The Journal

OF THE

United Service Institution of India

Vol. LXIX **APRIL 1939** **No. 295**

EDITORIAL

Once again as we go to press the map of Europe is changing. It remained apparent after Munich that further aggressive moves must be expected and the tempo of re-armament continued to increase in most countries. Herr Hitler's latest coup has, however, come as a surprise to many.

After the events of last autumn the now non-existent Czecho-Slovakia became virtually a vassal state of Germany whose policy seemed directed south-eastward. Hungary, though resisting Nazification, was absorbed into the signatories of the anti-comintern pact and was not then allowed to annex her former territory of Carpatho-Ruthenia, which is economically one with the Hungarian plains to the south. Carpatho-Ruthenia was a nucleus on which an Ukrainian state might be constituted, and Germany making use of the watchwords of nationality and self-determination which had been employed against her at Versailles (and which she has now once more discarded), gave encouragement to the formation of such a state. A confidential Ukrainian bureau was set up in Berlin and there were rumours of military training for the stateless Ukrainians who registered there. These activities led to signs of a rapprochement between Poland and Russia: non-aggression and other pacts were renewed. But after Colonel Beck's visit to Herr Hitler and Herr von Ribbentrop's to Warsaw, it was decided that there was to be no immediate move for the creation of an

independent Ukraine. In fact it would be an impossible task without lengthy preparation. The Ukraine stretches from Brest-Litovsk to the Black Sea and from eastern Czecho-Slovakia to the Sea of Azof, and includes territory now in Poland and Rumania as well as the Soviet Union's most fertile area, the Donetz coal-field, iron fields, industrial centres and her most important sea-board. It appeared at that time that Germany's object in raising the question was to provide herself with a bargaining counter to ensure herself a free hand in the west.

In his speech on 30th January, the sixth anniversary of the Nazi accession to power, Herr Hitler said little that he has not said before. The return of her colonies moved into the place of Germany's last territorial claims. These claims were described as capable of peaceful settlement. Nazism was still not for export. World dominion and war were still not Germany's aims. The more alarmist prophets appeared to be belied. But an event which gave rise to a good deal of conjecture followed. Dr. Schacht and some of his colleagues were removed from the Reichsbank, which is henceforward to be completely subordinated to the sovereignty of the state with a programme with which even Herr Funk, the new President, should be puzzled to comply. This change removed the last brake which financial orthodoxy might impose on the progress of re-armament, on the five-year plan and on the drive by any method for export trade. It also weakened moderating influences in foreign policy and left Herr von Ribbentrop in virtually full control. Further adventures to distract attention from the increasingly severe economic conditions to which the German people are to continue to be subjected might safely be predicted.

The first of these has now taken place. Czecho-Slovakia no longer exists. Bohemia and Moravia are incorporated in Greater Germany and so is Slovakia. Carpatho-Ruthenia has been over-run by Hungary. With the information at present available, comment must be premature. Herr Hitler appears to have triumphed once more. The democracies may protest; but they can take no action to prevent an accomplished act. What they can do is to prepare with the greatest possible urgency for the day when they will be compelled to resist in defence of objectives vital to themselves. The next move may be against the common Polish-Hungarian frontier, which Herr Hitler previously

forbade: or it may be westward in conjunction with Italy and in furtherance of colonial claims which have been sedulously voiced from time to time. Herr Hitler has made a pledge to Italy which has been variously construed as an unconditional offer of support or merely as a guarantee of assistance in the extremely improbable event of an attack. Whatever it means it evokes disturbing memories of a knight in shining armour.

* * * *

Italy

Signor Mussolini must now feel that the time has come for him to present his people with another substantial gain, obtained if necessary with the assistance of Italy's partner in the axis.

Italy has followed Germany in bringing out the slogan of self-determination so conveniently used and so conveniently discarded. On 30th November, the deputies in the Chamber raised cries of "Tunis," "Corsica" and "Nice," and since then a campaign has been waged in the Italian press, apparently directed towards the acquisition of Nice, Corsica and Tunisia on the grounds that their inhabitants are predominantly Italian. Nice, originally a part of the Kingdom of Sardinia, was an item in Napoleon III's bill for his support and assistance in 1859. Corsica was more or less ruled in turn by the Vatican, Milan, Pisa, Genoa and France in whose hands the island has remained save for a brief period of British rule from 1794 to 1796. The people are not Italian. Tunisia was occupied as a protectorate by France in 1881 with the encouragement of Bismarck, anxious to give her something with which to occupy herself and to forestall Franco-Italian co-operation. The protectorate contains about one million Italian nationals and an approximately equal number of French citizens, the former total including some ten per cent. of Jews, and the latter a number of Italians by race. The status of Italian nationals has long been in dispute and is the subject of a number of agreements, the last of which, made in 1935, has not been ratified. Italy no doubt hoped to catch France disunited internally and in a yielding mood. The "unofficial" campaign, however, encountered a determined opposition in France. As M. Daladier said, "France may appear to foreigners to be a prey to discord. Yet she knows how to forget her discord when not merely her safety, but also the human ideal which she pursues, is at stake." In a tour of Algeria, Tunisia and Corsica, M. Daladier

met with unmistakable demonstrations of loyalty. The Tunisians have shown signs of restiveness at the number of French officials in their civil service and an inclination to consider themselves as much entitled to a "treaty" as the Iraqis and Egyptians; but they have now made it plain that as long as they are under a protectorate they prefer a French to an Italian one. A more moderate tone has since been adopted in the Italian press. Any hope of British mediation was dispelled during Mr. Chamberlain's visit to Rome, and it is understood that Signor Mussolini at that time repudiated any suggestion of territorial demands. It even appeared that he might be satisfied with concessions regarding the status of Italian nationals in Tunis, a reduction of Suez Canal dues and some measure of control in the Djibouti railway. But the adventure in Spain is almost ended. Some further distraction for the Italian people seems required. If Mussolini decides to press his claims on France, Herr Hitler will find it difficult not to give his support.

In these circumstances hopes of peace can lie only in an opposition sufficiently united and prepared to be an effective deterrent. Great Britain's pledge to France, reiterated by Mr. Chamberlain on 6th February, is perhaps worth quoting. The Prime Minister said, "The solidarity of interest by which France and this country is united is such that any threat to the vital interests of France, from whatever quarter it came, must evoke the immediate co-operation of this country." He made plain the complete accordance of His Majesty's Government in the statement of M. Bonnet, which he repeated: "in the case of a war in which the two countries were involved, all the forces of Great Britain would be at the disposal of France, just as all the forces of France would be at the disposal of Great Britain."

The statement caused little comment in Germany, where the position was already well known. Italian comment has been restrained. Efforts have been made to interpret the pledge as an ambiguous one compared with Germany's promises to Italy. In fact, however, the position is plain and there can be no risk, as in 1914, of the belief that Great Britain might stand aloof, encouraging aggression on France.

* * * *

The United States

Great Britain and France can rely on at least the good-will of the United States, where increasing concern has been shown for the defence of her tenets of faith.

President Roosevelt devoted the greater part of a message to Congress at the beginning of January to a warning of the threats, military and economic, to institutions indispensable to Americans. He reiterated America's determination to defend those institutions, and her readiness to take council with other nations to oppose aggression. "Words," he said, "may be futile . . . ," but "there are many methods short of war, but stronger and more effective than mere words, of bringing home to aggressor governments the aggregate sentiments of our own people." The speech was publicly welcomed by Mr. Chamberlain. Official Germany was displeased and the German press enraged. Point is given to President Roosevelt's comments on the operation of neutrality laws by the effects of non-intervention in Spain. There is support in Congress, where the speech was fully applauded, for amendment if not repeal of the Neutrality Act.

On the following day, in a budget message, the President recommended an appropriation of some £264 millions for defence measures, an increase of about £62 millions over the sum contemplated for 1938-39. These sums will be directed chiefly to remedying the serious deficiencies in air power—providing a minimum increase of three thousand aeroplanes; to improving the defences of the mainland, Alaska, Hawaii and the Panama Canal; and to strengthening the present naval bases in the Atlantic and the Pacific. The possibility of creating new bases was also mentioned and in this connection interest has attached to a bill authorising expenditure on the harbour at Guam which the Navy Board has recommended for conversion into an air and submarine base. Were it to be developed as a naval base it would assume the greatest importance in the western Pacific. Subsequent official utterances have left no doubt as to the antipathy felt toward totalitarian methods and ideals, and the bulk of the nation is behind the President in this respect. All this cannot but be viewed with satisfaction by the nations who also place democracy and international good faith in the foreground. Equally, it cannot permit any relaxation in measures taken by those nations for the defence of these institutions and of their homes. There are those in America who consider that the President has gone too far and there have been misgivings at the sale in peace of aircraft to Great Britain and France.

The Situation in Spain

If events elsewhere do not provide the pretext, the closing stages of the war in Spain may yet involve Europe in the conflict which non-intervention has, at the expense of the Republican side, so far warded off. At the end of last year a dead-lock appeared to have set in. This was broken on 23rd December by General Franco's large-scale attack on the line of the River Segre covering Barcelona. The Republican front held in the centre, but gave way first in the south and then in the north, and a general withdrawal was necessary. A well-timed counter-offensive north-west of Cordova only served temporarily to divert Nationalist air forces. The attack continued to progress in the south. Tarragona fell on 15th January and on 20th the key town of Igualada was captured. By this time the preponderance of General Franco's munitions and, in particular, his superiority in the air was having an increasing effect on the Catalan morale. The last line of defence, on which a stubborn resistance was anticipated, crumbled unexpectedly and Barcelona was entered on 26th. The Republican armies continued to resist, but were rapidly driven into the corner between the French frontier and the sea. On 5th February, France opened her frontier to the Catalan army, which was disarmed and interned as it crossed. On the 9th a British cruiser carried a representative of the Nationalist government to accept the surrender of Minorca. During the negotiations the harbour was bombed by three Italian aircraft bearing the Nationalist colours.

The Republicans were thus left in control of south-eastern Spain with Madrid and Valencia. Deprived of the munitions factories of Barcelona, and after serious losses of men and equipment, any hope of victory is lost. In the circumstances, recognition of General Franco was inevitable and it has been accorded by Great Britain and France simultaneously. This has roused the anger of those who are unable to accept facts which do not conform with their ideas.

President Azana had, from the time of his arrival in France, favoured coming to terms with the Nationalists. Dr. Negrin, the premier, and Senor del Veyo, the foreign minister, announced the Republican Government's intention of continuing to fight for the peace terms previously laid down by them, *viz.*, the independence of Spain; the right of the Spanish people to choose their own government; and no reprisals. General Franco continues to

demand unconditional surrender. He intends to proceed against "criminals" in accordance with the existing civil law and has announced his penalties for political offenders. Senor Azana resigned as soon as Great Britain and France recognised General Franco; Senor Barrio, President of the Cortez, became President of Republican Spain. The differences of opinion in the cabinet, which became clear on their arrival in Madrid, lost the Negrin Government the confidence of the people. On 6th March, a council of National Defence was set up, with Colonel Casado as Minister of Defence and commander-in-chief. The former commander-in-chief, General Miaja, about whom rumours had been busy, became President. The Negrin Government fled. The new Junta seems more likely to come to terms with General Franco, and, so far as can be judged at present, lays stress only on the future independence of the country. Its first task was the suppression of communist revolts which broke out in Madrid and other centres. This has now been accomplished. General Franco is naturally in no hurry: it will take time to move his forces for an attack on Madrid. As his success becomes certain he, too, will have differences amongst his supporters to be adjusted.

In the final settlement the chief cause for contention is likely to be the withdrawal of the Italian troops. Ten thousand legionaries were withdrawn on 15th October, though this left unexpectedly large numbers to join in the Catalan offensive. In the Anglo-Italian agreement it was stipulated that "at the moment of the termination of the Spanish civil war all remaining Italian volunteers will forthwith leave Spanish territory" and up to the present Italy has observed the terms of the agreement faithfully. Since then, however, there has been a tendency in the Italian press to apply special definitions to the termination of the war. Signor Gayda has said that Franco's victory cannot be assured "until all the Red arms and armies have been liquidated, both in Spain and the neighbouring territories where they were organised, and where, from time to time, they find refuge and assistance, and until every other sort of illegal political intervention which may serve a purpose has been renounced." This may mean almost anything. It is believed that there have been disagreements between General Franco and his allies, who were displeased at the General's natural desire to conquer and consolidate the country by degrees, and at the concessions obtained by the Germans in exchange for less effort.

General Franco has shown signs of wishing the Italians to leave forthwith. The assistance which he will require in future will be chiefly of a technical and financial nature. Financial assistance is unlikely to be available from the axis powers and is more likely to be sought from Great Britain and the United States of America. There is no reason to suppose, however, that Franco will be ungrateful to those who have helped him. In a conflict, Germany and Italy should be able to count on at least benevolent neutrality from Spain, and our strategy must take note of this fact.

* * * *

Great Britain

In the circumstances outlined above, it is imperative for Great Britain to continue to re-arm with the utmost urgency, and it is satisfactory to note that this is the determination of both government and people. Our chief misgivings in this respect centre on the brakes imposed by the voluntary and democratic systems.

A step which must be specially welcomed by the services is the strengthening of the Defence Ministries by the appointment of Lord Chatfield as Minister for the Co-ordination of Defence. The knowledge which he will have obtained this winter of India's defence problems will doubtless be of value to him.

* * * *

The Defence Estimates

As is only to be expected in the third year of the re-armament programme, when production has had time to be fully developed, there are substantial increases in all the defence estimates. In his speech on 20th February, Sir John Simon explained the proposed allocation of expenditure from revenue and from loan. Last year, £274 millions were provided from revenue and £132 millions from loan, increases of £74 millions and £67 millions respectively on the figures for the previous year. This year, £230 millions are to be met by borrowing and the charges to revenue proportioned to the share which the present generation can fairly be expected to pay. Borrowing powers for defence purposes have been raised to £800 millions. Figures of this magnitude cannot really be comprehended by the ordinary person.

The Navy estimates are increased by £23.5 millions to a total of £153.7 millions, of which £80 millions will be met from loan. The programmes of the last three years are at their most expensive stage; new construction is to be increased by the addition of more destroyers, escort vessels and mine-sweepers; and there is to be a substantial increase in personnel.

The Army estimates, after allowing for contributions from India, Burma and the colonies, amount to £148.15 millions. an increase of £41.6 millions on the figures for last year. Of this total, £66.25 millions, which include the increases from last year, will be met from loan, and the amount to be provided by the tax-payer will be reduced by £3.4 millions to £81.9 millions. The extent to which production of munitions has been developed is indicated by an increase of £23 millions in the vote for warlike stores. The increase from 1936 on this account is £46 millions. There is an increase of £2 millions in the grants for military expenditure to India and Burma.

The air estimates show an increase of over fifty per cent. on last year's. Of £220.6 millions, £66.6 millions will be provided by taxation and £142 millions by loan. These figures include £8 millions for the fleet air arm. The main item is £124 millions for warlike stores, an increase of over fifty per cent. on last year's figures. Progress has been satisfactory and is being accelerated.

An advisory panel of industrialists set up last December to receive representations and make proposals in connection with re-armament has given the Service Departments a good report. They are described as accomplishing a most difficult task of great complexity with efficiency and foresight, the magnitude of their effort being insufficiently realised by the country as a whole.

The Chancellor of the Exchequer gave the total defence expenditure as £580 millions. The amount to be spent on civil defence is in the neighbourhood of £56 millions—not a large percentage in these days. Sir John Anderson, while stating that he did not propose to rest satisfied with the work of his department until its task is completed, gave an optimistic account of preparations in hand. The question of evacuation was referred to in our last number. The policy for the provision of shelters, which seems to be that trench systems should be completed and steel shelters provided on a household basis to give reasonable protection against blast and splinters, has met with criticism by those who advance the claims of deep shelters, proof against direct hits, adopted as a result of bitter experience in Barcelona. The question of providing underground shelters, which can be used in peace for car parks, tunnels and subways, remains under discussion except in isolated cases. The arrangements for the allocation of man power have formed the subject of legislation. A national

register is to be drawn up and the country has accepted with some misgivings that this shall be on a voluntary basis. The issue of the guide to National Service should make it possible for the willing public to volunteer with the full knowledge of the obligations and qualifications required which has hitherto, from all accounts, hindered recruiting. It is to be hoped that the campaign which accompanies the issue of the guide will be continued until adequate recruits have come forward in all districts. A schedule of reserved occupations, showing which activities must continue in war and designed to avoid the waste of specially qualified man power which occurred in 1914, has been published. A scheme has been drawn up for the decentralisation of civil defence under regional commissioners with representatives of the various departments who will prepare plans in peace and be ready to operate in war.

Arrangements for the distribution of food and other supplies from the ports and for the maintenance of essential services are vital items in our defence in respect of which the public should feel satisfied.

* * * *

Palestine

At the time of writing information about the Palestine conference is incomplete, but agreement between the Arabs and the Jews seems as unlikely as ever.

The first business meeting, at which the Jews stated their case, was on 8th February. By the 9th the delegates of the Mufti had fortunately been persuaded to sit with those of the Defence or Nashashibi party. The Arabs have stated their demands as: complete independence; the abandonment of the idea of establishing a Jewish national home in Palestine; the replacement of the mandate by a treaty of alliance and the immediate cessation of Jewish immigration and land purchase. Their case hinges to a certain extent on promises in the correspondence of 1915 between Sir Henry MacMahon and the Amir Hussain, in which Arab support was purchased by recognition of Arab independence within certain boundaries. Publication of the relevant portion of the letters still leaves the boundaries open to varied interpretations. Discussions continued for two weeks and apparently resulted in no more than the slightest indications of compromise on either side. Informal meetings between Arabs and Jews led to no better results. The British Government then

brought forward proposals for an advance by stages towards the ultimate creation of an independent Palestine state in alliance with Great Britain and with safeguards for the Jewish minority and British interests. These proposals were categorically rejected by the Jews and, indeed, if they have been correctly reported, they appear incompatible with the Balfour declaration. The Arabs, while criticising the scheme of stages envisaged by the Government, were prepared to discuss the proposals but remained adamant on the stopping of immigration and land sales. Later, further proposals were put forward. These, it appears, envisaged a cantonal system of government with an upper house in which legislation of first importance to both races would alone be initiated and in which decisions would be reached by separate votes of Arabs and Jews. There seems no prospect of this plan meeting with the acceptance of either party. In Palestine itself terrorism continues.

* * * *

Burma

In Burma, the opposition parties, together with the younger element of the priesthood and students, have been carrying on a campaign of civil disobedience directed against the former coalition government, against Europeans and—in spite of the display of sympathy by some of them—against Indians as well. Continued industrial strikes have been fostered, apparently with no other purpose than to cause disorder and embarrass the government, and school strikes have practically put a stop to education. The Lashio-Yunnanfu road has now become one of the main routes by which munitions can reach China. It is not yet complete to full width or capable of standing up to regular and heavy traffic, but the Chinese have performed wonders in driving it through some of the most difficult country in the world and considerable cargoes have begun to move on it. The recent Japanese occupation of Hainan will add to the importance of this route to the Chinese and the advantages which would accrue to the Japanese from its disorganisation.

DELHI AND INDIAN MUTINY

By Major P. H. Denyer, 4th Bn. 11th Sikh Regiment

This article does not presume to add anything new to the mass of information which has been compiled upon the Indian Mutiny nor even to record original research about the siege of Delhi in 1857. The numerous State Papers, biographies, and histories the last of which was published as recently as October 1938 have covered the subject very thoroughly and he who runs may read. This article sets out only to give the results of personal ramblings over the ground as it exists to-day, and it may assist future students to recognise the sites of the various incidents which go to make up the Delhi portion of the story. History takes on a more intimate aspect when action and ground are viewed together, and the siege and capture of Delhi—not the least of the exploits of the British and Indian armies—will repay with lively interest a study by those members of the Services who are fortunate enough to be quartered in Delhi and have a taste for the romance of the growth of civil and military administration in India.

It is becoming fashionable amongst military students to decry the value of past history as an aid to the solution of present and future problems. Progress in world conditions as a whole and military development in particular has so altered the fundamentals of the problems, it is said, that to seek inspiration from past events would be to apply the bow-and-arrow standard to (the problems of) mechanised armies. There is probably a great deal in all this. Most theories contain much solid sense to commend them and it is only misguided devotees who flog them beyond the distance they were designed to run. It was Napoleon who advised us to read and re-read the lives of the great captains, and he must be well armoured with the complacency commonly attributed to the military profession who would dare to scorn the advice of the Little Corporal. To the intelligent reader there is a lesson in every campaign which, if applied with discretion, will lead eventually to the truth we seek. The history of the Indian mutiny will repay the time spent on it if only the wisdom of John Lawrence's counsel is appreciated. "Pray only reflect on the whole history of India," he appealed. "Where have we failed when we acted vigorously? Where have we succeeded when guided by timid counsels?"

As this article purports to deal only with Delhi, it will touch but briefly upon the events which led up to the outbreak in that city. Sporadic acts of rank indiscipline had occurred at Burhampore and Barrackpore. The superficial causes connected with greased ammunition and polluted flour are well known; but the real cause was something far deeper. Courts of enquiry sat to discover and remove reasonable causes of discontent, but the cavalry *sowars* in Meerut still refused to accept the very cartridges which they had been using since they were enrolled. The military authorities at Meerut pronounced a court-martial. Here was no justification for complaints of outrage against an intensely religious code but something based on insolent presumption and unfounded superstition. The delinquents, mostly from the 3rd Light Cavalry, were sentenced to long terms of imprisonment. To point the lesson, Major-General Hewitt had the sentences promulgated at a station parade and the entire garrison was edified during four sun-baked hours by the spectacle of the prisoners' irons being fitted one by one by the regimental blacksmiths. The appeals and jeers of their misguided comrades occupying the centre of this tragic stage must have been a sore trial to the Indian troops who witnessed the scene.

The next move in the drama followed rapidly. The following day, on Sunday, May 10th, the Indian troops in Meerut broke out from their lines and, arming themselves from their own bells of arms, surged towards the jail and released the prisoners by force. The outbreak had been timed to coincide with the evening church service which would be attended, unarmed, by all the British regiments of the garrison. By a coincidence the parade service had been put back that very day by half-an-hour, probably on account of the growing heat of the evenings. The uproar, then, found the 3rd Carabiniers and the 60th Rifles assembling for church on their parade grounds. They were hastily dismissed to collect their arms and ammuniton, but for want of further orders they remained on their parade grounds doing little but protect their own lines. It is interesting to note here that British troops in India (to this day) still carry their rifles on church parades as a reminder of the day when they were caught unprepared.

In the meantime the mutineers had returned triumphant from the jail carrying with them the comrades whose shame they had witnessed four days before. As darkness fell there began such an orgy of murder, arson and loot as had never been witnessed since the British came to India. The British officers of

sepoy regiments hurried to the lines in an endeavour to stem the tide by their own personal influence; but most were shot down, if not by their own regiments, then by the scattered detachments of other corps. Those that escaped did so only after their lives had been attempted and when they realised that things had gone too far for peaceful persuasion. Most of Meerut was given over to the mutineers and few lone Europeans, Eurasians, or Christians escaped brutal murder. By morning the uproar had subsided and the dawn saw the rising smoke from smouldering bungalows and heard the cries of the dying and the wailing of the bereaved. The British troops were still standing to their arms in their lines, but the mutineers had disappeared with the night, the cavalry mounted, the infantry on foot, towards Delhi.

Delhi was the obvious rallying point for the half triumphant, half terrified sepoys. When Lord Lake captured Delhi in 1803 from the Maharattas, the East India Company decided to defer to Mussalman opinion so far as to continue to maintain the royal state of Timur's descendants. Shorn of all executive power outside his own entourage, the ruling king in 1857 was the puppet Bahadur Shah who, with his queen Begum Zeenut Mahal, held sway within the walls of his rose-red palace which had been built by the Emperor Shah Jehan in 1631 together with the Jumma Masjid. Conditions in this *opera bouffe* court were such as are associated with native rule of the period. The entourage comprised innumerable hangers-on, all avid for preference. Intrigue was rife: immorality and murder normal activities. The area now occupied by British barracks and the inevitable playing fields was then covered by sordid hovels and peopled by the results of illicit amours of prince and courtier.

It was to this rallying point that the mutineers came on the early morning of Monday, May 11th, 1857. The first European to lose his life in Delhi was Mr. Todd of the Telegraph Department who, having been told that the line between Meerut and Delhi was out of order had gone out, all unaware, to see if he could discover the cause of the breakdown. A memorial stone to Mr. Todd stands approximately where he was shot down, and must be a familiar landmark to all followers of the Delhi Hunt who have met the Master at the east end of the Jumna Bridge.

At the time of the Mutiny a bridge of boats spanned the river at the position now occupied by a rail and road bridge. Crossing the bridge, the insurgents turned left and followed the path which then skirted the walls of Selimgurh where the palace guard was

quartered. In those days the river all but lapped the walls of the palace. They gathered in an open space below the royal apartments; and, standing now on the walls, one can picture this crowd of blood-thirsty horsemen jammed below the marble halls that bear the famous Persian inscription:

If there be a Paradise here on earth—
It is this, it is this, it is this!

The mutineers were in no mood for courtly custom. They believed retribution to be even then on their heels, and they were desperate. They howled for the King to lead them against the English and make himself in truth Emperor of Delhi and the whole of Hindustan. It was a situation with which the feeble old pantaloon was not qualified to deal. He sent for Captain Douglas the *Qildar* who commanded the palace troops, and Douglas, only half realising the true position, railed at the men for their effrontery to the King, and told them to disperse and bring what complaints they had in a proper manner. But there was one listener in this stirring scene who very quickly grasped the true import of what was happening and saw in it a heaven-sent opportunity to further her own schemes. This was Begum Zeenut Mahal, the King's favourite wife, who fiercely resented the British decision to discontinue the Emperor's court and subsidies on his death, and saw in it only an attempt to deprive her son of his rightful inheritance. Here was a chance to ensure that the little prince should become a true Emperor! In defiance of all Mussalman custom she threw to the mutineers below a word of encouragement at which, with a yell of triumph, they galloped off to find the nearest entrance to the city. This took them through Darya Ganj, the suburb between the palace and the river which was inhabited largely by the Eurasian population of Delhi. The Rajghat Gate was opened to them and they rode through the suburb from end to end slaughtering every Christian within sight. The mutineers were within the city of Delhi.

Douglas had meanwhile been joined by Mr. Fraser, the Commissioner of Delhi, and Mr. Hutchinson, the Collector, and together they hurried to the Calcutta Gate which lies between the river and the palace on the north side. Here they were attacked by more Meerut mutineers. Fraser shot the leader and escaped. Both Douglas and Hutchinson were wounded in their endeavours to regain the palace by way of the moat. Douglas's quarters were situated above the Lahore Gate of the palace where a British soldier sentry stands to-day. He was cut down by one

of the palace servants as he reached the steps leading from the road. His guests Mr. Jennings, the chaplain, Mrs. Jennings, and Miss Clifford were also murdered in an upstairs room.

Lieutenant Willoughby was in charge of the magazine within the city which held the expense ammunition, the main store being north of the cantonment, near the river bank, the buildings of which were converted and recently used as kennels by the Delhi Hunt. The site of the city magazine is to-day marked by the original gateways which still stand upon a grass plot facing the General Post and Telegraph Office. A memorial to those of the Telegraph Department who lost their lives on May 11th, 1857, stands on the same plot. Willoughby and eight other Europeans of the Commissariat Ordnance Department hastily barricaded the magazine and, placing two field guns at salient points, prepared to defend the building. Shortly after the first onslaught the lascars within the magazine were found to be untrustworthy and were ejected. From then onwards the defence consisted of Lieutenants Willoughby, Forrest and Raynor, three Conductors and three Sergeants. They held out for three hours until 3-30 p.m. against savage attacks by hordes of mutineers at which hour, judging the situation to be hopeless, Willoughby gave the order and Conductor Scully fired the train which blew up the magazine. Miraculously enough the three officers, two conductors and one sergeant escaped. The remainder perished. Willoughby perished later on his flight to Meerut. The others survived the Mutiny and were awarded the Victoria Cross which few can have earned with greater merit.

The military garrison of Delhi consisted of three native infantry regiments—the 38th, 54th and 74th, and de Tessier's battery of artillery. Their lines were situated two to three miles north of the city. Brigadier Graves, who had once commanded the 54th, now commanded the station. The 38th were furnishing the main guard at the Kashmir Gate. When news reached Brigadier Graves of the arrival of the Meerut mutineers, he ordered the 54th to march down from cantonments. The 38th guard watched sullenly as the 54th marched through. At the first touch with the mutineers, somewhere in the area now occupied by the show-rooms of motor firms, four British officers were killed and the colonel was wounded. That was the end of the 54th. The 74th with a magnificent reputation then took their turn but fared no better. They marched in high spirit along the road from cantonments shouting "Company *ji ki jai*!" (Victory to the Company) but their enthusiasm for loyalty accompanied them no

further than the Kashmir Gate. True, they did not shoot their officers but they refused to take action against the mutineers and shortly afterwards they withdrew again through the Kashmir Gate accompanied by de Tessier's gunners. The guard of the 38th then seized the opportunity and shut the gate. The bewildered officers of the 74th still standing in the open space before the gate aghast at the disgrace which had fallen on their beloved regiment found themselves under the fire of the guard at the gate. Together with some English ladies who had joined them, they ran for protection to the bastion and from the top of the wall with the aid of improvised ropes managed to drop over into the moat below, whence bruised and shaken they made their way back to cantonments. The situation was a sorry one. The magazine had been destroyed, the survivors in Darya Ganj were selling their lives dearly from the one bungalow which they had fortified, the whole garrison had gone over to the mutineers, and still there was no sign of the long expected help from Meerut. The telegraphists had remained at their posts long enough to send messages to Ambala and Lahore before they were forced to close down. Facsimiles of these messages are on view in the small museum in the south-east corner of the *Diwan-i-Khas* gardens and provide a poignant picture of the helplessness of authority in Delhi. The Telegraph Department and the Ordnance alone proved equal to their task in the emergency. Brigadier Graves collected the European survivors—men, women, and children—at the Flagstaff Tower on the Ridge and from there ordered a bugler to sound the "Assembly." Even this theatrical gesture failed to bring salvation, and Graves then ordered a general "sauve qui peut." Very few reached the safety which lay at the end of the Ambala and Meerut roads both over forty miles away, and those only after exposure and desperate privation.

Many are the stories told of this terrible day. Sir Theophilus Metcalfe who was Joint Magistrate in Delhi, and who had inherited the lovely Metcalfe House from his ancestor Sir Thomas, escaped in disguise along the Rohtak road, and was sheltered in a cave from pursuing horsemen by a friendly fakir who told the sowars that the cave was inhabited by a fierce devil. One sowar boldly entered the narrow entrance and was killed by a blow from Metcalfe's sword; whereupon the remainder announced themselves convinced of the truth of the fakir's story, and rode away. The bank manager Beresford and eight members of his family were killed in an attempt to defend the bank. Across in St. James's churchyard a stone stands now to their memory. Metcalfe House

was ransacked and destroyed by Gujar herdsmen who for years had carried a grievance against the Metcalfes for occupying their grazing land. The house stood then on the site of the present Metcalfe House, between Alipur road and the river. The foundations of the original building alone remain.

From the evening of May 11th until the rebels were driven out in September, King Bahadur Shah held sway in Delhi. True but little authority was conceded to him by the insolent sepoys who invaded his royal privacy and picketed their horses within the *Diwan-i-Khas*. They sent him importunate summons concerning their pay, and made up the arrears by extortion from the merchants of Delhi. A diary kept during the seige by one of the King's ministers supplies a strange story of Oriental rule, of flattery and intrigue, of tawdry pomp and show, of incessant quarrel amongst the entourage, of distasteful irruptions into the royal privacy by mutineers demanding more and more money. The King's eldest son Mirza Moghul proclaimed himself head of the army. His first action was to order the execution of the white remnant in the city, those 49 unfortunates, mostly women and children who had been captured on May 11th. They were taken from the dungeons within the palace, roped together, and handed over to the blood-thirsty cavalrymen. Mrs. Aldwell who escaped death by pretending to be a Mussalmani, alone lived to tell the tale. The bodies were thrown into a well, and the grass plot immediately in front of the entrance to the *Diwan-i-Am* is said to mark the site of this multiple grave. A tablet in St. James's Church records the names of as many as could be remembered.

