amounting to Rs. 50,000. After obtaining it they returned to duty.

Of the eight hundred Europeans, or thereabouts, infantry and cavalry, in Major Adam's force hardly one-third were real Englishmen, the remainder being Germans, Swiss, and other Continentals, some recruited at home and sent out, deserters from the French, or seamen who preferred a shore life. This material required very careful handling, and not getting it was very easily seduced by the Frenchmen. The leaders of the latter had been in communication with Shuja-ud Dowlah, who already had about four hundred Frenchmen in his service, and who through Chevalier Gentil, guaranteed high pay to all who came over.

After the taking of Patna and the conclusion of the subsequent minor operations, the troops had a rest, during which their grievances in the matter of non-payment of the prize money promised by Mir Jafar were carefully fomented by the French malcontents, until they ultimately burst out into open mutiny. It should be understood that Mir Jafar had promised the army a very substantial reward in the event of the successful conclusion of the campaign. This money had been paid over to the Company, who in turn paid the officers, civil and military, but gave nothing to the men. Patna fell in November 1763, but even up to mid-January 1764 there were no signs of any payments to the rank and file, either European or Indian. The result was that on the morning of the 13th January, 1764, the men of the European battalion, though they answered the call of the Assembly and fell in, refused to handle their arms, and clamoured for their prize money. After both bullying and cajoling had been tried in vain, the Commander requested the men to nominate a spokesman, which, after much hesitation, as such men were invariably marked and suffered later, they did. This man said that whilst the high civil and military officers were

amassing crores of rupees by plunder and donations from Mir Jafar, the soldiers, both European and Indian, who had done the fighting and hard marching were not even receiving their pay, already three months in arrear. The Commander pacified the men for a time, promising an early payment from treasure on its way up from Calcutta, which he promised to expedite. The men therefore took up their arms and resumed duty. There was no violence offered anyone and their demeanour was quiet enough.

Whether he was lying or temporising does not transpire, but the money did not materialise nor did the Commander attempt to ease matters by borrowing from Mir Jafar, who was in camp near by. This inaction and further delay was made the most of by the French malcontents, who finally convinced the men that their officers were indifferent and scornful, so that the best thing to do was to go over to Shuja-ud-Dowlah, who would pay each man Rs. 100 per month and offer chances of high advancement. On the morning of the 11th February, 1764, therefore, the European Cavalry and Infantry, and the Native Horse and Sepoy battalions suddenly and tumultuously assembled on parade, and announced their intention of going over to the enemy, unless their claims were instantly met. There are three separate accounts of this from which we shall quote, all original sources, none of which, so far as we have discovered, have appeared in military histories. First comes Madec's version, which is correct enough, except that he exaggerates the amount of pay due.

"Masters of the treasures of Bengal, how came the English to neglect to pay their troops? A revolt of the British Army, known by the English as the First Sepoy Mutiny, was the direct result of this negligence. This revolt, which the English terminated by blowing twenty-four of the mutineers from the guns, furnished to our compatriots, still in some sort prisoners in the British Army, the occasion to regain their liberty.

The Calcutta Company owed its troops twenty-two months pay at the moment of the commencement of its campaign against Sudjah-Dowlah. Our Frenchmen claimed what was due to them in vain; thence onward, revolt, which spread amongst the English themselves! One morning, at eight o'clock, the malcontents beat the General Assembly, seized arms to the number of seven or eight hundred, and fell in their ranks preparatory to marching. The officers then came

to implore the mutineers to return to duty, without, however, offering them the arrears of their pay. The mutineers took possession of the artillery which, for lack of bullocks, they dragged by hand and moved off. At a distance of two leagues they halted. Here it was decided to elect a Chief, and Madec was unanimously chosen with acclamation. He then fell in his men and continued the march. This time the English officers, realizing the danger, pursued the deserters with sacks of rupees, offering payment, and making specious promises. They succeeded in reclaiming all the English, with the exception of two, but the Frenchmen remained staunch, and refused to give in. In the evening the detachment encamped. Madec, fearing the persuasions of the English officers, caused the Assembly to be beaten at midnight. The troops did not fall in. Thereupon he cried, "Qui m'aime me suive!" Two hundred and fifty Frenchmen and the two remaining Englishmen responded to this appeal. They set out again at once, and by dawn were before Benares, upon territory of which Sudjah-Dowlah, Soubah of Arig, of Aod and of Eleabad (Oudh and Allahabad) was suzerain."

At first the Radjah of Benares made difficulties about letting Madec pass, but these were overcome when the latter informed the Radjah that he was on his way to take service with his Master, Sudjah-Dowlah. The smoothing of the way may have been due in part to the intervention of Gentil, who relates that he presented Madec to the Soubah, and had persuaded him to take a Corps of Frenchmen into his service. It appears that, at one time, Sudjah-Dowlah had as many as six hundred of our compatriots amongst his troops. Gentil informs us that they cost him 80,000 francs a month, not including the pay of the principal Chiefs. (At the rate of exchange this would work out at Rs. 32,000, or about Rs. 53 per month for the rank and file).

We follow this account with those of two others present at the time, Captain Swinton and Lieut. Logan of the Company's service. Captain Swinton's memoirs show him to have been a very able officer, and the official records as an even more able financier to judge by the fact that he made seven lakhs in about twelve months out of the Intelligence Department. His then commanding officer, Major Carnac, was quite as capable in this line, and these little straws show which way the wind blew the rupees. The account runs:

"The army lay at Santunder under command of Captain Jennings, a considerable time without anything remarkable, only exercising the great guns and small arms. . . .until the 9th day of February, in the morning, when the battalion was ordered out to exercise, and the Adjutant, Mr. James Forster, came upon the parade. He gave the word of command, 'Rest on your firelocks' but not a man made any motion; upon which he gave the word again, but not a man would stir.

"He ordered them the 'Right About' but they would not do that either; upon which he asked them their grievance. But not a man spoke. Whereupon Captain Forster sent for Captain Jennings, who came, and after a great many promises that if they would step out and tell their grievance not a man should be hurt, one of them stept out and told them that the prize money was promised to be paid to themselves several times but never was, and they had heard that Major Carnac had stopt payment in Calcutta. Whereupon Captain Jennings told them that it would be paid in a few days, and that concerning Major Carnac was all false. They then went to the 'Right About,' and lodged their arms. and went to their tents.

"All was very quiet until the 11th, then about eight o'clock the camp was alarmed by the drums beating the General Assembly. All the men turned out in a confused order, and the troopers began to saddle their horses, but Lieutenant George Bolton Eyres, who commanded the horse then in camp, drew his sword on one Symmons, Camp-Colour man, upon which they ran to the Bell tent, took up their arms, and joined the battalion on foot. "Captain Jennings thought to suppress the mutiny by seizing upon the ringleader and confining him, but here he was mistaken, for eight or ten men fixed their bayonets, and if he had not run for it, they would certainly have taken his life. They then proceeded to appoint leaders, such as one Colonel and two Majors; one Jack Straw, a desperate fellow, was made Adjutant, and sent a party of men to secure the Park (artillery) and all the lascars and bullocks they could lay hands upon; likewise one was sent to the left for the same purpose, and a party was sent with the troopers to get their horses.

"Then a party went with Captain Stables to the Nabob, with one who could speak the language, who told them he would give them a lakh of rupees directly, and one more in two hours, likewise also a bill

on Patna for two lakhs more. In the meantime the officers were collecting all the money they could, and brought it and laid it before the men on parade. But all this would not satisfy them, for they demanded the immediate payment of Rs. 500 each man. By this time the troopers joined them with the aforesaid Mr. Symmons and the Black Cavalry. Mr. Symmons took command of the whole cavalry, and the two other parties joined them. They then faced to the right and marched off with five guns to the Nabob, but recollecting, they faced again, and marched for the Caramnissa. . . . .giving out that they were going to fetch the Grenadiers; but when they came to a Creek, which lay in their way, they left the guns for want of bullocks. Presently the guns were brought back, and the officers followed the men, begging them to return, which some of the English did, beginning to find out the design of the foreigners.

"The foreigners, proceeding on their march to the Caramnissa where most of the sepoys that were there joined them then crossed the Caramnissa and went towards Benares. By this time most of the English and the sepoys returned, but the Frenchmen still marched on till about twelve o'clock at night, when they halted and elected Mr. de la Marr (formerly Sergeant of the French Company of the 84th Regiment) Commander-in-Chief. They then set forward again and arrived at Benares. "Captain Jennings and the Nabob had sent *harkarrus* to the Radjah to stop the mutineers, but he would not, on the contrary, he supplied them with boats to cross the river, which they did, and joined Kassim Ali Khan and Sumru. Colonel de la Marr sent a letter to Captain Jennings, in which he said that they had always behaved like good soldiers all the campaign, but they had been used ill, and put upon, and that they had had this design in hand a great while before, but could never find an opportunity till this June (*sic*) of getting away, and that as they were Frenchmen, he would always find them good Frenchmen still:

"A list of the Europeans who deserted, 12th February, 1764, from the European battalion:

Non-Commissioned and Privates	..	..154
First Troop European Cavalry	..	.. 9
Second Troop European Cavalry	..	.. 7
		170

"From the different battalions of sepoys with European arms, two hundred went and with much difficulty were kept from firing; had one firelock gone off by accident or otherwise, it would have been the destruction of the whole army and the loss of almost, if not all, Bengal. But God, who foresees all things, ordered it otherwise."

The following account was written by Lieut. James Logan of the Bengal Sepoy battalion:—

"Here is the Devil to pay, and no pitch hot about the bill money. The day before yesterday almost the whole of the Europeans took up arms, and demanded payment of the prize money. Immediately they appointed a Colonel and two Majors to command them, the former of whom with a bodyguard to attend him, went with Captain Stables to the Nawab, who proposed immediately sending to Patna for two lakhs of rupees to give them; but they would not wait, nor would they accept of 30,000 rupees, which the officers collected and offered them on parade.

"But since they would not have their prize money, and said they would go and join Kassim Ali Khan, accordingly they seized five pieces of cannon, mounted all the troop horses, and rode off in regular order; part of the Moghul horse brought up the rear, and forced many Europeans who were unwilling to go. They soon left their guns and marched off without them in good order to the Caramnissa, which they crossed and encamped three *kos* beyond it for the night. The greater part of Stibbert's sepoys which was at the Caramnissa, joined them and crossed it with them. But they almost all returned, as well as the Europeans, who have all come back, except about 200, almost all foreigners that are gone for good.

"Sergeant de la Mere, late of the Regiment, is their Commander-in-Chief. All the Europeans now in camp have received Rs. 200 per man and are now contented, but to-day, Swinton's, Smith's, and Galleass's battalions, took up arms and were going to follow the deserters, but I hear they have all returned, but on what terms I know not, being a *kos* from the camp with the hospital.

"The above is all the news, and a damned deal too. Pray let me have half as much from you in return."

The soldiers were not the only ones who had cause to complain, for Mir Jafar had given twelve and a half lakhs for the navy, not a pice of which had been paid to them up to September 1765. The discontent

amongst the sepoys still smouldered, for they had only received one-sixth of what was given to the Europeans, instead of a half, as was promised, so in August 1764, they broke out into open mutiny. But by this time more European troops had arrived, and the others being willing to act against the sepoys, Major Munro blew twenty-four of the mutineers from guns, and imprisoned, or dismissed, a considerable number of others.

