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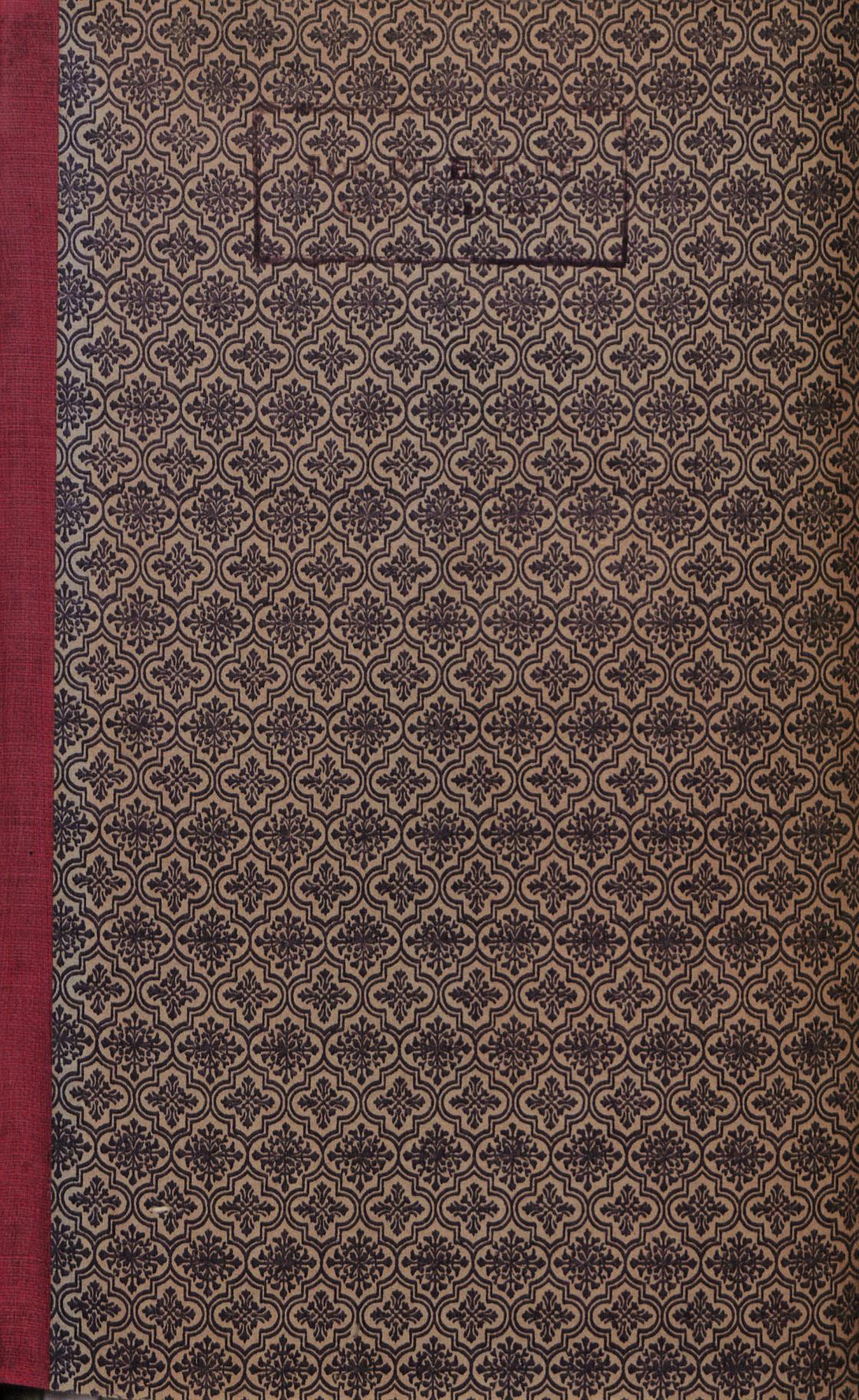
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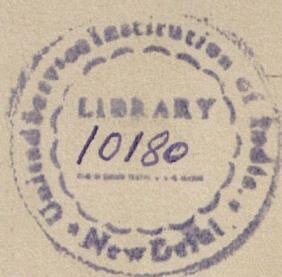
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**EDITORIAL**

On the 3rd December 1936, the countries of the British Empire were gravely disturbed to hear of matters affecting both the private affairs and the constitutional position of His Majesty King Edward VIII.

The Empire It was on the 10th December that the Empire heard with dismay that His Majesty had decided to abdicate after a short reign of less than one year. It is not our desire, nor indeed is it our right to criticise or comment on any of the reasons that led his late Majesty to make a decision unprecedented in the history of the British peoples; rather do we express our profound sorrow and regret that a reign which had opened so auspiciously should have ended so abruptly.

Much has appeared in the daily Press on the subject, and our members are no doubt fully aware of the circumstances in which this momentous decision was made, so that further comment is unnecessary. In spite of the general state of anxiety and bewilderment that followed the original announcement of the crisis, the attitude of all His Majesty's subjects, both at home and abroad, seems to have been admirable, and there is no doubt of their devotion to the Crown. It is also some consolation to realise that the constitutional procedure of the British Commonwealth of Nations as laid down in the Statute of Westminster has successfully survived its first serious test, and that all countries of the Commonwealth have individually accepted the change in the succession to the Throne.

His Majesty King George VI was proclaimed King-Emperor in India on the 14th December 1936, and we respectfully offer to him and the Queen-Empress our loyal homage and devotion.

\*       \*       \*       \*       \*

We have had no occasion to report any unusual occurrence on the North-West Frontier during the past year, but **The North-West Frontier.** events in Waziristan took a serious turn in November 1936. For some months past the situation in the Khaisora Valley had been unsatisfactory owing to the anti-government activities of the Faqir of Ipi, in particular in the area inhabited by the Tori Khel Wazirs. An agreement had been entered into with this section in 1935, by which the Khaisora Valley had been opened to the movement of troops in return for allowances and other benefits. In April 1936, the Faqir led a *lashkar*, consisting mainly of Lower Daurs, into the Khaisora with a view to bringing pressure to bear on the Government regarding a recent decision made in a kidnapping case. His activities had continued since that month and, as the situation was becoming more unsatisfactory, it was decided to make a demonstration in the Khaisora Valley in November to counteract the influence of the Faqir. No punitive action was intended.

On the 25th November columns left Mir Ali and Damdil with the object of reaching Biche Kashkai on that date and returning to their starting points by the 27th November. No opposition beyond occasional sniping was anticipated. However, considerable opposition was experienced by both columns and the troops suffered a number of casualties. The opposition appears to have been from Tori Khels assisted by certain Mahsuds. The column from Mir Ali failed to reach Biche Kashkai that night and was forced to bivouac. It arrived at Biche Kashkai on the 26th November. Both columns moved to Mir Ali on the 27th November, encountering some opposition on the way and having the rear-guard somewhat heavily engaged. Our casualties during the whole operation were 20 killed (including 2 British officers) and 88 wounded, and it is estimated that 47 tribesmen were killed and 117 wounded. Our columns were ably assisted by the Royal Air Force.

On the 2nd December, the orders of Government were conveyed to both the Tori Khel Wazir and Shaktu Mahsud jirgas. It was announced that Government forces would march into the

Khaisora Valley and remain there as long as Government considered necessary, that a road would be constructed into the Khaisora from Mir Ali, and that fines in rifles and other penalties would be exacted from those sections which had made war against the Government. The attitude of both jirgas appears to have been satisfactory, and those of the Mahsuds and of other tribes who were showing interest in the situation appear to have returned to their homes.

In addition to the orders conveyed to the jirgas, notices were dropped by aircraft on the 3rd December warning the inhabitants of the Khaisora that air action would be taken against formed bodies of 10 or more men, and advising the evacuation of all women and children.

Since then the road has been constructed to the Khaisora River and has now reached Biche Kashkai. Considerable opposition to this road building programme had been anticipated but, apart from occasional sniping, very little materialised. Except for a few isolated attempts at sabotage on the roads, and successful action by the Royal Air Force against armed bands in the proscribed area, there is very little further to report. It is to be hoped that the situation in this area will soon return to normal, as the weather in Waziristan at this time of year is apt to be very inclement.

The early collapse of the rising and the ease with which the disaffected area has been penetrated are remarkable. Had there not been a strong garrison in Waziristan and excellent roads encircling the seat of the trouble, it is more than likely that an expedition of some magnitude, involving protracted operations, would have had to be dispatched into tribal territory, or air operations on a considerable scale undertaken.

Turning to another part of the Frontier, it is satisfactory to note that, as a result of Government action in enforcing a blockade of the usual Afridi winter migration to the Peshawar district, in the stoppage of allowances and the issuing of a warning that grazing on the Khajuri plain might be closed, a settlement may now be reached in the Khyber. The Afridis have agreed to withdraw permanently the piquets overlooking Shagai or pay a heavy annual fine in default, and Government has agreed to lift the blockade and restore the tribal allowances. It will be interesting to see if the Afridi hot heads will now agree to the construction of a road into the Tirah, which would be of great value for the development and pacification of that area.

The decision to send a further division of troops to Palestine at the beginning of October seems to have had a good effect since there have been no further serious outrages, and it was found possible to send men of class "A" of the Reserve back to England at the beginning of November. On the other hand, settlement of the Arab-Jewish problem appears to be as far off as ever. In the latter half of October, the Arab Strike Committee announced its intention of instituting a Jewish boycott, and have tried to carry this into effect. On the 6th November it was decided to restrict the Jewish immigration quota into Palestine by 80 per cent, but the Arab Higher Committee announced its intention of boycotting the Royal Commission, on the grounds that Jewish immigration had not been suspended entirely. Arabs were warned not to give evidence before the Commission, and as far as is known, have adhered to this decision. The task of the Commission is, therefore, rendered doubly difficult and it is difficult to see how the Arabs and Jews can be reconciled, since both refuse to alter their viewpoint in any way.

It would appear that the differences are fundamental and date from the pledges given to both races at the end of the Great War. Unless some alteration is made in the terms of the Mandate, it seems unlikely that compromise can be effected.

\* \* \* \* \*

Interest in European affairs has centred chiefly on the civil war in Spain. After considerable initial success, the **Europe.** insurgents have been held up on the outskirts of Madrid, both by bad weather and by the strengthening of the Government forces.

Whilst the British Government has refused to accord belligerent rights to either side, both the German and Italian Governments have officially recognised General Franco's Government as being the only stable government in the country. In addition, Portugal has severed diplomatic relations with Spain. The British and French Governments recently approached Germany, Italy, Portugal and Russia with a view to ensuring strict renunciation of foreign intervention in Spain and a joint offer of mediation. Replies from the governments of all four countries seem satisfactory, but it is doubtful whether any real progress in this direction will be made.

In spite of the efforts of the Non-Intervention Committee and denials by the countries concerned, there seems to be little doubt

that both sides have received considerable unofficial help from outside in men and material. Whilst no final settlement of the struggle can be expected at an early date, it is to be hoped that Spain will not become the cockpit for a general clash between the rival ideals of Fascism and Marxism.

An important event which occurred earlier in the past quarter was a declaration of neutrality made by the King of the Belgians at the beginning of October. It was afterwards explained that Belgium intended to fulfil all her obligations, but the statement caused considerable nervousness in France. The latter country, as an immediate result of the declaration, decided to extend the Maginot line of fortifications northwards to the sea, in addition to the already projected extension southwards to cover the Swiss frontier.

There are grounds for speculation as to what Belgium's final attitude towards the proposed new Locarno Pact will be. Meanwhile the recent declaration by the French Foreign Minister that France would come to the aid of Britain with all her resources in the event of unprovoked aggression is a reassuring token of Anglo-French understanding.

\* \* \* \* \*

In spite of the efforts of the Nanking Government to restore order in China, there have been various outbreaks in **China**. These seem to have been prompted by Nationalist feeling on the subject of Japanese encroachments, not only in the past, but those which it is feared may take place in the future.

A difficult situation has arisen through a rebellion in Shensi Province in the North-West of China, and the seizure and detention by Marshal Chang Hsueh-Liang of Marshal Chiang Kai-Shek, who was paying a visit to the former.

For some years Marshal Chiang Kai-Shek has endeavoured to rescue China from the chaos into which she had fallen as the result of a long period of civil war and revolution, he has also up to the present refused to be drawn into open conflict with Japanese policy. It is probable that his elimination would plunge Nanking and the remainder of China back into the previous unhappy state of affairs. Not only that, but a successful rebellion against Nanking might have a harmful effect on Sino-Japanese relations; since it is

understood that Chang Hsueh-Liang demands active opposition to Japan, and is rumoured to be flirting with the Communists in China. Japan's concern for the outcome is shown by her foreign minister's statement that she would disapprove of any compromise between the Nanking Government and the rebels.

## THE DEFENCE OF BURMA: TO-DAY AND AFTER SEPARATION

BY MAJOR T. R. HURST, 7TH GURKHA RIFLES

### INTRODUCTION

The "Separation" of Burma, which was first suggested in 1884 to the then Chief Commissioner by the Rangoon Chamber of Commerce in the financial and general interests of the country, comes into force on 1st April, 1937.

There has been no official military announcement to indicate that there will be any major change after 1st April 1937 in the military forces at present (October 1936) in Burma. For which see Appendix "A."

From this one must conclude that, on 1st April 1937, things will more or less remain in *status quo*, except that Burma District will come under the War Office and will no longer be under Army Headquarters, India. After "Separation," Burma, being independent from India, must obviously bear the total cost of the Defence Services. This will involve annual payment to the War Office for British troops and to the Indian Government for any Indian Army troops, and at home for all her own forces. This latter will include full payment of the cost of the Burma Military Police, a large percentage of which cost at present comes from the central revenues of the Government of India. Burma will also presumably have to pay the Indian Government for the material assets belonging to the Central Government (*e.g.*, the military buildings and lands, military stores and military equipment), taken over as a going concern with the present military forces.

### THE TASKS OF THE DEFENCE SERVICES

The Army in Burma and the Burma Military Police may be said to exist in future for—

- (a) defence of the country against external aggression, and
- (b) the maintenance of internal peace and tranquillity.

The task of defence against external aggression will be dealt with first. Fortunately for Burma, the problem is far simpler than it is for India. Up to date, defence has been in the hands of the Government of India and the Army in India found the garrison of Burma, and was itself a reserve for use in Burma if and

when required. Burma's accessibility by sea rendered its reinforcement an easy matter, and so the armed forces maintained in the country have been the absolute minimum required.

Please see map at end of article.

Figures in themselves convey little to most people, so a comparison between Burma and a few other countries, and provinces in India, is made in tabular form to give the reader some idea of the size of the country and of its population.

Province or country.	Area in thousands of square miles.	Population in millions.	Population per square mile.
Burma ..	233	14½	63
Punjab ..	136	28½	209
United Provinces ..	112	49½	442
Great Britain and Northern Ireland ..	95	46	485
Irish Free State ..	27	2·9	109
Burma Proper, <i>i. e.</i> home of Burmese people ..	122	10	82 (Burmese)

The reason for the paucity of population in Burma as a whole is largely due to the fact that only about 50 per cent of the land in the province is cultivable. The large tracts of uncultivable land are mountainous and/or covered with forests and jungle, and from the defence point of view, it is fortunate that the majority of this jungle and hilly country is on the frontier where it forms a complete military obstacle against invasion. Starting at the Bay of Bengal; on the west for 600 miles, there is a wide tract of densely wooded hills and jungle which separates Burma from Bengal, the Manipur State and Assam. Passage from India to Burma must be made by sea as there is no communication by road or rail, but this area is not impassable for pack transport. Burma has, of course, nothing to fear from India. In the north, Burma abuts on Chwanben (China District) for 200 miles. The frontier itself runs along a line of lofty peaks, 10,000 to 14,000 feet high. South of the frontier and round about Burma's most northern outpost Fort Hertz (150 miles by mule track, plus 700 miles by rail from Rangoon) is a vast unadministered and/or loosely administered area, including that known as "The Triangle" and "The Naga Hill" tracts. All this area is probably the most difficult country

in the world, and no invasion has ever threatened or is ever likely to threaten Burma from this direction.

Working down the eastern frontier, we come to the Chinese Province of Yunnan (550 miles of frontier); then French Indo-China (130 miles of frontier) then Siam (900 miles of frontier), and finally we come to the sea.

On the Chinese side, the nearest railhead is Yunnan Fu, from which rough cart tracks diverge towards our frontier, some 300 miles distant. The three most important and most northerly of these tracks lead to Myitkyina, Bhamo and Lashio respectively, 40 to 75 miles on our side of the frontier, and at each of which is situated the headquarters of a battalion of B.M.P. The gorges of the two great rivers the Mekong and the Salween, with ferries fit only for pack transport, have to be traversed, and the passes to be negotiated *en route* vary from 4,000 to 8,000 feet high. A fourth cart track leads towards the Southern Shan States and Taunggyi, 170 miles on our side of the frontier. Whereas the Chinese railhead is 300 miles from the frontier, Myitkyina and Lashio on our side are railheads, while Taunggyi and Bhamo are within 30 miles of the railway. Bhamo, moreover, is on the Irrawaddy and can be reached by river steamer from Rangoon *via* Mandalay.

To connect up the B.M.P. battalion headquarters at these places is obviously strategically important, but lateral communication between them by rail, road or river is at present conspicuous by its absence.

The frontier with Indo-China is the great unbridged river Mekong. There are no cart tracks worthy of the name leading across the Siamese frontier, and Siam has in the past been a very friendly neighbour.

\*There are no roads worthy of the name and absolutely no metalled roads leading across any part of the land frontiers; and speaking generally, the country on both sides of the frontier is so difficult that it is impossible for any large force to cross it without years spent in the development of communications. For a large modern army to operate in the area is quite impossible.

There have, of course, been numerous raids by armed bandits from China into Burma without (! ! !) the knowledge of the Government of China. These naturally have had an adverse effect on the behaviour of, and our relations with, the tribesmen, such as the wild Was (head hunters) who inhabit a vast unadministered

area east of the river Salween. These raids have been small (20 to 100 men with modern rifles) and have been satisfactorily dealt with by the local B.M.P. In 1934, however, large B.M.P. reinforcements had to be sent to carry out the Wa operations, and in that year arose one of the periodical frontier disputes between Burma and China. In 1935, to settle the latter, a British-Chinese Boundary Commission was appointed to demarcate the frontier, and this necessitated an escort of regular troops and B.M.P. This escort is going out again this dry season, and it seems possible that opposition may be encountered in the unfriendly Wa country. This, fortunately, is not very serious as the tribesmen are completely unarmed, except for a number of flintlocks and muzzle-loaders.

It is significant that the Government of India have, in the past, left the entire duties of "Watch and Ward" of Burma's land frontier to the B.M.P. Fortunately, the tribesmen who inhabit most of the country on our side of the frontier are peaceful, docile, non-nomadic and almost completely unarmed, so that they are in no way comparable to our martial, truculent friends with modern rifles on the N.W. Frontier of India.

As regards external aggression, the rôle of the Army has been, and will be, to reinforce the B.M.P. if and when they exhaust their own reserves, or Government think it necessary to employ regular troops.

The conclusion, therefore, is that for the Army in Burma, the problem of defence against external aggression is not a very serious or difficult one, since a serious armed collision on the land frontiers is almost beyond the bounds of possibility in the near future. Developments trans-frontier can be watched as regards friendly relations, armaments and development of communications; and on account of the time necessary for the latter, ample time will be available for us to take measures to counter any hostile developments.

As one of the accepted principles of Imperial Defence, it can be assumed that in the case of a serious emergency, such as war with a foreign power, when attacked by sea or invaded by land, Burma can expect, like any other member of the British Empire, to receive reinforcements from Imperial sources.

Fortunately for Burma, she is easily accessible by sea, and whether she can get the required reinforcements from India, Egypt, Singapore or Home, is for the respective Governments to decide.

In case of any serious invasion by land, ample warning and time can be given for these reinforcements to arrive from any source within the Empire for reasons given above.

When we turn to Internal Security we find that Burma once again is more fortunate than India.

The people of Burma are entirely different from the peoples of India, and compared with India, the homogeneity of Burma is perhaps its most striking characteristic. The Burman, being a Buddhist, recognises none of the social divisions of caste and custom erected by Brahminism. Further, there has been no aristocracy in Burma from early days apart from the late royal household, and class antagonism is notably absent.

Tolerance is the leading tenet of Buddhism and the Burmese, though remarkably proud of their race, have shown no intense racial antipathies. The Burmese have not been liable to sudden and fanatical outbursts, and Burma so far has been entirely free from any problem like the Hindu-Mohamedan problem in India.

On the other hand, there are other problems which must be taken into account. In particular, there is the fact that the Burman is impatient of normal civic discipline and prone to serious crime, particularly crimes of violence. Moreover, in the past, epidemics of dacoity have broken out in the province, and on occasions the country has been disturbed throughout its length by rebellion. The last rebellion was in 1930 and took two years to suppress. More than a brigade of troops had to be sent from India before the last armed band was captured or dispersed, and the last flame extinguished.

It is imperative, therefore, that sufficient forces should exist in the country to maintain Law and Order at all times, and to be prepared to deal with any outbreaks of dacoity and rebellion which may arise.

The Mandalay battalion B.M.P. and the two battalions of B.M.P. whose headquarters are in Rangoon, are the first reserve for the Civil Police but, owing to numerous detachments all over the country requiring reinforcement in emergency, they will have practically no concentrated mobile reserve left.

The rôle of the Army is to act as Internal Security Troops if and when required by the Civil Government. They will not normally be employed until the B.M.P. resources have been exhausted.

Burma will in future have no inherent right to call on India for reinforcements in case of internal trouble. It is therefore assumed that, after Separation, the Army in Burma must consist of first-class troops, and must in itself be sufficiently strong and have its own immediate reserves to enable it to meet the tasks it may be called upon to perform in Burma (subject to receiving reinforcement in the worst possible situation of invasion by a foreign power, combined with internal rebellion).

In the transition and Burmanization stages, rapid reinforcement from overseas may be necessary and schemes *must* be ready prepared in peace. Again, it is for the respective Governments to arrange, and for the General Staff to draw up, plans as soon as they know what troops can be made available. It will obviously be advantageous to Burma if first reinforcements can come from India and/or arrive by air from the Egyptian-Palestine Zone or from Singapore.

#### FORCES AVAILABLE

Let us examine the forces which are available to-day (October 1936) to carry out the above tasks.

They consist of the Civil Police, the Burma Military Police and the Army in Burma.

In Appendix B is given the organisation, composition, location and rôle of the B.M.P. battalions, and a note on the Civil Police is added.

It is not proposed to deal with the B.M.P. further, except to emphasise what an extremely efficient force they have proved themselves in the past (*i.e.*, since first raised in 1885) and are to-day, to deal with the task they are called upon to perform, and to remark on the future of the Force. They undoubtedly provide the best "value for money" in the way of "Watch and Ward" and security that could possibly be obtained. For financial reasons, combined with their peculiar loose organisation, varying strength of battalions, and allotment to areas, they can never become part of the Army in Burma or be relieved by Burma Rifles Battalions.

The Deputy Inspector-General of Military Police (Colonel I.A.) is at present in executive command of all 10 battalions of the B.M.P. and is responsible to the Inspector-General, Civil and Military Police, Burma. It is probable that after separation—

- (a) The two Rangoon battalions and the Mandalay battalion, to be known as the Garrison Battalions, will be directly under the I.G.P., who will remain responsible to the Ministers for Law and Order.

(b) The remaining six frontier battalions and the reserve battalion will probably pass from the control of the I.G.P., and will be under the D.I.G., B.M.P., who will be responsible to H.E. the Governor direct.

Though the duties of the frontier battalions are mainly military, they are a Civil Force and it is neither feasible from the financial point of view, nor desirable from the practical point of view, to make them any more military in nature. Their command cannot pass to the army in peace time, as it is essential they remain at the disposal of Civil Officers in the frontier districts to provide columns without delay, to repel raiding parties from across the border, to take steps to suppress tribal risings, to furnish guards and escorts and/or to maintain Law and Order. The system is that the Civil Officer consults the outpost or battalion commander, and between them they make a plan to meet the immediate situation. In theory, this system is open to objections but in practice, which means proof, it has worked without a hitch on innumerable occasions. If the B.M.P. became part of the army, it would be necessary every time they were required, to refer back to higher authority, Civil and Military. The factor of time and space and the undeveloped stage which administration on the frontier has reached, make such action inconceivable and incompatible with efficiency.

It seems to the writer far more likely that, in the not too distant future, say 1945, the Army in Burma (less the British battalions) will become more like the Military Police. The fact that the Governor is going to have two advisers on what are really military matters, is open to gravest objection and some better solution is obviously desirable. As it is, one adviser, the G.O.C., whose headquarters are permanently in Maymyo, 450 miles from Rangoon, will have two British battalions and four or five battalions of Burma Rifles, plus A.F.I., etc., under his command; while the D.I.G., B.M.P., the second adviser, whose headquarters are permanently in Rangoon, will have at his disposal seven B.M.P. battalions containing far more men but dispersed and localised except for the Reserve Battalion.

