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CANADIAN ARMY JOURNAL

The aim of the Canadian Army Journal, which is published by the Directorate of Military Training under authority of the Chief of the General Staff, is to provide officers of the Regular Army, the Militia, and Reserves with information designed to keep them abreast of current military trends, and to stimulate interest in military affairs. The views expressed by authors are not necessarily those of the Department of National Defence.

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CONTENTS

GENERAL SECTION

THE ROYAL CANADIAN ARMY SERVICE CORPS

THE ROYAL CANADIAN ARMY MEDICAL CORPS

THE COVER

Canadian troops advancing during the Battle of the Scheldt, 1944.
(See article on page 3).

The Canadian Army Journal

TO BE SOLD BY SUBSCRIPTION

Commencing with the January 1955 issue, the English and French editions of the *Canadian Army Journal* will be sold by subscription, details of which appear on the inside of the back cover of this issue.

This new policy does not affect officers of the Canadian Army, Regular and Militia: they will continue to receive the *Journal* free of charge since it serves as a medium to keep them abreast of current military trends and to stimulate their interest in military affairs.

The decision to sell the *Journal* by subscription is the result of a large number of requests received from retired officers who are interested in obtaining this publication. Many of these officers are members of the Canadian Army's Supplementary Reserve whose names cannot be included in the free distribution list for this quarterly for reasons of economy.

While it is assumed that most of the potential subscribers will be members of the Supplementary Reserve, subscriptions will not be limited to this group. The *Journal* will also be sold to the general public in the hope that it will be of interest to those who want to learn about the techniques of modern war, the latest advances in military weapons and the current activities, not only of the Canadian Army, but also of the other Commonwealth armies and foreign forces.

All inquiries about subscriptions should be addressed to the Supervisor of Government Publications, 75 St. Patrick Street, Ottawa, Canada.

THE BATTLE OF THE SCHELDT

1944

WRITTEN FOR THE JOURNAL BY THE HISTORICAL SECTION,
ARMY HEADQUARTERS, OTTAWA

The Scheldt Estuary operations of October-November 1944 were a vital part of the final campaign for the defeat of Germany in the Second World War. By the early autumn of 1944 the Allied Expeditionary Force in North-West Europe was in serious administrative difficulties. Following its victory in Normandy and rapid pursuit of the enemy across France and Belgium, its lines of communication were stretched to the breaking point. It was still dependent on supplies landed in the original bridgehead in Normandy, and the long haul from the beaches there almost to the German frontier placed such a strain on transport resources that not enough fuel was reaching the front to keep all the Allied armies moving.

The problem could only be solved by acquiring large port facilities closer to the front. Antwerp, the greatest port in North-West Europe, capable of bringing in 30,000 tons a day, was captured undamaged by the Second British Army on 4 September; but the Germans still held both banks of the River Scheldt between Antwerp and the sea, and the port could not be used until they were dislodged. They fully realized how important their positions were to the security of the Fatherland, and the First Canadian Army's task in evicting them turned out to be a very hard one.

The clearing of the Estuary was carried out by the 2nd Canadian Corps, employing four divisions, one of which was armoured, and a commando brigade. The Royal Navy and Royal Air Force both played vital parts. Five water-borne assault landings were made. For the first time in history large-scale inundations produced by aerial bombing were used to harass an enemy's troops in battle.

Background of the Battle

Although the administrative significance of Antwerp was fully recognized, operations to open the port were postponed while Field-Marshal Montgomery's 21st Army Group made a bold attempt to thrust across the lower Rhine before the Germans could recover themselves

after the Normandy defeat. But the great combined airborne-ground operation called "Market-Garden" failed of its main object, and on the night of 25-26 September the remnants of the 1st British Airborne Division were withdrawn across the Neder Rijn from their precarious foothold near Arnhem. Thereafter the opening of Antwerp was given first priority. While the Arnhem fighting was in progress, General Eisenhower and Field-Marshal Montgomery had been arguing over strategy, the latter emphasizing strongly what he considered the importance of concentrating the available administrative resources on his own front in the north for a blow at the great German industrial area of the Ruhr. On 22 September the Supreme Commander sent Montgomery a letter which concluded:

> No one is more anxious than I to get to the Ruhr quickly. It is for the campaign from there onward deep into the heart of Germany for which I insist all other troops must be in position to support the main drive. The main drive must logically go by the North. It is because I am anxious to organize that final drive quickly upon the capture of the Ruhr that I insist upon the importance of Antwerp. As I have told you I am prepared to give you everything for the capture of the approaches to Antwerp, including all the air forces and anything else you can support. Warm regard, IKE.

During September Lieut.-General H. D. G. Crerar's First Canadian Army was occupied with clearing the Channel Ports. By 1 October it had captured Le Havre, Dieppe, Boulogne, Calais and Ostend. All these ports were so badly damaged that it took weeks to get them to work, and then their capacity was limited. The importance of Antwerp was more and more evident.

The task of opening the Scheldt had been assigned to First Canadian Army on 14 September. On the 15th General Crerar allotted the operation to the 2nd Canadian Corps, commanded by Lieut.-General G. G. Simonds. The task before the Corps Commander was formidable. The West Scheldt, a winding channel, extends some 50 miles from Antwerp to the sea. It was heavily mined throughout its length. Along the south side the enemy still held a large bridgehead, protected on most of its land front by the Leopold Canal. On the north stood the fortified island of Walcheren, joined by a causeway to the long peninsula of South Beveland, above which the right bank of the Scheldt was also in enemy hands almost to Antwerp. Most of the land about the estuary was reclaimed ("polder") ground, low-lying tilled fields, cut by ditches and dykes and easily flooded. Nearly all of Walcheren and much of South Beveland lay so low that, if the seaward dykes were broken, inundation would result.

General Simonds' appreciation of 21 September envisaged airborne and waterborne attacks upon Walcheren following heavy air bombardment.