The French Company marched on from Benares to Allahabad, where before crossing the Jumna, they halted, and sent Madec, whom Chevalier Gentil styles their Sergeant-Major, to enquire what terms Shujah-ud-Dowlah would offer them. These being satisfactory, they entered his service, in which they continued under Madec to whom three native battalions and some guns were also assigned. This brigade he commanded at the battle of Buxar, one of the hardest fought battles in India during the 18th century, which resulted in a victory for the English. The Nawab's forces under Sumru and Madec, who were the real commanders, were utterly routed.

A number of Frenchmen were killed in this battle, and some others, who were found wounded on the field, were summarily hanged. The remainder went on to Chenar at the siege of which they assisted to repulse the British. Some of them continued to serve under Madec till the end, but a number of others obtained higher appointments in the sepoy battalions of the native rulers, some indeed being found serving against us as late as 1790.

THE ARMY, THE NATION, AND THE MACHINE.

PART III.

By

Lieutenant-Colonel F. Dickins, I.A.O.C.

It is to be feared that this, the third and final part of this article, is something in the nature of an anti-climax. The subject of Provision is a dry one for an article in a journal, although in actual practice it is by no means without interest. But, having very briefly outlined certain aspects of problems of production and supply, it seems only fitting that the methods by which the requirements of the army are communicated to producers and suppliers should be sketched.

Provision of clothing and ordnance stores is, then, the function of an organisation which collects statistics from supplying arsenals and depôts regarding their existing stocks and the quantities of stores they have issued to the troops in the past. By means of these statistics a fair idea of the average quantity likely to be issued any one year can be arrived at, and this average, corrected by any known circumstances which may affect issues in the future, forms the basis of an estimate of what is likely to be required in the future. That looks very straightforward and easy, but in actual practice the following difficulties present themselves.

Instead of the issues, which, of course, correspond to the actual wastage in the hands of troops, behaving properly and disclosing a graph that varies very little from the mean, in the majority of cases it is far otherwise. Issues show the most extraordinary fluctuations, more often than not for no assignable reason. Secondly, the strength and the equipment and constitution of the army are very far from stable. They are in a continual state of flux. Re-organisations, disbandments, re-armaments, changes in specifications, standards, scales and patterns, in policy itself, are always with us, and complicate the future situation. For instance, mechanisation affects the future of army transport carts and all their components, of harness and saddlery, of line-gear and horse-shoes and so on. It also affects the strength and composition of personnel, and so re-acts on their equipment. Thirdly, the requirements for a whole year must be calculated at dates varying from ten to sixteen months before the date

of delivery of initial supplies. It is, therefore, very necessary that those responsible for provision should not only be in possession of accurate figures regarding the past, but should also possess a knowledge of the history of the past—that is to say, of the circumstances controlling the amount of the past issues. They must also be kept fully informed of the policy of the future—that is to say, of the circumstances likely to control the amount of future issues. And this knowledge they must possess with regard to the thirty thousand odd items of clothing and ordnance stores with which they deal. It will be seen that the Provision Section must maintain close liaison with every branch at Army Headquarters, and more particularly with the various directorates of the Master-General of the Ordnance Branch.

Finally, the shadow of the budget lies over all provision work. Not a step can Provision take without the close and pertinent attention of Finance. The Deputy Financial Adviser is the watch-dog, who ensures that money is not wasted, and that enough money exists for the supplies demanded. Without him, all would be chaos. Here I would like to emphasize that I am dealing with the maintenance of stores in arsenals and out with troops. Provision for new demands, new measures, is a simpler matter and depends on how wide the money bags will be opened.

It will, perhaps, simplify explanation if the functions of the various directorates of the M. G. O. branch, in so far as provision is concerned, are roughly outlined.

Director of Artillery.—Design, research, experiment, proof, patterns and scales of equipment, inspection of all technical and warlike stores.

Director of Factories and Manufacture.—Manufactures steel, guns, rifles, shells, fuzes, harness and saddlery, ammunition, gun-carriages, vehicles, clothing and cordite. Controls all factories.

Director of Technical Organisation.—Calculations of necessary reserves to be maintained, mobilisation policy, war expansion and requirements.

Director of Contracts.—Purchase, either direct from the trade or through the Indian Stores Department of all stores, including food, required by the army as a whole, that can be purchased in India. Disposal of all obsolete and surplus stores for all Government departments.

Director of Ordnance Services.—Provision, storage, maintenance and issue of all clothing and ordnance stores, including reserves. Controls arsenals and ordnance depôts.

The above only represents a proportion of the actual functions of the directorates, namely, those which directly affect provision.

To summarize more succinctly :—

(1) The Director of Artillery decides on choice of stores and calculates initial scales, which he communicates to—

(2) The Director of Ordnance Services who demands the initial scales from the Director of Factories and Manufacture or the Director of Contracts and calculates the annual requirements for maintenance and demands similarly.

(3*a*) The Director of Factories and Manufacture.

(3*b*) The Director of Contracts purchases.

(4) The Director of Artillery inspects results of 3*a* and 3*b*.

(5) The Director of Ordnance Services stores and issues what is accepted by (4). In addition there are always certain stores, (an annually diminishing quantity), which can only be procured from England. These are demanded by Director of Ordnance Services from the Indian Stores Department, London.

I do not propose to give the full detail of provision routine, which, on paper, is long, looks very intricate, and might prove somewhat nauseating. The detail which I do give will probably prove more than enough for most readers ! The whole system has been recast during the past twelve months, and now resembles fairly closely the system obtaining in England. Complete assimilation of procedure is impossible, as conditions are poles asunder.

Including clothing depôts, there are altogether fourteen ordnance establishments to deal with. Excluding three clothing depôts, which deal with clothing only, arsenals and depôts stock proportions of all ordnance stores used by the army. A large arsenal will stock about twenty-five thousand different items ; a small depôt as few as two thousand. It should be remembered that they also supply large quantities of stores for the Royal Air Force, the Royal Indian Marine, the Police and Native States. In all, they deal with some 700,000 armed men.

The office concerned with pure provision work is known as the Provision Section (P. S.), is controlled by the Assistant Director of Ordnance Services (Provision), or A. D. O. S. (P)., and is a self-contained appenage of the Ordnance Stores directorate. The system is based entirely on cards—one item to a card.

Thus, each arsenal and depôt makes out a card for each item on its ledger, which should last five or six years. These cards are submitted once a year to the Provision Section and from them (1) a summary card (S. C.) is made out, showing the stock position for each item for each arsenal and depôt; (2) a provision review form is prepared, showing the all-India stock position. On this latter the demand itself is formulated and after circulation to the D. of A. for scrutiny, and to the D. F. A. for concurrence, allocation of funds, and posting of progressive budget commitments is returned to P. S. It is now sent by the latter to a section (M. G. 14.) which prepares (*a*) the necessary indents on the D. of C., (*b*) the necessary extracts on the factories, (*c*) the necessary indents on England. In turn the D. of C. (*a*) places orders on the trade, (*b*) places indents on the Indian Stores Dept. The Provision Review Forms are now returned to P. S., where the extracts, indents and orders are noted up as 'dues in' in the relevant ledger sheet.

The number of cards that come up from arsenals are about 160,000; the number of Summary Cards about 30,000; of Provision Review Forms about 30,000; of 'dues in' ledger sheets about 30,000. Thus it will be seen that the Provision Section operates about 250,000 cards. Of these cards the Provision Review Forms have to make the following journeys :–

(1) Provision Section to Director of Artillery.

(2) Director of Artillery to Deputy Financial Advisor.

(3) Deputy Financial Advisor to Provision Section.

(4) Provision Section to M. G. 14.

(5) M. G. 14 to Provision Section.

(6) Provision Section to M. G. 5.

(7) M. G. 5 to Provision Section.

They are operated on by M. G. 5, which is controlled by the Director of Technical Organization, with a view to fixing and providing reserves.

At stage (3), when the cards have come back endorsed with concurrence of D.F.A. and priced, the Provision Review Cards sent up by the arsenals are taken out, the 'dues in' noted on them, and they are then sent back to the arsenals as notification of dues.

The arsenals in turn enter these "dues in" in their ledgers.

It is obvious that, in dealing with such a mass of cards, unless a systematic, cast-iron drill is laid down, inexpressible confusion would ensue. While if an attempt were made to send up all cards on one given date, the Provision Section would be flooded out and complete stagnation would occur. Accordingly provision is spread over a period of six months—from December to May. To each month a definite number of vocabulary sections are allotted, so that each arsenal is operating the same vocabulary sections in the same month. Further, to ensure that the cards for the same items reach the Provision Section at about the same time, a definite quota of cards is operated by each arsenal every day, and the completed cards are despatched in boxes twice a week to the Provision Section.

Similarly in the Provision Section the Provision Review Cards, as they are received are operated, and the relevant Summary Cards and Provision Review Forms prepared, and the latter circulated on their adventurous journey round the sections of the M. G. O. Branch. Each section, and the office of the D. F. A., forwards on to the next operator all those cards which have been completed during the day. Thus there is a complete daily flow of work from the initiation of the Provision Review Card by the arsenal to its starting hount.

Apologies are due for this long, dry detail, but it is difficult to see how provision can be understood without it. Now let us turn, with relief, to principles.

The basic figure of provision is the Annual Maintenance Figure (A. M. F.). This is the average figure of the past annual issues to troops alluded to in the second paragraph, corrected by knowledge of the past and by prevision as to the future. In some cases a true average may be taken, but for the most part the actual issues fluctuate so wildly from year to year that an average would only lead to alternate years of short and over-provision. If issues have shown a steady decline or increase for a succession of years, it would be quite unsafe to assume that the graph will continue in the same direction. Unless there are clearly ascertained circumstances which warrant

such an assumption, the exact contrary may take place. In many cases the circumstances can be appraised, but in many more they cannot be determined, while the general form of the graph is not a uniform slope, but a sort of wild figure like a typhoid fever chart. The best one can do in extreme cases is to allot an Annual Maintenance Figure that can reasonably be expected to meet any call made on it. The position is further complicated by the fact that, although the all-India figure may show a steady, reliable average, yet the figures for each individual arsenal may fluctuate wildly. The result of this is that one arsenal will run short of an article of which there is a superabundance in another arsenal. The best that can be done then is to effect inter-arsenal transfers—which is an uneconomical proposition. There is a way out of the difficulty, which will be explained if space permits.

Sometimes there is delay in delivery of stores by factories or the trade. To cover this, and also to cover fluctuations in issues, a store-margin (S. M.) is allowed to be maintained by arsenals, in some case equal to one-fourth, in others to half the Annual Maintenance Figure according to their essential value to the fighting efficiency or to the comfort of the troops, or to the difficulty of supply.

We are now in a position to tackle the demand itself. The basic principle is not to buy all at once. The initial calculations made from (say) December 1929 to May 1930 are for stores to be delivered from April 1931 to March 1932. Much water will have flowed under the bridge during this long period, and the situation may have altered. Consumption in the hands of troops (wastage) may have been much more or much less than originally calculated; the store may have been replaced by a new pattern; prices may have altered. Accordingly, it is considered best to make the 'buy,' as the demand is termed for short, in two portions. The first, for the requirements of the first eight months of the financial year '31-32; while the requirements of the last four months of that year can safely be 'left in the estimate' till the next review—*i.e.*, December '30/May '31. They are not wanted till November '31, and it may be we will want more or less than originally calculated—or indeed none at all.