Mirza Moghul shared his command with Subedar Bakht Khan of the 15th Horsed Battery who had served with distinction in Afghanistan. Bakht Khan's enormous girth made him the subject of ribald mirth and lampoon by the British soldiery who later opposed him from the Ridge. For all his ability and personality he was unable to secure any marked degree of co-ordinated effort amongst the sepoys who tended to group into batches from regiments and stations under their own officers. As each new batch found its way to Delhi amidst the braying of bands, waving of flags and shouts of enthusiasm, they were encouraged to make good their boasts of how easily they could dislodge the pitiful British force from its hold on the Ridge; but nightfall found them again sheltering within the walls of Delhi still boasting of what they would do on the morrow. Their lack of success, and the heavy casualties they sustained caused despair amongst their ranks, and towards the end of August, wearied by failure, internal

quarrels, intrigue amongst the officers and pillage by the sepoys, King Bahadur Shah made secret overtures to the British commander promising to deliver the city in return for his own royal state. The answer was a demand for an unconditional surrender.

The mutineers were well served with artillery and ammunition, for although the magazine in the city had been destroyed, the main store on the river bank was captured and brought into Delhi. The artillery sepoy was a well trained gunner in defence and, controlled by the renegade subedar, worked his guns with such effect that after the Mutiny it was decided never again to train sepoys as gunners. This order has, of course, since been rescinded.

Let us turn back again to the fateful May 11th. Messages sent by the devoted telegraphists on that day reached Ambala and Rawalpindi. Sir Henry Barnard commanding the former station despatched his son with the news to the Commander-in-Chief, General Anson. Young Barnard galloped along the Simla bridle path which went by Sabathu, and presented his direful despatch to the Commander-in-Chief as he sat at dinner on the evening of the 12th. General Anson lost no time in ordering his dispositions, but the collection of the necessary siege train and transport vehicles was a lengthy affair in those days of slow communications. He himself superintended the preparation of a force for the relief of Delhi which was to consist of two brigades from Ambala and one from Meerut. These two forces were to effect a junction at Baghpat, twenty-one miles north of Delhi. Having drafted the instructions for the move, the Commander-in-Chief left Ambala on May 24th and died of cholera at Karnal on the 26th.

The command of the Field Force now devolved on Major-General Sir Henry Barnard who decided to march with the Ambala portion of the force at once. He reached Alipur, ten miles north-west of Delhi on June 5th, and there awaited the arrival of the Meerut brigade. The latter brigade had marched from Meerut on May 27th and had been surprised by a force of mutineers at Ghazi-ud-din Nagar (now called Ghaziabad) at dawn on May 30th. Energetic handling of the artillery under Major Tombs and Lieutenant Scott and a spirited attack by the 60th Rifles drove the rebels from their position along the west bank of the Hindan River. After more opposition from a vastly superior force the 60th Rifles successfully crossed the river, and the Carabiniers completed the flight of the enemy; but the brigade had suffered severely during the two days' fighting especially from the intense heat. A welcome reinforcement of the Sirmoor Battalion

of Gurkhas joined them on June 1st and the two forces concentrated at Alipur on June 7th.

A gallant reconnaissance by Lieutenant Hodson—who later raised the famous Hodson's Horse—revealed to Barnard that the enemy had taken up a strong position at Badli Serai which flanked the Ambala road. The force was split into three portions to attack the left, centre and right of the Serai. The left party was to encircle the Horse Shoe Jheel and attack the right rear of the enemy position; and the right party, which included the cavalry, was to cross the Western Jumna canal and attack from a crossing south-west of the Serai. Owing to mistiming the centre force found itself facing the destructive fire of the mutineers alone. The day was retrieved by a spirited bayonet charge by the infantry, notably H. M. 75th Regiment and the 1st Bengal European Fusiliers. When the Serai had been captured and the enemy batteries destroyed, the flank attacks materialised and completed the defeat of the retiring mutineers.

The Field Force then moved straight on towards Delhi and encountered the next opposition from the Ridge which was to be the scene of so many gallant efforts during the next three months. The troops reached the road junction at Azadpur and split into two parties, one taking the road which led to the Ridge *via* the cantonment, whilst the other moved by the road to Sabzi Mandi. The rebels opposed both columns but the combined attacks from the flanks together with a frontal threat by the Sirmoor Gurkhas caused the enemy to vacate his position and retire behind the protection of the city walls. The Field Force moved along the Ridge from both flanks and concentrated again at the Flagstaff Tower where they found a bullock cart piled high with the dead bodies of the British officers who were killed on May 11th.

Contemporary sketches and photographs of the Ridge (which are on view in the *Diwan-i-Khas* Museum) show that the area in 1857 was less covered by trees than at present, the main botanical feature of that time being a low scrub which grew sparsely on both eastern and western slopes. The buildings which figured in the bitter fighting are easily recognisable to-day—Hindu Rao's House (now a hospital standing on the original site), the Observatory (the summit of which, if you will face the steep narrow steps, provides an unrivalled view of the scene), the mosque of Pir Ghaib, and the Flagstaff Tower. The military tactics of the period, governed as they were by the short range of the weapons in use, demanded that the British force should occupy the high ground of the Ridge. It seems a curious tactical position in these days

running as it does nearly at right angles to the northern wall of the city, with the Hindu Rao flank only 1,200 yards from the enemy, whilst the left flank ran away to a distance of 2,800 yards; but as the Delhi Field Force became in fact the besieged and not the besiegers, it was necessary to occupy a position from which it could withstand the attacks of the insurgents.

The capture of the Ridge was celebrated by the burning of the Indian barracks, which were situated upon what is now an open space north of Probyn Road. The destruction of the buildings must later have been sorely regretted, as the thatched roofs would have provided very grateful shelter from a burning sun for those few who could be spared from the forward piquets. Some officers' bungalows were in fact repaired and served as hospitals for the wounded and sick. A camp was erected upon the site of the present golf course to accommodate that portion of the force not actually manning the Ridge defences.

On June 9th, the day following the arrival of the British, the rebels made their first sortie against the vulnerable Hindu Rao flank. Issuing in force from the Ajmere Gate after a preliminary bombardment, they attempted to capture the nearest piquets; but that day had also seen the arrival of the Guides to provide a much-needed reinforcement. The Guides consisted of three troops of cavalry and six companies of infantry under Captain Daly. They had marched from Mardan, a distance of 580 miles, in 22 days—a magnificent achievement. Within a few hours of their arrival they were driving the mutineers back behind the protecting walls of Delhi. Similar attacks from the city on June 10th and 11th were successfully met by the 60th Rifles, the Guides and the Sirmoor Gurkhas. These three regiments shared the honour of defending Hindu Rao's House throughout the siege. Major Reid and his Gurkhas never left the position during the whole siege of Delhi except to attack the enemy. There can be few nobler pages throughout the annals of these three famous regiments, and they pay tribute to the devotion displayed in these operations by wearing red piping on the collar of their full-dress uniform.

From this time onwards the tale of the siege of Delhi is the story of a series of attacks upon the British position at almost daily intervals. A sharp encounter near Metcalfe House caused the extension of the British line from the Flagstaff Tower south-eastwards to Metcalfe House. A battery of guns was placed in position on the site now occupied by the tall Mutiny Memorial, which was erected at Queen Victoria's command. A piquet occupied the Swamy House—the soldier called it the Sammy House and as such

it became famous in history—which was about three hundred yards down the forward slope from the present memorial.

Sickness and battle casualties caused sad losses amongst the already tiny force. Cholera made its grim appearance, and on July 5th counted the Commander-in-Chief, Sir Henry Barnard, amongst its victims. Thus the second commander-in-chief succumbed to his duties. It was said at the time that he died from "an attack of John Lawrence." Sir John, far away in the Punjab, was constantly urging upon the harassed Commander-in-Chief the imperative necessity for a speedy recapture of Delhi and the dangers, which the poor man must have appreciated only too well, of delay. Sir Henry's grave can now be seen in the small graveyard on the left of the road running from the Ridge past the old Government House (which is now a college) towards the Kingsway polo grounds. This cemetery contains other relics of absorbing interest, notably two graves commemorating a young officer named David Francis Sherriff who died on August 14th of wounds received in action on August 12th. One grave is on the left of the main pathway leading from the entrance, the other is in the south-west corner. Now, why two graves for one body? And whose is the other body, if any, which rests in the grave not occupied by Sherriff?

General Reid took command of the Field Force after the death of Sir Henry Barnard, and his task continued to be that of controlling the efforts of the ever-dwindling British force to maintain its hold upon the Ridge in face of perpetual attacks by the mutineers whose strength was variously estimated at between thirty and forty thousand. The official list of engagements contains eleven fought during June, six in July and three in August, apart from the bombardment and assault which took place in September. Battle casualties continued to make grave demands upon the strength of the force, and orders were issued forbidding the soldiers to follow up the mutineers to the very walls of Delhi, where so many casualties were suffered. On June 27th the rains began and brought a welcome respite from the terrible heat; but it was a mixed blessing for it also brought an almost intolerable plague of flies, and an epidemic of malaria, to add to the already raging cholera. The British soldier continued to resent in no uncertain tone the effrontery of the "pandies" in appearing in battle in the uniforms of their old corps, thus making distinction between friend and foe, especially at night, a difficult matter. A white woman, the wife of a British conductor, is said to have

escaped from Delhi to the British lines in July. She was preserved from the general massacre of May 11th through the friendly offices of an Afghan, who hid her in Delhi until her escape. It is upon this incident that Flora Annie Steel based her novel "On the face of the waters," an absorbing story of the mutiny published by Heinemann in 1896. The conductor's wife is not the only white woman who saw the fighting on the Ridge. The foreign wife of an officer in the gunners, in defiance of all orders, remained with her husband in the camp. It is even said that a child was born to this couple during the siege, and that the child carried through life the inconvenient Christian names of "Delhi Field Force." The supply of ammunition began to run perilously short and four annas a ball was offered for shot recovered from the enemy. Hodson organised an intelligence system by which the Commander-in-Chief was kept well informed of the state of things in the city, where the chief agent was Rujjub Ali, Mir Munshi. Communication with the Punjab remained open, thanks to the co-operation of the Sikh States, notably Patiala, Nabha and Jind: and Colonel Young, the Judge Advocate-General with the Field Force was able to inform his wife that the supply of bottled beer in the gunners' mess was adequate and very acceptable, and she could supplement his information on events by the stories she heard from convalescent officers in Simla.

The Flagstaff Tower became the controlling centre of operations and it was to this spot that officers not on duty in the piquets were wont to repair to discuss the latest events of the siege. The Tower was all but captured by a surprise attack early in June, and on July 9th the rebels succeeded in circumventing the flank defences covering Hindu Rao's House and the Sabzi Mandi, and were actually amidst the British lines before the counter-attack, gallantly led by Major Tombs and Lieutenant Hill, drove them out again. Thereafter, a piquet was permanently stationed upon the Generals' Mound, which was the name given to the hillock the summit of which is now occupied by the golf house. Both Tombs and Hill received the Victoria Cross for their courage and leadership on this day.

On July 17th General Reid, with sadly impaired health, handed over command of the Force to Brigadier Archdale-Wilson, who thus became the fourth commander the Force had had in three months. He was not the senior officer present but was reckoned the most able. His main task was to adjudicate between the impatient school, still led by Lawrence in the far-off Punjab who urged an immediate assault on Delhi, and the more sober school,

to which he himself inclined, which advised awaiting reinforcements before committing a wearied force which never reached ten thousand men against three times that number of well trained mutineers securely established behind the walls of Delhi.

The enemy issued in strength again on July 23rd and established a force of foot and guns in Ludlow Castle, in an attempt to capture Metcalfe House. Ludlow Castle is the building on the opposite side of the Alipur road to Maiden's Hotel, which until recently housed the Old Delhi Club. The attack failed but was repeated on August 7th and it required a night attack by a large force of Europeans, Sikhs and Gurkhas to dislodge the mutineers. The losses amongst the British Force were serious and included Brigadier Showers who commanded the counter-attack and Major Coke of the famous Coke's Rifles, both of whom were wounded.

With the arrival of General Nicholson on August 7th came the turning-point in the siege of Delhi. His name alone stirred all the weary hearts on the Ridge; his influence was dynamic. He was only thirty-five years of age but "he was a knight belonging to the time of King Arthur and his majestic presence had the high moral grace which makes bravery and strength beautiful." Thus speaks Forrest in his "History of the Indian Mutiny." He preceded by a week the column which he had brought from the Punjab to reinforce the Field Force in the attempt to retake Delhi. Behind Nicholson's reinforcements came the siege train that was to breach the walls of Delhi. The mutineers attempted to cut off the siege train, and Nicholson himself headed the force which left the Ridge and met the enemy at Najafgarh about fifteen miles south-west of Delhi. Ten days before, on August 14th, Hodson and his cavalry had ridden forty-five miles to Rohtak to intercept a wide flanking movement. Both these actions resulted in the insurgents returning discomforted to the city, and the siege train of thirty heavy guns and ample ammunition reached the Ridge on September 3rd. Henceforth the aim could be not only to maintain a hold on the Ridge but to go forward and drive the enemy from Delhi.

Between September 7th and 11th the guns were secretly moved forward to selected positions from which they would open a path through the city walls. Four emplacements in all were constructed, and their positions are marked to-day by red stone plinths inscribed with the name of the battery commander and the battery task. No. 1 (Brind's) Battery was erected in two sections, right and left, in the area between the present police lines

and the Cecil Hotel. No. 2 Battery was also in two sections, the right near the cemetery by Nicholson Gardens, and the left in Ludlow Castle grounds. Incidentally it was this battery which was served by Lieutenant Roberts who later became the famous Field-Marshal. No. 3 Battery was erected within two hundred yards of the Water Bastion and the memorial plinth can now be seen facing the north-east corner of the city wall in Qudsia Garden. The small building near-by was then the customs house. The story of the construction of this emplacement under direct fire from the city walls is one of valiant heroism on the part of the unarmed Mazhbi Sikh pioneers who, notwithstanding cruel losses among their patient ranks, continued the work until the position was completed and the guns, under cover of night, wheeled into place. This is not the least of the stories of stark heroism that the records of the Mutiny contain. No. 4 Battery was placed opposite Ludlow Castle, on the eastern side of the Alipur road.

On the morning of September 11th the bombardment began and continued day and night until the 14th. The city walls soon showed the effects of this rain of shell, and the gunners cheered loudly as portions of the high walls slid down into the moat. The mutineers were not idle, however, and being unable to fire their guns from the embrasures, they wheeled them out into the open and caused grave casualties in the British ranks; but it was all to no avail. The day of reckoning had come and the mutineers were not insensible of the results of defeat.

Before dawn on September 14th, whilst the guns still thundered out their challenge, the storming parties moved silently through the low scrub and trees to their assigned positions. The first column under Brigadier-General John Nicholson consisted of three hundred men of H. M. 75th Regiment, two hundred and fifty of the 1st Bengal Fusiliers and four hundred and fifty of the 2nd Punjab Infantry. This column was to assault the Kashmir Bastion.

The second column under Brigadier Jones consisted of two hundred and fifty men of H. M. 8th Regiment, two hundred and fifty of the 2nd Bengal European Fusiliers and three hundred and fifty of the 4th Regiment of Sikh Infantry. This column was directed upon the Water Bastion.

The third column was commanded by Colonel Campbell and consisted of his own regiment, the 52nd Light Infantry who numbered two hundred men, two hundred and fifty Gurkhas and five hundred of the 1st Punjab Infantry. This column was

to destroy the Kashmir Gate by blowing it up, and then assault the gate.

The fourth column comprised Major Reid and his Sirmoor Gurkhas, the Guides and the Kashmir State contingent totalling a strength of eight hundred and fifty who were to enter the city by the Kabul Gate *via* the Sabzi Mandi suburb.

The reserve column included H. M. 61st Regiment, the 4th Punjab Infantry, the Balluch Battalion and the Jhind State Contingent, altogether one thousand and fifty ranks.

Owing to some delay it was broad daylight when the columns moved forward from their assembly position. The point of honour was the Kashmir Gate, and a party of sappers preceded the Infantry carrying bags of gunpowder with which to blow in the gate. This party crossed the intervening open space at the double and placed their powder against the gate. As he was about to apply the match Lieutenant Salkeld was struck by a ball from the wicket gate; but before he fell into the moat he handed the still lighted match to Corporal Burgess who fired the train before he was killed. A stone memorial at the gate to-day bears the names of the heroes of this incident. Bugler Hawthorne of the 52nd Light Infantry then sounded the "Advance" and the waiting column surged forward and carried the gate.

The mutineers, rendered desperate by the fate they knew awaited them, contested every step of the way. Again and again the British were held by reckless men who manned the alley-ways and the flat-topped houses and wrought much havoc before they were killed or driven out. The Kashmir and Water Bastion columns were unable to penetrate far into the city and some bitter fighting took place around St. James's Church as the original ball and cross, which then surmounted the dome and now stands in the church grounds, testifies. The fourth column under the indomitable Major Reid was held up in its attempt to advance through Kishanganj. The insurgents drove them out of the Id Garh, and after Major Reid had fallen it was feared that the column might be driven back to the Ridge and the other attacking columns outflanked. With the help of the cavalry, the Guides, and the Baluch Battalion they succeeded in holding on, but were not strong enough to drive the large body of the enemy from their position at the Lahore Gate. The action of the cavalry who stood their ground in battle array in full view of the enemy undoubtedly contained a large force which otherwise would have been employed against the other attacking columns at the Mori and Kashmir gates.

Meanwhile the Kashmir Gate had been captured. Nicholson's Column wheeled to the right after entering the breach at the Kashmir Bastion, and swept along the inside of the wall driving the insurgents before them. The narrow street leading towards the Burn Bastion and the Lahore Gate was occupied at the former by a band of resolute sepoys who had mounted guns in the roadway and upon the parapet of the wall. Their sharp-shooters occupied the windows and roofs of the adjoining houses, and defied all efforts of the attackers to advance towards the Lahore Gate. With the utmost gallantry the Bengal Fusiliers penetrated sufficiently far up the narrow gully to capture one of the guns in the roadway; but the covering fire from the Burn Bastion was too much for them, and leaving behind a pile of dead and wounded, they were compelled to relinquish the captured gun and retire behind the cover afforded by the houses in the angle of the wall. Their officers called in vain upon the men to face again that merciless storm of shot. Then Nicholson arrived and the exhausted attackers took fresh heart. Calling upon the men to follow, Nicholson rushed gallantly forward. The tall leader was an easy mark for the hidden sharp-shooters and he fell almost immediately with a ball in his chest. The inspiration of the attack fell with Nicholson and, carrying the dying general with them, the gallant remnant retired doggedly to the Kabul Gate. The third column had reached the Jumma Masjid, but had insufficient strength to maintain the position and were forced back to the narrow strip inside the northern walls bounded by St. James's Church.

Lord Roberts tells how he found the wounded Nicholson on a native stretcher lying inside the Kashmir Gate. He had probably been first attended to in the field hospital which had been established in St. James's Church. He was then taken back to the hospital tent behind the Ridge.

The fall of that inspiring figure, the small success which had attended the assault, and the heavy losses that had been sustained gave rise to grave doubts as to whether the city could be captured by the force available. General Archdale-Wilson, taking counsel of his fears, was for evacuating the city and retiring back to the Ridge. Nicholson, weak and dying, exclaimed when he heard the proposal: "Thank God I have still sufficient strength left to shoot that man if he orders retirement."

He lived long enough to hear of the capture of the city, for, with his stronger counsels, the assault was continued the next day. On September 16th, after two days of street fighting, the

magazine was captured. Three days later the palace fell and the erstwhile King of Delhi and his ambitious queen took refuge in Humayun's Tomb, four miles south of the city. They were both captured and brought back to Delhi.

Nicholson died of his wound on September 23rd, three days after the city was completely cleared of the mutineers. He was laid to rest after a simple but largely-attended ceremony, in the cemetery behind the Nicholson Gardens. This resting place was chosen, strangely enough, in preference to that in which Sir Henry Barnard, and all the other officers, non-commissioned officers and men who fell or died during the siege were buried. It is difficult to discover the reasons which led to the isolation in death of this revered leader from his comrades in arms who had served with him and died for the same cause.

Many personal relics have been preserved even to the coat he was wearing at the time he was struck down. This and many other objects and documents of intense interest are still on view in the museum in the *Diwan-i-Khas* Gardens. A memorial to Nicholson stands in the gardens to which his name has been given, in front of the cemetery which holds his tomb. The portion of the wall at the Burn Bastion where he fell has been preserved and a tablet on both sides of the wall marks the spot. Busy thoroughfares and modern buildings now surround the little shrine, but it is worth while climbing the steps on to the ramparts inside the embrasures. From there it is easy to picture the scene of September 14th, for the setting inside the walls is much as it was in 1857. Imagination peoples the narrow street with surging men, and one can hear the shouts of the striving and stricken amidst the heat and dust, the bellow of the guns from the parapet, and in the street the sharp cries of the leaders as, behind the shelter of the angle of the wall, they once again reform their men for yet another rush. At that spot fell a hero who ranks with the greatest Britain has produced, to whom self meant nothing and service all.

Hodson was sent with an escort to Humayun's Tomb to arrest the three princes, Mirza Moghul, Abulbakr and Khair Sultan. On the return journey into Delhi the escort and their prisoners were followed by a large crowd of sightseers. Hodson considered the attitude of the crowd to be threatening and in order to avoid a rescue, he pistolled all three with his own hand at the Delhi Gate. His action caused a revulsion of feeling, especially in England. It was known that Mirza Moghul had been directly responsible for the murder of the forty-nine Christians within the palace on

May 16th but public opinion, inflamed as it then was by stories of brutal atrocity, would not countenance the shooting in cold blood of unarmed prisoners. Hodson's reputation never recovered from the censure laid upon him by the court of enquiry.

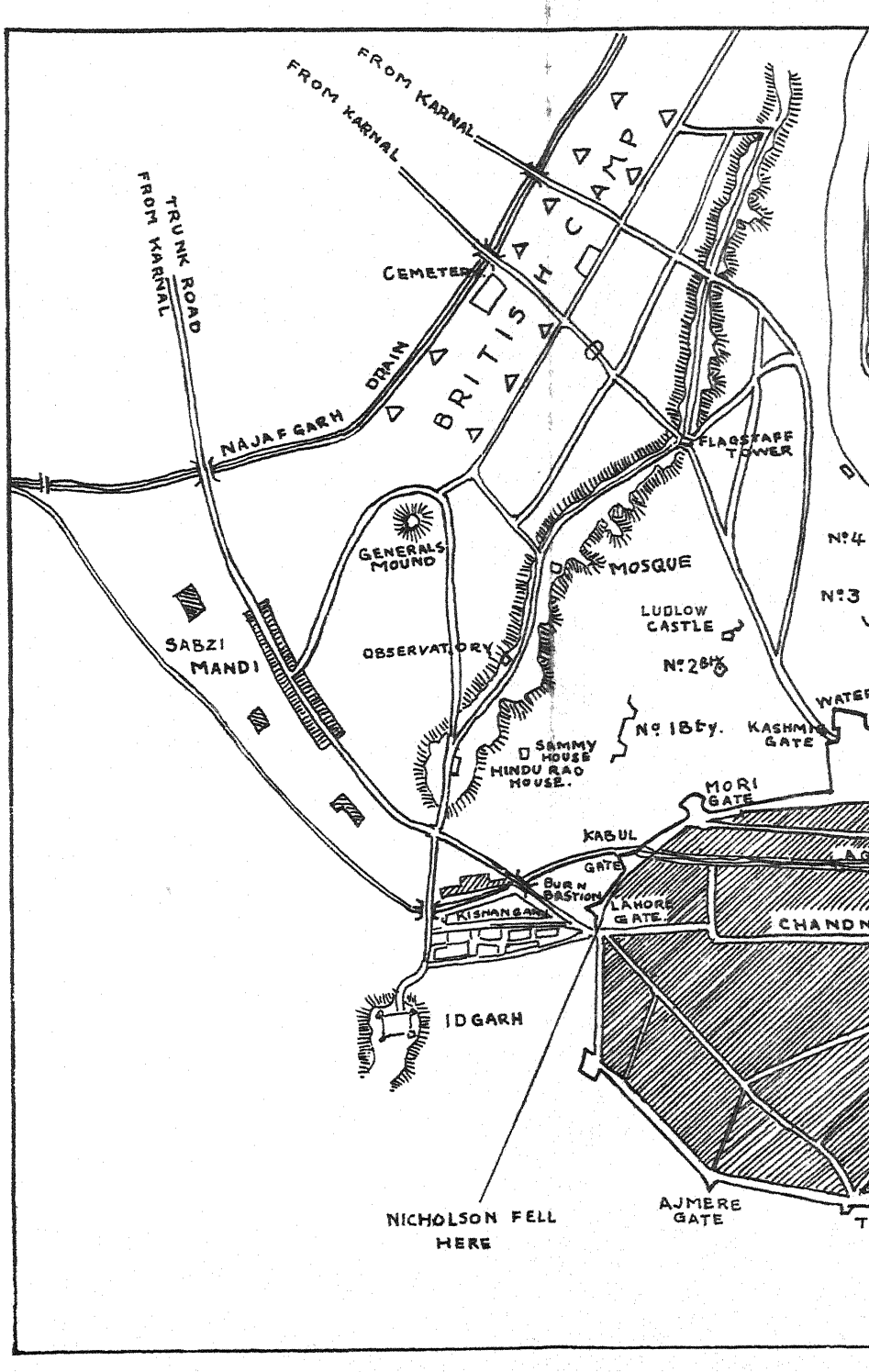
The fall of Delhi was the beginning of the end of the Mutiny, although eighteen months were to elapse before all the armed bands which ravaged the country-side were rounded up or dispersed. The memorial now standing on the Ridge bears the names of all the officers who lost their lives at Delhi, together with much statistical information regarding strengths and casualties and the names of that regiment who carry "Delhi 1857" amongst their battle honours.

Sincere tribute must be paid to the Indian ranks from the Punjab, Nepal and elsewhere who shared with their British comrades the heat and burden of the siege and assault. Contrary to general thought the disaffected were in a large minority and were found almost exclusively in the Bengal Army. The Bombay and Madras Armies remained loyal and, the Sikhs and Gurkhas, took an active part in quelling the insurrection. The civil population suffered as much from the mutineers as did the Europeans, and many a sigh of heart-felt relief went up from Indian hearts at the news of the recapture of Delhi by the British. British rule in India depended then, as it does now, upon the millions in town and country who value security and justice and their memory is hallowed by the fact that they were ready to lay down their lives for the cause.

The following regiments and units were present at the Siege of Delhi:

1st and 3rd Brigades, Horse Artillery.
1st, 3rd, 4th and 6th Battalions, Fort Artillery.
1st, 2nd and 3rd Companies, Sikh Artillery.
Engineers.
6th Dragoon Guards.
9th Lancers.
4th Irregular Cavalry.
1st Punjab Cavalry (now P.A.V.O.).
2nd Punjab Cavalry (now Sam Browne's).
5th Punjab Cavalry (now Sam Browne's).
Hodson's Horse.
H. M. 8th Foot (now the King's Regiment, Liverpool).
H. M. 52nd Light Infantry (now 2nd Bn., Oxfordshire and Bucks. L.I.).

H. M. 60th Rifles (now King's Royal Rifle Corps).
H. M. 61st Foot (now 2nd Bn., Gloucester Regiment)
H. M. 75th Foot (now 1st Bn., Gordon Highlanders).
1st Bengal Fusiliers.
2nd Bengal Fusiliers.
Sirmoor Battalion (now 2nd Gurkha Rifles).
Kumaon Battalion.
Guides Corps (now Guides Cavalry and Infantry).
4th Sikh Infantry (now 4/12th Frontier Force Regiment).
1st Punjab Infantry (now 1/13th Frontier Force Rifles).
2nd Punjab Infantry (now 2/13th Frontier Force Rifles).
4th Punjab Infantry (now 4/13th Frontier Force Rifles).
Baluch Battalion (now 3/10th Baluch Regiment).
Pioneers (unarmed).


FROM KARNAL
FROM KARNAL
TRUNK ROAD FROM KARNAL
CEMETERY
BRITISH CAMP
DRAIN
NAJAFGARH
FLAGSTAFF TOWER
GENERALS MOUND
MOSQUE
SABZI MANDI
OBSERVATORY
LUDLOW CASTLE
No 2 Bty
No 18 Bty.
KASHMIR GATE
SAMMY HOUSE
HINDU RAO HOUSE.
MORI GATE
KABUL GATE
BURN BASTION
KISHANGARH
LAHORE GATE
IDGARH
NICHOLSON FELL HERE
AJMERE GATE

GOLD MEDAL PRIZE ESSAY, 1938

The following essay by Major A. W. Holworthy, M.C., was highly commended by the judges:

SUBJECT

"A nation's fighting power is not now merely gauged by its armed fighting strength, but also by its productive strength."

Though the close relationship between war and industry is no new factor, its importance has increased rapidly in recent years, the Great War being the first occasion on which the dependence of fighting forces on the workers behind them was universally recognised. This realisation was not due to any sudden gleam of intelligence on the part of the belligerents, but to the plain logic of facts. The increasing dependence of our normal daily life on machinery demands an increase in the efficiency of industry and the supply of raw materals. War always follows the tendencies of peace, it is hoped to show in the following pages that the dependence of the fighting machine on productive power is already absolute.

Modern developments in railways, the petrol engine and preventative medicine made possible the concentration and maintenance of unprecedented numbers in the armies of 1914—1918. But, as the Russians found to their cost, man power was not the key to victory. That key was supplied by modern weapons and equipment; it was the industrial superiority of the Allies and the lack of raw materials of the Central Powers, enhanced by the naval blockade, that conquered Germany. As foreseen by Marshal Saxe over two centuries ago, "Multitudes serve only to perplex and embarrass;" and this tendency has increased as weapons have been perfected. In addition to the growth of entirely technical arms such as air and tank forces, the older arms have themselves become more technical and more dependent on machines. God is no longer on the side of the big battalions but of the big factories.

The Abyssinians in their war with Italy suffered decisive defeats when they relied on man power and mass attacks to counter the superior equipment of their enemy. The civil war in Spain is again emphasising the predominant part now played by equipment and material. The initial superiority of the Nationalists was due to their resources in aircraft, tanks and technical weapons.

Whenever the Republican Government has seemed on the verge of losing the war, a supply of fresh arms and equipment from outside sources has enabled it to turn the tide. Countries and groups of countries are busily manœuvring for position in preparation for the next war which is on everyone's lips. The mineral resources of Spain would be of great value to Italy and Germany. Italy has gone to Abyssinia in search of raw materials, and Japan started her present campaign for the coal, iron and cotton of North China. Industry has become one of the mainstays of war; the supply of raw materials on which the productive power of industry is based has developed into a factor of paramount importance.

Assuming that modern war has developed into a national business in which every part of the nation will have to play its rôle and that on the productive strength of the nation will depend ultimate victory or defeat, what are the factors that must be considered when gauging this strength?

The following, not necessarily in order of priority, are suggested as the most important:

(*a*) Supply of raw materials,
(*b*) Industrial conditions,
(*c*) Vulnerability,
(*d*) National planning, and
(*e*) Financial resources.

It is proposed to consider the effect of these factors on productive power and to make a brief comparison in each case between the Great Powers of Europe.

Raw Materials.—The subject of raw materials covers a wide field, and is one which it is impossible to discuss comprehensively in an article of this length. The materials needed for war equipment include all the normal requirements in the way of food, clothing and medical treatment of men and animals, and material for transportation by sea, land and air. The building of communications and accommodation, including arrangements for heating and lighting, would also have to be considered in a campaign where demolitions are likely, or in an uncivilised country.