When a situation on any part of the frontier gets to a stage when the D.I.G., B.M.P., is unable to deal with the situation with his own resources, then it would appear that the whole situation

must be handed over to the G.O.C., together with command of the B.M.P. forces in the area.

So that this can be done quickly and efficiently, it is essential that in peace the G.O.C. and his staff have a detailed knowledge of the armament and capabilities of the B.M.P. and of conditions on the frontier, particularly as regards lines of communication. This knowledge can only be obtained by inspections of B.M.P. units and areas by the G.O.C. in peace time and a very close liaison with the D.I.G., B.M.P., at all times.

Except for this vexed question of higher command, no great change is expected in the B.M.P. after Separation. They will continue to be officered by officers seconded from the Indian Army, but it is possible the B.M.P. may be opened to British Service Officers. The class composition will remain the same in the Frontier Battalions, *i.e.*, predominantly Indian with a proportion of Chins, Kachins and Karens. It is probable that more Burmese will be enlisted in the Garrison Battalions at Rangoon and Mandalay.

The Army forces at present in Burma are given in detail in Appendix A. They are organised under H.Q. Burma Independent District at Maymyo and H.Q. Rangoon Brigade Area at Mingaladon (12 miles from Rangoon).

In the Wa operations of 1934, carried out by the B.M.P., regular army columns were moved to the edge of the area in preparation for action, but their employment was not found necessary.

To form part of the Boundary Commission Escort in 1935-36, one Company Burma Rifles, two rifle platoons and one M.G. Section "The Buffs" and one Mountain Battery gun were provided and a detachment of Indian Divisional Signals came from India. Two Companies Burma Rifles and one mountain gun were in reserve on the L. of C. At the conclusion of this escort duty, two Companies Burma Rifles carried out a small punitive expedition against hostile wild Was.

The second and perhaps more normal rôle of the Army is to form a reserve for Internal Security duties, *i.e.*, for use when the full resources of the Civil and Military Police have been unable to cope with the situation. The Army has not been "called out in aid of the Civil Power" often in the past 30 years, but in the Rebellion of 1930, as already stated, the Army in Burma was used

up and more than a Brigade had to come from India as reinforcements before the Rebellion was finally crushed.

Speaking generally, therefore, it seems that the Army has been sufficiently strong in the past. If the units are efficient, the same strength *might* be sufficient for the future.

One can learn from the past, but it does not mean that one can rely entirely on experiences in the past to form conclusions on which to base one's calculations for the future. To do so in this case would be most unsound owing to a change in temperament of the Burmese people.

#### THE TASK OF INTERNAL SECURITY IN THE FUTURE

In the Burma Census Report of 1901, one reads: "The Burman, as we know him, is essentially a non-migratory, unbusinesslike, irresponsible individual, incapable of sustained effort and content with what can be gained by a minimum of toil." That was in the good old days when land was plentiful and there was little difficulty in making a living, so the Burman did not see the force of working a whole day if he could get what he wanted by working half a day. Hence the Burman left commerce and industrial life and labour, other than agricultural, to the Indian and the Chinese. The Burman of to-day has been changed by the force of natural circumstances and is now quite different. Hence a note of warning is necessary. Gangs of Burmese coolies can be seen any day in Rangoon, loading and unloading vessels in the docks. They can also be seen in the various timber and rice mills throughout the country. The Burman is up against the pressure of a rapidly increasing population and the fact that the supply of cultivable land is practically exhausted (unless you include that which can be developed by a heavy expenditure of capital, unavailable for economic reasons). The Burman is now educated and has become politically-minded, and is led to expect and demand a higher standard of living. The political cry was for "a Separated Burma" and now that Separation is fixed, "Burma for the Burmans" is the tone of the native press. Burmese Trade Unions are beginning to organise labour, and recently there was a demand for 100 per cent. Burmese labour in the docks and under the Rangoon Corporation. Should these demands ever be pressed, communal feelings will be incensed. In the past year, communal relations were very sensitive to changes in political temperature,

and every contract made by public bodies or Government now contains a stipulation as to employing Burmese labourers.

In 1934, for the first time in the history of Burma, there was serious communal trouble necessitating the despatch of large B.M.P. reinforcements to Akyab.

In the future, a clash seems almost certain between the Burmese agriculturists and the Indian landlords and Chettyars (who own or hold mortgages on more than half the land in the province) and/or between Burmese labourers and the million odd Indian and Chinese immigrants employed as labourers.

The influence of the Buddhist religion and the strength of the parental tie were, in the past, factors in making Burma a peaceful country. The waning of these influences, combined with the spread of education and the influence of the native press and propaganda, the existence of secret cults and societies, and the influence of world and political affairs will undoubtedly have a disturbing influence on the course of future events in Burma.

Internal riots, communal trouble and armed rebellion against Government seem, to the writer, to be more liable to flare up in the future and will probably necessitate the more frequent calling out of troops in aid of the Civil Power.

The Army action in the rôle it will be called upon to perform is more likely to approximate to the normal one of the B.M.P. or to that adopted by the Army itself in the Burma and Moplah rebellions, *i.e.*, actions in columns. To employ the Army may entail extra expenditure of civil funds, but it is considered that any reluctance or hesitation to call it in on that account will indubitably lead to more crime, to a general worsening of the situation and the necessity for measures on a larger scale, and eventually to greater destruction of property and to greater loss of life on both sides.

Judging by events in the last few years in India in general and in Bengal in particular, it would appear that the Civil Authorities have a better appreciation of the value of the Military machine and are more likely to call for its assistance in future.

Since the Great War (excluding Rebellion 1930-32), there have always been two Burma Rifle battalions in Burma and in addition, sometimes one and sometimes two Indian battalions. Considering that the Indian battalions are replaced by untried

Burma Rifle battalions, it seems that, based on past requirements, there should be four Burma Rifle battalions in future.

However, when we remember the probable increased demand for troops in future, and the fact that the Army in India is no longer a reserve in the sense that it was before Separation, it would appear necessary to have five Active Burma Rifle battalions in future.

#### ARMY CHANGES ANNOUNCED OR ANTICIPATED

Up to date, the following decisions as to changes in the Army after Separation have been made known:

- (a) The Burma Rifles (now part of the Indian Army) will become part of the Burma Defence Force. They will be officered by British officers seconded for four or five years from the British and Indian Armies and on special increased rates of pay. All officers now in the Burma Rifles will be permanently posted to Indian Army battalions, but will remain seconded with Burma Rifles for some years.
- (b) It is understood that schemes are already afoot for the formation of an extra (*i.e.* fourth) Active Battalion Burma Rifles out of the existing Training Battalion and the raising of a Burma Sapper and Miner Company, but details have not been made known and orders have not yet been issued. As regards the possible return to India of the Indian Sapper and Miner Company, the programme of reliefs shows the present Company at Mandalay is being relieved by another Company from Bangalore next spring. It is possible that a fifth battalion of Burma Rifles may be raised a year or two after Separation, and its class composition forms an interesting problem.
- (c) It has been decided to abolish the Training Battalion system for the Burma Rifles and to adopt the Training Company system. This is the system in the Gurkha Rifles regiments of the Indian Army, whereby each battalion has its own Training Company at its own regimental centre and trains its own recruits.
- (d) The two British Infantry Battalions will remain.

(e) Everything points to the conclusion that the Indian Mountain Battery at Maymyo is to remain indefinitely, also the R.I.A.S.C. Mule Company. There has been no suggestion that it may be necessary or advisable to change the location of or reorganise headquarters of Formations (*i.e.*, District Headquarters and Brigade Area) and nothing whatever has been said as to any rearment of, or any new equipment for, the British Infantry or Burma Rifles battalions.

## APPENDIX "A"

STATEMENT SHOWING THE DEFENCE SERVICES IN BURMA  
(SEPTEMBER 1936)

## Regular Army

		Location.	Remarks.
H.Q. Burma Independent District	Maymyo	..	..
H.Q. Rangoon Brigade Area	Mingaladon	..	..
(a) One British Infantry Battalion	Mingaladon	..	One Company at Rangoon—12 miles distant.
(b) One British Infantry Battalion	Maymyo	..	One Company at Mandalay—40 miles distant.
(c) One Indian Mountain Battery	Maymyo	..	A unit of the "Army in India" normal organization.
(d) One Field Company, Sappers and Miners	Mandalay	..	Ditto Class composition—Madrasis.
(e) Three Active Battalions, Burma Rifles (organization same as Indian Infantry Battalions)	Maymyo	..	Class composition authorised April 1936 :—
	Mandalay	..	50 per cent. Karens, 25 per cent. Chins and 25 per cent. Kachins in each Battalion. It is understood that each is to have its own training company after Separation and to train its own recruits as Gurkha battalions of the Indian Army do now.
	Mingaladon	..	
(f) One Training Battalion, Burma Rifles	Maymyo	..	Earmarked for conversion into an Active Battalion as soon as possible after Separation. Connect remarks in serial (e). No orders have yet been issued.

## TERRITORIAL FORCE

(g) One Territorial Battalion, Burma Rifles	Mandalay	..	Class composition—Burmese and Karens.
(h) One University Training Corps	Rangoon University	..	Open to all University students. Actual class composition—90 per cent. Burmese.

## (i) Principal Administrative Services—

Rangoon Arsenal	..	Personnel drawn from I.A.O.C.
Two British Military Hospitals	..	Officers and other ranks R.A.M.C., Assistant Surgeons of I.M.D. and Lady Nurses of Q.A.I.M.N.S.
Two Indian Military Hospitals	..	Officers of I.M.S., other ranks of I.H.C., Sub-Assistant Surgeons of I.M.D.
One British Wing of I.M.H.		
One Indian Wing of B.M.H.		
One Mule Transport Company R.I.A.S.C.		
One Supply Company, R.I.A.S.C.		

## AUXILIARY FORCE, INDIA

Unit.	Location.	Remarks.
(j) III (Rangoon) Field Brigade, R.A., A.F. (I) ..	Rangoon	.. One Field Battery; one Fortress Company, R. E.; one W/T Signal Section.
(k) Rangoon Battalion, A. F. (I)	Rangoon	.. Small detachments at Akyab and Syriam.
(l) Tenasserim Battalion, A.F. (I)	Moulmein	.. Infantry and Light Motor Patrol.
(m) Burma Railways Battalion, A. F. (I) ..	Rangoon	.. Detachments at principal railway stations on 1,500 miles of railway.
(n) Upper Burma Battalion, A. F. (I) ..	Mandalay	..

## APPENDIX "B"

## THE BURMA MILITARY POLICE

This is a civilian provincial Force, with a sanctioned strength of approximately 12,000 under the Local Government and in practice at the disposal of the local Civil officers in the districts.

The B.M.P. are organised as follows:

Six Frontier Battalions *i.e.*—  
 Chin Hills Battalion .. Falam.  
 Eastern Battalion .. Myitkyina.  
 Western Battalion .. Myitkyina.  
 Bhamo Battalion .. Bhamo.  
 Northern Shan States  
 Battalion .. Lashio.  
 Southern Shan States  
 Battalion .. Taunggyi.

Their duties are mainly military. The B.M.P. carry out all the duties of "Watch and Ward" on a frontier 2,000 miles long. They have detachments on all passes leading across the frontier to repel raiders who occasionally cross into our territory. They prevent opium smuggling, maintain law and order amongst the non-Burman tribes who inhabit the semi-administered and unadministered areas on our side of the frontier and have detachments in all districts. Some outposts, *e.g.* Fort Hertz, are so far distant from battalion headquarters that they take months to relieve. The composition of the B.M.P. used to be entirely Indians and Gurkhas, but a proportion of Chins and Kachins are now being enlisted. Each battalion trains its own recruits who are brought from India by B.M.P. furlough and leave men.

Battalions have an average of four British officers who are seconded from the Indian Army. Battalions vary in strength according to the task and area for which they are responsible—some have up to 1,500 men, and temporary increases in strength are common, *e.g.* for Wa operations.

Reserve Battalion .. Pyawbwe. Acts primarily as reserve to Frontier Battalions, and secondly as reserve to the Rangoon and Mandalay Battalions and to the Railway Police.

Two Rangoon Battalions .. Rangoon.  
 Mandalay .. Mandalay. Have detachments of 50 to 100 men in every district in Lower Burma. Duties approximate more to Civil Police than to Military, but they are armed with military rifles. They carry out routine duties of Treasury guards and escorts. They are the first reserve for the

Civil Police and for the Rangoon City Police. They are recruiting Karens in increasing numbers, but 50 per cent. of the men are still Indians. The Mandalay battalion now has about 300 Burmese, but it is unofficially reported that they are proving unsatisfactory.

A proportion of the Mandalay battalion is mounted for work in the Dry zone.

Note—All arms and most of the equipment for the B.M.P. are supplied by the Rangoon Arsenal. Rations and clothing are provided by the Police Supplies Department which purchases locally from contractors and manufacturers, or, where cheaper, battalion commanders are empowered to make local contracts and take direct delivery of supplies.

#### *THE RANGOON POLICE*

The Rangoon Police maintain Law and Order in Rangoon City under a Police Commissioner, who is directly responsible to the Ministers of Local Government.

The bulk of the men are Indians but there are now a few Burmese.

The Force, which is 1,500 strong, has a number of British sergeants and police officers. A very high standard of work and discipline is insisted upon. The men are very well turned out and are the best type of Sikh, Punjabi-Mussalman, etc., and several are ex-sepoys or ex-sowars.

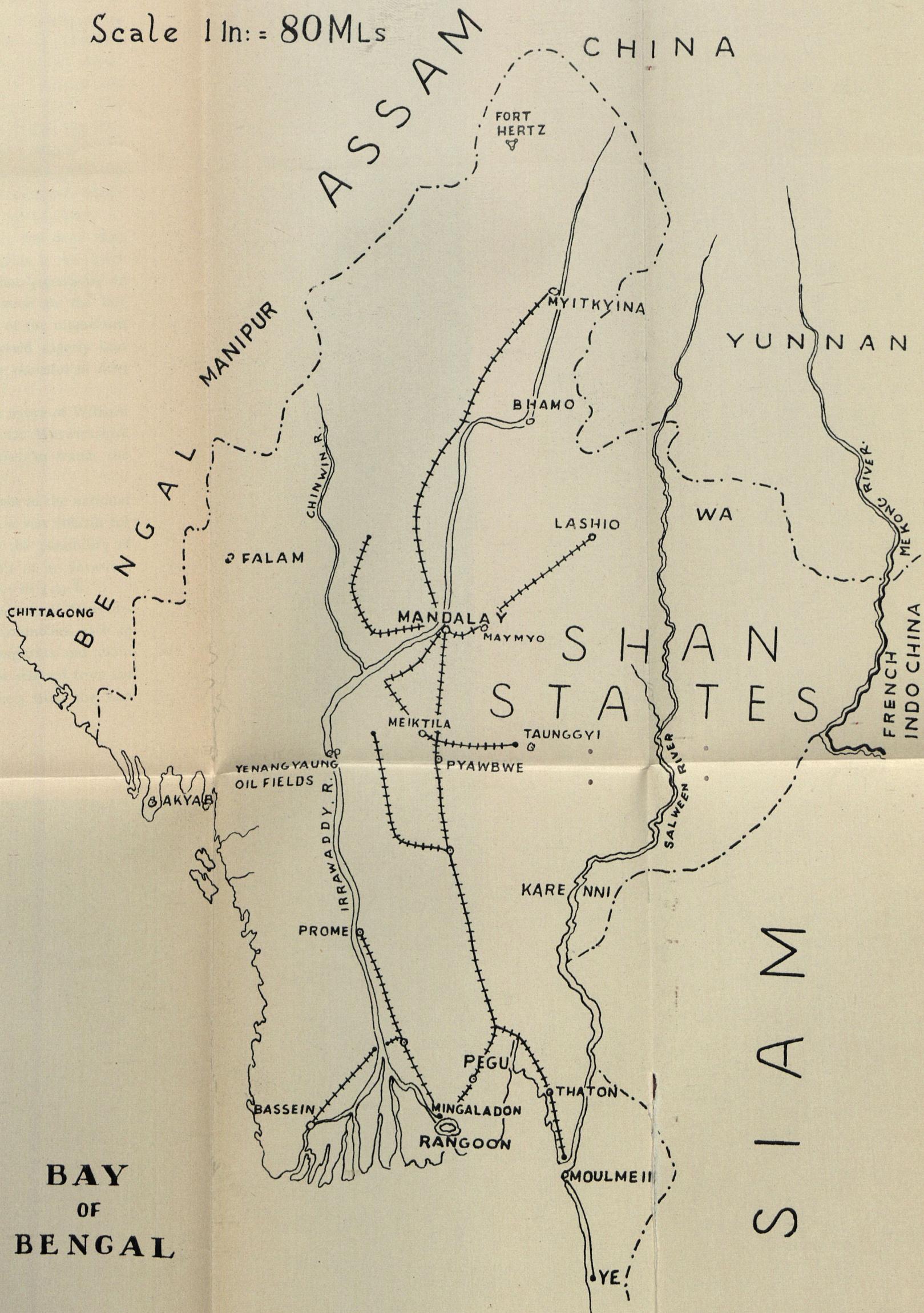
#### *THE CIVIL POLICE*

The Burma Civil Police total some 13,000 men under three D.I.G.s responsible to the I.G.P., Burma. They are recruited locally by the District Superintendents and are 95 per cent. Burmese. They are distributed throughout the country on normal peace-time police duties in the towns and rural areas, and have no large reserves on whom they could call in case of serious dacoities, riots and disturbances. A proportion of the Burma Civil Police in each district is armed but, in the main, the Force is unarmed.

The Railway Police, 500 strong, and C.I.D., are organised separately under a fourth D.I.G.

MAP  
OF  
BURMA

Scale 1 in. = 80 MILES



## THE HONOURABLE EAST INDIA COMPANY AND VOLUNTEERS

BY C. A. SWAINSON

"Under arms! . . . Lord love thee! . . . I called to consult my lawyer. He was clothed in dragoon's dress, belted and casqued and about to mount a charger which his writing clerk, habited as a sharp-shooter, walked to and fro before his door. I went to scold my agent for having sent me to advise with a madman; he had stuck into his head the plume which, in more sober days, he wielded between his fingers, and figured as an artillery officer. My mercer had his spontoon in his hand, as if he measured his cloth by that implement instead of a legitimate yard. The banker's clerk, who was directed to sum my cash account, blundered it three times, being disordered by his military tellings-off at the morning drill. I had recourse to a physician, but he was also practising a more wholesale method of slaughter than that which his profession had been at all times supposed to open to him."

The foregoing quotation from the *Antiquary* has more than an element of humorous exaggeration, but it gives a not inapt idea of the warlike spirit with which the civilian population of Great Britain met the threats of French invasion in the last decade of the eighteenth and the opening years of the nineteenth centuries. Young and old, rich and poor, pressed eagerly into the ranks of the volunteer army, even the most peaceful of men putting on for a time the panoply of war.

At Deal, the visitor might see the long, lean figure of William Pitt drilling the Cinque Ports Corps; away in far Warwickshire the aged Warren Hastings rode over every day to watch the evolutions of the village warriors.

The East India Company was not slow to join in the national movement. Quite apart from patriotic motives, it was difficult for the Directors to contemplate with equanimity the possibility of London being denuded of soldiers in the event of an invasion, and their warehouses being thus left to the mercy of a mob.

On the 24th August 1796, therefore, the Court of Directors approved a plan for raising two regiments of volunteers, each to consist of 500 rank and file, 20 drummers, 30 sergeants and about 35 superior officers. The field officers were to be selected from the ranks of the Directors; the commissioned officers from the East

India House staff, and the non-commissioned officers and privates from the labourers employed in the Company's warehouses. The force was to be armed by the Government and clothed by the Company; no pay was to be given except to the lower ranks, and then only in the event of their being called up for duty, when they were to receive an extra shilling a day. A fortnight later the list of officers was approved, with the Chairman, David Scott, as the colonel of the 1st regiment, and the Deputy Chairman, Hugh Inglis, as the colonel of the 2nd. Evidently there had been a rush of volunteers for the other posts, for a proposal was mooted for forming the unsuccessful candidates into an independent company of cadets.

A handsome uniform was provided, consisting of a scarlet coat, turned up with blue; buff waistcoat and breeches, and a large busby, ornamented with a plume. That no money was spared is shewn by the fact that by Christmas 1797 over £20,000 had been spent on the corps. Authority to charge the cost of the force against the Company's funds had been given by an Act of Parliament on the 6th June 1797 (37, Geo. III, C. 74).

By the terms of enlistment, the members of the two regiments were not to be required to serve outside London or its environs but, in April 1798, they volunteered to march under the command of their own officers wherever it might be deemed necessary for the safety of His Majesty's person and the defence of the country. A month later this offer was accepted by the Government. To take their place, should they be called on to quit the capital, it was decided to arm and drill a further number of men of the Company's warehouses. Thus was formed the 3rd Regiment of the East India Volunteers, with John Roberts, a former Chairman, as Commandant. About the same time the whole corps received the title of Royal East India Volunteers. A body of volunteer artillery seems to have been added before long, but the actual date of its formation is not known.

Two water-colours by Henry Matthews relating to these regiments still hang in the Military Committee Room at the India Office. One of these depicts the presentation of colours to the 2nd Regiment on 27th July 1797, a ceremony thus described in the *Morning Chronicle* of the following day: "Yesterday noon, the 2nd Regiment of East India Volunteers were reviewed on Lord's cricket ground, under the command of Colonel Inglis, to receive their colours from the fair hands of Lady Jane Dundas. A suitable

exhortation was delivered by the chaplain of the regiment, and after the ceremony the officers adjourned to the London Tavern to partake of an elegant entertainment provided by their Colonel, at which were present, with the India Directors, the Earl of Mornington, Mr. Pitt, Mr. Dundas, Mr. Anstruther and a number of other noblemen."

In two years more the war clouds lifted and the long desired peace came in sight. A preliminary treaty was signed in October 1801, amid general rejoicings. Only a portion of the East India Volunteers, however, was disbanded as it was felt that a lasting peace was not assured.

*The Times* of 16th August 1802, contains the following paragraph which shows that the training of the brigade was still being vigorously carried on: "Yesterday the 3rd Regiment of the Royal East India Volunteers practised firing with ball at Highgate. A figure of Bonaparte, admirably painted by Captain Barnard, was placed opposite to the Grenadier Company and hardly a part of the hero escaped without a palpable hit."

War broke out again in May 1803, and in the following month the artillery company was re-established and the three regiments of infantry were brought up to their former strength. Various activities were undertaken during the next few years and, in August 1805, while Napoleon was waiting at Boulogne for Villeneuve's fleet to cover his descent on the English coast, the 2nd regiment garrisoned Maidstone, in order to set free an equivalent body of regular troops. It was also decided that the other two regiments should be lent to the Government in turn for limited periods, with a view to their employment in a similar manner.

The brigade continued embodied all through the Peninsula war and until the meeting of the Congress of Vienna in September 1814. Then, as peace seemed firmly established and as the expense of the corps, which had lately averaged over £20,000 a year, was proving very burdensome, it was decided to disband it.

Small gratuities were given to the N.C.O.s and men, while the brigade-major and each of the adjutants received a hundred guineas for the purchase of a piece of plate. At the same time the Prince Regent formally thanked the officers and men for their public-spirited services.

How many I.C.S. men in India to-day, one wonders, are aware of this little known chapter in the warlike history of the predecessors of the present India Office.

## MACHINE GUN BATTALIONS IN THE INDIAN ARMY:

TO BE OR NOT TO BE

BY WUH SAWAL HAI

*Introduction*

It is surprising that so little has been written in journals on this question. One would have thought that it would have been one of the most debated questions in the Indian Army, and that numbers of officers would have wanted to air their views on the subject. My experience has been that, though not much discussed, most officers have formed an opinion on the question. The variety of these opinions is amazing. It is the purpose of this article to discuss some of the pros and cons of the introduction of M. G. battalions into the Indian Army and to consider alternatives.

*The Effect of the Introduction of British M. G. Battalions*

Before considering the pros and cons one must have quite clearly before one the organisation into which these Indian M. G. battalions would be introduced. In particular the effect of the forthcoming introduction of British M. G. battalions and British rifle battalions into the Army in India must be considered.

First, it should be noted that there are twenty-two Infantry Brigades in the Army in India. The present organisation of every brigade, on paper, is one British battalion and three Indian battalions. Secondly, under the reorganisation of the British Army there will, in the near future, be eight British M. G. battalions in India, the remainder being rifle battalions.

What will be the result of this reorganisation? It would appear almost certain that these M. G. battalions must be included in the Field Army or Covering Troops. There are two main reasons for this. In the first place an M. G. battalion is not really a suitable unit for Internal Security duties. It can certainly produce a considerable number of riflemen, but not nearly so many as will the new rifle battalion; while its M. G.s will normally be entirely wasted. It would not, therefore, be economical to use them for Internal Security. In the second place M. G. battalions will require special barracks as they will have fewer men and more animals. They will, therefore, have to have a relief circle of their own. Rifle battalions will not be able to relieve them. In war

all M.G. battalions will be required in the Field Army or Covering Troops. If any are used for Internal Security in peace, the process of replacing them on mobilisation with rifle battalions will be very difficult owing to the barrack question.

