CATM

NUMBER 50

MAY 1945

ROYAL CANADIAN
ELECTRICAL MECHANICAL ENGINEERS

Reproduced by courtesy Canadian Army Newspaper "Maple Leaf," Italy.

"AW RIGHT! DROP WOT YER DOIN' AN'
GET OVER HERE FER P.T."

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CATM

Canadian Army Training Memorandum

MAY 1945 NUMBER 50

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ROYAL CANADIAN ELECTRICAL

Col. H. G. Thompson, D.F.C.

Director of Mechanical Engineering

AND MECHANICAL ENGINEERS

The Corps of Royal Canadian Electrical and Mechanical Engineers is this month celebrating its first anniversary. Its parent Corps the Royal Electrical and Mechanical Engineers is older by less than two years, having been formed on 1 Oct 42.

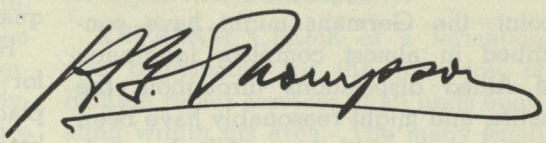
The formation of both Corps was a result of the mechanization of the modern army, which called for a tremendous expansion in the engineering branch of the Ordnance Corps as well as the repair services of the Engineers and Army Service Corps. Personnel from all three Corps were included in the new organization and the records of both REME and RCEME* since their formation speak for themselves.

In the matter of history, however, it should be noted that we all, in common with the Artillery, originated from Ordnance. Considering the development analytically, RCEME represents a further step in the application of modern industrialization to warfare. With the introduction of metals, guns were developed and the Royal Regiment of Artillery was formed. Later, with the expansion of military engineering, the Royal Engineers came into being. Following on came the development of transportation and increased mobility involving supply problems, and the Royal Army Service Corps was formed. Finally, there came the industrial age of the present day. The necessity for maintaining in service the vast range of equipment used by the modern army was considered of such importance as to justify the formation of still another Corps.

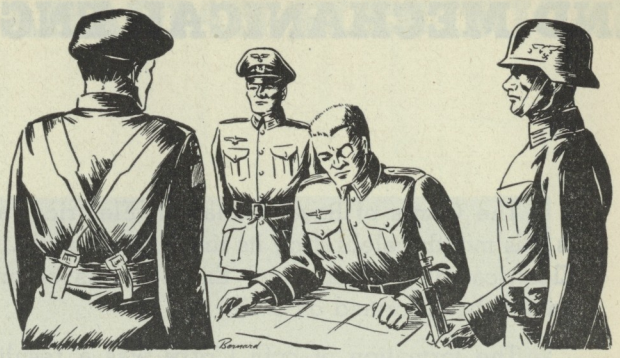
In the RCEME Corps will be found the big majority of the most highly skilled tradesmen in the army. They are officered almost entirely by qualified engineers. These, however, are very ably assisted by a small group of assistant engineers commissioned from the warrant officers of our own Corps and by our armament artificers specially selected from our best artisan tradesmen and thoroughly trained on the various army equipments.

It is RCEME's guiding principle that their men are soldiers first and foremost. It is their proud boast that they can repair every type of equipment from a watch or radio to a gun or tank.

**Pronounced "REE-MEE"*



SECURITY BAFFLES THE ENEMY



The story of what happened before and after the Allied assault on the Gustav Line in Italy, revealed by the capture of German 14th Army Intelligence files, provides a clear and easily understood demonstration of the life-and-death importance of security.

Before the offensive was opened, Allied security had so thwarted German intelligence that the enemy was completely in the dark with respect to Allied order-of-battle. The Germans did not know where the Allies had their main strength. Expecting a landing in their rear, they strung reserve divisions along the Tyrrhenian Coast. When the German line was hit by a frontal assault, in much greater strength than was expected, the line was weak and ripe for exploitation; and so slow in getting to the place where the attack was actually mounted that they were drawn in, cut up, and destroyed piecemeal.

Prisoners Talked

German intelligence did not know what was going to happen, advised German commanders incorrectly, and the Germans lost the battle. But—and here is the equally important second point—the Germans might have continued in almost complete ignorance of Allied dispositions throughout the battle, and might reasonably have been routed sooner with fewer Allied casualties, if Allied prisoners had kept their mouths shut, revealing only name, rank, serial number, and no more.

Study of the captured German intelligence files shows in detail what happened. A German map of Allied order-of-battle for 12 May (the Allied attack began 11 May) indicated that the enemy had fairly accurate knowledge of Allied dispositions for those units which had been in the line for some time. But it also revealed vital gaps in this information, and worse, much of the German intelligence was completely in error. For example:

The number of divisions in both French and Polish corps sectors was under-estimated.

The picture of the Canadian sector was confused. Corps headquarters was unlocated; one division was incorrectly located; one division was placed under Polish command.

An imaginary British division was placed in the centre of the front.

The Allies were supposedly conducting large-scale landing exercises on the Tyrrhenian Coast.

Two United States divisions were located in the right place, but the names of commanders were not known.

Three corps sectors were properly defined, but locations of the headquarters were wrong.

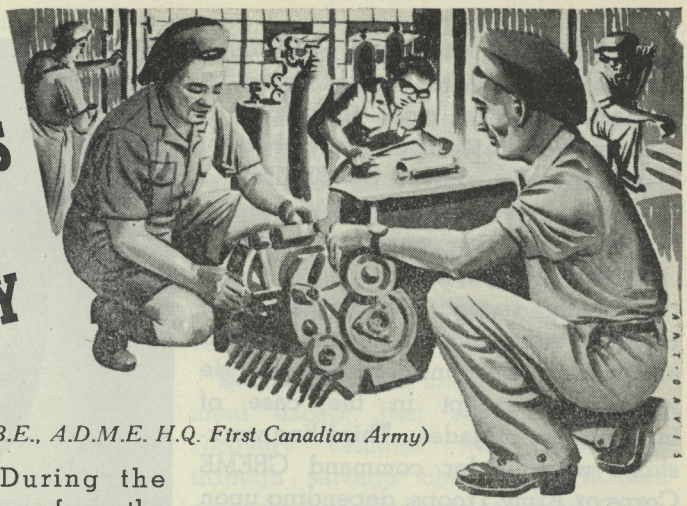
Headquarters for two other corps and for the Eighth Army were incorrectly placed by miles—which suggests the limitations of radio-direction finding.

False Intelligence Corrected

Up to this point, the often annoying and sometimes apparently meaningless

(*Continued on Page 37*)

RCEME OPERATIONS IN FIRST CDN ARMY



(By Lt. Col. C. R. Boehm, M.B.E., A.D.M.E. H.Q. First Canadian Army)

INTRODUCTION: During the campaign in N.W. Europe, from the invasion of Normandy to the clearing of the west bank of the Rhine, much was learned in the handling of RCEME and REME units. Although the Corps was a relatively new organization in the army it was of great satisfaction to find that it was organized on a sound basis and earned the commendation of formation commanders on many occasions. This article touches only briefly on the high spots of the current RCEME practice that enabled the service to perform its duties.

GENERAL PRINCIPLES: The efficient use of all RCEME resources within the army largely depended upon the following: (a) a clear-cut line of technical responsibility right down to the individual craftsman attached to units of other arms; (b) a strong central control of all RCEME Army Troops units.

Priority

During the long period of training of the First Canadian Army in the United Kingdom it was realized that the maintenance of equipment must be given priority over the technically more interesting heavier repair jobs. Accordingly, RCEME units within the divisions were constantly reinforced at the sacrifice of third line workshops, and LADs received experienced reinforcements directly from second line workshops.

It was found that the most effective use of third line or "Army" facilities could be made only if they were considered as part of the Army pool, so that their considerable strength could be employed with flexibility.

MAINTENANCE: The CREME of a division was responsible for maintenance as well as repair and recovery. Even during operations the system of inspections by LADs and workshop personnel would cover from 40% to 60% of all types of equipment of a formation each month. These inspections were discussed at length in a monthly report prepared by CREME. They provided a constant check on the standard of maintenance of a formation.

The division of responsibility for maintenance and repair between the unit and LAD was laid down as follows:

Unit—Responsible for maintenance, adjustment, and running repairs.

LAD—Responsible for inspections, first echelon repairs and arrangements for repairs beyond capacity.

REPAIRS: CREME of a formation was responsible for the provision of RCEME repair services to all units operating within his area. The many small units without RCEME personnel shared the services of existing LADs. All units were provided with definite second line workshop facilities.

LADs and attached RCEME personnel were under command of the unit to which they were attached, but were continually visited by CREME who exerted considerable control over their personnel and technical operation.

Normally, second line workshops in divisions were under command CREME and were never considered as brigade workshops, except in the case of independent brigades. Third line workshops were under command CREME Corps or Army Troops, depending upon the work load and the tactical situation. These workshops were sited after consultation with the DDME Army, who would allocate to DDME Corps the workshops requested when he was satisfied that there was sufficient work at the proposed site to justify the movement of the workshop.

Repair Schedule

The echelon repair schedule was followed only as a broad guide. It was stressed that LADs should do only first echelon repairs and that second line workshop should not exceed second echelon repairs. Third line workshops usually did only overflow second echelon repairs, as there was always a large back-log of equipment requiring these. Third echelon repairs were done by third line workshops only in emergencies. Fourth line workshops in this theatre were the advanced base type and, as in the case of third line shops, did mostly second and third echelon work which overflowed from third line workshops; rarely did they do normal fourth line repairs. It was intended to send all engine assemblies requiring rework to civilian and base workshops in the United Kingdom but later in the campaign, due to the shortage of assemblies, it was necessary to organize these repairs in Belgium.

RECOVERY: Recovery within the divisional area was the responsibility of

Lt. Col. Boehm

CREME. Usually it was well within the capacity of his equipment.

In the Corps area the DDME Corps had under command an Army Recovery Company, consisting of a headquarters and varying number of sections. These were employed on an area clearance basis rather than a system of reports of individual "crocks." DDME Army directed recovery within the army area, having at his disposal a recovery company consisting of a HQ, and a varying number of sections. He arranged recovery likewise on an area clearance basis, similar to Corps.

"Crocks" Cleared

DDME Corps located CBPs (Corps Backloading Points) after consultation with DDME Army. These points were picked so that they could be expanded into ABPs (Army Backloading Points) and with suitable workshop sites adjacent. All the repairable "crocks" were cleared either directly to workshops or to Backloading Points. Backloading Points were operated by recovery sections.

Road clearance was a formation responsibility. The senior RCEME Officer established the necessary Recovery Points in consultation with Q Branch and Traffic Control. When regrouping of formations occurred necessitating large scale movements arrangements were made for Army or Corps to lay out the necessary recovery points to cover the movement routes, thus relieving the Divisional recovery facilities of this responsibility.

INSPECTIONS: Besides the routine inspections of unit equipment by LADs and attached RCEME personnel, there were the following inspectorates working independently of formations:

(a) AFV inspectorate which was responsible to DDME Army for inspection of all AFVs issued by the Corps or Army Delivery Squadrons, as well as AFVs turned out by third line workshops. This inspectorate worked to standards drawn up by the Chief Inspector AFV 21 Army Group as amended by DDME Army. The thoroughness of the inspectorate was in no small way responsible for mechanical efficiency of all AFVs issued to units.

(b) Unit Maintenance Inspectorate which inspected B vehicles of Army troops under the supervision of CREME Army Troops. This inspectorate advised units on maintenance problems brought to light during their inspections. It was found impractical to employ teams of this unit forward of the Army area during operations.

REPAIRS OF NEW EQUIPMENT: Early in the campaign it was realized that a constantly increasing load was being thrown on forward workshops by the faulty condition of new equipment. All mechanical defects needed immediate repair to prevent more serious failures and the development of bad psychological effects on the unit, which would result in lack of interest in unit maintenance. Accordingly small "ad hoc" detachments similar to LADs were made up for attachment to Corps Field Parks, and an extra Infantry Brigade Workshop was obtained from 21 Army Group for employment on equipment held by the Army Vehicle Park. The need for these units was clearly demonstrated by the result of one month's operation of the Infantry Brigade Workshop, which showed that 88% of all new vehicles being issued required workshop repairs.

SALVAGE: All unserviceable equipment except that requiring special recovery vehicles was backloaded through salvage channels. RCEME personnel assisted and advised Ordnance Salvage on the sorting and care of technical equipment being backloaded. Workshops kept their ancillary reclamation sections loaded to capacity by drawing equipment as required from the Ordnance Salvage Unit of their formation.

SPECIAL TASKS: The General Staff frequently required special tasks carried out such as conversion of 72 SP mounts M 7 into Kangaroos (Army Personnel Carriers) in 3½ days. As it turned out, the use of these Kangaroos contributed largely to the success of the break-out south of Caen. This conversion included the removal of the main armament, the provision and welding of armour plate across the mantlet opening, and a 100-hour check and reconditioning of the vehicle.

Resources Pooled

This and other similar short notice jobs were made possible only by the pooling of the resources of many units under command of army. Valuable assistance was obtained from workshops of formations, but the main working parties in all cases had to be readily available in workshops under command of CREME Army Troops for immediate call.

CONCLUSIONS: Some of the important RCEME lessons brought out

(Continued on Page 15)

A NIGHT ATTACK IN THE APENNINES

(Current Reports from Overseas)

INTRODUCTION: In the opinion of the officer who told the story, this was one of the most difficult operations that infantry could have been called upon to carry out. The success of a night attack in the difficult country of the Higher Apennines depends on detailed preparation and the ability of commanders accurately to memorize their routes.

The story brings out three points: first, the marked tendency of the Germans to evacuate well-dug positions once their flanks have been menaced; secondly, the scope that false crests and steep reverse slopes offer to a force holding a position in mountainous country, even though its localities may be subjected to heavy artillery bombardment; and, thirdly, the astonishing success that may reward initiative and audacity.

OPENING SITUATION: After the fall of Florence, Fifth Army stormed their way northwards through the mountainous country of the Apennines until, by 17 October, the German positions on Monte Pianoerino so completely overlooked the proposed axis of advance of a British division that it was impossible to resume the offensive towards Highway 9 and Bologna until that dominating feature had been seized. The task of capturing it was given to an Indian division, which ordered "X" Battalion to secure certain preliminary objectives to the south of Monte Pianoerino before another battalion passed through and occupied the feature itself.

The localities occupied by "X" Battalion on 17 October are shown on the map. (See Page 9). They were opposed by 1 Battalion of 578 Grenadier Reg't., which had been holding the area for about two weeks, with its main defences stretching northwards from Point 751 to Croce Daniele, and, with outpost positions at Points 692 and 739, Casa Fontecchio, and Point 711. The enemy were well dug in and had reacted strongly to attempts by patrols of "X" Battalion to probe their defences.

The forthcoming action was to be fought in extremely difficult country, whose precipitous slopes offered little cover, and whose knife edge ridges afforded the only lines of approach.

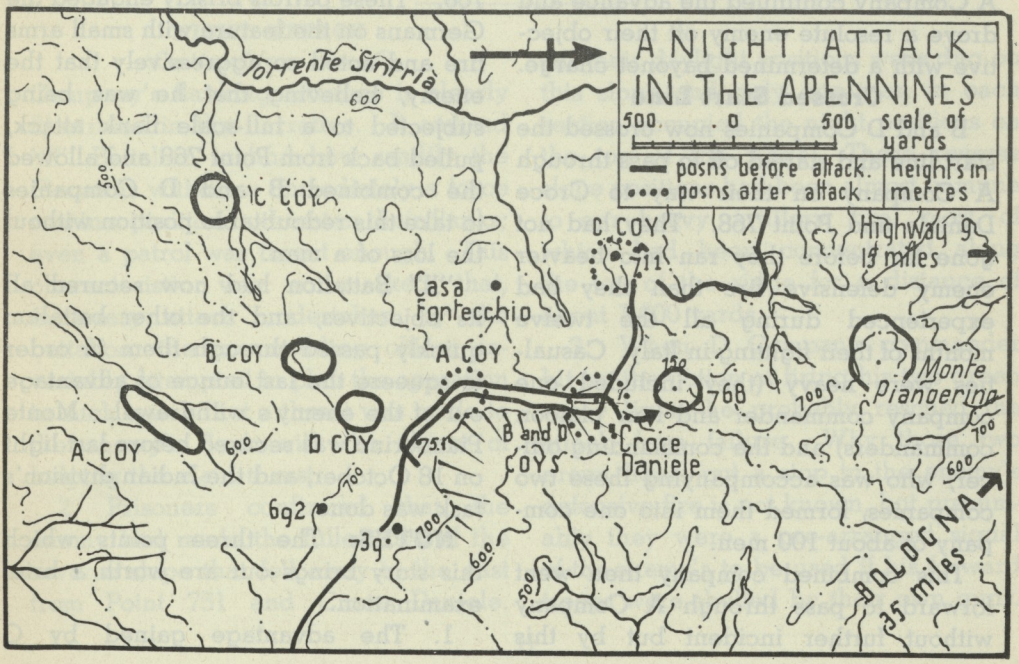
The use of armour was out of the question, even though it was feared that the enemy might have succeeded in manoeuvring single tanks into position up some of the less steep slopes. From Croce Daniele the ground fell away sharply to the east, giving the Germans a steep reverse slope position of which, as will be seen, they took full advantage.