Among raw materials foodstuffs play an important part.* Now more than ever before, in view of the direct attacks likely to be

*Mr. Lloyd George writes in his *War Memoirs*:

"It was becoming a war of starvation. In the end meagre and mean feeding at last subdued the spirit that had for four years of sanguinary battles proved indomitable on every front. Food in all the belligerent countries was therefore, at the end of 1916, becoming a growing, and as it turned out, a paramount element in the chances of victory."

launched against the home front by means of air raids, wireless propaganda and other means, and in view of the vital importance of industrial and agricultural labour, the morale of the civilian must be kept high; an adequate food supply is one of the necessary factors in attaining this object.

As regards other raw materials there is no weapon, article of maintenance, vehicle of transportation or means of communication used in modern war which does not depend in some, if not in all its aspects, on normal peace time industry. The great extent to which the results of a modern campaign depend on an adequate supply of raw materials (in this connection the term raw materials includes synthetic products) can therefore be realised.

Great Britain's weakness as regards food stuffs is well known. She imports some 60 per cent. of her food, totalling twenty million tons a year; 56 per cent. of her meat, 85 per cent. of her flour, 80 per cent. of her sugar and 85 per cent. of her milk, butter and cheese come from abroad.

There are ample supplies of coal and iron in the country and large quantities of copper and rubber are found within the Empire; but cotton and oil, especially the latter, are lacking. Great Britain uses over ten million tons of oil a year in peace, and her war needs will be greater. The amount which she can store or produce from her native coal is totally insufficient, and the recent troubles in Mexico have not made matters any easier. In respect of cotton, the situation is rapidly improving, thanks to the Empire Cotton Growing Association.

From the above it can be seen that Britain is in no sense of the word self-contained. To balance this, her control, both physical and financial, over the sources of supply of several important raw materials such as coal, gives her great influence over neutrals in war, and increases the difficulties of her enemies. Great Britain has not in the past paid much attention to synthetic products as she has always relied on her Imperial resources and the security of her communications. She is, however, now spending considerable sums in the production of motor spirit from coal, gas and vegetable oils, and is also carrying out research in the provision of power by means of wireless waves.

France is an agricultural country and is well enough off for food stuffs although she imports wheat. She is nearly self-sufficient in coal, and has a surplus of iron with which she can pay for some of her chief imports which are oil, rubber, cotton and copper. Her oil supplies come from America, Iraq, Roumania

and Russia. She is trying to find sources nearer home and is busy exploiting what may be rich oil fields in Morocco. She is also engaged in the synthetic production of a motor spirit from wood and charcoal. A French engineer has invented an apparatus called a "gasogene" for this purpose (mentioned in *The Dangerous Sea* by "Salocombe") and the Republic is spending large sums on its development.

In 1936 Germany started a four years' plan to lessen her dependence on imports of food stuffs and other raw materials. She has a surplus of coal which is exported and a good supply of low grade iron ore which is now being developed by a State company, but the country is entirely dependent on imports for cotton, oil, rubber and copper. The recent absorption of Austria has given Germany access to more raw materials; and it is also to be observed that she is more advanced than others in the production of synthetic materials owing to experience obtained under conditions of blockade in the Great War.

Thanks to Mussolini, Italy in 1935 was for the first time self-contained in wheat; but she is still deficient in the essential raw materials, coal, iron, oil, copper, cotton and rubber. The conquest of Abyssinia may perhaps change this situation for the future, as oil, coal and iron are said to be found in the interior, and cotton can be grown near Lake Tana. But despite a great development in hydro-electric plants, Italy is still in urgent need of coal, and imports ten million tons a year. Albania, for all intents and purposes an Italian protectorate, is said to have oil deposits and an oil refinery has been set up at Vallona. "Sanctions" gave a great fillip to the development of synthetic products but, despite scientific efforts, they are not sufficient for the increasing population. Italy has no surplus with which to bargain, and of all the Great Powers of Europe is the worst placed as regards raw materials with the exception of mercury and bauxite.

The Soviet Government by means of her two Five-Year Plans is aiming at self-sufficiency. At present she is partly dependent on imports for copper, and wholly dependent for rubber, but she needs no coal, iron, cotton or oil from abroad. Of the last named commodity she has a large surplus with which to bargain. Her native supply of food stuffs is now ample, and great attention is being paid to synthetic products, especially rubber.

Industrial Conditions.—An adequate supply of raw materials is of little value unless full and speedy use can be made of it. To achieve this the factors which are of importance as affecting

the efficiency of industry, are harmonious labour conditions, capacious and up to date factories and plant, and ample supply of skilled and unskilled labour, and power of expansion combined with speed of production.

Harmonious labour conditions imply good feeling between employers and workers, adequate wages, decent housing and proper hours of work. These are serious considerations in any country where there still exists personal freedom and freedom of speech. The Great War proved that patriotism is no panacea against labour troubles. Strikes were frequent in Great Britain, and the vexed question of dilution of skilled labour caused much unrest and a consequent falling off of production. Poor wages, long hours of work and similar factors give opportunities to agitators who may be in the pay of the enemy.

The value of modern factories and plant is obvious. The production of present day aircraft, tanks and technical weapons demands highly efficient plants; makeshift and adapted machinery will not suffice as the ensuing time lag cannot be afforded. The lack of skilled labour will neutralise the advantages conferred by modern factories and plant. It is understood that in the great aircraft expansion which has recently taken place in Great Britain the chief difficulty has not been in finding raw material to make the aircraft or the human material to fly them but the technical personnel to construct and maintain them. A reserve of skilled personnel is the product of years of training and cannot be improvised. The problem of man power is outside the scope of this paper, but it is obvious that man power for war must be organised and that personnel must be placed where it is of the greatest value to the national machine. To enlist skilled workmen and key-men unrestrictedly in the combatant branches would be folly.

A study of the history of the ministry of munitions or of any of the other ministries started in the Great War will make clear the enormous expansion demanded in any national effort. This again is a matter for foresight in peace both in the lay-out of plants and in the provision of machinery as the time lag due to improvisation may be disastrous.

Speed of production is affected by the amount of security afforded the workers from hostile attack. This is dealt with later under the heading "Vulnerability." The outstanding feature to be stressed when considering the conditions of industry is the vital importance of foresight and national planning in peace.

From the point of view of war a democracy suffers great disadvantages in respect of labour conditions compared with a totalitarian state. In the latter workers who strike or do not produce the maximum output are given short shrift—under a democracy they have to be more gently handled. In Great Britain the prosecution of a war unpopular with labour would probably suffer great difficulties in the supply of war equipment and the transportation and maintenance of the fighting forces. This problem is not likely to arise in a country where there is no free public opinion.

Great Britain has well equipped and modern factories and plants, but many of them are located in places vulnerable to air attack. Her machinery is world famous, and with an ample and close supply of coal and electric power stations the provision of industrial power is excellent. The youth of the country possess a natural aptitude for machinery.

Rationalisation and the modern tendency to large combines facilitate expansion and speed of production, while the troubles of expansion in 1914—1918 afford a solid basis of experience In general Great Britain has enormous latent potentialities in industry; but to make the fullest use of it a national organisation, as advocated by Mr. Churchill, is considered to be essential.

The present labour conditions in France are not very satisfactory. There have been a large number of industrial and other strikes, mainly of the "sit down" variety in which the naval and commercial shipyards have been seriously affected. When the Popular Front was in power several important concessions were given to workers which may have to be modified in war.

As a democracy, France suffers from much the same disadvantages as Great Britain. But she is well equipped with modern plant and has a sufficient supply of labour, though being an agricultural country she might have a lack of skilled technical labour in time of expansion. Based on a national planning organisation of some years' standing, France has worked out the requirements of an economic mobilisation, and is probably in advance of other democratic nations as regards powers of expansion and speed of production.

In all the totalitarian states—Germany, Italy and Russia—labour has been conscripted and industry organised on a national basis. The switch-over from peace to war conditions would involve little dislocation. There is not likely to be any hold-up of production by labour in any of these countries, unless revolution raises its head in the event of defeat. Germany before the

rise of Hitler had a powerful Communist party. Though this is said to have been liquidated, its roots are probably still in existence. The same remarks apply to the Trotsky party in Russia.

All three countries are well equipped with modern factories. Germany is well off in skilled workers, especially in the aircraft factories where her foresight in turning her energies early to commercial flying has borne good fruit. Italy has an ample supply of skilled aircraft mechanics, shipbuilders and road makers. Russia has a lower percentage of skilled workers, but has recently improved her position in this respect.

Vulnerability.—This factor can be divided into three: vulnerability of the source of supply of raw materials; vulnerability of raw materials *en route* to factories; and vulnerability of the factories themselves.

It is clear that the first object must be to obtain control over the source of supply. This may be financial control, such as Great Britain has over the oil fields of Persia and Iraq, or physical control. Financial control is obviously the less satisfactory as it may be of doubtful value in war.

The safety of raw materials *en route* to factories is one of the main considerations in the defence problems of all the Great Powers. Control of sources of supply is of little value if raw materials cannot reach the factories. Lines of communication must be shortened or eliminated, and this means that factories must be placed on or near the sources of supply. On the other hand these factories should be near the places where the finished product is required, that is near the naval, military and air bases in time of war.

Both labour and factories must be made as safe as possible from hostile attack. Revealing figures are given in "Air Power and Cities" by Spaight of the effect of the Allied air attacks on the German industrial centres in the Rhine valley in 1917-18. The mere threat of air attack causing the alarm signal is enough to effect a severe diminution of output; a series of attacks closely following each other can virtually close down production, though little damage may be done to the plant or personnel. This factor runs counter to the factor of accessibility mentioned above. It may often be easy enough to hide or disperse factories, but they are valueless without roads, railways or other communications. Another aspect of the vulnerability of factories must be considered, that is the possibility of sabotage, and the breakdown of production due to faulty conditions of labour, already discussed. This

factor of vulnerability is a very serious one, and its importance in view of aerial attack is likely to increase.

The sea centrality* of Great Britain is well known. Air transport can never take the place of sea transport, though it may lessen its burden.† Upon the Navy and the Mercantile Marine, and to a lesser extent the Royal Air Force, depend the security and maintenance of the sea-borne communications along which pass the food and raw materials for Great Britain. In war these communications are used for the concentration and maintenance of the Empire's forces. In contrast to the more easily protected internal land communications of other countries, these sea communications are now, owing to developments which have occurred since the Great War, more vulnerable than they have ever been before. Despite the reduction of the German Navy, the superiority of the Royal Navy over other navies of the world has decreased and so has the ratio of Great Britain's Mercantile Marine to the rest of the world' shipping.‡ At the same time the potentialities of air and submarine attack are greater.

In the Mediterranean from 1914—18 the losses of British shipping were severe despite the fact that enemy submarines were few and had no secure bases apart from Pola. Italy, in view of her aspirations to regain the mastery of the "mare nostrum" of the Romans, has enormously increased her naval strength of recent years. In the western Mediterranean the Balearic Islands and Sardinia form suitable air and submarine bases: in the middle Mediterranean the naval and air bases in Sicily and Pantellaria threaten the narrow passage between Sicily and Cape Bon: and in the eastern Mediterranean the fortified bases of Rhodes and Leros, in the Dodecanee, flank the entrance to the Suez Canal. It seems most unlikely that in the face of Italian hostility our

*"The island of England lies wholly in the sea and yet at the precise centre of all the lands of the earth. No other spot on the globe either fulfils or can ever be made to fulfil these two conditions. Turn the globe as you will, contrive and consider as you please, in the end the hard geographical fact will remain that England, alone of all the communities of men, has the sea centrality of the world." *The Strength of England*, by Bowle.

†See Whitaker's Almanac. All the aircraft of the world in twelve months carried 1½ million passengers and 20,000 tons cargo, the equivalent of 100,000 tons cargo. Great Britain needs over one million tons a week.

‡At the beginning of the twentieth century 50.2 per cent. of the world's steam and motor tonnage belonged to Great Britain; now it has fallen to 33.1 per cent. The Merchant Navy has declined by three million tons gross in the past five years—the number of merchant ships in 1914 was 9,240; it is now 7,246 (figures from "British Merchant Shipping To-day"—*R. U. S. I. Journal*, February 1937).

trade routes in that sea could be maintained without severe detriment to any offensive action we might wish to take ourselves. Our naval and air forces must be left free to carry out any offensive rôle unhampered by protective duties. It appears therefore that the Cape route must again become the highway for our commercial shipping to the East in the event of hostilities in the Mediterranean, though the disadvantages caused by the longer distances and extra tonnage are obvious. This does not imply that we can afford to abandon the Mediterranean to any Power wishing to establish itself in Egypt or Palestine.

As regards other seas, Italy is forming a strong naval base at Massawa in the Red Sea, while the new Italian Empire in Africa gives her access to the Indian Ocean and side-steps Aden. In the Pacific, Japan by virtue of her geographical position is the predominant Power.

In general, therefore, the sea communications of Great Britain are considerably more vulnerable than in 1914, and the implications of this fact on her powers of production must be realised.

Turning to the vulnerability of her plants and factories Great Britain's position has become worse as the potentialities of aircraft have increased. Formerly there were many advantages in the concentration of industrial works in Great Britain itself, where there was sufficient labour with ample coal and iron close at hand. Steps must now be taken to disperse these factories. Key industries must be developed in the Dominions and India to meet requirements in any theatre of war, and to ensure that the burden on sea communications is lightened. India is the obvious base for any war east of the Mediterranean; the first steps were taken with the establishment of an Indian Stores Department in 1922, and the post of Master-General of Supply in 1924. The United Kingdom, India, and all the Dominions now have Principal Supply Officers' Committees working in close touch with each other and with civil industries in their respective countries. The basis has, therefore, been prepared in peace for liaison in war between Service requirements and industry. Each Dominion is ready to undertake that production for which it is best fitted through availability of labour, raw materials and power.

France's sources of supply and industrial areas can be attacked by air from bases in Germany, Italy and Spain. The minerals of Lorraine lie close to the frontier, as also the coalmines and iron ore of Northern France.

The sources of supply in Africa can be menaced by native unrest, backed, in the case of Tunisia and Algeria, by an Italian invasion from Libya or the sea.

The main interests of France lie in her sea communications with her African Empire. Her land and air communications with Africa depend largely upon Spain. The shortest route by land is via Madrid, Algeciras and Spanish Morocco, while French air services normally halt at Barcelona and Alicante. Whoever holds the Straits of Gibraltar can separate the French Mediterranean and Atlantic fleets, and a scheme is now being considered to carry out the old project of joining the two seas along the course of the Canal du Midi, via Bordeaux-Toulouse-Narbonne. The sea communication between the south of France and her African possessions is the shortest one and the one best served by her African railways; but is also the one which can be the most easily threatened by Italian bases. The journey from the Atlantic ports of France to those of Africa, Port Lyautey, Capablance and Agadir, is longer and would use up much valuable shipping.

The sea route by which oil comes to France from Tripoli in Syria is an important one, and is exposed to attacks from the Italian bases in Rhode and Leros. With regard to communications with Indo-China, France has realised the difficulty of supply from Europe, and in Tonkin steps have been taken so to organise the colony that it can be independent of overseas imports. Certain industries have been subsidised, and the railway to Yunnan Fu taps the Yangtse valley.

Germany's native sources of supply are open to air attack from the east, south and west, but she has ample space in which to disperse them and her road and rail communications are excellent. The loss of her colonial Empire has released Germany from the problem of securing a lengthy sea route. She imports large quantities of cereals and oil from the Danubian countries as well as copper, lead and bauxite, and her communications with these countries have been improved by the absorption of Austria.

Italy's long coast-line and lack of breadth lays her home factories open to hostile attack from ships and sea-borne aircraft. The conquest of Abyssinia has increased her overseas commitments. Italy's efforts to gain supremacy in the Mediterranean have already been mentioned, but she must still be prepared if she fights Great Britain to be cut off from all waters outside the inland sea. Even there Greece and Turkey, especially the latter, are suspicious neighbours in the east; Cyprus and Alexandria

menace the route to the Red Sea and Libya, and the recent Montreux Convention makes possible the presence of a Soviet fleet from the Black Sea. Italy is, however, supreme in the Adriatic and can close this sea at the narrow gate between Brindisi and Albania. Her communications with the latter country are secure, though there may be possibilities of air attack from bases in Greece and Yugoslavia.

The communications of Russia are internal, and security is, therefore, easy to ensure. The Russian Far Eastern Army can now be said to be self-contained since bases have been formed in Eastern Siberia where natural resources, both agricultural and industrial, have been greatly developed. Remembering the lessons of 1905 the Soviet Government has double-tracked the Trans-Siberian Railway, thus facilitating the supply of personnel and material from western Russia if required. Russia's vulnerability in war lies in the possibility of internal unrest and sabotage combined with a national inability as shown by past history to maintain administrative efficiency. It is possible, of course, that this latter failing was the monopoly of classes which have now been liquidated.

National Planning.—In a war of the first magnitude concentration of effort is essential for victory. Every phase of the nation's life must come under a central control—man power, food supply, finance, munitions, shipping, railway and road transport, propaganda, and insurance. Economic mobilisation is as necessary on the outbreak of war as mobilisation of the armed forces, and requires even more detailed planning and organisation in peace. This fact has already been recognised by many countries, and such organisation is inherent in the totalitarian states.

It has been suggested that national planning presupposes a war of endurance, and that a lengthy war is unlikely in view of the slaughter and destruction which modern weapons can now encompass. Those who prophesy this envisage a war of a few weeks' duration, and maintain that national planning for expansion is, therefore, a waste of time, since it can only prolong the agony. This view seems opposed to the lessons of history and common-sense. In 1914 the same belief was held by both sides, but antidotes were found to new weapons and mankind's powers of endurance and adaptability exceeded all expectations. Events of the last few months have not borne out the claims that whole cities would be blotted out in a few hours and all navies sunk in a few days by aircraft. Madrid, Barcelona and Canton still exist, and Chinese aircraft have done little damage to Japanese men-of-

war even at anchor. In Spain tanks have proved very vulnerable to anti-tank weapons. National planning is the only means of harnessing the full productive powers of a nation, and it is a factor of vital importance when considering the productive strength of a country.

When the British rearmament programme was started in 1936, certain steps were taken, such as the appointment of a Defence Minister and the setting up of a Food Department within the Board of Trade and a national organisation for aircraft manufacture. Powerful advocates have stressed the need for a Minister of Supply, but this has not been agreed to by the Government. The country has the experience of 1914—18 to fall back on, but outwardly little seems to have been done in comparison with other countries. To trust to the time-honoured habit of "muddling through" with all the time lag it involves seems criminal folly.

In past wars Great Britain has always relied on her powers of improvisation backed by her great material and financial resources. For such improvisation she has required time, and this has been given her by the bravery and tenacity of her armed forces. She has never been prepared for a war, but has had to make her preparations behind the sure shield of her navy, while her regular army has been sacrificed in bearing the brunt of the enemy attacks.* With the advent of aircraft this traditional policy offers little hope of success. It is common knowledge that any chance of victory over Great Britain recedes the longer she is allowed to organise and draw upon her great resources. An immediate air offensive against her industrial areas, and communications may be confidently expected. To minimise the effects of such an attack, national planning is necessary on a large scale. Adequate precautions will take time and will increase demands on raw materials and industry.

As regards France it may be said that for several years she has recognised the necessity for economic mobilisation and national planning, and now has a complete organisation ready to be put into action in the event of war.

---

*In 1916 Mr. Lloyd George informed an American Press correspondent: "There is neither clock nor calendar in the British Army to-day. Time is the least vital factor. Only the result counts, not the time consumed in achieving it. It took England twenty years to defeat Napoleon and the first fifteen of these were black with British defeats. It will not take so many years to win this war, but whatever time is required, it will be done."—*War Memoirs*, Vol. II.

All the totalitarian states are organised on the assumption that the prime function of industry and agriculture is to strengthen the country for war. Industry and agriculture are built into the national structure, and their potentiality strengthened by various four and five-year plans. The advantage thus gained over democratic states in the early phases of war is hard to overestimate.

Financial Resources.—The advantages conferred on productive power by good credit based on financial strength are so obvious as to call for little comment. The financial control of foreign sources of supply has already been mentioned. Whenever needed raw materials, machinery, manufactured goods, weapons and war equipment can be bought without difficulty. Loans can be arranged, outside labour engaged, and sources of supply and raw materials exploited.

It must be realised, however, that while the smaller nations generally depend on foreign financial backing before they can contemplate hostilities no Great Power has ever been prevented from fighting a campaign because she could not afford to do so. Prophecies as to the financial breakdown of Germany shortly after the start of the Great War, and of Italy after the commencement of the Abyssinian campaign were completely wrong.

In a totalitarian state, in direct contrast to a democracy, many a so-called economic law is flouted with impunity. Dictators can prevent the flight of capital, can create internal credit by propaganda and can pay for imports by transacting outside business on a system of barter. It still remains to be seen how long external credit can be maintained by such methods.

The financial strength of Great Britain is well known. One of the banker nations of the world, her credit stood the test of the 1929—31 depression better than that of any other country. The Empire is the largest producer of gold in the world, and London is still the financial centre of the world's markets. As long as the present capitalist system exists the financial supremacy of Great Britain stands assured.

In contrast, French finances have for years been in the doldrums. Being a democracy France cannot settle her internal financial troubles by the simple methods used in a totalitarian state. Despite this, however, her natural resources and hoarded gold would enable her in war, for a period at least, to buy what she needs, and to obtain loans.

The internal credit of Germany is merely a matter of manipulation. As regards external credit she has employed a system

of barter with successful results. Great quantities of raw material are imported from the countries in the Danube basin, and being unable to pay for these in cash she pays in merchandise, industrial machinery, and manufactured goods of all kinds. By this method of commercial penetration Germany has now a dominant hold in Yugoslavia and Bulgaria, and is increasing her financial grip throughout south-eastern Europe. She has also reduced her internal standard of living, thereby decreasing the demand for imported goods.

The financial state of Italy is hard to determine, but it is quite possible that it is not as unfavourable as is sometimes imagined. Internal credit is a matter of manipulation as with Germany. External credit is a more difficult matter owing to the lack of native resources and the heavy external expenditure of recent years. The recent capital levy was an effort to restore finances damaged by the large sums spent on the exploitation of Abyssinia and the maintenance of the legionaries in Spain. By reducing the standard of living, increasing the internal production of food stuffs, instituting hydro-electric power schemes, and subsidising synthetic products, dependence on imports has been greatly decreased. If, as is hoped, gold-mines exist in the interior of Abyssinia, a welcome fillip will be given to the external finances of Italy.

By means of her two five-year plans Russia has built up an industrial machine sufficient for her normal needs. At the price of famine she has paid for industrial imports with agricultural products. She has very few foreign investments and her commercial debts have been reduced. Russia is the second largest gold producer in the world and possesses large untapped resources in Siberia. She can thus find gold to buy the few imports she needs, and her internal credit is state controlled. As long as her present policy of avoiding large scale foreign expansion holds good, the financial resources of the country seem favourable.

The writer realises that there are many factors affecting productive capacity which have not been mentioned, but a paper of this nature cannot be exhaustive. It is hoped that sufficient has been put forward to show that a nation's war strength cannot be divorced from her industrial strength. While it is quite possible to be industrially one of the most powerful nations and at the same time one of the weakest in respect of fighting forces, a position to which at one time Great Britain seemed to aspire, the converse in these days is not true. It is now impossible to gain

even a short-lived supremacy as a warrior nation without an industrial foundation. This industrial foundation, if it is one which is to be capable of bearing the great burden of a national war, must be strongly formed and of solid structure built with the proper materials. This demands well-conceived and far-seeing architecture planned and carried out in times of peace. Owing to the rapidity of air attack which can be expected to open hostilities, no dependence can be placed on improvisation in war. "Wise is he who looks forward," and wise the nation which carries this motto into practice.

"REVISED VERSION"

By "Crank"

Happily for an already overburdened humanity it is only on rare occasions that I am constrained to seize my pen, and still more rare is it for any editor to print any such effusion. I feel, however, that there are certain points arising from the recent article by my old friend, "Museum Piece," which merit consideration. As it is presumably the policy to mechanize all British Cavalry units in India, it is only proposed to deal in this article with the Indian cavalry distributed as at present in three groups each of six active and one training regiment, with particular reference to the suggestions made by "Museum Piece."

Stated briefly, the suggestion is that the remaining sixteen horsed regiments shall be reorganized so that each shall contain one light tank and three sabre squadrons; the latter to be re-equipped so as to render them more mobile when dismounted. In spite of the very able arguments put forward, it is felt that the mixing of the light tank and the horse in the same unit is open to very grave objections which more than outweigh any advantages which might result. The complications which would ensue from this organization are many, of which only a few will be mentioned.

Recruit training.—The officer commanding the training regiment will have to compete with recruits for up to six mechanized squadrons each of a different unit, and up to eighteen horsed squadrons spread over six units. Would the training be in a "mechanized wing" and a "horsed wing," or would each training squadron deal with both types of recruit? Another alternative would be to have a mechanized depot to train recruits for the light tank squadrons, while the training regiment of the group deals with the recruits for the horsed squadrons—most unsatisfactory as the officer commanding the active regiment would have to deal with *two* recruit finding units instead of one.

Training within the regiment.—The commanding officer of the active regiment, who already has quite enough to do, would have to go into the details of the tactical handling of light tank squadrons and horsed squadrons. This in itself is perhaps no grave objection; but what is worse he will have to supervise the training in, and handle, the following weapons: machine-guns and anti-tank guns in light tanks, and possibly also their equivalent on horses; light machine-guns; rifles; bayonets; pistols—a

long list. In addition, there will be the differing types of signal requirements for the light tanks and the horsed squadrons.

Allotment of classes.—Will one class throughout each group be chosen to be turned into light tank squadrons, or will different classes in each active regiment be chosen? Before the first alternative is adopted, the reaction on the classes not chosen, and any possible political repercussions must be considered; the second alternative must further complicate matters for the officer commanding the training regiment.

Movement.—For strategical and peace time training marches the problems of the unit commander will be gravely complicated if one of his squadrons can march 100 miles a day at an average pace of 12 miles per hour, while the remaining three march 30 to 40 miles a day at 5 miles per hour. To make the horsed squadrons march at the same pace as the light tanks is impossible; to tie the tanks closely to the horsed squadrons is uneconomical; perhaps the solution is for the light tank squadrons only to march every other or every third day! For tactical movement on the battle-field the difference in circuit of action and pace might not be so great; but all the same there must be differences which will not make matters any easier for the unit commander.

Tactical handling.—The fact that one quarter of the regiment has certainly greater range, and in a number of cases greater speed, must lead to greater dispersion, with an increased danger of resultant lack of control. Will the unit commander remain with his three horsed squadrons while the light tank squadron goes off—thus separating himself from the most powerful part of his unit, indeed from the only portion which possesses any punch; or will he accompany the light tank squadron on what may be a wide circuit thus running the risk of divorcing himself from numerically the greater part of his command? Both alternatives seem inadvisable. The suggestion seems to regard the light tank squadron as existing solely to protect the three mounted squadrons; or that it shall be used in a manner somewhat similar to that in which "I" tanks are used. For this light tanks are not fitted either in armament or speed.

Finance.—We all know only too well the extent to which everything in India, and more particularly the Defence Services, are circumscribed by finance. Will not the mixed regiment organisation cause an impossible increase in the running expenses of the Indian cavalry? It would demand largely increased "mechanized installations," with little or no compensating reduction in the "mounted installations" or transport to maintain

the horsed units. From this point of view alone, is the suggestion practical politics?

It is claimed that the horse and the light tank are complementary, and that ground reconnaissance for tanks is better done if both are of the same unit. Both of these, though true, are overstatements, and the first, if carried to its logical conclusion, would almost mean the inclusion in each unit of artillery as well! Co-operation of arms and mutual assistance is necessary at all times, and can be achieved by working together and by careful training; it is not necessary to lump together in one unit everything that may be required. The desired result can be achieved by including the various arms in balanced proportions within formations, not within units. If the powers that be decide that the future role of the Indian Army calls for both mechanized and horsed cavalry, let us by all means have both types in the quantities dictated by the role and permitted by finance. But let the *units* be homogeneous as regards pace and armour, and not, to misquote Kipling—

"a kind of a ruddy harumphrodite"
"horseman and tankman too."

Having demolished to our own satisfaction (though perhaps not to his) the case for the mixed regiment put forward by "Museum Piece," let us examine his views on light tanks to see whether these vehicles have not been painted in darker colours than they deserve. He bases his antipathy to any considerable conversion of Indian cavalry to light tanks on three main factors: their sensitiveness to ground, the difficulty of detailed ground reconnaissance, and the chance that enough suitable men will not be available to find crews. Admittedly light tanks are sensitive to ground, but there can never be a vehicle which will go everywhere at all times; there must be some places where the light tank cannot go and cavalry can go, but the converse equally applies. His imaginary conversation between the two rival protagonists rather stresses conditions on the North-West Frontier. Is not this a slightly parochial outlook: is the Indian Army always to fight on the Frontier and nowhere else; is it never likely to be required to take its part elsewhere with other forces of the Empire; are we justified in keeping comparatively large numbers of horsed cavalry solely for use on the Frontier? In the particular instance cited cavalry would be most useful in piqueting the low foot-hills of wide valleys, but is it beyond the bounds of possibility that the duty could be done by men in carriers—if possible armoured? So far the sole weapon of the

tribesman is the rifle, had he some machine-guns or light machine-guns the position of the cavalry would not be quite so happy. Equally had he some anti-tank weapons the position of the tanks would not be so comfortable! Recent operations on the Frontier have shown the great value there of light tanks, and even the comparatively old ones now available have shown their cross-country capacity to be greater than was expected. If any further mechanization of Indian cavalry is to be carried out, it is to be hoped that the machines issued will be the newest and best which can be obtained; the army in India has suffered too long from obsolescent material. This, combined with training, forethought and measures to palliate the defects from which no instrument can be free, must go far to diminish the sensitiveness to ground on which "Museum Piece" hangs so much of his argument.

The difficulty of detailed reconnaissance is one which sounds very nice at first but will hardly bear close examination. Except at night, or within a thick wood or village—when in any case the patrol will have to dismount from its vehicle, be it horsed or tracked carrier—detailed reconnaissance does not entail going so close to one's enemy that it is possible to determine whether or not he has a red nose! In nine cases out of ten it consists in a patrol being fired on from some feature at a greater or less range: conditions are seldom so favourable that a partol can reach its objective unseen; since reconnaissance consists largely of drawing fire, surely—given equal or nearly equal cross-country capacity—one is no worse off in an armoured carrier than on a horse, more particularly since if necessary fire can be opened from a carrier?

The theory that the type of man now enlisted into Indian cavalry cannot be turned in large numbers into a mechanized cavalry-man, is one upon which the opinions of the officers commanding 13th D. C. O. Lancers and Scinde Horse would be both valuable and interesting. From what has been heard the men of both units are taking to the new conditions extremely well; but it is felt that the commanding officers would with all justification resent most strongly any suggestion that their men are in any way inferior in type to those of the other sixteen regiments. Although of the same good stock, the average recruit of the present day when he joins is considerably better educated than that of twenty, or even ten years ago. Admittedly his education is by no means complete, but if taken as he will be from the day he joins and properly taught there seems no reason why he should not be capable of driving a tank and firing a machine-gun therefrom. This will be one of the most important duties of the training units,

The supposed lack of education of the potential rank and file if properly handled can be only a bogey and no serious obstacle to further mechanization. It is fully realised that there is a type of personnel for whom greater education is required, and for whom it *may* (note the stress) be necessary to go to the town rather than the village; these, however, will be the artificers whose province will be maintenance and repair rather than actual fighting.

Hitherto these views seem to have been diametrically opposed to those of "Museum Piece;" but for his suggestions regarding the re-equipment of any horsed units remaining there can be nothing but praise. Armed and equipped in this way, they could act mounted, dismounted, or even (if required) get inside a tank as relief machine-gunners! With this and similar ends in view, periodical attachments to the mechanized units of personnel of all ranks from the horsed units would be most valuable.