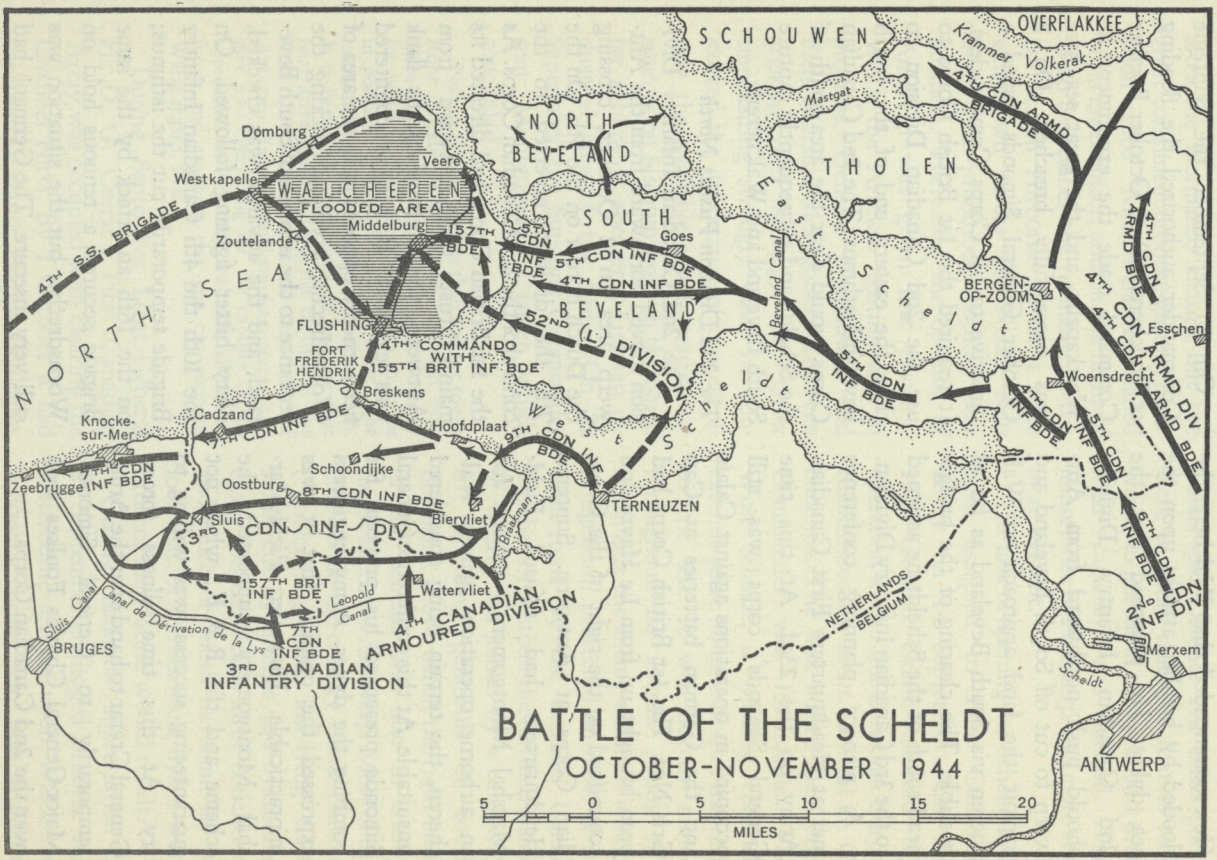
He recommended that Walcheren be flooded by bomber attacks upon the sea dykes. He proposed that the 2nd Canadian Infantry Division should push northward from Antwerp to cut off South Beveland and exploit the land approach to Walcheren via South Beveland as far as possible. The clearing of the bridgehead south of the Scheldt he assigned to the 3rd Canadian Infantry Division.

A plenary planning conference met at Headquarters First Canadian Army on the 23rd. At this time General Simonds' corps was still occupied in operations against Calais and the German batteries at Cap Gris Nez. The 1st British Corps had been brought up from Le Havre and committed on the right of the Canadian Corps at Antwerp. Supreme Headquarters had refused Field-Marshal Montgomery's request for an airborne operation against Walcheren, the terrain being considered unsuitable. At this conference General Simonds presented his proposal for bombing the dykes. Army engineers expressed the opinion that it was impracticable. However, Field-Marshal Montgomery supported the scheme and the R.A.F., while not guaranteeing success, was willing to try. At this time illness forced General Crerar to hand over the Army temporarily to General Simonds. Major-General Charles Foulkes took over the 2nd Canadian Corps.

On 30 September the Supreme Commander authorized the flooding of Walcheren. On 3 October Bomber Command made the experiment at Westkapelle, and the great sea-dyke was successfully breached. On 2 October General Simonds issued a directive to his Corps Commanders. It required the 1st British Corps to use the 2nd Canadian Division to close the eastern end of the South Beveland isthmus. The 2nd Canadian Corps would clear the area south of the Scheldt and subsequently capture South Beveland and Walcheren.

The 2nd Division Pushes North

The 2nd Canadian Infantry Division moved northward from the Antwerp area on 2 October, crossing the Dutch border on the 5th. On the 7th the division reverted to the control of the 2nd Canadian Corps. As the 1st British Corps had directed its main thrust north-eastward from Antwerp, the division's right flank was exposed. It now encountered fierce enemy opposition in the area of Woensdrecht, a village blocking the entrance to the isthmus of South Beveland, and the advance was checked. Very bitter fighting followed. On the 10th the 4th Canadian Infantry Brigade temporarily cut the isthmus; on the 16th an attack by the same Brigade secured a tenuous hold on Woensdrecht; but the situation was still very insecure. The Germans had



HISTORICAL SECTION G.S.

committed here on 12 October one of their "fire brigades", "Battle Group Chill" (also known as the 85th Infantry Division), whose backbone was a regiment of hard-fighting paratroopers.