"X" BATTALION'S PLAN OF ATTACK: The commanding officer decided to combine a frontal assault with a wide outflanking movement by one company. A Company was to make a limited advance along the top of the ridge to the position on the track shown on the map, after which B and D Companies were to pass through and capture Croce Daniele and Point 768. Simultaneously C Company was to advance along the river bed of the Torrente Sintria and occupy Point 711. C Company's was to be a silent attack, but the main assault along the top of the ridge was to be supported by six field and two medium regiments firing a timed programme which was to start with a barrage and later develop into a series of concentrations.

A second battalion was to make a diversion on the right flank of the attack, and as soon as "X" Battalion had gained its objectives, a third battalion was to push through and secure the main feature of Monte Pianoerino. Last light on 17 October was at 1820 hours, and H hour was fixed for 2030 hours. About an hour before the attack started, the divisional commander telephoned the commanding officer once more emphasizing the importance he attached to the Capture of Point 768 before first light (at about 0545 hours) on 18 October.

THE ATTACK: At H minus 30 minutes, C company set off along the river bed. They moved silently and were not detected by the enemy until they had almost reached Point 711. There was a short sharp fire fight, but by 2300 hours the company, with very few casualties, was securely in possession of its objective.

Meantime, the artillery had opened up at 2030 hours and A Company closely followed the barrage forward. The enemy were not slow to reply and



the defensive fire which they brought down on the ridge inflicted a number of casualties on the advancing troops. The leading platoon nevertheless over-ran the forward enemy posts, though any further advance against the heavy enemy machine-gun fire that now swept the ridge would have been extremely costly.

A Company was still some 500 yards from its objective, and the company commander was hastily planning to continue the advance when a green verey light suddenly soared into the air from the German positions. This signal heralded heavy and accurate enemy artillery fire on the positions that the company had just taken and threatened to spoil their chances of continuing the advance.

On the inspiration of the moment, the company commander snatched up a verey pistol and fired two green cartridges. Instantly the enemy's artillery fire ceased and his machine-gun fire slackened. Seizing their opportunity, A Company continued the advance and drove a resolute enemy off their objective with a determined bayonet charge.

Crossed Start Line

B and D Companies now crossed the start line and started off to pass through A Company on their way to Croce Daniele and Point 768. They had not gone far before they ran into heavier enemy defensive fire than they had experienced during all the twelve months of their fighting in Italy. Casualties were heavy (they included one company commander and four platoon commanders) and the commanding officer, who was accompanying these two companies, formed them into one company of about 100 men.

This combined company then went forward to pass through A Company without further incident but by this time the supporting barrage had left the infantry far behind and the enemy were bobbing up again from their almost secure reverse slope positions on the right flank of the attack.

Fighting hard and killing a large number of Germans, the company eventually succeeded in capturing Croce Daniele at the third attempt. But dawn was breaking, Point 768 was still in enemy hands, and the Germans on the slopes above Croce Daniele were now thoroughly aroused; it seemed that "X" Battalion's attack on its final objective would be a costly venture.

The initiative of the officer commanding C Company saved the day. During the early hours of the morning, this company had been reinforced on Point 711 by a company of the battalion that was to pass through "X" Battalion and capture Monte Pianoerino, and the company commander, now feeling that his position was relatively secure, decided to send out strong patrols to demonstrate in the direction of Point 768. These patrols briskly engaged the Germans on the feature with small arms fire and acted so aggressively that the enemy, believing that he was being subjected to a full-scale flank attack, pulled back from Point 768 and allowed the combined B and D Companies to take this redoubtable position without the loss of a man.

"X" Battalion had now secured all its objectives, and the other battalion quickly passed through them in order to squeeze the last ounce of advantage out of the enemy's withdrawal. Monte Pianoerino was secured before last light on 18 October, and the Indian division's task was done.

NOTES: The three points which this story brings out are worth a brief examination.

1. The advantage gained by C

EXPERIENCES IN BURMA

(A British officer's account of his experiences in Burma, extracted from Current Reports from Overseas.)

A PLATOON NIGHT ATTACK: On one occasion I led a platoon across the Zubza Nala by night in an attack against the Japanese-held village of Cheswema, some five or six miles away. The men wore boots in preference to the rubber patrol boots, which are liable to slip on wet ground and in mud. We carried two 2-inch mortars with 24 HE bombs each, three Brens, six TMCs, two grenades a man, one dah (Indian cutting tool) per section, monsoon capes, rations for one day, and full equipment. (Even on patrol we carried the cape and rations in the pack.)

"We moved in single file, which is the only practicable formation at night. I was with platoon headquarters with my wireless set. Signals for halts, etc., were exchanged by stonechat and other bird noises. We had practised these calls almost to perfection, and used them a great deal. At every halt, however short it was, the men had been trained to take up all-round defensive positions. It is an invaluable drill, and one that we were often glad to have applied.

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NIGHT ATTACK

(Continued from Page 10)

Company's flanking advance is clearly illustrated in the narrative. It amazed "X" Battalion to find how readily the Germans withdrew immediately a force was in a position to threaten their flanks; even a patrol was threat enough. This characteristic was so marked that, in every attack undertaken by the battalion, the commanding officer invariably attempted to plan the operation in such a way that a threat was made to the enemy's flank with the object of helping the main thrust.

2. Prisoners confirmed that the enemy had made the fullest use of the reverse slope that fell away to the east from Point 751 and Croce Daniele. All their daylight positions were dug on this slope and only one man in each section occupied the night positions on the top of the ridge. These reverse slope positions had been almost immune to our heavy artillery fire, most of which had been concentrated along the top of the ridge for a distance of about 1,000 yards.

3. When D Company commander hit on the notion of firing his two green verey lights he probably rescued the attack from failure. Why those two green lights put a stop to the enemy's defensive fire is not known, but presumably they were a pre-arranged signal of the enemy's to be used if his forward troops were shelled by their own guns.

50 Japs Located

"In the morning we located about 50 Japanese in the village and I got the guns on to them with my 48 set (we had a couple of troops on call). Four of the enemy were killed, eight wounded, and their ration dump destroyed. I reconnoitred the position after the bombardment and decided to attack after nightfall.

"I ordered one section to take up a position astride the track ahead, and one section to watch the track by which we had come. The two mortars remained at platoon headquarters on the track under my second in command. I accompanied the third 'blitz' section and attacked the enemy bashas (positions) with grenades and automatic fire. We killed 12 Japanese in their sleep. Simultaneously, the 2-inch mortars opened up on the enemy's administrative area; and to judge by the squeals and shouts we heard, they must have scored some bulls.

"I withdrew the platoon, leaving an ambush section to watch the track behind us for half an hour. (On this occasion we drew a blank, but I recommend this drill to anyone operating in hostile jungle country. In another little battle a Japanese section attacked my company headquarters from the rear. My section was in its usual "rearguard ambush" and destroyed the enemy to a man.)

"We slept for a few hours outside a Naga jungle camp, and made tea—a luxury in which we indulged on every conceivable occasion. The enemy invariably mistook our fires for those of harmless Naga tribesmen and never took the trouble to investigate them. We returned by daylight.

GENERAL POINTS: (a) "We were in communication with our headquarters throughout the raid; to be more exact, we opened up at agreed times.

(b) "On all our longer patrols we always took plenty of tea, sugar and powdered milk. We were always able to borrow, from natives, pots in which to boil the water, and so avoided having to carry a lot of rattling ironmongery.

No Sick Men

(c) "Men who were liable to recurring bouts of fever were not taken on night operations. The strain and excitement was very liable to induce a recrudescence of the fever, and an affected man became a heavy liability.

(d) "During the approach march either we used a trustworthy guide or stuck to the paths that led from village to village. I do not deny that it adds to the risks if you follow the paths, but movement off the beaten track is far too arduous. When necessary I moved on a compass bearing (with my runner counting the paces), and quite often used "encirclement drill" (right 400 yards and 20°, left 200 yards on 290°, left again 400 yards on 200°, and so on), which never failed.

THE INTRUDERS

"Two Germans came bowling down the road in a motor-cycle and sidecar, pulled up on the verge not far from our position, and put up their machine gun.

"One of our sentries, after watching all this activity with a good deal of astonishment, walked over to the Germans and suggested rather pointedly that perhaps they had come too far—did they know that they were now in our lines?

"The no less astonished Germans packed up their gun, and went back to their motorcycle. With the sentry on the pillion, the party set off down the road in search of the prisoners' cage."

RCEME IN AN ARMOURED DIVISION

(By Lt. Col. R. H. Noble, O.B.E., Commander RCEME, Fourth Canadian Armoured Division)

INTRODUCTION: Due to the rapid advance from Normandy to Holland the movement of RCEME units in an armoured division introduced many new problems. It is intended to briefly describe the principles and lessons brought out during this campaign as experienced by the writer.

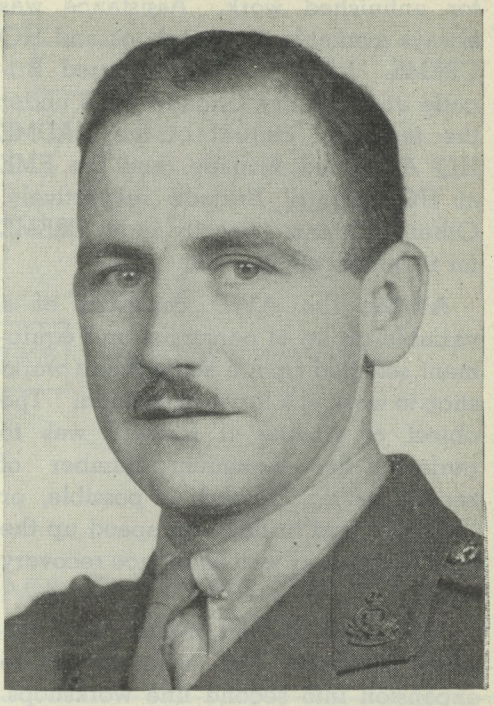
ORGANIZATION: Commander REME of a division was responsible to the AA and QMG for the proper functioning of the RCEME Service within the formation as well as technical advice on maintenance, repairs and recovery. He had a HQ of his own to do the following: (a) administer all RCEME units directly under his command; (b) provide technical supervision of LADs (Light Aid Detachments) and RCEME personnel attached to other types of units.

Echelon Repairs

The repair organization in an armoured division is based on the system of echelon repairs as follows: (a) units are responsible for maintenance, adjustments and running repairs; (b) LADs are responsible for inspection and first echelon repairs; (c) Workshops (including AWDs — Advanced Workshop Detachments) are responsible for first and second echelon repairs within their capacity.

Units without LADs are allotted LAD facilities by CREME. In this way some of the more static LADs were responsible for equipment of several units to which they were not formally attached.

LADs: It was considered that the LAD, because of its intimate association



Lt. Col. Noble

with other units of other arms and services, was largely responsible for the reputation of the RCEME Service. Although the LAD had a fixed composition, it was often necessary to provide assistance from second line workshops for special programs. It was also found advisable to interchange personnel between workshops and LADs so that their interest and standard of work was kept up.

The LAD moved under the direct command of the unit to which it was attached and was usually set up in the unit's A echelon area. It was necessary that it operated as a self-contained unit, relying upon Regimental HQ for assistance in the paper work and the supplying of rations and general stores.

Practically all spare parts and materials needed for repairs were obtained by the LADs directly from Ordnance and other sources. Lack of spares was seldom accepted as an alibi

for unfinished work. Assistance was always available at workshops and HQ CREME. LADs in the Armoured Brigade and Infantry Brigade were under the technical control of the DADME HQ Armoured Brigade, and the EME at HQ Infantry Brigade respectively. Other LADs came directly under CREME for technical supervision.

AWDs: The AWD consisted of a variable group of personnel and equipment selected from a second line workshop to work in a forward position. The object of moving it forward was to perform the maximum number of repairs as far forward as possible, or "in situ", and in this way speed up the time of repair as well as reduce recovery work.

Sites were chosen beside the Divisional Recovery Post, with an eye to expansion into second line workshops. Control of the AWD was through the DADME at HQ Armoured Brigade, or the EME at HQ Infantry Brigade, but all matters concerning its composition were referred to CREME. Personnel equipment and stores were constantly on the move between AWDs and their parent workshops.

WORKSHOPS: The control of workshops was in the hands of CREME. During normal work, these units were located in the Divisional Administrative Area. However, during long or rapid moves it was found to be impractical to have these units moving with the Administrative Group following the division. It was then necessary to move the workshops as part of the Brigade groups under command of Brigade HQ.

The normal role of the workshops was second echelon repairs within the limitations of both the time and the stores available. It seemed that there was never enough capacity to catch up with all the work of this nature required by an armoured formation.

The Infantry Brigade Workshops developed into an Armoured Brigade Workshop in all but size and WE. There was little difference in the type of work undertaken by the two workshops on different WEs. It is doubtful if two full Armoured Brigade Workshops could have kept ahead of the work that developed.

INTERCOMMUNICATIONS: Efficient repair and recovery depended largely upon speedy communications. The wireless net illustrated in Fig. 1 operated satisfactorily when distances and weather conditions permitted, but it was necessary to have a DR service as an alternative. HQ CREME acted as the control station, and was on net 12 or 24 hrs. depending upon the action.

LADs and workshops netted each morning at 0800 hours and called twice daily. AWDs and workshops remained on net 12 or 24 hours depending on action.

The DR Service was used daily to LADs not equipped with wireless, and to all units when wireless failed.

RECOVERY: Recovery operations in an Armoured Division was carried on by units, LADs and Workshops. Each Armoured regiment was equipped with one armoured recovery vehicle per squadron, with which it was responsible for recovery within the limitations of its scope and area. The LAD with its soft-skinned breakdown lorry assisted the unit in comparatively safe working areas. Both unit and LAD combined to collect "crocks" beyond their repair capacity at the Divisional Recovery Post and AWD.

The recovery section of the second line workshops cleared "crocks" from the Divisional Recovery Posts to the workshops. In all cases equipment was recovered by the most direct means possible. A section of the Army Recovery Company under Command

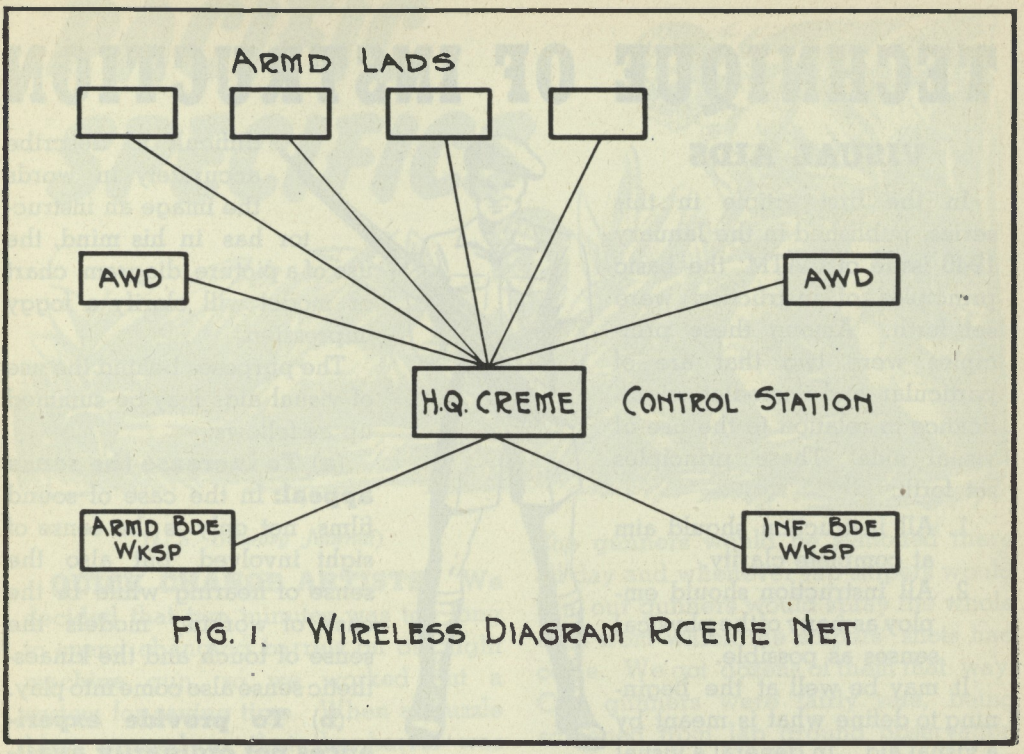


FIG. 1. WIRELESS DIAGRAM RCEME NET

RCEME OPS

(*Continued from Page 7*)

during the campaign in N.W. Europe were as follows:

(a) The successful use of RCEME service in all formations depended largely upon the flexibility and initiative with which it was employed.