No organization can ever be ideal; we must aim at the best which can be devised to do the job in hand, with the money available. If mechanized cavalry can fulfil equally well at a lower cost the roles likely to fall to it, the retention of large numbers of horsed cavalry is not justifiable. If the role of the Indian Army is likely to require some horsed cavalry, this could be met by retaining a small nucleus of regular horsed units, and training and equipping Indian States Forces' units on similar lines to increase the numbers; though whether the rulers of states would react favourably to the idea of turning their cavalry regiments into "mounted gangsters" is impossible to say!

The fact, however unpleasant it may be, has to be faced that mechanization has come to stay. Further mechanization of the Indian cavalry seems possible, or rather probable; but there is no reason why it should not be in every way a success. If there are to be different types of unit, *e.g.*, light tanks and armoured cars, it should be arranged if possible for complete units to be interchanged periodically so that an officer may, at least once in his career, serve with each type. For the rest, let there be the best vehicles obtainable, plenty of them to train with so that interest may not be allowed to flag, and above all the will on the part of all ranks to make the new regime a success.

A FORGOTTEN CAMPAIGN

The Capture of Kandy, 1815

By Major M. E. S. Laws, M.C., R.A.

Of the British Army's numerous campaigns in the East none has been so completely neglected by the military historian as the Ceylon War of 1815. Few published works mention this campaign and even Fortescue's monumental History of the British Army gives but few details. In fact the only sources of information concerning the Kandyan War are the Colonial Office Letter Books, Regimental Muster Rolls and the Proceedings of the Prize Committee, all of which are kept in the Public Record Office, London. Yet the campaign, though bloodless and short, deserves consideration as an excellent example of the careful preparation necessary to overcome the difficulties of fighting in a mountainous and almost unknown country in a tropical climate.

During the summer of 1795 a force from India under Colonel J. Stuart stormed Trincomalee, and in February 1796 the Dutch surrendered their settlements in Ceylon to Britain. Two years later the new colony was transferred from the administrative control of the East India Company to that of the Colonial Office. Before the Royal troops had relieved the Company's units however, war broke out with the King of Kandy who had remained in control of the whole of the interior of the island. A British force advanced and captured Kandy without serious difficulty, but in June 1803 the garrison which had been left in the city was attacked and massacred almost to a man. The war dragged on for nearly two years and only came to an end when the British decided to leave the Kandyans undisturbed.

For the next ten years the situation remained more or less unchanged, with the British in control of the coastal region and the Kandyans supreme in the interior. But towards the end of 1814 raids into British territory became frequent and the attitude of the King of Kandy more arrogant. By his cruelty and oppression the latter had driven even his own submissive people into revolt and the Governor and Commander-in-Chief of Ceylon, General Sir Robert Brownrigg, applied to London for permission to undertake punitive measures when they became necessary. Before a reply could be received an incident occurred which made war inevitable. On 30th October 1814 ten British subjects were arrested by the Kandyans, barbarously mutilated and driven back over the

frontier with their severed arms, noses and ears tied round their necks. Incredible though it sounds, two of these wretched men survived to tell their story to the British authorities, and General Brownrigg immediately began preparations to avenge the outrage.

The garrison at Ceylon at that time consisted of the following units:

Royal Artillery

Captain R. F. Cleaveland's Company, 4th Battalion, R.A. (now 17th Field Battery R.A.)—at Trincomalee.

Captain W. T. Skinner's Company, 6th Battalion R.A. (now 12th Medium Battery R.A.)—at Colombo.

Captain J. W. Kettlewell's Company, 6th Battalion R.A. at Galle.

Infantry

H. M.'s 19th Foot (now 1st Battalion, The Green Howards)—at Trincomalee.

H. M.'s 73rd Foot (now 2nd Battalion, The Black Watch)—at Colombo.

1st and 2nd Ceylon Regiments—at Colombo.

3rd Ceylon Regiment—at Trincomalee.

4th Ceylon Regiment—at Galle.

The Ceylon Lascars—in detachments.

The Ceylon Gun Lascars—three divisions, one attached to each artillery company.

The 1st and 2nd Ceylon Regiments enlisted Malays, and the 3rd and 4th Regiments Caffres.

The interior of Ceylon is mountainous and at that time was covered with thick jungle. There were but three or four indifferent tracks leading to Kandy and much of the country beyond the British frontier was practically unexplored. The Kandyans, though of little fighting value, were adept at guerilla warfare and notorious for cunning and treachery. The climate of the interior was known to be unhealthy and the Kandyan provinces were reputed to be unable to provide supplies for the invading force. The problem of despatching an expedition into the interior was therefore a difficult one, since it involved the eventual subjugation of a territory of about seventeen thousand square miles. At the time, the news of the peace with France had not reached Ceylon and it was in consequence essential that adequate garrisons should be left to hold the three chief ports, Colombo, Trincomalee and Galle. On 21st November 1814 Sir Robert Brownrigg issued a long order giving minute details of the organization of the expeditionary force for operations against Kandy, but his instruc-

tions were amended in General Orders of 29th November, when news of the peace with France reached the island.

The British commander decided to adopt somewhat unusual tactics and to march on Kandy in eight divisions comprising a total of less than four thousand fighting men.

The troops were organized as follows:

1st Division.—Major Hook, 2nd Ceylon Regiment.

Captain Skinner's Company, 6th Battalion R.A.—(Detachment—one officer and twelve men, one 1-pdr. gun and one 4 2/5" howitzer).

Ceylon gun Lascars—4 N.C.O.s and 20 lascars.

73rd Regiment—Half company.

1st Ceylon Regiment—One company.

2nd Ceylon Regiment—One company.

2nd Division.—Lieut.-Colonel O'Connel, 73rd Regiment.

Captain Skinner's Company, 6th Battalion R.A.—(Detachment of one officer, 23 men, one 1-pdr. gun, and two 4 2/5" howitzers).

Ceylon Gun Lascars—4 N.C.O.s and 30 lascars.

73rd Regiment—Two companies.

1st Ceylon Regiment—One company.

2nd Ceylon Regiment—Three companies.

Ceylon Pioneers—One company.

Total: 751 *all ranks.*

3rd Division.—Major Kelly, 4th Ceylon Regiment.

Captain Kettlewell's Company, 6th Battalion R.A.—(One officer, 13 men, one 1-pdr. gun, and one 4 2/5" howitzer).

Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 20 lascars).

73rd Regiment—One company.

1st Ceylon Regiment—One company.

4th Ceylon Regiment—One company.

Ceylon Pioneers—Detachment of 75 men.

Medical Establishment—One surgeon and one dispenser.

Total: 402 *all ranks.*

4th Division.—Lieut.-Colonel Gaels, 73rd Regiment.

Captain Kettlewell's Company, 6th Battalion R.A.—(One officer, 19 men, one 1-pdr. gun and one 4 2/5" howitzer).

Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 30 lascars).

73rd Regiment—One company.

1st Ceylon Regiment—Two companies.

4th Ceylon Regiment—Two companies.

Ceylon Pioneers—Detachment of 106 men.
Medical Establishment—One surgeon and two dispensers.
Total: 642 *all ranks.*

5th Division.—Major McKay, 3rd Ceylon Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(One officer, 16 men, one 3-pdr. gun, one 4 2/5" howitzer and one cohorn).
Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 30 lascars).
19th Regiment—One-and-a-half companies.
3rd Ceylon Regiment—One-and-a-half companies.
Ceylon Pioneers—Detachment of 102 men.
Medical Establishment—One dispenser.
Total: 445 *all ranks.*

6th Division.—Lieut.-Colonel Raynsford, 19th Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(One officer, 15 men, one 3-pdr. gun, one 4 2/5" howitzer and one cohorn).
19th Regiment—One-and-a-half companies.
3rd Ceylon Regiment—One-and-a-half companies.
Ceylon Pioneers—Detachment of 103 men.
Total: 455 *all ranks.*

7th Division.—Captain Anderson, 19th Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(Detachment with one 1-pdr. gun, and one cohorn).
Ceylon Gun Lascars—Detachment.
19th Regiment—Half company.
3rd Ceylon Regiment—One company.
Total: 205 *all ranks.*

8th Division.—Captain de Bussche.
1st Ceylon Regiment.—Detachment.

It was intended that the 2nd, 4th and 7th Divisions should act as reserve formations to the 1st, 3rd and 6th Divisions respectively. Major-General Jackson was placed in command of the 5th, 6th and 7th Divisions with Captain R. F. Cleaveland as his assistant adjutant-general. Sir Robert Brownrigg himself assumed command of the remaining divisions with Second Captain H. Bates, R.A., as his deputy adjutant-general. Colonels Brooke Young and Evatt were in command of the artillery and engineers respectively. There was an acute shortage of artillery officers; in Cleaveland's company not another officer was available for duty and an infantry officer was placed in command of the guns of the 6th Division

under "the general supervision of Captain R. F. Cleaveland." Colonel Kerr was appointed deputy commissary-general.

The British plan was for the 1st and 2nd Divisions to advance from Colombo *via* Ruwanwella and the Balani Pass, the 3rd Division from Galle *via* Nuwara Eliya, the 4th Division from Hambantota *via* Nuwara Eliya, the 5th and 6th Divisions from Trincomalee *via* Matale, the 7th Division from Batticaloa *via* Bintenne and the 8th Division from Negombo *via* Kornegalle. All divisions were directed on Kandy.

The most careful instructions were issued concerning the transport. Each one-pounder gun was allotted three bullocks, three-pounder guns and howitzers getting eight bullocks. Two hundred rounds a gun were to be carried by ten pioneers, and for each howitzer thirty-two rounds were to be carried in boxes by twenty pioneers while a further thirty-two were borne on limbers. It was clearly explained that although the Pioneer Lascars were primarily intended for carrying ammunition and tents under the Ordnance Department, they were to be available in camp and bivouac for road-making and other duties required by the staff. Private followers were restricted to twelve for a field officer and ten for a captain or subaltern, but these figures included six *dhoolie*-bearers per officer "without which no officer should take the field." Rations were found by Government for the whole force, but 6*d*. a day for their rations was recovered from officers who had also to refund the cost of rations supplied to their private servants. The soldier had the cost of his rations deducted from his pay. The daily scale of rations for European troops on active service was fixed at one pound of beef, one seer of rice or one pound of biscuit, two drams of arrack, one-fortieth of a seer of salt and one ounce of "curry stuff." The native troops received one seer of rice or two-and-a-quarter seers of paddy, one-fortieth of a seer of salt and one ounce of "curry stuff." Fifteen days' provisions were carried by each division in addition to three days' rice ration on the soldier. Each infantry-man also carried forty rounds of ammunition and a limited number of tents were carried by pioneers or on bullocks.

At the end of November the inhabitants of the Three Korales District rose in revolt against the King of Kandy, who dispatched a force to subdue the rising. Sir Robert Brownrigg therefore moved the 1st Division under Major Hook to the frontier east of Colombo in order to prevent raiding by the enemy. Despite warnings the Kandyans crossed into British territory and on 11th January 1815 Major Hook attacked their main body entrenched

at Ruwanwella. The British stormed the enemy breastworks, dispersed the defenders and captured a brass gun and four *gingals*. The inhabitants of the province of Saffragam immediately tendered their submission to the invaders and their territory was annexed by proclamation on 11th February.

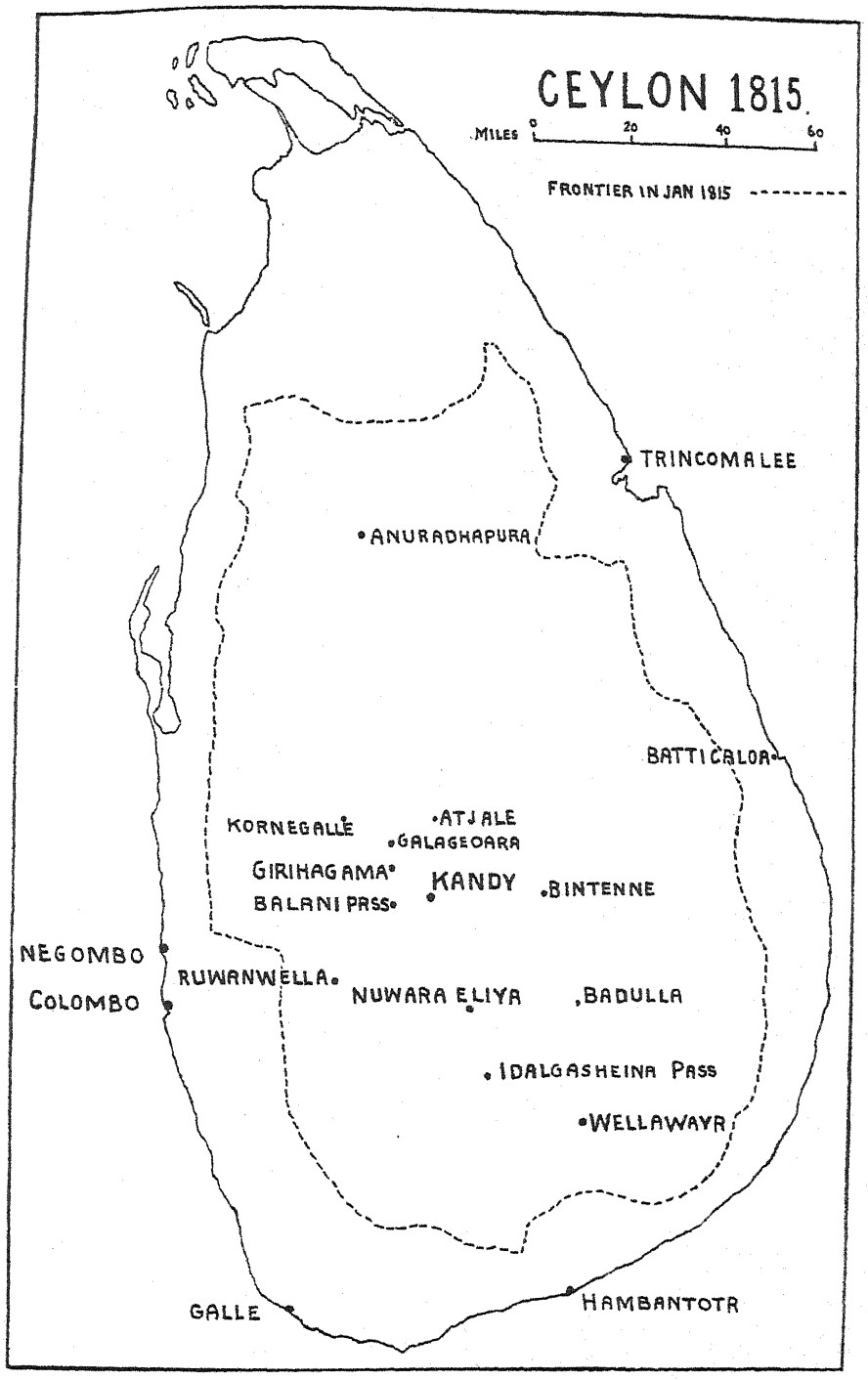
The advance on Kandy was then begun and by the 1st February the 1st Division was at the Balani Pass with the 2nd Division close in rear and the 8th Division near Kornegalle. Next day the 2nd Division captured the Balani Pass and the 1st Division occupied enemy forts at Galagedara and Girihagama without loss. The columns from the west coast then halted until 10th February by which time the 3rd Division had reached the Idalgasheina Pass, but on the following day Major Hook advanced to the Mahawelia Ganga River where he found the breastworks defending the ferry crossing abandoned. Three days later Sir Robert Brownrigg entered the enemy capital and on 19th February the King of Kandy was captured by his own subjects at Meydamaha Nuwara and handed over to a patrol of the 1st Ceylon Regiment under Lieutenant Mylius.

By 15th February the 1st, 2nd, 3rd, 4th, 5th and 8th Divisions had reached Kandy, but the 6th and 7th had been delayed by lack of transport and had not left Trincomalee and Batticaloa respectively. These divisions were ordered to stand fast. On 21st February the Kingdom of Kandy was formally annexed and the war was declared to be over.

The garrison of Kandy under Major McKay, 3rd Ceylon Regiment, was then detailed as follows (General Orders of 26th February 1815):

Captain W. T. Skinner's Company, 6th Battalion R.A.—Two officers, 22 men with two 1-pdr. guns, two 4 2/5" howitzers and three cohorns.
19th Regiment—Half company.
73rd Regiment—One company.
1st Ceylon Regiment—One company.
3rd Ceylon Regiment—Two companies.
Ceylon Gun Lascars—One Indian officer, two N.C.O.s and 40 gun lascars.

In addition small garrisons were established at Amenoopoora, Atjale Pass and Badulla. The remainder of the troops were sent to their permanent stations and the 3rd and 4th Ceylon Regiments and the Ceylon Pioneer Lascars were shortly afterwards disbanded. The Governor and Commander-in-Chief return-


CEYLON 1815.
MILES 0 20 40 60
FRONTIER IN JAN 1815
TRINCOMALEE
ANURADHAPURA
BATTICALOA
KORNEGALLE
ATJALE
GALAGEOARA
GIRIHAGAMA
BALANI PASS
KANDY
BINTENNE
NEGOMBO
COLOMBO
RUWANWELLA
NUWARA ELIYA
BADULLA
IDALGASHEINA PASS
WELLAWAYA
GALLE
HAMBANTOTA

ed to Colombo on 24th March and was welcomed with an official reception and a general parade of all troops of the garrison.

A curious sequel to the campaign is revealed by the proceedings of the Kandyan Prize Committee which was appointed in General Orders of 27th February 1815. A quantity of loot had been captured during the operations including, in addition to arms, a certain amount of ivory, jewellery and copper coins. Sir Robert Brownrigg was apparently uncertain whether all or any part of this booty captured from the enemy should be distributed to the troops in the form of prize money and asked advice from the Madras Government on the subject. The reply, based on the precedent of the Seringapatam Prize Fund, seemed to justify such a distribution, so Sir Robert provisionally sanctioned the measure, subject to the approval of the Home Government. The answer from London was published in General Orders of 26th August 1816 and conveyed in pompous but unmistakable language, "His Royal Highness the Prince Regent's marked disapprobation of the Prize Committee's proceedings." All captured property of His Majesty's enemies was to be considered as vested in the Crown alone and His Royal Highness disapproved very strongly, and not unnaturally, of an audacious claim which was made by the Prize Committee demanding compensation for the delay in distributing the value of the booty. This seems to have settled the matter and the Governor subsequently failed to persuade the Colonial Office to sanction the distribution of even a small proportion of the Prize Fund among the troops.

The campaign which had lasted less than six weeks had resulted in the annexation of a huge territory, and the final consolidation of British interests in Ceylon, and this without the loss of a single soldier. But the year 1815 saw such vitally important events in Europe that this minor expedition in Ceylon apparently passed practically unnoticed.

MECHANISATION OR MOTORISATION

The application of mobility to our Frontier problems

BY "VIBGYOR"

> *"His" (a commander's) "duty is to apply to his task the common-sense rules which have guided all fighting since the earliest days. The most important of these is always to endeavour to surprise and distract the enemy. Again, speed in action must be cultivated . . . the power to move quickly often gives to a body of troops, as to a boxer, the advantage of surprise."*
>
> *"The more civilised life becomes and the more complex the methods of war, the greater is the tendency of the average man to find difficulty in applying to battle the ordinary dictates of common-sense."*
>
> (*Field Service Regulations*)

The object of this article is to discuss the value and employment of motor vehicles as a means of establishing control over tribal areas. The dictionary is somewhat vague in its interpretation of the word mechanisation; the word motorisation is not listed at all, probably due to the influence of Mr. A. P. Herbert. However, for the purposes of this article, the reader is asked to accept the following interpretations:

Mechanisation means the process of providing troops with mechanical vehicles for fighting purposes.

Motorisation is the process of embussing troops or commodities.

Mechanisation, in fact, implies offensive action, whereas motorisation implies an essentially passive role.

Before considering the applicability of the motor vehicle to our problem on the North-West Frontier it might be as well to discuss, briefly, what that problem is.

The discussion will purposely be limited to Waziristan with its two main territories, Mahsud and Wazir.

If we can find the solution to our problems in Waziristan, the same solution should prove applicable to other territories.

Our main problem in Waziristan is obviously to bring about a lasting settlement—not only peace in our time, but for evermore. Having decided what our problem is, the next and most important step is to decide upon a sound policy for solving it. It is not for

the writer to attempt an authoritative statement as to what our policy should be; but it cannot be classed as presumptuous to hazard a guess that it might be possible to find a solution by tackling the problem in the same way as we tackle problems of civil disturbance in British India. Assuming, then, that the two problems are analogous, a brief survey of the methods used to quell or prevent civil disturbances should prove profitable.

The procedure with civil disturbances may be outlined as follows:

Firstly, the deputy commissioner, the superintendent of police and the military commander meet and discuss the problems which confront them. The civil authority knows what he wants, his experience and his sources of information tell him what to expect in the shape of trouble. The policeman knows what civil resources will be available to deal with the trouble. Thus, with all cards on the table, the soldier can make a very good appreciation of the situation which is liable to confront him. He then, after full discussion with the deputy commissioner, makes his suggestions for the application of military force, if such action should become necessary.

Assuming that disturbances threaten and eventually break out, the procedure normally is as follows:

There is a preliminary stage, during which the civil authority, assisted by civil forces, attempts to prevent trouble. During this stage, the military commander is kept fully informed of the trend of events. He may be called upon to "show the flag" with a view both to discouraging agitators and heartening the waverers and loyal or peaceful elements.

The next stage arrives when active intervention by military force becomes essential to save lives and property and to restore law and order. This action does not mean that troops move in and use their arms regardless of human life. The implication is that, wherever the situation gets out of hand, the troops *are in a position* to apply force if civil authority considers such action necessary.

The most noticeable points about the measures taken to deal with civil strife are a heart-to-heart preliminary talk and the making of a plan by the senior officials concerned, and the application of adequate force at the right time and place, whether during the preventive or active stages, the same being dependent on the swift movement of police or troops.

It is suggested that similar principles should be adopted in Frontier tribal territory. It cannot be questioned that civil and

military officials meet and discuss tribal affairs, but is there a plan in mind or on paper for dealing with each section or sub-section?

Agitators seldom appear simultaneously in every tribal section. Although there may be irreconcilable elements in each section, they have never yet succeeded in achieving simultaneous and concerted action; their custom is invariably to wait one upon the other for a lead.

Hence, if a plan exists for dealing with each section or sub-section, whether in its summer or winter grazing grounds, it should be possible to nip any trouble in the bud, by dealing with the one or two agitators who show a yearning to become the leaders in a tribal uprising. For instance, if, in 1936, it had been possible to capture the Faqir of Ipi, the Din Faqir and, perhaps, Sher Ali, as soon as they showed signs of unrest, it is doubtful whether other small fry such as Gagu would have had either the courage or the following to become nuisances and disturbers of the peace during 1937.

As the application of force at the correct time and place demands speed, it follows that we should use such means as we have for achieving speed in action. In fact, we must apply to battle the ordinary dictates of common-sense in order to surprise and distract the enemy.

The means at our disposal are motor vehicles, aircraft and wireless telegraphy, and it is open to question whether we utilise these modern resources according to the common-sense rules which have guided all fighting since the earliest days.

It is admitted that the terrain of the Frontier is not ideal for the employment of mechanical vehicles; but such conditions should not result in the assumption that motor vehicles can be used only for purposes of transportation. To anyone who agrees with Field Service Regulations, it must be evident that those who regard the terrain of the Frontier as an insuperable obstacle are definitely average men who find difficulty in applying the benefits of modern inventions in accordance with the dictates of common-sense.

It is proposed to consider, briefly, the three principal means at our disposal—aircraft, wireless and motors.

Aircraft.—It is an accepted principle that, to achieve effective co-operation between air and ground troops, the commanders of the two Services must maintain the closest personal liaison. Is this principle obeyed in Waziristan?

The only permanent air force in Waziristan under peace conditions is one flight, stationed at Miranshah. The nearest

reinforcements live either at Kohat, Peshawar or Risalpur, distant between ninety and one hundred and fifty miles from Miranshah. The squadron-leader lives, naturally, with his unit and not with his detachment. Hence, whenever any disturbances occur—and they are apt to occur at very short notice on the Frontier—the divisional commander's principal air adviser is at least two or three hours' journey distant from him; and, when he eventually meets the divisional commander, further valuable time has to be spent in putting him into the picture before any concrete suggestions for the disposal of air resources can be formulated. Further delay in the application of air resources is occasioned by the fact that part, if not all of a squadron's ground staff has to move by road from its permanent station to Waziristan.

It is suggested, therefore, that if we are to achieve timely application of our air resources, there should be not less than one army co-operation squadron permanently located in Waziristan.

Wireless.—Here, again, the terrain is not ideal, because mountains are apt to "blanket" wireless waves. This limitation should be an added reason for increasing the number of portable wireless telegraphy and radio telephony sets. Of late years, enormous strides have been made in the development of these portable sets, hence their use should be very much more general than it is at present.

To-day, battalions and posts on the line of communication still depend on the telegraph or telephone, in spite of the fact that tribesmen frequently cut land lines and remove miles of the wire. Is it not the very negation of common-sense to continue to rely on land lines under such conditions?

For instance, how much more effective it would be if a commander could talk to his intelligence officers, rather than be compelled to accept the bare statement of a laconic telegram saying that a party of twenty men had set out "to raid in the Bannu District." As that district covers an area about the size of Wales, it will be realised that a little elucidation by means of radio would be of considerable assistance to the commander concerned.

Motor Vehicles.—This heading covers several main factors, each of which must receive brief consideration, which is all that the scope of this article will allow. At present there are available three main types of vehicle—tanks, armoured cars and lorries.

Tanks have their limitations, which are particularly evident in hilly country; but, in spite of such limitations, they have proved invaluable in frontier operations and are an obvious means of securing speed and superiority over the enemy. A "Modification

for India" to Field Service Regulations says, "On the Frontier . . . tanks are a valuable adjunct in quickening up Frontier operations." (Sec. 2, para. 3). Here, then, is a modern weapon which can be made to play a very valuable part in Frontier war fare, and in peace-time efforts to assert control over tribesmen.

Armoured cars have even more limitations than tanks in hilly country. They are more or less confined to roads which are few and far between, nevertheless their use as armoured machine-gun carriers must not be overlooked. The use of this weapon for road protection in order to decrease requirements in infantry has been well proved.

Lorries have been used, in their present form, as a means of conveyance for escorts and for mobile columns. The disaster in the Shahur Tangi, in 1937, is adequate proof that the lorry of to-day is of no practical use as a means of achieving "mechanisation"—its only sound use lies in its ability to achieve "motorisation." Hence, it is evident that if we are to apply the ordinary dictates of common-sense to this problem, we *must* have two totally different types of lorry; one being the commodity-carrier with protection for the driver and for nothing else, the other being a troop carrier with protection for both driver and passengers.

In Waziristan, during 1937, attempts were made to make lorries more formidable by affixing contrivances which would hold Vickers-Berthier or machine-guns, so that they could be operated by gun teams while the lorries were on the move. The possibility of protecting the unfortunate lorry driver, thereby enabling the lorry to escape from an ambush by using its speed, did not appear to enter anybody's calculations!

Assuming that lorries are provided with this gadget, the first question which enters a passenger's head is: "What is the use of this to one, when the driver has been killed while travelling at fifteen miles per hour and the lorry goes over a cliff?" Assuming that the lorry does not go over the cliff and that the driver is neither killed nor wounded, could any gun team survive long enough effectively to operate its guns in open lorries under conditions such as those which obtained in the Shahur Tangi? If such conditions are not envisaged, then why have the gadget?

The obvious solution is to have a special type of troop carrier. Armoured protection need not be of the heavy type, but should be sufficient to deflect and stop the soft-nosed bullet which is generally used by the tribesman. Further, it is suggested that

the troop carrier should have a solid roof, capable of carrying the bedding and first-line gear of the passengers. A small protected conning-tower through the roof would enable touch to be maintained throughout a moving column. Finally, the sides of the armoured lorry should be capable of quick-release action, similar to the dummy sides used in "Q"-boats during the anti-submarine campaign of the Great War. This arrangement would enable troops to debus rapidly on either side.

Having decided on the most suitable means of achieving our object, it remains to consider the method of applying those means.

Roads should be constructed so as to encircle tribal sections and sub-sections. They should enable easy penetration of any area by troops debussed at any given point on the road encircling the area in question.

Take, for instance, the area bounded by Miranshah—Boya—Datta Khel—Damdil. A road exists to-day which encircles this area. Troops debussed at any point on this road should be able to penetrate any part of the area enclosed during the two-day limit imposed by hard-scale rations. If we apply the same principle to future road building, we shall eventually have a network of roads which will enable troops to reach any centre of unrest.

In each area there should be one or more mobile columns, depending on the size of the area and on the length of its communications.

During 1937, in Waziristan, there were certain battalions earmarked for mobile column duties. Their role consisted of being embussed in the food-carrier type of lorry, and then being rushed to the scene of a raid or to a route suspected of being used by a gang. After completing or not completing their task, they returned to the place whence they had come.

It is suggested that this is not a correct application either of mobility or of mechanisation. Any tribesman of average sense knew exactly what to expect of these mobile columns. He knew their route and the approximate time they would take to reach a given point, and so he could easily estimate how many hours he had in which to effect his escape. In fact, secrecy was one of the last things which the "mobile" troops ever achieved—it is even doubtful whether the tribesman really bothered his head much about them, he had no cause to! This was *not* the fault of the troops, but the fault of the system.

It is evident that if a mobile column is to achieve success, its moves must be very secret and its descents on the enemy sudden and unexpected. The only way in which such success can possibly be achieved is for mobile columns to have no permanent base. They must be ever changing their routes, bases and programmes. In short, the age-old principle of never doing the same thing in the same way more than once is as applicable to modern vehicles as it ever was to the infantry soldier on the frontier.

If mobile columns are to be capable of cutting off or penetrating into a tribal area, it is evident that their composition must allow of protection for vehicles abandoned whilst troops operate across country. Further, mules must be transported with the column so that the cross-country efficiency of the troops may not suffer.

Two other requirements and the mobile column should be a really valuable factor on the Frontier: In the first place means of maintaining communication between the various parts of the column while on the move are essential. Only through first-class means of communication can the column commander be kept in touch with the latest developments in the situation.

In the second, co-operating aircraft are essential. To have a mobile column without an attendant aircraft is as sensible as sending a blind man to search for a needle in a haystack. During movement along roads or across country, the column is, comparatively speaking, blind. Its success depends on the old adage. "By guess or by God." The absolute necessity for attendant aircraft with each mobile column or at least in each area is self-evident. Field Service Regulations state, "Whatever may be the form of warfare in which the army is employed, the closest possible co-operation between the army and the air force, between ground and air action, is always essential."

It has been shown that one method of establishing control on the Frontier is to adopt the same procedure as is normally employed in settled districts for dealing with civil disturbances. That is to say, close liaison between civil and military authorities, clear-cut plans to deal with all possible eventualities and the early application of the necessary remedy—action.

Further it has been shown that if any action is to achieve decisive results it can only be brought about by the correct use of modern means, applied in accordance with the dictates of war and common-sense. The troops themselves, civil or military, are

capable enough, but they do need adequate and modern means, which are—

(*a*) roads designed to enable penetration and encirclement of tribal areas;

(*b*) mobile columns equipped with the correct type of vehicle, and utilised according to the correct principles of war;

(*c*) the latest and best means of inter-communication, *i.e.*, the wireless set to supersede the land line, and

(*d*) a larger number of aircraft to be stationed permanently in tribal areas.

All action should aim at a speedy isolation of areas where trouble shows signs of brewing; there should be no waiting for trouble to become a reality. Such isolation should be directed towards the removal of any agitators. Any normal person will agree that the speedy removal of a gangrenous finger or of a perforated appendix is vitally important; the same principle should apply to agitators on the Frontier.

"If 't were done at all, 't were best done quickly."