At the same time, the operation against the bridgehead south of the Scheldt was also meeting heavy opposition and moving slowly (see below). There was now a change of policy on the part of the high command. So far, it would seem, both General Eisenhower and Field-Marshal Montgomery had hoped that the 21st Army Group could open the Scheldt without abandoning operations which the Second British Army was conducting against the enemy bridgehead remaining west of the Maas — i.e., east of the salient created by "Market-Garden". It was now evident that this could not be done. On 10 and 13 October Eisenhower sent strong directives to Montgomery emphasizing the extreme importance of being able to use Antwerp soon, and offering assistance in troops and supplies for the purpose. On 16 October Montgomery himself issued a new directive to his Army Commanders, closing down all operations except those directed towards the Scheldt. The Second Army was to take over the right portion of the Canadian Army's line and push westward; the Canadian Army, with more troops available, was to clear the country north of the South Beveland isthmus.

These new orders soon transformed the situation. The 1st British Corps was now given the whole of the 4th Canadian Armoured Division (of which some elements had already been operating on the right of the 2nd Division) and also the 104th U.S. Infantry Division; and it proceeded to push northward. On the 22nd the Armoured Division captured Esschen and attacked toward Bergen-op-Zoom, which fell on the 27th. With the capture of Esschen the right flank was secure. On the 23rd the 2nd Division attacked north of Woensdrecht, making only limited advances, but next day operations went better; the vigorous action of the 4th Armoured Division to the east had caused the enemy to retire. The way into South Beveland was open.

On 20 October Field-Marshal Montgomery sent a personal note to General Simonds acknowledging a copy of his latest directive. He wrote:

> I think everything you are doing is excellent. And your troops are doing wonders under the most appalling conditions of ground and weather. I doubt if any other troops would do it so well, and I am very glad the Canadians are on the business. Please tell all your chaps how pleased I am with their good work.

Operation "Switchback":
The Breskens Pocket

On 6 October the 3rd Canadian Division commenced Operation "Switchback", attacking the German pocket south of the West Scheldt at the point where the Leopold Canal diverges from the Canal de Dérivation de la Lys. The Leopold Canal was a formidable obstacle, about 60 feet wide and with steep banks. Inundations to the north of the canal left only a narrow strip of land where we could develop our bridgehead. The 7th Canadian Infantry Brigade made a sudden assault supported by Wasps, flame-throwing carriers. The attack was made through the 4th Canadian Armoured Division, which put in two diversionary attacks, one on either side of the bridgehead. After acquiring a shallow foothold the attack bogged down in the face of strong opposition. General von Zangen, commanding the German Fifteenth Army in the Netherlands, had allotted an efficient formation, the 64th Infantry Division, to the defence of what the Germans called "Scheldt Fortress South". This formation now held the 7th Brigade's bridgehead to narrow limits.

An amphibious attack was now made against the rear of the pocket. The 9th Brigade's assault force embarked at Ghent in Buffaloes (Landing Vehicles, Tracked) and sailed down the canal leading to Terneuzen. At 2:00 a.m. on 9 October they set off across the Braakman inlet*, supported by fire from the artillery of the 4th Canadian Armoured Division. Both attacking battalions got ashore near Biervliet quickly and reorganized against slight opposition. By 9:00 a.m. a bridgehead 1500 yards deep had been established and soon the reserve battalion was landed, advancing to Hoofdplaat.

The attack over the Braakman had met with so much success that it was now decided to reinforce there instead of on the Leopold Canal as previously planned. The 3rd Division's reconnaissance regiment was sent over on the 11th, followed by the 8th Brigade. The enemy had now moved up forces to face this threat at his left rear; the going became tougher. On the 14th troops of the 4th Canadian Armoured Division succeeded in crossing the Leopold near Watervliet and near the head of the Braakman, making it possible to send supplies and artillery by road into Scheldt Fortress South. The 8th and 9th Brigades advanced slowly westward against opposition.

On the 16th resistance before the 7th Brigade suddenly slackened. At last light on the 18th the brigade was relieved by the 157th Brigade of the 52nd (Lowland) Division. The 157th

**The Braakman was mistakenly called the Savojaards Plaat at the time of the operation. Savojaards Plaat was actually the name of the extensive mud-flat at the entrance to the Braakman.*

pushed forward and on the 19th made contact with the force that had crossed the Braakman.

The 3rd Division now moved to cut the German forces off from the Scheldt. The 9th Brigade captured Breskens on the 22nd in the face of heavy enemy artillery fire, particularly from Flushing. The Germans' communications with Walcheren were virtually severed. Next day the 9th Brigade swung southwestward and captured Schoondijke. After taking Fort Frederik Hendrik this formation was withdrawn into reserve and the 7th Brigade struck out westward, capturing Cadzand on the 29th. The 8th Brigade meanwhile had shifted southward, relieving the 157th. Sluis fell on 1 November. On the same day the German divisional commander was captured near Knocke-sur-Mer. The 8th Brigade cleared westward along the Leopold Canal and on 3 November opposition was at an end in Scheldt Fortress South. Operation "Switchback" was over.

Operation "Vitality": South Beveland

Meanwhile, on 24 October the 4th Brigade had led the advance west down the isthmus of South Beveland, thus beginning Operation "Vitality". The entire German force west of the isthmus consisted of the weak 70th Infantry Division,* less one grenadier regiment, with some other troops and naval coast artillery units.

To dislodge enemy rearguards from the line of the Beveland Canal, General Simonds mounted another amphibious operation. Carried in some 120 tracked landing craft, the 156th Infantry Brigade of the 52nd Division crossed from Terneuzen on the night of 25-26 October, landing in South Beveland. A good bridgehead was immediately established. On the 26th the 6th Brigade attacked towards the Beveland Canal. One battalion reached the canal late on the 27th after wading in waist-deep water, and seized a bridgehead on the far side. Another gained a crossing in the middle of the isthmus. By the 29th the 2nd Division had two brigades over the canal. The 157th Brigade, which had landed in the 156th Brigade's bridgehead on the West Scheldt, moved on the southern flank. Goes fell on the 29th, and by the 30th the 5th Brigade had a battalion within two miles of the causeway leading to Walcheren.