It may, therefore, be assumed that of the twenty-two brigades of the Army in India eight will have British M. G. battalions and fourteen British rifle battalions. The logical conclusion would appear to be that fourteen battalions of the Indian Army must be turned into M. G. battalions and the remainder into rifle battalions. Every brigade would then have a similar organisation which would correspond to that at home. This has numerous advantages as regards simplicity of organisation, administration and employment in the field. There are, however, several disadvantages.

#### *Disadvantages of the Logical Solution*

In the first place there is the fact that the M. G. battalion organisation has been evolved for a European war. It is the organisation best suited for the British Army at home, and that is now engaged in preparing for a "highly civilised" war. Conditions in India are different and an organisation, which is suitable for a European war, is not necessarily the best for India. In Frontier warfare the brigading of M. G.s is the exception. Battalions frequently work more or less on their own, and very close co-operation between M.G. companies and rifle companies is required. Will the new organisation ensure this, particularly when Indian M.G.s are supporting British rifles and *vice versa*?

Again, in peace there are, along the Frontier, a number of single battalion posts and some company posts. These are practically under field service conditions and may be called on to take active measures, of defence at any rate, at very short notice. M.G.s in most of these posts are probably essential. If M. G. battalions are introduced, some of them will have to be split up in order to provide M. G.s for those posts. Will not this splitting up be very detrimental to the training of the M.G. battalion?

Thirdly, there would be the question of recruiting for Indian M.G. battalions. M.G. personnel require a standard of intelligence and physique above the average of the Indian sepoy. Anyone who has had to deal with the question of turn-over of M.G. personnel will bear this out. Assuming that, if M.G. battalions are introduced, it will be done by "machine-gunizing" certain groups, it would be

necessary to have a higher standard for recruits for those groups. This would increase the difficulties of recruiting very considerably, especially in war, and it is already difficult enough. Moreover, it is hard to judge the intelligence of a recruit, who comes from his village with little or no education at the age of eighteen. It would also be very detrimental to rifle groups, for the general standard of their recruits would undoubtedly fall.

Lastly, there is the question of how those battalions, which do not form part of a brigade, should be organised. There are 117 Indian battalions (excluding the Burma Rifles). Of these 66 are in brigades. The balance of 51 are engaged on a variety of tasks, some of which require a few M.G.s but not an M.G. battalion. In time of war they may have to be replaced and formed into brigades. A proportion, one quarter perhaps, would therefore have to be M.G. battalions and the remainder rifle battalions. The British Army could not be relied on to produce the necessary M.G. battalions to complete brigades if all 51 were rifle battalions. If, however, some were M.G. battalions their allotment for peace duties would be very difficult. To leave them as they are would mean having three types of Indian battalion, which would not be interchangeable and would lead to all sorts of difficulties.

EDITOR'S NOTE.—We do not altogether agree with the author's total number of battalions.

#### *Disadvantages not so great as they appear*

There are probably no problems of this type which have a perfect solution. Any and every solution will have certain disadvantages as compared with others, while the same disadvantage may be common to several. This is very true of the question under consideration. The real problem is to decide which of several solutions has, on balance, the greatest advantages and the least disadvantages.

The disadvantages enumerated in the last paragraph are not so great as might at first sight appear to be the case. As regards the first, loss of co-operation should not be so very serious if adequate measures are taken to guard against it. Where all battalions of a brigade are together, T.E.W.T.s. attachments and special consideration of the problem during collective training should be sufficient to ensure fairly close co-operation. Where battalions are separated, the splitting up of the M.G. battalion amongst the single battalion posts should again ensure close co-

operation. The disadvantage of splitting up M.G. battalions could be overcome very largely in two ways. In the first place they could be organised on the lines of a Field Artillery Brigade, so that each company is practically self-contained. This need only be done for Indian M.G. battalions, for it should be possible for the allotment of British M.G. battalions to be so arranged that it would not be necessary to split them up. In the second place the M.G. battalion could, in nearly all cases, be concentrated for battalion and brigade training.

It should also be possible to deal with the recruiting problem without introducing a higher standard for M.G. groups. About 30 per cent. of M.G. battalion personnel will be mule leaders; though these must be able to fire the gun, it is not necessary for them to have the same standard of intelligence as the gun numbers; the average recruit should be quite up to that work. Secondly, one of the chief reasons for the present difficulty which infantry battalions have in finding machine-gunners, is that they have to be trained up to the required standard in three years and are then turned over. The standard of intelligence required to enable this to be done must obviously be higher than when a man remains a machine-gunner all his service. A slightly higher standard could be attained by increasing the percentage of annual discharges allowed to M.G. Training Battalions from 10 per cent. to 20 per cent. In war the difficulty of finding recruits would be largely offset by the fact that there would be a larger number of reservists to draw upon than is the case at present; moreover, these reservists would be better trained and their additional training would be easier to carry out. The training of new recruits would also be easier.

The difficulty in regard to the peace allotment of the unbrigaded battalions is probably the hardest to overcome. It may not be so difficult as it appears, however. Its solution would require a detailed consideration of the duties of each of these battalions, which cannot be attempted here.

There may be other disadvantages which have not been mentioned, but those dealt with are probably the greatest. It is not considered that they are so great as to warrant this solution of the problem being turned down unless some better solution can be found. That is a real truism, but it is one which is apt to be overlooked by critics of any new arrangement.

*Other Solutions*

There can hardly be any question but that some form of reorganisation must be carried out. The writer has heard it suggested, however, that nothing should be done, and that the desire for reorganisation merely springs from a mentality which must have uniformity regardless of any other aspects of the case. A moment's consideration of the real facts of the problem shows this suggestion to be quite impracticable. It would result in eight infantry brigades having one British M.G. battalion and three Indian battalions, organised as at present; that is to say that each brigade would have nine rifle companies and five or six M. G. Companies; they would thus be hopelessly over machine-gunned. The correct proportion is 4 to 1; whereas this gives a proportion of about  $2\frac{1}{2}$  to 1. The remaining fourteen brigades would have one British rifle battalion and three Indian battalions; that is to say, each of these brigades would have thirteen rifle companies and only three M. G. companies, which is a proportion of rather less than 4 to 1. They would, therefore, be rather under machine-gunned, particularly as Indian M. G. companies have only two platoons. Brigade groups, which are such a feature of Frontier warfare, would thus probably find it hard to function, particularly those with British M. G. battalions. Those with British rifle battalions might be better off. This depends on the proportion of M.G.s which a brigade should have. The British M. G. battalion is, it is believed, now to be organised with only two M. G. companies. If this is the case, then a brigade with six M. G. platoons is about right.

There are thus two factors on which any new organisation must be based. First, Indian battalions brigaded with a British M. G. battalion must become rifle battalions. Secondly, there is the question of the M. G. strength required by an Indian brigade. What is this? That is a problem which is too large to be dealt with here. If six platoons are to be considered sufficient, then the three Indian battalions of a brigade with a British rifle battalion can supply them and the problem is simplified. If nine platoons are required, then three additional platoons must be produced. For the purpose of what follows it will be assumed that nine platoons are required, for that provides the more difficult problem.

There is an alternative solution which appears to have several advantages over that which has been called the logical solution. It is suggested that eight brigades could be organised with one

British M. G. battalion and three Indian rifle battalions and the remaining fourteen with one British rifle battalion and three Indian battalions each. These Indian battalions would be organised as at present, except that they would have three M. G. platoons instead of two; the lack of an M. G. company in the British battalion would thus be made up, so far as the total armament of the brigade was concerned. The distribution of the eight brigades with British M. G. battalions would be two for Covering Troops and six for the Field Army. There would thus be two Field Army divisions with this type of brigade and two with the other.

There would then be three alternative methods of organising the fifty-one unbrigaded battalions. The first would be to keep them all as mixed battalions (*i.e.*, as they are now with an additional M. G. platoon). The second would be to have them in the same proportion as the brigaded battalions, which is approximately two mixed to one rifle. The third would be to have them in the proportion of three mixed to one rifle. This would enable Indian brigades to be formed if required; while if British battalions came out, normal brigades could be formed, whichever type the British battalions happened to be. This method will be adopted in the following pages:

#### *The Alternative and the Logical Solutions Compared*

There is one disadvantage common to both solutions. That is the danger of loss of co-operation. In both the extent of the danger will be the same for brigades with a British M. G. battalion. In the other type of brigade under the alternative solution there will be no danger so far as Indian battalions are concerned, but with the British battalions the danger may be rather greater than under the logical solution. It must be remembered, however, that in peace several British battalions are not with their brigades, so that in their case also the danger would be about equal under both solutions. It would appear, therefore, that, on balance, so far as the question of co-operation is concerned, the alternative solution is the better.

A possible disadvantage which may be raised against the alternative solution is that it entails different types of units and formations, which will seriously increase administrative difficulties. There will be two types of infantry units but so also will there be under the logical solution. There will also be two types of brigades. These, however, will be largely segregated in different

divisions, which would considerably reduce this disadvantage. Moreover, under the logical solution there will also be two types of brigade, for some will have British M. G. battalions and some British rifle battalions. That will not be a big difference admittedly, but it will exist. There will also be two types of division, in that they will consist of different types of brigades. That difference will not be very great, and should not affect administration outside the division.

Three disadvantages of the logical solution are overcome by the alternative one. They are the difficulty of providing single battalion posts with M. G.s, the recruiting difficulty and the problem regarding the peace distribution of the fifty-one unbrigaded battalions. It would not be necessary to put Indian rifle battalions into single battalion posts, and British battalions are only on their own when carrying out Internal Security duties, for which M. G.s are not required. The recruiting difficulty would be no greater than it is now, though Indian battalions would find it harder to find personnel for three M. G. platoons instead of two. This could be overcome by not demanding such a high standard for mule leaders. Of the fifty-one unbrigaded battalions, only twelve would be really different from the present Indian battalion; they would be the twelve rifle battalions and they could be allotted to Internal Security; on which duty most of these unbrigaded battalions are engaged.

#### *Some Other Points*

There are two other points which must be considered with regard to this problem. First, there is the question of the increasing complexity of infantry battalions and the resulting difficulties of peace training and control in war. At present in the Indian Army these are not very great, and they are not alone sufficient cause for creating separate M. G. battalions. If, however, the armament of infantry battalions is to be increased by the introduction of mortars, anti-tank weapons and a larger number of light automatics, then it is considered that the resulting difficulties in training, control and in finding the necessary personnel will make the formation of Indian M. G. battalions essential.

Secondly, there is the all-important question of finance which has not as yet been touched upon. In order to arrive at a true estimate of the financial effect of these two schemes a very detailed analysis would have to be made. The following table gives a

rough comparison between the present organisation, the "logical" solution and the "alternative" solution.

Table Showing Total Number of Rifle Companies and M. G. Platoons under the Present, Logical and Alternative Organisations respectively.

	Rifle Companies.	M. G. Platoons.
<i>Present Organisation--</i>		
117 Mixed Battalions, each three rifle companies and two M.G. platoons ...	351	234
<i>Logical Organisation--</i>		
(a) 24 Rifle Battalions brigaded with eight British M.G. Battalions in 8 brigades, 4 companies per Battalion ...	96	...
(b) 28 Rifle Battalions brigaded with 14 British Rifle Battalions and 14 Indian M.G. Battalions. 4 companies per Battalion ...	112	...
(c) 39 Unbrigaded Rifle Battalions ( <i>i.e.</i> , $\frac{3}{4}$ of 51) ...	156	...
(d) 14 M.G. Battalions as in (b) above, each with 3 companies of 3 platoons ...	126	...
(e) 12 Unbrigaded Battalions, <i>i.e.</i> , $\frac{1}{4}$ of 51 ...	108	...
 Total of Logical Organisation ...	364	234

*Alternative Organisation--*

(a) 24 Rifle Battalions brigaded with eight British M.G. Battalions ...	96	...
(b) 12 Unbrigaded Rifle Battalions ...	48	...
(c) 42 Mixed Battalions brigaded with 14 British Rifle Battalions and 14 Indian M.G. Battalions, each 3 rifle companies and 3 M.G. platoons ...	126	126
(d) 39 Unbrigaded Mixed Battalions ...	117	117
 Total of Alternative Organisation ...	387	243

Thus, the Logical Organisation would have 13 more rifle companies than the present one and the same number of M. G.

platoons, while the Alternative Organisation would have 36 more rifle companies and 9 more M. G. platoons. It is thus apparent that the Alternative Organisation would require far too large an increase in strength and so in expense, if nine M. G. platoons per brigade are going to be required. If only six platoons are necessary, however, the Alternative Organisation, though still requiring 36 more rifle companies, would need 72 less M.G. platoons than the Present Organisation, as its total strength of M.G. platoons would be reduced to 162. Its cost would then be about the same as that of the Present Organisation in all probability. The Logical Organisation would still be a good bit cheaper, but the advantages of the Alternative Organisation in other ways might make it worth while to adopt it.

#### *Conclusion*

If the foregoing arguments and conclusions are correct there would appear to be no really insurmountable obstacle to the introduction of Indian M.G. battalions. It is considered, however, that the present Indian Infantry battalion is the most suitable unit for the purposes of the Indian Army. For this reason the alternative solution which has been suggested would seem to be preferable provided that—

- (a) Six M.G. platoons are sufficient for a brigade, and
- (b) No other additions are made to the armament of Indian Infantry battalions.

If only six M.G. platoons per brigade are required, then under the Alternative solution the only reorganisation necessary would be the turning of 36 battalions into rifle battalions. The remaining 81 would remain exactly as they are now. Amongst other advantages this would entail a far smaller expenditure on the alteration of barracks. Under the Logical solution all units would have to be reorganised and so all barracks would have to be altered.

## WANA NEW CANTONMENT

BY COLONEL R. L. BOND, D.S.O., M.C., R.E.

For a year and a half there has been in progress in Waziristan a project which is in all probability the largest troop labour construction work ever undertaken in this country. Many of the problems which have arisen are of common interest to Commanders, Staffs and Troops, and it is thought that a description of these problems and the methods adopted for solving them, in so far as they are of general rather than specially technical interest, may be worthy of description.

Wana is situated at the eastern end of a plain some 15 miles long from east to west and on an average 5 miles wide. First occupied by British troops in 1894, it has from time to time been garrisoned by militia, by regular troops and again by militia.

In 1919, involved in the unrest and difficulties consequent on the 3rd Afghan War, the small loyal garrison carried out a prolonged and gallant fighting withdrawal to the Gomal under the able leadership of Major G. H. Russell, South Waziristan Militia, thence to Moghalkote and finally, after further heavy fighting, to Mir Ali Khel. It was reoccupied and then again evacuated in 1922, and was finally reoccupied by the Manzai Brigade in 1929. Since that date Wana Brigade has been accommodated in a Perimeter Camp under canvas. In 1930, estimates were prepared for building permanent barracks for the Brigade and had reached an advanced stage when the financial crisis and an element of uncertainty as to policy in regard to the final disposition of troops on the Frontier brought the work to an end. By 1934, however, the worst of the financial storm had been weathered, policy was settled and it became a matter of urgency to provide alternative accommodation to tents under which troops had been living in somewhat unhealthy and uncomfortable conditions for 5 years.

In 1933, the troops in the outlying forts on the Khajuri plain, guarding the approaches to Peshawar, had built barracks for themselves at low cost in remarkably short time. The form of construction being single storey hutments made of hollow concrete blocks. The admirable success of this work pointed a way to the solution of housing the troops at Wana at a minimum of expense, and early in 1934 the policy of building Wana on the lines of the Khajuri

plain hutments was submitted to Army Headquarters, the approximate cost of the work being given as 40 lakhs. This estimate was based on the costs of the Khajuri plain hutments with necessary allowances for the extra cost of transport. Late in June, 1934, information reached Headquarters, Waziristan District, that the proposal had been submitted to the Secretary of State and that the work of preparation of detailed plans and estimates was to be taken in hand forthwith. It is of interest to note that at this stage and for some months, the matter being treated as one of policy, the correspondence was conducted by General Staff Branch. Details began to come under discussion at an early stage and, as the majority of these details were necessarily administrative in character, the conduct of the correspondence through General Staff channels to some extent led to duplication of work and necessitated very close collaboration between the various branches of the staff and the M.E.S.

Before any project estimates could be prepared, decisions on several important matters of policy were essential. First, and most important was the question of site. In 1930, Government had purchased the land within whose boundaries the existing cantonment, the landing ground, the ranges and the recreation grounds to the north were contained. At the south-east corner of the area and in close proximity to the camp were certain Kaches which had been left in the hands of Wazir cultivators; Kaches which it was politically and economically undesirable to expropriate. These Kaches are breeding grounds of a particularly powerful mosquito, and medical opinion was strongly averse to the new cantonment being built on the existing camp site. The problem was complicated by the presence of a deep wide nullah, dry except in spate season, close to the northern perimeter of the camp, so that the alternative sites were either well to the north of the existing Government boundary or partly astride this nullah. The former alternative was favoured by medical opinion but suffered from the grave disadvantage of being far from existing water supply, in a stony and barren waste impossible to irrigate and therefore to make reasonably habitable. As also it doubled the distance for the carriage of sand and stone for making concrete it would have been impossible to keep the cost within the figure of 40 lakhs. The second alternative was tactically and technically unsound, and both these courses entailed buying a great deal of extra land.

Furthermore, there was a long and complicated history in regard to land purchase and ownership which it was essential to bring to a satisfactory conclusion before action was taken finally to select the site. A decision to build partly on and partly to the west of the existing camp site entirely within the existing boundaries was reached at the end of August, and it was then possible to go ahead with the block lay-out plan.

The lay-out plan was approached with the dismal lessons of Razmak in mind. The characteristics of Razmak built mainly in 1923 and the following years are lack of space, cramped buildings, irregular and inconvenient placing, lack of various amenities, irregular perimeter and many other disabilities. The first requisite was to obtain balance in the size of the perimeter between the demands of tactical security and the demands for adequate breathing room, and it was eventually agreed that, with the provision of six permanent picquets and of good perimeter lighting, a maximum of  $2\frac{1}{2}$  miles or 700 yards between picquets could be permitted. This gave reasonably adequate space in the camp. In actual fact the perimeter is  $2\frac{1}{4}$  miles in length. Various conflicting requirements had then to be reconciled. First, the three battalions had to be spaced more or less equally round the perimeter; secondly, it was laid down that so far as possible all horsed or animal transport units were to be on the southern perimeter to form a barrier against mosquitoes; thirdly, Supplies, Dairy and Grass Farm had to be at the east end where the main road from railhead entered the camp. Traffic circuits had to be carefully thought out; Cavalry, Artillery and Engineers had to be near one another as the officers of these units shared one mess. One important point which led to much discussion was whether Officers' Messes should be grouped mately round a species of ornamental garden in the centre of the camp, or spread round the perimeter. Almost unanimously opinion was in favour of the latter; the prospect of listening to a succession of neighbours' guest nights and the limited view entailed by the former proposal were sound reasons against it, a strong preference for sites with wide open views winning the day; this has strong advantages from the psychological point of view which is of great importance in perimeter camps.

It was apparent that before any steps could be taken to commence the Project Estimate the actual establishment for which buildings were to be constructed had to be settled, together with

a complete list of the actual buildings necessary. This work was undertaken in early August, 1934, a provisional list by units was compiled in the C.R.E.'s office showing establishments by ranks, including followers public and private. The list contained in detail the description of buildings as laid down in Barrack Synopsis. The list was first submitted to the "A" staff for check of establishments and subsequently all officers concerned, Heads of Departments, C.R.A., Os. C. units and Brigade Commander were asked to examine the list of buildings and to say what authorised or unauthorised buildings they considered absolutely essential. Even at this early stage the fact that the cost of the project was to be limited to Rs. 40 lakhs made it clear that the strictest economy in design, in specification, and even in restriction of buildings authorised by Barrack Synopsis would be necessary.

It was foreseen that the consumption of water in the construction of the concrete buildings would be high, and that as the work proceeded the lines ready for occupation would require additional water for irrigation purposes, so that the development of the water supply was a first essential.

The troops available for work in Wana were the three battalions of the Brigade and a Field Company of S. & M. and it was obvious that, taking into account the calls of training columns and so on, this was quite insufficient to carry through this gigantic task in any reasonable time, and that additional troops would be necessary. In the first instance a request was made for one extra battalion. Eventually, no infantry unit being available from elsewhere, it was decided by Army Headquarters to send a second Field Company of Sappers and Miners and an Army Troops Company S. & M. to Wana for the purpose, infantry labour being provided by the garrison from its own resources. It had been calculated that the economical combination of Sappers and Miners and infantry labour was 240 working infantrymen to one Field Company, and in the end this turned out to be an accurate figure, the lack of labour having to be made up by civil cooly labour and machines. The third Sapper and Miner unit created an additional demand for attached infantry.

Sanction of the project was received early in September, 1934, a sum of Rs. 2 lakhs was allotted for expenditure in the current year, and instructions received to press on with the work as soon as possible.

In the meantime, as a result of the detailed discussions on the establishments and lists of buildings referred to above the whole position was reviewed by a committee consisting of the Brigade Commander, Wana Brigade, the G.S.O.I. A.A. & Q.M.G., A.D.M.S. and C.R.E. with heads of other departments and services where their interests were affected. This committee became a permanent part of the organisation. There was such an immense number of problems on which it was essential for the C.R.E. to obtain rulings affecting every sort of unit, that this committee formed at once the quickest and the most authoritative means of arriving at conclusions and of putting up to the District Commander, and where necessary to higher authority, recommendations on a hundred matters requiring decision before plans and designs and therefore estimates could be prepared. After the first meeting in August, a long list of matters requiring decision by higher authority was submitted, and the reply received early in October showed that the conception of the work was now far beyond the original simple Khajuri plain hutment scheme and many items were ordered to be included which were outside the scope of the original Rs. 40 lakh estimate. Whilst, therefore, preliminary works, water supply, manufacturing organisation, laying of Decauville track to the *bajri* nullahs were being carried on, the primary problems of policy were being thrashed out. It became necessary to point out that the accretions to the original estimate due to the extra works which had not been contemplated in that estimate, such as double dining rooms, mosquito netting for both British and Indian barracks, fans and so on were mounting to several lakhs of rupees. A decision was then given by H.E. the C-in-C. that in no circumstances was the estimate to exceed the sum sanctioned by the Secretary of State, namely, Rs. 40 lakhs. A factor of the utmost importance before any progress could be made with the estimate or design was to settle the policy in regard to the scale of establishments for which accommodation was to be provided, that is, 75 per cent. of peace establishment or 100 per cent. of any intermediate scales. The Wana Committee examined this question in detail taking into consideration such matters as minimum strengths, leave and furlough, local conditions as affecting numbers of followers and so on, and at a meeting held early in December, 1934, the Committee made its recommendations for all units and all types of buildings. The Army Commander was

present and gave his approval to the scales proposed which were later agreed to without substantial change by Army Headquarters. The fact that the Army Commander was present and gave decisions on many points of policy was of immense help to the District Authorities and enabled work on the project estimate to be put in hand probably a month earlier than would otherwise have been the case.

The next important matter with which the Committee had to deal was to consider how to keep the project within the figure of Rs. 40 lakhs. For this purpose the various buildings and services were divided into three categories: (A) Essential items; (B) Highly desirable, but not absolutely essential; (C) Desirable, but not so far as could be seen capable of being financed.

All these proposals and classifications were submitted to Army Headquarters and rulings received in the middle of January. It was not, however, until the middle of February that the scale of barrack accommodation was finally settled, and work on the estimate could proceed. This estimate was, of course, not comparable with the ordinary down-country barrack project, as the type of construction had no parallel in Waziristan, and costs had to be worked out on a troop labour basis from first principles. In fact a special schedule of rates had to be made, and each type of building separately calculated. It may be of interest to know that the final estimate consisted of some 39 parts, the summary alone making a pile 3 feet high, whilst the detailed workings formed a pile of foolscap over ten feet in height. Had it not been for the fact that the Wana Committee was able to settle practically all problems affecting both Staff and Engineer executive over the table and obtain decisions thereon with the maximum of rapidity, it would have been quite impossible to have produced this estimate in the short space of 3 months; for it was completed (6 typists working day and night for three weeks) by the middle of May, cleared the fence of Command Headquarters in 24 hours, and received the sanction of Army Headquarters in a few days.

One difficulty that presented itself at an early stage in the project was that of transport. It has been pointed out that Wana is 62 miles from narrow gauge railhead at Manzai. It was estimated that some 700 tons of stores would require lifting in each of the first three months, and afterwards a steady average of 300 tons a month over this winding and mountainous road. In actual

fact the stores did not come forward at first from the I.S.D. as quickly as expected and transport has been lifting a fairly steady 400 tons a month from the start. The nature of the stores, electric light poles, 20-foot iron joists, steel trusses, Decauville rails, all of considerable lengths have presented problems in loading which have required considerable ingenuity on the part of transport and loading personnel. The exigencies of unloading from trains and loading on to M.T. and the difficulty of anticipating the arrival of narrow gauge trains has made the task of the battalion in Manazi no easy one in providing working parties, but, the estimates providing for military labour, no alternative is practicable.