(b) There was a definite need for earlier training of RCEME personnel in the maintenance and repair of **all** types of technical equipment, so that they could perform their normal function of supervising unit maintenance as soon as the unit received the equipment.

(c) Close liaison is always necessary between RCEME and Ordnance Salvage at all formation levels in order to prevent the loss of much valuable technical equipment.

(d) RCEME units are very necessary at the Corps and Army Troops Vehicle Parks so that necessary inspections and repairs can be carried out prior to the issue of vehicles to units.

(e) The most successful method of effecting large scale recovery operations was by area clearance rather than by detailed reporting of "crocks."

RCEME IN ARMOURED DIV

(*Continued from Page 14*)

Corps, was generally allotted by the DDME Corps to liaise directly with and assist a division. This section cleared workshops and Divisional Recovery Posts of crocks for backloading.

Similarly the recovery sections of the workshops were responsible for forward liaison, the operation of the Divisional Recovery Post, and rendering as much assistance as possible to LADs.

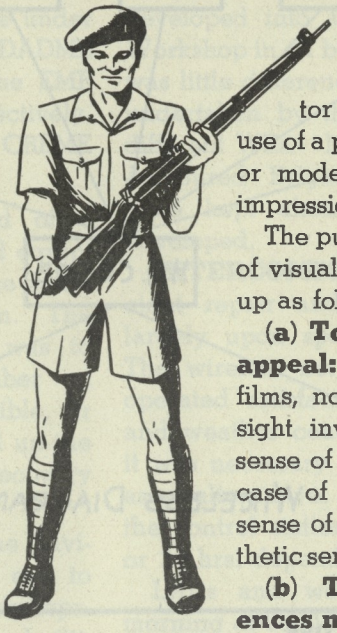
CONCLUSION: The success of an Armoured Division in modern warfare depended very largely on its mechanical fitness. The CREME was responsible to the GOC for this and was constantly using every means at his disposal to overcome the wear and tear of operations on machines. He was prepared to employ his service flexibly and with considerable initiative. Seldom was there a set piece operation and rarely was the "Book" more than a guide for training and the broadest general policy.

TECHNIQUE OF INSTRUCTION

VISUAL AIDS

In the first article in this series, published in the January 1945 issue of CATM, the basic principles of instruction were set forth. Among these principles were two that are of particular and immediate significance in relation to the use of visual aids. These principles set forth:

1. All instruction should aim at complete clarity.
2. All instruction should employ as many of the physical senses as possible.



It may be well at the beginning to define what is meant by a visual aid. In general a visual aid is any object, model, picture or device which an instructor uses to make **clear** and unmistakable the meaning of the spoken or written word. In this sense the term connotes such devices as:

(a) The blackboard.

(b) Charts, diagrams, graphs, maps, photographs.

(c) Films, film strips, film slides, opaque projectors.

(d) Sand tables, models, specimens and other three-dimensional aids.

Sense Impressions

Since other senses seldom work independently it follows that the knowledge one possesses of any object is usually a combination of sense impressions. It is therefore of primary importance that the impressions derived from the various senses should not be contradictory but should mutually reinforce each other.

The use of a visual aid will in many cases correct a mistaken impression derived from the sense of hearing. More often, since it is often extremely difficult to describe accurately in words the image an instructor has in his mind, the use of a picture, diagram, chart or model will clarify a foggy impression.

The purposes behind the use of visual aids may be summed up as follows:

(a) To increase the sense appeal: In the case of sound films, not only is the sense of sight involved but also the sense of hearing while in the case of working models the sense of touch and the kinaesthetic sense also come into play.

(b) To provide experiences not ordinarily available: A sand table, for example, can reproduce types of terrain not found in the vicinity of the camps. A cutaway model enables a student to see working parts that are not visible in the complete model.

(c) To save time: Films and film strips have a particular value in this regard since it is possible by their aid to show an enlarged representation to a number of men at one time.

(d) To add variety: The problem of learning involves sustained effort. To avoid boredom and a consequent lack of attention, a visual aid can be an effective change from the usual verbal instruction.

(e) To supply a simplified view of a complicated mass of detail: A simple map or chart may contain the essentials of a battle situation or an organization that would require a great many words to explain.

(f) To correlate related material: Films and working models can effectively show the inter-play of parts of a mechanism which may have been learned as independent units.

PACIFIC SPECIFICS

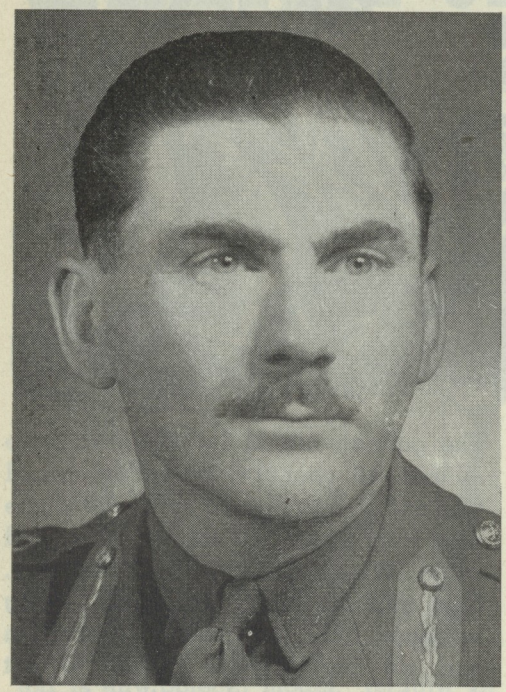
(U.S. Infantry Journal)

QUICK CHANGE ARTISTS: We decided that two minutes was too long to spend changing barrels on our light machine gun, so we worked out a system for saving time. When a muzzle blast warned us that the barrel was getting hot, the Number 2 gunner would start getting the proper headspace adjustment on the spare barrel by using spare parts. When he had the headspace, he'd yell "Spare barrel ready," and the Number 1 gunner would pull off the barrel and barrel extension without disassembling it. The spare barrel would be slapped on with the headspace already prepared, and the gun would be back in action in exactly 32 seconds. That method paid dividends for us in extra Japs killed.—*Staff Sgt. J. A. Dougherty, Jr., who fought with the 24th Infantry Division in the Tahnamerah Bay-Hollandia operations in New Guinea.*

A TREE GROWS MACHINE GUNS: We were always being harassed by snipers. We decided to set up a machine gun in a tree, with the twin advantages of observation and elevation. We tried it first with light machine guns, and then with heavies. It worked perfectly. We'd select trees with good, strong crotches and plenty of branches to give the gun concealment. Early in the morning we'd hoist up the guns. The gunners would be stationed there all day and whenever Jap snipers would fire, our gunners would spray the whole area from which the snipers' shots had come. We got dozens of them that way. Our gunners were fairly safe, being screened from Jap ground observation and we were always careful to put them in a tree with another tree or brush, in front of it, to hide their muzzle blast. At night, we'd take each gun down and clean it.—*First Sgt. R. L. Baldwin, who fought at Buna and Saidor with the 32d Infantry Division.*

AN INTELLIGENT JAP: One of the GIs out on patrol was badly hit. As he was lying on the ground, a Jap came up, with fixed bayonet. The Doughboy figured his number was up; he was too weak to put up any resistance. But the Jap said he was hungry and wanted to surrender. He lay down on the trail alongside the GI and was waiting there when the rest of the patrol came back. It turned out that the Jap had been born in Hawaii and had lived there most of his life, but was on a vacation in Japan when the war started and was thrown in the Army. He said he hated Jap soldiers as much as we did and was glad of a chance to give himself up.—*Pte. E. Pace, who fought as a machine-gunner and rifleman in the 24th Infantry Division in Dutch New Guinea.*

LT. GEN. G. G. SIMONDS, C.B., C.B.E., D.S.O.



Lt.-Gen. G. G. Simonds, C.B., C.B.E. D.S.O.

(Condensed from a biography prepared for CATM by the Historical Section, NDHQ)

Lt. Gen. Guy Granville Simonds, commander of the Second Canadian Corps, was born at Ixworth in Sussex, England, in 1903.

In 1911 he came to Canada with his father, a retired Colonel of the Royal Artillery, and attended Ashbury College in Ottawa. Shortly before his 18th birthday he wrote and passed the entrance examinations for R.M.C. On graduation he received a "Distinguished" in half his subjects—a very high standard.

Cadet G. G. Simonds was commissioned in the Royal Canadian Artillery on 17th June, 1925, and from then until early in 1930 his time was divided between service with his Regiment, the RCHA, and preparation for and attendance at courses both in Canada and overseas.

In 1932, shortly before proceeding to England to attend the Gunnery Staff Course, he was married to Miss Katherine Lockhart Taylor of Winnipeg; two children, a son and a daughter, have blessed the union. Mrs. Simonds and the children reside in Winnipeg.

Passed with Distinction

Having passed with distinction the Artillery Staff Course, the Gunnery Staff Course, the Camberley Staff Course and after a period of attachment to the Royal Artillery Academy at Woolwich and the Royal Military College at Sandhurst, he returned to Canada in 1938 and was appointed to the staff of the Royal Military College at Kingston with the rank of Major. At the outbreak of war in 1939 he was Professor of Tactics.

When 1st Canadian Divisional Headquarters was organized, Major Simonds was appointed GSO II (Operations) and as such went overseas on General McNaughton's staff. For three months in 1940, Lt. Col. Simonds, as he now became, commanded the 1st Field Regiment, RCHA. In 1941 he left his Regiment to do an outstanding job in organizing, and as Commandant, the first Canadian Staff Course overseas. Later this course was moved to Kingston but Lt. Col. Simonds remained in England.

Operational Role

The 2nd Canadian Division moved into an operational role in England in the spring of 1941 and Lt. Col. Simonds became their GSO I for three months. He was then posted to 1 Canadian Corps Headquarters as Brigadier, General Staff, the key operational appointment in the Canadian Corps. After a year in this appointment he was employed during the summer of 1942 on special work for the Corps Commander and in the course of that duty was for a few weeks in Canada.

Soon after his return to England he was appointed Commander 1st Canadian Infantry Brigade and in January 1943 he was again given the senior staff appointment at HQ, First Canadian Army. A few months later, in the spring of 1943, he was appointed to command the 2nd Canadian Division with the rank of Major-General but the day before taking over his new command, Maj. Gen. H. L. N. Salmon, MC, commanding the 1st Canadian Division, was killed while taking off for North Africa, and Gen. Simonds was appointed to command the 1st Canadian Division, then marked for a new vital role in the Mediterranean.

The brilliant performance of the 1st Canadian Division in Sicily and Italy under the command of Maj. Gen. Simonds is now well known to every Canadian. Late in 1943 when the Fifth Canadian Armoured Division joined the 1st Division in Italy to form the 1st Canadian Corps, General Simonds was transferred to command the Fifth and was succeeded in the command of the 1st by Maj. Gen. C. Vokes.

Commands 2nd Corps

Maj. Gen. Simonds was not to command the Fifth Armoured Division for long, however, because the command of the 2nd Canadian Corps in England, having become vacant through the illness of Lt. Gen. Sansom, Maj. Gen. Simonds was flown to the United Kingdom and in January, 1944, took command of the 2nd Corps with the rank of Lieutenant-General.

It was the 2nd Canadian Corps, as we all know, under Gen. Simonds' command that fought the brilliant defensive battle in the left sector of the Normandy beachhead, and subsequently broke out and swept across the northern stretches of France and Belgium, clearing the vital channel ports, opening the great port of Antwerp by carrying through some of the most difficult portions in northwest Europe in the crossing of the Schelde and clearing the enemy from both banks.

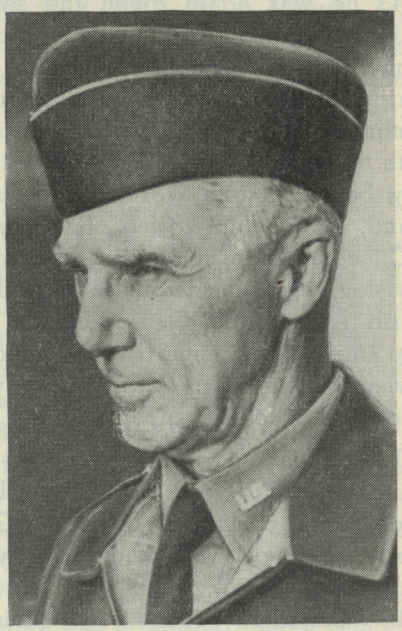
During the illness of Gen. Crerar, the Commander of the 1st Canadian Army, from the end of September to early November 1944, Gen. Simonds acted as Army Commander, while Maj.-Gen. Foulkes (now Lt. Gen. Foulkes) commanded the 2nd Canadian Corps. On the return of Gen. Crerar, Lt. Gen. Simonds returned to and still commands his 2nd Canadian Corps.

Many Decorations

Lt. Gen. Simonds has indeed well and truly earned many decorations. He was named a Commander of the Order of the British Empire at the end of 1942, was awarded the Distinguished Service Order for gallant and distinguished conduct in the Sicilian campaign and was made a Companion of the Order of the Bath after his thrust into Holland last autumn. In addition to honours bestowed upon him by his own Sovereign, he has been awarded the Legion of Honour and Croix de Guerre by the French government and the Order of Military Virtue 5th Class by the Polish Republic.

My wars were bold, but methodical. The art of war lies in sometimes being audacious and sometimes very prudent. Generally, the most timid course is the poorest.—*Napoleon*

A GENERAL PAYS HIS TRIBUTE TO MARKSMANSHIP



A real tribute to the man with the rifle has been paid by Gen. Joseph W. Stilwell of the U.S. Army, a battle-proved soldier who knows the value of a sharp eye and a steady trigger finger when the infantryman is in a tight spot.

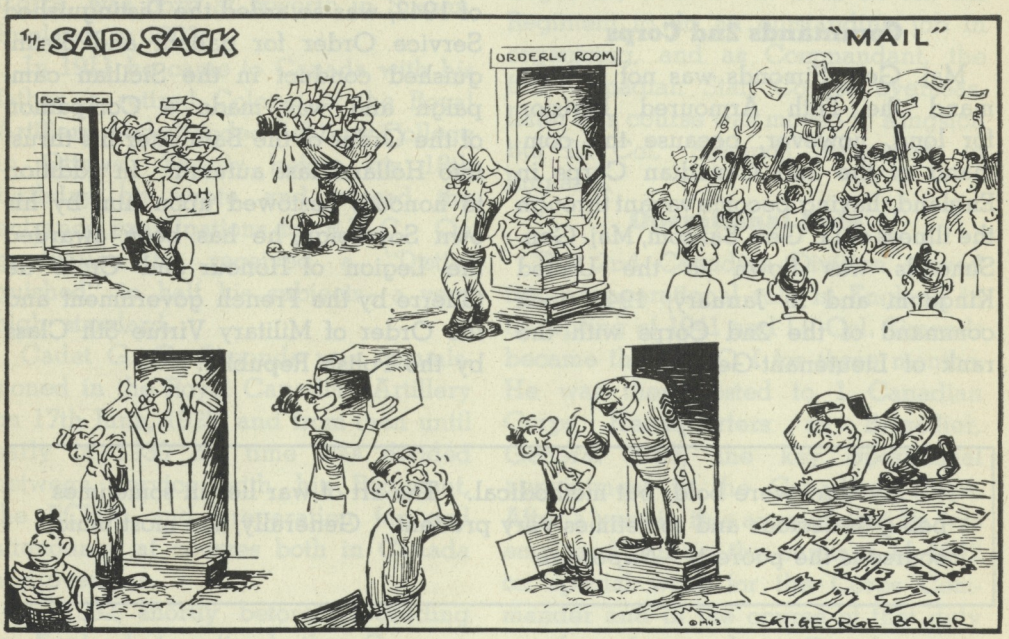
Gen. Stilwell is known for his modesty and seldom wears any decorations or service ribbons, although he has practically all there are in the book. Some time ago he received two additional decorations, the Oak Leaf Cluster to the Distinguished Service Cross and the Legion of Merit.