The 4th Brigade now put in a night attack, clearing the eastern end of the causeway. The Lowland Division came up on the left and by morning of 31 October the enemy hold on South

**Many of the troops in this division, particularly in the infantry components, were ill men; the 70th was the famous "stomach" division, formed of units made up of men suffering from gastric ailments. It nevertheless fought hard.*

Beveland was ended. The causeway, however, was strongly defended. On the afternoon of the 31st the 5th Brigade took over from the 4th and attempted to cross the 1100-yard cratered, fire-swept roadway to Walcheren. The leading troops finally forced their way across and gained a precarious bridgehead, which was lost and then restored. The decision was now made to relieve the brigade with the 157th Brigade, and the 2nd Canadian Division was withdrawn for rest. Meanwhile, troops of the 2nd Division's reconnaissance regiment captured the island of North Beveland on 2 November. The attack on Walcheren had already begun.

Operation "Infatuate": Walcheren

The island of Walcheren is roughly rectangular in shape, about ten miles long by eight miles broad. The village of Westkapelle lies at the westerly corner, the port of Flushing at the southerly one. The island is low-lying, most of it being below mean sea-level. Only the coastal strip of dunes on the northwest and southwest sides, and the eastern-most section of the island, are higher than the sea.

The island was heavily fortified. There were coast-defence guns up to 8.7-inch, including a dozen 5.9s. Counter-battery fire, aerial bombardment and flooding took care of many of these weapons, particularly in the Flushing area. In the period 3-17 October the heavy bombers of the Royal Air Force made four heavy attacks on the sea-dykes of Walcheren, breaching them and allowing the sea to pour in. The island was now like an immersed saucer with only the rim showing.

The first waterborne attack in Operation "Infatuate", the assault on Walcheren, went in against Flushing before daylight on 1 November, when a commando of the 4th Special Service Brigade crossed the West Scheldt from Breskens following a bombing attack by the R.A.F. Three hundred guns, including those of two Canadian Army Groups Royal Artillery, hammered German defences in the town from across the West Scheldt. The commando was soon ashore and in possession of a bridgehead. The 155th Infantry Brigade now sent a battalion across to assist in clearing Flushing. Next morning the rest of the Brigade crossed over and one battalion advanced toward Middelburg. On the 3rd the headquarters of the Flushing garrison was captured, after an advance through deep flood-waters; and by nightfall the city was clear.

The climax of the Walcheren operation came at Westkapelle. Soon after first light on 1 November a seaborne attack was delivered at that point. The assault force, consisting of the 4th Special Service

Brigade under command of the 2nd Canadian Corps, a naval bombarding force and a support squadron, approached the island from the west. When the support squadron, made up of twenty-seven landing craft armed with guns, rockets and smoke-projectors, deployed five miles from shore it was immediately engaged by every German battery within range and began to suffer heavy losses. Four hours later nine craft had been lost and eleven were more or less badly damaged by gunfire. There were 372 casualties among the crews. Their gallantry and their sacrifice had purchased victory. British tactical investigators later came to the conclusion that the landing would have failed but for two facts: the German batteries directed their fire at the support craft and not at the personnel carriers; and one of the 5.9-inch batteries ran out of ammunition at a critical moment.

It had been planned that close air support would be given by fighter-bombers and rocket-firing Typhoons immediately before and after H Hour. Bad flying weather however prevented the fighter-bombers from taking off. It also interfered with air spotting for the naval bombardment ships, the aircraft being fogbound in England. Fortunately, the Typhoons were able to come into action against the enemy defences just as the first assault landing craft touched down on each side of the gap in the dyke. One Commando landed, seized the town and nearby battery and advanced northeastwards. Another Commando, landing south of the gap, went on to the southeast along the dunes. During the next two days good progress was made in both directions.

The last landing on Walcheren was made on the eastern side south of the causeway, where the 156th Brigade sent a battalion across on the night of 2–3 November. Using assault boats and wading in the salt marshes, this unit established a secure bridgehead by nightfall. Next day another battalion followed and the troops at the west end of the causeway began to advance. On 6 November Middelburg fell to troops advancing from Flushing and the German general surrendered. By the 7th only the northern coast remained to be cleared. On the morning of the 8th German resistance on Walcheren came to an end.*

Both naval and army authorities blamed the heavy losses in the Westkapelle assault on the limited scale of bomber effort employed against the German batteries. It is true that many Allied air officers were reluctant to divert forces to these targets from the offensive against German communications and oil; but a considerable

**The fighting on Walcheren was done by British units, but medical service was provided by the R.C.A.M.C. See J. B. Hillsman,* Eleven Men and a Scalpel *(Winnipeg, 1948).*

number of attacks were actually made on Walcheren. It was particularly unfortunate that bad weather compelled the air force to cancel the attacks which had been planned for 31 October (D minus one).

The effect of the flooding—which of course meant much misery for the population of Walcheren—merits a word. Most of the German coastal batteries were on the higher ground and were not directly affected (though many of the anti-aircraft positions were put out of action); but they were isolated by the waters, their communications were seriously interfered with and the German defence generally was greatly harassed. The attackers on the other hand were offered the advantage of being able to use amphibious vehicles, and thanks in part to these the operations on Walcheren went faster than those south of the Scheldt.

During the operations of the First Canadian Army from 1 October to 8 November 41,043 German prisoners were taken, and the enemy suffered correspondingly heavy losses in killed and wounded. Our own casualties, including British and Allied, were reported by General Simonds as 703 officers and 12,170 other ranks killed, wounded and missing. Of these, 355 officers and 6012 other ranks were Canadians.

With the clearing of Walcheren the Germans no longer commanded the sea approach to Antwerp. However, the West Scheldt was thickly sown with mines which the navy had to clear. Not until 28 November did the first Allied convoy arrive in the port. But with cargo ships unloading at Antwerp a firm logistical foundation at last existed for the final advance into Germany.