Finally, the organisation of labour. Each of the three battalions in Wana does one month's work in three on the project. There is necessarily an element of competition for there is ample room for difference in the quality of work produced, particularly in the quality of the concrete blocks, the wastage from badly made blocks and the time factor. It is an indication of the high standard reached that a wastage of only three or four blocks in a thousand on the block making platform has been attained. When it is remembered that an average wastage of 1 per cent. makes a difference of Rs. 5,000 in the cost of the project, the value of so high a standard is clear. These results are remarkable, whilst the interest shown by the troops and the cheerful spirit in which they undertake this unaccustomed task is beyond praise. There is no doubt that the sight of the barracks rising rapidly around them, barracks which bid fair to be amongst the most comfortable in India, is stimulating particularly to those who may hope themselves to occupy the buildings.

In conclusion it is desired to emphasise the great importance in all projects of deciding at an early stage on a firm policy and sticking to it. Changes in policy, especially at the last moment, in building no less than in tactics and strategy conform to the old adage "Order, counter-order, disorder", and inevitably lead to waste of time and effort and generally of money; whilst any attempt to force the pace of work ahead of a final policy always leads to waste of money. Again, the preliminaries of a large project take time. In this case, although the order for the plant for block making was placed immediately the sanction for the project was received, delivery was only obtained in January four months later, and by working at high pressure the plant was partly ready in

March, but not complete until early in May. Before working plans can be commenced the outline plans have to be signed and accepted by various authorities, and all this takes time, especially if the plans are subject to discussion. In this project, as has been pointed out, policy was not settled till February 1935, and as work was beginning in March the physical production of plans could not keep pace with the practicable rate of work and remained in this condition of close pursuit for a long time. The position is clear; no policy, no plans, no work; early policy, early plans, quick work.

# BLOCK LAY-OUT OF NEW WANAWANTT:

SKETCH N<sup>o</sup> 1

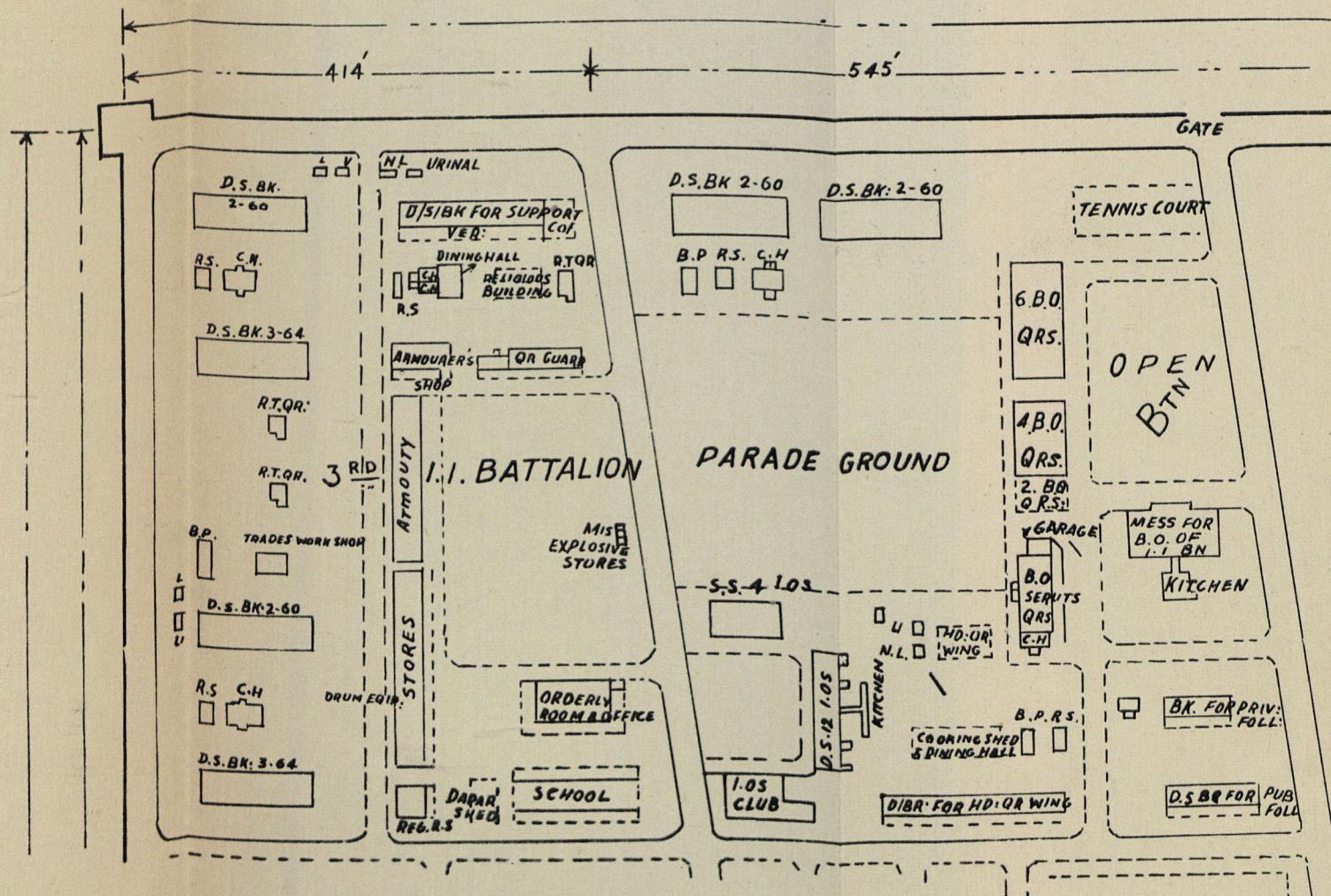
Scale 12" TO 1 MILE



八

PART LAY-OUT OF NEW WAN  
SCALE 1" TO 50 YARDS

S K E T C H   N ° 2



## INFANTRY DRESS IN INDIA

BY "RIFLEMAN"

The present dress of the infantry in India seems to be a painful attempt at a compromise between smartness and utility, with both sides losing heavily. We struggle now in various ways to recapture the glamour of scarlet and green for ceremonial parades. The result, in a kit that is meant to be suitable for service, is not satisfactory. Few people would mind the discomforts of the old full-dress again, scarlet or white, because having struggled into it, the spectators are at least getting their money's worth, and the wearer some justification for flinging a chest. But most people mind the agony of knife-creased khaki drill for ceremonial purposes when at the end of it they merely form a drab blob on a dust-heap. In addition, the Government is being put to the unnecessary expense of maintaining practically two separate kits in many cases, neither kit justifying itself, either by appearance or utility.

To deal first with my purely destructive proposals, there are five articles of clothing or equipment which could be abolished with advantage. The first of these is the long puttee, both the dark and light variety. It is a fair commentary on these inventions of the devil that, after a regiment has been in India for a short time, especially anywhere near the Frontier, they are cut down to short puttees, stowed away for ceremonial parades and guards, used as cummerbunds or as an emergency device for evacuating the wounded; but on training and in the field are never found in their rightful place as "supports for the leg," a phrase which must have caused many a blistering comment from T. Atkins in the "Shiny." Long puttees constrict the veins and muscles and are, I should imagine, a cause of varicose veins, they get sodden and heavy when wet and in the hot weather cannot be anything but unhealthy. For drill and ceremonial purposes short puttees and well-suspended hose-tops look smarter and are incomparably more comfortable. Something more definitely designed for the purpose could be carried for emergency evacuation of the wounded.

Secondly, the K.D. tunic. When heavily and well starched it looks very nice until the first movement of arm or body, when

it creases and folds in a most unsightly manner. Worn in this way it is fiendishly uncomfortable, cold in cold weather and hot in hot weather. To add the finishing touch the average dhobi does not starch it well, with the result that the collar and neck look and feel like a circular saw. When worn "au naturel" it looks appalling and remains entirely unnecessary. In cold weather the banyan is a warmer garment, and for even colder weather the S.D. tunic serves its purpose. In hot weather shirt sleeves need no overcovering, and a sweat-sodden tunic looks no better than a sweat-sodden shirt. One is left to suppose that the K.D. tunic is worn because after all "one must preserve the decencies," as if there was something inherently unclean about a bare arm, only to be tolerated in dire necessity.

Thirdly, K.D. slacks. As worn at present they have the peculiar double rôle of ceremonial order and a safeguard against malaria. For drill and ceremonial surely shorts are just as smart and a good deal cooler. Again, one can only suppose they are worn as a stern practical protest that the English knee at any rate will not be ceremonially exposed.

Fourthly, leggings for officers. A great many regiments condemn officers to wear breeches and leggings for ceremonial parades, while sometimes the sentence is breeches and long puttees. It is difficult to decide which is the more refined torture. To make either look smart they must be done up tightly, and in this condition marching is almost an impossibility. And the official reasoning that they are cheap does not seem to cut much ice with those who have to wear them as most officers would prefer to wear field boots, if one can judge from conversation in the Mess and the suppressed longings of infantry field officers and company commanders, prevented by an over-paternal regard for their pockets from showing the quality of their legs and their bootmakers. For drill and ceremonial parades well-cut field boots are most comfortable, both mounted and dismounted, easier to march in and incomparably smarter. In Razmak on column I saw mounted officers wearing jodhpurs and marching boots; breeches and long puttees; breeches, hose-tops, short puttees, and boots or chaplies; field boots and ordinary dismounted kit, but personally I never saw leggings. However, I am not suggesting that officers should wear field boots on column, as later on I am going to suggest a kit which is suitable for long walks and long rides.

And lastly, that snare and delusion the "Christmas Tree" leather equipment for officers. With the full load of war-toys carried by this lack of system, an officer is at times in serious peril of strangling himself. Taking off and putting on one's equipment is a five or six minutes work which does not leave much rest out of a ten minutes halt. When a regiment goes to the frontier officers have to wear web equipment, and if it was made universal by order the price might reasonably be expected to come down. In this particular case the bogey is very nearly dead already, but a considerably increased demand should bring the price down well below Rs. 47.

Constructively I suggest the following orders of dress which are based on common sense:

(1) Drill and ceremonial order for other ranks.

Headgear as most suitable for the class and race enlisted.

Greyback shirt, with the addition of the banyan or S.D. tunic when necessary. In this connection the banyan should be improved considerably in quality and made in some grey, khaki, or greeny colour instead of the unpleasant shade of dark brown it is at present.

Shorts; hose-tops; short puttees and boots.

(2) Ditto for officers.

Dismounted: Same as the men.

Mounted: Breeches and field boots.

(3) Marching: Fighting order. All ranks.

Headgear as above except that now all ranks would wear the same as their immediate command.

Greyback shirt worn outside the trousers. The spectacle of trained troops with flying shirt-tails might well cause a deep shudder to pass down the rows of confined commanders who won our Empire in velvet and pipeclay, but that unprincipled body of men known as the Frontier Force have, I believe, advocated it for years. Anyone who has given the system a fair trial will agree that it is a great deal cooler and more comfortable. It can hardly be sanitary to march 20 miles with a great wad of wool in the fork, and a policy of *laissez-faire*, or "hands off our shirts," is not an adequate answer in itself. The sleeves of the shirt should be rolled up and not cut off, even with the added attraction of trimmings, as one sees often enough. It is almost an impossibility to fire accurately with one's elbows resting on red-hot rock, thorns,

ice or those little pests called chubby-dusters, unless the sleeves can be rolled down as a protection. There is, I believe, a Spartan school that maintains it is good for the men and makes them tough.

Banyan and S.D. tunic where necessary.

Trousers. Shorts have many great advantages, which are obvious, but they have also two big disadvantages. First, they expose the bare knee on service to the red-hot rock, etc., mentioned above. In peace time no one notices this, because only real enthusiasm or the near presence of a senior officer makes anyone crawl about at all. Everyone thinks it will be all right during the night. It would be interesting to hear from people, who were on the last Mohmand show for instance, whether there was much minor irritation from this cause. However, this is by far the smaller of the two disadvantages I had in mind. The other is the question of mosquitoes. I think most night guards in this country in malaria districts wear trousers. On service the man or the transport must, therefore, carry them, in addition to the normal spare pair of shorts. I suggest, therefore, that it would be better if the man wore in the daytime something that he could also wear at night. I suggest a sort of trouser made from strong khaki drill, worn with enough slack to allow full play to the knee, narrowing down slightly to the ankle where it would be folded round the top of the boot and held in position by short puttees. It should have two small eyeletted holes above the short puttee to allow for drainage. It would certainly be a good deal hotter than shorts, but the Italians wore something very like it in temperatures as hot as anything we are likely to meet. It would not be as uncomfortable when wet as might be imagined, because the officers of a certain regiment wear it when out jheel shooting and the trousers dry very quickly and are not more uncomfortable than any other wet clothes. By wearing these trousers we lose some airiness and some lightness as regards the clothes on the man, but we have cut down at least a little weight from the grand total. For officers and other ranks who are going to spend more time riding than walking, some of the slack can be taken down under the short puttee, thus converting it into a sort of overall. The purist can even wear spurs, while the mosquitophobe can cover up his eyeletted holes at night by tying the short puttee a few inches higher.

This leaves the complete kit of officers and men somewhat as under:

**OTHER RANKS.**

Headgear.	Headgear.
3 Greyback shirts.	Greyback shirts.*
2 pairs shorts.	Shorts, trousers.
2 pairs trousers.	(Breeches, field boots.)
Socks, hose-tops, short puttees.	Socks, hose-tops, short puttees,
Boots, chaplies.	boots, chaplies.

**OFFICERS.**

\*Officers could wear the bush shirt pattern, with shirt neck and collar and large side pockets, in fighting order.

Officers could wear the bush shirt pattern, with shirt neck and collar and large side pockets, in fighting order.

Officers could wear the bush shirt pattern, with shirt neck and collar and large side pockets, in fighting order.

## A BRIEF REVIEW OF MILITARY, POLITICAL AND ECONOMIC PROBLEMS IN THE BALTIC

By MAJOR A. F. MORTON, R.I.A.S.C.

1. *General*.—Present-day problems in the Baltic are of very considerable interest to all military students. Events which are taking place in countries bordering on the Baltic Sea must, in the very nature of things, have a direct bearing on the political relations of Great Britain. In the first place on account of the great volume of trade with the Baltic States, and secondly on account of the ever present possibility of war breaking out in that part of the world. This would almost inevitably lead to a general conflagration, into which Great Britain would probably be drawn. This latter aspect has been somewhat obscured lately by the Italo-Abyssinian conflict and the Austrian and Rhineland disputes, and the attention of our military and political advisers has, naturally, tended to bear more on the Mediterranean and Suez Canal problems, rather than on the dangerous, but somewhat less pressing problems of the Baltic.

It is considered, therefore, that a brief review of these problems and of the conflicting interests of what we generally term the Baltic States will be of general interest. It is, of course, impossible in the space of this article to give more than the briefest survey of these problems, since the Baltic Sea is bordered by no less than ten states, all with conflicting interests and policies—some large and powerful, some small and comparatively insignificant. By a curious paradox, however, the smallest ones are the ones which are most likely to cause trouble, and it is with these that I shall chiefly deal in the present review, rather than with larger states such as Sweden and Denmark.

A recent stay of rather over a year in Estonia with various trips to other states enabled me to study Baltic problems at first-hand, and although much of what I am going to say is general knowledge, I must emphasise that, in some parts of this survey I shall be expressing personal opinions which may not necessarily coincide with official views on the subject.

2. *Historical*.—In order to get the present-day situation as a whole into perspective, it is necessary to go back to pre-war days and to study the changes which have taken place as a result of

the Great War and the Treaty of Versailles. Prior to 1914 the grouping of states round the Baltic Sea was very simple. It consisted of only four states, *i.e.*, Denmark, Sweden, Russia and Germany. By contrasting this with the present grouping it will be seen how much more complex the situation has become. During the Great War these four states were sharply divided by sentiment and national policy, as follows: Denmark and Russia, Germany and Sweden. Denmark throughout the war was strongly pro-Ally and Sweden pro-German. Germany retained the initiative at sea, but made comparatively little headway in operations directed against Riga until the collapse of Russia in 1917. Reval, Helsingfors and Kronstadt were never seriously attacked. On the other hand, Russia never succeeded in taking and holding Memel for more than a few days. It will be seen, therefore, that up to the outbreak of the Revolution in Russia, few if any changes took place. The collapse of Russia, however, altered the whole situation. Finland, Estonia, Latvia and Lithuania at once began to work for independence and although, as provinces of Russia, the Bolsheviks endeavoured to carry the revolution into them, the people as a whole were decidedly anti-Bolshevik. To understand this it is necessary to remember that these four states, which are now rather loosely termed the Baltic States, are racially entirely different from the Russians. The Finns and Estonians are offshoots of the Magyar tribes and closely akin in language to the Hungarians. Letts and Lithuanians, however, belong to the Indo-European group, with a language closely akin to Sanskrit. Each has a different national outlook and each has strong nationalist sentiments. By the end of 1917 the situation was as follows. Germany had occupied Lithuania and most of Latvia (then known as Courland) and order was more or less restored in these states. Estonia and Finland were struggling hard against Bolshevism but were making little headway. In sympathy they were, if anything, pro-Ally, but were cut off from help by the Allies entirely, and in desperation turned to Germany with an invitation to take over their countries in order to rescue them from the Bolsheviks. The Germans were not slow to take advantage of this offer, and in a remarkably short space of time, order was restored throughout the Eastern seaboard of the Baltic. Provisional governments, composed mainly of the pro-German elements, were set up in each country, under a general military control, and Germany confidently looked forward to taking over the whole of these countries on

the conclusion of peace, should she be victorious. And it must be remembered that up to this time she quite expected ultimate victory. The year 1918, however, saw the downfall of Germany and the withdrawal of German troops from these states, which were now in the unpleasant position of being between the devil of Bolshevism and the deep sea of various interventionist movements directed against Russia. Both of these, be it noted, were equally unpleasant for the peoples of the Baltic States. These unfortunates wanted neither Communism on the one hand, nor a restoration of White Russian influence on the other, since both meant an end to their dreams of independence. Overtures were accordingly made to the Allies to establish their independence, and Mr. Lloyd George took up their cause with enthusiasm, in order to create a chain of buffer states between Bolshevik Russia and Western Europe. The difficulty which here arose was in the multiplicity of peoples and territories involved, and under the then sacred principle of self-determination (which was to create such economic havoc later throughout Europe), the former Russian and German provinces were split up into the following: Poland and the Polish Corridor (separating East Prussia from the rest of Germany), Danzig, Lithuania, Latvia, Estonia and Finland. Military missions and Allied control committees were despatched to each new capital, and in the case of Estonia and Finland active intervention was afforded against the Bolsheviks. Governments composed of pro-Ally elements were established, and Allied (mainly British) influence was once more restored throughout the Baltic. So far so good; but almost immediately arose the problems of conflicting economic and political interests which persist to this day.

3. *The Economic Aspect.*—Let us next examine the economic problems brought about by the events outlined above. Prior to 1914, when these territories formed part of great economic entities, *i.e.*, Russia and Germany, the Eastern seaboard of the Baltic comprised rich pastoral, forest and dairy farming tracts with enormous exports from the principal seaports, Danzig, Memel, Libau, Riga, Reval and Helsingfors, not only of their immediate products, but also those of the vast empires to the East and South. In those days the harbours were crowded with shipping, and round the harbours grew up large factories, machine shops, constructional works and shipyards supporting great urban populations. After the Treaty of Versailles, however, this group of small states became

entirely uneconomic territories. All the export trade from the hinterland dried up. Latvia and Estonia found themselves with capital cities large enough for states ten times their size and nothing to support them with. They became, in other words, all head and no body, and rapidly sank to their present economic level, with attendant lowering of the standard of living, financial difficulties and unemployment. A trip round the outskirts of Riga is a tragic illustration of this. One sees disused factories everywhere, and quays and docks once crowded with shipping lie forlorn and empty. The same applies to a varying extent to Helsingfors, Reval, Libau and Memel, and it is difficult to see how these states can ever regain their former prosperity while they cling to their national and political prejudices. Each state hedges itself round with currency and tariff restrictions, and each is desperately anxious to preserve a favourable balance of trade. One thing alone they have in common, namely, that they are all uneconomic entities with common enemies and trade rivals. Up to 1914, their favourable situation as seaboard provinces of Russia and Germany with direct access to the markets of the world, resulted in the establishment of great and flourishing industries. As an example, a very considerable percentage of the textile requirements of Russia came from Estonia and Latvia. These industries are now dead, or at best struggle on with difficulty, the factories employing but a mere tithe of their former hands. This is, very briefly, the economic position to-day.

4. *The Political Aspect.*—Let us now turn to the political situation in these states. It is perhaps unnecessary to say that politics are largely governed by economics, and that the military situation is more or less the direct outcome of both. That is why I have, first of all, given a brief outline of the economic position. In order to gain an idea of the military situation we must next examine the political aspect. The whole political horizon of the Eastern Baltic is overshadowed by fear. That is, fear of being swallowed by Russia or Germany.

Up to the year 1933 all attention was focussed on Russia, but actual fear of aggression from the East was to some extent allayed by a belief in the efficacy of the League of Nations, and by the hope that Great Britain, France and Germany could not afford to see the Bolsheviks in possession of the Eastern Baltic seaboard. Events in Germany, however, since the rise to power of Hitler, have moved the danger point from Russia to Germany,

and it must be remembered that there is a large German or pro-German element in all the Baltic States. This particularly applies to Latvia and Estonia. In fact the Teutonic Knights once held the whole of these countries, and Riga and Reval were for hundreds of years under the sway of the Hanseatic League. The so-called Baltic barons were of course pure German, and their descendants were the large estate owners right down to the declaration of independence in these countries. Most of these estates were then confiscated, but the German element remained and constitutes an ever present danger to the real natives of these countries. More recent events have only tended to make the fear of Germany still more acute. The Abyssinian crisis has shown the utter inability of the League of Nations to protect its smaller member states from aggression, and the obvious reluctance of both Great Britain and France to meet aggression with force, even where their interests are directly involved, has naturally created the gravest apprehension in the minds of the statesmen of all the smaller European states. Everyone is familiar with the general layout of the Polish Corridor and the Free City of Danzig. The former is a strip of territory about thirty miles wide, cuts off East Prussia from the rest of Germany and affords a perilous outlet to the sea for Poland. Flanking it is the City of Danzig—nominally under the League of Nations, actually ninety-six per cent German. At the sea end of the Polish Corridor the Poles have developed the port of Gdynia. This has cut the trade of Danzig by half, and here we have all the elements of a first-class conflagration. The only wonder is that this Gilbertian situation has lasted to the present day. When one considers that the Germans are cut off by a narrow strip of foreign territory from one of their most fertile provinces, with all the attendant pin-pricks of customs barriers and restrictions to free intercourse between the two parts of their country, one can only express astonishment at their forbearance so far. There is, of course, no doubt that Germany could cut the Polish Corridor within twenty-four hours of the outbreak of war. Danzig would quite certainly declare wholeheartedly for such a move and the Polish port of Gdynia would fall immediately into German hands. Recent events illustrate in graphic fashion the tension brought about by the League of Nations control of Danzig. The desperate efforts of the Nazis to end this control and to acquire complete domination of the Free Port have recently culminated in Herr Greiser's outbreak in the League Assembly

and in various regrettable incidents in Danzig. Poland has been placed in a very awkward predicament by these events, for she undertakes on the one hand to preserve the independence of the Danzig territory while, on the other hand, she fears an open breach with Germany. In view of the present trend of German policy it appears likely that her claim will not be pressed too seriously at the moment and the dispute will probably be allowed to die down. The explosive matter, however, still remains and it needs little imagination to see that it may flare up again at any time. In this connection a word is necessary regarding the last election in Danzig. Readers may imagine that the return of only fifty-eight per cent. in favour of the Nazi regime shows that the German element is not so predominant as is stated above. This is far from the truth, since the Danzigers have always been jealous of their status as a free city, and a very considerable proportion mistrusts the present leaders of Germany as it imagines that Nazi control would end this free status. They are, nonetheless, German at heart, and in any major crisis would declare to a man for Germany. We may, therefore, expect further incidents in the near future, until such time as the League of Nations' control is ended and Danzig reverts to Germany. One thing is quite certain, and that is that German agitation towards this end will show no diminution but rather the reverse.