Finally, there is the interregnum, known as the pre-operative period (P. O. P.) from December 29/May '30 till April 1931, which also has to be provided for, but which should be covered by the dues

in demanded in the review dated December '28/May '29. The actual financial year for which the calculations are being made is known as the operative period (O. P.).

Altogether, then, provision has to be made for a quantity of stores which is represented by the following functions of the Annual Maintenance Figure.

For the Store Margin one quarter to one half Annual Maintenance Figure.

For the Pre-operative Period from sixteen twelfths for the December review to ten twelfths of the Annual Maintenance Figure for the May review.

For the Operative Period—The Annual Maintenance Figure itself.

The sum of these, varying from 25/12 to 34/12 of A. M. F. represents the total requirements—or *liabilities*—spread over both periods. Against this can be set the actual stock in hand at the date of the review, plus the dues in—or stores already demanded, but not yet supplied. These are the *assets*. If they are less than the liabilities, the difference is the total to be demanded; if they are more, no demand is necessary.

All this sounds very complicated, and is not exciting to read about. But in actual practice there is nothing in it. Perhaps an example will clarify the position. Let us assume an A. M. F. of 120 and a S. M. of 30. In December 1929 the all-India position as disclosed by P. R. C.s from arsenals is (1) a stock of 40 (2) 'dues in' of 120. The calculation would be as follows;

Required for P. O. P.	160	(December '29 to March '31 at 120 a year).
" " O. P.	120	
" " S. M.	30	
Total ..	310	liabilities.
Stock ..	40	
Dues in ..	120	
Total ..	160	assets.
Difference, or total requirements ..	150	

Of this, 120, or the A. M. F., are required for the O. P. ('31-32). A demand will be placed for 80, for delivery between April '31 and November '31—the first eight months—leaving 40 "in the estimates." We

are still left with 30 on our hands, and these will obviously be wanted before April '31. Accordingly another demand for 30 is placed for delivery from December '30 till March '31. This 30 represents' what was "left in the estimates" at the last review.

The importance of a correct assessment of the Annual Maintenance Figure cannot be overstressed. If it is correct we shall be in a position to let Finance know what the Ordnance stores budget is likely to be over a period of years, and therefore the allocation of the budget will be simplified, especially as long as it is a contract budget. But this may be a counsel of perfection.

It follows that any circumstances which tend to nullify any attempts to assess correct A. M. F.s will upset provision and finance. Correct statistics from arsenals are, of course, essential, and the co-operation of units is also called for. Any incorrect usage, any undue demands, any fanciful condemnations, any tendency to purchase through other than the official channels, on the part of units, tend to obscure the situation and result in wrong figures being submitted to the Provision Section. This, again, results in those wild fluctuations which upset provision. And more than that. An A. M. F. which fluctuates wildly from year to year results in similarly fluctuating demands on factories and the trade. The factories are unable to plan a firm programme; one year there will be too much, the next too little skilled labour; the trade will not know what stocks they ought to carry; the war-expansion tables are based on peace requirements, and if the peace requirements are based on incorrect figures, the calculations for war requirements go by the board. Now, even in these days of the gospel of pacificism, the army does exist for war, and every step in provision is taken with an eye to war efficiency. All down the line, therefore, any failure in co-operation will lead to a loss of war efficiency, and that will be a confession on our part—on the part of the army as a united whole—of failure to fulfil our role.

It is for this primary reason, and for the secondary reason of economy, that ordnance authorities are sometimes so unpleasantly insistent on strict compliance with regulations. Indents are not returned to units marked 'not authorised' from a dog-in-the-mangerish point of view. They are returned because to make a habit of complying with unauthorised indents would lead to (1) wrong provision, (2) consequent loss of war efficiency, (3) destruction of economy. Certainly,

the 'non possumus' attitude can be overdone, and no one can deny that there are such individuals as purely doctrinaire ordnance officers.

Similarly, the former motto of Finance—"We will make a cut" has been discarded. If units play the game, and arsenals play the game, Provision will be in possession of incontrovertible figures. It is now recognised that drastic wholesale cuts, and drastic reductions in demands, only lead to disorganisation in all organisations that are connected with supply, and in the long run are false economy and a real danger to war efficiency.

Provision, then, is not outside army efficiency; on the contrary, it is an integral part of army efficiency, and as such must be considered as one of the essential links in that chain of co-operation and mutual knowledge which has formed the theme of this article. Perhaps it may not have been without interest for some to have read this sketch—for that is all it claims to be— of the method by which the apple gets inside the dumpling. But the author is only too conscious of the inadequacy of his treatment; the subject is too large, too difficult to compress, and still more difficult to present in an attractive form.

LETTERS TO THE EDITOR.

"ELIMINATE THE OBSOLETE."

SIR,

Captain Fuller's interesting article in the October number of the Journal has no doubt given occasion for reflection to many of your readers. May I suggest, however, without detracting from appreciation of his paper, that his proposals are not altogether unprecedented? In a recent visit I was interested to observe that the infantry of the Swedish army were drilled to a great extent on the principles Captain Fuller expounds.

One would like, nevertheless, to join issue with him on certain subsidiary matters, especially on his choice of a three abreast marching formation. Infantry, one submits are likely to march either—

(*i*) On a broad made road.

(*ii*) On a narrow hill track.

In case (*i*), in the near future :—

(*a*) The infantry, *i.e.*, the actual riflemen, may be carried in omnibuses or other M. T. vehicles.

(*b*) Animal transport, which is really the main encumbrance in a marching column and the principal obstacle to a clear passage for outside M. T., will certainly be replaced by mechanical machine-guns, *i. e.*, carriers.

(*c*) The fact that M. T. which needs to pass the column will, in future, be largely multi-wheelers means that it will not be forced to hug the crown of the road, and will therefore not find it so difficult to pass marching columns.

In case (*ii*), the riflemen will have to march either two abreast or in single file. The deductions are therefore :—

(*a*) The present is hardly the time to break away from the four abreast formation for infantry columns of route, and thereby to impose on the arm the incubus of a twenty-five per cent. increase of road space.

(*b*) A formation is desirable which lends itself to a simple and rapid procedure for narrowing the front into file or single file.

May I be permitted, with the excuse of having made a study of this particular matter for a number of years past, to suggest a drill which will embody the advantages of Captain Fuller's, without its drawbacks? My proposal is based on the platoon formed up four abreast. Each section is in file and the sections stand in pairs abreast and in depth. Thus the normal close order formation is the marching formation of four men abreast. To narrow the front to two abreast, one simply orders each section into single file, the outer men dropping in rear of the inner men, as in cavalry drill. To get the platoon into single file, one orders "odd sections to the front, even sections mark time."

The battle drill formations are very simply arrived at. To form "square" or "diamond," each section doubles forwards and outwards to its new position by a shorter and more obvious path than at present. The section is extended by a signal from its commander, who is one of the two forward men when in close order. On his first signal the men behind him incline outwards until they find themselves in a "broad arrow" formation. On his second signal, they can continue the process until a single extended line is formed. Extension to a flank may be carried out by pairs of men, each pair going directly to its position, without the preliminary formality of forming "two deep."

Company drill movements become very simple. The four platoons form up in fours at "deploying intervals." Any other formation can be achieved very simply by wheeling or by inclining, without the necessity of either "forming fours," which Captain Fuller detests, or of going through the process of "on the right, form platoon."

A minor difficulty arises in 'falling in' the platoon due to the fact that sections will probably be of unequal strength. This can be overcome in a number of ways.

i. By equalizing the sections approximately, as the cavalry do;

ii. by pairing off the sections according to their strengths, *i.e.*, two stronger sections in front, two weaker in rear;

iii. by allowing a strong "right" section to overlap a weak "left" section, and *vice versa*;

iv. by filling up the gaps with platoon sergeants, runners, buglers, stretcher-bearers, etc.

The history of the whole question of infantry drill and formations in relation to fire may be of interest to your readers. The earliest infantry regiments, *i.e.*, those of the Spanish model (*c. f. Infanta*)

were formed up, both "pike" and "shot," in twelve ranks, probably on a classical precedent. After firing, the first rank of musqueteers, turning outward, doubled to the rear to re-load, and to permit the second rank to fire. By continuing the motions, fire could be developed without intermission.

Gustavus Adolphus, who, like all great Captains pinned his faith on improvement of material, introduced a more rapid loading wheel (*i. e.*, flint) lock. By virtue of its quickness he was able to reduce the depth of his musqueteers to six ranks. These, when faced to a flank became his "column of route." The next important step forward, after the "ring" bayonet displaced the pikeman altogether, was the invention of the improved flint lock. By introducing this, Marshal Saxe was enabled to cut down the six ranks to three without sacrificing continuity of fire.

Next, Sir John Moore, at Shorncliffe, taught his Light Brigade to use the new steel ramrod and a simplified drill. This quickened up loading still further, especially because gunsmiths such as *Nock* and *Manton* co-operated in improving armament design. Sir John Moore found he could reduce the three ranks to two, a circumstance which might be said to form the basis of Wellington's tactical methods. A two-deep formation could not, of course, be used as a column of route like the old column of threes, so Sir John Moore invented the process of "forming fours," a gymnastic, which should have died with the muzzle-loader, and has far outlived its utility. It is interesting to note that there is historical evidence to show that the three-deep (and three abreast) formation for infantry survived in India and Russia for some years after its abandonment by Western countries.

The whole question of simplification of drill is obscured by the prevalent idea that its value as an inculcator of discipline is proportionate to the elaboration of its forms and movements. Nothing is further from the truth. Your logical readers will agree that in close order drill it is not so much what you do, as the manner in which you do it, that is of value.

Yours faithfully,
L. V. S. Blacker.

Jamrud,
25*th October*, 1930.

LETTERS TO THE EDITOR.

Napoleon's Fire Tactics.

Sir,

In that interesting article "Machine-Guns and Offensive Tactics in Mobile Warfare," published in the October 1930 number of the Journal, the author makes the following statement: "Napoleon never really appreciated the importance of fire power, but was ever an advocate of weight of numbers."

I offer comment on this statement for two reasons. Firstly, I do not consider the statement wholly accurate, and secondly, it would tend to dissuade one from the study of Napoleon's fire tactics.

No one realised more forcibly than Napoleon that strategical success to an overwhelming extent depends on tactical success, and the measure of his grasp of this truth is to be seen in the series of tactical innovations which he sprang on his conservative enemies. Most of these tactical innovations concerned the application of fire. Napoleon was a gunner, and his early training must have focussed his attention on fire problems. What was the result? Successively, he multiplied his artillery in proportion to other arms, he invented the overwhelming but short bombardment, he made counter—battery work a real thing, he used close support artillery in the truest sense for the first time, and he developed covering fire for infantry and cavalry by infantry and cavalry. These fire tactics were largely responsible for his earlier tactical victories. They made possible his cavalry charges and assaults by small infantry columns. But his enemies learnt by failure, and since tactical innovations are limited when weapons do not change, so we see with sterility of new tactical ideas, the wane of his tactical successes.