Comments

The Scheldt operations serve to remind us once more of the vital importance of *Administration* in modern war. It was the urgency of ensuring good administrative arrangements for the Allied armies directed on North-West Germany that produced the hard campaign in the water-girt lands of the estuary; and the casualties which the campaign occasioned were the price of facilities essential to the defeat of Hitlerism.

Flexibility is a principle that stands out strongly in this series of operations. The possession of naval superiority and excellent amphibious equipment enabled the Allies to exploit this principle, striking the enemy both on his land and sea fronts. A particular example of flexibility is the change of plan by which the 8th Brigade, originally intended to support the 7th on the Leopold Canal, was instead moved in by water to reinforce the attack of the 9th against the rear of the Breskens pocket.

Flexibility contributes to *Surprise*. The latter was achieved when Buffaloes were moved up from Ghent to Terneuzen to launch the 9th Brigade over the Braakman. The flooding of Walcheren by means never employed before also illustrates the principle.

Economy of Effort is perhaps best illustrated by the enemy's defence of the Scheldt Estuary. Using in the later stages just two weak divisions at a vital point, he denied us the use of the port facilities of Antwerp for six weeks, thereby forcing us to limit our operations on other parts of the front and delaying our full-scale assault on Germany. Finally, like all amphibious operations, these demonstrate the fundamental importance to success of the fullest *Co-operation* between the three fighting services.

BOOKS ON THE CAMPAIGN

General of the Army Dwight D. Eisenhower, *Report by the Supreme Commander to the Combined Chiefs of Staff on the Operations in Europe of the Allied Expeditionary Force 6 June 1944 to 8 May 1945* (London and Washington, 1946).

Field-Marshal Viscount Montgomery, *Normandy to the Baltic* (London, 1947).

Forrest C. Pogue, *The Supreme Command* ("United States Army in World War II: The European Theater of Operations") (Washington, 1954).

Colonel C. P. Stacey, *The Canadian Army, 1939–1945* (Ottawa, 1948).

"Peeping Tom" Camera

A new long-distance "Peeping Tom" camera, which is capable of recording images up to 30 miles distant, has been developed by the Army Signal Corps Engineering Laboratories at Ft Monmouth, N.J.

Built about a special 100-inch F:12.5 infra-red, telephoto lens, the camera will be able to take battlefield pictures impossible either with smaller-eyed cameras or when aerial photo flights are grounded or too hazardous.

In tactical military use, the new camera has many advantages. At six miles, it can pick out in detail a jeep or a weapons carrier, or any other target across the ⅛-mile section it sweeps.

At the closest distance it can operate—about 500 yards from the target—the coverage is about 105 feet wide. At 20,000 yards (11½ miles)—the last setting on the range scale before infinity—the "Peeping Tom" covers a 3000-foot front (about three-fifths of a mile).

For close-in support military missions, the camera could watch areas for enemy activity, locate fortifications, obstacles, supply points, artillery, armour and other critical features as well as perform other tactical duties.

A Biography

THE NEW MINISTER OF NATIONAL DEFENCE

Mr Campney was born on June 6, 1894, on a farm near Picton, the son of the late Frank Campney and the late Mary Emily Cronk.

After attending rural school and Picton Collegiate, where he won medals for oratory and mathematics, Mr Campney obtained his senior matriculation at the age of 16, and embarked upon a brief teaching career in a country school. At the end of three years of teaching he entered Queen's University (medicine) in the fall of 1914.

The First Great War interrupted his studies and Mr Campney enlisted in the ranks with No. 5 Stationary Hospital (Queen's) in March, 1915. He went overseas in May of that year and proceeded to Egypt where the unit operated as a base hospital in the Dardanelles campaign. Later the hospital was moved to France where it played its part in the Battle of the Somme.

He received his commission in the infantry in 1917 and was posted to the 19th Canadian Infantry Battalion after Vimy. He served with that unit throughout 1917 in France and Belgium until invalided to England from Passchendaele. Mr Campney was attracted to the Royal Flying Corps and managed a transfer to a squadron commanded by Major Arthur Harris of Rhodesia, later to become Air Chief Marshal Harris of Bomber Command in the Second World War. Major Harris taught Mr Campney to fly and he served with the RFC as a pilot until the armistice.

THE HONOURABLE R. O. CAMPNEY, QC, MP, MINISTER OF NATIONAL DEFENCE

Following demobilization, he resumed his studies at Queen's Univer-

sity in 1919 and switched from medicine to arts. Mr Campney won the Lochhead Scholarship in colonial history and the Gowan prize and scholarship in political science. He obtained his B.A. degree in 1921 and entered Osgoode Hall to study law. During his last year at Queen's he was elected president of the Alma Mater Society.

In 1924 he was called to the bar of Ontario and in the fall of that year proceeded to Geneva as secretary to the Canadian delegation to the League of Nations Assembly. Returning to Ottawa, he became political secretary to the late W. L. Mackenzie King, with whom he worked closely during 1925 and 1926. Later, Mr Campney served as private secretary to Hon. James Malcolm, Minister of Trade and Commerce, until 1929.

Leaving public service in 1929, Mr Campney decided to settle in Vancouver. There he embarked on the practice of law and ultimately built a large and successful firm. In 1936, at the request of the federal government, Mr Campney became the first chairman of the National Harbours Board and served in this capacity for three and one-half years during the period of organization of the Board. Following completion of that work, he resigned and resumed his law practice in Vancouver.

He was appointed a dominion King's Counsel in 1940.