To the East the next bone of contention is Lithuania, with special reference to Memel. This important port was seized by Lithuania in 1923 in defiance of the Treaty of Versailles. It is, like Danzig, almost wholly German both in population and sympathy, and remains so despite the repressive measures carried out by the Lithuanian Government. These have, on many occasions, led to strained relations between Berlin and Kaunas and on the last occasion, in 1935, almost led to war. When one considers the proud and war-like spirit of the Prussians one can, again, only wonder at the forbearance which still keeps this entirely German town under Lithuanian control. There is little doubt, however, that Germany is only biding her time. Lithuania has, again, always been at loggerheads with Poland, since the Poles seized Vilna after driving back the Bolsheviks in 1921. Vilna is a purely Lithuanian town, just as Danzig and Memel are German, and it will be very surprising indeed if this centre of seething unrest does not blaze up sooner or later. Latvia and Estonia are in a slightly better situation politically, in that they have no very

immediate and dangerous questions likely to bring them into conflict with Russia or Germany, and in this respect Finland is perhaps the most secure of all. The point noted above must not be lost sight of, *i.e.*, that a large and influential section of all these countries is German in sympathy. On the other hand there is a considerable Communist element which leans to Russia. The Russian danger is, at the moment, obscured by events in the Far East and Germany, but an eminent authority on Russia has recently stated that Russia under Communism remains just as greedy of territory and has the same expansionist schemes as had Tzarist Russia, and this is in all probability correct.

This brief survey would be incomplete without mention of the recent rapprochement between Estonia, Lithuania and Latvia. This takes the form of a common foreign policy, or rather an interchange of ideas on questions of policy, together with certain trade and tariff agreements. This question of amalgamation of the three states mentioned has been mooted for many years. Far-sighted people have long seen that these states have no hope of ever becoming sound economic units and that a united front, both political and military, is necessary for their ultimate salvation. As has been pointed out, however, racial differences have so far prevented this and it is questionable whether they will ever really combine into one state. This latest alliance is a step in the right direction, however, and there is a possibility that some sort of federal constitution may eventually be set up, if only under the threat of war.

5. *The Military Aspect.*—As stated above, the military situation is dominated by the political situation, and is overshadowed by the constant threat of war with, or between, Russia and Germany. The latter has, since the advent of Hitler, become the more pressing danger, and in this respect we see that the focus of attention has moved from East to West. From 1919 to 1932, all General Staff plans and troop concentrations were directed towards the Soviet frontiers. Since 1932 the position has altered entirely, and the Baltic States, from being buffer states to keep Bolshevism out of Western Europe, have become bulwarks of Soviet Russia to keep Germany out of White Russia and the Ukraine. Let us now examine the military problems of each country separately. The first point to consider is the Polish Corridor. At the present time there appears to be very little doubt that Germany intends sooner or later to attempt to expand Eastwards. She does not,

however, want to have to fight her way through Poland if it can be avoided. All her efforts have been directed lately towards getting Poland away from French influence. This has resulted in a loosening of the tension over the problem of the Polish Corridor, but has not altered the fact that the Corridor is, as already stated, but a perilous outlet to the sea for Poland. It is in fact entirely at the mercy of Germany, and to all intents and purposes is practically indefensible. Should Poland refuse to come to an agreement with Germany, the latter will strike Eastward to the Vistula, join hands with forces from East Prussia and cut off the Corridor and the Port of Gdynia in the first few days of war. From the line thus attained Poland would find herself facing German forces on the North and West simultaneously, and her only hope would be to join the U.S.S.R. in the hope of restoring the line Krakaw-Warsaw-Vilna, with Russian aid. It may be said in passing that should Germany invade Poland and Lithuania, Russia would certainly be drawn in.

Let us next consider *Lithuania*. In common with all the Baltic States universal service obtains. The country presents no serious obstacles and is composed mainly of heath and forest land. It is flat or undulating, with a certain amount of marshy land which dries up in summer and is frozen in winter. The only towns of any size are the capital, Kaunos (formerly Kovno), and Memel. A force of about twelve divisions can be put into the field, but their capacity for resisting a first-class military power could only be rated as low. This is mainly accounted for by the poorness of the country which makes mechanisation and equipment on a first-class scale impossible for financial reasons. They have, therefore, the option of letting the Germans (or Russians) march through their country or of joining in with one or the other. As things stand at present they would almost certainly be allied with Russia against Germany, and would probably be utilised to defend the line Vilna-Kaunos-Memel, or alternatively Vilna-Libau. The Lithuanians are good fighting material, but it is doubtful whether they could put up as tough a resistance as the Letts or Estonians.

*Latvia* is in a rather different situation, and should war break out between Russia and Germany it would be difficult to foresee at present which side the Letts would ally themselves with. They would probably endeavour to remain neutral, in common with Estonia and Finland, but whether, in view of existing agreements

with Lithuania and Estonia, they would be allowed to do so, is very doubtful indeed. Riga and Libau, the chief ports, would almost certainly offer too tempting a proposition for Germany to resist. Equally certainly, they are too valuable in the strategic sense for Russia to allow them to fall into German hands. The Letts are very tough fighters indeed. They maintain a standing army of about 25,000 officers and men, have a small but efficient air force, and could in emergency probably put about ten divisions in the field. In common with Lithuania and Estonia they suffer from lack of modern equipment owing to financial difficulties. Communications are difficult, railways poor and roads for the most part bad. Most of the rolling-stock is pre-war Russian and would not stand up to the wear and tear of war. The country is again undulating or flat with no considerable heights, and is fairly thickly wooded. The only serious obstacle to an invading army is the line of the Dvina. It will be remembered that it was on this line that the Germans were held up for so long in 1916-17. It may be mentioned in passing that the Letts provided some of the best regiments in the pre-war Russian army. They have a dour temperament, a nasty strain of cruelty and a disregard for human life which makes them formidable opponents.

*Estonia* was given considerable assistance by Great Britain in establishing her armed forces after the Great War and this is reflected in the uniforms and organisation of the army and air force and by the very cordial relations which have existed between us since. They maintain a standing army of about 12,000 officers and men and could put about seven divisions in the field if emergency arose. They are first-class fighting material, but suffer also from lack of modern equipment. They have, for instance, only a few antiquated armoured cars and tanks dating back to the Great War, and their artillery and machine-guns are (or were up to 1933) equally antiquated. A further difficulty is that there is an almost entire absence of iron and coal in the Baltic States which necessitates the import of almost all machinery. A corollary to this is the absence of machine shops and heavy engineering industries. This is a severe handicap and means the buying from abroad of nearly all service equipment. Estonia is flat or undulating, has no hills of any size and is largely composed of heath, forest and swamp with many considerable lakes. Of these the largest is Lake Peipus, which, with the river Narva flowing out of it to the Gulf of Finland, forms the main line of resistance against

Russia. It may here be noted that along the entire Russian frontier of all these states there is a complete belt of wire with patrols, searchlights and machine-guns—not to keep people out of Russia so much as to prevent the proletariat escaping from the Bolshevik paradise. The Estonian air force is small but efficient and is equipped mainly with British machines. It was originally organised and trained by British air force officers, and so far as it goes could give a good account of itself, but would of course stand no chance against the masses of the Russian air force. At present, however, with the moving of the danger point to Germany, Estonia is more favourably situated than Latvia and Lithuania as its geographical position on the Gulf of Finland renders it much more difficult of attack from East Prussia. Also its proximity to Leningrad and Kronstadt makes it easy of reinforcement and protection by the Russians by land, sea and air. Estonia possesses one of the largest, if not the largest, oil shale deposits in the world. This is situated between Tallinn (Reval), the capital, and Narva on the Gulf of Finland, and although not yet fully developed, would form a most valuable source of supply in war. Indeed, it takes the place of coal for many purposes now. It is rich enough to dig out of surface quarries and burn in railway engines without treatment, and is used exclusively by the railways and by various factories.

*Finland* is in many respects the most fortunately placed of all the Baltic States. It is, for instance, more an economic unit than any of the others as it has almost unlimited supplies of timber with all its attendant industries. It is again most favourably situated from the strategic point of view since, composed as it is of a myriad lakes and forests, its land frontiers are almost impregnable under modern conditions. Communications are poor except by water, but its network of waterways makes it easy to defend and difficult to invade. Anyone who has travelled through this maze of lakes and rivers will appreciate the defensive advantages of this country. Narrow, rocky strips of land, covered everywhere with dense forest, alternate with deep and unfordable stretches of water. Concealment from the air is perfect, and the task of forcing a way through this labyrinth in the face of modern weapons would be indeed Herculean. Finland has a small but efficient army (32,000 officers and men) and an air force (60 machines) which show German influence in equipment and training. She could put about 200,000 men into the field in case of emergency. The

chief danger from the military point of view is the proximity of the capital, Helsingfors, and most of the chief towns, to Leningrad and Kronstadt. Although I consider that the Russians would have the greatest difficulty in taking these places by land, they would be easy targets from the air. The Finns are bitterly opposed to any interference from Russia and would be likely to take Germany's part in any conflict between Russia and Germany, but this would most probably take the form of benevolent neutrality rather than active intervention. It will be seen, therefore, that she is the least likely of all to be drawn into war in the near future and, owing to her geographical isolation, is not likely to be drawn into any alliance with her neighbours.

*Sweden and Denmark*, although bordering on the Baltic, do not come within the scope of this article to the same extent as the states already dealt with. Their geographical situation keeps them apart from the political and military dangers of the South Eastern Baltic countries, and they would be very unlikely to be drawn into any conflict arising there. Sweden has, of course, always had a leaning towards Germany, whilst Denmark, in common with Norway, inclines towards Great Britain. This is mainly due to commercial interests, particularly shipping, but the Scandinavian countries present a problem of their own, apart from the Baltic, and would need to be considered in a separate survey.

This concludes this brief review of Baltic problems. I need only say in conclusion that our interest from a military point of view is at present centred on the Polish Corridor, East Prussia, Danzig, Lithuania and, to a lesser extent, Latvia. These places make up a powder magazine which is likely to explode at any moment and no one can say what the limits or repercussions of such an explosion would be throughout Europe and the rest of the civilised world.

## MOUNTAIN ARTILLERY

BY MAJOR M. E. S. LAWS, M.C., R.A.

The decision to convert Light Artillery Brigades, R.A., at Home into mechanised Army Field Brigades and Anti-Aircraft units, coincides with the proposed replacement of Light Batteries, R.A., in Mountain Brigades by Mountain Batteries. As a result of these changes, there will shortly be no Mountain Artillery units in the British Service, if we except the two or three Heavy Batteries abroad which are trained as Pack Artillery in a secondary rôle and the Mountain Battery of the Hong Kong Brigade of the Hong Kong-Singapore, R.A.

The early campaigns of the British Army were mostly confined to the plains of Western Europe, and for many years there was little need to provide artillery specially equipped for mountain warfare. But during the later stages of the Peninsula War, Wellington found himself fighting in the Pyrenees and felt the need of small guns which could accompany infantry over the precipitous and roadless passes on the French frontier. In response to a demand for such guns, Marshal Beresford sent up a few 3-pounders from Lisbon and attempts were made to collect Spanish mules. Lieutenant W. L. Robe, R.A., was placed in command of a composite battery consisting of Portuguese gunners and British drivers and equipped with three 3-pounders carried in pack and three captured French 3-pounders altered for single draught. With this hastily improvised equipment Lieutenant Robe took part in the Battle of Nivelle (1813) as part of the 6th Division and later was employed against the French gunboats on the Adour, a curious use for the only mountain battery then in existence. When peace came Robe's Mountain Battery was broken up and no effort seems to have been made to retain even a cadre unit with pack equipment, though particulars of the organisation and equipment used were preserved.

Just as the first British Mountain Battery was being broken up in Spain, the Bengal Army was busily equipping a very similar unit for service in Nepal. Up till that time the British in India had used gun lascars to move their guns in the face of the enemy, while bullocks were used on the line of march. The "Experimental Troop of Bengal Horse Artillery" [now "F" (Sphinx)

Battery, R.H.A.] was first formed in 1880, and nine years later it was decided to raise five more similar batteries with horse draught. Until then the Bengal Army had been called upon to fight only in the plains of Southern India, but in 1814 the campaign in Nepal produced entirely new problems. The Horse Artillery was obviously not suitably equipped for service in the hills, and in September 1814 orders were issued for the preparation of 12-pounder howitzers for carriage by coolies. The piece and carriage were made to divide up into separate loads, but the experiment was not altogether a success and in the end guns were usually carried on elephants or laboriously dragged by long teams of men over hastily prepared tracks. Despite this experience no real effort was made to investigate the question of artillery draught in hill campaigns, and beyond demonstrating the unsuitability of Horse Artillery, the unreliability of elephants as gun carriers, and the disadvantages of coolie transport, the Nepal War did little to solve the problem.

Curiously enough the next experience of Mountain Artillery came once again from Spain. A British "Legion" under Sir De Lacy Evans was engaged in the Spanish civil war of 1837, and part at least of its artillery was carried in pack on mules. One of the gunner officers who served in the campaign was Captain J. B. Backhouse, who in 1840 was detailed to raise a Native Mountain Battery for the service of Shah Sujah, the claimant to the Afghan throne. This officer, who appears to have possessed exceptional mechanical ability, introduced various alterations to the guns and carriages handed over to him by the Ordnance Department and he certainly raised, trained and equipped India's first Mountain Battery in a surprisingly short time. By November 1840 the unit had joined the Kabul garrison, the gunners and drivers being Indian artillerymen specially recruited for the Shah Sujah's service but commanded by British officers. The battery took part in the confused fighting around Kabul which preceded the disastrous retreat towards Jalalabad, and behaved with remarkable steadiness, but it was almost completely destroyed in the Khurd Kabul Pass. On the conclusion of the war it was broken up. (Governor-General's Orders of 16-6-1843.)

A year later the military authorities in India decided to investigate the whole question of equipping artillery for mountain warfare, and a committee was assembled at Jutogh to report on

the equipment and mode of transport of "Mountain Train Batteries." (Governor-General's Orders of 8-6-1844.) The experience of artillery officers who had fought during the Nepal campaign was considered, and eventually the Committee recommended that 12-pounder howitzers and 3-pounder guns should be designed for mule transport. In due course the equipment for a 6-gun battery was provided (three 12-pounder howitzers and three 3-pounder guns) together with 168 mules, which were handed over to a European unit at Peshawar—the 2nd Company, 2nd Battalion, Bengal Artillery [later 9th (Kabul 1842) Light Battery]. This battery had already had experience of mountain warfare, having fought throughout the Nepal campaign and taken part in General Pollock's advance to Kabul in 1842, though it had never previously had special equipment for hill fighting.

At first the mountain guns and mules were regarded as special equipment which was to be used when required, but the 2nd Company, 2nd Battalion, Bengal Artillery, was still in possession of the normal Field Battery equipment and was not regarded as a purely Mountain Battery. In 1854, however, special personnel for the mule-borne guns was authorised, and an establishment of 1 subadar, 1 jemadar, 2 European staff sergeants, 6 havildars, 6 naiks, 2 buglers, 88 sepoys, 168 syces, 2 native farriers and 120 grass-cutters was fixed. This detail was permanently attached to the special Mountain Battery equipment and was known as the Peshawar Mountain Train [to-day 3rd (Peshawar) Mountain Battery, R.A., F.F.]. The equipment had been used by the 2nd Company, 2nd Battalion, Bengal Artillery, during the Black Mountain Expedition of 1852-3, the Hindustani Fanatic Expedition of 1853 and the Michni Mohmand Expedition of 1854, but after then it was manned by the Peshawar Mountain Train. A second unit—the Hazara Mountain Train [to-day 4th (Hazara) Mountain Battery, R.A., F.F.]—was raised at Abbottabad about this time for local defence.

After the Mutiny the defence of the North-West Frontier at first devolved almost entirely on the Punjab Frontier Force. At that time the batteries of this semi-independent organisation were officially organised as Light Field Batteries and a Garrison Battery, but it was soon found more convenient to use mountain guns in pack rather than wheeled field guns. After the conquest of Sind, Brigadier-General John Jacob raised his own "Mountain Train,"

which is to-day represented in the Indian Army List by the 6th (Jacob's) Mountain Battery, R.A., and the 5th (Bombay) Mountain Battery, R.A. Thus, when the East India Company's army was absorbed by the Royal Army in 1862, there were two Indian Mountain Batteries (the present Nos. 3 and 4) on the Bengal establishment, and two others (the present Nos. 5 and 6) in the Bombay Army. These were the only units permanently equipped for mountain warfare with mule transport.

The experiences of the Punjab Frontier Force during the decade following the Mutiny indicated clearly enough the necessity for having mobile batteries capable of operating over the roadless country of the North-West Frontier. During this period two more "Mountain Trains" with Indian personnel and mule transport were raised at Murree and Jutogh, and to these were attached British batteries of Garrison Artillery to form Mountain Batteries when necessary. Meanwhile, improvised British Mountain Batteries were employed during the Bhutan campaign (1864), and one of these (5th Battery, 25th Brigade, R.A., now 27th Medium Battery, R.A.) later fought in Abyssinia (1867). This was the first British unit of the Royal Artillery to be permanently equipped as a Mountain Battery. The two "Mountain Trains" were allotted to the 6th Battery 8th Brigade, R.A. (now 3rd Light Battery), and the 11th Battery 9th Brigade, R.A. (now 12th Heavy Battery) for the Second Afghan War (1878-80), both units taking part in the celebrated march from Kabul to Kandahar.

One important result of the Afghan War of 1878-80 was the demand by the military authorities in India for more mountain batteries, and it was decided that certain Garrison Artillery units should be equipped as Mountain Batteries for the whole of their service in India. To distinguish these units the word "Mountain" in brackets was added to their normal designation (Regimental Order No. 13 of 1881), but it was not until 1889 that ten such batteries were reorganised as a separate branch of the regiment and were numbered as Mountain Batteries from 1 to 10.

During the following year these Mountain Batteries, R.A., together with the Indian Mountain Batteries had almost a monopoly of active service, being constantly employed on Frontier Expeditions. In consequence they were greatly sought after by keen young officers and the British personnel were especially selected, while the Indian drivers were also picked men. A British Mountain

Battery (No. 4) took part in the South African War, another (No. 6) fought in Aden in 1903, and a third (No. 9) in East Africa (1901), but the bulk of their service was performed on the Indian frontiers. Several batteries went to France in 1914, but it was at Gallipoli, in East Africa, Palestine, Mesopotamia and Salonika that the British Mountain Artillery was chiefly employed during the Great War. In 1920 (A.C.I. 451/1920) the batteries were redesignated "Pack Artillery," and later a brigade of three batteries was allotted to each division at Home for close support duties. This latter change necessitating an increase in the branch from the pre-War ten batteries to twenty-one batteries, while the number of Indian Mountain Batteries had by that time increased to nineteen, plus a detached section for Chitral. In 1927, British Pack Batteries were designated Light Batteries (A.O. 88/1927), while Indian Pack Batteries became Mountain Batteries and regained their old numbers.

The recent provision of infantry mortars for close support duties and the pressing need for increasing the Artillery arm, led to the withdrawal of Light Brigades from Divisional Artilleries at Home and their conversion into mechanised Army Field Brigades or Anti-Aircraft units. This opportunity has been taken to abolish British Light Batteries in India and to replace them by Mountain Batteries, so that within a short time there will be no regular British Mountain or Light Batteries in existence.

It is to be hoped that the British Light Batteries now in India which will thus become Indian units will not disappear from the Army List, but will be reconstituted at Home as Field or Anti-Aircraft units. All gunners will regret their passing for sentimental reasons, but their fine traditions of gallant service in many frontier campaigns will remain in the safe keeping of their successors of the Mountain Artillery.

## TROUT FISHING IN KASHMIR

BY "R. H."

This article is primarily intended for those who contemplate fishing in Kashmir for the first time. The paragraphs dealing with preliminary arrangements indicate useful lines of enquiry, to be followed up through the Game Warden's Office in Srinagar, fishing agents, or (best of all) friends who know the Kashmir waters. Some fishing hints follow.

The trout fishing season in Kashmir extends from the 1st April to the 30th September. A list of "open" waters, which vary from year to year, can be obtained from the Game Warden. This list also explains the conditions attached to the grant of licences, and gives general information about camping sites, distances, etc.

Most beats are bookable by the week, at a charge of Rs. 30 for each of the two rods allowed. A few streams are reserved as "daily" waters, *i.e.*, they may be booked only for a limited number of days in any one week. Daily and weekly waters can usefully be combined to fit in with an odd period of leave. Incidentally, one daily water—the Kokarnag—is, with the exception of the Maharajah's private preserves, probably the best trout stream in Kashmir.

The provisional booking of all waters opens on the 1st January, and it is advisable to be early in the field.

The Game Warden's list warns fishermen that sport in the Kishenganga, Sindh, Aru and Shishnag, is normally poor from the 15th May to the 15th July, owing to snow water. Snow water is the curse of Kashmir fishing. After a hot, cloudless day, rivers swell into a turbid and almost unfishable torrent. There is, however, a good deal of luck about snow water. We have known the Shishnag to fish excellently during a cloudy week in June, and the Sindh to be almost hopeless for three days out of seven in hot September weather. Taking it all round it is safest, if unenterprising, between May and August to book rivers such as the Kokarnag and Achhabal, which have their resources at low elevations. As a general rule, too, the best fishing months are April and September.

Apart from considerations of snow water, those who prefer peace and solitude should avoid the Aru and Shishnag in July and

August. Pahalgam, at their junction, is a thriving Hindu holiday centre, and the concentration area for the annual Amarnath pilgrimage. Those swimming a dog in a pool may induce stiff salmon to rise, the splashing of visitors does not appear to have the same beneficial effect on Pahalgam trout.

If, in addition to fishing, a lengthy stay is being made in Gulmarg, it may not be worth while bringing a car to Kashmir. Tolls, petrol and garages are expensive items, while enforced idleness does not improve a car. On the other hand, there are motorable roads to many of the beats. A large tarpaulin is useful, as garages are rare by the waterside. Chains may be invaluable after rain. It is highly annoying to be stuck for lack of them on the way to one's fishing, as once happened to us on the Bringhi road.

For the married, with a good deal of kit, it is worth considering hiring a lorry from Srinagar. Lorries seem to go with impunity where one would hesitate to take a car. Still, when fishing widely separated beats, it is convenient to be independent of hired transport. The attachment of a trailer makes even a "family camp" self-contained, and may save a lot of money when transporting kit to and from Kashmir.

The details of this transport problem are well worth going into, before finally deciding on a beat.

Camp gear of all descriptions can be hired in Srinagar. This may save money, dependant on the cost of bringing ones own to Kashmir. Servants can also be hired, but it is advisable to bring a personal bearer. Camp coolies can usually be engaged on the spot. It is not possible to generalise about stores, beyond saying that, except in Pahalgam, it is unwise to count on more than eggs, milk, and chickens. A few beats can be fished from rest houses, e.g., the Lowest Bringhi and Kokarnag, and other rest houses are being built.

Until one knows the ropes, it saves trouble to employ a Srinagar agent. The bigger firms, if given reasonable notice, can make all camping arrangements. As to the selection of, and dealings with, an agent—get a friend's advice. With a few notable exceptions, Kashmiri tradesmen are "kittle cattle" to deal with. Have nothing to do with the touts who pester visitors on arrival in Srinagar. They are as dependable as Port Said hawkers.

Nearly all trout tackle is imported, and a fair average price is 20 per cent more than in England. Try, therefore, to forecast

requirements, and bring them out from Home. Suggestions are given later. Be careful of small dealers, as their stock (particularly gut) may not be fresh, and their prices may be ridiculous. In order to check local prices, and nomenclature when ordering by post, it is useful to carry a catalogue. Fishing tackle can be purchased in Srinagar, where several big English firms have agents.

Fishing shikaris vary greatly. Try to get a recommendation from a friend, as good men are often booked in advance, and a bad shikari is a riverside pest. Each beat has a watcher. On arrival at your fishing, study his book, which is a fisherman's log of the water. The most useful entries, if the water and weather conditions happened to be similar, are those relating to the same dates in previous years. Note the times of day at which trout were feeding, also the sizes (too seldom given) of successful flies or baits. Do not be unduly depressed if you lack the whatever-it-was that X considered the only sure killer. Trout are as variable in their fancies as anglers. When entering up the book yourself, so that your name may be blessed, put down all the information you wish you had known on arrival.

Now for the fishing itself. Kashmir rivers are mainly stocked with brown trout; a few hold rainbow as well. The present record stands at  $14\frac{1}{2}$  lbs.; a "good" fish weighs about  $3\frac{1}{2}$  lbs. Fly, lures, and—on rivers specified in the Warden's list—artificial spinning baits, are allowed. Natural baits are barred to the angler, but unfortunately not to the fish, as a post-mortem in the frog season shows.

We use three rods—a light spinning rod; an 11 ft. fly rod, stout enough to cast light spinning baits without strain; and a "feather-weight" split-cane for dry-fly work, or as a relief to a tired arm. Such a battery is not, of course, essential. For the occasional fisherman we suggest one general purpose rod, with alternative tops for fly fishing and spinning.

Though one rod will suffice, use different lines for fly fishing and spinning. A fly cannot be easily thrown with a twisted line, and some kinking is almost inevitable when spinning. Anti-kink leads and "paired" baits, spinning reverse ways, minimise this nuisance. Since the last few yards of spinning lines are apt to chafe, we recommend a fairly cheap undressed silk line, home-proofed with Cerolene. Eighty yards are not too much, as then weakened pieces can be broken off the end. Besides, one never

knows what may happen. This year (1936) on the Middle Sindh, a fish hooked in heavy water, though hard held, ran just on 80 yards before it could be stopped in a pool. Twenty minutes later, alas, it departed.