The French fire tactics of the period gave problems for solution not dissimilar from those of to-day. It is of particular interest to us that the British Army led the way in solving these problems. The Light Division of Sir John Moore gave the solution to the problem of the attack. Wellington showed how the defence could escape the punishing effects of French fire—guns concealed and infantry hidden behind crests. By studying the fire tactics of the period, we may learn little of the method in which we should employ our present

day resources, but the principles of applying fire are nowhere more clearly illustrated, and, with these principles defined, we are more able to deal with our problem.

To return to the article. On the evening of the day of Waterloo Napoleon did cry for men and more men. The fire fight was over, and he wanted assaulters.

Yours faithfully,

E. Wood, Captain,

7th Rajput Regiment.

A Military Widows Fund, Indian Army.

Sir,

Anyone who glances through the end pages of an Army List must be struck by the number of societies which exist for the benefit of widows and orphans of all ranks of the Service. There is, however, one in particular which always seems to be a model of self-help, and that is the Military Widows Fund, British Service. With this example before us it has always been a mystery why the Indian Army has never started a similar fund.

If you discuss this with Indian Army Officers the usual answer is that private insurance would work equally well, and that co-operative army insurance of this type is, therefore, quite unnecessary.

This point of view, however, loses sight of the fact that the essence of the Military Widows Fund, British Service is the immediate payment to the widow of a really useful sum in cash which enables her to tide over the period pending the receipt of her pension, and so to adjust herself to the much lowered standard of living which the very large majority have to content themselves with on the loss of the bread-winner of the family.

This period is unquestionably the most difficult of all, and the difficulties are much aggravated by the necessary delays in settling up the estate and the legal preliminaries which have to be gone through before the widow is able to take over whatever money she may be entitled to, including of course any insurances which are merged in the

accounts of the estate. It is, of course, possible to obtain advances, but these are not always free of interest charges and the average widow is so badly off that every penny has to be considered.

There is no reason why a Military Widows Fund, Indian Service should not be run on parallel lines to the existing British Service Fund, and there is also no reason to suppose that such a fund could not be controlled by a committee of Indian Service officers at Army Headquarters just as the present British Service Committee controls the British Fund without any necessity for heavy overhead charges.

It is out of the question that a newly started fund could immediately pay such handsome sums as the older fund is able to disburse, but even if a start were made with a quarter of those rates a very real benefit would accrue, and funds would rapidly accumulate, thus making larger payments possible subsequently.

There are over three thousand officers in the Indian Army and probably two thousand at least of these are married. If Rs. 8 a quarter is taken as the average subscription there would be a quarterly income of Rs. 16,000.

If it was considered necessary to start the fund with some additional capital it should not prove difficult to arrange for this by requiring back payments from officers of say even fifteen years service up to a limit of Rs. 100 on joining the fund, such payments, if need be, being paid in instalments.

The quarterly payments are so small that there is no officer who could not easily afford them, and, except in the case of the lucky minority whose wives have private means making such provision unnecessary, there is no married officer who should regret such an excellent method of insuring his widow against the worst period which any woman has to face in life, especially if, as in most cases, she is also left with children to be cared for and educated, and in many cases an overdrawn bank account.

There is no better case to fit the old motto of "He who gives quickly gives twice."

Yours faithfully,

C. E. EDWARD-COLLINS, COLONEL.

MILITARY NOTES.

BELGIUM.

Languages in 1930 *Class.*

22,659 recruits of the 1930 class have chosen to be instructed in Flemish and 265 in German.

Minimum age for Promotion.

The minimum age for promotion to the rank of serjeant has been fixed at 32.

Belgium-Congo Air Line.

According to the press the ports of call of this line have been provisionally agreed by the French and Belgian Governments.

They will be :—

Marseilles
Algiers
Aoulef

or

Perpignan
Oran
Adrar

Gao
Zinder

Visit of Congolese Detachment to Brussels.

A detachment, approximately 100 strong, of troops of the *Force Publique du Congo* came to Brussels to take part in the centenary celebrations. The bearing of the men was excellent.

Decorations.

A new decoration and a new medal have been instituted :—

(*a*) To commemorate the centenary of Belgium's independence, known as the *Decoration Commemorative du Centenaire.*

The decoration will be awarded to *those who have rendered good and faithful services to the country for at least twenty years.*

(*b*) To honour with a special insignia the Belgian, or foreign citizens who, during the war, contracted a voluntary engagement in the army such that they could be employed in any post of danger.

The medal is to be known as the *Medaille du Volontaire Combattant* 1914–1918.

EGYPT.

Modifications in the Constitution.

On 23rd October the new Constitution and Electrical Law were published in a Decree signed by the King, and the Chamber of Deputies and Senate were dissolved.

The new Constitution, drawn up by the Prime Minister, Sidky Pasha, is largely based on the law of 1923 and the decree of 1925, but contains a number of modifications, the most important of which are—

(i) A reduction of the Senate from 132 to 100, and the Chamber from 232 to 150.

(ii) Of the Senate, three-fifths are to be nominated by the King instead of two-fifths, as at present.

(iii) A vote of no-confidence must be voted by an absolute majority of the Chamber of Deputies, that is, by half plus one, instead of, as now, by a vote of half of those present.

(iv) Before a vote of no-confidence can be discussed, a proposal signed by 30 Deputies must be submitted to the President of the Chamber.

(v) The session is to be reduced from six to five months.

(vi) The Government is to have a measure of control over the Press by the power to suspend newspapers.

(vii) The initiative in introducing financial laws is reserved to the Crown.

(viii) Election petitions are to go before the Supreme Court, not Parliament itself.

(ix) Adult manhood suffrage is to remain, but the voting age is raised from 21 to 25.

(x) Elections are to be on the indirect or two-degree system, and elector delegates are to have certain property qualifications.

(xi) The elected portion of the Senate is to be chosen in a similar manner.

The Constitution of 1923 provided for the indirect method of election, but the Wafd Government in 1924 substituted the direct system for it. The new law thus proposes to re-introduce the two-degree system, by which groups of 50 voters, on the basis of adult

male suffrage, are to select delegates, who in turn will elect the Parliamentary candidates. The Government claim that this system is the more suitable for the constitutional experience and educational standards of Egypt.

The new Constitution will enter into force on the next assembly of Parliament. The Prime Minister claims that the Cabinet has in it safeguarded the fundamental principles of the Constitution of 1923, and that Ministers will continue to remain responsible to the Chamber of Deputies, which is to remain an elected and representative assembly. On the other hand, both the Wafd and the Liberal parties have protested strongly against the proposed changes, on the grounds that they violate democratic principles and alter the established constitution without the consent of the Egyptian Parliament or people.

FRANCE.

Professional Cadre.

The following is stated to be the situation regarding the number of *militaires de carriere* who will be available in the French Army on 1st October, the date on which the 1 year's service law will be officially adopted :—

A.—1. Effectives with service over the legal period on 1st June, 1930	100,050
2. Men serving on a voluntary engagement who will fulfil this condition between 1st June and 30th September, 1930	9,370
3. Probable re-engagements during period in (2)	2,400
4. Probable losses during period in (2) ..	4,400
Total *militaires de carriere* on 1st October, 1930	107,420
Add :	
1. Men serving on voluntary engagements, but not having attained legal period of service by 1st October	9,340
2. Probable engagements—1st June to 1st October	4,640
Total serving on voluntary enlistment basis ..	121,400

B.—It will be remembered that 106,000 is the maximum total of *militaires de carriere* called for as one of the safeguards prior to the official adoption of this new law.

School for Reserve Non-Commissioned Officers.

A school for the training of reserve non-commissioned officers will be opened at *Turcoing* in the 1st Military Region on 6th October, 1930. 400 pupils will do the first course ; in addition, classes will be held for youths doing their pre-military training. This is the first school of its kind to be started, and, if it is a success, it is likely to be followed by the institution of similar schools in other regions.

Annual Contingent.

The following table gives the numbers and distribution by arms of the service of the annual class of conscripts called to the colours during the year May, 1929—April, 1930 :—

	May, 1929.	October, 1929.	April, 1930.
1. Total number of conscripts called up ..	74,562	86,685	98,893
2. Rejected as medically unfit—			
Permanently	1,795	1,505	961
Temporarily	2,785	2,321	2,038
3. Normal wastage	About 5 per	cent every 6	months.
4. Distribution among the different arms—			
Infantry and Tanks	36,462	42,869	49,627
Cavalry	5,526	7,530	9,342
Artillery	15,647	18,257	21,232
Engineers	5,908	5,744	5,661
Train (Transport)	2,189	1,946	2,191
Supply Service	698	877	930
Medical Service	946	1,239	1,191
Aviation	5,088	5,725	7,186
Colonial units	2,098	1,508	1,533

GREECE.

A Balkan Conference.

Representatives of Albania, Bulgaria, Greece, Roumania, Turkey and Yugo-Slavia met in conference at Athens from 5th to 12th October to explore the possibilities of co-operation between their respective countries with a view to the ultimate formation of a Balkan Union or Federation.

The main terms of reference to the conference were :—

(i) The regularisation of agricultural and industrial production and distribution.

(ii) The creation of a Balkan Economic Institute.

(iii) The establishment of a postal and customs union.

(iv) The improvement in inter-state communications.

The conference appears to have been carried through in complete harmony, and agreement was reached on the following points :—

(*a*) The necessity for the maintenance of good railway and road communication between the states and a simplification of formalities in connection therewith.

(*b*) Co-ordination of traffic in Balkan ports with a view to improving international routes through them to the East.

(*c*) The granting of equal rights to Balkan ships using Balkan ports.

(*d*) The creation of Balkan maritime communications between the Adriatic, Ægean and Black Seas.

(*e*) The co-ordination of air lines and the creation of postal and tourist unions.

The first Balkan Conference may therefore be considered to have met with some measure of success and to represent a forward move, however small, towards the establishment of permanent peace in this area.

The next conference is to be held at Constantinople on a date which has not yet been settled.

IRAQ.

Political Situation.

The General Election in Iraq was completed by 23rd October, except that for the Sulaimani Liwa. The election has resulted in an overwhelming victory for the Government under Nuri Pasha, and it is estimated that the opposition in the new Chamber will not number more than six.

JAPAN.

Death of Marshal Count Oku.

Marshal Count Yasukata Oku died at Tokyo on 19th July, 1930.

Marshal Oku was born in 1846 of Samurai stock, and joined the army in the rank of captain at the age of 25. During the Satsuma rebellion of 1877, he won distinction as the leader of a successful sortie from the castle of Kumamoto, which was beseiged by the rebels. Eight years later (1885), he attained the rank of major-general.

In the Sino-Japanese war of 1894-95, he was appointed Commander 5th Division, Japanese Expeditionary Force, with the rank of lieutenant-general and, in 1896, created Baron in recognition of his services.

After holding other important military posts he was promoted general in 1903.

It is with the Russo-Japanese war, however, that the name of Oku is usually associated; his successes as commander of the 2nd Army in Manchuria are well known. At Kinchow, Nanshan and Tehlissu he was an independent commander; at Tashihchiao, Liaoyang, the Shaho and Mukden, an army commander under the Commander-in-Chief Marshal Oyama. The reputation as a leader and strategist gained during this campaign led, in 1906, to his appointment as Chief of the General Staff, a position which he held for six years. In 1909 he was created Count and two years later promoted Marshal.