THE MARCONI TYPE H9A

(Light-weight Radio Telephone Set)

By Major D. H. J. Williams

In the April 1938 issue of the *United Service Institution of India Journal*, in an article, "The Dream Sector L. of C." "Auspex," remarks as follows: "Until we get man-carried radio telephone sets—and the sooner that comes the better—a detachment will always be out of control for some period or other of an operation."

It may not be generally known that a very useful little man-pack radio telephone set exists, and has been in service for some eight months now with the South Waziristan Scouts. This is the Marconi light-weight telephone set, type H9A. This instrument is naturally subject to certain limitations in its operation, but when two years ago we decided to explore the possibilities of man-pack radio telephony equipment for use with our *gashts*, we realised that no such thing as the ideal and perfect instrument existed. We began by comparing the performance of existing instruments with our existing means of visual communication, helio, lamp and flag. At that time there was only one instrument on the market, an American one, the weight of which was not prohibitive for our purpose. It weighed twenty-seven pounds, but in other respects was not fitted out for the work we required of it. However, carrying harness, aerials, etc., were improvised, and tests over some six months showed the usefulness of this means of communication.

In the course of a year Marconi's Wireless Telegraph Company produced a reliable and economical set, properly fitted out on lines which we considered suitable from our previous experience. Considered primarily *vis-a-vis* existing man-carried means of visual communication, the Marconi H9A has the following advantages:

(*a*) It weighs less than a lamp and helio combined.

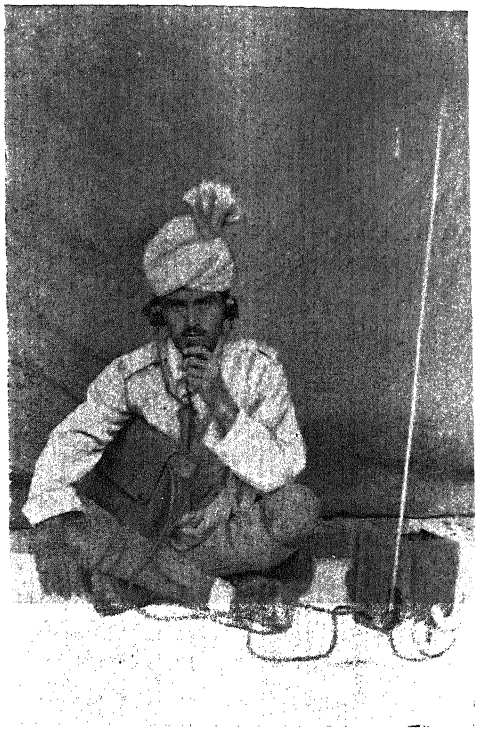
(*b*) It is invisible in operation—and does not therefore immediately disclose the position of *gashts* and piquets to the whole country-side for miles around.

(*c*) It can function in all weather conditions including cloud and rain which obstruct visual communication.

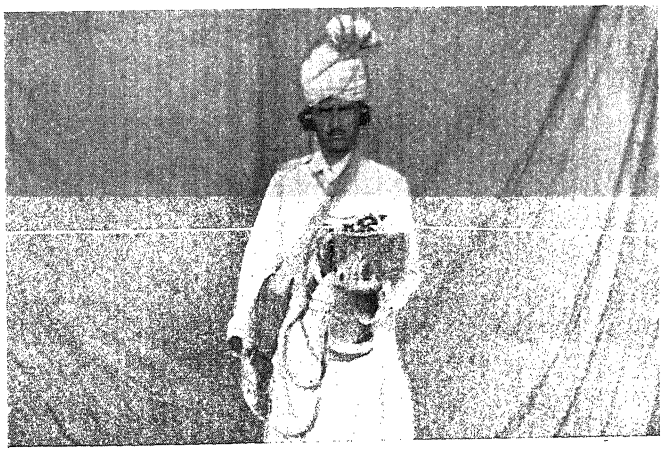
(*d*) Communication can be maintained while on the move, continuously if so desired.

MARCONI TYPE H9A EQUIPMENT

The set in use with ¼-wave aerial on the move.



The instrument box placed on the ground using ¼-wave aerial.



The set in use with the dipole aerial. The light-weight instrument can be held quite conveniently in this position. It can be placed on rocks, walls, etc.

(*e*) The full picture of a local situation can be given in a few seconds in a manner quite impossible in visual communication.

(*f*) While the apparatus is definitely limited by the height of some hills, it will function satisfactorily over obstructions several hundred feet high. There is no question of communicating stations having to be within sight of each other.

I do not propose to give any detailed technical description of the H9A, all of which can be found in the Marconi handbook "Working Instructions for the Light-weight Telephone Set Type H9A." The general arrangement for carrying and operation can be seen from the accompanying photographs, and I add some brief notes on the equipment and our experience of its working.

The weight of the set is eighteen pounds complete. The instrument box takes up seven-and-a-half pounds of this, the rest is the batteries in their haversack. Equipment of this weight is easily carried by one man in mountainous country. The instrument box is all metal and enclosed in a strong waterproof canvas case, to which the shoulder harness is attached. A pocket on the side of this case contains the headphones and microphone when the set is not in use. The 'phones are kept on the head by the simplest and most comfortable design of canvas strap I have yet seen for such an instrument. Either helmet or *pagri* can be worn without the least difficulty.

The wave range is 4.75 to 5.25 metres (6.3 to 5.4 megocycles). The great advantage which this very low wave gives is complete freedom from atmospheric interference in all conditions of weather and climate. Speech is therefore clear at all times.

The set is a combined transmitter and receiver, two valves only being employed. Both these valves are the same type, and in consequence only one type of valve need be stocked in spare parts. Actually in eight months' working of eight of these sets, including hard service on a number of operations and some rough treatment of the apparatus, no valve replacements have been required.

There are only two controls. One, a knob for tuning, which does not require further adjustment once communicating stations have tuned in to a common wavelength, and the other a robust switch for Send—Off—Receive. Once tuned in, the operator only has to switch over from send to receive, or off, as necessary.

The range of the sets varies with the country over which they are worked and is dependent on intervening obstructions such as hills. In hilly country with no intervening features obstructing

the line of sight between communicating sets, a comfortable working range of twenty miles can be achieved without any difficulty. I do not say this is the limit; I have not tried them further and it is quite possible they may do more. With intervening obstructions the range comes down. I cannot say what the exact final limitation of working over hills may be, as the sets were put straight into service as soon as they were received, and no opportunity has since occurred to carry out a careful series of limitation tests in this respect. I should say that hills rising about seven hundred feet above a line of sight between two communicating sets in this type of country come somewhere near the limit of working. But many factors come into the question, and I have one report from a Post of a set working over a ridge nearer a thousand feet in height. It would be wrong to make any more definite statement at present. The vegetation covering the country also affects the question of range; in well wooded, close country it is reduced even though hills may not intervene.

To those who know Waziristan, or who have a one-inch map of the area, the following recorded examples may give some idea of what can be done:

Communicating sets' positions.	*Distance apart direct.*	*Intervening obstructions.* Feet.	*Signals.*
Jandola—Chagmalai	... 4 miles ...	220	Strong.
Razmak—Ladha (878100)	... 9 miles ...	300	Half-strength.
Sarwakei—Pt. 864679	... 6 miles ...	450—500	Weak.
Jandola—Sarkai ridge (093110)	... 18 miles ...	600	Weak but clear.
"Tanai—Kanzwarai Narai (7365) (6240)	18 miles ...	250	Strong.

One could of course give many similar examples.

The aerials for this set are light alloy sections. Four sections are supplied, which will form two different types of aerial. The normal type when on the move is the quarter-wave aerial shown in the first photo. This is composed of two sections, and when in use the remaining two sections are carried above the instrument case on the operator's back. They can be seen in the photo. The other type of aerial is the "dipole" shown in the third photo, and formed by plugging in the remaining aerial sections at an angle of 180 degrees to the original quarter-wave aerial. Over visual ranges up to fourteen miles or so the quarter-wave aerial gives adequate results. Over longer visual ranges the dipole will give stronger signals, and when obstructions intervene to any great extent, the

improvement in signals when this aerial is used become very marked.

The dipole aerial is highly directive. In general the signals are strongest when both aerials of communicating sets are kept horizontal and parallel to each other. This rule is, however, subject to many variations. In testing these sets out in Devonshire early last year, I found one extreme case where reception could only be obtained when one station's aerial was kept horizontal and the other vertical. There were also cases of smaller variation from this rule when working in heavily wooded country. Large conducting masses close to sets can again affect the matter.

The battery haversack contains the following:

108-volt dry battery for high-tension supply.

3-volt grid bias battery.

2-volt unspillable accumulator for low-tension supply.

The low-tension accumulator is sufficient to give twenty-four hours' continuous working if required. In practice, as the sets are never required to work continuously to that extent, the accumulator gives considerably more hours' working. No instances of sets giving out through run down accumulators have so far occurred, and as a normal practice we change over accumulators in use and recharge them once a month. The sets have been used on operations lasting about eight days consecutively, apart from other routine work during the month. It seems probable that high-tension batteries will last us about five months in service.

Few breakages have so far been experienced with this equipment, and those experienced could hardly be described as due to fair wear and tear. In fact only two have occurred among the eight sets in eight months. On one occasion an instrument was dropped from about seven feet onto a rocky hill-side. One ebonite socket to take the aerial plug was broken, but no other damage occurred. The valves were quite unaffected. On the second occasion, an operator coming under fire near the top of a hill during an advance, went to ground, and then rolled over on his back. The ebonite plug of the aerial was damaged. The other aerial sections (carried for dipole working, but also forming a complete spare quarter-wave aerial) were at once inserted, and communication maintained without a break throughout the ensuing action. When it is considered that these sets have now been carried hundreds of miles on *gashts* and rushed down hills at speed by retiring platoons or picquets, these breakages are really negligible.

On one occasion during operations in the Ahmedzai salient near Bannu in September, a set was completely immersed in the

Kurram river. The operator lost his footing in a deep ford of the river which was in partial spate. The treatment reduced the efficiency of the high-tension battery considerably; but did no harm to the instrument. Dried off at the end of the march, it continued to function perfectly.

Nothing in connection with these sets has surprised me so much as their extreme reliability in all conditions of our work. I should have been quite prepared in the course of eight months for occasional small minor internal faults, breakage of valves and so on. However, except to replace the broken parts mentioned above, it has not been necessary to tighten or remove a single screw or nut in the instruments themselves.

I have been asked at times why telephony only has been provided in these sets, and not telegraphy as well. Also why the whole outfit is not put in one case. The answer to the first question is not difficult. The type of set was chosen for absolute simplicity and the avoidance of any technical requirements for its working. Almost any intelligent man can work these sets after a little practice. Telegraphy alone means wireless or signal experts to work the instrument. If provided in addition to telephony it means added weight and more complicated design—not to mention cost.

These equipments, complete, cost only £18-18 each, a very small sum for what they can accomplish.

The second question is not so easy, and is open to various arguments. The set in two loads was chosen after experience with the earlier American model mentioned above, which was all contained in a single metal box. We found for instance that switches were continually being left on after use, or were knocked on accidentally and not noticed. The complete separation of batteries in the H9A makes it a matter of indifference whether switches are on or off after use. As soon as the battery lead is disconnected and packed in its place on the instrument case, no wastage of current can occur and the wearer prefers the division of the load from the carrying point of view; at least our operators do.

Tactically we found that a very small instrument box, joined to its current supply by a fairly long lead, had certain advantages. When not on the move it could be placed on a rock or a picquet wall while the operator remained under cover, and its small size would not attract attention. The aerial gives better reception out in the open than tucked away behind a wall.

If sets fail to work at any time it is normally due to a loose connection or some similar fault in the leads inter-connecting

batteries. Obviously this part of the equipment should be readily accessible at all times, and preferably without opening up the instrument box. The division of the equipment falls quite naturally into two parts: First the instrument itself which does not require inspection or check for months on end, and second the supplies for the instrument, *i.e.*, the batteries, which with their inter-connections require frequent inspection and periodical renewal.

The aim in this equipment was to keep these two distinct parts separate. The distribution in two loads was not made in any haphazard manner.

From our point of view, if prolonged operations should ever make the carriage of spare batteries desirable, they could be carried most conveniently, ready and fitted up, in a complete spare battery haversack. This is simple and cheap to arrange.

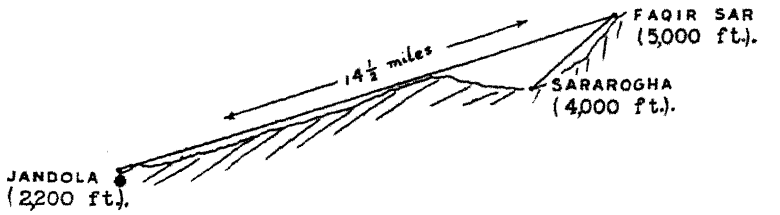
I have not touched upon the performance of these sets in flat country, primarily because our interests lie in their performance in the hills. Marconi's handbook remarks, "Over average flat country the normal range is one mile." This is definitely a conservative estimate. Testing them out over chosen flat parts of Devonshire, I got pretty consistent results at ranges of two-and-a-half miles. Over different types of flat country the range will vary. Whatever the type of flat country there should seldom be difficulty in getting communication between two stations which are in visual communication with each other. Over flat parts of a country like Devon, well wooded, high field banks, grass and ploughed land, the range between stations which are not in visual communication should certainly not be less than two miles, and probably more. On the Derajat plains round Tank the day-light range is between two and three miles.

I have not differentiated between the day-light and night range of these sets. With instruments working on longer wavelengths there is normally a good deal of difference. Atmospheric interference by day, particularly in the hot weather, is usually considerable. Ranges in consequence are much reduced.

With these very short-wave instruments, which are not noticeably affected by this atmospheric interference, the matter is not so important. We have used them at times by night on operations and have not found them to work any worse than by day. I cannot say that we have tested them particularly to see if better results could be obtained.

There is an interesting point in connection with the operation of these sets, which Marconi would probably term "re-radiated

signals." Roughly, if two stations are prevented by intervening features from communication with each other, and a third set is introduced which can communicate with both, then signals can pass in certain circumstances between the first two stations. Perhaps I can explain this better by a diagram of one actual case:



In this instance a station at Jandola tried to communicate with Sararogha, but was unable to do so owing to the height of the intervening hills. A third station was opened up on Faqir Sar further away from Jandola but higher up. As soon as this station opened up, signals to it from Jandola could be heard at full strength on the set in Sararogha. In this case, there was no question of the speech from Jandola being re-transmitted by the Faqir Sar operator to Sararogha. The conversation as it took place between Jandola and Faqir Sar, came through quite automatically to the listening station in Sararogha. We have not so far experienced this elsewhere and evidently some very special condition is required, possibly something to do with the highly directive properties of the dipole aerial.

The present situation in Waziristan is not entirely favourable for testing out points of this description. The equipment has proved too useful for ordinary communication purposes in our daily work to be diverted at present for proper tests, which must be carefully regulated. In time, as opportunity permits, we shall be able to record the final limitations of the equipment under all conditions of working.

There is one condition of weather in which the aerials of the H9A do not function properly. That is in a very heavy gusty wind such as a fierce dust storm often provides. Where such conditions are frequently encountered, some modifications of aerial would probably be required.

The H9A, one can say now, is an extremely robust and reliable little instrument. It goes a long way further towards meeting our communication requirements than anything we have previously possessed, though it does not fulfil the absolute ideal of communication from anywhere.

Finally I must refer to two points mentioned above and amplify them a little. First as to range. This equipment seems to achieve its shortest maximum ranges in really flat country. In such country raising the aerials by only a few feet can make quite a lot of difference. Secondly, I have mentioned the life of batteries several times in terms of months. This refers to our own conditions of work; the real life of a battery in all circumstances can only be measured by the number of hours' work it gives. My figures are merely a guide.

ROMAN HINDUSTANI

[*A Plea for its Extension to the Obligatory Examinations*]

By Major G. E. Wheeler

"Roman Urdu" is the name at present given to a system of transliteration into the Latin script of the Arabic and Nagri scripts used in Urdu and Hindi literature and newspapers. It is used in the official translations of military manuals for the use of Indian ranks, in the Army Certificates of Education and in the writing of messages and reports in the field by Indian ranks. In the obligatory and voluntary examinations in Urdu for officers of the Indian Army it is not used and outside the Indian Army it is not used officially.

The object of this brief article is to discuss the advisability or otherwise of substituting the Roman for the Arabic and Nagri alphabets in the obligatory examinations for Indian Army officers. It is not, however, proposed to discuss the merits or otherwise of the Nagri alphabet which represents, as a matter of fact, the most perfect system of phonetics in existence. The majority of officers are under present regulations, obliged to take the examinations in the Arabic character and the reasons against a universal application of Nagri to the Indian Army are too obvious to render any explanation necessary.

Before proceeding to examine the arguments for and against the use of the Roman character in the obligatory examinations it will be convenient to make a brief review of the progress of Latinisation as applied to other languages. The writer, however, would like to emphasise that he is not here considering the highly controversial subject of the universal Latinisation of *Urdu* but only the universal application of the Roman character to the *Hindustani* used by all ranks of the Indian Army.

For many years it has been generally recognised that the Arabic alphabet is quite unsuitable for the writing of any language except Arabic. It was imposed on the Seljuk Turks and the Persians as the direct, and on Northern India as the indirect, outcome of the Moslem conquests of the seventh and eighth

centuries. It has always had a considerable religious significance, a fact which has seriously militated against its replacement. The Arabic character is composed of twenty-eight letters. Persian and Turkish required the addition of four other letters. In Urdu, the Persian, Turkish and Hindi words used necessitate the inclusion of these four letters together with three others to express the hard *d*, *t* and *r* sounds in words of Hindi, Sanskrit or European origin. Arabic has four *z* sounds, two *t* and three *s* sounds. In the pronunciation of Persian, Turkish and Urdu there are one *z*, one soft *t* and one *s* sound, the hard *t* of Urdu being expressed by a separate symbol. The Arabic alphabet then, as amplified for Urdu, consists of thirty-five letters of which seven are not of Arabic origin and six are phonetically redundant.

The first assay in Latinisation was made by the U.S.S.R. who, in about 1922, ordained that the Azerbaijani Tartar language should thenceforward be written in a Latin alphabet specially designed for the purpose. This innovation was not confronted with any serious difficulty. Very few books and very little printed matter of any kind existed, religious opposition was faint and the change was generally recognised to be beneficial especially during the campaign against illiteracy. The next country to take to Latinisation was Turkey. Here the change involved grave difficulties. Education, both religious and secular, had, for years, been based on the Arabic character. Though native Turkish literature was small, there existed a vast mass of printed matter, including, of course, all Government records, all written in the Arabic script. Islam still exercised a considerable influence all over the country. Nevertheless, in 1928, a phonetic Latin alphabet of twenty-eight letters was introduced by law. The result has been astonishing. From being an unwieldy language loaded with Arabic words and phrases Turkish has, in a few years, gone a long way towards recapturing the succinct and pithy simplicity of the language of the Orkhon. This simplification is doing much to remove illiteracy and naturally makes Turkish, which was previously regarded as a difficult, almost an incomprehensible language, much more accessible to foreigners. Foreigners, including the present writer, who originally learned Turkish in the Arabic character, are amazed at the ease with which they can now read the newspapers and other literature which before seemed so complicated.

It seems not improbable that Latinisation will eventually be introduced into Persia. The only reason for delay is said to be the very reasonable wish to complete the educational reforms at present in progress before proceeding to such a radical cultural change. An interesting book called "*Rah-i-pishraft*" by M. Fatih was published in Teheran last year. In this book the writer competently deals with the objections to the introduction of a Latin alphabet. He divides the objectors into five groups:

(*a*) Those who are accustomed to the Arabic character and are too lazy to change—the largest group.

(*b*) Professional scribes who fear that the abolition of the Arabic character would take away their livelihood.

(*c*) Those who consider that education consists in knowing where to write "sad" and where "sin"—the most dangerous group.

(*d*) Those who have no knowledge of the Latin alphabet and fear it as something new and difficult.

(*e*) Foreigners who have learnt the Arabic script and earn their living by teaching it.

Objectors to Latinisation in Turkey belonged to much the same groups as the above and it is significant that in neither country was there any considerable body of opinion which argued that the Arabic alphabet has any philological significance in Turkish or Persian or that its abolition would have any adverse philological or, ultimately, any morphological effect on those languages.

It may be seen from the foregoing that the reasons for opposition to Latinisation in Turkey or Persia cannot be said to exist in the Indian Army. The introduction of "Roman Urdu" for Indian ranks is an accomplished fact. It remains to examine the arguments against its extension to the studies of British officers.

The first argument in favour of the Arabic script is that it is the best medium for the study of Urdu phonetics, grammar and syntax. The ideal character for most languages is one based on the principle of "one letter (or symbol), one sound." It is according to this principle that the present Turkish alphabet was composed. The original "Roman Urdu" alphabet was, unfortunately, not based on this system. It makes no distinction between the following letters:

d and "hard" *d*.
t and "hard" *t*.
r and "hard" *r*.
gh and *ghain*.
i and "long" *i*.
u and "long" *u*.

It seems that the composers considered that as simplification was the main object of "Roman Urdu," the hard letters could be dispensed with altogether. Moreover, the present Roman alphabet was designed primarily for Indians who are less likely to make mistakes in the pronunciation of a language which they learn first by ear. Although the Arabic character is difficult and unsuitable for any language except Arabic and particularly unsuitable for Urdu, it is in one respect superior to the existing "Roman Urdu": as amplified by the addition of extra letters it does at least provide an approximate symbol for every consonant sound used in Urdu (except the nasal Sanskrit *n*), whereas "Roman Urdu" lacks symbols for all the hard letters. This would be an important point in favour of the Arabic character but for the fact that distinction in pronunciation of the hard and soft letters between *ghain* and *gaf* or even between *qaf* and *kaf* is seldom attempted by Europeans, is still more seldom achieved and, in the obligatory examinations, is not required by the examiners who, in nine cases out of ten, can themselves neither detect such distinctions nor produce them.

A theory has recently been advanced that while Latinisation was all very well for those who know the language already, it gravely complicated matters for those learning it for the first time. The reason for this was that the student, if his own language were one written in the Latin character, would be inclined to give his own phonetic values to letters which were the same as those of his own tongue. This apparently formidable theory requires closer analysis before it can be accepted. It will be generally admitted that similarities or differences among languages must be fixed rather by sound than by sign. That the French "ch" is pronounced like the English "sh," and the German "ee," "j" and"w" like the English "ay," "y" and "v" are merely a few illustrations among thousands of a very common linguistic phenomenon. Another common phenomenon is that one language may contain several sounds unknown to two or three others. Ignoring the finer "nuances," it may be mentioned that French has no equivalent for the English "th," 'ch" and "j": the Modern Greek cannot write without difficulty "b," "j," "sh" or "ch." English itself is very weak in gutturals. There is, therefore, nothing new or exceptional in the fact that Oriental languages have certain sounds which do not occur in the languages with which we are

most familiar and the use of one or another character does not alter this situation in the slightest.

A third argument, that officers find it useful to be able to read *shikasta* can be disposed of quickly. The standard of manuscript reading required for the Higher Standard is far too low to be of any practical value. Enquiries made by the writer show that probably not more than one in twenty of officers who have passed the Higher Standard can get the sense out of an *average* petition or even of a lithographed Urdu newspaper article.

In his recent book "The Tyranny of Words" Stuart Chase has tried, not unsuccessfully, to prove that much of human misunderstanding and controversy can be traced to the incorrect understanding and use of words. The use of the word "Urdu" in the Army seems a good instance of this. Urdu is not required in the Indian Army nor is it in fact used. The medium for Army Education, for technical military instruction, whether oral or written, the official *lingua franca*, in fact, of the Indian Army, is neither Urdu nor Hindi; it is Hindustani, a language entirely free from the trammels of religion or of literary cult. Once this fact is grasped a great deal of the objection to the use of the Roman alphabet becomes meaningless and unimportant. There may have been a time when a knowledge of literary Urdu was of value to British officers of the Indian Army but that time, if it ever existed, has passed. Officers often ask how they are to find time to learn all that is required of them in the Army of to-day. The introduction of a proper system of Romanised Hindustani would at any rate greatly reduce the time spent on one subject.

The present system of Romanisation is very far from satisfactory. The writer has referred above to the inability of examiners and candidates to pronounce or distinguish the hard and soft letters. He did not mean to suggest that this was unimportant. It would, indeed, be a fatal mistake if an unphonetic Roman alphabet like the present one were made the medium for a new system. Whether the best form of alphabet would include invented symbols to express hard and soft letters and aspirated consonants is a matter which would require careful consideration. Once, however, the principle of "one symbol one sound" is established the best system would soon be arrived at.

A little thought will reveal that, apart from the saving of time, many other advantages would result from the universal

adoption of a Romanised alphabet. If the genuine difficulties of the Arabic or, to a lesser extent, of the Nagri alphabet were removed, the examiners could reasonably insist on a higher standard of colloquial knowledge in the obligatory examinations. There would no longer be any obstacle to the preparation of standard grammars and dictionaries for use throughout the Indian Army. Finally, the shortening and simplification of compulsory language study might increase the (at present) small number of officers who can be induced to study other foreign languages.

THE DISTAFF SIDE

By Enid Scott

Mr. Brayne, the great authority on Indian village welfare, has written to the effect that, ultimately, a man will not rise far above the level of his own home. These are words of deep significance to the Indian Army, for it is from the villages of Northern India that come the men of the fighting forces. From these rural districts come now also the lads who are being trained at Dehra Dun Military Academy to take King's commissions, and to lead the army of the future. This army is being rapidly modernised, and even its lowest ranks share the benefits of a new age. As yet, however, the light of progress has not penetrated far into the soldiers' home life, where old custom dies hard, and where the womenfolk still lag behind the march of time.

When my husband joined the Indian Army eleven years ago, the British officers' wives of his regiment were not encouraged to visit the married men's quarters, or to make contact with their wives and families. So, although we met the Indian officers frequently in our own bungalows, or in their clubs, we knew no more of their domestic life than what we could learn in conversation with them. It was some years before I, personally, was able to form any picture of the home life of an Indian soldier.

A chance came in 1931, when my husband and I spent a few days' Christmas leave visiting the hilly district north-west of Jhelum from which the regiment recruits men for the Punjabi-Mohammedan squadron. For the first time I saw inside the homes of the Punjab country gentlemen of the fighting class. The charming courtesy of our hosts and the delightful welcome we received everywhere have left an indelible memory. Nothing could have exceeded the careful thought that was given to the details of our comfort. All the same, I gained the impression of a primitive domestic background, where the womenfolk, though sharing their husbands' fine natural courtesy, had reaped small harvest from the ways of modern progress learned by the men in the full and varied environment of their military lives.

* * * *

After a gap of six years, during which we were away from the regiment, Christmas 1937 found us in Delhi, near the home country of the Jat squadron. We had invitations to visit some of

the retired Indian officers in the district; so several raw December mornings saw us drive across the wide monotonous plains, where the land was barren and dusty, with scant food for men and lean and pitiful cattle. The rains had failed and the crops had suffered accordingly. In the depths of the country we would reach a mud-walled village, on the edge of which stood a smiling little group of Jat Indian officers, past and present; not so fiercely virile as the men of the Northern Punjab, but with more sophistication of manners and of dress. In warm tweed and camel hair overcoats, with smart pullovers and beautifully cut Jodhpores, they made a keen contrast with the drab groups of villagers who gaped around the cramped and narrow lanes. More incongruous still was the presence, here and there, of attractive well set up young men in English flannel lounge suits—cadets of the Dehra Dun Indian Military Academy, home on Christmas leave.

There was no doubt as to the joy it afforded our delightful hosts to welcome us to their homes, where, in an upstairs guest chamber, tea, cakes and fruit would always be awaiting us. As soon as possible, I would leave the men chatting to my husband and ask permission to call upon the ladies of the household, for with them lay my chief interest. This meant a further climb up steep stairs to the comfortless domestic quarters. Here I would find a shy and fluttered little group of women, with their children, who gazed wide-eyed at the strange English *memsahib*. Sometimes, the wife of our courtly host, who was entertaining the cheery party below, was not only completely illiterate, but could speak no Urdu either. As I know no local dialect, I would find it rather a strain to be adequately gracious and animated by smile and gesture only during a visit that—for courtesy's sake—must not last for less than half an hour. At other houses, the hostess, at least could speak Urdu and we could get down at once to that all-absorbing topic—children.

At one lady's party, I found that my prestige was in some danger, because our son is an only child. The conversation went something like this:

"Your Honour has only one child?"

"Yes, only one."

Chorus of exclamation, as this surprising fact was passed round the circle. "She has only *one* child!"

I hastened to discuss their more numerous progeny and hoped that the subject was now turned.

Not so easily, however, for, in a moment, came the question once more: "Has Your Honour really only one child?" and to the sad admission, the chorus once more chanted, "She has *only* one child!"

I blessed Geoffrey for having the good sense to be a fine, upstanding boy; but none-the-less, an inferiority complex was overwhelming me, till I remembered that my son had weighed ten pounds at birth. I announced this fact with triumph and the effect was instantaneous. Quantity might be gravely deficient, but of quality there could be no question. No woman present had produced offspring of more than five pounds weight.

Children were of paramount importance, but most of these Jat women had passed beyond mere elementary pride in child-bearing. They could take a lively interest in the fact that their children were attending school and boasting of attainments far beyond their mothers' ken. They took some interest in other forms of progress and were anxious for better medical facilities than are at present available near their homes. All the same, it was sad to think how small must be their sphere of influence over a younger generation whose vision has passed so far beyond the mud village walls.

This was what I felt when talking to the Dehra Dun cadets. The young men had come home from the military academy, where life is as full and as active as at Sandhurst, with interests as wide and recreations as stimulating. There, they are better housed than are many British officers in India; with sanitation, wireless, cinemas and other western amenities. From this wider world they come to spend their leave in homes that have not changed much since the days of the old Testament. It was obvious that some of the lads were finding the contrast too violent; though nothing could have been more charming than the manner in which they took their part in the simple hospitality of their parents' homes. But various remarks showed that they were alive to the anomalies of the situation, and that they preferred the new life to the old. One lad told me that, since eating English food, he knew that he could not sustain the strenuous life at Dehra Dun on an Indian diet. Another, more crudely, remarked that he always suffered from gastric disorders when he returned to home food. His words left us a little thoughtful, for we were at that moment partaking of his father's lavish hospitality. One youth who was escorting me up a narrow, filthy alley to his uncle's home said, as I picked my way through the mire, "I apologise for

this. It will all be changed when our time comes." The same young man talked to me of marriage, and of his determination to wed only a well educated girl. But, he added, his father was already in bad odour with friends and relatives at the failure to betroth his son to some girl of suitable caste. All the Dehra Dun cadets seemed equally determined to find educated brides. It will not prove easy, for, although the Jat villages provide primary girls' schools, not many parents are sufficiently rich, or sufficiently enlightened, to continue their daughters' education on wider lines. They do not yet realize that the sons for whom they have striven and saved will not carry on with the old marriage customs. They have been entertained by their British instructors, have met their wives and daughters, and have seen something of Western home life. They will not now be content with shy little purdah brides.

In one Jat home alone did I meet a girl child who had upon her the stamp of India's future womanhood and who was already completely free from the trammels of the purdah system. We had entered the usual guest chamber, together with our host, a retired honorary captain of a cavalry regiment. There were assembled the usual group of Indian officers, who had come from neighbouring villages to greet us. With them stood a nine-year-old child, Gulab, the youngest daughter of the house. Her head was smooth as a seal and, her hair fell in two neat plaits over a clean print frock. Her eyes were wise and candid. There was humour in her wide and shapely mouth. Her father, who adored her, was having her educated at the Rohtak High School. She, too, was home for the Christmas Holidays. She settled herself beside me, and told me of her school life and her lessons, which wisely included a liberal course of housewifery. She talked of the games and of the teachers, and of how, when she grew up, she would be a lady doctor. Her manners and her poise were perfect. There was intelligence in every line of her young face. Her father's friends treated her with the consideration due to a great little lady—the only one I ever met at any of these so exclusively male occasions. Here, I feel sure, will some day be the answer to the marriage problem of one of these perplexed military cadets. The enlightenment and the sophistication of Dehra Dun and a King's Commission will find a match in Gulab of the sleek head and already wise yet candid eyes.