Changing a line takes time, so two reels are almost essential. If you have three, take them, and keep one sacred to a dry-fly line. If only one, a spinning reel (e.g., the Silex) can be used equally well for fishing and spinning. The opposite does not apply.

The extensive use of fly lures (large flies with two or more hooks in tandem) is a peculiarity of Kashmir fishing. Some lures (notably the long tailed "Peacock") probably resemble small fish when drawn against the current. Fished down-stream, their generous wings and hackles give the impression of life and movement which attracts trout. Lures generally fish best in heavy water, or in the evening.

Usually, we think, lures are taken out of irritation or curiosity. On newly opened waters they may be deadly, but on rivers which have been fished for some years, they seem largely to have lost their fascination for the bigger trout. In low, clear water, or when trout are feeding on the surface, they should only be experimentally tried.

A good deal of the lure's popularity is, we suspect, due to their attractive appearance—in the eye of the angler himself. This is all to the good, as it instils confidence! We suggest buying only a few patterns, but several of each in different sizes. Golden Lion, Peacock, Silver Doctor and Terror, offer a good variety.

The foregoing remarks also apply to salmon flies (sizes\* 1/0 to 5), but the fly has one marked advantage over the lure. With its single hook, far fewer undersized fish are badly damaged. Silver Doctor, Black Doctor and Jock Scott are good patterns, but we prefer light, short dressed flies such as Blue Charm and Silver Blue. Trout, like salmon, do not so quickly detect, and expel, these imitations.

When trout are showing, first try ordinary English "lake" flies, *i.e.*, about size 4, and not bigger than size 8. Kashmir trout, and big trout, too, take an imitation of the natural fly, or embryo, more freely than some fishermen suspect. It is not easy to get specimens of local flies, but the majority appear to be black, black and white or silver, rich brown, and grey. Greenwell's Glory, Watson's Fancy, Silver Butcher, Silver March Brown, Cinnamon and Gold, and the

\* All sizes are Hardy's.

Black Zulu are satisfactory imitations. The best all round fly (we have not yet discovered the reason) is Teal and Green. There is a special series of Kashmir flies on the market, but we have not found them to be as effective as the English patterns mentioned.

In slow or medium currents, an orthodox way of fishing lures (or salmon flies) is, after casting up and across, to allow the fly to sink a little and then draw it gently round until directly downstream. Throughout its travel the fly fishes best close to the surface, or close to the bottom. There is nothing to induce a trout to hover in mid-water.

In fast currents, and the late evening, it usually pays to cast more down-stream, and keep the fly moving fairly fast on the surface.

When fishing a large single fly, we often try the greased line methods which the late A. H. E. Wood of Glassel made famous for salmon fishing. We think that as many Kashmir trout move to a fly fished in this fashion. Certainly far fewer rising fish are missed. Those interested will find that "Jock Scott's" book on Mr. Wood's discoveries make fascinating reading.

"Lake" flies should, whenever possible, be fished upstream. Cast frequently, throw a short line, and stalk the trout as warily as you would a black-buck.

Small fly spoons have their day, and fished downstream are useful for exploring recesses under the banks. In deepish water, when fish are not showing, try adding a little lead to the trace. When fish are moving, and especially in the evening when they run into the shallows to feed, a spoon thrown upstream is sometimes taken as it touches the water. Gold, silver, and polished copper, either alone or in combination, are good colours. Sizes range from  $\frac{3}{8}$ " to  $1\frac{1}{4}$ ". A  $\frac{3}{4}$ " gold and silver spoon is probably as good as any.

Records show that the majority of heavy fish are taken on artificial minnows. One reason probably is that most big fish are cannibals who seldom stir far from the bottom. The habits of Kashmir trout are later discussed; it suffices to say here that a minnow is usually most effective when fished a foot or so from the bottom.

An orthodox method of fishing lures has been described; minnows are fished in much the same way. In fairly fast water, however, it often pays to cast *well* up and across. If the bait is

kept up on first touching the water, the downstream belly of the line soon helps to keep it spinning well clear of the bottom. On occasion, too, a minnow kept hovering in the current may move a stubborn fish. Always fish a minnow right out on to the bank. Trout often follow up from deep water, and make a grab just as their prey appears to be escaping.

"All metal" minnows stand up best amongst the rocks of Kashmir streams. For general use we recommend the "Heavy" Reflex Devon. It is strong, casts well, and swims deep without the addition of lead. Gold and silver and, more occasionally, silver and blue, are taking colours; 1" to  $1\frac{1}{2}$ " are suitable sizes. Remember when ordering minnows that a small variation in length may make a big difference in all round size.

Quill, aluminium and other light minnows up to about 3 drms. in weight, can be cast from a fly rod without undue strain. The "Sylph" and "Feathero" types kill well.

A word about casts and traces. These, when kept in their sealed packets and wrapped carefully in chamois leather, will keep fresh for two seasons. So be liberal if ordering direct from England. Start a week's fishing with, say, a dozen casts, and as many traces. Wastage varies greatly with the individual fisherman, but no one can prevent gut fraying quickly on the Kashmir rocks.

The strength of gut required depends on the force and volume of the water. In a fairly still pool, 3x gut can land any trout, but the same fish in the grip of a tearing current is a very different matter. The best rule is "fish as fine as you dare." With these reservations, we suggest 3 yd. level 3x casts for "lake" flies and small spoons; 2 yd. casts or traces, from 2 x to ox, for lures, salmon flies and light spinning baits; and  $1\frac{1}{2}$  yd. 5/5 (Fine Salmon) traces for spinning a heavy minnow. In snow-fed waters, "mist green" is a good shade for gut.

In England, "where to fish" may be as important as "how to fish." In Kashmir we go further, and say that a man who knows where to fish, and has the energy to get there, will wipe the floor with an otherwise better fisherman who lacks the necessary eye—or determination. A golden rule is—never concentrate on attractive looking runs and pools to the exclusion of little bays, backwaters, and "hidey holes" below banks and amongst rocks.

Our reasons are these. Trout seldom roam far in search of food but, quite naturally, prefer the current to bring food to them.

Once they have found a protected and well supplied home, they hate being dislodged. The biggest trout take the best places.

In England, floating or drowned flies form a large part of a trout's diet, and there is no easier place to secure such food than a quiet pool, or even-flowing run. These, too, are the places where weeds grow best, and provide a happy hunting ground for shrimps, caddis and the like. Nor, for the most part of the year, are there sudden great rises of water to drive trout from open mid-stream hovers.

In Kashmir, flies are scarce on the main streams; the quieter carriers are far better places in which to lay eggs. Nor do the scouring summer floods give soil a chance to settle in the pools and grow weeds. Big trout, therefore, largely depend on frogs, tadpoles, worms and insect life swept off the rice fields. Such food is carried into little eddies and backwaters where, too, trout can lie without the discomfort of being constantly dislodged by snow water.

Thus it is that big Kashmir trout seek quiet corners into which their staple food is carried, and from which no torrent can drive them. They probably also know that by day their main enemies, herons and men, can seldom worry them there; by night they can sally forth with safety on cannibal raids.

There are exceptions to these arguments, but they are not far off the mark. Try, therefore, to surprise the trout in difficult places which you think no one else has visited that season. A falling river often makes this possible, and scrambling and wading will seldom be unrewarded.

When fishing a chain of small pools downstream, cast into the second pool and draw upwards over the lip of the near pool. Fish often seize anything that comes over them unexpectedly from below. Make a particular point of trying the back eddies below rocks in mid-stream. Explore small, deep backwaters, especially amongst rocks, by casting a fly upstream and letting it sink back into the still water. A little lead may help to get the fly where you want it; so may casting on to a rock and drawing the fly gently over the edge.

Try every bit of water you can find close to shelving banks, rocks, boulders, and (though risky) jammed logs. The more awkward the place, the likelier it is to hold a good fish. In deep, swift water use a heavy minnow. Do not be afraid of hand-lining.

or even dapping. When standing above and behind them, we have caught fish up to 5 lbs. within a yard of our feet. This may sound poor sport, but after hooking such a fish, one has to get him out! Hold him hard—often he will come to the surface, ready to net, before he realises what has happened. Never let a fish run, or be carried, into the centre of a strong current if you can possibly avoid it. For this, and other good reasons, play all heavy fish with a *sideways* strain, towards your own bank and, if feasible, downstream.

Reverting to localities, always fish the junction of fresh water—whether it be a carrier, tributary, or spring—with the main river. There is no likelier place for fish to lie, especially during a local shower, and in the evening. If you catch a big fish, mark down the exact spot, rest it for a day or so, and try again. You may often find that the next biggest trout in the neighbourhood has taken over the vacant hover.

Only a few words are called for on dry fly fishing, as anyone likely to try this art in Kashmir will already know what tackle to bring, and how to use it. Excellent fun can be had on carriers or big irrigation cuts—seldom on the main rivers themselves. On the side streams there is often a free rise just before and after sunset. We have caught very few fish over a pound on dry fly, but the more useful half pounders are notably plump and game. The feeding in carriers is usually much richer than in the main streams, and one short but delightful stretch beside the Upper Bringhi might almost have been transplanted from a Stockbridge water-meadow.

It is hardly worth while buying dry flies especially for Kashmir. If amongst your Home stock are Pale Watery Duns or Spinners, Olive Spinners, and Iron Blue Spinners, so much the better.

A few general hints. Whatever may be your intentions on starting out, sooner or later you will enter the water. Waders are hot, cumbersome wear. We suggest shorts and canvas fishing boots with *soft* iron nails, alternatively, grass *chaplis* which can be procured locally for a few annas. Wear two pairs of thick socks—the water is cold.

There are a good number of snags, particularly sunken timber, in Kashmir streams, so ensure that the breaking strain of casts and traces is less than that of lines. Breaking strains can be found on a spring balance. Old lines should be periodically tested, for

deterioration is rapid in India, especially if the line has ever been put away undried. If snagged, a pull in a directly opposite direction will usually clear the obstruction. A long stick, forked at the end, is invaluable for this purpose and, preferably shod, makes a useful wading staff.

You may have to land a big fish in heavy water, so provide your shikari with a big net that has some weight about the ring and handle. See that the shikari wets the net before use, and drops a pebble inside it. Many a good fish has been lost for lack of these precautions. It is wise to carry a light, folding net yourself, in case you are separated, or do not wish any movement close beside you.

Be prepared to carry out running repairs, particularly to rods. A tube of glue and waxed cobbler's thread will remedy most breakages. Sticking plaster is useful in an emergency. Spare gut points, to replace the frayed ends of casts, are essential. Add a tin of fat (e.g., Cerolene) for greasing lines; light oil for swivels, reels, etc.; a few spare minnow mounts and swivels; a file for sharpening blunted hooks—and a spring balance! It is only fair on others accurately to record weights, and memory will be no less kind in later years.

Trout may prove an embarrassment in the camp kitchen, especially to bachelors. If a better home cannot be found for them while fresh, try this method of curing them.

Clean as soon as possible, and remove the head and backbone, but not the tail and fins. Twelve hours later, sprinkle the flesh lightly with sugar, then liberally with coarse salt. Rub the skin with a piece of rock salt. Lay flat on a board (a rock will do) for 24 hours, then peg out with sticks like a boy's kite. Finally, hang up on a shady, breezy bough, to dry. If flies are about, swathe the fish lightly in cheese cloth. Ware cats, hawks, and woodcutters!

Before using, steep in water for 12 hours, then simmer gently in milk. Trout prepared in this manner have been eaten in fishless Gulmarg with much appreciation, two months after being caught. There were no ill effects!

Our final advice, to lead you to such culinary experiments, is this. The ancestors of Kashmir trout travelled out P. & O. from England. Their descendants have had (like others) to modify their way of living in the East, but in essentials it remains the

same. So, if in doubt, fish in Kashmir as you would in England, and you will not go far wrong.

Sir Charles Holmes said of the English trout, "It is no single, common, identical, definite, determined and measurable fish, but rather ten thousand tantalising, distinct and different devils." The Kashmir trout has inherited all the characteristics which justify this description. One would not have it otherwise!

## BASIC ENGLISH FOR THE INDIAN ARMY

BY LT.-COL. R. J. WILKINSON, O.B.E., R.I.A.S.C.

Of the three hundred or more languages current in India, sixteen are in use among the various classes enlisted in the Indian Army. This diversity of language, apparent in the time of the Moghul, gave rise to Urdu, *i.e.* (Camp language) a sort of pidgin Persian, which became the common language of the fighting men of India. Urdu eventually acquired a grammar and literature of its own. Its substantives are drawn from Hindi, Arabic and Persian, and frequently for one idea there is a choice of three words. In Delhi and northwards one finds the Persian forms used, in Karachi the Arabic, and in Bombay the Hindi. Urdu is normally written in Persian, Nagri, or Roman script.

As war grew more technical and education became the rule rather than the exception in the Indian Army, it was found necessary to translate some of the simpler training manuals into Urdu but, its vocabulary being too limited and its syntax too complicated for the presentation of modern ideas, it became essential to introduce English words.

Here again the script presented difficulties, and it was eventually found necessary to transliterate the language into Roman script. Hence was born Roman Urdu.

Training manuals are now translated into Roman Urdu for the use of personnel of the Indian Army, but there still remains a difficulty. The Army in India includes British troops, and although its British and Indian elements are trained on the same lines and absorb the same doctrine, intercommunication is still restricted to those who enjoy community of language.

The limitations of Roman Urdu may be summarised as follows:

- (a) It is a patchwork of Hindi, Arabic, Persian and misspelt English words.
- (b) Its structure is unsuitable for the communication of modern technical and scientific thought.
- (c) It is not generally understood by the British element of the Army in India.
- (d) It even presents difficulties to certain classes in the Indian Army. The fact that it is not their mother-tongue

makes it difficult for these to gain full value at training establishments where Urdu is the medium of instruction.

On the other hand, the number of English-speaking rank and file in the Indian Army is steadily increasing, and were the English language simpler there can be no doubt that more would speak it. The solution appears to be a simplified, non-idiomatic form of English with a limited vocabulary, plus a small technical vocabulary of military terms. Such a language, while sufficient for the sepoy, would be easily understandable by English speakers with a more advanced and comprehensive vocabulary.

Basic English, sponsored by the Orthological Institute of Cambridge, has a vocabulary of 850 words with which any non-technical idea can be expressed. Having learnt the English alphabet, any intelligent Indian should be able to acquire the basic vocabulary in three months.

Language is the means by which ideas are conveyed from the mind of the speaker or writer to that of the hearer or reader. A child or an uneducated person, with whom we can, for the purpose of this thesis, compare a person seeking to learn a foreign language, can at first only absorb simple ideas, such as "He goes," "They take food." As he progresses, he learns such phrases as "He goes on a journey," "They eat a meal." Later he learns to condense such statements by the use of "portmanteau words" or, as one might say, "grammalogues." He says, "He travels," "They dine."

Many of the words we use are a sort of shorthand for other words. For instance, we use the word "accelerate" as a more compact way of saying "go more quickly." We refer to breakfast when we mean our early meal. A person who is over ready to believe is referred to in our verbal shorthand as "credulous." We use the grammologue "blindness" when we mean "unable to see."

The basic vocabulary has been formed by eliminating all words which can only be used in a special context, retaining only those simple words which can be used in a general sense and many contexts.

As further examples, take the following phrases:

"What are the arrangements for disembarkation?"

"What is the order of detraining?"

"What are the orders for debussing?"

These ideas can be more or less conveyed by the simple phrase, "How do the men get off the ship, train, lorries?" The basic vocabulary is given as an appendix to this article. It will be seen that it contains no more than 850 words. The complete vocabulary can be written on a single sheet of notepaper. It contains the bare essentials of the English language. By its aid, a person can convey any simple idea and sustain a non-technical conversation. As the learner becomes more practised, he will acquire a super-vocabulary of "portmanteau" words and technical terms.

Basic recognises no verbs but there is a list of 100 words which describe operations (Section C of the Appendix). These Operators are conjugated as necessary. Once learnt, the 850-word vocabulary automatically expands by the use of a few rules. For instance, the 600 words which give the lists of Things (Sections A and B of the Appendix) are expandable by the use of "s" to form plurals. Derivatives are formed by adding "er" to 300 of the nouns in Sections A and B. As already stated, Section C can be expanded by learning the conjugations of certain words in that list. Adverbs can be formed by adding "ly" to certain of the words in Sections D and E. Questions are asked, either by inverting the order of words in a sentence, or by prefixing the word "Do."

Measurements, numerals, dates, and international terms are given in the English form.

Grammatical difficulties are largely avoided in Basic by the adoption of a fixed word order. All sentences describe an action. In Basic, therefore, we always say, first, who did it, then what he or she did, then to whom or with whom he did it, finally when he did it. For example—

*We will put the records on the gramophone now.*

*I may do my writing to-morrow.*

*I went to the theatre with a friend yesterday.*

Basic English can be studied with alternative objects. It can be learnt as a universal language or as a preliminary to a more comprehensive and advanced knowledge of the English language. If taken as a universal language, technical ideas are conveyed in one of two ways. The Orthological Institute has prepared a number of technical vocabularies to be superimposed on the standard 850-word list. Up to date, these super-vocabularies deal with economics (50 words), business (50 words), and general science (100

words). Others are in course of preparation. If no special Basic vocabulary exists, technical words can be introduced into standard Basic and explained by interpolation or, if written, by means of foot-notes.

The object of this article is to urge the study of Basic English by the Indian soldier as a preliminary to a more comprehensive knowledge of the language as he becomes more practised.

From the following examples it will be seen that, while Basic uses more words to express the concise verbiage of "Infantry Training," those it does use are of more general currency and more elementary.

Section 3 of "Infantry Training," Vol. II, says:

"The proper co-operation of all arms wins battles and enables the infantry to confirm victory. The main object of the infantry is to close with the enemy and destroy him."

Basic English puts the same ideas in the following ways:

"The way for an army to overcome the enemy\* is to have all its parts working well together. This gives the infantry† the power to make the outcome certain. The chief purpose of the infantry is the destruction of the enemy by coming to grips with him.

Urdu is the *lingua franca* of the Indian Army, but not of the Army in India. To be a truly homogeneous fighting force it needs a common language. If ordinary English is too difficult for the sepoy, let him be taught Basic English which will at least enable him to convey his thoughts to his British comrade. That English is the only possible language in which to convey modern training ideas to the Indian Army is shown by a glance at any Roman Urdu Training Manual. It will be found that practically all its substantives are mis-spelt English words. Enthusiasts for Urdu will say that this is a proof of the growth of Urdu, but why not teach the sepoy Basic English and enable him to recognise English military terms when spelt as they are intended to be spelt?

\*Military men on the opposition side.

†Military men who fight on foot.

## BASIC ENGLISH VOCABULARY

## (A) THINGS—GENERAL (400 WORDS)

Account	Condition	Existence
Act	Connection	Expansion
Addition	Control	Experience
Adjustment	Cook	Expert
Advertisement	Copper	Fact
Agreement	Copy	Fall
Air	Cork	Family
Amount	Cotton	Farm
Amusement	Cough	Father
Animal	Country	Fear
Answer	Cover	Feeling
Apparatus	Crack	Fiction
Approval	Credit	Field
Argument	Crime	Fight
Art	Crush	Fire
Attempt	Cry	Flame
Attention	Current	Flight
Attraction	Curve	Flower
Authority	Damage	Fold
Back	Danger	Food
Balance	Daughter	Force
Base	Day	Form
Behaviour	Death	Friend
Belief	Debt	Front
Birth	Decision	Fruit
Bit	Degree	Furniture
Bite	Design	Garment
Blood	Desire	Glass
Blow	Destruction	Gold
Body	Detail	Grain
Brass	Development	Government
Bread	Digestion	Grass
Breath	Direction	Grip
Brother	Discovery	Group
Building	Discussion	Growth
Burn	Disease	Guide
Burst	Disgust	Harmony
Business	Distance	Hate
Butter	Distribution	Hearing
Canvas	Division	Heat
Care	Doubt	Help
Cause	Drink	History
Chalk	Driving	Hole
Chance	Dust	Hollow
Change	Earth	Hope
Cloth	Edge	Hour
Coal	Education	Humour
Colour	Effect	Ice
Comfort	End	Idea
Committee	Error	Impulse
Company	Event	Increase
Comparison	Example	Industry
Competition	Exchange	Ink

Insect	Mother	Rain
Instrument	Motion	Range
Insurance	Mountain	Rate
Interest	Move	Ray
Invention	Music	Reaction
Iron	Name	Reading
Jelly	Nation	Reason
Join	Need	Record
Journey	News	Regret
Judge	Night	Relation
Jump	Noise	Religion
Kick	Note	Representative
Kiss	Number	Request
Knowledge	Observation	Rest
Land	Offer	Reward
Language	Oil	Rhythm
Laugh	Operation	River
Law	Opinion	Road
Lead	Order	Roll
Learning	Organisation	Room
Leather	Ornament	Rub
Letter	Owner	Rule
Level	Page	Run
Lift	Pain	Salt
Light	Paint	Sand
Limit	Paper	Scale
Linen	Part	Science
Liquid	Paste	Sea
List	Payment	Seat
Look	Person	Secretary
Loss	Peace	Selection
Love	Place	Self
Lump	Plant	Sense
Machine	Play	Servant
Man	Pleasure	Sex
Manager	Point	Shade
Mark	Poison	Shock
Market	Polish	Side
Mass	Porter	Sign
Meal	Position	Silk
Measure	Powder	Silver
Meat	Power	Sister
Meeting	Price	Size
Memory	Print	Sky
Mesh	Process	Sleep
Metal	Produce	Slip
Middle	Profit	Slop
Milk	Property	Smash
Mind	Prose	Smell
Mine	Pull	Smile
Minute	Punishment	Smoke
Mist	Purpose	Sneeze
Money	Push	Snow
Month	Quality	Soap
Morning	Question	Society

Song	System	Vessel
Sort	Talk	View
Sound	Taste	Voice
Soup	Tax	Waiting
Space	Teaching	Walk
Stage	Tendency	War
Start	Test	Wash
Statement	Theory	Waste
Steam	Thing	Water
Steel	Thought	Wave
Step	Thunder	Wax
Stitch	Time	Way
Stone	Tin	Weather
Stop	Top	Week
Story	Touch	Weight
Stretch	Trade	Wind
Structure	Transport	Wine
Substance	Tree	Winter
Sugar	Trouble	Woman
Suggestion	Turn	Wood
Summer	Twist	Wool
Support	Unit	Word
Surface	Use	Work
Surprise	Value	Writing
Swim	Verse	Year

## (B) THINGS—PICTURABLE (200 WORDS)

Angle	Branch	Cushion
Ant	Brick	Dog
Apple	Bridge	Door
Arch	Brush	Drawer
Arm	Bucket	Drain
Army	Bulb	Dress
Baby	Bull	Drop
Bag	Button	Ear
Ball	Cake	Egg
Band	Camera	Engine
Basin	Card	Eye
Basket	Cart	Face
Bath	Cat	Feather
Bed	Chain	Finger
Bee	Cheese	Fish
Bell	Chest	Flag
Bery	Chin	Float
Bird	Church	Floor
Blade	Circle	Fly
Boat	Clock	Foot
Book	Cloud	Fork
Bone	Coat	Fowl
Boot	Collar	Frame
Bottle	Comb	Garden
Box	Cord	Girl
Bot	Cow	Glove
Brain	Cup	Goat
Brake	Curtain	Gun

Hair	Orange	Spider
Hammer	Oven	Sponge
Hand	Parcel	Spoon
Harbour	Pen	Spring
Hat	Pencil	Square
Head	Picture	Stamp
Heart	Pin	Star
Hook	Pig	Station
Horn	Pipe	Stem
Horse	Plane	Stick
Hospital	Plate	Stocking
House	Plough	Stomach
Island	Pocket	Store
Jewel	Pot	Street
Kettle	Potato	Sun
Key	Prison	Table
Knee	Pump	Tail
Knife	Rail	Thread
Knot	Rat	Throat
Leaf	Receipt	Thumb
Leg	Ring	Ticket
Lemon	Rod	Toe
Library	Roof	Tongue
Line	Root	Tooth
Lip	Sail	Town
Lock	Scissors	Train
Map	School	Tray
Match	Screw	Trousers
Monkey	Seed	Umbrella
Moon	Sheep	Wall
Mouth	Shelf	Watch
Muscle	Ship	Wheel
Nail	Shirt	Whip
Neck	Shoe	Whistle
Needle	Skin	Window
Nerve	Skirt	Wing
Nose	Snake	Wire
Nut	Sock	Worm
Office	Spade	

## (C) OPERATIONS (100 WORDS)

Come	Send	Off
Get	May	On
Give	Will	Over
Go	About	Through
Keep	Across	To
Let	After	Under
Make	Against	Up
Put	Among	With
Seem	At	As
Take	Before	For
Be	Between	Of
Do	By	Till
Have	Down	Than
Say	From	A
See	In	The

Any	While	Enough
All	Now	Even
Every	When	Little
No	Where	Much
Other	Why	Not
Some	Again	Only
Such	Ever	Quite
That	Far	So
This	Forward	Very
Who	Here	To-morrow
I	Near	Yesterday
He	Now	North
You	Out	South
And	Still	East
Because	Then	West
But	There	Please
Or	Together	Yes
If	Well	
Though	Almost	

## (D) QUALITIES—GENERAL (100 WORDS)

Able	General	Quick
Acid	Good	Quiet
Angry	Great	Ready
Automatic	Hanging	Red
Beautiful	Happy	Regular
Black	Hard	Right
Boiling	Healthy	Round
Bright	Height	Same
Broken	Important	Second
Brown	Kind	Separate
Cheap	Patent	Serious
Chief	Like	Sharp
Chemical	Living	Smooth
Clean	Long	Sticky
Clear	Male	Stiff
Common	Married	Straight
Complex	Material	Strange
Conscious	Medical	Strong
Cut	Military	Sudden
Deep	Natural	Sweet
Dependent	Necessary	Tall
Direct	New	Thick
Early	Normal	Tight
Elastic	Open	Tired
Electric	Parallel	Trained
Equal	Past	True
Fat	Physical	Violent
Fertile	Political	Warm
First	Poor	Wet
Fixed	Possible	Wide
Free	Present	Wise
Frequent	Private	Yellow
Full	Probable	Young

(E) **QUALITIES—OPPOSITES (50 WORDS)**

Awake	Feeble	Public
Bad	Female	Rough
Bent	Flat	Sad
Bitter	Foolish	Safe
Blue	Future	Secret
Certain	Green	Short
Cold	Ill	Shut
Complete	Last	Simple
Cruel	Late	Slow
Dark	Left	Small
Dead	Loose	Soft
Dear	Loud	Sold
Delicate	Low	Special
Different	Mixed	Thin
Dirty	Narrow	White
Dry	Old	Wrong
False	Opposite	

## DEFENCE AND THE GENERAL STAFF

By LIEUT-COLONEL A. G. BAIRD-SMITH, D.S.O. (RETIRED)

The South African War of 1899 and 1902 showed how a small war could so grow as to tempt a powerful outsider to intervention; yet the preponderating strength of the British Navy allowed this risk to be disregarded. The British Government, however, came to realise the need for revision of the haphazard system by which its expeditionary army had been raised and equipped, and the antiquated methods by which it had been controlled and directed in war.