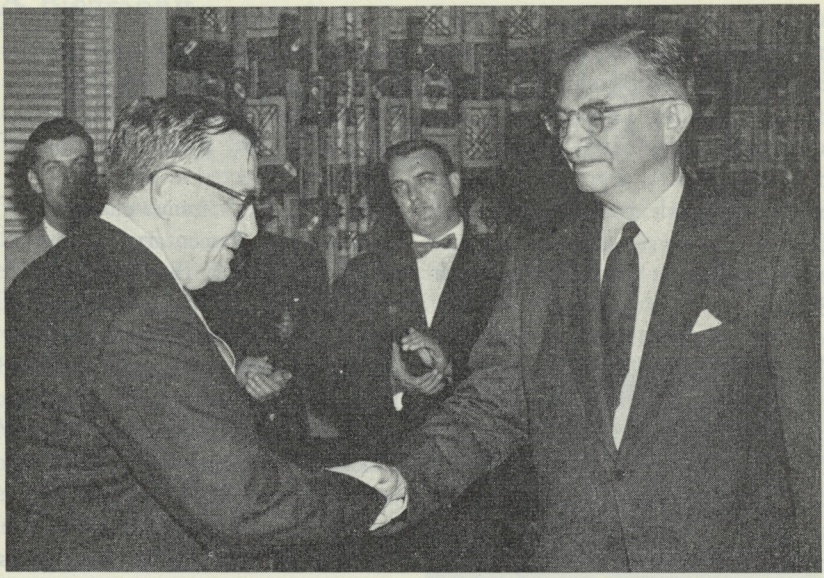
Mr Campney was defeated in the Vancouver Centre by-election for the House of Commons, 1948, when he first ran as a Liberal candidate. He was elected in the general election of 1949 and re-elected in 1953.

In 1950 he became chairman of a special parliamentary committee which dealt with the National Defence Act which brought about a high degree of unification of the administration of the navy, army and air force. He was appointed parliamentary assistant to Defence Minister Brooke Claxton in January, 1951, and on October 15, 1952, became solicitor general. On February 12, 1953, Mr Campney, while continuing as solicitor-general, was also appointed Associate Minister of National Defence. He resigned as solicitor-general on January 12, 1954. On July 1, 1954, he succeeded Mr Claxton as Minister of National Defence.

Mr Campney was married in 1925 to Vera Wilhelmina Farnsworth, daughter of a United Church clergyman. They have one son, Alan, who graduated from Queen's University (B. Comm.) in 1951 and from the University of British Columbia (LL.B.) in 1954.

Mr Campney is a member of the University Council of Queen's University.

An avid enthusiast of air development, he is past president of the Air Force Officers' Association of Van-



National Defence Photograph

Defence Minister Campney shakes hands with Mr Claxton, the retiring minister, at a farewell gathering held in honour of the latter.

couver; past chairman of the B.C. Committee, Air Cadet League of Canada; and a former director of the Air Cadet League of Canada.

His hobbies include gardening, and he is a student of the American Civil War and the Lincoln era in the United States. His forbears fought on the side of the North and his wife's on the side of the South in Civil War. Mr Campney and his wife have visited most of the major battlefields of that war.

* * *

Farewell Message from the Former Minister

Ottawa, July 1, 1954

To: *The Armed Forces of Canada, Members of the Department of National Defence, and Personal Staff of the Minister's Office.*

From the day I became a member of the government I have had loyal and unqualified support from the members of the departments with which I have been associated and from my own personal staff.

To be closely associated for so long a period with officers and men of the Royal Canadian Navy, of the Canadian Army, the Royal Canadian Air Force and Defence Research Board has been a great experience. I shall never forget the fine way you worked

together to strengthen Canada's defences in these troubled times.

There have been difficulties but on the whole we have done what we set out to do, and that is reflected best in the record which you have won for yourselves. As a result of your work together the Canadian forces are, I believe, as General Gruenther said of the Canadians under his command, second to none.

In resigning my post as Minister of National Defence, I leave this association with the members of the armed forces and the other government services with the greatest possible regret. I know you will carry on working steadily at the further improvement of what you have already done so well. I extend to all of you warmest thanks and the best of good wishes.

(Signed) *Brooke Claxton.*

Static Reconnaissance

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When a pause occurs in the fighting, one must employ all one's means to ascertain what the enemy's next move is going to be. Information concerning the enemy may be obtained either by means of patrols or stationary observation posts. During peacetime exercises, there is very seldom time for any extended observation activity. When the enemy is regrouping his forces, is assembling for an attack, or is waiting for reinforcements, a halt in the fighting may occur and it is important at such times to know what the enemy is doing.

It is an old saying that the side which controls a line of hills, controls the battle. The objective of static reconnaissance is—from one or more commanding observation posts—to observe and listen to the terrain to the front, systematically, in order to obtain information concerning the enemy's intentions. To profit most from such observation, it must be conducted systematically and with a definite plan. Several observation posts along a line of hills, along a water course, or the margin of a woods, will form an observation line. When an observation post is to be located, one must first study the map carefully and afterward conduct minute reconnaissance on the ground.

Since observation posts, as a rule, are located on a commanding point rising above the surrounding terrain, they will usually be exposed to attack from the air and ground.

An observation post should provide good visibility of the enemy without being exposed to enemy view, hence it should be well camouflaged and well defended.

Why Don't We Do This More Often?

A STUDY OF INFILTRATION TACTICS

By
Lieut.-Colonel H. F. Wood, Princess Patricia's Canadian Light Infantry*

The Infantry of 4th Canadian Armoured Division were very tired. Throughout the week of October 19th, 1944, they had fought their way up the cobble-stoned divisional centre line towards the Dutch border, on the right flank of Second Division. Due to the enclosed nature of the countryside, the Infantry had been in the lead throughout most of this attack which was designed to protect Second Division's flank in its assault on the Beveland Peninsula. Now, as dark fell on the evening of October 21st, the leading elements of the Brigade were held up by determined German rear guards dug in on the outskirts of the town of Esschen. It was planned to dig in on this line for the night, sending patrols forward to test enemy strength with a view to a further advance next day, but the arrival of the Divisional Commander* at Brigade Headquarters with new orders resulted in a hurried call for an Orders Group.