At the time of his death, Count Oku was the senior Marshal in the army and the last survivor of the Japanese Generals—Yamagata, Oyama, Kuroki, Nodzu, Nogi, Kawamura, Kodama, Terauchi—whose names were household words during the Manchurian campaign 25 years ago.

MOROCCO.

Spanish Zone.

Reorganization in Military Command.

By Royal Decree of 11th June, the appointment of *Inspector-General of Intervenciones and Khalifian forces* is in future to be separated definitely from that of Deputy Chief of the Military forces in Morocco. Since October, 1927, these two appointments have been entrusted to the same officer.

(*a*) The appointment of *Deputy- Chief of the Military forces in Morocco* will be made by the Ministry of the Army. This deputy-chief, in addition to his aides-de-camp, will in future have under him a military secretariat in the charge of a lieutenant-colonel of the general staff.

(*b*) A new appointment, *Inspector of Intervenciones and Khalifian forces*, is to be instituted and will be filled by an officer with the rank of colonel.

The appointment of *Deputy Chief of Military Intervenciones and Khalifian forces* (which was held by a colonel) has been abolished.

(*c*) The *Intervencion* sectors of Tetuan and Ghomara-Sheshauen are to be reorganized as *Intervencion* centres. This will involve no change or increase in the establishments of the *Intervencion service.*

SPAIN.

Spanish Officers in Africa.

Conditions of service.

New regulations have been issued regarding the service of officers in Spanish West African possessions and in the Spanish Protectorate of Morocco.

1. Officers serving compulsorily or voluntarily in Africa (Spanish West Coast possessions or Spanish Morocco) will be required in future to remain there a minimum of two years. Previous commissioned service abroad will be allowed to count in the above period.

Those officers who have completed two years' service abroad and who return voluntarily, will only be required to serve :—

(*a*) 6 months in the following :—

Native regular forces.
Tercio.
Mehal-las.
Intervencion.

(*b*) 12 months in other units.

With certain exceptions, officers will not be permitted to change their appointment in Morocco until after one year's foreign service.

2. Vacancies occurring in units and services in West African possessions and in the Spanish Protectorate will be filled (with a few exceptions) firstly, from among volunteers, by seniority ; secondly, when no volunteers are forthcoming, from among junior officers of each rank who have not served in Africa since June, 1909, after promotion to 2nd Lieutenant. Thirdly, from officers with the smallest amount of foreign service.

Spanish Army.

Foreign Service.

1. *Volunteers* warrant officers and non-commissioned officers).

A.—*Corps of the Permanent Garrison.*—Volunteers applying to be posted to units of the permanent garrison will be allotted by seniority as follows:—

(*i*) Warrant officers and non-commissioned officers, who, owing to promotion or reorganization, are crossed off the establishment of their unit and apply for re-admission within 6 months.

(*ii*) Warrant officers and non-commissioned officers who have completed 1 year's foreign service as volunteer or non-volunteer (even though they may not have done the 2 years' minimum foreign service); and others who, having already done the 2 years' minimum foreign service, complete 6 months' service with the—

Native Regular Forces; Tercio; Mehal-las, Interventiones.

(*iii*) Warrant officers and non-commissioned officers holding appointments in Spain (whatever the length of their service in the rank).

B.—*Native Regular Forces, Tercio, Disciplinary Company, Cyclist Section.*—The appointment of volunteers to the above units is made on the proposal of the C.-in-C. in Morocco, preference being given to men who have served with these corps or who have given distinguished service in Africa.

These volunteers will be required to serve in Africa the same period as is required for permanent corps, but after 6 months they may apply for another appointment in Africa.

2. *Non-Volunteers.*

A.—*Corps of the permanent garrison.*—The appointment to these corps of non-volunteer warrant officers and non-commisioned officers who have not done their 2 years' foreign service either in their present and immediately preceding rank, or only in the latter, is made by juniority.

These men will only be required to serve the period necessary to complete their minimum 2 years' foreign service.

The order of appointment will be:—

(*a*) Newly appointed men in corps in Africa.

(*b*) Men who have been crossed off the establishment of:

Regulares, Tercio, Mehal-las Intervenciones, Disciplinary Company, and permanent corps,
before fulfilling 2 years' foreign service.

(*c*) Men on the general list.

Non-volunteer appointments will be made to the different sectors in the following order:—

Rif, Larache, Ceuta, Tetuan, Melilla.

B—*Regular Native Forces, Mehal-las Intervenciones, Tercio, Cyclist Section.*—When no volunteers are available, non-volunteers will be appointed according to the precedence given above.

3. *Exemption from foreign service.*

Cadets at the Military academies;
sick;
accused awaiting court-martial;
men attending courses in the W/T and Automobile Regiment;
men in the Aviation Service.

When they change their situation, these will be required to carry out their 2 years' foreign service in the first vacancies occurring.

4. *Duration of service.*

Warrant officers and non-commissioned officers serving with the Regular Native Forces, *Intervenciones* and *Tercio* will only be required to do three-quarters of the regulation 2 years' foreign service, as service in camps and advanced positions is calculated at an extra fourth.

Sick leave will only be reckoned against foreign service when it is the result of wounds.

5. *Appointments in Spain on completion of minimum foreign service.*

Preference will be given to the applications of men who have completed their 2 years' minimum foreign service, excepting cases where an applicant's service record is unfavourable.

6. *Seniority.*

Men possessing the *Cross Laureate of San Fernando* will be given seniority in every case.

NOTES ON MILITARY REVIEWS.

"BULLETIN BELGE DES SCIENCES MILITAIRES."

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

Price 1·50 Belga.

October, 1930.

1. *Co-operation between the Air Service and Mobile Troops.*

An interesting article in which the suggestion is made that civilian light touring aircraft be used for communications between cavalry corps headquarters, cavalry divisional headquarters and other commanders, chiefly on account of the ease with which they can land on any ordinary piece of ground.

2. *The Arabian Campaign.*

An account of the Belgian campaign in the *Bahr-el-Ghazal*, of the *Fashoda* incident between *Kitchener* and *Marchand* in 1908 and of the cancellation, allegedly without notice, of the Anglo-Belgian agreement of 12th May, 1894.

3. *A study on the Instruction of Infantry Observers.*

An interesting article on observation by infantry personnel, with suggestions on training infantry observers.

"REVUE MILITAIRE FRANCAISE."

(Published by Berger-Levrault, Paris. Price, 5.50 francs.)

June, 1930.

1. *On Character.* By Commandant de Gaulle.

A dissertation on the necessity of high moral qualities in an army. The author traces the ups and downs of the French Army since 1800 and is of opinion, rightly enough, that the French Army is now in process of re-establishing its high morale, which suffered an inevitable relapse after the great war.

2. *Military Operations in Morocco.* (Part II.) By Lieut.-Colonel de Boisboissel.

The instalment this month deals with the organization and employment of a *groupe mobile* and the installation of a post.

The object, organization and best method of constructing a post is discussed in great detail.

3. *Mechanization in the United States Army.* (Part II.) By Captain Cammas.

An interesting article giving an account of the experiments made in America in 1928 with a mechanized force consisting of light and heavy tanks, infantry in lorries, artillery and armoured cars, with the necessary services.

As the result of these experiments, which lasted for some months, the American general staff conclude that mechanized detachments are an essential in a modern army, and that the basic weapon of such a detachment is the tank.

It has been decided to continue experiments with a detachment which will be formed in 1931, but which will not be fully equipped with new machines till 1933.

The article concludes with tables showing the various types of A. F. Vs. in use in America.

4. *The 1st French Army at the Battle of the Serre.* By Commandant Thierry d'Argenlieu.

An uninteresting account of the operations of the 1st French Army from 17th to 30th October, 1918; of no value except for reference purposes.

The impression given by this article is that, thanks to the success of the 1st French Army, the British Army was able once again to renew their offensive.

5. *The Spanish Army in Morocco.* (Part II.) By Captain Tourret.

This instalment deals with the organization and strength in Morocco of the Spanish Army of occupation; at present amounting to 70,000 men, half of whom are conscripts.

July, 1930.

1. *The I Corps in Belgium* (*August*, 1914). (Part I.) By Commandant Larcher.

The 1st French Corps (*Franchet d'Esperey*) formed part of the V Army, and was operating on the extreme left of the French forces. As a *corps d'elite* it was well up to strength in peace and, having a comparatively small percentage of reservists in its ranks, it was able

to undertake successfully manoeuvres which with less well trained troops would probably have ended in disaster. The Corps Commander's tactical ideas were in advance of his time, and, though he was determined that his corps should be very mobile and supple, he was not steeped in the idea of an offensive *a l'outrance.* He advocated artillery support by guns pushed well forward; when necessary he created tactical groups of all arms; but on the other hand he was prepared on occasion to concentrate the whole of his 30 batteries of 75's.

The present article describes the operations from the outbreak of war till 15th August.

2. *Military Operations in Morocco.* (Part III.) By Lieut.-Colonel de Boisboissel.

This instalment deals with the functions of the various services and of the staff of a mobile group.

3. *Some Reflections on Field Service Regulations.* (Vol II.) By Captain Morel.

Captain Morel is at present employed in the English Section of M. I. at the French War Ministry. He was originally trained as a university professor, but took a permanent commission in the army after the war. He is therefore an officer of unusually wide education and reading.

Comparing the Field Service Regulations of 1924 and 1929, he considers that, speaking generally, the main differences are matters of editing.

The British have seen that modern trench warfare is bound to be nearly as disastrous to the victor as to the vanquished; they therefore have decided that it is essential to keep the war mobile, and in the new regulations such a war is considered normal. This is the most important innovation.

The British are determined that such a war as the last, where their small highly-trained army was almost immediately swamped and practically destroyed, must never occur again. Hence their efforts to find a means of escape from the *impasse* created by modern fire power. Such a means has been found, they consider, in the very mobile armoured force, and it is a high tribute to the common sense of the British that, notwithstanding the trend of modern military

literature, they have remained so moderate in their treatment of the action of such a force. They have kept constantly in view that a volume of regulations must keep strictly to the employment of forces as they exist to-day, and must not explore the realms of the future.

When studying the British regulations it must be remembered that, whereas the French conception of war is always bound up with the defence of French territory, the British anticipate a rapid and timely intervention with a small highly-trained army which will suffice to tip the scale on whichever side they throw their weight.

The future alone can tell whether the new A. F. Vs. will profoundly alter the art of war, as their most enthusiastic advocates claim; but, remembering that it was the bows of the English archers in the 14th century which defeated the cavalry shock tactics of that time, it would be curious if the English again were the cause of a tactical revolution.

August, 1930.

1. *The I Corps in Belgium August*, 1914). (Part II). By Commandant Larcher.

This instalment discusses the operations from 16th to 22nd August.

2. *Air Bombardment.* By Colonel Aubé.