* * * *

In March 1938 we rejoined my husband's regiment. Almost immediately after his arrival, he was sent on a short tour of the

surrounding districts to resume contact with army pensioners, to hear and make notes of their problems and to get in touch with likely recruits. At the same time, the tour was to provide entertainment on its way; for which purpose were included a soldiers' hockey team, a pipe band, and all facilities for the giving of tea parties. Needless to say none of these diversions were intended for the benefit of the pensioners' ladies.

I joined my husband for part of his trip, which lay through fertile irrigated country, among rich green crops, and along the banks of canals, with entrancing views of the distant snow-capped Pir Panchal range. Here, we were in the home country of the Sikhs, near their holy city of Amritsar. I found that the stalwart vigour of that enterprising race was reflected, to some extent, in their womenfolk. They appeared more alert than those I had met in other districts, their bearing more free, and they seemed to be on terms of greater equality with the men. We had tea with an aged *ex* risaldar, and when I climbed the stairs to visit his elderly wife, I found her sitting in a comfortable chair by an open window looking towards the setting sun. As we sat and talked in the cool of the evening, she told me of the many stations to which she had accompanied her husband during his service, and of her experiences in the married lines. Her manners were easy and assured. It was obvious that she had known and absorbed something from the wider world. In the cooking place, I saw an elaborate pumping apparatus. She told me that it has been installed by her son to save her carrying water from below. It was he also who had fitted the house with surprising and most efficient electric light. Her daughters were away at school. There were many small indications that in this home domestic life had, in some measure, advanced with the times.

It was in a Sikh house also, that I saw a fat, naked baby, kicking and gurgling contentedly, under a large, blue gauze meat cover, protected from the flies that swarmed around. This was a pleasant sight for the average Indian village baby is apt to be distressfully fly blown.

In this neighbourhood I met an old lady of advanced ideas. We had reached a village green, deep in the country, where it was intended that my husband should preside at a pensioners' tea party. Unfortunately, news of our coming had miscarried, and all the men were scattered far and wide among the crops. Word was hastily sent forth to collect as many as possible, and my husband went off into the village. Meanwhile, the dogs and I sat under a

shady tree, resting, and awaiting developments. Preparations were made for tea, and the pipers tuned up with "Blue Bonnets Over the Border," to the huge delight of a mere civil remnant of the population, including the children and a few women who all sat far off at a respectful distance. Presently, a few of the scattered military gentlemen came straggling along and with them, to my intense surprise, an aged, ancient crone. She was quite toothless, and could speak no Urdu. I was informed that she announced herself to be a soldier's widow, had a son serving in the Royal Indian Army Service Corps and considered herself in all ways entitled to join the party. Such daring and such dash were, in my opinion, vastly to be commended. Judging by the chuckles of the men who were preparing tea, they were of the same opinion. I gathered that her conversation was of the raciest, for she was soon the centre of an appreciative group. I meant to see that she had a really good tea, but in the business of greeting the now rapidly increasing number of guests she was temporarily overlooked, and not to be found again. Even her courage must have failed the game old lady when she found herself so outnumbered by stalwarts of the sterner sex. If only young Gulab of the Jat country had been at her side, she would have found support.

Our satisfaction that the dawn of domestic progress had reached some of the villages of this district suffered a set-back on the return journey to Lahore. We had stopped in order that my husband might meet a party of *ex* soldiers. I was chatting to the senior Indian officer present, an imposing Punjabi-Mohammedan of the old school, complete with fierce moustaches and henna-dyed beard. I asked him what educational facilities were provided for the girls of his village, to which he made reply:

"*Memsahib,* we don't allow our girls to be educated, as it renders them sickly and unfit for marriage."

"But," said I, "English women who are educated remain healthy and make good wives."

"Ah, *Memsahib,*" came the answer, "that is because every English lady is a queen."

Such heavy gallantry pleased me not at all. I found him an infuriating old diehard. I fear that death alone will rid him of his outworn prejudice and free the girls of his village from the bleak boredom of illiterate lives.

* * * *

Now that we had seen something of their home district, it was pleasant to find that my husband was to command the Jat

Squadron. It is pleasant, also, to know that when the regiment moves in the autumn, these men will be serving near their own country. Very soon after our arrival, I went to call on the wives of the Indian officers and we were able to discuss our mutual friends in the villages, whence they come to join their husbands for varying periods in the family lines. I found that it was expected that I should give warning of an impending visit, that full preparations might be made. I would not fall in with this custom, for it is only by unexpected visits, that one can discover a little of the manner in which these women really live. This was regarded as a regrettable eccentricity on my part, and my unheralded arrivals were greeted reproachfully with, "*Memsahib*, why did you not send word beforehand, so that all could be made ready for your coming?" They were unconvinced when I told them that *my* house was always open to inspection.

Often, I found their homes untidy and even squalid; beds shoved anywhere, frowsty and unmade: dirty cooking pots, covered with flies; unswept and littered floors. The Indian officer generally employs his syce to help in his quarters, and the Purdah system, always so full of apparent contradictions, does not seem to function where this man is concerned. The non-commissioned and subordinate ranks have no such servant, and their quarters are more cramped; but most of them seemed to be better tended. It was a pleasure, sometimes, to enter the tiny courtyard whence a shy and smiling Jat woman would lead me to an orderly verandah, with cooking pots neatly arranged near the fireplace in the corner, and with bed and folded mosquito-net placed at the other end. In the little inner room, her husband's gear would be hanging from the wall, with spare articles stored in tin boxes on the floor. Sometimes she would show me a piece of embroidery or knitting; or point with pride to her baby's latest tooth. The reverse side of the picture is painted large with flies, squalor, and neglected children. But, however comfortless the home, the fine courtesy of the hostess never varied.

Once, when an Indian officer of considerable enlightenment was calling on my husband, I took the opportunity to ask him how it was that the men who in their military environment live under conditions of order, cleanliness and general smartness can tolerate the often squalid condition of their homes. He replied that the cleanliness and smart turnout of the men are not yet inherent in them all, and are not yet a necessary part of their personal welfare. These habits are, he said, maintained by military discipline, and for some would vanish, were military

discipline relaxed. Such men still find their natural background in the drab discomforts of their own domestic life. It was obvious that Risaldar Bharat Singh agreed with Mr. Brayne, that a man's progress towards civilization must be gauged by the standard of his own home. For the apathy and slovenliness of so many of the women, he blamed the dull inertia of their lives and the lack of occupation in their necessarily cramped quarters. At home in the villages there is at least work among the cattle and on the land. When they join their husbands in the regimental lines, lacking the instinct for house and mothercraft, they *need* do no more than cook. The husband draws rations and does the family shopping in the regimental bazaar. The washing is done by squadron *dhobis*. The women lack even the exercise of climbing stairs. Many of them are sickly, and tuberculosis is a not uncommon complaint. It is a puzzle how some of them manage to breed men of the fine physique to be found throughout the Indian army. The answer would seem to be that the race is sound enough, but that their often ailing condition is due to the results of unenlightened child bearing and to an unhealthy mode of life. I did not visit all the Sikh and Mohammedan women in the lines, but from what I did see, and from what I was told, conditions among them to be very similar to those prevailing among the Hindu Jats.

* * * *

In every Indian regiment now there is a family welfare centre that has come into being during recent years. I can only write of the little I have seen, since returning to the regiment, of the work of our own centre. It seems to me that here lies the nucleus of a rich sphere of uplift in the soldiers' home life. The centre is run, more or less, at the discretion of the regiment, with the aid of certain outside grants, and under the ægis of a central station committee. In all of them, an Indian nurse is in daily attendance in the dispensary to give simple treatments, and an Indian lady doctor comes twice a week for consultations. This is a poorly paid appointment, and must be a disheartening one, for many of the women are still slow to avail themselves of medical aid. They cling to the old superstitions and have almost no knowledge of the first principles of hygiene. All the same, I think that our lady doctor is unduly pessimistic about the results of her work and too prone to regard it as an impossible task ever to teach the women a healthier way of life. She complained to me that her advice was ignored, and that her weekly welfare talks fell on deaf ears. Personally, I think that her methods are partly at fault and

that, instead of scolding her patients for their disregard of the common laws of hygiene, a more persuasive manner would do much to gain their confidence in her wisdom and her skill. Nonethe-less, it is true that when they do report at the dispensary the women are apt to be discouraged if an immediate cure does not follow the first dose. They are apathetic and unwilling to make any personal effort to master their ailments or those of their children. They have a horror of being sent to hospital, but this is readily explained. Under the present system, any soldier's wife or child admitted to a Government hospital must, almost always, have a female relative in attendance to augment the services of an insufficient staff. This means that, in the case of a child, the mother must go too, leaving her husband to cook and fend for himself and any other members of his family. He may always be excused duty, but the situation is no more popular on this account. If the wife be sick, a female relative must accompany her to hospital, often at great inconvenience. The services of a paid woman may be obtained, it is true, but this costs money. At present, in the opinion of the average Indian soldier's family, the disadvantages of hospital treatment may be said to outweigh any possible benefit.

One day, when I was at our dispensary, a non-commissioned officer's wife reported with serious gland trouble which was causing her great pain. On being told that it was necessary to go to hospital, she, her mother and her aunt, who were both with her, all set up such a clamour of wailing that one might have thought that she had just received sentence of death. The little daughter of a regimental cook was seriously burnt. She was lying near death, with her injuries smothered in cooking fat, when the accident was reported two days later to a British officer's wife—one who does much to help the families in our lines. The latter did all in her power to persuade the parents that only in hospital might the child's life be saved. But their attitude was one of utter apathy. It was God's will that the child should be burnt; they had done all they could and if she now died, that was God's will also. I may add that, had she been a boy, God's will might not have been regarded as so irrevocable. Great pressure on the part of the officer's wife secured the child's removal to hospital and, thanks to her untiring efforts, everything possible was done to effect a cure. But during the three weeks that the little girl lingered there was constant grumbling by both parents, because the mother had to remain at her side. In the end, the poor child died, and perhaps it was as well, for she would have been maimed

and marred, a burden to her parents, and a glut on the marriage market.

The picture is not always so gloomy. Some women in the lines make regular use of the welfare centre and regard it as a cheery "coffee house." They come there to hear the health talks and to learn knitting from an officer's wife. Expectant mothers receive prenatal care; some of their babies are born in hospital; and those with the post-natal troubles so common among ignorant women are recovering by means of regular dispensary attention. Children are being treated daily for discharging ears, sore eyes and other minor ailments. The nurse attends patients in their own quarters. One day, when I was watching the doctor give her consultations, I saw a little girl sitting near the door. Her eyes were hideously disfigured by disease, she looked vacant, dirty and neglected. The doctor admitted that the child had serious eye trouble but, she added, the step-mother would not follow up any line of treatment, so nothing more could be done. Meanwhile, the child was at large among the other children, a misery to herself and a constant source of infection. This could not be tolerated, of course. The father was sent for by the Second-in-Command, and told that, unless the wife did her duty by the child, there would be consequences. Meanwhile, little "Mulberry" (that was not her name, but it sounded like that) had regular medical attention, and was made to wash—at least her face. A fortnight later as I was walking through the lines, a cheerful voice hailed me and I saw her again, with eyes almost cured and a clean face, laughing and playing like any normal child. For little "Mulberry" the world is now a brighter place.

From my very small experience, I think that the success of a regimental welfare centre must largely depend upon the personalities of those concerned. It must depend, also, upon their constant and sustained efforts to persuade the women that, although cure does not automatically follow medical treatment, attention to rules of hygiene will lead, ultimately, to more health and happiness in their homes. Constant visits of supervision and encouragement by British officers' wives are necessary lest the doctor become perfunctory in her consultations and the nurse forget her hospital training. Left much to themselves, they too will sink to apathy and slovenly ways.

* * * *

Apart from the work of the regimental welfare centres, there does not, as yet, appear to be any very solid and universal movement to help the Indian soldiers' domestic circle to enjoy the fuller

life of modern times. Such activities vary in different units. The Gurkha Regiments have built up a most successful women's knitting industry which produces knitwear of all kinds and of first-class workmanship. Some regiments organise baby shows, and competitions for needlework or well kept homes. Some British officers' wives visit the women and invite them to their own bungalows. Others, however, still hold aloof from the families of the men who serve under their husbands, either from lack of interest or because (not without reason) they fear the risk of bringing infection into their own nurseries. Very little is, I think, being done for the children, for whom there are no educational facilities in the regimental lines. Certain Indian officers send their boys to private schools in the neighbourhood, but the majority of the children receive no education during the varying periods that they are with their parents in the regiment. One hopes that in the future, perhaps, each garrison will be able to organise its own family school, where, if only for an hour or two a day, the girls, as well as the boys, may be educated in body and in mind. Men of subordinate rank attend daily school: it should not prove too difficult to extend such facilities to the children also.

The cinema and wireless can provide a useful source of uplift for illiterate adult folk; as thereby the educative pill may be richly gilt with humour and entertainment suitable for simple minds. In March last, a first effort of the kind was arranged for the Indian women of the Lahore Brigade. The programme at the cantonment cinema included Coronation pictures, a comic cartoon and a film on village welfare. This entertainment was largely attended, each unit arranging transport for its own women. The Coronation picture was a somewhat disjointed hotch-potch of many films, and although the audience was vastly enthusiastic, it must I think have gained the impression that the Coronation ceremony was a very curious one indeed. The uplift film showed life in a model village, as opposed to one untouched by modern progress. I could not follow the commentary very clearly, and was, I must admit, sometimes at a loss to discover whether we were being shown the model village, or the reverse. All the same, it was quite clear that the man without a mosquito-net was being simply devoured by mosquitoes with distressingly malarial consequences, and that the members of the model village co-operative society were amassing an astounding number of rupees.

At the end of this show there was a rare sorting out before we could assign the various ladies to their own regimental lorries. We counted and recounted our contingent, but on reaching the

lines we found that we had one woman too many. She was a forlorn and weeping figure, who could give no better account of herself than that she lived near the aerodrome, and that on her return her husband would beat her for having been out with another man. We located her in the Punjabi Lines, to which she was driven by a kindly officer's wife who sought out the husband and assured him that his wife had been near no other man, and must on no account be beaten. He may of course have had his own reasons for inculcating such fear of reprisals; but to the casual observer there was nothing to indicate that his grubby, *burka*-clad and terror-stricken little wife could ever be either flighty or gay.

* * * *

If the present regimental welfare centres could each be extended to include a social and recreational club, such a scheme would, I think, do much to vitalize the Indian soldiers' family circle and stimulate the apathy of idle lives. A small garden would be essential where the women could sit and chat, besides learning to play tenniquoits and badminton; and where the children could amuse themselves amid surroundings less arid than the dust of the regimental lines. A wireless set would provide entertainment and occasional uplift. In time one hopes that the women would learn to get up simple charades and invent other ways of organising their own recreation. Greatest boon of all, such a club would provide an alternative to their own quarters, to which by existing social conditions they are so monotonously confined. A scheme like this would, I believe, be beyond the scope of existing regimental funds. It would entail considerable sacrifice of time by British officers' wives; for on them, at present, would fall the main task of organisation.

It may well be argued that all such effort runs the risk of failure in a community so restless and so shifting as is the Indian army, where the only certain thing in life appears to be the uncertainty thereof; where constant change of station and the ever recurring advent of the Hot Weather write "finis" on so many budding schemes. It may further be argued that the Indian soldiers' families have done very well in the past, and that there are no complaints—least of all from the families themselves. But amid so much that is brutal and callous in the modern age, a hopeful sign is that, within the British Empire at any rate, there is a growing conviction that everyone should have a chance to pick up a few of the plums that fall in the strange harvests of our Brave New World.

Meanwhile Pandit Nehru and his friends, both here and in Europe, preach of an Independent India, steering her own course untrammelled by the strictures of British Imperialism. In the dream politic, let them, as well as us, ponder the words of Mrs. Nehru, who observed recently that a nation is not complete with mere political liberty, but that culture and thought should pervade every aspect of life; the words of Mr. Brayne, also, to the effect that ultimately a man will not rise far above the level of his own home.

Note.—Since writing the above I have learnt that in some stations there is a central family welfare centre which serves all Indian units in the cantonment. This is said to be more efficient than the individual regimental system.

THEN AND NOW

By H. Jay

"How very little, since things were made,
Anything alters in any one's trade."

—*Kipling.*

After reading some old files of beautifully scrolled copperplate letters the truth of Kipling's dictum becomes increasingly clear. The principles of war are immutable (in spite of the fact that one or two are deleted from successive editions of field service regulations) though their application may differ. So also are many of the manners and customs of the army. To-day the Adjutant-General sends out printed pages of errors committed in courts-martial; his office has done it for years. Yet those little mistakes continue and it is a relief to know that our great-grandfathers, made them and probably their forebears too.

On the 21st of August 1857 Conductor H. Bourke got very drunk in the traveller's bungalow at "Baitsee" somewhere near Belgaum. He was placed under arrest and sent into Belgaum from his station at Sawantwadi. His trial was a bit of a problem as, by the time the witnesses had all travelled to Belgaum, there would be no one left in Sawantwadi! So Major-General T. P. Lister, commanding the Southern Division of the Army, asked if the Conductor could be dealt with departmentally, especially in view of the fact that "he is, I believe a man of very indifferent character and was previously put into arrest at Old Goa for drunkenness." But the law had to run its course; Sawantwadi had to be evacuated for a week or two and, at a European General Court-Martial held on the 5th of October, Bourke was found guilty. He was sentenced to be "reduced to the Rank and pay of Serjeant." But the Court added a recommendation to mercy "on account of his long service during which time he appears by his testimonials to have borne an excellent character, and conducted his duties to the satisfaction of the officers under whom he was employed." However, Sir Henry Somerset, the Commander-in-Chief at Poona, had yet to have his say: "No. 112 Article of War requires that no more than two of the Members shall be under the rank of Captain, and on this trial four Subalterns have sat as Members of this Court. The Court-Martial has been illegally constituted and the Proceedings cannot be confirmed—the prisoner to be released and will return to his

duty." I suppose someone got into trouble, perhaps even the name of the erring staff officer was reported to the Adjutant-General!

Courts-Martial in those days must have been tricky things, in spite of the fact that the only crime seems to have been drunkenness. Sawantwadi, also, must either have been a very gay or else an extremely depressing place as on the 15th of September 1857 Major Auld "begs to inform Serjeant Galbraith (all very polite) that the Commissariat Serjeant here with the Detachment of H. M. 33rd Foot has again been drunk and misconducting himself and would suggest that someone else be sent to look after Serjeant May's duties at Waree."* This time the mountain went to Mahomet and the court-martial was held at Sawantwadi. The finding I could not trace but something went wrong for the Acting Deputy Adjutant-General of the Army said: "but still His Excellency cannot permit the court-martial to afford the grounds for his removal, as by admitting such a result to the trial, the G.O.C.† of the 9th of May 1855 founded on the rule obtaining at the Horse Guards, will become a dead letter." So May also got away with it; but did the staff officer? Two errors in two consecutive months are a lot to condone, though how people were expected to know the Horse Guards rule is difficult to understand.

Then, as now, the officers' bungalows problem was a pressing one. The situation at Karachi was further complicated in 1852 when a gentleman called Von Geyer, who owned nearly all the houses was haled to prison for embezzling Government money. He then ceased to be a gentleman and for the next five years is politely called in all correspondence the "convict Von Geyer." His crime must have approached the Hatry scale as for years Government proposed to take all his house rents as an offset against his defalcations. In one half-year the rents amounted to Rs. 2,400. The trouble was that all the houses in Karachi were of the temporary type, not unknown to-day, and had to be repaired, almost rebuilt, after the annual rains. Who was going to repair Von Geyer's houses? Were officers to live in the open air, or open rains, or was the benign and noble Government to act as the estate agent of a vile criminal during the whole of his incarceration? Was Government to forego its pound of flesh and use a large portion of the rents to pay for repairs? To do this would swallow most of the income and, when the Government of Bombay

* A diminutive for "Sawuntwarree" as it was spelt in those days.
† General Order in Council.

received his estimate, they told the Executive Engineer, Lower Scinde Division, that, though they might repair, they did not see why they should rebuild the houses. They were soon disillusioned as the Engineer replied on the 8th of May 1852 as follows:

> "With reference to this office Estimate Rs. 1,549 for repairing the Convict Von Geyer's houses . . . I have the honour to inform you that there appears to be some misunderstanding regarding the nature of the repairs provided for in that Est'ate. I had merely provided for patching up the buildings and not for thoroughly repairing them as the cost of doing so would be very heavy . . . My own Bungalow suffered more from last year's rains than any in the Camp that did not actually fall down . . . many of Von Geyer's houses afford good accommodation in fine weather but are not worth the expense to the owner of rendering them substantial buildings."

It rather looks as if, in those days, officers also applied for leave because their "house had fallen down."

Government compromised, as Government always have and always will; and this led, as usual, to some nasty problems. It was decided to charge a very low rent for the bungalows on the understanding that the tenant carried out the customary extensive repairs after the rains at his own expense. The next thing that happened was that, in early 1854, a Captain Hill was so disgusted with the state of his "house"—"No. 65, the property of the Convict Von Geyer," that he submitted a petition to Government. It must have been a very inconvenient one, the type that Governments pigeon-hole in the hope that, in time, it will answer itself. Apparently Captain Hill had been served like that before and was not going to be "had" again for, on the 22nd of September, a sad bleat leaves the "Superintendent of Bazar, Camp Kurrachee."

> "Captain Hill whilst in India subsequently refused to pay the monthly rental of the Bungalow pending the decision of his application and he has lately Embarked for Europe on Furlough leaving upwards of six months' rent unsatisfied.
>
> "Lieutenant-Colonel Turner on Captain Hill's behalf has expressed his readiness to pay such amount of House rent as you may decide to be due by that officer on the understanding that no further claim will be made against Captain Hill for the dilapidated state in which he left the Bungalow and to repair which the sum of Rs. 375 has been expended . . .

" . . . I apprehend that Captain Hill must be held responsible for the amount lately expended in the repair of the Bungalow he occupied in addition to the sum claimed for house rent."

Colonel Turner must have heard about that last paragraph for, on the 20th of November, the Superintendent reports that "Lieut.-Colonel Turner now declines paying the amounts due by Captain Hill for the rent of the Bungalow belonging to the Estate of the Convict Von Geyer." The Superintendent goes on to say, very hopefully "I hope that you will favour me by obtaining the authority of Government for its collection through the medium of the Pay Department of the East India House."

Somehow that request seems to have a very modern sound. In the light of our own experiences we probably all hope that Government decided not to worry the "Honorable Court" about a matter which could only bring into the lime-light the fact that they had not had the courage in 1852 to give a real decision and had tried to shelve it by a poor compromise.

The files do not say how the audit objection was settled, those necessary but none-the-less annoying remarks being as prevalent in those days as in ours. In fact they were an even greater trial then as every officer was personally responsible for his stores, a security deposit being taken from officers of the Commissariat Department as a further precaution. For example, instead of supplies being on charge of Karachi Supply Depot they were sent to and had to be accounted for by Captain A.B.C . . . . personally. Nowadays we settle many objections on the spot, though some drift on for about a year. What should we say to-day to a letter that raised a debit twelve years old as did this one?—

"I am directed by the Military Board to inform you that the Military Accountant General has been requested with reference to my predecessor's letter dated the 29th December 1841 to credit the sum of Company's Rupees thirty, annas six, and pies four to 'Government of India Advance Force Scinde, former years,' and debit the same to Lt.-Colonel Davidson."

And that letter is dated the 29th of April 1853, twelve years after. Here is an even better, or worse, one dated the 4th of April 1853:

" . . . reference to my predecessor's letter dated 20th October 1842 the Military Accountant General has been requested to credit the sum of Company's Rupees one thousand five hundred and thirty annas five and pies six to 'Government of India Advance' and debit the same to you, leaving you to adjust the same in the Kutch accounts."

This is our same friend, Lt.-Colonel Davidson then Commissary General at Bombay, who can hardly have been overjoyed at having his personal account debited while he himself was left to recover the amount from someone somewhere if he could after twelve years had passed. Nearly all these audit objection letters open with a reference to "My predecessor's letter" which is hardly surprising but seems a trifle naïf.

On the 30th of October 1854, while on tour in the Deccan, Lord FitzClarence, the Commander-in-Chief of the Bombay Army, died and his large quantities of kit had to be carried down to the sea. Admittedly he had a lot of stuff, in fact it took "25 platform carts, 10 camels, 200 tattoos saddle, 50 coolies and 500 bamboo coolies" to carry it to the top of the Ghats. From there onwards it was moved by a mere 700 coolies and 125 *biggaries* (*bail gharies*—bullock carts). Still he had been Commander-in-Chief. The truly disgraceful and undignified haggles that arose as to how much baggage the dead Chief was allowed, who should pay for the difference ("if any"—said cautious audit) and why was not some sold locally would be a credit even to modern departmentalism.

However, all that was public money so the haggling was perhaps excusable; but for sheer stinginess it is difficult to beat this:

> "I have the honour to request that you will have the goodness to pay to Lt.-Colonel Birdwood the sum of Rupees four and annas eight from the amount in deposit belonging to the Estate of the late Lieutenant F. M. Smith, 4th Regiment Native Infantry (Rifle Corps)."

British troops, or any other troops for that matter, change little as the centuries go on. But they learn more finesse and it is difficult to imagine a modern (mechanized) cavalry regiment trying to bring off such an obvious "ramp" as the 10th Hussars tried in 1854. The year was a bad one for India; famine was rife, animals were dying by the thousand and the unfortunate peasants by the score. But the 10th Hussars at Kirkee decided that nothing could be allowed to interfere with the high (?) standard of their beef. The basis of the trouble was that the "compensation for dearness of rations" payable to the men was reduced from Rs. 2-7-4 to Re. 1-2-4. As usual, the Government order took some time to filter down to the men. Then one day the whole meat ration was condemned, good though it may have been. The contractor had to pay the unit the value of the ration and was also fined Rs. 25, the latter being paid to Lt.-Colonel J. Wilkie, commanding H.M.'s 10th Royal Hussars. This bonus was too good to be

true, a second condemnation might mean an even larger sum, so the Regiments promptly proceeded to "kill the fatted calf" in more ways than one. But the next time the Commissariat officer refused to fine the contractor, he being of opinion that fining was at his discretion and quite rightly mistrusting the 10th. On hearing this a very angry Wilkie wrote:

> "In reply to your letter of this day's date stating that no fine would be levied on the contractor for the bad Meat condemned this morning and that none had been levied for that condemned on the 11th instant, I have the honour to state for your information that considering the contractor would be fined I caused one anna and six pies to be issued to each man who did not receive meat rations on the 11th instant.
>
> "I have therefore to request to be informed how the deficit arising from the amount of the Ration and the money advanced to each man is to be made good."

That little effort rather "blew the gaff" but the Regiment stuck to it while the Commissariat officer tried to get another contractor. The extent to which the 10th went can be gathered from the remark,

> "In conclusion I will merely submit that the sole fact of 15 committees which condemned the meat during a space of 25 days furnished good if not imperative grounds for recommending a cancelling of the contract."

The trouble here was that, somewhat naturally, no one could be found to take on a fresh contract which was apparently to consist of paying to the Regiment the daily cost of the ration plus a routine daily fine of Rs. 25. The old contractor asked to be allowed to give up the unequal contest and was quite happy that Government should absorb his security deposit of Rs 2,500, a very considerable sum in those days. It gives some idea of what he thought he was losing. By then the regiment had realised that it had overdone it and the Commissariat officer, in reporting that no one within five hundred miles would take on the contract, wrote to the Commissary General to the effect that,

> " . . . under the circumstances there was nothing to be done, I thought, but to continue the present contract in the double hope that the contractor would make greater exertions to give satisfaction and save his deposit and that after the representations I had made somewhat less would be exacted from him by receiving parties, more especially the 10th Hussars. His hope has been realised and committee proceedings (to condemn bad rations) are now of comparatively rare occurrence."

I feel that the modern "racketeer" was not in it compared with Colonel Wilkie and his optimistic regiment. However, their bluff was called and they came hurriedly to earth, possibly because the Colonel had to pay up the money, or expected fine, that he had advanced to his men. The matter was referred to Government but, as so often happens, they gave no decision hoping that the matter would blow over, as it did. In case anyone thinks it is a good scheme I may remark that it is no good trying this swindle nowadays as, in modern Government contracts, there is no such thing as a fine—so we have progressed a little.

Naturally a file that covered six months of complaints must have contained at least one from the Gunners and here is the "grouse" of "Charles Clarke, Lieut., Commanding No. 15 L. F. Battery" who, being unable to keep his bullocks in good condition by his own efforts decided that the "grass" issued was unsuitable. His battery was in Sholapur, not far from Poona, where he had relieved a (surely impeccable) horse battery. The grass had been put in for the horses of that unit which, considering Clarke only had bullocks, all goes to show that a Gunner can grumble at anything! His letter is dated the 27th of March 1857 and, with the usual complete disregard of the "usual channels," he sent it to the Commissariat officer at Sholapur. Perhaps we may forgive him for forgetting that, in the army, you should invariably send a letter to the person who is least likely to have any knowledge of the local situation. Anyway, here are some of the things Clarke said,

> " . . . the Bullocks of the Battery under my Command will not eat the Grass issued to them from the Stack left by the 1/2 Artillery, they leave daily a considerable quantity so that already a small Stack is beginning to appear from their leavings.
>
> "The quantity issued to them (25 lbs.) is the same as they had at Kolapoor but at the latter station the grass they got was much fresher and greener than what they get now and consequently not being accustomed to such dry grass they leave a good deal of the daily allowance and although they have been 2½ months here they are still in poor condition compared to what they were and what they should be. The animals have now been fed for five weeks on this grass which seems ample time to give opportunity of judging on the matter.

"I have therefore the honour to request . . . the Animals being fed on at any rate half Kurbee on which food they thrive very well.*

"There is no reason why the Grass should be a loss to Government as in the event of a Horse Battery being sent here again the horses will eat it and thrive on it while the Bullocks do not; and if they are to wait until the Stock is exhausted it will be fully three years before 50 Bullocks can consume it."

We cannot congratulate him on his English, even for those days, but he seems to have made the best of a poor case as, compared with horses, bullocks will eat almost anything. But it was now the Commissariat officer's turn, one Captain H. M. Holland, and, to open the ball, he was a little crushing about Clarke's lack of knowledge of procedure.

"As the subject of the enclosed original letter from the Officer Commanding No. 15 Light Field Battery at Sholapoor, should in the first place have been represented to you, as the Senior Officer of Artillery of this Division, I have now the honour to submit it for your consideration, with the request that you will kindly favour me with your opinion thereon.

"The plea on which Lieut. Clarke rests his suggestion, that the Forage Ration of the Bullocks should be changed and that they should be fed on half Kurbee. appears to me to be altogether insufficient, particularly as the Grass which the Bullocks are said to reject, is in his opinion quite good enough for horses.

"The Grass in question was originally purchased for the use of the Horse Battery lately proceeded to Persia,† on the departure of which the Government took on the whole quantity on hand, and you will therefore perceive that it is a matter of great importance, that it should be consumed as quickly as possible, to save the State from loss.

"The Bullocks of No. 15 Light Field Battery are now receiving the same rations I presume, as when they were at Kolapoor, and therefore any deterioration in their condition, is in my opinion attributable far more to the

*And at some expense too. Kirby is the chopped thick stalk of the millet, green and juicy.

†With the Persian Field Force.

neglect of the Muccadum* and Drivers, than to the quality of the Grass, which is admitted to be such as horses would thrive on—and were these individuals given to understand, that they will be held responsible for the condition of the Animals on their charge, I have every reason to believe that an improvement will soon take place."