A kind of constitutional convention, regarded as a fundamental "principle," had always assumed that the Civil Government, when deciding to extend its policy by means of war, had the sole right to decide when, where and how such war should be waged. Competence in such matters was deemed inherent in ministerial office; and this "principle," widely diverging from Continental practice, has always been a chief obstacle to any reallocation of professional and lay responsibility.

The most stubborn opponent of civil interference in things military had always been a royal commander-in-chief; even when he gave place to a professional soldier, the latter was expected to be obstructive and "reactionary." By putting his office into commission as an Army Council the Government effected a diffusion of his personal authority; while the Secretary of State for War, now President of a Council resembling the Admiralty Board, was placed in a position of enhanced power and independence.

The institution of a Committee of Imperial Defence appeared a kind of compromise with the fundamental "principle;" since its membership included not only the Prime Minister and the Admiralty and War Office political chiefs, but the highest officers of the Services as well. These, however, in full session were heavily outnumbered; and it was not to be expected that, in any disagreement, their professional views would have undue weight. The Committee possessed no actual executive authority, being merely "advisory" and "consultative;" but since such advice as it might offer was usually that of the Prime Minister as chairman, and of his Cabinet colleagues as members, there was little chance of its being rejected, even when contrary to professional opinion.

The newly-created Army General Staff was not an exclusively British model; it bore strong German impresses. It came into

being at a critical time; and the period for war preparation was to be all too short. Yet the organising of an Expeditionary Force, its training for a specific task, and its war-mobilisation, were matters with which it was quite competent to deal, without the advice or guidance of any political chief. The constitutional convention, however, contrived to represent the war minister as not only conceiving the whole project, but of giving birth to the concrete result; and the same fiction continues to endow each of his successors with a genius for military organisation, which he is unlikely to have or to claim.

On the outbreak of war in 1914, both the civil and professional members of the Committee of Imperial Defence became absorbed in their other principal duties; the military members in particular were rapt away to the theatre of war. The Committee ceased to function, and no one in authority had time to seek its further advice. The crisis demanded a professional war minister; but even he was appointed too late to prevent the bulk of the General Staff from quitting the War Office for the front. To the Field-Marshal, neither the discussions of a Defence Committee, nor of an Army Council, would at any time have been congenial; and in the first crowded "War Councils" he could see nothing but confusion worse confounded. The responsibility of ordering the whole national war rested on no one's shoulders, and certainly not on his; as for the war on land, he was not free to decide its "objectives," or the methods of attaining them—some inspired amateur could always obtain a hearing as well as he.

He was, of course, expected to raise a national army rapidly, *ex nihilo*, but even there the successes due to his energy and foresight were apt to be adopted by others, who measured his gigantic difficulties by their own well-advertised achievements. To the chaotic "War Councils" succeeded a small Committee of the Cabinet, in which the war minister was the only professional expert. It assumed, as of right, responsibility for everything; even claiming a voice in the executive control of operations. This arrangement certainly reduced the number of counsellors, but did not necessarily increase the wisdom of their decisions. To-day, should the Empire become involved in a major war, it seems certain that a similar committee of inexperts would at once grasp the reins in their unskilled hands.

To set up such an improvised war-directorate, not connected in any way with the peace-time organisation, would be to initiate

a new confusion; if nothing else sufficed, this alone would put any Committee of Imperial Defence out of action "for the duration." Even as at present reconstituted, with a number of sub-committees, the Committee is still a peace-time organisation; though now more precisely engaged in a so-called "co-ordination" of the "policies and plans" of the three General Staffs, it remains "advisory," and no one of its recommendations can be effected without the Government's approval. The Prime Minister and some nine of his colleagues having seats on the Committee, it might be thought no further reference would lie; but, in practice, all of these members being otherwise fully occupied with ministerial duties, the vice-president, as "Minister for Co-ordination of Defence," together with his sub-committees, is charged with producing the "advisory" material for their endorsement. This system has been described as "elastic;" and with some fifty sub-committees to be "co-ordinated," its results must often be very long drawn out.

With the appointment of a "Co-ordinator" and the creation of the "Chiefs of Staffs" Committee, collectively responsible for advising the Prime Minister, the Committee of Imperial Defence has begun to assume some resemblance to a "Ministry of Defence." It has its "man-power" and its "supply" sub-committees; and is thus at length in touch with the sources from which a "Ministry of Defence" would, in war, directly draw its supplies of men and material for the national forces. But the assumption that a political "Co-ordinator" is naturally endowed with the necessary strategic instinct or knowledge remains unquestioned and axiomatic as ever.

The appointment of a "Minister of Defence," whose State department would annex all such committees and sub-committees, might enable the foundations to be laid of a national war organisation, at present lacking. Here, again, political considerations would intrude. Unless the constitutional "fiction" or "principle" were to be abandoned, the new "Defence Minister" must be a parliamentarian of Cabinet rank; and if his Ministry was to absorb the three existing Service departments, the power and influence of his office would be so great as either to eclipse the Prime Minister, or to force him to assume the office himself.

The other difficulties of creating such a "Defence Ministry" are no less considerable. The first concerns the formation of a "Combined General Staff;" of which the existing "Chiefs of Staffs

Committee" may be considered the embryo. But it is inconceivable that a "joint staff" should not include the chiefs of the three separate staffs, or that it should be in a position to offer direct advice to the Government, contrary to their views. A "joint staff" would, of course, need a "chief" of its own, wholly occupied with the duties of his office and no others. The main business of the "joint staff," it has been suggested, would consist in "co-ordinating" the "policies," and controlling the "thinking" and executive activities of the existing staffs. "Co-ordination" is a vaguely attractive word; but it cannot be used as a kind of charm. If no more is meant by it than the fair adjustment of the Services' claims on the national purse, the recognition of their equal "status," or the synthesis of their respective war-doctrines, then, perhaps, a "joint staff" might be best able to undertake it. These would be peace-time duties; but a "joint staff" must be equally organised to function in war. Here the constitutional "principle" obtrudes itself; the most convinced advocates to-day of such a staff would, it seems, unquestioningly place it under a supreme political head.

Both in peace and war the head it would require would not be a kind of lay superior, but a first-rate, all-round professional expert. This elementary requisite of such an organism may, nevertheless, be not readily conceded. Prejudice reinforces the constitutional "principle," and is against intrusting the "military mind" with anything approaching political power or patronage; and of these the professional "chief" of a "joint staff" might easily acquire a large share. The upholders of the "principle" may not perceive the inherent incongruity of a lay "chief;" but unless they do, any such proposed staff must remain a mere fifth wheel to the Defence coach.

The selection of a professional "chief" would not, of course, at first be easy; even were it made, like a cardinal's election to the Papacy, by the suffrage of the whole corps of general staff-officers of the three Services. But if the most eminent of one Service, having perhaps no special knowledge of the others, were nominated, his shortcomings would still not approximate to those of a superimposed political head. In years of unbroken peace, a "combined staff college," supplementing the other colleges, might in time discover a "common denominator" of the Services, and produce a body of specialists, from among whom the future officers of the "joint staff" might be chosen. The careers of these officers could not be governed by the ordinary rules of promotion in their

respective arms; and since it would be impossible, even in the greatest of wars, for the "joint staff" as a body to leave its headquarters in Great Britain, few of its members could hope to win distinction in the field, or afloat.

The question would arise whether the "chief" of the "joint staff" should have direct or indirect access to the head of the Government. If, as at present, each Service department were in charge of a ministerial head, himself *ex-officio* president of its board or council, and also a member of the Committee of Imperial Defence, there would be no intermediate position which the "chief" could conveniently or usefully occupy; he would resemble the "Military Member" in the Indian Viceregal Council of Lord Curzon's day. The parliamentary heads of the Service departments would continue to act as filters to the opinions of their professional advisers, and to pass the extracts, with their indispensable imprimatur, on to the Cabinet. The "chief" of the "joint staff," on the other hand, would obtain these opinions crude; he and his assistants would combine them in a solution, which might often differ greatly in quality from the departmental refinements. If, in addition, a "Minister of Defence" stood between him and the Cabinet, his views might not even get a hearing. It could be argued that this indicates the necessity of the "joint staff" having a "supreme political head;" but it is difficult to conceive how he could be politically "supreme," or what his ministerial status would be.

If a professional "chief" of a "joint staff" were ordinarily to be allowed direct access to the Cabinet, this would mean that in wartime he would inevitably become a member of any "war-council" or "war-cabinet" that might be formed; he could not be kept waiting indefinitely outside its door. No "war plans," even those of the most eminent statesman, would be laid before the assembled "war cabinet," that had not first been examined and passed by him and his assistants.

In monarchical Prussia of 1870 the chief of the military general staff, though kept within certain political restraints by a powerful chancellor, could take sole charge of the war on land. The king was in the field as nominal commander-in-chief, accompanied by the war minister, himself, of course, a soldier; but the form of taking orders or advice from the one or the other, though outwardly observed, did not in the least derange von Moltke's plans. This example, closely followed by Germany in the Great

War, might be cited as a warning; since, even when chiefs of naval and air staffs had been added to the war organisation, a masterful "Quartermaster-General," carrying the Commander-in-Chief along with him, could determine the direction and nature of the whole national effort. The fundamental British "principle" of civil control owes its origin to the desire to prevent the rise of such military dictators; but it is questionable whether, in avoiding this danger, the "principle" does not entail its opposite, the conducting of wars by dictators of another kind.

As regards the making of plans and preparations in advance for every kind of war into which the Empire might in future reluctantly be forced, it would manifestly be impossible for any "thinking Department," however brilliantly staffed, to complete such a vaguely enormous task. In 1912 it was comparatively easy for the Committee of Imperial Defence to consider "every possible form of enemy attack on the Empire,"<sup>1</sup> since the enemy could be no other than Germany. That fact, and the existence of the "Entente," gave a background on which the Admiralty and War Office staffs could, and did, work. The definition of that background has to-day become blurred by the kaleidoscopic combinations of "collective security," and the various international "pacts." Apart, however, from any Geneva or Locarno commitments, there are only some two or three practicable combinations of the Great Powers for war; and each of these would carry certain definite alliances. Any such alliance, if it included Great Britain and the Empire, would afford the necessary background for the work of a "joint staff;" and if the chosen ally, or allies were reliable and prepared, speculation about the number, strength, and purpose of other Powers would be comparatively simple. It is quite otherwise with "collective security;" the planning or preparation of a combined war of "sanctions," against some as yet unknown "aggressor," would be a nightmare labour, resembling the task of an "international army" staff whose care it would be to ensure that the League's war included everybody.

The "co-ordination" above mentioned appears to be regarded by many as synonymous with "co-operation;" which, too, is commonly supposed to be almost a closed book to the Service mind. Hence the frequent advocating of a "Defence Ministry;" which, through some concentration of thought on the part of its civil heads, would ensure that all three Services in future work together. Co-operation in the conduct and direction of war is, of

1 "Adventure," Major-General Seeley.

course, one thing, co-operation in battle another. The first can be achieved on the "home front;" and in it a "joint staff" would take a leading part. By November 1918, both kinds of co-operation had reached a high pitch of efficiency; but whereas to-day co-operation of the Services in action is constantly studied, and practised in peace manœuvres, the basis of national co-operation has not yet been determined. Examples of what can be attained in this respect by other nations to-day are not far to seek.

So long as there is no definite "background" to defence policy, the recurring problem of apportioning to the Services their shares of the exchequer grants will remain almost insoluble. In these grants the general staffs, of course, have never had the last word; and probably no process of "co-ordination," and not even a "joint staff," could extract from an economising Government more than is ordinarily obtained by the individual chiefs of the State departments. In Great Britain the totals of these grants are partly determined by a variety of political and financial considerations, other than those of national defence; and thus the only real test of their adequacy or otherwise is that of actual war.

Should Great Britain become again involved in an "absolute" continental war, unprepared in resources or organisation for national co-operation in conducting it, the old scrambling competition between the Service departments for their shares in whatever is available would certainly recur. The general staffs would know well what they required but not necessarily how or where to get it; and even the efforts of a "joint staff" would not suffice to stir immobilised industry into the necessary rapid expansion. To-day the creation of another Ministry, to organise war-time supply of materials of all sorts, might result in a closer liaison between industry and the administrative sides of the Service departments, and to that extent control them; but there its usefulness would end. A "Ministry of Defence," on the other hand, would probably only illustrate afresh the vitality of the "constitutional principle;" its powerful political head would hardly resist the temptation to dabble in the strategic plans of the "joint staff," or to claim precedence over its "chief" in offering advice to the Government. In peace-time the danger of such interference would not be generally apparent; but of the unfortunate effects, in the conduct of past British wars, of inexpert usurpation of professional functions, there are many and tragic examples.

## COLD STORAGE FOR INDIA

THE ARMY GIVES A LEAD TO COMMERCE

BY MAJOR A. E. SWANN, R.I.A.S.C.

For some years it has been realised that the system of supply of meat to the Army in India is not such as to ensure a standard of really first-class quality, and moreover that it lacks the elasticity necessary for prompt expansion and regular deliveries to the troops in war. The congestion on the Lines of Communication which would result from attempting to send forward large herds of cattle, sheep and goats for slaughter in the immediate rear of the area of operations is not difficult to imagine, particularly when it is realised that the number of animals of the various categories may easily run into several thousands each day. This is one of the major disadvantages of the present system, but there are numerous others. The quality of the meat, seldom very good even in the best cattle areas owing to lack of attention to feeding, is adversely affected by long, forced marches; the system is expensive, and as the slaughtering arrangements cannot be centralised most of the valuable by-products of slaughter are wasted or disposed of at uneconomic prices; adequate veterinary supervision and scientific meat inspection are impracticable. These and other disadvantages of the present system could be further elaborated if space permitted, but enough has been said to make it obvious that the continuance of the present system would be an anachronism in a modern army. Modern armies require modern methods, and improvements in systems of food supply and "Q" arrangements in general are only secondary in importance to the modernisation and efficiency of fighting units.

The need for change was obvious. But grave difficulties had to be overcome before a radical alteration in the system of supply of perishable foodstuffs could be contemplated in a country with a tropical climate. To improve the standard of meat and render it uniform, and to ensure adequate inspection and supervision, a centralised abattoir was obviously the only solution. But in order to distribute the meat after it has been prepared, it would be necessary to freeze it; subsequently it would have to be transported

by rail and road in refrigerated and insulated vehicles, and in addition the requisite reserve stocks of meat would have to be held in the various military stations in cold storage. These refrigerated transport and cold storage facilities did not exist in India, and the capital expenditure which would have been involved if their provision was contemplated by the army would have been beyond the capacity of the Army Budget. Moreover, it seemed obvious that if these modern conveniences were provided by the army, there would shortly follow a demand for similar facilities by the civil population. As the army cannot legitimately trade, duplicated transportation and storage facilities would be the ultimate result, and in the long run the heavy capital outlay on the part of the army would have been a sheer waste of money. It seemed, therefore, that any drastic alteration in the system must await civil development, and that when this had occurred military and commercial projects could go forward hand in hand.

The army problem was, however, a pressing one, and there were no very encouraging signs of even a commencement of commercial interest in the subject of refrigeration. Such cold stores as existed in the ports were, with few exceptions, far from being models of modern efficiency, and were mainly operated by small firms, whilst the only so-called refrigerated transport vehicles in existence were the railway cars, cooled with water-ice, used mainly for the transport of fruit. These vehicles were unsuitable for the conveyance of frozen meat, which requires to be transported at a temperature between 10 degrees and 16 degrees Fahrenheit, a state of coldness which cannot easily be secured and reliably maintained by ice or a mixture of ice and salt. The Railway Board was disinclined to undertake the provision of modern refrigerated vehicles at its own expense until assured of a commercial demand, whilst commerce, on its side, hesitated to invest capital in costly cold storage schemes because of the lack of adequate transport, without which such enterprises could not be successful.

Thus, pressed for the solution of its own urgent problem, the army was forced into independent enquiry and action, with the object of proving to the trade and the railways that valuable business awaited their joint enterprise. This was an unusual line for the army to take, but appeared to be the only practical way of

getting all the interests together and ensuring an early start for a project already considerably overdue.

Once this policy had been decided upon, the army was not slow to act. Preliminary plans for the construction and operation of a central abattoir were drawn up by an expert brought out from England for the purpose, and the same authority was then commissioned to tour the country and to provide a detailed report on the possibilities of success for cold storage and refrigerated transport in India, if backed with the army business as a nucleus upon which to build up commercial traffic. This report was most encouraging and showed clearly that there was a large amount of business awaiting the development of improved storage and transport facilities. It contained sufficient information to reassure the army that it could safely go ahead with its plans for the construction of a central abattoir, and that commercial interests would step in to relieve it of the burden of additional capital outlay for cold storage installations and transport.

It was now tolerably clear that the only major item of capital which the army would be called upon to provide in order to launch the scheme would be the sum required for the construction of the central abattoir. There was little hope of being relieved of this item, as there was no clear market either in India or overseas for frozen beef and mutton. The army, therefore, prepared to shoulder this heavy initial item of expenditure and to operate its own meat factory in much the same fashion that it now manufactures many of its requirements in the various ordnance factories. The burden was the more readily shouldered because it was realised from the expert's report, and also from reports received from abattoirs in England and other countries, that modern factory abattoirs run on sound lines were veritable gold mines for their owners. Their primary object was the provision of good quality meat. This could be fairly easily and cheaply achieved by systematic fattening of herds during a period of intensive feeding before slaughter; and the cost of this feeding need be no deterrent, for, provided that the feeds given were of the correct protein value, every penny put into this fattening ration returned a handsome interest in the shape of a greater outturn of meat per animal. During the process of preparing the meat in the abattoir, a quantity of material, which was previously neglected or sold for very

little to anyone who would take it away, could now be collected in quantity and converted into saleable and often highly profitable by-products. Skins, scientifically removed with modern flaying devices, were convertible into first grade leather and would realise much higher prices than under the old methods; bones, horns and hoofs could be converted into valuable fertilisers and bone meal, dried blood could be very profitably marketed, sausages, tongues, meat extracts and the like could be produced cheaply for sale to the soldier, whilst the army would be in a position to manufacture its own bully beef and thus effect a further substantial economy.

Plans for the abattoir were, therefore, elaborated in some detail, the case for its construction was put up and the necessary funds in due course secured. Meanwhile work proceeded with the object of encouraging commercial interests to cope with the problem of cold storage and refrigerated transportation. It was decided to limit the scheme in its opening phase to the supply of beef to the British troops in Northern India, but to make due allowance at every step for the expansion of its scope, so as eventually to cover the whole of India, and to deal with supplies of meat for British, Mohammedan and Hindu troops both in peace and war.\*

During the progress of the tours undertaken by the Expert on behalf of the army, the attention of the trade was drawn to the subject of cold storage and much interest aroused. Subsequently the army requirements were published in the press and firms interested were given the fullest possible information. For reasons of standardisation and ease of operation and accounting, it was obviously desirable from the army point of view to have one contract for the whole chain of cold stores envisaged in the scheme, rather than a number of separate contracts in different stations; indeed, it can be safely estimated that piecemeal arrangements would be most unlikely to prove satisfactory and would in all probability be little less objectionable than the antiquated system they would be intended to replace. It was considered that to ensure success it would be essential to have all the stores under a centralised control and that, moreover, the closest liaison and co-operation between the Cold Storage Company, the transportation

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\* When such extension is contemplated, elaborate separate slaughter arrangements to satisfy caste and religious requirements will naturally be incorporated, and meat for Indian troops will be handled at every stage in a manner which will satisfy all scruples.

agency and the military authorities would be of the greatest importance.

This requirement limited the commercial interest to two or three large firms which possessed the necessary experience, organisation and technical ability to undertake a development of the size contemplated.

The making of the necessary agreement with the firm finally selected was not the simple matter of routine which most of our army contracts have become. Here was an entirely virgin industry. No one in India had ever made a similar contract, and it is doubtful if any real parallel could be found anywhere. The nearest approach to an analogous document was a contract for cold storage of butter concluded by the Government of New Zealand, and this proved of great assistance. It could not be slavishly followed, as the arrangement contemplated for cold storage of the army frozen meat held many complications which were beyond the purview of the butter contract. The matter required considerable concentration and study on both sides, assisted by the solicitors of each party, before the agreement reached its final form, in which it is hoped that all contingencies have been covered and no serious loopholes remain.

Under the terms of this contract, which has been concluded for a period of fifteen years commencing on the 1st April 1938, the Cold Storage Company of India, Ltd., agrees to erect and maintain cold storage depots at Quetta, Multan, Mari Indus, Kohat, Bannu, Razmak, Manzai, Wana, Thal, Peshawar, Nowshera, Rawalpindi, Ambala, Sialkot, Jullundur and Ferozepore. Certain specified space in each of these depots is to be reserved for army meat, or other perishables, on a scale sufficient to cope with the calculated war requirements. The whole of this space will not be required by the army in peace, and such space as is surplus to army requirements may, therefore, be re-let by the company to commercial users. The army obtains a rebate of rental for all such re-let space, and the company is obliged to dispose of all army surplus space before utilising any separate space of its own for commercial purposes. In this way it is hoped that the army will be relieved of considerable expenditure in those stations where there is a demand for cold storage. The rates which the army has been able to obtain are very favourable ones, for the company had the business fore-

sight to realise the immense value of the military business as a nucleus upon which to build, and in order to secure it, were willing to offer terms which could only be profitable when taken in conjunction with a volume of civil trade which would be handled at more favourable rates.

Concurrently with the negotiations for the cold storage contract, work was proceeding on both the abattoir and the transportation sides of the project. A contract was concluded with an abattoir expert for the complete planning of the abattoir and its machinery. The completed plans are expected in India shortly, and it is hoped that building will commence at Shahjahanpore in the early part of 1937.

Considerable thought has been given to the subject of transportation with a view to discovering which of the many apparently excellent modern methods of refrigeration should be adopted on rail and road. Extensive enquiries have been made and voluminous reports on every conceivable system, with great wealth of detail, have been received from numerous interests in England, and various European countries, and in particular from the United States, where the British Embassy has been most active and thorough in prosecuting enquiries. As a result it is abundantly clear that no one method can claim to be the best, or even the best suited for India, and that without actual demonstration of various different methods and types of equipment in this country, it would be inadvisable to decide on the adoption of any particular system of refrigeration or type of equipment. Arrangements are, therefore, being made to try out various types of refrigerated rail vehicles early next hot weather.

For the conveyance of army meat requiring a low temperature, the problem would not be very difficult. The difficulty arises from the fact that in order to ensure the existence in peace of the necessary refrigerated transport for war expansion, the army would prefer to adopt a system of refrigeration and type of equipment which will appeal to commercial users. Moreover the army does not wish to purchase and operate rail vehicles if this can be avoided, and, as in the case of the cold storage contract already concluded, is quite willing to offer its business for both rail and road transport to a firm capable of guaranteeing the requisite service on reasonable terms. Such a combination of military and

commercial interests would, it is felt, re-act favourably on the military budget in peace and ensure the means of war expansion far more cheaply than by other methods.