A well written and closely reasoned article on the present day possibilities of aerial bombardment. The author will not admit that such bombardment can at present play a decisive part in the battle, though it can and doubtless will seriously damage distant objectives, and exhaust and even immobilise the enemy's reserves. This result will not, however, be obtained unless the higher command has carefully studied the possibilities of its air force and has limited its objectives to those whose destruction will entail serious consequences. Among the problems which have not yet been satisfactorily solved, the most important are: (1) the best formation for attack; (2) means of over-coming the hostile anti-aircraft defence; (3) the exact effect of present day bombardments; (4) the accuracy of bombing with present day equipment.

Colonel Aubé is evidently of opinion that the champions of aerial bombardment, while making great claims for its efficacy, have not really appreciated the great advance in anti-aircraft defence which has taken place since the war.

3. *The Campaign in the Cameroons.* (Part I). By Captain Girard.

An account of the Anglo-French operations in the Cameroons up to June, 1915. It is interesting to note that at the beginning of the war there was no plan of defence of French Equatorial Africa, and no scheme of attack against the Cameroons was in existence.

4. *A Mountain Warfare Scheme in North Africa.* (Part II). By Commandant Peyronnet and Captain Jousse.

An account of the scheme held in the Atlas Mountains last year. The conclusions come to are that, while the general form of modern operations in mountainous country remains the same as in 1830, the use of more powerful weapons allows of a great extension of front; this in its turn entails long preparation before the attack, and slower progress in its execution.

5. *An Encounter Battle. Monthyon.* (Part II). By Captain Michel.

A continuation of last month's instalment.

September, 1930.

1. *The I Corps in Belgium* (*August*, 1914). (Part III). By Commandant Larcher.

This instalment carries on the story up to 25th August, and concludes the series.

2. *The Counter Attack.* (Part I). By Commandant Delmas.

A detailed and meticulous discussion of the counter-attack in all its phases. This instalment deals chiefly with the immediate counter-attack.

3. *The Campaign in the Cameroons.* (Part II). By Captain Girard.

The author maintains that it was not till March, 1915 that any attempt was made to co-ordinate the action of the various columns. Once this was done the campaign soon came to an end. While acknowledging the help of England and Belgium, the author holds the view that it was the French command who made for plan which finally achieved success, while they were French troops who chiefly carried it out.

4. *French Policy in regard to the Caids in Morocco.* By Colonel de Mas-Latrie.

A description of the policy which has been adopted by France in dealing with the important chiefs in Morocco since 1912.

5. *An Encounter Battle. Monthyon.* (Part III). By Captain R. Michel.

A continuation of last month's instalment. Of historical interest only.

REVIEWS.

Dawn in India By Sir Francis Younghusband, K.C.S.I., K.C.I.E. (*John Murray, London* 1930), 10*s.* 6*d.*

Sir Francis Younghusband is a facile and prolific writer with a benevolent outlook upon life and humanity. The path to truth is easy—difficulties are met by the simple process of denying their existence: a few key words solve the riddles of the world: faith moves mountains, trust consolidates Empires, and sympathy carves a way through a dense jungle of prejudice and intolerance. The present volume is what one would expect from an author of these amiable characteristics. Now and again sloppy in sentiment, not seldom loose in thought, sometimes inaccurate in detail, and throughout slipshod in style, it reaches the literary level of books which in a former generation found favour with disappointed spinsters or those who consoled themselves for practical failure in pseudo-philosophical speculation. Literary criticism, however, to be just cannot proceed on absolute lines, and in judging a book which is ephemeral in character and superficial in design one must take into account the purpose for which it was written and the public to which it is addressed. The author explains its genesis from informal talks with students and others in Canada. They knowing little of Indian problems yet felt pride in British achievement and were anxious to obtain up-to-date information. The book therefore was never intended to be a serious contribution to the solution of grave constitutional problems. It is on the one side a réchauffé, historical and political, of the story of the rise and development of British sovereignty in India and its "increasing purpose" towards the people of the country, resulting in the birth of a genuine national feeling, and on the other an attempt, through a few studies of great thinkers, to emphasize the underlying and all-pervading spirituality of India and its detachment from occidental materialism. For those who have no first hand knowledge of, but intelligent interest in, its problems, the book serves a very useful purpose, whether in England, in the Dominions, or in America. The historical section contains nothing new, nothing original, nothing that has not often been better said before, but it has the merit of brevity, and is readable in spite of an irritating style. The kindliness and suavity of the

author help to create that atmosphere of tolerance and understanding which are so necessary in any approach to the study of Indian questions. This very habit of mind, however, the outlook of the diplomat rather than of the administrator or historian, leads him into a two-fold error. There is a tendency to under-estimate the magnitude and character of British achievement, not so much as conscious endeavour, but as typical of the political faith and genius of our race. On the other hand the author equally under-estimates the enormous difficulty and complexity of the task now being essayed at the Round Table Conference. He sets, as a good diplomat should, great store upon the value of fair words and a tactful manner. These were never more necessary but, in themselves, are of little avail: their proper place is to reinforce ideals and principles. The second section of the book on the spiritual side is more interesting and more convincing and the studies of Tagore, Gandhi, Radha Krishnan and Sadhu Sundar Singh serve to illumine some of the most essential aspects of Indian thought which are not as a rule touched upon by western writers other than scholars or students. So many books, such as Miss Mayo's "Mother India," give the facts about special sides of Indian life, which while saying nothing untrue, are signally blind to its predominating characteristics. The author has not made this mistake and his book may be recommended as a presentation, none the worse for being appreciative, of the better mind of the Indian people. It is not surprising that there are gaps and errors of judgment. There is little reference to Islam. The Ahmadia movement to which a few lines have been devoted is not of great significance in India. Islam itself however is and must ever remain a powerful force, and no one can form a just conception of the problems of to-day without some appreciation of the widely divergent ideals and aims of the Hindu and the Mohammadan. The estimate of Mahatma Gandhi is far too adulatory and fails to recognise one predominant feature, his overweening vanity, and his refusal to face any fact but Hindu supremacy, though this is concealed in correct phrases about nationalism and the depressed classes.

G. G.

Leaves from Indian Forests. By Sir S. Eardley-Wilmot K.C.I.E. (*Edward Arnold and Co., London*, 1930), 10*s.* 6*d.*

Sir Sainthill Eardley-Wilmot retired in 1908 from the Forest Department in India, and all who have felt the spell of the jungles of the United Provinces and of Burma, or who have read his attractive

book "Forest Life and Sport," will be grateful to Lady Eardley-Wilmot for having collected these sketches of his, in which we find atmosphere and incident faithfully portrayed in the light of twenty-five years experience. Recently a "Gunner" who was just finishing a five years tour in India was asked what bit of it would bring him the happiest memories for the rest of his life. Instantly he replied a month spent alone in camp at the junction of two forest streams in the jungles of Central India. Another soldier slipped away from the inevitable farewell ceremonies to spend the last fortnight of his thirty years service, in search not only of the tiger that had eluded him all those years,—luckily it came to bag two days before he sailed—but also of the pauses and those gleams of colour with which Nature condescends to solace the endless waiting hours, and these, the author reminds us, are a great part of man's passion for sport. Both these men, and many others like them, should have this book handy on their shelves.

Those who have taken the opportunities which India affords of getting right away from civilization and living among primitive men will particularly appreciate the author's comments on the human element. If our experience is limited to the cantonment *shikari*, though we shall have a warm spot in our heart for our own particular villain, we shall not associate expressions like these with his fraternity—"the face is that of a saint, the figure expresses asceticism and endurance, he is evidently a man to respect and trust,"—"we shall always hope that in times of hardship or danger we may have as well-trained companions,"—"the forest aboriginal, whose speciality was that he did not know how to lie,"—and, "as a rule they are steadfast in danger and more to be blamed for foolhardiness than for lack of courage." Unquestionably the author knows what he is talking about, and in these primitive communities, where life, from birth to death, is a fight with nature, you will find some of the most admirable characters in India.

One suggestion I would make to the newcomer among such people. You are on your trial even more than he is; he has lived dangerously, you, may be, have mostly dreamt i ; he will be disposed to give you the benefit of the doubt, but it is man to man, and when trouble comes it is you who are armed not he. Therefore I say do all you can to win his confidence, he is not going to accept you as brave, experienced and a good shot because you have got a white skin. One old shikari,

with a passion for tigers and danger, recognises only two Sahibs as absolutely *pukka* out of a large circle of acquaintances.

The author has some interesting anecdotes about the supernatural, and I think the attitude he adopted, as the result of long experience, towards sylvan demons generally is one which those who pay a visit to aboriginals will do well to choose. Let us follow Asoka's advice and treat all holy things with respect whatever the religion may be. Contemplate from the point of view of the dweller in the forest the inexplicable forces which surround him and do not offend by treating lightly things that matter to another human being.

Lady Eardley-Wilmot has included some good photos and her daughter, Mrs. Dunnett, some pleasing pen and ink sketches. The book will be welcome as a Christmas present, both where there are memories of the past to awaken and where the call of the wild is yet to be heard.

H. C. B. J.

The Price of Victory. By J. D. Strange.

(*John Lane—The Bodley Head, Ltd., London*, 1930) 7*s.* 6*d.*

The book professes to be the true account of the adventures and mental experiences of a young public school boy, who enlisted early in the War in a Yeomanry Regiment. The story, however, does not ring true and many of the events read like the garbled exaggerations of a sensational journalist.

In an early chapter we get the account of a young recruit, charged before his Squadron Commander, a ranker Captain, with kicking a stubborn horse. The latter, after warning his office clerk, when the prisoner offered no defence, to "Note that, Corporal," awarded three weeks' field punishment No. 1, a sentence, not only beyond the powers of a Squadron Commander, but one which was probably seldom, if ever, awarded in England. The story becomes even more unlikely, when, at the conclusion of a long harangue, the officer remarks :— "and by all the saints, man, if I see you trying to shirk your just punishment in the smallest possible degree, I'll have you brought up to me again, and you'll get another six weeks tacked on to your sentence." This incident is elaborated as typical of the spirit in which the book is written.

The descriptions of life in the trenches are frequently interlarded with comments on the inefficiency of officers and the malignancy of N. C. O's. No effort is made to bring out that there were good times as well as bad.

Many books have recently been published with the object of proving to future generations the horror and meanness of war and the absence of glamour. They serve a useful purpose, but, if we are to read them without irritation and absorb the moral they contain, they must present a picture, true in essentials, in a readable way. Neither in point of style nor in subject matter does this book fulfil these conditions. Let the future student of war first read this volume and then A. P. Herbert's much earlier "Secret Battle." Both tell of the seamy side of war, but the one is cheap and tawdry, and the other a true and moving story of the gallant struggle and final failure of a sensitive personality against the prolonged strain of modern war fare.

J. B. B.

On the Barrier Reef. By Elliott Napier.

(*Angus and Robertson. Sydney, N.S.W.*, 1929) 6*s*.

The author has provided a light and very readable account of a visit paid by a party of scientists and less eminent enthusiasts to the great coral reef, which runs for a thousand miles along the north east coast of Australia. The book is essentially a popular and not a scientific study of the birds, beasts and insects which the party met with and examined. Latin names the reader will find here and there, but introduced usually with a sly dig at the writer's more professional companions. Essentially, however, the book is an unpretentious account of the habits and amusing characteristics of such homely individuals as the turtle, the hermit crab, and the gregarious and quarrelsome mutton bird.