Any deficiency in Clarke's use of punctuation is amply made up by Holland who uses commas with riotous abandon. However, all that remained was for Captain V. S. Kemball, the "Senior Officer Command of Artillery, Southern Division of the Army," to bring the correspondence to a tactful termination. This is what he said,

" . . . I have the honor to state that Lieutenant Clarke should in my opinion abstain at least for the present from complaint of the grass furnished to his Battery Bullocks. The Grass should under the circumstances be doubtless consumed as early as possible. The probability of a Horse Battery at Sholapoor seems by no means imminent and provender of this kind deteriorates by keeping. This suggestion might be communicated to Mr. Clarke through the Agent,† and both it is to be hoped will employ their utmost vigilance in Supervision of the Muccadums. In the meanwhile I trust that you keep in view the great importance of maintaining Gun Draught Cattle in good working condition and that you will render your aid to any reasonable measures for improvement of those at Sholapoor. It is possible that by sprinkling a little Salt and water over the daily ration the Grass would be rendered more palateable to the animals.

"Lieutenant Clarke will be desired to transmit such complaints in future to the Officer Commanding the Artillery of the Division."

Having had his typical artilleryman's grouse we hope that Clarke and his "muccadums" found time to look after their bullocks. In 1857 the grass was not green enough, in 1927 the bran was poor and, I suppose, in 1947 there will not be enough octanes in the petrol.

From this we pass to an appeal of a different kind, a petition of a supply agent on Rs. 15 a month who had ambition to become

*Supervisor of drivers, all of whom were civilians and hired complete with their bullocks.

†The supply agent at Sholapur.

"The Head English Writer at Thurr and Parkur" (the modern spelling I do not know but the places are somewhere in South India). He lost his job through a combination of Government lethargy, his own ill-health and the effect of the monsoon! The following extract from his application shows him to have been very astute in that he wanted to keep a lien on both jobs:

> "As I don't know whether the climate of that Quarter will agree to my health I further beg your honor may grant me leave of absence on substitute for three months to join the appointment, because if the weather may disappoint me there I shall return to my present post."

On the 16th of March 1857 the Magistrate offered the post to the agent. The usual interminable correspondence followed. The applicant pleaded great urgency as the monsoon was imminent when he would be unable to get a country boat to take him to his destination. On the 1st of June there being still no sign of a relief for him, the agent gave it up and wrote:

> "I beg most respectfully to inform you that the raining is commenced here from the last 6 days and so I hope the impossibility of my being able to proceed to Bhooj now, will be early considered, and besides my constitution is not in proper condition as it is day by day getting ill with a slight fever which comes me every next day from last week."

His standard of English, surely an essential requisite for such a post, compares favourably with that of the modern "B.A. plucked."

How pleased with ourselves we are apt to be when we talk of the amenities that are provided (or rather that we would like to provide) nowadays for the troops. Yet it looks as if some of these are as old as Adam, or very nearly. For example soldiers' gardens. To-day these gardens grow vegetables and we are rather proud of them as an innovation. Yet in 1850 Brigadier Robertson at Deesa went one better for he arranged for a large area to be enclosed, part being used for vegetables and part for a shady flower garden where the troops could relax amidst brightly hued, scented surroundings. Unfortunately (one is tempted to say "naturally") the experiment failed as efforts to help troops so often do. In 1852 General Auchmuty had to give the quietus to the flower garden as no one used it. He said, " . . . it appears nearly conclusive as to the fallacy of any expectation of improvement in the habits of soldiers from the institution of gardens, at any rate at present. It does not appear that there is the slightest probability of the garden ever becoming a place of resort to the soldiers

and their Families." That was the flower garden; remained the vegetables. In those days the soldier had to pay for most of his peace rations out of a miserable allowance. Government expected them, therefore, to buy the vegetables they grew, admittedly at the low rate of 52 pounds to the rupee. But Deesa was far away from the headquarters of the parsimonious and soulless Government who, when the accounts eventually came in, were horrified to find that, far from making a profit, the garden involved a heavy annual loss. Had not the soldiers been paying for the vegetables as per Government Resolution dated so and so? Of course the poor devils hadn't. Aided and abetted by every officer from the local Brigadier downwards that bit of the Government resolution had been overlooked. It took a lot of explaining—I suppose officers still go on "explaining" little things like that to-day.

Then there is that modern innovation, the swimming bath, which caused Lt.-General Staveley, Commander-in-Chief of the Bombay Army, such a lot of writing in May 1852. He discovered that in his Army the unfortunate troops had to pay out of their canteen (*i.e.*, beer) profits the whole cost of the bullocks which laboriously filled the plunge baths. On the 8th of March he wrote to the Quartermaster-General of the Army in India. In reply he was told that in the Bengal Army the troops' baths were filled by Government and the "Secretary to the Government of India, Military Department, H. M. Forces in India with the Governor-General" went on to say,

> " . . . as Government provide Baths for the use of Soldiers of European Corps, the most noble the Governor General considers that they should be filled at the expense of the State.
>
> "When Government cattle are available they are to be employed, but in cases where it becomes necessary to hire Cattle, the Charge will be defrayed by the Commissariat Department."

That went to the Military Board of the Government of Bombay whose Secretary said,

> " . . . agreeably to the practice in force at Bengal, and which will doubtless be made applicable to the Presidency, the bullocks required for the Plunge Baths should be supplied on requisition by the Commissariat Department, the expense to be borne by the State."

Mercifully water is not now the problem that it was then, though it is still scarce at Aden. In those days the shortage on the "barren rocks" must have been acute. The state of things before 1853 was truly appalling for the Commander-in-Chief wrote, "to

spare the troops a heavy outlay on their resources the Commander-in-Chief solicits that immediate orders may be given to issue from the wells at Bir Ahmed such quantity of sweet water as may complete the daily allowance thereof to every fighting man at Aden to three gallons." The Bombay Government issued a typical edict. I have studied it and it seems to sanction the issue of three gallons but directs that only two be issued, and even that is under further consideration. Government said,

> "I am to request that by the mail of the 14th instant instructions may be sent to the Commissariat Officers at Aden to use their utmost endeavours in conjunction with the Political and Military Authorities to ensure an equal supply of sweet water to the Troops which shall not be less than three gallons per diem per fighting man making up the deficiency whenever found to be necessary by a draft upon the Wells of Bir Ahmed.
>
> "A ration of one gallon per diem is now served out to the European Troops in Garrison at Aden, this may be increased at once to two gallons per diem if deemed desirable by the Military Authorities.
>
> "The Military Board understands that the present measure is merely temporary and as an expedient to obviate the risk of suffering among the Troops. The whole subject is undergoing deliberate investigation."

So I should think, poor wretches. What must Aden have been like on one gallon of drinking water a day! But if you had been Assistant Commissary-General at Aden how much would you have issued, two or three gallons? How "Finance" (yesterday or to-day) must have rubbed their hands over that letter, but perhaps they drafted it. To-day we have station boards to increase the allowance of water for a battalion from, say, ninety to one hundred and twenty thousand gallons—and yet the 1850s were the "good old days." Anyway the troops were more or less all right; but what about the unfortunate followers who worked all through the heat of the day? They were surreptitiously given the same allowance until hard-hearted Audit stopped it which resulted in a truly pathetic appeal from the officers in Aden to Government. Government, so like them, agreed to give the followers an allowance of water but, as no sanction was (or is) given without some qualification, the allowance was restricted to those drawing over five and under twenty rupees a month. How the unfortunate men who drew less than that could exist is not easy to understand. Further, as most of the followers got an expatriation allowance,

they nearly all drew a few annas over the twenty rupees so the concession was of no practical value at all.

About the only thing the modern visitor looks at in Aden, if he is misguided enough to go on shore at all, is the "Tanks" and it is interesting to find a letter dated the 27th of February 1855 forwarding a "statement of the quantity of water obtained after the fall of rain in October last from two out of the three old Arab tanks sanctioned to be repaired in the accompaniment to your memorandum of the 27th March, No. 2887 of 1854." So now we know when they really were dug out and repaired. The "estimated" saving in that year of a shower was Rs. 3,213-10-8; pretty close estimating!

In those little modern blue books that we all know so well, examiners sometimes graciously say that the knowledge of geography by officers shows some slight improvement. But it seems that here at least we can show very considerable progress as witness a minor tragedy of 1856. In August of that year there was a serious famine in an unheard of place called the Laccadive Islands. The Hon'ble Court of Directors told Bombay to send them 2,10,000 lbs. of rice immediately. So the contractor in Bombay was called upon to supply the rice but he demurred at being given only his contract rate as the market price had risen greatly and he, after all, could hardly be expected to accept liability for some unknown islands. So the matter was referred to the Hon'ble Company's Solicitor. Mr. Bickersteth had not the vaguest idea where these Laccadives were and gave as his legal opinion "that the contractor is not bound to supply it, as there is no obligation for the East India Co. to provide for the relief of famine in countries not under their jurisdiction." The "Collector of Canara" heard of this and was most indignant that his charges (which he'd probably never seen) should be removed both from his responsibility and the future mighty Indian Empire by the mere ignorance of a barrister. So Mr. Bickersteth was "put wise," but would he give in as regards the contractor being liable? Not he, for, so like his kind to-day, he wrote, "Assuming however, . . . that the rice sent to the Laccadive Islands was intended for the relief of an apprehended (*sic*) famine among the inhabitants of those islands and not for the ordinary purposes of the East India Company, I am still of opinion that the Grain Contractor should not be required to make the supply under his contract."

And so, whether we consider Government, civilian, lawyer or soldier, it seems quite true that nothing "alters in any one's trade."

AMERICAN BAIT CASTING FOR INDIAN STREAMS

By Lieut. C. W. W. S. Conway.

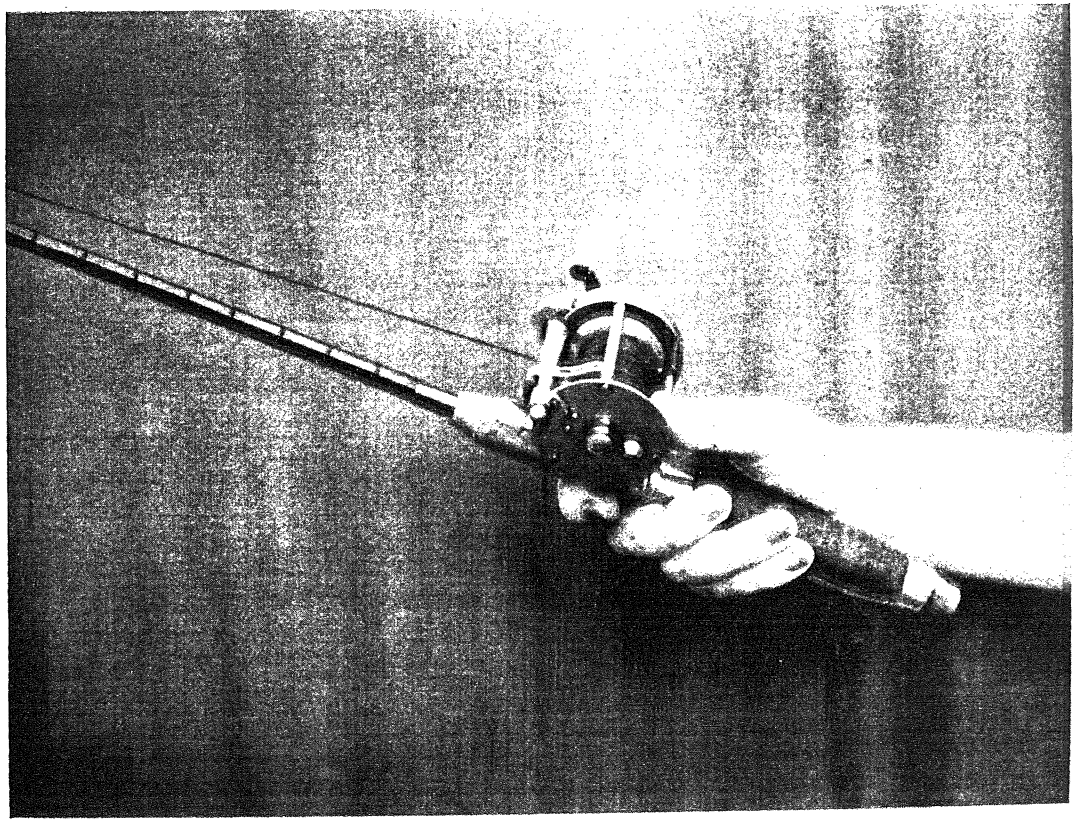
Fishing as an absorbing pastime ranks second to none with its devotees. Unlike others, however, it does not depend on expertness alone. Yet, fishing possibilities are so limitless that a lifetime of application will not exhaust them. Naturally the pleasure derived from fishing is primarily dependent upon successful results. To obtain these results the proper tools are necessary. It is with the intention of bringing to the notice of anglers a little known method of taking the game mahseer, be he a gallant pounder or a forty-pound monster, that I set out to write these notes.

For some quarter of a century the use of the heavy two-handed spinning rod has been superseded in America by the short bait-caster and level wind multiplying reel, and it is of this combination I write.

The reel is a multiplier, having a ratio of four to one, thus ensuring a rapid line recovery. There is no clutch in the reel, and in this respect the system differs from the modern single-handed thread-line fishing. Thumb-pressure on the reel is all that is relied upon for braking purposes. A light adjustable check provides a safeguard against over-runs. A typical example of such a reel is the Pfleuger "Akron" or "Summit." There are, however, a great number of this type of reel on the market both by English and American makers. The illustration shows the method of holding the rod and reel and also the method of braking with the thumb.

The line is about ten to eighteen pounds breaking strain and should be hard-plaited to avoid stretch. To test it before fishing, tie one end to a stake and hold it taut; then strike the line hard with the bottom joint of the rod when it should be found impossible to effect a breakage.

The rod for India should be about five feet in length, stiff and made of tubular steel. These rods are very inexpensive and I advise buying two at a time. They are very cheap, but once bent are not repairable.



PFLEUGER AKRON Reel. The illustration shows the method of braking the reel with the thumb when casting or playing a fish.

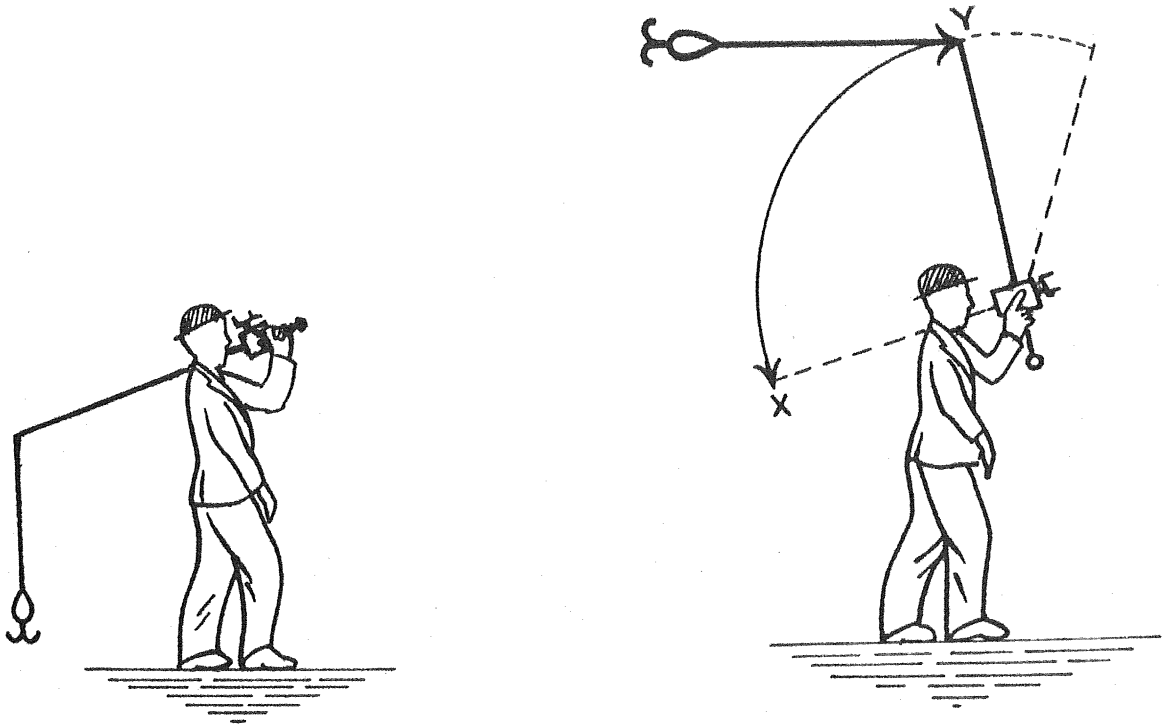


Figure "A"

Casting with the short rod. First diagram shows the position at the start of the cast. Second diagram shows the completed cast; the **thick** line xy representing the power stroke,

Having now described the essential equipment of the angler I will proceed with its application. First to cast. There are two main methods, the overhead and the side cast. The side cast is a single-handed edition of the normal method of spinning cast with the old two-handed rod, and as such does not merit any description to itself.

The overhead cast, however, is peculiar to this type of tackle. A written description of how to cast must perforce be very incomplete, and I therefore crave indulgence if my explanation falls short of complete clarity. I do, however, wish to impress upon you that the whole matter is not nearly so difficult as it appears; try it out for yourself and see!

The photograph shows the method of braking the reel with the thumb. To make a cast put the rod over your shoulder and then by a *wrist* movement bring the rod forward smartly, at the same time releasing the thumb-pressure. The rod point must not pass beyond 10° from the vertical. Try to throw the bait as high as possible in the air; this will obviate a tendency to slam it down in front of your feet. If you follow the above instructions correctly, the bait will describe a parabolic trajectory through the air. When the maximum height of the curve is obtained and the bait begins to drop, apply a little light pressure with the thumb to prevent over-running. In Diagram "A," the *power*-stroke of the cast is shown by the thick line X...Y; the rest is a follow-through. Figure "B" shows the cast from start to finish.

Great strength does not return the penny in casting. A smart power-stroke with the correct follow-through achieves the object. After a little practice, distances up to 50 yards are easily obtained.

Accuracy is obtained through casting in this manner, as only two dimensions are concerned, whereas with the "side cast" the whole operation concerns three dimensions.

Fix your eye on the chosen spot and simply throw the bait at it exactly as if you were throwing a stone. The movement is so natural that if the performer has anything of a "good eye," the chances are that the first effort will not be far off the target.

As in all kinds of fishing, get to know your gear and, at the start, anyway, practise casting on dry land until a fair amount of confidence is achieved.

From the foregoing you will appreciate that casting is possible in the most confined space, an advantage which cannot be overstressed when fishing overgrown jungle streams. After a little

practice the fisher learns to cast in the most uncompromising attitudes. In passing, I may say I have actually killed a fish myself whilst lying full length on a rock in mid-stream.

Exponents of the older methods often argue that it is impossible to follow a running fish with a short American rod if obstacles such as bushes of any size are to be negotiated. Nothing is further from the truth. Before starting to condemn the American tackle, just remember there is no appreciable bend to a short five-foot rod. You may make full use of its entire length and you can, if necessary, hold it high above your head in one hand. The effective length of the ten or twelve-foot rod is limited, in surmounting an obstacle by the bend on the top. In the practice of fishing with the short rod, it is amazing what high obstructions can be passed with ease.

I need hardly point out that a single-handed rod is far less tiring than a two-handed one. Further, a two-piece five-foot rod can be easily carried in a suit-case or the ubiquitous bedding roll together with its complementary tackle; and being of very robust construction fear of damage may be totally disregarded.

And now of baits. In America the bait in general use is a wooden plug so made that it dives and darts about in the water offering a very real and life-like representation of a small fish. These plug baits are now stocked by the leading tackle dealers in India, but at so prohibitive a price that the great army of poor fishermen take fright and are put down. I have much sympathy with the tackle dealer, having as he does to contend with an immense and unfair customs duty on his imports. I therefore propose to describe a simple form of plug bait which can easily be made by the angler if he is reasonably clever with his hands. Perhaps I may persuade a fishing tackle dealer to take up the matter and put a plug bait on the market at a reasonable price.

To make the plug: take a well-seasoned piece of wood and fashion it by means of knife, saw and sand-paper into the following cigar-like shape. So far, so good. Now take a round piece of wood of about half-an-inch in diameter and around it wrap some coarse sand-paper. Now file away on the line A...A until a groove is worn of about three-eighths of an inch depth to the line A...X. The line A...X should now be at an angle of 45° to the main axis of the plug.

Next item, "colouring the brute." This is a matter for the angler to decide in the light of his experience on his chosen river.

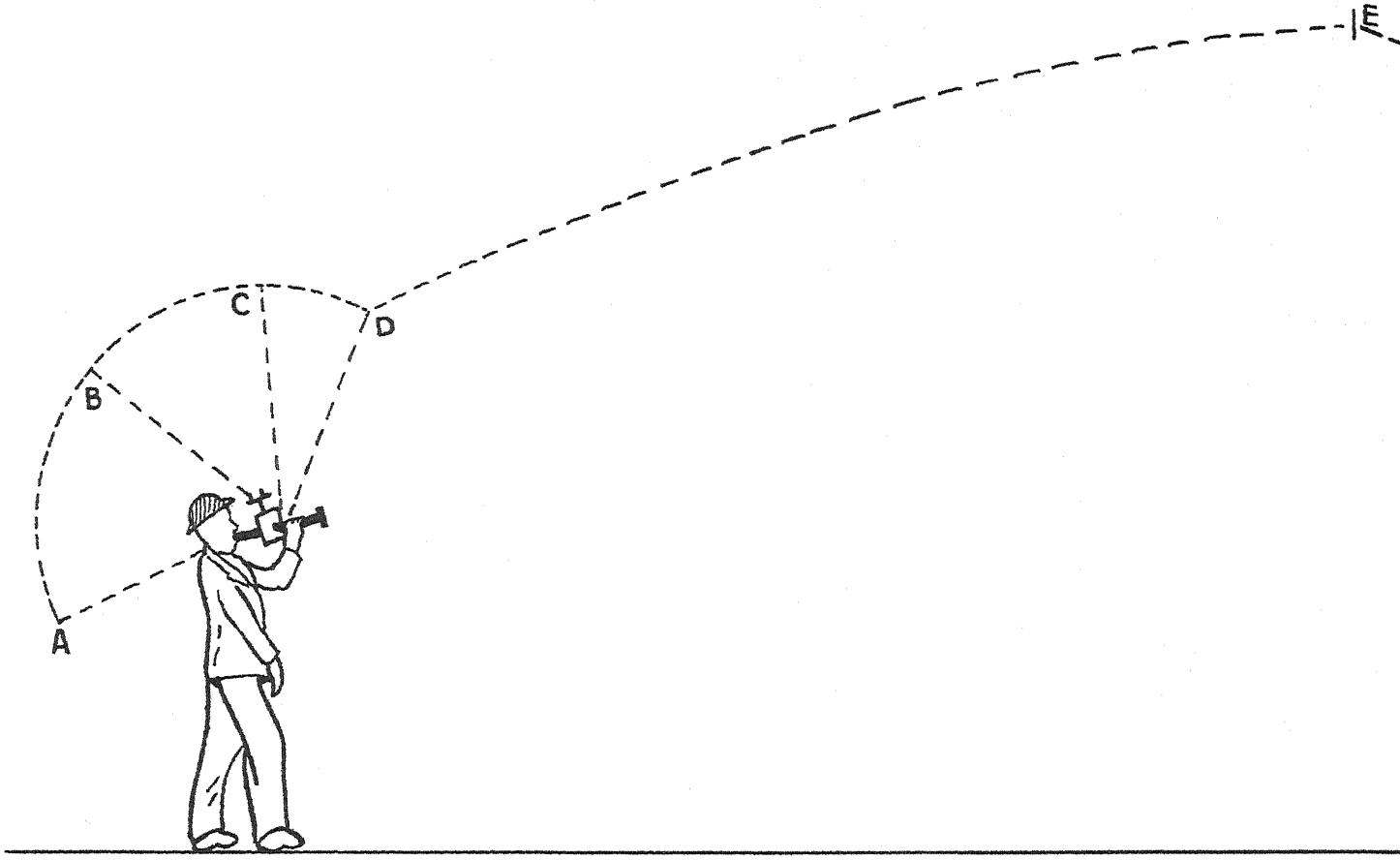


Figure "B"

The complete cast with the short rod.

(a) Start of the cast.
(b) Release thumb pressure here.
(c) Power stroke ends here.
(d) Follow through not further than this point.
(e) When the bait reaches this point, thumb pressure on the reel only a touch, a
the bait begins to fall.

Personally, I find that the following combinations of colour kill in most waters:

(*a*) Red back and white belly.
(*b*) Blue back and white belly.
(*c*) Green back and white belly with red stripe down each side.

Use a good quality cellulose enamel giving a glossy surface, so that the most advantage of light refraction is taken.

Finally to add the hooks and attachment for fastening the trace, use the smallest size of screw-eyes. Fix one in the centre and one-third of the way from the top of the groove and another on the bottom of the plug as shown in the diagram. Two trebles should now be whipped to some cable wire and attached by means of a Hardy Link to the bottom screw-eye. The plug bait is now complete.

The reader will notice that I never recommend the use of a lead. With the tackle I describe it is quite unnecessary. Leads can only be likened to the man who walks in front of a steam roller with a red flag, to advertise its presence to all and sundry. With plug baits the action of reeling these in sends them below the surface. With other baits fished upstream their own weight is quite sufficient.

Of spoons to use with the bait-casting outfit there is little to say. It is a matter for the angler to decide himself. I would suggest the following as a nucleus:

Two of one inch.
Two of one and three-quarter inch.
One large two-and-a-half or three-inch spoon of metal.

They cover the whole range of artificial "spinning baits," in spite of the attractive illustrations in dealers' catalogues of legions of patent spinners and devons. These are more often than not more successful in catching the eye (and pocket) of the angler than the fish. Remember, spoons can be made by any bazaar mistri for a few annas.

Finally comes the question of spinning the natural bait. Many expert mahseer fishermen aver that this is the bait *par excellence*. The mount for natural bait is easily made by any fisherman neat with his hands and with a little time to spare—and that is true of nearly all of us. Just whip a hook to some two inches of gut substitute. An Allcocks No. 1 Model perfect hook does very well. Make a loop of some one-and-a-half-inch diameter. Be careful that the knots and whipping are coated with some waterproof varnish to prevent slipping. A good

varnish may be made by dissolving celluloid in amyl acetate or by using that most excellent preparation "Rawlplug Durofix."

The other item required for this tackle is a small barrel lead with a wire eye. To mount the dead bait first put the hook through the side of the dead bait (chilwa are best), then pass the looped end of the gut through the gills and out of the mouth of the bait on the same side as the hook. Next pass the looped end of the gut back through the mouth and out of the gills on the other side; finally pass the loop of gut over the bait's tail and up the body, pulling on the gut that protrudes from the chilwa's mouth. It will now be found that the head of the chilwa is securely noosed and that a long loop of gut is standing out of the mouth of the bait. This loop is now passed through the eye on the barrel lead and the lead pushed into the gullet of the bait. A few turns of soft wire or thread round the gut near the bait's mouth keeps the whole gadget neat. Finally attach the whole by means of the loop to the eye of a swivel, which can in turn be attached to the trace. A glance at diagram "C" will make it all quite clear.

As chilwa are not always to hand when the angler is suddenly offered fishing possibilities, a few words on how to preserve one's own baits will not come amiss. These small fish may be preserved for an indefinite period in a formalin solution of one part formalin to twenty parts of water. Put the baits in an air-tight jar or bottle for a fortnight with the solution; then take them out, wash them and put them in the following solution:

Formalin	...	½ ounce.
Glycerine	...	4 ounces
Pure water	...	20 ounces.

In this they may be left indefinitely.

If a golden red colour is desired for the baits add a little *red ink*. This golden colour often has a most tonic effect on non-taking fish.

A gaff of some sort is useful though not essential, as mahseer may normally be beached by walking backwards up the bank and bringing them onto a shingle or sand-bank. The gaff I suggest is made up by whipping a No. 5/0 hook onto a 4-foot length of ringal bamboo, the other end being shod with a small representation of a boat-hook. This provides the angler with both a gaff and wading stick. It is very useful also for freeing tackle caught up in snags.

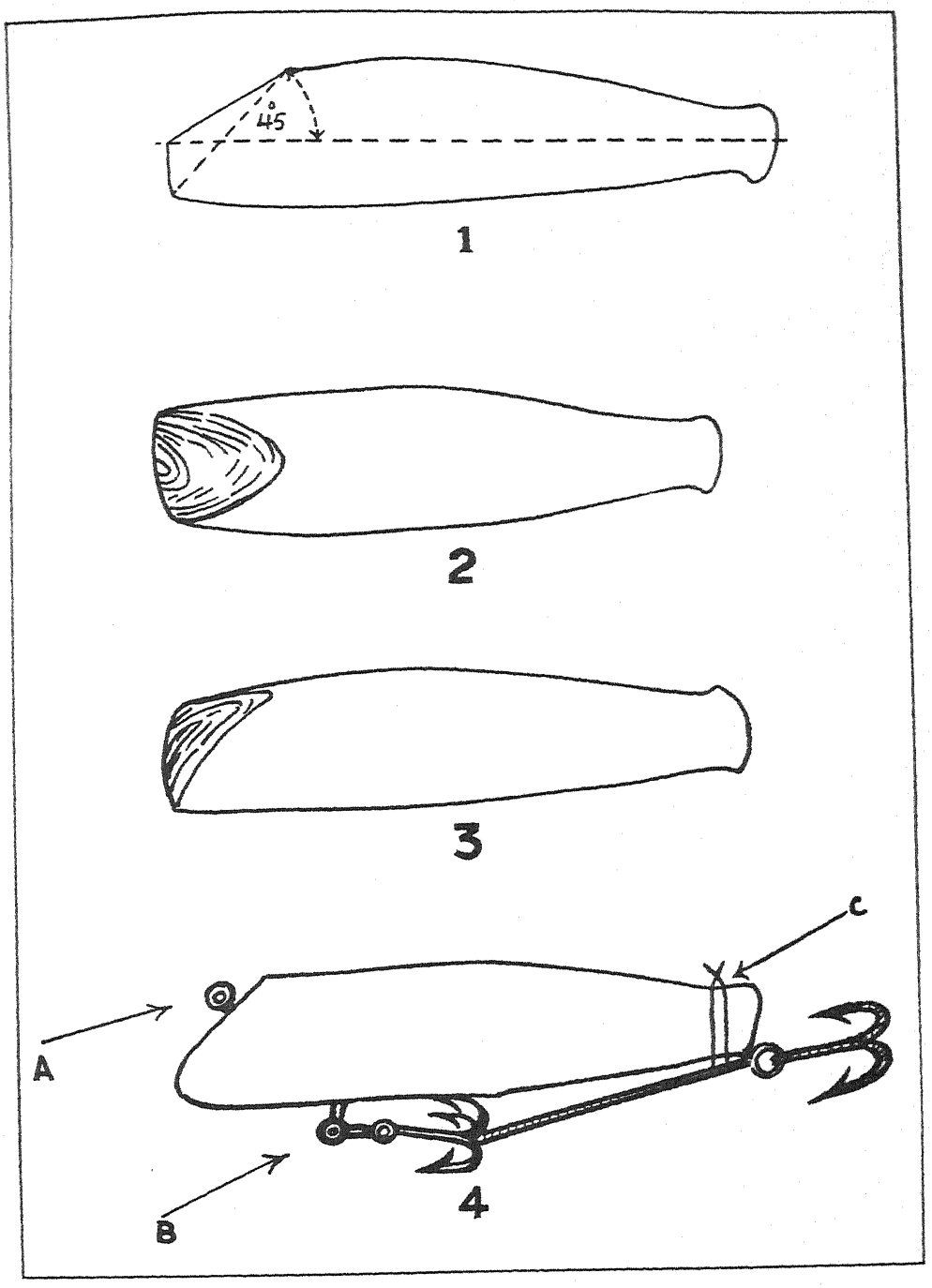


Figure "C"

1. First stage.—Wood shaped.
2. Second stage.—Top view, showing the groove.
3. Second stage.—Side view.
4. The finished Plug Bait.