At this "O" Group the Brigade Commander** informed his COs that the GOC had ordered that Esschen be captured and consolidated by first light the following morning. He was aware, he said, of the state of near exhaustion of the troops in the Infantry Battalions and said he felt there was little chance of success in any conventional night attack. Accordingly, he gave orders that the Lincoln and Welland Regiment and the Algonquin Regiment were to infiltrate through the enemy lines and, by-passing resistance on the way, firm up in Esschen. Small patrols were to go out and shoot up enemy positions in order to distract their attention and give the impression that this was the sole activity to be expected that night. Just before first light the armour under command of the Brigade was to advance up the main road into Esschen and join in the reorganization in that town.

**The author, who is now AA & QMG for Saskatchewan Area, was commissioned with The Irish Regiment of Canada in 1938. He attended Staff College in 1943, and after a variety of appointments in North-West Europe, served as Canadian DS at the Staff College at Camberley, England, in 1946 and 1947. Formerly Brigade Major of the 25th Canadian Infantry Brigade and Chief Instructor at the Royal Canadian School of Infantry, Borden, he commanded the 3rd Battalion of The Princess Patricia's Canadian Light Infantry in Korea, returning to Canada in the summer of 1953.— Editor.*

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***Brig. J. C. Jefferson, CBE, DSO, ED.*

The tired COs were obviously skeptical and the armour Commander pointed out that his tanks could not operate off the road and it would probably be mined. The Brigade Commander replied that a troop of flails would lead the way. To this the flail Commander replied that his vehicles would lose their effectiveness in a very short time on a cobbled road as the beating of the flails on such a road would soon break up the chains, rendering them ineffective as a mine detonating device.

The Brigade Commander's closing words left no doubt in anyone's mind that despite the difficulties which everyone foresaw, the attack could and would succeed. "As the flails wear out," he said, "they will be driven off the road and the advance will continue. After that, if there are mines, as each tank hits one it will also be moved from the road and the advance will continue as quickly as possible. There will be tanks in Esschen at first light."

To the Infantry Commanders he suggested that the advance be in single file, with either a white towel strapped to the man's back or, said he, "You can tell them to take their shirt tails out and each hold the shirt of the man in front." There was, of course, to be no special artillery preparation for this assault.

By first light Esschen was in our hands. With practically no casualties the two battalions had walked through the enemy lines and firmed up a perimeter around the town. The enemy Headquarters was captured intact by the Algonquin Regiment whose first shot fired in anger was at a column of lorries moving through the town with supplies intended for the by-passed enemy. The road was not mined and the armour got through without incident. The Germans, discovering at first light the presence of a powerful force in the town at the rear, melted away to the flanks and presented no obstacle when the rest of the Brigade followed into the outskirts of Esschen.

This incident in the operation to clear the Scheldt Estuary demonstrates clearly the decisive nature of successful attack by infiltration. Ever since Ludendorff almost destroyed the British Fifth Army in March 1918, we have known about and theorized on this method of attack. But, except in the operations of Corps and Armies, where it is better described as a break-through, infiltration was seldom resorted to in the Second World War. Because silence and concealment is almost a prerequisite of success it remains an Infantry tactic, yet battalions seldom used it in any battles fought by Canadians. This is an interesting attitude, since on the rare occasions when infiltration tactics were used, they were completely

successful and at very little cost in life.

The fact that the German breakthrough of 1918 was ultimately stopped short of Paris and then rolled back does not mean that the Allies had discovered an effective way to counter this tactic.* It was the German failure to draw in all the Allied reserves that turned the scale.

Military history testifies abundantly to the fact that success on the battlefield can be decisive by this tactic. The word infiltration was first used by military writers to describe General Hutier's method of attack, which, perfected by Ludendorff, almost won the war for the Kaiser in 1918. Before then, however, many battles had been won, more or less accidentally, because the successful side had infiltrated through the enemy forward lines, achieving success by the surprise occasioned by their presence there. The little battle of Tel-el-Kebir in September 1882, in which Lord Wolseley defeated the Egyptian insurgent Arabi Pasha, demonstrates this to perfection.

This battle has been used as an outstanding example of a night march, a dawn attack and a cavalry pursuit.** Yet direction was lost due to limited visibility and the attack was successful because the marching troops accidentally by-passed a strong position and in effect infiltrated the Egyptian defences. The unexpected and unheralded arrival of British troops and guns in their midst at first light, firing on the rear of their positions, crumpled the Egyptian resistance at little cost.*

To return to the Second World War, the battle for the Cherbourg Peninsula affords another example in support of infiltration tactics. There the 4th U.S. Division mounted two determined attacks on the 12th and 13th of June 1944 against Montebourg, only to be thrown back from footholds gained in the suburbs. On the 19th of June at 0300 hrs., with no artillery preparation of any kind, the Division moved silently through the German outpost line and by dawn had overrun the defences and almost enveloped the town.**

There are many instances like this to be found in military history and they are usually remembered because of the seemingly miraculous success achieved, usually at small cost in life. In spite of this we pay little or no attention to infiltration in our teaching and are continually being surprised when a resourceful

*_The Fifth Army, March 1918—Sparrow in his defence of the Fifth Army's part in the March break-through fails completely to understand the reasons for the Germans' initial success and how near their new method came to succeeding._

**Journal of Army Historical Research, Vol. XXXI, _p. 52_

*_Ibid, p. 56. British losses were 58 killed, 379 wounded, 22 missing. Egyptian losses were 2000 killed and 800 recorded wounded._

**The Struggle for Europe, _p. 321-2 and 328._

enemy uses it against us. The Japanese, in the Pacific war, and the Chinese in Korea showed us how to do it. Our difficulties in attempting to counteract the effects of infiltration have led us to acknowledge its effectiveness but for some reason we do not like it as an infantry tactic ourselves.