The latter is accorded a chapter to himself and he is well worthy of the honour. He must be great fun at a picnic. He is apparently quite fearless and very inquisitive, and thinks nothing of sitting down in the butter dish or trying his hand at playing the gramophone. He is also very amorous but rather short-sighted. As a result of these failings, one of the camp followers had cause to remark of him, "I don't mind these 'ere birds knockin' me teeth out, or shooting sand all over me bed ; but when it comes to making love to me boots, I reckon it's over the odds."

A pleasing element of humour is introduced in this way by descriptions of the little mishaps which befell the campers, and by an amusing, but never unkind play upon the characteristics and foibles of other members of the party.

On the other side of the picture the author enters an eloquent appeal for a more humane method of slaughtering the unfortunate green turtle. Large numbers of these poor beasts are despatched under very cruel conditions to meet the needs of the aldermanic appetite.

The book is illustrated by a number of photographs of the scenery and inhabitants of the reef. These, however, are little better than good snapshots and fall far short of the standard set by the great animal and bird photographers such as Kearton and Marcuswell Maxwell.

An adequate index, a most essential item in a book of this type, is provided.

This is eminently a suitable book for a Sunday afternoon and one which will make the reader wish that he too could visit this interesting, but little known, part of the world.

J. B. B.

The Complete Guide to Military Map Reading—9th edition.

(*Messrs. Gale and Polden, Ltd., London*) 3*s*, 6*d*.

This book is an attempt to extract from Chapters I to X and parts of Chapters XI and XV of the Manual of Map Reading, Photo Reading and Field Sketching, 1929, such information on the subject of map reading as is required by a soldier who wishes to obtain a first or second class certificate of education. Its title is misleading, as it is by no means 'complete,' and, as regards the reading matter, the student would do better to stick to the official manual, which is very clearly and well written. The chief value of "The Complete Guide to Military Map Reading" lies in the exercises which are very good and comprehensive, with the curious omission of any exercise on the modified British Grid System, now adopted as the standard grid both in England and in India.

As was to be expected, there is practically no reference to the differences existing between British and Indian maps—for instance, in the Introduction, the statement is made that on the new issues of

gridded maps the side sheet lines are grid north and south, which is not true for India.

Figures 4, 5 and 6 on page 20 and 8 and 9 on page 25 have been carelessly drawn and anyone copying them would be liable to lose marks in an examination. The points to be noted are that the words showing the unit of measurement must be put at both ends of the scale in a line with the figures, *not* at one end only, as in Figures 4 and 6, or at intervals along the scale, as in Figures 8 and 9. Also the units used in the primary and secondary divisions of each scale should be the same throughout, as shown in the Manual of Map Reading, 1929, Figure 2 page 20, and *not* as shown on Figure 5 of the volume under review, which mixes up furlongs and miles on the same scale.

The definitions of topographical and technical terms in Chapter VIII are poor, particularly that for a Col. It should be obvious, from the derivation of the word (Collum-a neck) that a Col is a neck of land connecting two mountains and certainly not a pass connecting two valleys.

This is, on the whole, a disappointing book, which presents a most interesting subject in its dullest form and is only redeemed by the usefulness of its exercises. I should imagine that the soldier who succeeded in conscientiously wading through it would pass his examination with ease but would look on map reading as something to be avoided, if possible, for the rest of his service. He would do much better in my opinion, to spend three shilings on the official manual and keep the extra sixpence in his pockct.

A. E. A.

The Pacific Basin. By Gordon L. Wood.

(*Oxford University* (*Clarendon*) *Press London.*) 10*s*.

One of the purposes of this book, so the author tells us in his foreword, is to give to the English speaking peoples living in the Pacific Basin " a knowledge of the characteristics of the regions within it and its natural resources and inhabitants " and to help them " by means of an enlarged ability to interpret the facts of their environment, to sense the over whelming need for co-operation and intelligent foresight in planning for the future." To say that it goes a long way towards attaining the author's object, and that it does so in an attractive, convincing and simple manner is to give but a faint impression of the scope of this study, which should be of interest to

students of economic geography throughout the world. The author not only gives us a history of the formation of the Pacific bed but also brings us face to face with the problems of today and tomorrow which have been brought about both by the national developments of bygone ages and by the significant man-made changes of yesterday :—changes due to Western influence and inventions, which have led to new economic factors, competition and finally suspicion and rivalry.

The work is a complete geography in every meaning of the word, throughout its four hundred pages as often as the readers thoughts are encouraged to stray pleasantly towards the lighter and more human side of the subject so often are they guided gently and forcefully back to the main line of study—the economic result of the passing of the old lands of the South Seas and coming of the new lands of the Pacific Basin. For the reader with an appetite of this nature Mr. Wood provides an ample meal, agreeably seasoned and served in a most palatable and digestable form. After a concise and interesting survey of what he calls "The Pacific Environment," in which the great land masses and ridges of the Pacific, their climates and original inhabitants are studied and in which the many problems of interest to the scientist are presented, the author passes on to give a geographical, geological and economic review of the present day conditions in each of the lands and groups of islands which drain into the Pacific—Malaysia, (The East Indies), Australia, New Zealand, The Pacific Islands, Asia and North and South America. In these seven parts we find a wealth of information of interest to the student of economic and human geography and such a foundation for the study of the many problems of Imperial geography which confront statesmen of the two great English speaking nations as is not usually found in a book of this size and price.

It is perhaps in the chapters in which an economic survey is made of these lands in which western civilization and colonization have made themselves most felt that the results of conscientious research undertaken with endless energy on the part of the author, are most evident. The task of collecting and compressing into such a small compass so much accurate and interesting detail and of presenting the result in so attractive a style, is one which is not often performed so successfully.

Although the subject matter is in itself as complete a piece of reading as one could wish for it is not on the letterpress alone that we

need rely ; there are over a hundred excellent photographic reproductions which must have been taken very recently to include such buildings as the power houses on the Powell River (B. C.) and at Mangabad (N. Z.) and many of the scenes from Australia. These are very well annotated and so skilfully placed in relation to the subject matter that the reader finds himself subconsciously " getting into the picture." For the statistician there are some seventy plates allotted to maps, graphs, charts and tables and although some readers may think these unnecessarily comprehensive we rest confident in the knowledge that they are there if required.

To enable a fuller study to be made of the subject a useful and most up-to-date bibliography has been included at the end of each chapter dealing with individual lands and groups of islands, and as evidence of the care with which the work has been prepared it may be mentioned that the author has gone as far as to indicate in many cases the chapters and pages in certain books in which relevant matter and more detailed information may be found. Such is our picture in which we are shown a clear geographical background of the area as a whole, and painted thereon in bold outline we have the forms of the various racial, economic and climatic problems which confront the communities bordering the Pacific Ocean, while on our palette we have ample colour for filling in the details of one of the most fascinating compositions on the face of the earth.

W. G. P.

The Reconstruction of India. By Edward J. Thompson.

(*Faber & Faber, Ltd., London.* 1930) 10*s.* 6*d.*

The author is well-known as a writer on Indian subjects ; and, whatever view we may take of the sentiments expressed in this book, we must admit that he starts with the advantage of a considerable knowledge of his subjects-matter. His professed object is, in his own words, to give " a connected account of how Britain and India have come where they stand to-day." He has disclaimed any taste for politics, and it is apparent that the book is an honest attempt at a balanced historical account of the relations between Great Britain and the people of India.

Mr. Thompson's sympathies will be apparent to the reader. Chesterton once observed.

"There is a great deal that ought to be said about the dangers of political innocence. That most necessary and most noble virtue of patriotism is very often brought to despair and destruction, quite needlessly and prematurely, by the folly of educating the comfortable classes in a false optimism about the record and security of the Empire. Young people . . have often never heard a word about the other side of the story, as it would be told by Irishmen or Indians. . . ."

In this book Mr. Thompson has set out what may be described as the case against Britain with considerable force and, it must be admitted, with more than a little relish. While it may be conceded that both sides of the case have been represented fully, and indeed fairly, the more spirited passages in the book are devoted to the representation of the anti-British point of view. Thus—

"This is the penalty of having let resentment and wounded self-esteem fester through so many decades and grow to intolerable exacerbation, of having for so long refused to give any considerable training and self-government or any fair expression to promises often made and with special solemnity set forth by Queen Victoria and each succeeding King-Emperor."

Nor is this an isolated example. A certain bitterness of spirit is revealed by such passages as

"We are unsually fortunate in that we possess the Lieutenant-Governor's own account of how an alien Empire managed to persuade such large numbers of Orientals to die for it in the shambles of Flanders and the horrible Mesopotamian slaughters."

and

"To Indians the last seventy years seem a vista strewn with broken promises. Again and again, the House of Commons . . conceded things for which they have pressed. . . . and the concession has been made a mockery. . . . I could litter my pages with promises and resolutions, clearly worded, in the highest degree binding and dated. We have fed them with the east wind."

What of this account of the appointment of the Simon Commission

"Leading Indians were invited to Simla by the Viceroy. . . . The good kind Government looked benevolently at these expectant children, and then announced that it had a piece of interesting news—that seven English gentlemen were coming out to have a look round India, and then to give advice as to what should be done about India." ?

There is a real danger that, by creating an impression of partiality, this style of writing may detract from the cogency of the book as an accurate statement of the facts which have brought India to its present position. This would be a pity, for, though the author is admittedly partial—" my own views are matter of some notoriety "—, he has really achieved a balanced statement.

He has, indeed, candidly shown another side to the picture.

> " We have often been told of the Englishman's bad manners and the Indian's courtesy, far too rarely of the Indian's bad manners. . . If an Englishman is rude to an Indian, it is noted, repeated, and like enough gets into print. If an Indian is rude to an Englishman, it is probably passed over, often with that generous refusal to take offence which (after all) is one of the Englishman's natural merits."

Again, in connection with violent political crime in Bengal.

> " When every act of Government repression and of individual police roughness or bullying is amassed for indictment purposes, it remains incontrovertible that no revolutionary movement—anywhere, in the world's history—was ever handled with greater patience. For a great part of the worst period I was in Bengal, and can testify to the incredible temper and sense of justice that was manifested by that much-abused Service, the Police, and by the Administration generally."

Mr. Thompson reveals an astonishing, and even ludicrous, ignorance and credulity in America, where he was writing, about Indian affairs. We read of one Mr. Hall who apparently enjoys in America a reputation for " unparalleled information," and thinks and writes that the Black Hole was the central event of the Mutiny !

Let us hope that Mr. Thompson will be widely read by Americans. But his real message is to the British and to Indians. It is summed up in his own words. " Nor will anything ever get done, while two nations stand on their dignity." There have been, he urges (and probability is on his side), faults on both sides, which should be, not forgotten—for the lesson of the past should benefit the future—but reciprocally regretted and forgiven.

This lesson of the past, moreover, has not been universally learnt. How many of us, for example, know of the post-Mutiny reprisals of which Mr. Thompson gives such harrowing details ?

Mr. Thompson has hardly done justice to the " Punjab Tradition." He is much fairer in his treatment of the people and problems of Bengal,

based on extended local knowledge and experience. He seems, for one acquainted with Calcutta, to attach an exaggerated significance to the utterances of the Calcutta branch of the European Association. Recent events in that city might be interpreted as showing that Associations do not always carry with them all, or even the majority of, the individual members of the community which they purport to represent.