A friend was congratulating him on these awards and remarking on the bare place on the General's blouse where he could have a double row of ribbons if he wanted to wear them.

"You know," said Gen. Stilwell with a wry smile, "there is just one medal I would like to have and wear, but I have never been able to get it."

"What's that?" asked his friend.

"Expert rifleman," replied the General. "I envy the infantrymen who have it."



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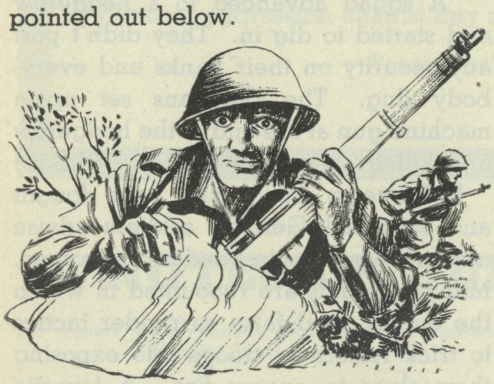
HOW TO STAY ALIVE IN COMBAT

(Condensed from "What the Soldier Thinks"—U.S. War Dept.)

The veteran soldiers interviewed in this study have met the enemy in combat. They have lived to tell the tale here for those who have not yet been through their baptism of fire. Most of these men were interviewed on hospital beds, the scars of battle still fresh. They have taken the worst that a fanatical foe has been able to dish out . . . they have learned "what every soldier should know" in a hard school. Our fighting men have paid in dead and wounded for the mistakes pointed out below.



Don't freeze, keep moving: This warning is sounded again and again by combat veterans who cite numerous instances of a fatal tendency to freeze under fire, thereby providing the enemy with a stationary target. The best defense against artillery and mortar attack, say veterans, often is to move forward out of the zone of impact. In their own words:

"One of the worst things the men can do which causes casualties is to freeze. Usually it's the new men, but sometimes the old men do too. The shells start falling and they just dig their nose in the dirt and don't even look up. A German with a machine pistol can spray the whole bunch of them."

Take Cover: The importance of proper cover and concealment is repeatedly stressed by veterans. Don't cross open fields, they counsel, and avoid roads or well-travelled paths if possible. The easiest route may also be the quickest way to the hospital.

"Yesterday our party was moving ahead and we were led straight through an open field. There was a ridge ahead and the Germans were set up on it. One of our party was hit, but that was only part of it. It gave our position away and they pinned us down and tossed mortar and artillery shells at us from then on. It takes a little longer to go around and keep under cover, but you get further and you don't lose as many men."

The same first sergeant also advises: "Stay off the roads and keep off the travelled paths because it's nine out of ten that they have them covered with machine guns."

Dig or Die: When you dig, veterans say, make it deep and cover the opening for protection against shell fragments. "My hole was down about two and half feet. A shell hit in the next hole to me. I got a wound in the arm, concussion and powder burns. If it'd been down a little more I wouldn't have gotten anything," said one private.

Keep Quiet: Veterans caution against giving away position by un-

necessary noise or firing. They cite many wiles used by the enemy to provoke men into disclosing their location.

"Jerry sure is tricky," one private recalls, "he'll do anything in the world to get you to show yourself so he can throw mortars at you."

Give Away Position

"Men are continually giving away your position by the noises they make. Usually it's the new men, but sometimes the old men forget, too. When you hear men talking out loud at night you know it's new men. The new men are always fussing with their rifles, and you can hear the bolts clicking a long way off. When they take a drink the canteen cover slaps the side of the canteen with a bang." (Sgt.)

Keep your Distance: Despite the warning against bunching up which is drilled into the men so often during training, they are still guilty of this practice in combat. A battlefield is no place for a convention, veterans say.

"The new men . . . started back down the road in a bunch. An 88 zeroes down that road and when she let loose there were men and bodies flying all over the place." (Sgt.)

"Keep out of a bunch. The minute you bunch up they let you have it. Men bunch up for company. When you get into battle you just naturally want to get close—but we learned the hard way—don't bunch." (Pte.)

Booby Traps: Some men seem to be born suckers for souvenirs, disregarding oft-repeated lectures on the German custom of booby-trapping likely objects of curiosity. Over-inquisitive Yanks given to collecting knick-knacks, in the opinion of veterans, are meat for stretcher-bearers.

"One of the men in our company walked into an old barn a couple of days ago. He saw a ball on the bench and picked it up to see what it was. It went off and blew his fingers off. Men should be more careful what they pick up." (Pte.)

Protect the Flanks: Several interviews brought out the need for continual alertness to the hazard of flank attack.

"I was covering the squad advance, keeping the Germans' heads down. I was coming across the field. Then all of a sudden I was hit. The rest of the platoon was covering us, but the MG was on our right flank. That flank should have been covered. You should always have flank protection when you have an open flank." (Pte.)

"A squad advanced to a hedgerow and started to dig in. They didn't post any security on their flanks and everybody dug. The Germans set up a machine gun at the end of the hedgerow and killed every one of them."(S/Sgt.)

Prisoners: Men who have fought and captured German soldiers advise extreme wariness in handling prisoners. Many incidents are recounted in which the enemy used false surrender tactics to trick American troops into exposing themselves to enemy fire. A favorite device is to have one man approach a position with a white flag, while an attacking force slips unseen around the flank. Or an enemy group will march up apparently to surrender, only to open fire when they come within range, sometimes with automatic weapons strapped to their backs. A white flag should be regarded as a danger symbol, the veterans urge, and "Kamerad" is to be translated as "Watch out!"

Distrust of the enemy extends to civilians as well. Veterans caution against putting too much faith in apparently friendly civilians, letting them through the lines or careless conversation with them.

AN EPITAPH

"In the future days, which we seek to make secure, we look forward to a world founded upon four essential human freedoms.

"The first is freedom of speech and expression—everywhere in the world.

"The second is freedom of every person to worship God in his own way—everywhere in the world.

"The third is freedom from want—which, translated into world terms, means economic understandings which will secure to every nation a healthy peacetime life for its inhabitants—everywhere in the world.

"The fourth is freedom from fear—which, translated into world terms, means world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor—anywhere in the world."

—President Franklin D. Roosevelt to Congress, January 6, 1941

NOTES ON JUNGLE FIGHTING

(A report from Burma published in Current Reports From Overseas)

The following are important points to watch in jungle fighting:

(a) The need for strict discipline after striking camp.

(b) The need for good musketry training. A high standard of marksmanship and snap shooting up to 200 yards is required.

(c) The need for training in the use of No. 36 grenades with 4-second fuze, fired from the discharger cup to give air burst.

Animal Management

(d) The need for training in animal management. Mules are difficult to handle, and if they are to be kept going —as they must be—they have to be well cared for.

(e) The need for strict water discipline. Every man should be trained to do without water between sunrise and sunset; teach him to suck a pebble or chew gum instead.

(f) the need for every man to be A1 plus, and capable of marching 200 miles in 12 to 14 days.

(g) The need for the greatest care of feet. Australian socks do not shrink. South African made boots are the best.

(h) The need to prohibit smoking at night and to enforce absolute silence. Sound carries in the jungle, and speech should never rise above a whisper.

(i) The need for proficiency in the use of the compass, a high standard of map reading, and a knowledge of the stars for direction finding.

BREAKNECK RIDGE

(U.S. Intelligence Bulletin)

The Japanese soldiers who fought in defence of Breakneck Ridge, a broken series of hills in Ormoc Valley, Leyte, delivered a lesson in Jap tactics heretofore seldom encountered in the Pacific. In a 12-day period last November, they proved that there are well disciplined Japanese troops capable of fighting an astute defensive battle, a battle based upon sound tactical doctrine, rather than upon a dogged determination to die for the Emperor.

"All who contacted the enemy were impressed with his excellence in battle," a U.S. colonel said. "Little was noted of reckless charges, needless sacrifices, or failure to observe known tactical principles." The colonel, commanding officer of a U.S. infantry regiment, gave a description of what is to be expected from one of the better Japanese infantry divisions operating in defence of rough, easily defended terrain.

Control of Arms

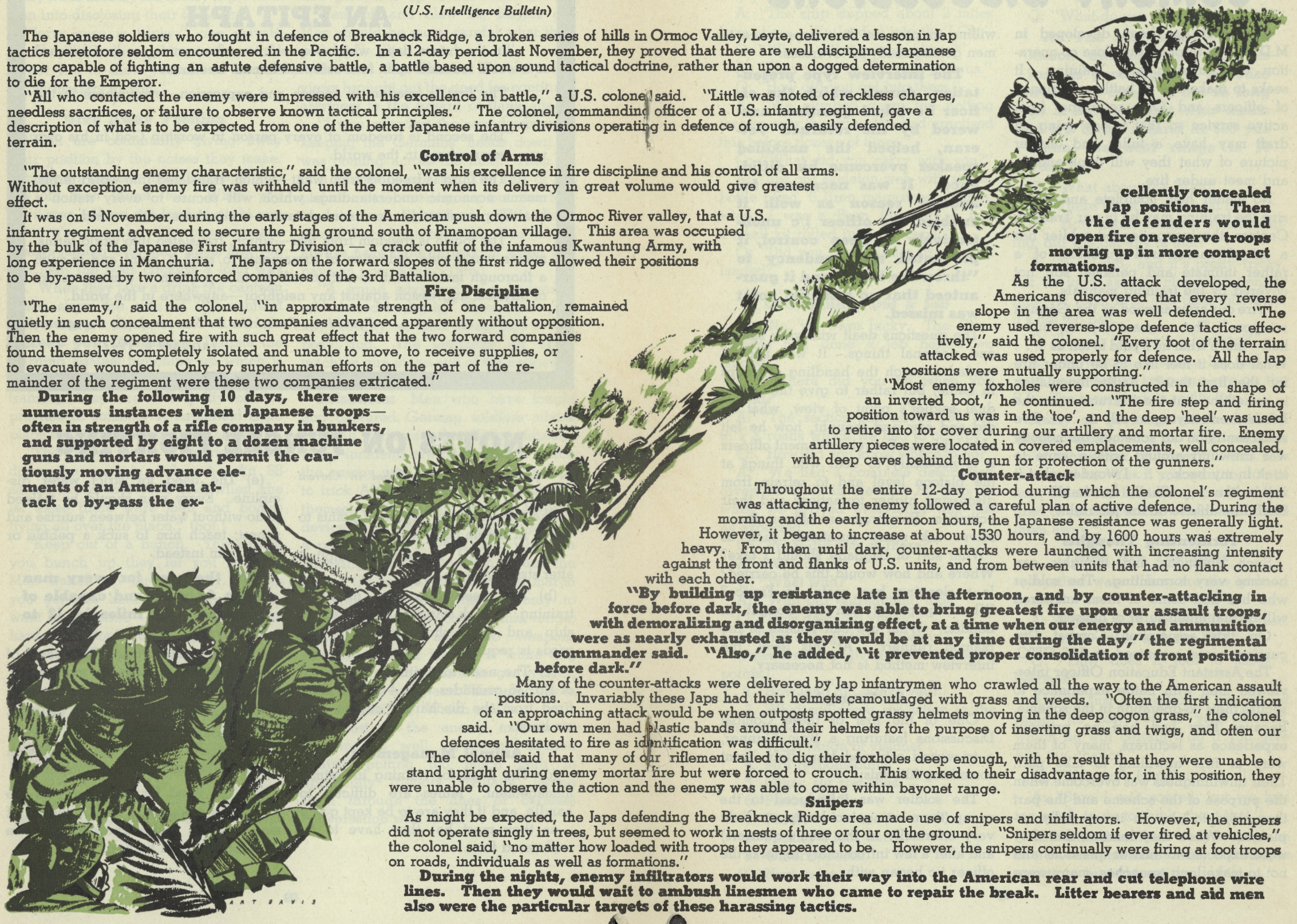
"The outstanding enemy characteristic," said the colonel, "was his excellence in fire discipline and his control of all arms. Without exception, enemy fire was withheld until the moment when its delivery in great volume would give greatest effect.

It was on 5 November, during the early stages of the American push down the Ormoc River valley, that a U.S. infantry regiment advanced to secure the high ground south of Pinamopoan village. This area was occupied by the bulk of the Japanese First Infantry Division — a crack outfit of the infamous Kwantung Army, with long experience in Manchuria. The Japs on the forward slopes of the first ridge allowed their positions to be by-passed by two reinforced companies of the 3rd Battalion.

Fire Discipline

"The enemy," said the colonel, "in approximate strength of one battalion, remained quietly in such concealment that two companies advanced apparently without opposition. Then the enemy opened fire with such great effect that the two forward companies found themselves completely isolated and unable to move, to receive supplies, or to evacuate wounded. Only by superhuman efforts on the part of the remainder of the regiment were these two companies extricated."

During the following 10 days, there were numerous instances when Japanese troops—often in strength of a rifle company in bunkers, and supported by eight to a dozen machine guns and mortars would permit the cautiously moving advance elements of an American attack to by-pass the excellently concealed Jap positions. Then the defenders would open fire on reserve troops moving up in more compact formations.



As the U.S. attack developed, the Americans discovered that every reverse slope in the area was well defended. "The enemy used reverse-slope defence tactics effectively," said the colonel. "Every foot of the terrain attacked was used properly for defence. All the Jap positions were mutually supporting."

"Most enemy foxholes were constructed in the shape of an inverted boot," he continued. "The fire step and firing position toward us was in the 'toe', and the deep 'heel' was used to retire into for cover during our artillery and mortar fire. Enemy artillery pieces were located in covered emplacements, well concealed, with deep caves behind the gun for protection of the gunners."

Counter-attack

Throughout the entire 12-day period during which the colonel's regiment was attacking, the enemy followed a careful plan of active defence. During the morning and the early afternoon hours, the Japanese resistance was generally light. However, it began to increase at about 1530 hours, and by 1600 hours was extremely heavy. From then until dark, counter-attacks were launched with increasing intensity against the front and flanks of U.S. units, and from between units that had no flank contact with each other.

"By building up resistance late in the afternoon, and by counter-attacking in force before dark, the enemy was able to bring greatest fire upon our assault troops, with demoralizing and disorganizing effect, at a time when our energy and ammunition were as nearly exhausted as they would be at any time during the day," the regimental commander said. "Also," he added, "it prevented proper consolidation of front positions before dark."

Many of the counter-attacks were delivered by Jap infantrymen who crawled all the way to the American assault positions. Invariably these Japs had their helmets camouflaged with grass and weeds. "Often the first indication of an approaching attack would be when outposts spotted grassy helmets moving in the deep cogon grass," the colonel said. "Our own men had elastic bands around their helmets for the purpose of inserting grass and twigs, and often our defences hesitated to fire as identification was difficult."

The colonel said that many of our riflemen failed to dig their foxholes deep enough, with the result that they were unable to stand upright during enemy mortar fire but were forced to crouch. This worked to their disadvantage for, in this position, they were unable to observe the action and the enemy was able to come within bayonet range.

Snipers

As might be expected, the Japs defending the Breakneck Ridge area made use of snipers and infiltrators. However, the snipers did not operate singly in trees, but seemed to work in nests of three or four on the ground. "Snipers seldom if ever fired at vehicles," the colonel said, "no matter how loaded with troops they appeared to be. However, the snipers continually were firing at foot troops on roads, individuals as well as formations."

During the nights, enemy infiltrators would work their way into the American rear and cut telephone wire lines. Then they would wait to ambush linesmen who came to repair the break. Litter bearers and aid men also were the particular targets of these harassing tactics.

COMBAT DISCUSSIONS

A project has been developed in M.D. No. 13 through the close co-operation of Education and Training. It seeks to make use of battle experience of officers and ORs returning from active service so that troops going on draft may have a fuller and clearer picture of what they will think and do and meet under fire.

No matter how complete and intensive the training may be in our Training Centres, the inexperienced soldier has a lot of unanswered questions of a rather intimate and personal sort not covered by the training manuals.

"Are our arms as good as the German weapons? The sergeant says so, but—hell—that's what he's paid to tell us . . . What does it feel like to be under fire for the first time? Battle inoculation is something but the instructors on the Brens aren't trying to kill us . . . I've stood sentry on our schemes, but nobody was crawling around with a knife to stick in my back . . . I wonder what it will be like . . . Shall I be afraid? . . . Shall I be able to do the job right?"

Tormenting Thoughts

Such questions and thoughts can become very tormenting. The soldier who has had some of them answered will be that much surer of himself.