"A" Screw eye in place.
"B" Screw eye for hook mounting.
"C" Bind the hooks here with a couple of strands of thread to keep them in place when casting.

The Plug Bait is shown natural size.

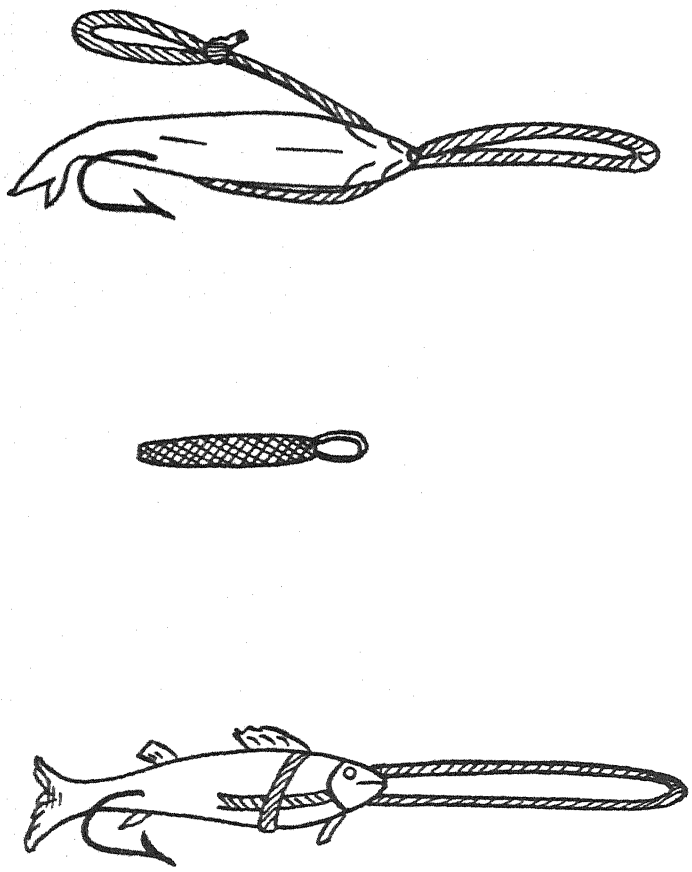


Diagram "D"

A simple mount for spinning dead bait.
1. First stage of mounting the chilwa.
2. Small barrel lead with wire eye.
3. The dead bait mounted.

The necessities of tackle are now described. With this tackle an angler may attack any hill stream with equanimity, and in the certain knowledge that he has in his hands tackle capable of killing any fish up to the 50-lb. limit. The whole of it takes up no room and is easily stowed anywhere.

In conclusion, I add a few notes on how to fish a stream. First forget your ideas of fishing at home. The fish population of an Indian stream is at least 200 per cent. greater than in most European waters. Therefore, reduce wading to a minimum, for every time you take a step in wading your presence is advertised by vibration to the fish in your immediate vicinity who will rush upstream and by their obvious hurry advertise the presence of danger to the whole water population.

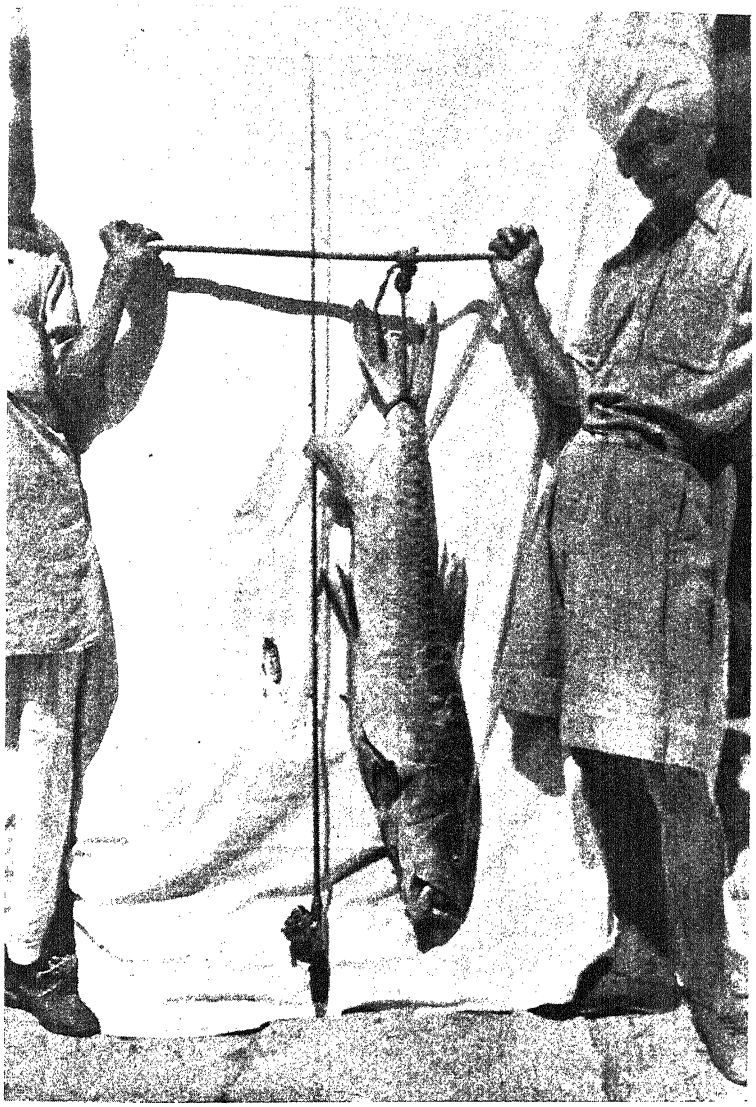
Secondly, as far as possible cast up or up and across stream. The mahseer is possessed of good eyesight and does not fail to use it. All fish must lie with the heads upstream in order that their gills may function properly. If you approach from the rear, therefore, the likelihood of them seeing you is reduced to a minimum, and the tendency is for the bait to be pulled into the back corner of the fish's mouth, when he will have the maximum difficulty in ejecting it.

It would be wrong to leave this important topic without referring to the matter of light on one's bait. How often does one meet a complaining angler on a magnificent stretch of water "having toiled all day, caught nothing." The reason is not far to seek; though he has presented his bait to fish they have not seen it. When the bait is directly between the rays of light and the fish's eye, it will present the maximum opacity and so on, until we get to the other end of the scale when it is practically invisible.

Having hooked your fish, put a slight strain on him and let him run. He will panic and expend his energy, and soon when his rushes get shorter you may exert more strain on him, eventually bringing him to the gaff. Always try to get below your fish, as the force of the current is then in your favour. On the other hand if he is below you he has the advantage of current and his full weight. At times it is necessary to be rough on a fish; then, believe me, the short five-foot rod will surprise you with its power. Don't use force, however, until persuasion has failed. Fishing is described as the "gentle art;" the use of force is therefore an admittance of incompetence.

The cost of the tackle I have described is very small when compared to the enormous sums that can be expended on this item. My own tackle, new and in all ways complete, cost me but Rs. 50. The small bulk and robust construction make it immensely suitable to take on tour or on a shooting trip, when a day's fishing is a very happy interlude.

Apart from all other considerations, it does catch *more fish.* Be modern and use the latest tackle. Fishing tackle dealers will of course often advise otherwise, but consider the difference in cost; they naturally prefer the extra profit of the more expensive antiquated type of tackle and in these days of universal financial stringency it is difficult enough to sell shikar goods anyway!



The proof of the pudding. A thirty-pound mahseer caught with the methods which are described in this article.

Photograph by: C. W. W. S. CONWAY,

 10 *Bungalow, Sialkot, Punjab.*

MISCELLANEOUS SERVICE NOTES

ARMY NOTES

Great Britain

The 1939 Estimates

The totals of the estimates have been referred to elsewhere. The net increase over last year's figures is £41,655,000. A satisfactory feature is the result which the various measures to improve conditions of service in the Regular Army has had upon recruiting. The anticipated intake of recruits during the year 1938-39 is 40,000 compared with 29,482 in the previous year. The anticipated shortage below establishment is 900 officers and 16,000 other ranks as against 1,200 officers and 24,000 other ranks on 31st March 1938.

The Officers Emergency Reserves

Applications for the five thousand vacancies in this reserve which was referred to in our last number amounted to over twenty thousand.

The Territorial Army

Increases of pay—except for junior captains whose pay will be temporarily reduced—have been announced. The tenure of command has been reduced to three years except in special cases.

A scheme for staff training has also been announced. Each year fifty selected captains or senior subalterns will undergo a nine month's correspondence course under the direction of the Commandant of the Staff College, Camberly, working through the staffs of Commands. This will be followed by a fortnight's course at Camberly.

India

Defence Co-ordination

A Secretary for the Co-ordination of Defence has been added to the Governor-General's Secretariat. He will co-ordinate the work of the several departments and Provincial Governments and prepare the voluminous draft regulations which are necessary to enable the country to pass from a peace to a war footing.

The Army in India

Pay of British Service Officers

Provisional rates of pay for British Service Officers on the Indian establishment have been approved by the Secretary of

State for India. The new rates of pay, inclusive of lodging allowance, are compared with existing rates in the table below.

The pay received by an officer on 20th December 1938 will not be reduced as long as he continues to hold the rank or appointment which he then held, nor will any retrospective reductions be made for the period from 1st August 1938 to 20th December 1938.

	Old Rates.		New Rates.	
	Single.	*Married.*	*Single.*	*Married.*
Lieutenant-Colonel ...	1,300	1,450	1,300	1,450
Major—				
after 22 years' service ...	...	...	1,090	1,235
after 5 years as such ...	1,090	1,235	...	...
average 20 years' service	965	1,105	...	...
after 17 years' service ...	...	...	965	1,105
Captain—				
after 15 years' service ...	810	955	810	955
after 14 years' service ...	...	...	800	935
after 11 years' service ...	...	...	680	825
average 10 years' service	680	825	...	...
after 8 years' service ...	...	...	590	725
Lieutenant—				
after 7 years' service ...	530	...	...	...
after 6 years' service ...	...	...	505	...
Lieutenant ...	460	...	460	...
2nd Lieutenant ...	405	...	405	...

Promotion of Indian Army Officers

With effect from 1st October 1938 the lengths of service regulating promotion of qualified and recommended officers of the Indian Army, excluding the Indian Medical Service, are as follows, in conformity with those of British Service Officers:

2nd Lieutenant to Lieutenant	... 2¼ years.
Lieutenant to Captain	... 8 years.
Captain to Major	... 17 years.

The dates for passing for promotion are as follows:

If due to be promoted on the old time scale before 16th October 1939: in 1939.

If due to be promoted on the old time scale before 1st August 1940: at any time before promotion would have taken place on the old time scale.

Officers who fail to pass within these dates will be given one more year in which to pass before being retired.

Officers whose promotion has already been retarded through failure to pass, but who pass within twelve months of the date by which they should have passed, will be placed for seniority in the position in the gradation list which they would have occupied if the old rules were still in force.

Pay

K.C.O.s and K.C.I.O.s will receive the same rates of pay, the dates of increment of Indian Army allowance remaining unchanged. As an interim measure, captains promoted under the nine-year rule will receive an additional Rs. 30 per month from the beginning of their 11th year of service and those promoted under the new rules an additional Rs. 55 per month on completing nine years' service.

Artillery

The 6th Field Artillery Regiment, which has for some time been below strength owing to the suspension of "holding," has been returned to the United Kingdom without replacement, thus reducing the number of field artillery regiments in India from 10 to 9.

Language Examinations

Changes have been made in the syllabus for Urdu examinations. The reading and translation of a manuscript is no longer required in the oral part of the examinations and a revised syllabus will be introduced for all examinations from October of this year. Details are given in India Army Order 82 of 1939.

Mechanical Transport

In connection with the reorganisation of the Western Command last autumn four mechanical transport sections were disbanded. In continuation of this reorganisation, seven subsidised mechanical transport sections have been raised, three at Quetta and one each at Bannu, Fort Sandeman, Pathankot and Peshawar.

R. A. F. Notes

Organisation and Administration

With effect from the 27th December 1938, Headquarters, Royal Air Force in India, became Headquarters, Air Forces in India.

31 (A. C.) Squadron at Ambala is undergoing conversion training on Valentia Bomber Transport aircraft.

On 28th February 1939, 28 (A. C.) Squadron moved permanently from Ambala to Kohat and on 1st March 1939, 60 ("B") Squadron from Kohat moved to Ambala.

Operations

Considerable operational flying has been carried out during the past months. Detachments of 11 and 39 Bomber and 20 and and 28 Army Co-operation Squadrons have operated from Miranshah, while 60 and 27 Bomber Squadrons at Kohat and the Bomber Transport Flight at Risalpur have operated from their home stations both by day and night.

Independent air operations have consisted of proscription of certain areas of the Madda Khel, Tori Khel, Shabi Khel and Bahlozai Mahsuds consequent upon offences against the Government. Combined land and air operations have taken the form of two columns marching through the Khaisora valley and one in the area of Sham Plain and Shaktu, in each case with support. Co-operation with Tochi and South Waziristan Scout operation in Waziristan has been carried out on many occasions and sorties have been provided frequently over Frontier constabulary in pursuit of raiding gangs in the Bain, Pezu, Bannu and Dera Ismail Khan areas. Road sorties have been carried out regularly in support of convoys and road protection troops.

A notable example of the use of close support occurred when an aircraft of 20 (A. C.) Squadron took off during the night of 5/6th February from Miranshah and effectively silenced a gun with which tribesmen were attacking the Scout Post at Datta Khel.

Conditions of low cloud, rain and snowstorms throughout the Frontier have been prevalent during February and March.

General Interest

Members of the Chatfield Committee were flown over Waziristan and to Delhi and Calcutta during the course of their tour.

A Blenheim aircraft has recently arrived in India and is now at Ambala where it is undergoing trials.

LETTERS TO THE EDITORS

SIR,

Your correspondent, "Edward Ramel," asks me to tell him "how to give all-round and continuous protection to a marching column in typical frontier country. The transport would, of course, be mixed pack and draught." Being on my way home on leave I have not my original article with me, but I can say this at least for certain that I cannot answer his question in general terms and I am sorry that I cannot do so.

A "marching column" sounds rather like a force that expects to do seven or eight, perhaps more, miles in the day. If the column he suggests were opposed in any strength it would never do the distance, so it is of no use to set out in the first instance with the rigid determination to do it in one day. Frontier history has often warned us against such plans.

I think "Edward Ramel" envisages a column whose object is to get from "A" to "B" in a given time in a hostile country by piquetting its way forward, whereas the column that I envisage is one that sets out to defeat any enemy between "A" and "B," reaching "B" in a time dependent on the extent of its success in battle, and making the protection of its transport an entirely secondary thing which may indeed not be necessary at all except for the local protection afforded by baggage guards or escort.

As far as I can learn of the very successful operations in 1935 in the Mohmand country, this latter attitude was the one adopted right up to the taking of Nahakki, for the enemy was in strength in the field most of the time. The fact that a permanent L. of C. had to be established did not affect the primary object—to subdue the enemy.

Brigadier Maynard, in 1937, "unglued" the situation about Dosalli by taking Tocol wide by night and thereby turning the enemy's positions covering the Sham Plain and ensuring a free passage up the valley to that plain.

I feel that "Edward Ramel" and I have encroached enough on your space; but you will, I hope, allow me to stress just three things germane to his query, and they are:

Surprise, and again surprise, is the most certain form of security, for by it one soon paralyses one's enemy physically and mentally. Show him only what you wish him to see.

Our chief concern must be to eliminate entirely, or almost entirely, from our fighting columns those pack and draught mules of which "Edward Ramel" speaks, and anything else that ties infantry to fixed routes. This is no dream, it can be done—some of the means to this end are air supply, portable infantry mortars, and the use of armed porters. There are others.

An operation of this sort is mainly an infantry matter. We must, therefore, whenever we may need to develop infantry fire, try to bring our infantry tactics as near as possible to those of modern war where fire is so vitally important. We can only do this by manœuvre. Often our infantry may have to bivouac on the hills rather than camp in the nullah.

Your correspondent has raised a quesion on which a volume could well be written, so he must forgive me for not pursuing the matter further.

I very much appreciate the interest that both he and "Punjabi" have taken in the various points raised in my original nightmare.

I am, Sir,
Yours, etc.,
"AUSPEX."

THE INDIA RIFLE CLUB

SIR,

The India Rifle Club has, since 1935, been responsible for the organisation and running of the teams representing India at the meetings of the National Rifle Association held at Bisley Camp annually. During this period the team has won the Kolhapur Cup for India with the highest score on record, has twice finished third in this contest, and once third in the long-range Mackinnon International Match.

In 1938, Field-Marshal Lord Birdwood and Field-Marshal Sir Philip Chetwode both specially made the journey to Bisley Camp in order to see the team representing India compete in the international contest for the Kolhapur Cup, in which competition India finished third to Canada and the Mother Country. It was only through a strained ankle that another Vice-President, Field-Marshal Sir Claud Jacob, who has also held the position of Commander-in-Chief in India, could not be present as well.

India cannot afford to send a pre-selected team to Bisley. The teams representing this country are consequently composed of those individuals of the Indian Services who happen to be on leave, augmented by others who have retired or are otherwise qualified, and who reside in Great Britain. As these scratch teams have to compete against the pick of the Mother Country, consisting of about a thousand of the best shots of England, Scotland, Ireland and Wales, and the pre-selected teams from the full strength of Canada, Australia, South Africa and other parts of the Empire, the results obtained by the Club on behalf of India are deserving of praise.

In addition to these team successes, Havildar Gurdas Singh, of the 2nd Bn. 15th Punjab Regiment, who did so well at the Meerut Rifle meeting early this year with both rifle and revolver, shot at Bisley in 1937. He was the first Indian soldier to represent the Army in India at Bisley, and could no doubt bear out the statement that the chief object of the Club is to be of real assistance to those of the Army in India visiting the National Rifle Meeting.

Members of the Club have also shot in teams representing the Regular Army, the Royal Air Force and various Home Counties; have won the Silver Medal for the highest score in the second stage of the King's Prize; the Bronze Cross for the highest score in the first stage of the St. George's; the All-comers aggregate; the Daily Telegraph Cup; the Match Rifle Tyro Aggregate; the Duke of Cambridge; the Abert; the *N. R. A. Journal; the Daily Mail;* and several King's Hundred badges. Last year, Captain H. P. T. Lattey, M.B.E., late 7th Gurkha Rifles, won the much sought after combined golf and shooting trophy with the record score for the competition.

India had, in 1938, the distinction of having as a member of her team the first lady who has ever taken part in the Kolhapur Match, Miss Blanche Badcock.

Miss Badcock has also shot twice for India in the long-range Mackinnon International Match, and was one of the three selected to judge the wind for the India team in the Empire Match of 1937, in which Sergeant Bayes, of the 13/18th Hussars, a former King's Medalist in India, made the only "possible" at 900 yards.

In 1938, a start was made on the construction of a headquarters building for the Club at Bisley Camp. So far, the main entrance hall and a very efficient armoury have been completed, thanks to the generous support given to an appeal for funds on behalf of the Club from Lord Birdwood. Residential quarters with kitchens, etc., where the contingent representing India may live together in no less degree of comfort than those of Canada, Australia and other parts of the Empire with whom they have to compete, are an urgent necessity.

The idea prevalent in India that Bisley is a place where people only shoot lying on their backs at long ranges with special rifles is far removed from actual fact There are it is true, such competitions, and they are of the greatest possible utility in developing the rifle and ammunition, but the great majority of competitions at Bisley are shot with the service rifle, to which those serving in India are well accustomed. The use of the aperture sight and sling is readily learned, as may be emphasised by the successes of Sergeant Bayes and Havildar Gurdas Singh. These N.C.O.s had never used a sling, or even seen an aperture sight, until they came to Bisley last year.

For the last two years the Army Rifle Association (India) have held at the Meerut meeting a special competition with aperture sights and slings, as used in the international rifle matches of the Empire at Bisley. This competition has been of the greatest assistance to the Club as providing a means of familiarising those attending the Bisley meeting with these aids to accuracy before they arrive in Great Britain.

We have now serving in India members of the contingent who shot at Bisley this year, and who will gladly furnish any information required. They are:

Major H. Renwick, 3rd Bn. 18th Garhwal Rifles.

Major S. A. Jennison, 8th Punjab Regiment.

Lieutenant N. C. H. Holdich, The Royal Warwickshire Regiment.

Lieutenant S. P. Edmunds, 1st Bn. 5th Punjab Regiment.

Further details about the free importation of aperture sights and about the facilities offered by the Indian Rifle Club may be obtained on application to the Secretary, Army Rifle Association (India), Pachmarhi.

Some eighty units of the Army in India and the depot ship of the Royal Indian Navy are now affiliated to the Club by payment of the subscription of £1 per year. Members of such units have the full and free use of all the resources of the Club whilst in Great Britain.

Individuals of the Army in India, whose units are not affiliated, can join the Club as ordinary members by payment of an annual subscription of five shillings.

Will those who take an interest in rifle shooting, and who desire to compete in the Bisley meeting when on leave in Great Britain, please communicate with the Captain of the India Rifle Club, Bisley Camp, Brookwood, Surrey? Every possible assistance will be given them and any prior information which may be required will be furnished by those at present serving in India whose names have been given in this letter.

Yours, etc.,

H. L. WYNDHAM.

REVIEWS

LORD ROBERTS

By Lieut.-Colonel H. de Watteville, C.B.E.

(Blackie & Son Ltd. 5s.)

Colonel de Watteville's biography is based on Lord Roberts' own "Forty-one Years in India," supplemented by numerous recently published letters written by the Field-Marshal during the Indian Mutiny.

Frederick Roberts started his Service career with the advantages of an Eton education and a father, General Abraham Roberts, still holding high rank in India. Against these he had to weigh indifferent health and relatively small private means. From his earliest days he was determined to achieve fame and he set himself to attain what, in those days, were two essentials of success, a reputation as an accomplished horseman and an appointment to the headquarter staff in Simla. To many officers these were, indeed, the only goals of aspiration, but Roberts went further—for he worked diligently and patiently, over a period of years, to master the internal workings of that cumbrous machine which was the Army in India.

The author traces the Field-Marshal's career through the Mutiny, the Bunerwal Campaign of 1863 and years of administrative work in Simla to the Afghan War, from which Roberts emerged with an Empire, as opposed to merely an Indian, reputation, a G.C.B., an autograph letter from the Queen and the thanks of both Houses of Parliament. The forward policy of Lord Lytton is well, if briefly, described as are the vacillation and financial pusillanimity of the Government of India. Success followed success; as Commander-in-Chief first at Madras, then in Simla, in Ireland and South Africa Lord Roberts steadily enhanced his reputation. It was unfortunate, therefore, that he should end his active career at the War Office where he was never truly at home—he had served too long in India for that—where his rightful powers as Commander-in-Chief were denied him and an impractical scheme of army reorganisation had just been launched by the Secretary of State for War, the Hon. St. John Brodrick.

The author winds up with Lord Roberts' campaign for national service, the necessary for which was derided by the politician, mistrusted by a conservative regular army and never properly explained to the people. What Lord Roberts advocated was essentially compulsory home service, service for the defence of Great Britain rather than for offensive purposes overseas. And many of his openly expressed views would not be out of place to-day.

This little book is in no sense a military history; there are no maps and only one short appendix describing the heroism of the small party which went forward to blow in the Kashmir Gate at Delhi. But it is none the worse for that, for the author has made his subject come to life.

Sympathetic at all times, Colonel de Watteville does not hesitate to describe inefficiency where it existed; and we would commend particularly his first chapter portraying, as it does, the outlook of army officers in India in the middle of the 19th century. Are we, relatively, more broadminded to-day?

G. M. S.

IMPERIAL DEFENCE

By Major-General H. Rowan-Robinson, C.B.

(*Frederick Muller.* 10*s.* 6*d.*)

The early part of this book is devoted to consideration of warfare in two dimensions—on land and sea. The author then goes on to discuss the influence on our Imperial strategy of the advent of warfare in two further dimensions—in the air and under the sea—and the changes necessitated by mechanisation and by recent political developments.

The most drastic change recommended is one of control. There are to be two Ministries of Defence, one styled Ministry of War and the other Ministry of Static Defence. Under the former would be grouped four Sub-Ministries—Admiralty, War Office, Air Office and Supply Office, the last named expanding in war to two full Ministries, *viz.*, Munitions and National Service. The point is made that the authorty which gives advice to the Government must also be the executive authority responsible for translating that advice into action. Hence the Ministry of War, with its own General Staff drawn from all three Services, will in future

replace the Committee of Imperial Defence as adviser to the Government on Defence matters.

Having reorganised the head, General Rowan-Robinson proceeds to deal with the limbs. With regard to the Navy, his principal contention is that we are overbuilding in capital ships, which merely put temptation in the way of enemy bombers, whereas to combat the submarine menace to our trade routes the real need is for many more light craft.

In the case of the Air Force, he maintains that we do not pay sufficient attention to the principles of concentration and economy of force. The first essential is "ascendancy in the air" and all effort should be directed to this end before making detachments in support of the Navy and Army. For home defence he is strongly in favour of fighters as a deterrent to enemy raiders rather than bombers for use in counter-attack.

For our existing regular and territorial armies the author would substitute a long-service and a short-service army; the former for India and overseas, the latter to build up reserves for a possible continental commitment. The Territorial Army he would allow gradually to die out except for home defence units.

In the field of anti-aircraft defence the novel suggestion is made that the workers themselves, whether in factories or shops, should furnish the gun crews for their particular locality and that whilst operational control should remain in the hands of the Royal Air Force, command and administration should be exercised by a works manager, a station master, etc., the main object of the scheme being to defeat the present time lag in manning anti-aircraft defences which might prove fatal in the event of a sudden attack.

In the Mediterranean the author admits that the issue is affected by the final result of the war in Spain but, whether or not that country will be hostile, he considers that it is madness to keep a battle fleet in Malta where it could be bombed to destruction in a few hours.

The Mediterranean is a valuable but not a vital channel to the east and we should endeavour to hold it by the operation, from existing bases, of strong flotilla forces consisting of aeroplanes,

destroyers, motor torpedo boats and submarines. An essential condition here is a friendly, peaceful Palestine which General Rowan-Robinson thinks can be ensured only by creating an independent Arab State with suitable "reserved areas" for Jews.

This is a most stimulating book. Every aspect of Imperial Defence has been considered and the various problems have been approached from an independent and original point of view.

The book is very up to date, having been completed just prior to the crisis of September 1938. It should prove of great value not only to military students but to all those interested in one of the most controversial subjects of the day.

C. J. G. D.

MODERN AFGHANISTAN

By Sirdar Ikbal Ali Shah

(Sampson Low, Marston & Co. Ltd. 21s.)

In this book the author presents an interesting account of the development of Afghanistan. The late King Mohamed Nadir Shah Ghazi is, quite rightly, the hero of the story, and the history of his life, which runs through the greater part of the book, is well told. In a very laudable effort to present his country in a favourable light the author's interpretation of some of the facts is somewhat biased. This is a pity as the development of modern Afghanistan is sufficiently remarkable to require no writing up, and by allowing his pen to run away with his enthusiasm for his country the author has reduced the historical value of his book.

Chapter I deals with the geography and ancient history of Afghanistan. It would be very much improved by a map or sketch of the country. Few, if any, Scotsmen will agree with the author's comparison of Scotland and Afghanistan.

In Chapter II the reader will find an interesting and intimate account written by the Amir Abdar Rahman Khan describing his daily routine and system of government. It seems a pity that the author should have found it necessary to choose the present time, when relations between Afghanistan and India are so cordial, to give such a disparaging account of Lord Dufferin's reception of the Amir Abdar Rahman Khan.

Chapters VI to XI give the reasons for the Afghan revolution and the fall of Amanullah; they describe the great difficulties which the late King Mohamed Nadir Shah Ghazi had to overcome to restore peace and how he succeeded in doing so. The final chapter, besides describing the present day Afghanistan, contains an excellent account of the work of the French Archæological Mission in that country. The book is well produced and contains some interesting photographs.

G. L. T.

HISTORY OF THE 1ST BATTALION, 6TH RAJPUTANA RIFLES (WELLESLEY'S)

By Lieutenant-Colonel F. H. James, o.b.e., m.c.

(*Gale & Polden, Ltd.* £1-0-0.)

In reviewing a regimental history, the reviewer is often faced with the difficulty of telling the truth, without offending the susceptibilities of officers who have spent a great deal of time and trouble on a labour of love.

In the case of this regimental history there is no such difficulty. The author is fortunate in his material, and Wellesley's Rifles in their choice of a chronicler. The early history of the unit, one of the first to be raised on the Bombay establishment, is fascinating reading; and the details of the appalling financial and administrative handicaps under which the Company's troops suffered only serve to accentuate the loyalty and efficiency of both officers and men. The Indian Army to-day may have its grouses, but it has much for which to be thankful.

The record of the unit in more recent times is worthy of its earlier traditions and of the great soldier whose name it bears. Wellesley's Rifles assisted in the suppression of the Indian Mutiny and in the consolidation of India's frontiers; they acquitted themselves gallantly in Mesopotamia, and had the misfortune to be involved in the siege of Kut, where they gave a good account of themselves before the capture of the city; and after the original battalion had passed into captivity, the unit formed to take its place carried on its traditions in Iraq.

The illustrations are numerous and good, and the maps excellent.

The reviewer has only one criticism. He would like to have heard more of the reasons which led to the complete change of class composition between 1892 and 1895. At the commencement of this period the regiment's recruits still came almost entirely from the Bombay Presidency; by its conclusion, the recruiting areas had been transferred to Rajputana and the Punjab. No reasons are given but, curiously enough, the change almost coincided with the selection of the unit for conversion into a rifle regiment—then a signal honour.

D. F. W. W.

THE ELEMENTS OF IMPERIAL DEFENCE (THIRD EDITION)

By A. G. Boycott.

(Gale & Polden. 12/6)

This book is a study of the Geographical features, material resources, communications and organisation of the British Empire. It is intended as a text-book or book of reference for officers studying for examinations. The arrangement is logical and the author has collected much useful information for the student. It suffers, as the author admits, the disadvantage of being published at a time when great changes are taking place in the world. It should, however, be more accurate if it is to serve as a reliable book of reference. Burma is quoted as a Province of India, and also as the fourth "Command" of the Army in India; Western Command (now Independent District) being wholly omitted. There are rather too many other such inaccuracies. Mr. Boycott's style does not lend itself to quick reading; his sentences are long and frequently require re-reading. The book is provided with a useful Index. It has not been brought entirely up to date with this new edition, and is consequently incomplete.

The book is very well provided with Maps, which are good.

G. T. W.

"CONVERSATIONS WITH WELLINGTON"

By Philip Henry, Fifth Earl Stanhop

(Oxford University Press. 2/-)

This book, first published in 1888, has now been reprinted in the "World's Classics" Series. It records conversations between the author and the Duke extending over a period of twenty years

from 1831. It was Lord Mahon's "anti-social" habit to dictate notes of his conversations with the great man to his wife within a day of their taking place, and an admirable record has been formed.

R. E. H.

THE COMPLETE GUIDE TO MILITARY MAP READING

(Gale & Polden, Ltd. 4s. 6d.)

"The Complete Guide to Military Map Reading" is a useful book for those students who have an instinctive aversion to any official manual.

The author deals concisely and comprehensively with those essentials of map reading which should be known by junior officers. The book is well arranged and contains a number of maps and diagrams the majority of which have been borrowed from "The Manual of Map Reading, Photo Reading and Field Sketching, 1929." Each chapter deals with one particular subject and ends with a series of exercises which, if done conscientiously, should ensure that the reader has a thorough understanding of the subject-matter. But the book contains little that is not equally well explained in "The Manual of Map Reading, Photo-Reading and Field Sketching, 1929" which has a far wider syllabus and costs less.

T. G. D. R.