Nor is he altogether fair to Miss Mayo in ascribing a political motive to her book *Mother India*. He writes.

> " Miss Mayo, I believe, has denied that there are political implications in her book. But they are all over it. If she did not mean to convince the world that Indians were incorrigibly inept, what did she mean ?"

Also.

" *Mother India* was a brutal title." Mr. Thompson runs the risk of confusing *motive* with *result*. Miss Mayo's apparent motive, which no doubt led to her adoption of that title, was to give publicity to the disabilities of the women—the mothers and the potential mothers of India, though possibly, in implementing her purpose, she dealt with facts which carried the implication of inepitude.

The chapter on Lord Curzon's administration makes extremely interesting reading. It also contains (to end with a digression) a suggestion, long overdue and meriting the most serious consideration, for the preservation of the three Indian species of rhinoceros.

Imperial Military Geography (Sixth Edition). By Capt. D. H. Cole, M.B.E., M.A., F.R.G.S., Army Educational Corps. (*London, Sifton Praed & Co.*) 10*s*.

In this edition, Captain Cole has re-arranged his well-known book to a considerable extent and has greatly improved it. The same general outline of the book has been preserved, but some statistical matter has been omitted in order to allow of a fuller discussion of the many general problems that face the British Commonwealth of Nations at the present time.

We note that the author has omitted the bibliography which was previously included at the end of each chapter, and also the " Index to Places " that appeared at the end of previous editions. The former is a wise omission, but we think that the place index might have been

retained. In the study of this subject, one very often requires to find out about a particular place and the "subject index" is not sufficient for that purpose. A criticism which we have of the sixth edition is that it is not printed on such good paper as the earlier editions. This is particularly noticeable as regards the maps, some of which are not very clearly reproduced.

The general matter contained in the book has been thoroughly brought up to date in this edition, and the book now provides an extremely valuable basis for the study of Imperial Military Geography. We have seldom read a clearer exposition of the problems of Imperial Organisation. The author has the gift of putting the salient features of each problem clearly before his readers in a way that gives the student the essential ground work for a further study of the problem. This is a particularly valuable feature of the publication since it enables students to take full advantage of articles in the press and in the monthly reviews and magazines on subjects, the ground work of which they can rapidly and easily obtain from Captain Cole's book.

Chapter II is a general survey of Imperial resources. It has been re-written and re-arranged to great advantage. The author starts with notes on the value of the control of sources of food-stuffs and raw materials and the special importance of the control of agricultural resources. He then proceeds to examine the position of the British Empire with regard to agricultural resources, classifying the commodities into three main categories. First, commodities of which the Empire has a surplus above its own requirements; secondly, commodities the supply of which within the Empire approximately balances requirements; and thirdly, commodities the supply of which within the Empire is not sufficient to meet Empire demands. A similar method of classification is adopted when dealing with mineral resources and very valuable notes are given on the various commodities of each category. There are notes also on the control of coal supplies and shipping resources. This whole chapter is concise and clear.

The author has added a new and well-written chapter on man-power in which he gives an excellent note on schemes of overseas settlement. In the chapter on the Mediterranean a note is included on the Channel Tunnel. The position of France and Italy in the Mediterranean is clearly explained, together with the relation of these countries to the British Empire in that area. In Chapter VI, Captain Cole deals among other things with the Monroe Doctrine and its

extension and application by the United States to recent problems of international importance.

The author has chapters dealing with Canada and Newfoundland, Australia and New Zealand, South Africa and the British possessions in East and West Africa. These have been largely re-written and re-arranged in the edition under review. Each one starts with a brief sketch of the geography of the country and there follow detailed notes on agricultural and mineral resources and communications. In his general study of each Dominion Captain Cole deals with its particular problems of defence, population, economics, transport, and the like. These notes are extremely valuable. A feature of the re-arrangement of these chapters is that the author has relegated the description of the Military Forces of the Dominions to a paragraph at the end of each chapter and the matter has been greatly shortened. This is an improvement because it gives the salient features of the military organization in each case without over-crowding the book with detail which can easily be obtained from other publications.

In the chapter on India the author has re-arranged the matter and put it into a more readable form. He gives a very clear explanation of the reasons why we cannot develop the man-power of India to a fuller extent. Diversity of races, differences of language, lack of homogeneity, conservatism and illiteracy are some of the reasons to which Captain Cole rightly ascribes our difficulties in recruiting for civil or military purposes from a larger proportion of the population of India.

The last chapter of the new edition is headed "International Obligations and Responsibilities." This is an entirely new chapter and one of the clearest and most valuable in the book. It commences with an explanation of the Covenant of the League of Nations. Notes on the Locarno Treaties, the Kellog Pact and Naval Disarmament follow. These subjects are dealt with in such a way as to give a just appreciation of the important commitments of the British Empire resulting from these treaties. The chief provisions of the treaties themselves are given in Appendix III. The student cannot obtain anywhere a clearer ground work of these subjects than in this chapter.

We have only two small points of criticism on Captain Cole's valuable book. Although the maps are for the most part extremely good and clear, we would recommend a revision of them for future editions of the book. We suggest that they might be redrawn on the assumption that the reader has before him a good atlas. Consequently,

any map that is included in the book should not contain what can be readily seen in the atlas. The maps should be drawn to a very large scale, and only a limited amount of information should be put on each ne. As an instance we would refer to map No. 26 of the North-West Frontier of India. The critical portion of this map is the Frontier and this should be drawn to about double the scale. This could be done on paper of the same size by omitting a large portion of Afghanistan and the Cis-Indus area of India. Such a plan would make the details of roads and railways, which is what the student wants to see, much clearer and easier to follow. Our second criticism is that we deprecate the use of catch-words in what is really a military publication. Such words as "bottle neck" and "gateway" are catch-words, and examiners generally do not like their use in answers to examination questions. These, however, are small matters which do not detract from the great value of the book.

We can strongly recommend the sixth edition of Captain Cole's book to all officers who are working for the Staff College and Promotion Examinations. The book is essential for anyone who wishes successfully to answer questions in Imperial Military Geography. The sixth edition is such a great improvement on the previous ones that we advise students to discard their earlier editions in favour of the new one. The price of the book is but ten shillings, and it is extraordinary good value for money.

A. V. T. W.

"An Indian Diary" By Edwin S. Montagu.

(*Messrs. Heinemann, London*) 21*s.*

Although one cannot help but feel that the publication of these intimate, haphazard and often indiscreet thoughts of a former Secretary of State for India should have been delayed for many more years' this diary is an extraordinary interesting and valuable document.

After the historic pronouncement in the House of Commons in August 1917, Montagu broke all precedents by spending the following winter touring India. The diary was dictated to his shorthand writer, usually against time, at all times and places. Copies were sent home in batches to the Prime Minister, Mr. Lloyd George, for whose eyes only they were written. It is to be expected, therefore, that they

reveal more the character of Montagu, the man, rather than the mysterious, unpopular figure of Montagu, the Statesman.

After reading the book from cover to cover one cannot, in spite of former prejudice, help liking and sympathising with this complex personality. When one reads of the apathy, distrust and active opposition which he encountered in India; when one reads of the energy, enthusiasm and down-right bad temper of the author in his attempts to persuade the Indian bureaucracy to take a more liberal view; when one realises his passionate, tremendously honest desire to guide aright the awakening national conscience of India, then one will not be prepared to judge Montagu so cavalierly, as is the popular custom.

The main interest of the book lies in the vivid description he gives of his bitter struggle to persuade officials, non-officials, Princes and politicians to agree with him in his half-formed and elastic schemes for constitutional reform. From Lords Chelmsford and Pentland down to Gandhi and Tilak, they all come in for his devastating criticism, and at times for generous praise. His judgments in many cases were grossly unfair, his sweeping statements unbalanced, and his strictures often brutal, but they were honest and generally expressed in the presence of his victim.

Two common features of Indian social life are savagely assaulted; one being the aloofness practised by the average European towards Indians, which Montagu attributed to a false and harmful sense of social superiority, and the other being the red carpets and rules of precedence which prevent high personages having intercourse with the common herd. He was a shy person and, one suspects, lacking in natural dignity, with the result that the "white wash and weariness, red rockets, dust" were to him utterly repellent.

During his extraordinarily strenuous tour Montagu's sole recreation was shooting, and his descriptions of his shoots in Bharatpur, Mysore, Alwar and Jaipur are excellent. He was a remarkably good small game shot and a very keen naturalist.

For those who take an interest in India, her peoples and her future constitutional status this diary will be found to be very illuminating, and will help to make clear the myriad problems that are facing the Round Table Conference to-day.

W. E. M.

The Royal Air Force Quarterly—October 1930.

(*Gale and Polden, Ltd., London*) 5*s.*

The fourth number of this publication covers a wide range of subjects which should appeal to all types of readers. Apart from those articles which are essentially of a technical nature such as "The use of models in aeronautics" and "Modern developments in air photography" there are several which are worthy of the attention of the military student. The lighter side of literature is also represented by articles on history, travel and reminiscences. A new and welcome feature is a special supplement dealing with the Air Force and with Civil Aviation in New Zealand. These supplements dealing with each of the Dominions in turn are to be issued from time to time.

Under the heading of practical flying there is an instructive and interesting discussion upon the personal factor in flying. The author bases his arguments upon the fact that the vast majority of flying accidents are due to errors of judgment on the parts of pilots and not to mechanical or structural defects. The development of self-control is stressed, as by this means a pilot gains self-reliance, the power of making quick decisions and many other desirable attributes.

The final part on "Notes on preparing for the Staff College," deals with the well-worn, but no less important, subject of expressing one's thoughts in writing. Those who have yet to face the examiners would be well advised to study this article in which the author gives some valuable hints on acquiring an art, the lack of which in past examinations has accounted for a large number of casualties.

In the author of "Empire Air Policy" the Royal Air Force have as their champion an Infantry Officer from whom it might be anticipated that some new and constructive developments of the well-worn arguments in favour of air control would have been forthcoming. Unfortunately they are not apparent. Not only does a perusal of the article disclose nothing new, but we are left with a feeling that the author's knowledge of the subject is somewhat superficial. This has lead him to confuse the issue. The temporary results achieved by punitive expeditions were realised ten years ago—a fact which appears to have escaped the notice of the author—hence our occupation of Waziristan.

In discussing suitable areas for the introduction of air control, the author favours India, where he considers control from the air can

gradually be substituted for ground control. From this statement one naturally concludes that the army, as a guardian of the peace, will cease to exist. Not so, however, as the author's idea of air control is to concentrate the troops into fourteen air-cum-military stations and utilize the air force to transport them to any locality where the situation demands their presence. This seems to be an argument in favour of co-operation rather than control as the air force is merely called upon to act as a transportation agent.

Captain Liddell Hart contributes an article on " The Future of Armament—and its Future Use " in which he discusses the evolution of weapons and methods. Based upon the examples of history he argues that this is so slow that the next war has normally begun where the last left off. This is due to the fact that the utilization of new weapons in war is effectively held in check by the tardy progress of military teaching and methods.

Of other interesting and well written articles "Tales from Baghdad" is a particularly pleasing example, painting, as it does, a vivid picture of life in the City's bazaars.