On this assumption Combat Discussions were organized at A16 CITC.

The Assistant Education Officer interviewed men with battle experience to secure their co-operation in the scheme. Because they had had no previous experience as lecturers, many of them were at first unwilling to take part. Their unwillingness was overcome when the purpose of the scheme and the part they were to play in it was fully explained. When they learned that they were expected to answer questions and not to make long speeches, many were willing to pass on their experience to men getting ready for overseas.

The interview type presentation, during which the officer i/c asked questions answered by the returned Veteran, helped the unskilled speaker overcome his diffidence. It was necessary for another reason as well: it enabled the officer i/c unobtrusively to keep control, it prevented any tendency to "throw the bull," and it guaranteed that no essential point was missed.

The questions dealt with very simple and personal things. It was not intended to teach the handling of troops in battle, but rather to give the individual soldier's point of view, what he did and saw and thought, how he felt about things. For reinforcement officers it is necessary to deal with things at the platoon level and to refrain from discussing higher formations and their activities. Reinforcement officers themselves ask many questions, such as "What sort of baggage should I take? Where and how would this be carried? Is a sleeping bag useful in France? What equipment can be bought in London? What use can I make of the platoon runner?" At this level, the interview method is not necessary.

An Example

One of the first of these Combat Discussions featuring a Bren Gunner, a tri-wound returned from Italy, went something like this:

The soldier was introduced to the group (the meeting, incidently, was held very informally in the men's quarters) and after a few introductory remarks the officer i/c began with:

"Now tell us something about the way you landed in Sicily."

A: "The ship stopped about 2 miles from shore. We loaded into the LCIs."

Q: "Where did they come from?"

A: "They were on the ship with us."

Q: "How did you get into them."

A: "We climbed down the netting thrown over the side. We had practised this before dozens of times."

Q: "What did you carry with you?"

A: "Just our skeleton web with water-bottle filled, 6 Bren magazines, 2 grenades. I was a Bren Gunner. I had a small kit rolled in a gas cape."

Q: "Did you come under fire as you landed?"

Commandos Did a Job

A: "No, we were lucky. The Commandos had done a job before we landed."

Q: "Where did you go when you landed?"

A: "The section ran about 150 yds to a X roads which we had to occupy."

Q: "How did you know where to go?"

A: "We had a complete description given us while in the ship by map, so when we arrived everything was just as expected."

Q: "What did you do there?"

A: "We dug in."

Q: "What with?"

A: "With our entrenching tool."

Q: "How deep did you go?"

A: "Just enough to lie down in."

(Answers were given to the following points.)

1. How long did it take you?
2. What could you see when in the slit trenches?
3. What range of visions?
4. Fire responsibility.
5. Other slit trenches.
6. Platoon H.Q.
7. Foods.
8. Posting a look-out.
9. Other sections.
10. Next move.

(General questions on arms ran something like this):

Q: "What do you think of the PIAT?"

A:"The best ever. It will knock out anything and is just as good against a house wall. Its range is not so long as a Bazooka but who wants to try to hit a tank at 300 yds when the best range is 50 yds?"

Q: "What about the Bren?"

A: "There is nothing to beat it."

Q: "How about house to house fighting, did you get any of that?"

A: "Yes I did, and it's pretty tricky, but as long as you chuck a grenade into any room first, and then follow up, it's not too bad.

Q: "How is the section leading?"

A: "Very good, it has to be, and it's most important to keep one eye on the S.L. The team work is really fine."

Plenty of questions were asked by reinforcements, such as "Can you pick up a Schmeisser or Luger?" This was answered by "Yes if you want to, lots of men did at the beginning, but soon got tired of packing extra weight and threw them away."

How Are The Girls

Another was: "How are the girls in Rome?"

A: "I guess they are alright, but most of them are rotten with the V.D."

Q: "How does it feel to shoot a German?"

A: "It's just a question if you would rather he shot you or your friends, which he will certainly do if you give him the chance."

Q: "Were you frightened at all?"

A: "Sure I was scared, but we had too much to do to think about that."

The man described what took place in a Reconnaissance Patrol, and simple questions brought out the details.

JUNIOR COMMANDOS

(Condensed from The American Rifleman)

Belly-crawling up enemy beaches at dawn, tommy-gun clutched in hand, is a stirring ambition for a boy. Add visions of hand-to-hand combat with enemy Nazis, thrilling street fights where bullets whistle overhead, and you get a limited idea of the thoughts exciting every junior who joins Britain's Army Cadet Force. Young—perhaps no more than 14—these lads have the support of the regular Army, and wear the same battle dress as regular troops.

In World War I these boy soldiers in Britain numbered 100,000. After the final shot was fired in that war, however, the Government—anxious to show its pacific intentions — withdrew support in 1930; the Cadet movement looked like it was dying out. But "old soldiers never die," nor did these young ones. Britain's National Cadet Association was formed to rescue the scattered units and keep the delicate organism alive.

And so it happened that three years ago, when the Government once more wanted Cadets, the boys were there—only 12,000-odd of them but a fighting nucleus which has grown now to over 180,000.

Highly Trained

Highly-trained before reaching Army age, these lads are marked for promotion at the start of their Army career, and the fact that every cadet is a volunteer shows that he is "army-minded." Some become NCOs immediately; others go to the officer-cadet training units. All are eligible for the Home Guard, Britain's great defence force of "part-time" soldiers.

Britain's cadet force, unlike the Hitler youth set-up, is not a forcing ground for unthinking robots, but a very human organization designed to bring out the best in every recruit.

As the driving force of the movement in peace years, the Cadet Association still has a hand in the welfare and games side, but the War Office now supervises the training, making it every cadet's ambition to win his Certificate "A." This is the course which gives him a thorough grounding in modern warfare, including marksmanship. Part I is taken at the age of 15 and Part II a year later. So trained, he is an asset to any regiment he joins.

Certificate "T" is another coveted prize. This involves a two-years' technical training course which not only fits him for most forms of modern

mechanical warfare, but is a good basis for a peacetime trade.

There are some school cadet units, but the great majority are composed of boys already working on war jobs, awaiting the time they are 18 and able to enter the army proper. These can be helped by grants from the local educational authorities. Camping comes into it, too, and arrangements are made for at least a week under canvas every year to bring the boys face to face with cookhouse problems, night manœuvres and, very often, harvesting to help Britain's farmers.

Here is the weekly diary of a typical cadet, in Edinburgh: Jimmy is 16 and a sergeant. His week begins at 2.30 p.m. Sunday when he parades his platoon near the Canongate. At 2.45 p.m., after roll-call and inspection, they march past historic Holyrood Palace to King's Park for company drill, under the eyes of the admiring townsfolk.

Mock Battle

Suddenly the parade breaks up on the order, "Under effective fire." The lads at once flatten themselves on the ground, seeking cover. A mock battle follows, with full scope for infantry training under Certificate "A"—map reading, camouflage, message carrying, field signals, etc., including hand-to-hand combat uncommonly like the real thing.

The boys use .303 rifles and blank ammunition, or, if these are scarce, cavalry carbines.

Within an hour of parade the boys are back at their cadet club for lectures, games, and perhaps a discussion led by the padre. On Monday night a Regular Army Sergeant is at the drill hall to instruct the NCOs in the art of instructing. Tuesday is a physical training and swimming night. Wednesday is club night again, with perhaps a table tennis or billiards tournament to be played off. Thursday is devoted to Certificate "A" class and Friday finds Jimmy back in the school hall or playground for company drill. Football with the cadet team fills Saturday afternoon and the evening is given over to entertaining another cadet company from the opposite end of the town.

Back late, Jimmy still has a few jobs before bed; trousers to press, boots to polish, and belt and anklets to "blanco."

Such is the life of a cadet in Britain. Throw a Regular Army assault course or a spell at the Army School of Physical Training — and Jimmy will be well on the way to that beach landing at dawn, or to taking his place as a physically, mentally, and morally fit citizen of Britain at peace.

Boys trained to shoot, to obey, to command, to work together as a team, are better fitted to survive in war or to preserve peace. Is Britain's system the answer for America's post-war youth problem?

PRESENCE OF MIND

(Empire Digest)

A film actor and his wife were seated in a secluded corner of their club. The wife had a tongue like a shrew and was berating her husband in no uncertain terms.

Unnoticed by her, a party of acquaintances approached within earshot, just as she delivered herself of this: "You mean skunk! Of all the slimy snakes I think you're the worst. You're just a cheap skate!"

Noticing the people who had just arrived, the husband, who deserves a medal for tact, said: "Quite right, my dear; and what else did you say to him?"

THE BESTIAL HUN IN OCCUPIED COUNTRIES

(*Fighting Forces*)

"If," writes a Military Observer, "there had been any doubt in the minds of the men of the 15th Scottish Infantry Division as to the truth of stories of the horrors of German concentration camps these have been driven away by what they have seen for themselves. They know these tales have not been exaggerated and they have heard first-hand stories from men who have suffered from Nazi brutality. What they have seen and heard have made them even more determined to drive the Nazi scourge from the earth for ever.

"During their rapid advance across Belgium these Scottish troops spent a couple of days in the neighbourhood of Breendonck, between Brussels and Antwerp, where the Germans turned an old fort into a torture chamber. From the outside the building looked like the conventional prison camp. It was surrounded by a high barbed-wire fence and had machine-gun posts in small towers at the corners.

Punishment Cells

"Inside the fence was a moat about 20 yards wide. Once inside, however, the resemblance ceased. The prisoners' living quarters were rooms about the size of a normal British barrack room for 30 men. Each room housed about 100 prisoners, who slept on triple tiered wooden bunks. In a smaller block were punishment cells. They had stone floors with an iron grill overhead and measured barely six feet by four feet. The prisoners occupying these cells had their wrists shackled to the wall by a chain only a foot long. Their food was placed in a tin bowl on a low trap door, and by straining forward to the fullest extent of their chains they were just able to reach the bowl and lap up the food like an animal.

"The Nazi guards frequently left the bowl in that position for only a few minutes and any prisoner who was not adept at eating in this manner went without.

"The visitors were shown the rooms where the Gestapo carried out their brutalities—the lethal chamber, where the bodies of the beaten, shot and tortured, were thrown naked on the floor and gassed, whether a spark of life remained in them or not.

"The torture chamber now stands empty except for a wooden table and a small stove with a hooked branding-iron beside it. From two hooks, high in the ceilings, the Gestapo hung a rope by which victims were hoisted up and

ADMINISTRATION

(Current Reports from Overseas)

"It is strange how little welcome there is for most books and articles on the administrative side of war. It is a subject which is often neglected even by the professional military historian. And yet it has a fundamental importance which has existed all through the history of warfare and, in addition to that, a special modern importance owing to the extent and diversity of the needs of modern armies. Behind these there must be what amounts to a vast business organization, but one which works in a realm blasted and battered and patches things up as it goes with material brought in from outside. If that organization should prove inadequate or break down, then, at the best, the armies which it serves will be paralysed; at the worst, they may be starved or destroyed in the field."

(Quoted by kind permisston of the author and editor from Cyril Falls' article, "Mulbery and the Invasion," published in the Illustrated London News of 30 December 1944).

down. Across the floor was a runnel leading to a drain down which blood of the tortured men flowed.

"Wall-plugs showed where electric-light wires had been extended to electrocute prisoners.

"The execution ground was behind the fort and bullet holes in the wall showed where prisoners had been shot.

Bodies Stripped

"Forty soldiers were used to shoot ten prisoners at a time. Bodies were afterwards dragged to wooden sheds, stripped of clothing and placed in flimsy wooden coffins lined with felt. One shed was stacked high with pathetic relics of the German crimes—Belgian army uniforms, civilians' respirators, clothing of all kinds and empty jewel cases flung away by the Germans after they had helped themselves to the contents.

"In an open courtyard alongside the commandant's living quarters prisoners were publicly bludgeoned to death. Belgians related, too, how the German guards would fling shovels into the moat and then kick prisoners into the water after the shovels so that they either drowned or died later of pneumonia.

"Jews were frequently made to dig in shifting sands so that as they shovelled they gradually dug themselves deeper and deeper into the ground.

"Another favourite pastime for the soldiers was to chase men and women towards a wall too high for them to climb, and then beat them as they fell down. Hundreds of Belgians had died here and one Gestapo man boasted that he alone had killed 300 people.

"Now the concentration camp is empty except for a few Belgians. They are collaborators who are being kept under guard by members of the White Army. But the prison remains a lasting memory of the horror of the German occupation."

EXTRAORDINARY SOLDIER

(Condensed from "Talking Points"— British Ministry of Information)

When the Duke of Wellington was asked before battle what his chances were he pointed at an ordinary British foot soldier and said: "It all depends on this article".

The term "ordinary soldier", traditionally applied to British foot regiments, has misled the enemies of Britain again and again. Because in peacetime the British Army is very small compared with the armies of great militaristic nations, the continental powers have never been able to understand how it could in wartime stand between them and their lust for conquest. The reason is that they have failed to recognize two things:

Toughest In World

First, the British foot soldier for all his good humour, makes, together with his brothers in the British Dominions, the best and toughest military material in the world.

Secondly, no nation in the world has ever possessed in the same degree as Britain the power of rapidly switching its resources from peace to war. In 1939 Britain could not put 20 divisions into the field in Europe. Even in 1940 when the army was expanding it suffered disaster at Dunkirk, following the collapse of French, Dutch and Belgian resistance, and 240,000 men who came back to the shores of Britain in June 1940 had lost their entire equipment and from weeks of dive-bombing were no longer in military formations.

The Germans were so sure of themselves that they scarcely even bothered to plan the final reduction of Britain. Yet, a Russian military observer in Cairo expressed his amazement at British audacity in contemplating an offensive drive with such a small margin of superiority—Russian military commanders themselves insist on six to one superiority before launching an offensive.

Even when on the defensive the United Kingdom soldier gave more than he got, and inflicted heavy casualties on the enemy. In Norway in 1940 a

British Force of 24,000 killed 37,000 Germans, and itself only suffered 1,000 casualties. In Western Europe in the first year of the war Britain lost 53,000 men against German casualties estimated at 350,000.

Highly Mobilized

Since 1940 a tremendous build-up took place in Britain's military strength, until out of the nation's 47,000,000 more than 5,000,000 had been enlisted in the armed forces. No nation has achieved such a high percentage of mobilization as this.

Britain's heavy sacrifices in manpower are proof enough that her troops have undertaken the major share of the hard fighting throughout the war. Empire losses in killed, wounded and missing total over one million, and of these, two-thirds are United Kingdom personnel. Britain's share is even higher among the killed, for here no less than three out of four are from the United Kingdom.

Before the offensive against El Alamein, the British Army, without an ally in the world except in the fellow nations of the Empire across thousands of miles of sea, for 12 months engaged between 300 and 400 divisions of Axis troops.

Territory Captured

In two months Gen. Wavell in North Africa had, with forces of less than 50,000 British troops, destroyed the flower of the Fascist Army, taking 133,000 prisoners alone. In East Africa, Generals Cunningham and Platt had captured the Italian East African Empire, liberating Abyssinia, and inflicting 289,000 casualties. The delaying action fought by British troops in Greece and Crete had cost the Germans over 40,000 men and delayed the attack on Russia with disastrous consequences for the enemy. While Britain had captured 700,000 square miles of Italian imperial territory, all she had lost was the Channel Islands off the cost of France.

"Magnificent" Army

Recently, Sir James Grigg, Britain's Secretary of State for War, stated in Parliament: "We have a magnificent army. This is primarily due to the inherent character of the ordinary British soldier, and the added courage and unselfishness he has acquired whenever faced by a supreme task."

LEANING ON THE BARRAGE

(From a War Diary—Current Reports from Overseas)

"We attacked up the hill and reached the crest as our barrage ceased; a few of our own shells had fallen among the leading platoon but had caused no casualties. So far we had had only the odd grenade and a few rifle shots fired at us. For this reason I appreciated that the enemy had withdrawn and pushed two platoons about 200 yards down the forward slope. They ran into the Germans who were returning to their positions, killed a few, and took others prisoner. I have no doubt that these Germans had retired from the crest to escape the shelling, and were on their way back to their posts now that the artillery support had lifted. My supposition was confirmed the next morning when we found several Spandaus in position, cocked and ready to fire. It was as well that we had so closely followed the barrage."

JAPANESE ENGINEERS

(Condensed from U.S. Tactical and Technical Trends)

While the primary mission of Japanese engineers is in most respects similar to that of their U.S. counterparts, they also engage in assault operations against fortified positions and participate in combat as members of "suicide squads" and "raiding parties".