With the forging of this third link—refrigerated transportation—the chain will have been completed, and the first phase of the new system will come into operation. Once cold storage facilities have come into existence in the north of India—entirely due to the instigation of the army, be it noted, and as a result of original investigations conducted at its expense—there is likely to be a demand for similar facilities throughout the country. The new industry is bound to develop once it has obtained a foothold, and it is the intention to take advantage of this development as it occurs and progressively to extend the scope of the army scheme.

In conclusion, a word on the subject of the potentialities of commercial development may not be out of place, for it is sometimes imagined that cold storage will only be utilised for the luxury items of diet for which there is a very limited market. This is felt to be very far from the truth. When it is considered that at the present time in this country thousands of tons of fruit and vegetables are produced during a short season and have to be disposed of immediately at any price, simply because it is impossible to conserve them or transport them to other markets, the fallacy of this view becomes obvious. A large movement of these commodities is to be expected, and Indian grown grape fruit, oranges, apples, pears, peaches and grapes should be available throughout the year instead of being restricted to short seasons, leaving the market for the remainder of the year open for imported produce. Mangoes and strawberries may each expect a longer season and a wider distribution. Vegetables should be available everywhere in far greater variety than is the case at present. Fish from the seaports will rapidly find its way into the remotest corners of the interior, and a considerable movement of milk and other dairy produce is likely. Furs and carpets may clamour for insect-free cold storage space. With the central military abattoir to point the way, it seems reasonable to suppose that sheep abattoirs may be encouraged to develop in such areas as Baluchistan and the North-West Frontier Province whence succulent mutton may find its way to the big markets of the Presidency towns to replace the scraggy joints one is familiar with. Incidentally a development

of this nature would be of interest to the army, as it would provide a supply of frozen mutton for use in hospitals and probably also for issues to Mohammedan troops; and at the same time would offer a back load for some of the transport utilised for the conveyance Northwards of frozen beef. The potential uses of cold storage in India are indeed legion, and though the industry may not make astonishing headway at the very outset, it seems tolerably safe to conclude that eventual success and considerable development are certain, and that they will bring in their train increased prosperity for India. Such progress is long overdue, and that it is at last clearly in sight must be set down to the credit of the army.

## A FEW NOTES ON REGIMENTAL SOLDIERING IN THE INDIAN ARMY

By "SHIGGADAR"

In his article entitled "An 'Alter Ego'" "Forest Creek" has produced some very sound arguments, and I agree with the conclusions he arrives at that in the Indian Army there is plenty for the Second-in-Command to do without his being burdened with the command of a Company.

C.O.s vary considerably in the use they make of their Seconds-in-Command, but if the C.O. is a wise man this very valuable officer need never be at a loose end for a job and can, if he is worthy of his position, be of immense assistance, both to the C.O. and to the battalion as a whole. In the hot weather, if both C.O. and Second-in-Command are present (which they seldom are) and other officers are very short, the latter can always assist by taking over the administration of one of the companies if the C.O. wishes him to do so, but on principle it is unsound and should never be done during collective training.

To what extent this officer is employed on tactical training depends of course on the extent of the C.O.'s confidence in his tactical ability, but provided he is a sound man with common sense (as he should be), he and the C.O. will be "The good companions" of the regiment; they will help each other with the tactical training of the whole battalion, and together they will co-ordinate such training. This co-ordination, as "Forest Creek" points out, is a vital necessity, but it is often overlooked and though "Forest Creek" says he has never known a battalion run on Soviet lines, the following case will show that such do exist.

Some years ago I was discussing Frontier warfare problems with a company commander of an Indian battalion and was endeavouring to find out the methods employed in his battalion with regard to various minor details. To each of my questions he replied, "In my company I do so and so." I thought this rather strange, and that evening I met a staff officer who knew the regiment intimately and asked him why the company commander had told me each time what he did in his company, as opposed to what was done in the battalion as a whole. He said that owing to the fact that the last two C.O.s had been away from regimental

soldiering for years and were more or less strangers to the battalion, it was in actual fact run by a Soviet of company commanders. Outwardly it appeared to work all right, for the battalion was a good one and managed to "keep its purdah"—chiefly because the company commanders happened to be a very good lot—but such a system is obviously wrong and, as "Forest Creek" points out, training should, and must, be co-ordinated, and company commanders, however much freedom from interference they are allowed, must train on the same sealed pattern, no "jims" or funny tricks being tolerated.

"Forest Creek's" suggestion that the Second-in-Command should hold special tactical cadre classes for N.C.O.s is a sound one, but personally I always prefer to combine tactics with other subjects in the syllabus of the ordinary cadre classes. Opinions vary very much about cadre classes in general: some units hold separate classes for each subject, while others combine several subjects in one class. I prefer the latter, and I think that a series of short classes in which several subjects are combined and in which the maximum number of N.C.O.s are exercised are much more valuable than a few long courses in separate subjects; for it is only thus that your N.C.O.s can systematically receive the extra training and instruction which they require and which, in some units, they seldom get. "Cadre class" is really a misnomer, as such classes are in reality N.C.O.s' refresher courses.

We have all in our time expended considerable energy and thought in working out intricate programmes for the individual training season, but to what extent has it ever been found possible to carry such programmes out in practice? I have always found that, during the hot weather, what with leave, butt fatigues and other duties, the only training of real value that it is possible to carry out thoroughly is weapon-training and the training of specialists and N.C.O.s, and it is on these three that I have endeavoured to concentrate during the individual training season. A detailed programme for weapon-training, specialists' classes and short refresher courses for N.C.O.s is in itself a complicated affair, but if it is worked out carefully and instructors are detailed by name for each class, it can be carried out with most beneficial results.

— Although the responsibility for the tactical training of the N.C.O.s rests with company commanders, it is impracticable to

expect them to train their N.C.O.s in tactics during the hot weather; they have far too many other things to do and they should not be doing two things at the same time. This is where the C.O. can help, *viz.*, by training N.C.O.s in tactics as well as in other subjects under battalion arrangements, the companies not on leave of course finding the necessary instructors.

I entirely agree with "Forest Creek" about the Adjutant being a junior, rather than a senior officer. If the C.O. knows his job, a junior officer of ability can easily do the work required of an adjutant, and a senior officer is much more usefully employed in commanding a company. Moreover, a senior adjutant is always inclined to take upon himself the rôle of a Dictator, thereby clashing with company commanders and causing discord in the battalion. Only an inefficient or weak C.O. will require the assistance of a senior adjutant to prop him up.

Then, in the hot weather there are T.E.W.T.s to be got through, either under direct orders from higher authority or at the discretion of the C.O. Many people like T.E.W.T.s; to others of meaner intelligence they are the *pons asinorum* of soldiering; but they have got to be done and if they are kept sufficiently simple they can be very interesting. Personally, if the matter is left to the discretion of C.O.s, I would suggest a battalion T.E.W.T. for B.O.s and V.C.O.s once a fortnight during the hot weather, each T.E.W.T. being prepared and carried out by a different B.O., from the Second-in-Command down to the junior subaltern. This gives every officer practice in carrying out a battalion T.E.W.T., and if the programme is worked out at the beginning of the hot weather so as to ensure that B.O.s will be present, and not employed on weapon-training, on the dates fixed for them to hold their T.E.W.T.s, the thing works automatically and with the minimum trouble to the C.O., who, after all, is the man who shoulders the whole responsibility for the training and efficiency of the battalion and who deserves a rest, as far as such be possible, during the hot weather.

Another item of training which I advocate during the hot weather (particularly in the north of India) is "night ops."

There are few of us in the Army who do not hate "night ops" and who have not painful recollections of wintry nights spent stumbling about in the dark, and perhaps in the pouring rain. My first experience of night operations was at a public school

camp, when on a pelting and pitch-black night I fell headlong through a hedge into a six-foot ditch. And so it has been throughout my service, a black and gloomy chapter of noisesome recollections. Nevertheless night operations are necessary, very necessary, as we all know, and I suggest that some of the physical pain and grief of the northern India's winter night can at least be avoided if part of the training in night work is done during the hot weather, instead of being left, as it usually is, to the coldest and bleakest winter months.

And so to bed.

## THE NIGERIA REGIMENT

BY CAPTAIN W. G. HINGSTON.

The work of a Company Commander in the Royal West African Frontier Force differs in so many respects from that of a Company Commander in India that it may be of interest to officers in India to be able to contrast the two.

The Royal West African Frontier Force consists of units in the four West African Colonies. In Nigeria there are six battalions of Infantry, a Light Battery, a Dépôt, a Signal School and Headquarters. On the Gold Coast there are two battalions of Infantry. In Sierra Leone there is one battalion of Infantry and a maintenance party for the Freetown defences. And in the Gambia there is one company of Infantry. The Officer Commanding this last unit must have one of the most independent commands open to British officers, for the mail boat only calls in at Bathurst once a month, and he deals direct with the Colonial Office on all matters of administration and training. Theoretically, officers may be transferred from one colony to another, but in practice this is very rarely done. The writer was in Northern Nigeria, and will deal with that colony only, but all the other units are run on the same lines with only minor differences to suit local conditions.

Officers and non-commissioned officers are seconded from their British units for tours consisting of eighteen months in the country, together with eighteen weeks' leave plus the time for the voyage out and home again. In all, this amounts to just about two years for a tour, and the limit is three tours consecutively. The Colonial Office treats its servants very well in every way. Although there are regulations to cover all occasions, cases are treated on their merits, and in consequence there are very few genuine grievances. In particular there is a lack of petty restrictions and "red tape."

The rank and file are locally recruited, but only certain tribes are suitable. In Nigeria only the inhabitants of the hill districts or from the sub-desert areas are taken. There are no native officers, the highest rank being that of sergeant-major.

The first great difference between troops in other parts of the world and African troops is in the matter of housing. Each

soldier has a hut and a kitchen to himself, and in this he lives with his wife, children and "barricki boy." The latter is a boy, frequently a younger brother, who in return for his food and housing, cleans the soldier's clothes and equipment and keeps the lines clean. The African is most incontinent, and cannot live without his wife, while for that matter nor can the wife do without her man. Whenever the troops are away on trek or in camp for any length of time there is trouble with the wives in the lines. In charge of the women is one of the senior wives, called the "magajia," who wears a sergeants' sash and exercises very considerable authority. She receives pay at the rate of five shillings a month.

Every Thursday the Company Commander hears "Complaints" in the Company Office. On these occasions any man with a request to make is allowed to ask the O.C. personally. No man may keep a wife in the lines without permission. On these occasions he arrives at the office with his future bride. She is brought into the presence by the Magajia, and there she sits on the ground awaiting a decision. The Company Commander has a look at her, notices her tribal marks, and asks the Magajia if she is all right. Known prostitutes are not allowed as wives, and other reasons are also sometimes found for refusing the request. The woman is issued with a leather ticket, which has to be produced on demand. For bad behaviour in the lines there are two punishments; either the husband is fined, which usually has a salutary if painful effect on the wife, or she is turned out of the lines.

Except on active operations or while at Camp-of-Exercise, a soldier does not receive rations. Instead he draws subsistence allowance at threepence per day, and feeds himself. On this he can, in some stations, support himself and his wife; but in others he has to supplement it from his pay of one shilling a day. When on the march away from towns, he can easily feed for less than a penny a day.

In outstations the Company Commander is also responsible for the upkeep of barracks, offices and Europeans' houses. These are in most cases made of mud with thatched roofs. He has to estimate the annual cost of these repairs and is allotted a sum for this purpose. Owing to the ravages of white ants, every building has to be completely re-roofed every year, while a certain number have to be pulled down and rebuilt. Troop labour can be used

for some of the work, but most has to be done by local natives. So the Company Commander has to make contracts, supervise the work and buy materials in addition to his other duties. The roofs are made of long bamboos lashed together and thatched with the long tropical grass. They are rain proof, except against exceptionally heavy tornadoes, and they are far cooler than corrugated iron or mud roofs.

An officer's house is of no fixed pattern or plan. Probably no two are similar in the country, as each depends on the whim of its builder. Each occupant has his own ideas of comfort, and he can make additions or alter the inside plan just as he desires. Every year some improvement is made in the way of making stone floors, putting in home-made baths, or fitting in door or window frames. But then the time arrives when possibly a wall shows signs of weakness owing to the action of rain and white ants, and the whole house has to be re-built.

When all buildings have been completed, there may be a balance credit left in the account. The Company Commander can use this for what he wishes, such as improvements in the offices, magazine or guard room, or for putting up new buildings such as stables or drill sheds. All money has to be accounted for and credit balances returned, but the system of accounts is very simple and queries are not common.

The usual complement of a company is two officers and one British non-commissioned officer, although this may vary considerably. As the African soldier can neither read nor write, and very few speak English, there is a large amount of office work. But correspondence throughout the regiment is reduced to a minimum; there is far less than in either a British or an Indian battalion. The Adjutant is also Quartermaster of the battalion, but Company Commanders deal direct with the Area (Brigade) Quartermaster for stores, clothing and equipment. Each company keeps a few sets of clothing, a full set of permanent stores, and the kits of the reservists of the area, and so it is enabled to move at very short notice without having to deluge the Area Quartermaster with indents. Although this method increases the responsibility and the work of the Company Commander, it is the only workable method in a country where distances are so great and transport so slow. There is no clothing allowance for soldiers.

Each article of clothing and equipment has a "life" allotted to it, and at the end of the period a new garment is issued.

Venereal disease is rife in Africa, and great efforts are made to keep the disease in check. Each company has an Early Treatment Room in its lines, and there are penalties for soldiers contracting the disease. The main difficulty is to get the soldier to realise that the matter is serious. By him it is looked on as a necessary evil; in one tribe there is a belief that a man cannot procreate without having been infected. Otherwise there is little sickness among the troops. On the other hand the climate is very bad for Europeans. The days of the "White Man's Grave" are past, but the country is still very far from being a health resort. Malaria, dysentery, yellow fever, blackwater fever and sleeping sickness are the chief scourges, but the climate itself is most exhausting. By the time that leave is due, the majority of Europeans are both mentally and physically tired out; this is locally known as "end-of-tourish." The heat does not compare with that of India, but there is no cold weather. During the winter a strong, very dry, dust-laden wind blows off the Sahara, and for three or four months the visibility is rarely over four hundred yards. This *Harmattan* wind is very trying to Europeans, making for great irritability as well as cracking the skin and causing boils. As in outstations officers and British non-commis- sioned officers live and feed by themselves, the Company Com- mander has to ensure that all are taking their proper precautions and that they are feeding themselves properly.

The native soldier is enlisted for six years service with the Colours and three years with the Reserve, and he can extend his service by periods of three years up to a total of eighteen years. He gets no leave for his first six years, but thereafter he is entitled to three months' leave on each re-engagement, plus the time necessary to get to his home and back. As this may take up to a month each way, the reason for the scarcity of leave can be understood.

The official language of the regiment is Hausa, which is the *lingua franca* of the Sudan from Senegal to Khartoum. This is not a difficult language, but the construction is very different from the majority of languages. The verb is conjugated by changing the preposition, the verbal infinitive being used throughout. All officers have to pass a test in their language during their first tour. A few officers also take the Lower Standard Examination, which is about the equivalent of the Urdu Higher Standard Examination.

There is neither mechanical nor animal transport in the regiment. The latter is barred by the prevalence of the tetse fly, while there are not yet sufficient roads to justify mechanical transport. All loads are headborn. Machine guns, Lewis guns and mortars each have their complement of trained enlisted carriers. For instance, a Lewis Gun Section consists of one Native N.C.O., six privates and six carriers. Even the Light Battery carries its guns, the only headborn battery in the world. Men of exceptional physique are enlisted into the Light Battery, and it is a magnificent sight on the march.

As the normal method of travelling is on foot, the troops are exceptionally good marchers. The other specialities are drill and musketry. The shooting is of a very high standard indeed; the clearness of the atmosphere in the summer helps this, but during the winter no firing can be done. The drill is up to the standard of the Guards, and there are a number of non-commissioned officers from the Guards in the regiment.

The life in Northern Nigeria for British officers is the best in the world for those that like it. There can be no half measures about it; either it is heartily disliked or one leaves one's heart there. The complete freedom is one of the greatest attractions, but anyone desiring a social life or the joys of the cinema had better not go to the country. Polo is the premier game and every officer is expected to play. It is ridiculously cheap; four or more ponies can be kept on the pay without stinting in any other direction. There are five major tournaments in various stations, as well as local tournaments. The racing is very popular and is not expensive. Big game shooting is poor compared with East Africa, but is far better than India. "Beef" can be shot within five miles of most stations (an officer at Maidugari got an elephant before breakfast the other day), and bird shooting is excellent. No large *bandobast* is necessary for shooting, and there is no expense except cartridges and an occasional "dash" of threepence or sixpence to a native helper.

The African soldier is a delight to serve with. Very keen, he is always cheerful, even under the most dismal conditions. He has a great sense of humour, is devoted to his officers and gives very little trouble in the lines. The Nigerian troops gained a great reputation in the Cameroons and East Africa during the Great War. The German Commander in East Africa, Von Lettow

Worbeck, who probably put up the finest show of any commander on either side during the war, says in his book on the campaign that "the Green Caps" were the most respected of all the many different troops brought against him.

## LETTERS TO THE EDITOR

Dear Sir,

The past few years have seen many discussions, in this and in other journals, on the subject of how best to train the infantryman in the use of his rifle for modern war, but none of these accords more closely with my somewhat heretical views than those contained in Major Bower's article in your last number. In my view he rightly stresses the increasing necessity for the rifle section being a machine for concentrated fire in the hands of the section commander; for the latter to be skilled and practised in directing fire, and for the section to be trained and experienced in carrying out good "grouping" on the targets indicated.

The majority of infantrymen agree with this generally. We all agree that rifle range shooting preponderates too heavily at the expense of firing under service conditions. Where we differ is the extent to which we are prepared to go to redress the balance. I am prepared to go even further than the author whose article has prompted me to write this letter. Before giving a brief outline of my views, let me touch upon the conditions of modern European battlefields as I see them. In this picture lies the reason for my extremist views.

We infantrymen must not forget that automatics have doubled and trebled since the Great War. The attack task of an infantry battalion in open warfare to-day might be described as overrunning an area as large as a couple of 18-hole golf links laid parallel side by side, where every putting green is an automatic weapon. The gunners may have a lucky shot here and there but, with the small artillery weight behind, little more can be hoped for. If conditions are favourable we might get considerable help from smoke shells. And as we cannot rely on tanks being available it really boils down to this; the platoon and section must be prepared to encounter six or eight automatics in depth which they themselves must be prepared to silence before winning through. If the enemy automatics have been properly trained they will hold their fire until a worth while target appears. That may be "finis" for the unfortunate target, but adjacent sections have now to return the compliment and they can do it only by one means, *i.e.*, concentrated fire from relatively close ranges skilfully directed.

A relevant point here is *TIME*. It enters more and more deeply into the modern tactical battle. Infiltration tactics owe their great success to a recognition of this factor. The position is that the deeper we penetrate into the modern defence in depth the less static it becomes. Rearward elements have alternative tasks and alternative sites and it is for the attack to press on in order that these elements may successively be anticipated before they can undertake any task or reach any site, and this applies whether we are considering a company reserve or the divisional reserve. The tactics of infiltration achieve this anticipation.

And so we get the basic problem for solution—"How can the riflemen take on and defeat the successive automatics which will be encountered *in the shortest time?*" Our own machine guns and automatics may help, but only if they know where the particular centre of resistance is. Unfortunately no one ever seems to know this *within reasonable time* except the most forward elements. If the attack is to swing forward at the pace which will give real tactical victory no undue pause is possible. The forward elements—usually riflemen—must take on and silence the automatics; some sections must give concentrated fire whilst others stalk and assault.

Many will disagree with my picture and will quarrel with my tactical conceptions. Some might even contend that, in the circumstances I envisage, infantrymen could not progress at all by means of their own weapons. I certainly disagree with the latter. But assuming there is something in my picture and my tactics, what are the requirements? Precisely what Major Bower suggests—(i) The section leader well trained and experienced in fire direction and control under battlefield conditions and (ii) the rifle section trained as a machine to apply concentrated fire over battlefield terrain.

Mr. Editor, I apologise for being so long-winded. This started as a brief letter, so permit me to give my views on the appropriate basis for modern rifle training in summary form:

(a) Once a man has been taught to use his rifle he should not be asked each year to relearn all over again. After the first year, range shooting at targets should be restricted to those men who have yet to learn.

(b) If the annual rifle training with ball is to be crowded into 14 or 20 days out of the 365 days in each year then the rifleman must be retaught every year. Why not spread the firing over

the majority of the year? Could not the rifleman be exercised on a system based on his having to fire a minimum proportion of his annual S.A.A. in periods which would cover the major portion of a training year? For example, if conditions, owing to furlough and manœuvres, only permitted a spread of firing over 8 months of the year, Private A or Sepoy B might have to conform to some such programme:

April-May ... 20 % of his yearly S.A.A.

May-June ... 20 % " " "

July-August ... 30 % " " "

September-October ... 35 % " " "

(c) Lastly, after an initial zeroing of rifles and the minimum firing to test individual efficiency, get the men off the range and spend the bulk of the S.A.A. in the field firing area. Let the section commander have his chance to assume in peace the task that will be thrust upon him in war.

Let us bid farewell to a system based on bulls-eye scores and figures of merit; let us introduce realism into our training; and let us keep in mind that no matter how useful supporting arms may be, the infantryman must at all times be prepared to fight forward with his own weapons.

Yours, etc.,

M. STONE.

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SIR,

Permit me, through the medium of your Journal to thank Captain Knight for his courteous comments on my article "The City of London and Regimental Privileges" and for the valuable added information.

My remark as to the O.C., The Buffs, of the mid-Nineteenth Century "having chanced it and got away with a case establishing a precedent" was certainly crude. But in the course of much research into these matters I have come across quite a number of assumed privileges having no definite foundation, which the unquestioned effluxion of time has firmly established: hence the remark.

I was not aware until the publication of the October edition of the Journal that a second volume of the History of the Buffs had been written. I then wrote to my agents to procure and send me a copy which, unfortunately, had not yet arrived. Pending that may I ask if the letter of the 13th of October 1846, acknowledging the claim of The Buffs to an origin in London, was a *personal* communication or by his *Lordship in Council*, which is a different matter entirely, as the latter would carry a definite acknowledgment for the first time and with it a sanction for the continuance of the privilege.

It was not until the year 1904 that I became aware that this privilege, which I had always supposed to be confined to The Buffs, could be exercised by others. In that year I saw a battalion of the City of London Regiment crossing London from Liverpool Street Station to Waterloo, beating its way along Queen Victoria Street in "panoply of war." I think they were Militia as they wore only caps, and a year later saw a battalion of Guards marching up from Waterloo in the same manner. I then decided to go into the matter some day, but forgot all about it until the march of the Marines awakened the old memory.

Yours faithfully,

CHARLES GREY.

**Air Power and Armies**

BY WING-COMMANDER J. C. SLESSOR

*(Oxford University Press, London, 1936.) 10s. 6d.*

This book is not, as has been represented in certain press reviews, concerned primarily with the broader aspects of Air Strategy. The main object is to show the assistance which an air force can render an army engaged in a land campaign; and conversely, the threat to the operations of an army when opposed by a powerful air striking force.

Most of the examples with which the book is furnished are naturally drawn from the Great War; and are used to emphasise "the positive influence which can be exerted by an air striking force in direct attacks upon objectives on the ground" with the object of assisting the army to defeat the enemy army; and it is for this reason that the book deserves to be read by all soldiers.

Whatever form operations by our armed forces may take in a future war, it is certain that the air force will play an important part even in operations where the army may be the predominant partner. Commanders and Staffs will, therefore, be faced with problems affecting the joint employment of land and air forces, and the author's clear analysis of such questions as air superiority, choice of objectives, and the "isolation" of the battle area, as regards reinforcements and supplies, should enable us to avoid the more common pitfalls and make the best use of available air resources. If, in fact, it should prove possible to isolate the battle area in the manner suggested by the author, even for a brief period at the most vital stage of operations, it should help to solve the problem of maintaining the momentum of the attack—a problem which has exercised Commanders for many years.

Another aspect of air action—the attack of communications; and its effect on maintenance in the field, is especially worthy of study.

Since the war the performance and offensive power of aircraft has made tremendous strides, and the possible effects of heavy air attacks on the communications of an army in the field, based on our present maintenance organisation, should compel us to examine the nature of this threat closely, and to make sure that

our administrative system in the field is best fitted to withstand such pressure.

This question is of particular interest to North-West Frontier problems, where maintenance, in the face of a strong enemy air force, would be unusually vulnerable.

Apart from the undoubted value of this book as a stimulant to the examination of problems concerning combined army and air force action, it also provides an interesting study of the employment of the Royal Air Force during the Great War, which fills in the gaps inevitable in the Official Histories.

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