According to Allied standard, their tools and mechanical equipment are relatively simple and do not demand a high degree of technical proficiency, but they are adapt at improvisation and skillful in the use of local materials. Accordingly, the work of Japanese engineers is highly decentralized; they are employed in small detachments assigned to small combat teams, infantry battalions, companies, or even smaller units—in direct contrast to the American and British practice of keeping engineer units under centralized control as much as possible.

Varying Missions

In addition to engineers who constitute an organic part of major Japanese organizations such as infantry and armored divisions and garrisons, the Japanese Army assigns independent engineer units to varying missions and localities for the performance of special tasks.

A divisional engineer unit normally has the strength of a regiment and takes the number of the parent division for numerical designation. The regiment usually consists of three field companies and a regimental material platoon. The field companies do not specialize in any single type of task but are usually attached to each of the three divisional infantry regiments for the purpose of performing pioneer work.

Well armed with rifles and hand grenades, each company also has a light machine gun; some platoons may have a flame thrower. Normal engineer equipment of divisional engineers consists almost entirely of hand-operated tools.

By Allied standards Japanese divisional engineers are primarily combat pioneers. While their mission is similar to our own doctrine for engineers—to facilitate the movement of friendly troops and impede that of the enemy—they do not have the technical skill of well-trained Allied engineers.

Hazardous Missions

In attack, the Japanese engineers are responsible for the most hazardous type of mission—assault on fortifications and fixed defenses. On this point, the Japanese field regulations state that the engineers shall reconnoitre the enemy situation and terrain and present to the division commander the information

with which to formulate the plan of attack. In particular, they co-operate closely with the infantry by performing the necessary preparatory tasks for attacks on positions.

Obviously, many of the tasks outlined above by their very nature are suicide missions because of the manner in which Japanese engineers carry them out.

In applying the Japanese principle that counter-attack is the best means of defence, engineers are often chosen for small raiding and infiltrating operations against an advancing enemy.

A raiding group usually consists of a small number of men who are well equipped with demolition equipment designed to carry out their particular mission, as well as with personal equipment, emergency rations to sustain them for fairly long periods, and only light arms.

Labor Units

A development apparently originating in the Southwest Pacific area was the creation of regimental labor units which are detailed to assist the divisional engineers in their tasks. These units were formed by withdrawing a number of infantrymen from various elements of the division.

When confronted with a large water barrier such as a river, the divisional engineers are incapable of carrying out a bridging mission alone. For this purpose, a division is augmented by an independent engineer unit which has been trained particularly in bridge construction. At the same time a special transport unit—a bridge-building materials company—furnishes and brings up the necessary materials for the engineers to accomplish the bridging operation.

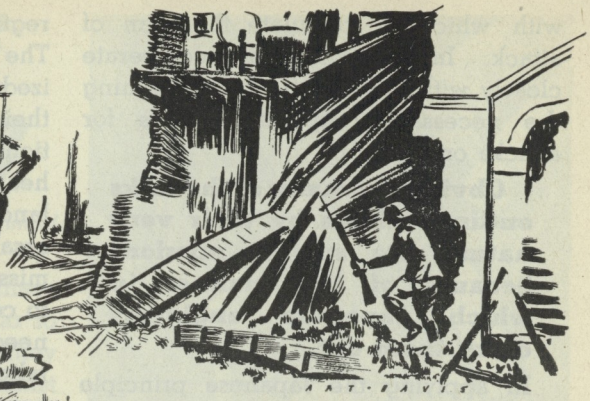
In the second general category of Japanese engineers are the independent units which are largely organized into regiments, battalions, and companies. The independent regiments are organized into six different types according to their principal function in combat operations, which may be open warfare, heavy bridge building, shipping and landing operations, river crossings, assault of fixed defences, or special missions. These regiments are assigned to commands in the field as specifically needed. Independent engineer battalions and companies also exist and are attached to varying types of commands for general or specialized duties.

The function of the smaller independent engineer units appears to be largely confined to construction work in connection with roads, airfields, fortifications, etc.

Probably because of insufficient training as well as lack of heavy equipment, the road and airfield construction performance of the Japanese engineers has been poor by American standards. The best performance thus far has been exhibited by the bridge construction engineers. Japanese doctrine regards the construction of bridges as a last resort, however, and prefers wading, fording, or boat transportation for crossing streams.

When the Japanese seized a potentially important route during their Burma campaign, they did not attempt to convert it immediately into a fully developed road capable of handling heavy traffic. Instead, they made use of the existing trails to move foot troops who carried as much supply as they could.

While still used by foot traffic, the trails were improved by the line of communication engineer units to permit their use by animal transport trains. Finally, the engineers completed a fair-weather road for heavier traffic, such as tanks and motor-drawn artillery.



THE JOB OF THE INFANTRY

(U.S. Infantry Journal)

What the job of the infantry is was beginning to be clear to the people at home by the first weeks of the winter. As the fighting grew tougher than ever along the German frontier, there wasn't any question left in the mind of any man who read the news that it was the infantryman who was doing the most to gain the miles. And the miles were growing steadily harder to capture as the vast battle surged over into enemy ground.

More and more details of the desperate Nazi resistance and the effort needed to overcome it were appearing daily in the news. There were still a good many people who somehow held to the thought that machines, and especially machines of the air, would finally crack the stiff resistance—and enable the infantryman to mop up easily all that was left.

Flow of News

But the steady flow of news about the progress of our armies and the tremendous effort which that progress involved came back not only through news reports but through millions of letters to millions of homes. It came back to the homes that are represented in this war by fighting infantrymen. So the fact that the infantry is the fighting heart of the army—the part of the army with the Big Job—came to be better understood along toward the end of 1944.

There was still the strong belief, even after the advance slowed down in the face of much stronger resistance, that the armies could only continue to roll ahead. They might pause for a breath. They might stop to get set for another successful attack. But not for long. The feeling was strong back home that the German enemy was close to the end of his stand.

Not that this feeling went back home in letters from infantrymen. The man in the front lines . . . knew how the enemy was fighting. He knew he was up against the toughest enemy ever faced by an American force. He knew that there was plenty of fight left in the opposing forces of the Germans. He saw no sign of what by any stretch could be called a serious military weakness in squads, the companies, of the German forces—in the German infantrymen who fought him with their

utmost skill to hold each yard of their invaded country.

He never figured that the "last phase" of his fight was here—that the enemy was just about ready to quit and run.

For the infantryman knew different. He was doing the fighting. He was there—fighting to take difficult ground in miserable weather — living in the cold, the sleet, the mud — realizing every hour of battle just how tough his assignment was and how much fight there was left in those who were fighting against him.

The German counter-offensive of December brought proof that the infantrymen knew more than anyone else about the enemy, the quality of his resistance, the amount of fight still left in him. A tough strong Army—that of the enemy—was doing what any well-led, well-trained force was bound to do in the battle situation as it stood. The enemy was delivering the organized counterblow at the place its staff had selected as giving the greatest promise of success. The blow struck and it struck hard. It struck infantrymen, part of whose job it was to meet such an attack as well as to deliver attacks themselves. It was apparently a concentrated, well-conducted operation which threw strength against less strength—exactly what our own tactical doctrine tells our own commanders to do when they make attacks and counter-attacks.

Perhaps this battle, which was not a victory but a reverse, did away with any lingering doubt in any American's mind of the first importance of infantry in modern battle.

SECURITY BAFFLES THE ENEMY

(*Continued from Page 4*)

rules for security had produced a situation of great benefit to the Allied command. But by 17 May—the sixth day of the attack—the Germans were able to begin correcting their false intelligence. By 23 May all large units were identified properly and in approximately their correct positions. The German picture of the situation clarified gradually as more documents and prisoners were captured.

It is natural in the course of battle that the enemy should, by taking prisoners, gradually identify opposing units. But Allied prisoners taken in this battle were guilty of giving away a great deal of additional information. The captured enemy interrogation reports reveal that 22 Allied officers and enlisted men provided information not only on battle tactics but also on shipping movements and convoys. From these prisoners the Germans also gained information concerning strength and organization of units, and even the password for the day. One Allied prisoner told the Germans the name of an Allied division that had moved from the Italian theatre to another theatre of operations.

Evidence in the captured files suggests that the Germans did not apply pressure to those prisoners who refused, properly, to divulge secret information.

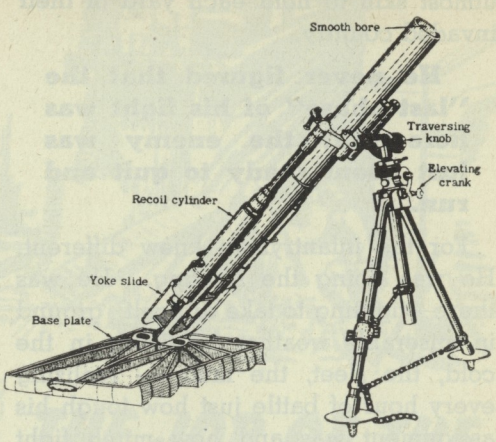
On 11 May the Allies went into battle against an enemy almost completely blinded by the haze of war and by well-kept security. Ignorant and misinformed with respect to where the main weight of the attack would fall, the enemy placed his reserves in positions advantageous to the Allies, and made errors from which he never fully recovered. But once the battle was joined, the Germans got too much help from prisoner interrogations and captured documents.

JAPANESE MORTARS

(Extracted from "Japanese Mortars and Grenade Dischargers—"U.S. War Dept.)

The Japanese fully realize the capabilities of mortars and have employed them skilfully. The mobility of mortars, and the fire power which these lightweight weapons deliver, admirably adapt them to Japanese tactics which emphasize speed of manœuvre and concentration upon the offensive. Mortar units, like artillery, are considered primarily as infantry-support weapons, and are subject to infantry control for close-support missions to an even greater degree than artillery.

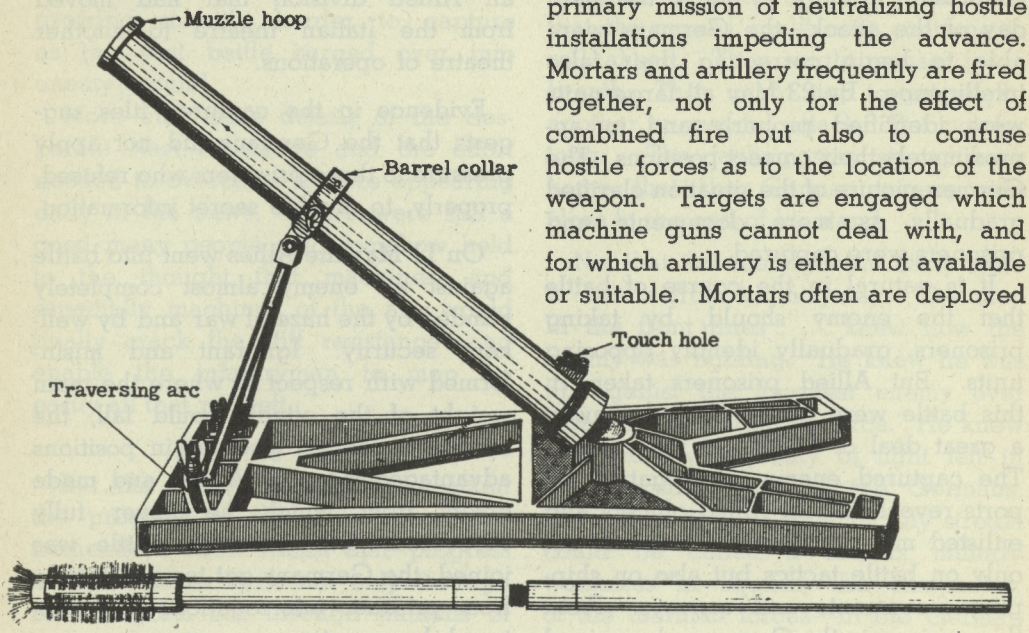
There is conclusive evidence of the Japanese tendency to increase their reliance upon mortars. Larger calibre mortars are being substituted for lighter ones, and grenade dischargers for certain missions are being supplemented by mortars. In the Solomons, mortars of 50-mm calibre were employed, while in the Gilberts, 70-mm weapons were utilized. Eighty-one-mm mortars were used extensively in the Marshalls, as they were on Saipan where the hilly terrain was ideal for their tactical exploitation.



Japanese Model 94 (1934) 90-mm mortar

In the Marianas, where Japanese mortar fire was especially heavy, 90-mm models were encountered also in considerable number. Recent reports from Palau show that, in addition to grenade dischargers and mortars up to 90-mm calibre, the Model 97 150-mm mortar was an important item of Japanese ordnance, and mortars of all types readily were adapted to the cave fighting which developed on Peleliu and Angaur.

On the offensive, Japanese mortars are sited well forward and assigned the primary mission of neutralizing hostile installations impeding the advance. Mortars and artillery frequently are fired together, not only for the effect of combined fire but also to confuse hostile forces as to the location of the weapon. Targets are engaged which machine guns cannot deal with, and for which artillery is either not available or suitable. Mortars often are deployed



Japanese Model 98 (1938) 50-mm mortar

JAP SNIPER GETS 87

A Jap sniper nicknamed "The Gopher" owing to his habit of popping up at unexpected places and picking off men made it hot for the U.S. Marines long after Peleliu in the Philippines had been taken by the American forces.

Continuing his work on Bloody Nose Ridge, this super sniper popped in and out of tunnels dug by the Japs. After firing, he would disappear and pop out of another hole, and his total score before a Marine marksman picked him off—through the head—was 87 dead Marines, also shot through the head!

JAPANESE MORTARS

(Continued from Page 38)

together with the heavy machine guns in support of advancing infantry units.

When Japanese mortars are employed defensively, hostile assembly areas and lines of approach constitute the major targets. In Burma, for example, hostile forces came under heavy mortar fire when they reached points 300 to 500 yards from the Japanese forward defense line. There is an extensive use of alternate positions by mortar units in defensive situations.

When a Japanese defensive position has been overrun, heavy mortar fire quickly is brought down upon it at ranges carefully worked out in advance. In some cases, fire on such positions is delivered from mortars placed in deep holes, which are kept covered when the weapons are not in use. From such emplacements the radius of mortar fire, of course, is limited; usually the weapon is sited to fire on a predetermined target with the range worked out in advance. Synchronizing mortar fire with hostile artillery concentrations is a favorite trick of the Japanese, designed to deceive hostile infantry into believing that it is being fired on by its own artillery.

Japanese mortars have proved to be formidable weapons in the jungle; even the 90-mm weapon has been used with good effect in difficult jungle terrain.

In most instances the Japanese have avoided siting mortars at or near the edge of a jungle or wood. Generally the weapons were placed well back from the edge, even as much as 400 to 600 yards. This practice made it necessary for observation posts to be well forward of the mortar positions.

MUSKETRY POSTER

Here is another in the Musketry Poster series authorized by the Director of Military Training, NDHQ. "Badges of Distinction" is a distinctive poster now in the course of production and distribution will be made as soon as possible. Posters in this series should be displayed in conspicuous places in Training Centres as they serve as an excellent medium for the promotion of interest in musketry shooting.

PASSING IT ON

Exercise Sausage

Mass production of "mine-conscious" soldiers is underway at No. 1 Training Brigade Group, Debert, N.S., by means of a four-hour course in German mines. This forced-feeding method has been labelled "Exercise Sausage," since the school has an intake of 16 men per hour, while another 16 complete the course every hour. The course was organized and is run by the Engineer Training Field Company of the Brigade.

Students are not expected to learn details, such as weight and dimensions nor how the intricate system of springs and balls function inside a mechanism. It is considered sufficient for students to be able to recognize each mine by feel, know how each can be fitted with anti-handling devices and how to neutralize these.

Models Used

Secret of this system, besides organization, is the effective use of wooden mine models and mine stocks.

The first two hours of the course are taken up by four lectures with a five-minute break at the end of each half-hour. Lecture rooms are arranged with four men to a table and there is a full set of mine models on each table. On the walls are posters and diagrams which are referred to by the instructor. (See Photo No. 1 on opposite page.)

Tellermines and igniters used on all German mines are covered during the first hour in one lecture room; in the next half-hour, in a second lecture room, instruction is given in other common types of anti-tank mines. (See Photo No. 2). The last half-hour is spent in a third lecture room covering anti-personnel mines. (See Photo No. 3). Two instructors with a good knowledge of mines are required for this part of the course.

During the third hour each student neutralizes, while blindfolded, 16 different mines set up on tables. The student has a look at the mine, decides what he is going to do and then, while blindfolded with a respirator with cardboard over the eyepieces, goes ahead with the job. Five instructors make sure that the proper procedure is carried out. Incidentally, these instructors can be men who have completed the course. (See Photo No. 4).

The fourth hour is spent neutralizing mines in stocks while lying in the prone position. Two sets of eight different mines are set in sawdust and in positions similar to which they may be found in the battlefield. Students neutralize the eight mines in turn while instructors check and re-set the mechanisms. (See Photo No. 5.)

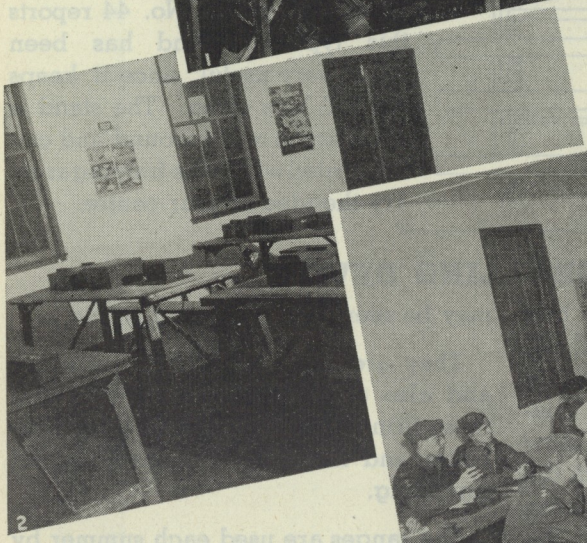
Talk On New Mines

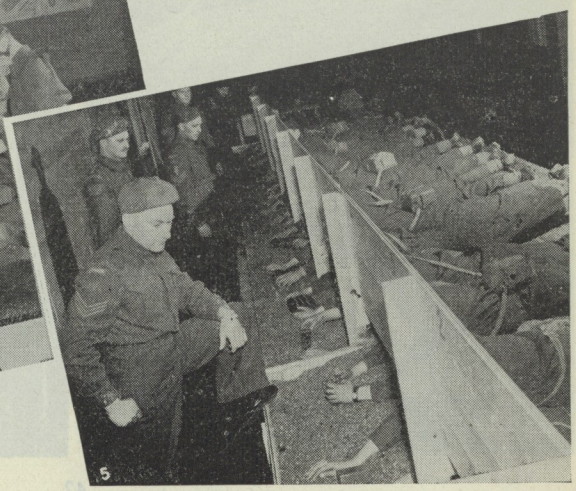
There is time at the end of the last hour to give a 10-minute closing talk on new enemy mines.

As the course is practical, the taking of notes is not encouraged.

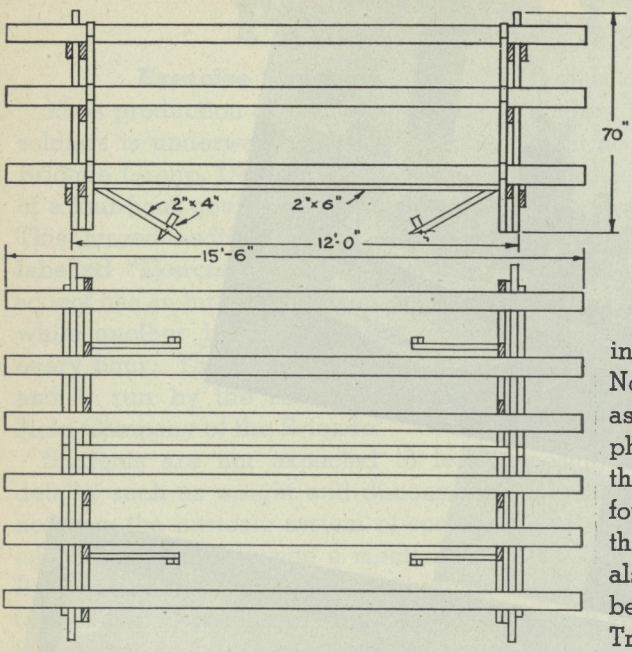
Models of mines and igniters were made by instructors themselves in the unit engineer carpenter shop. A few of the more complicated models were made in the RCEME workshop on a wood lathe. The school has few real mines, but is fortunate in having a full set of actual German igniters and mechanisms brought from overseas by two instructors of the RCE.

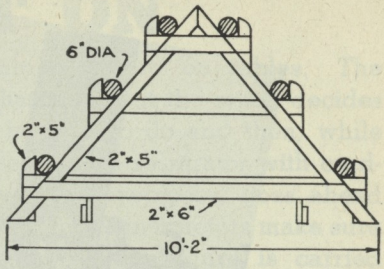
The course stresses the drill of neutralization rather than technical details. It gives the individual confidence in handling mines and some idea of enemy mine technique. As it is a lot to ask a man to absorb and retain in a half day, the course should be repeated at intervals in the same way that men refire their weapons on the ranges. Other Training Centres which teach their men an elementary knowledge of enemy mines may find it helpful to refer to this recipe if they decide to "fry a sausage."





P.T. LOG STAND





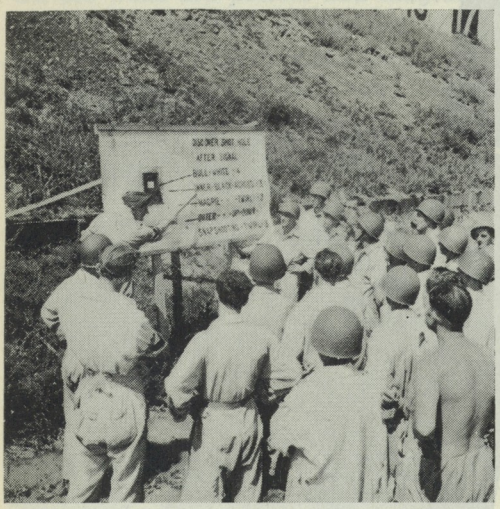
A stand for holding logs used in P.T. has been constructed by No. 44 CI(B)TC, St. Jerome, Que., as shown in the accompanying photo and plan. No. 44 reports this type of stand has been found very useful, since it keeps the P.T. logs clean. The stand is also easy to move around and can be located within the training area. Try the idea at your centre.

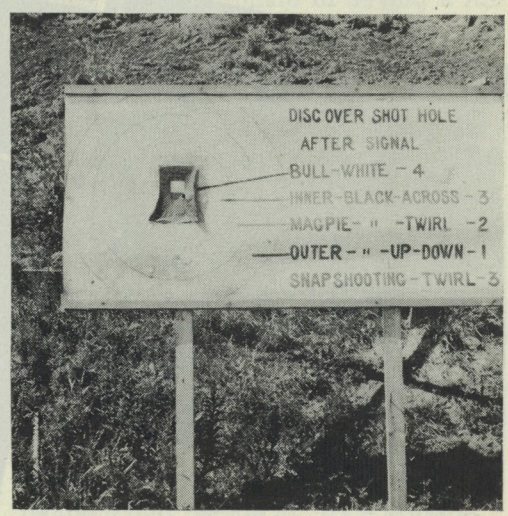
BUTT SIGNALLING DEVICE

The accompanying photos show butt signalling signs erected by Maj. C. A. Vickery, Reserve Army instructor in charge of range classifications at Niagara-on-the-Lake Camp. The signs show the proper signals to be given from the butts during firing; the signs have been placed between the targets and the stop butt for the information of the markers, and also at spots where they may be seen from the firing points.

They are used for lecture purposes and also as a guide for markers and those firing. It is reported they produce better and faster marking and correct signalling.

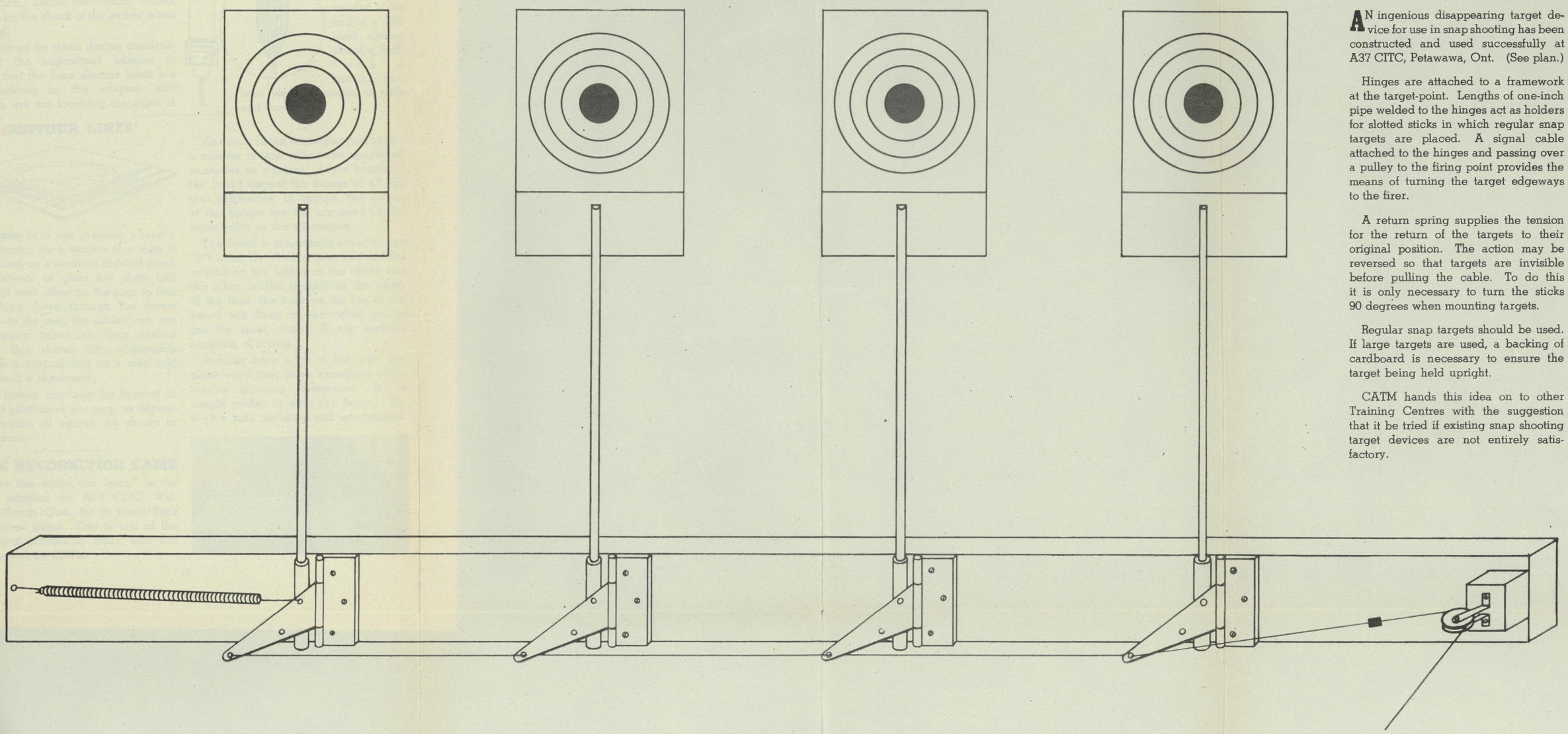
The ranges are used each summer by units of the Reserve Army, as well as active units in camp at Niagara.





SNAP TARGETS

MINIATURE RANGE



Mechanism—Hinges Welded to 1" Pipe—Pulley—Return Spring—Sticks Slotted for Target Backing—Cable (signal)

Action— Cable Pulled at Firing Point Turns Edge of Target Towards Firer Making Target Invisible

AN ingenious disappearing target device for use in snap shooting has been constructed and used successfully at A37 CITC, Petawawa, Ont. (See plan.)

Hinges are attached to a framework at the target-point. Lengths of one-inch pipe welded to the hinges act as holders for slotted sticks in which regular snap targets are placed. A signal cable attached to the hinges and passing over a pulley to the firing point provides the means of turning the target edgeways to the firer.

A return spring supplies the tension for the return of the targets to their original position. The action may be reversed so that targets are invisible before pulling the cable. To do this it is only necessary to turn the sticks 90 degrees when mounting targets.

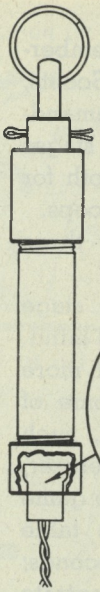
Regular snap targets should be used. If large targets are used, a backing of cardboard is necessary to ensure the target being held upright.

CATM hands this idea on to other Training Centres with the suggestion that it be tried if existing snap shooting target devices are not entirely satisfactory.

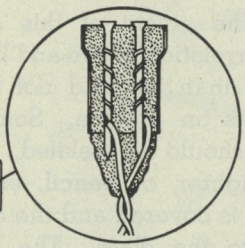
ELECTRIC ADAPTER

The accompanying illustrations show an electric adapter designed by A16 CITC, Calgary, Alta., for booby trap training. It has been found in training that the plastic holder tends to split after being used two or three times. A16's improvised adapter makes use of the end of a .303 shell casing with tar holding the wires of electric leads in position, hence the casing cannot be split by the shock of the striker when released.

Care must be taken during construction of the improvised adapter to ensure that the bare electric leads are not touching in the adapter, also hat they are not touching the sides of the shell casing. If the bare leads make contact, a short circuit will cause a premature firing when connected to the battery.

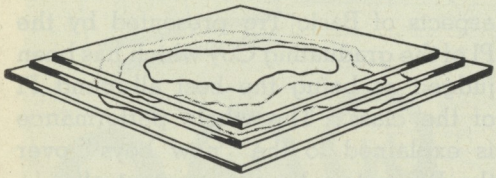


As will be seen, construction of this adapter is very simple and can readily be made by any Training Centre.



All that's needed is the end of a .303 shell casing, about a half-inch in length, two wire leads, a couple of nails and some tar.

CONTOUR LINES



A system is in use overseas whereby each contour on a section of a map is reproduced on a separate sheet of glass. These sheets of glass are then laid on top of each other on the map so that by looking down through the layers of glass to the map the soldier can see the contours raised into their relative height; this shows the relationship between a contour line on a map and the ground it represents.

This system can only be applied to selected sections of any map, as depressions cannot, of course, be shown in this manner.

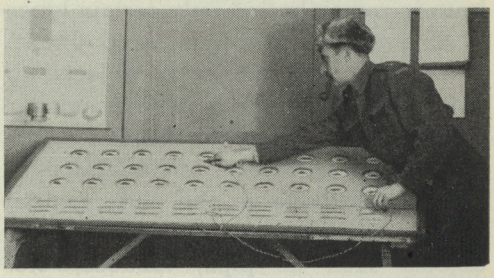
TANK RECOGNITION GAME

"Have fun while you learn" is the slogan adopted by A13 CITC, Valcartier Camp, Que., for its novel Tank Recognition game. This is one of the best ideas combining study with fun yet received by CATM.

As shown in the accompanying photo, a number of tank silhouettes are placed in circles on a board. At the bottom of the board appear the names of all the tank silhouettes; of course, the names at the bottom are not arranged in the same order as the silhouettes.

The board is electrically wired to one "S" cell. By placing one lead on the contact on the bottom of the circle and the other on the contact on the name of the tank, the bulb on the top of the board will flash on—providing you're got the right name! If not, nothing happens, of course.

Recruits have a lot of fun with this game—and they learn something while they're enjoying themselves. It's a simple matter to wire the board. Try it—it's both amusing and educational.



KIM'S GAME

This old game which will be remembered by any who have been Boy Scouts, has been introduced by the Commandant, Camp Borden, into the early stages of training of Recce personnel both for inf patrols and for Recce scout troops.

The game may be played in three stages:

Stage I: The object of this stage is to train in correlation of eye and mind.

Put not less than ten and not more than 20 objects on a table. Some of these objects should be related, such as cigarette, lighter, or pencil, eraser, etc. The table is covered and the game is explained to the class. The table will be uncovered for 45 seconds; in that time the class should concentrate on the objects and endeavour to remember their number, association, type and position.

The instructor then covers the table again and questions the class. As the class becomes more proficient and can get 90% of the objects in the given time, the time should be shortened.

Stage 2: The object of this stage is to train in remembering the correct positioning of the objects.

The same procedure is followed but after the table has been covered the students will endeavour to place a marker on a separate bare table declaring what object it represents. When he has placed the markers in the relative position of objects he remembers, the class should be called on to criticize before the original table is uncovered and the two compared.

Stage 3: The object of this stage is to train in remembering only certain types of objects and their relative positions.

Increase the number of objects up to 20 and instruct the class to remember only certain types of objects. For example, what objects relate to writing —you may have a pen, ink, pencil, eraser, postage stamp, etc., and other objects such as pipe, tobacco, etc.

FIRST IMPRESSIONS FOR THE RFT

No. 26 CI(B)TC, Orillia, Ont., believes in two fundamental factors:

(a) That first impressions are lasting; and

(b) That good performance should be tangibly recognized.

Here is how they do it:

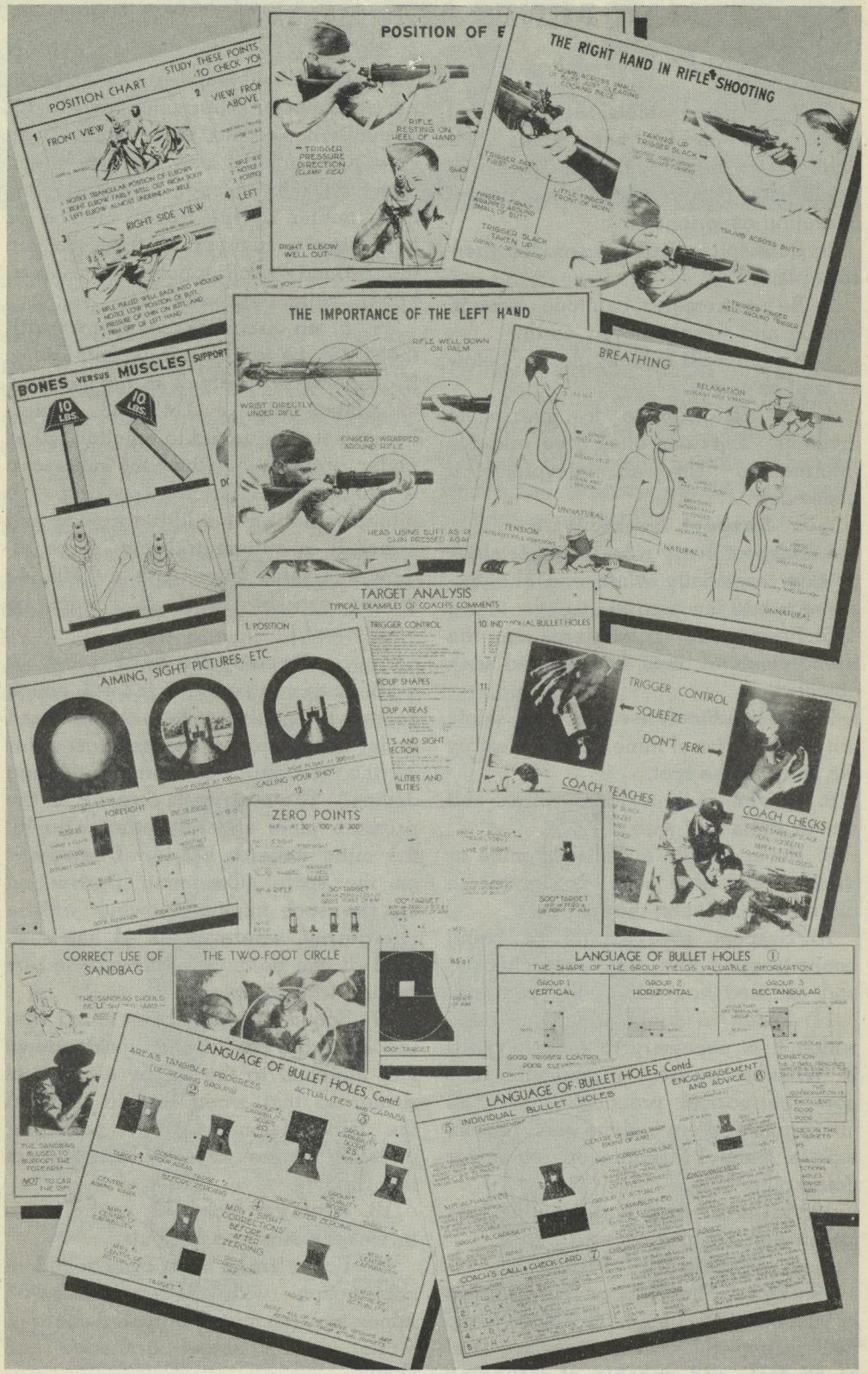
The new draft of Rfts arrives from the District Depots and are assembled on the Parade Square where the Comd puts them "in the picture" and extends a sincere welcome. This of course always goes down well with the "new boys" who immediately begin to lose that "pushed around" feeling.

The next item on their introductory programme is an illustration on "How It Should Be Done." This consists of a very smart demonstration of the various aspects of Basic Trg presented by the Pl of the graduating Coy which has been judged as being the best all-round Pl of the class. The whole performance is explained to the "new boys" over the PA system by a competent offr.

Thus the two factors are realized. The "new boys" are favourably introduced to the Basic Trg and the "old boys" are rewarded for work well done. In all, a very reasonable approach to the problem and one which might well be utilized in other Centres.

NEW CHART SERIES

Shown on the opposite page is a layout of the 14-sheet Musketry Coaching Chart Series now in the process of distribution and authorized by the Director of Military Training. The charts show in graphic form the main points to be emphasized in the development of good rifle shooting; they are to be used by instructors in connection with the Johnson Method of Coaching. These charts are designed to improve the standard of shooting by showing the soldier in simple picture form the basic principles of good musketry. ⋙→


POSITION CHART
STUDY THESE POINTS TO CHECK YOU
1 FRONT VIEW
2 VIEW FROM ABOVE
3 RIGHT SIDE VIEW
4 LEFT
POSITION OF E
RIFLE RESTING ON HEEL OF HAND
TRIGGER PRESSURE DIRECTION (CLAMP JAW)
RIGHT ELBOW WELL OUT
THE RIGHT HAND IN RIFLE SHOOTING
TRIGGER FINGER FIRST JOINT
TAKING UP TRIGGER SLACK
FINGERS FIRMLY WRAPPED AROUND SMALL OF BUTT
TIP OF TRIGGER FINGER
TRIGGER SLACK TAKEN UP
THUMB ACROSS BUTT
TRIGGER FINGER WELL AROUND TRIGGER
THE IMPORTANCE OF THE LEFT HAND
RIFLE WELL DOWN ON PALM
WRIST DIRECTLY UNDER RIFLE
FINGERS WRAPPED AROUND RIFLE
HEAD USING BUTT AS CHIN PRESSED AGAINST
BONES VERSUS MUSCLES
SUPPORT
10 LBS.
10 LBS.
BREATHING
RELAXATION
UNNATURAL
TENSION
NATURAL
UNNATURAL
TARGET ANALYSIS
TYPICAL EXAMPLES OF COACH'S COMMENTS
1. POSITION
TRIGGER CONTROL
10. IND... NORMAL BULLET HOLES
11.
AIMING, SIGHT PICTURES, ETC.
FOREIGHT
CALLING YOUR SHOT
TRIGGER CONTROL
SQUEEZE
DON'T JERK
COACH TEACHES
COACH CHECKS
ZERO POINTS
M.P.I. AT 30', 100', & 300'
30' TARGET
100' TARGET
300' TARGET
CORRECT USE OF SANDBAG
THE SANDBAG SHOULD BE USED TO SUPPORT THE FOREARM
NOT TO CAR... THE GUN
THE TWO-FOOT CIRCLE
100' TARGET
LANGUAGE OF BULLET HOLES ①
THE SHAPE OF THE GROUP YIELDS VALUABLE INFORMATION
GROUP 1 VERTICAL
GROUP 2 HORIZONTAL
GROUP 3 RECTANGULAR
GOOD HOLDING CONTROL POOR CONTROL
LANGUAGE OF BULLET HOLES, Contd.
AREAS TANGIBLE PROGRESS (DECREASING GROUPS) ②
ACTUALITIES AND CAPABILITIES ③
MAJOR SIGHT CORRECTIONS BEFORE ZEROING
MAJOR SIGHT CORRECTIONS AFTER ZEROING ④
LANGUAGE OF BULLET HOLES, Contd.
INDIVIDUAL BULLET HOLES ⑤
ENCOURAGEMENT AND ADVICE ⑥
COACH'S CALL & CHECK CARD ⑦

GERMAN MINES AND BOOBY TRAPS

(This report has been received from a Canadian Source—Extracted From Current Reports From Overseas).

The following hints and general information on German mines and booby traps have been compiled from intelligence summaries and from recent operation experiences:

1. Be suspicious of any wooden pressure plate.

2. Be extremely cautious around craters and freshly-moved earth.

3. Examine **all** bridges closely, below as well as above.

4. Do not hesitate to interrogate civilians. They can often give valuable information. Use an interpreter if necessary.

Suspect Every Wire

5. Suspect every wire, whether slack or taut, especially when one end disappears into the ground.

6. Beware of Schumines on the friendly side of trees, houses, and such objects.

7. If it is difficult to replace the safety pin in any type of mine igniter, destroy the mine on the spot.

8. **Never** pull a loose wire, and **never** cut a taut wire.

9. Never handle a damaged mine or shell of any type with its igniter in place. Destroy it on the spot.

10. Suspect every mine of being booby-trapped until you have checked and satisfied yourself to the contrary.

11. When in doubt about any mine which it is necessary to remove, **pull it with a cable.** (Comment: It is now the normal practice to pull all mines unless there is some good reason, e.g., a silent breaching operation, for doing otherwise.)

12. In lifting **any** type of mine look for an anti-lifting device.

Watch "S" Mines

13. When checking an area known or suspected to contain "S" mines, keep well dispersed. (These mines are fatal at 66 feet, and capable of wounding at 350 feet.)

14. In future make **no** attempt to neutralize **any** Tellermines, and in **no** circumstances stack them, since pressure on the fuzes may explode them. Get them into an open field and blow them, either by the trench method or by laying a number of them flat on the ground, each touching the next, and initiating the centre one.

15. In **no** circumstances tamper with the TMiZ 43 igniter. It is anti-lifting. (Comment: Normally it is not possible to tamper with a TMiZ 43 igniter, because it is designed to function either under pressure or when the mine cap is unscrewed. Strictly speaking, the igniter is not an anti-lifting device, but rather it is anti-neutralizing, since although a mine fitted with a TMiZ 43 igniter can be lifted, it cannot be neutralized.)

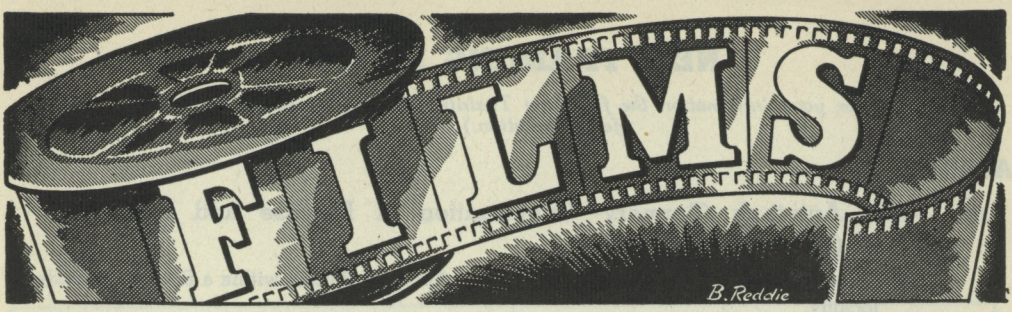
Destroy On Spot

16. Entlastungszunder (EZ 44), which cannot be neutralized, will be found under Tellermines. (Entlastungszunder is the standard German anti-lifting device.) The mine rests directly on the pressure plate and any attempt to lift the mine initiates EZ 44. **Destroy** it on the spot. (Comment: Destruction on the spot implies blowing with a charge but, where an EZ 44 has been used, it can be more easily effected by pulling with a cable.)

17. Schumines have been found with the butterfly pin turned upside down and attached to the lid by a piece of string, so that when the lid is lifted the mine detonates. Pay particular attention to the way the butterfly pin is turned.

18. **Always** look for booby traps in weapon slits and dugouts.

19. Booby traps have been found in conjunction with Tellermines, "S" mines, wooden mines, prepared charges, mortar bombs, hand grenades and shells.



No, Major—experience proves that training films are most effective when used at a definite time in the training syllabus in order to illustrate a specific part of the training being done at that time. They should NOT be used at random to fill in a syllabus or to replace a route march on a rainy day.

Training films should be chosen carefully and properly integrated into the training syllabus.

In order that the men can get the maximum benefit from training films they should be shown to groups no larger than a company or its equivalent. An introduction must be prepared in advance to show the connection to current training. The audience should also be given a test at the film's conclusion.

Immediately after the film is shown the lesson learned should be practised on the training area and the materials used in the film should be described.

Finally, to obtain maximum benefit from films, showings should not exceed 30 minutes in length.

So you see, Major, if you comfortably watch films on rainy days without proper integrating them with the training syllabus some boy's ghost might some day say—"You neglected my training, Sir."

NEW TRAINING FILMS

(For your information the following Training Films have been approved for distribution.)

Artillery

(a) C-735—Anti-tank Gunnery—Organization of Defense and Fire Plan—(19 minutes)

(i) Shows the organization for defense of a 6 pr Anti-tank Battery within a Brigade defended locality.

(ii) Distributed to Headquarters, Pacific Command and Petawawa Military Camp, A-3 CATC, S-3 CSAS, S-4 CSAS, S-17 CS of I and No. 1 Trg Bde Gp.

Medical and Hygiene

(a) TF 8-2057—Personal Health in the Jungle—(16 minutes)

(i) Shows some of the personal health precautions to be observed in jungle warfare.

(ii) Distributed to Pacific Command for Jungle Warfare training.

(iii) Available on loan by request to DMT, NDHQ.

Security

(a) TF 30-2033 Sucker Bait—(39 minutes)

(i) Illustrates some of the ways in which enemy agents obtain important information.

(ii) Distributed to Command, District and Camp Headquarters, all Basic Training Centres and Corps Training Centres carrying out Part I Security Training.

LETTERS TO THE EDITOR

Editor, CATM: On Page 21 of the January CATM the translation of the German "Faustpatrone" is given as "first cartridge". This is obviously a misprint for "fist" or hand cartridge.

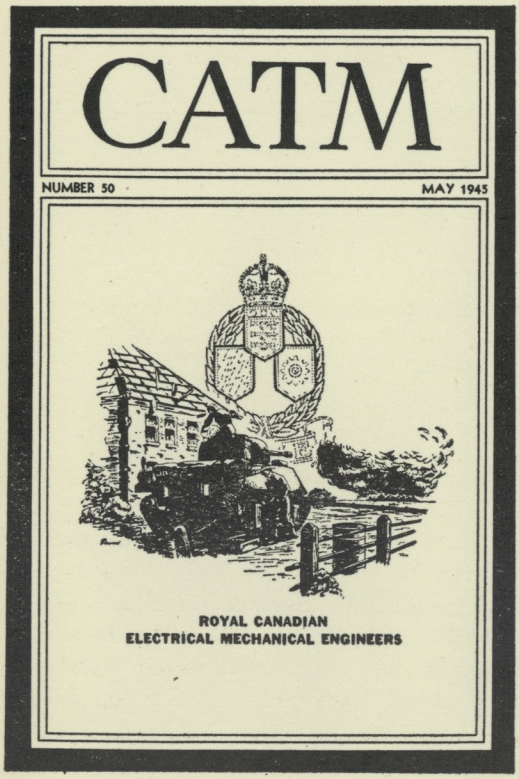
In the last few months the CATM has improved tremendously. This is largely due to the inclusion of descriptive material of actual warfare instead of filling up the pages with long technical articles which belong in textbooks and in schools.—F.O.

(You're quite right, F.O. It was a typographical error. And thanks for the bouquet.—Editor).

Editor, CATM: On Page 42 of the February issue of CATM No. 47 there are two photographs illustrating a right parry and butt stroke. This is entirely contrary to Bayonet Training inasmuch as one does not execute a butt stroke from a right parry; one disengages from a right parry and kills immediately with the bayonet. A butt stroke is carried out from a left parry as described in SAT Vol. 1 Pam. No. 2 Bayonet 1942, Page 9 Para 3.—H.C.B.

(You're quite right about the left parry, H.C.B. But if you'll take another look at the photos, you'll notice that the only way to make the bayonet training device work is by making a **LEFT PARRY.** This causes the training stick to free itself from the nail. After making the left parry, the soldier executes the butt stroke and passes through on the left side of the post. The illustrations show that the soldier made a left and **NOT** a right parry. Thanks for writing—Editor.)

THIS MONTH'S COVER . . .



CATM dedicates its cover this month to the Royal Canadian Electrical and Mechanical Engineers, a Corps that lives up to the proud boast that it can repair any type of equipment used by the army.

Next Month—THE ROYAL CANADIAN ARMY PAY CORPS

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