Before we examine the reasons behind our reluctance to attack by infiltration, let us be sure we understand the meaning of the term. Tom Winteringham, the Home Guard's Liddell Hart, employs an apt metaphor to describe infiltration. The defence to be penetrated, he said, is a criss-cross of strong positions and weak ones. Any line of trenches, after bombardment, is weaker at the points where shells have blown it up; there are also, inevitably, natural weaknesses such as dead ground, and covered approaches along which an attacker can penetrate. Imagine this criss-cross to be the iron grating over a sewer, the bars the strong points, the spaces between them the weak ones. Such a grating resists hammer blows, nor can you force even a box of matches through it. But take your matches out, light them and throw them at the grating and some will get through. These will fall into the badly-ventilated sewer beneath—the reserve areas—and it blows up.*

Prior to the March battles in France in 1918 the German Infantry was given special training in infiltration, although the word was not used in the German instructions. The assault was to be led by troops who were to make headway wherever resistance was weakening. These storm troops were sometimes whole special battalions, sometimes only parties selected from a battalion. Their duty was to press on past centres of resistance which they left to the waves of infantry following them. In order to maintain momentum they were followed by reserves, who reinforced and further developed the most successful penetrations.** The object of course was to get through to the gun lines and headquarters areas which were very vulnerable to attacks of this sort and the destruction and neutralization of which would cause confusion and alarm to spread among the fighting troops remaining in the line. It is this method of infiltration that worked so well in the examples given above. Why then, in the face of this evidence, do we resort to infiltration tactics

*New Ways of War, *p. 24. For additional reading there is a very graphic description of the effect that can be produced by infiltration in* Chester Wilmot's The Struggle for Europe, *p. 247–8. In this case, airborne landings created the situation.*

**Official History of the War, Military Operations in France and Belgium 1918, *p. 156.*

only as a last resort, when the more conventional methods have failed to produce a decisive result?

In the main, one feels that it is our reluctance to take what appears to be a gamble, since the failure of an infiltration attack would probably result in the attacking force being cut off, isolated and destroyed. Another factor is a reluctance to lose control, since this was considered to be a cardinal sin in the operations in Europe in the last war. In both these cases, adequate planning of reinforcement and communications would reduce the risk of failure. It can also be fairly stated that over-simplification of our war-time tactical doctrine tended to lead lower level Commanders in the direction of the orthodox set-piece battle. One was taught, in appreciating a battle problem, to decide on the "vital ground", possession of which would render the enemy position untenable. This might be a commanding hill, a vital cross-road, or a natural obstacle. It was reasoned that as the ground decided on as vital must be captured, an attack must be mounted against it. Since the enemy was also capable of deciding which was his vital ground, we found ourselves attacking, time after time, his most strongly fortified area. An alternative to this heavy-handed method was demonstrated by the Chinese operations across the Imjin in April 1951 in the region which became known as Gloucester Valley.

The Gloucesters held several hills which covered the entrance to a main road leading through a narrow defile in the direction of Seoul. The Chinese probed hard at the hill positions held by the British Regiment, found their way around by devious routes in considerable strength, and while one force of Chinese attacked the Gloucester position from all sides, the main body continued south and were not stopped until they had reached a position many miles behind what had been the allied front line position.

I suggest that we, faced with producing a school solution to the same problem, would have assessed the Gloucester position as vital ground. After extensive artillery preparation we would have assaulted and taken these hills, secured them to the best of our ability, and then suffered heavy casualties in a holding role while other forces were being teed up to reduce the neighboring hills. The point here is that ground remains vital only so long as an enemy can operate effectively on it. If this ground can be by-passed in sufficient depth to cut off sources of supply and reinforcement, it ceases to be vital in a very short time, and may not need to be taken by direct assault at all. In the Gloucester battle the Chinese certainly required the road which that Regiment protected,

but they were sufficiently mobile not to need it immediately.*

One last factor in our reluctance to infiltrate enemy positions is our fear of being led into a "killing ground". This killing ground factor figures largely in many of our defensive schemes, and we see it as the answer to the infiltration technique. The importance of avoiding such an area is, of course, a serious consideration in planning an attack by means of infiltration. In actual fact, however, it is rare that a battalion can find a suitable killing area within its defensive perimeter, and if it is seen from a study of the ground that such an area exists and is being prepared, this would usually rule out an attack by infiltration in that particular spot.

Indeed, it should be clear that infiltration is by no means the universal answer to infantry attacks. The situation must be right for it to succeed. Strong defences are not necessarily proof against it, but large reserves in the immediate vicinity militate against its success, as does good visibility. It is not the intention to put forward the tactic of infiltration as the solution to all the problems of attack. It should, however, be recognized more often than it is, as a valuable method under certain circumstances. Trouble from an unexpected direction always causes apprehension and tends to confuse the issue. It takes a strong mind and thorough training to stand and fight when the A echelon kitchens are being attacked and the artillery support dies away. Many times in the Second World War we were confronted with ideal situations where attack by infiltration would have paid handsome dividends. But aside from operation "Totalize", which was infiltration on a grand scale, and the dropping of paratroops ahead of advancing infantry, which is infiltration pure and simple, we seldom used it.

One can remember the closing days of the war in Germany, as we slogged along the disintegrating roads, one Sapper with a mine detector leading the way. A Special Air Service Regiment in armoured jeeps was placed under command to join in the advance to the North German ports. It was directed to reconnoitre the approaches to Wilhelmshaven, still many miles ahead. As our infantry hammered away at German centres of resistance, supported by those tanks that could be brought forward, the SAS Regiment swung down a side road and disappeared in a cloud of dust behind the German lines. By the time the village was captured and the road opened for another quarter of a mile, the armoured jeeps

**The writer took part in a battlefield tour of the Gloucester positions early in 1953, conducted by an officer who had been in the battalion at the time this celebrated action took place.*

were many miles into enemy-held territory. There was nothing decisive about this operation, of course, but the ease with which the line was penetrated was a striking example of what can be done.

The device of infiltrating an enemy position as a means to a quick and decisive end was largely neglected in the last war. We should remember this in training for the next one, for if it is ignored the technique will be forgotten and re-introduced to us by our enemies. What is more important, the staff work required and the special training needed to mount it will not be taught and even the methods used to counter it will be neglected.

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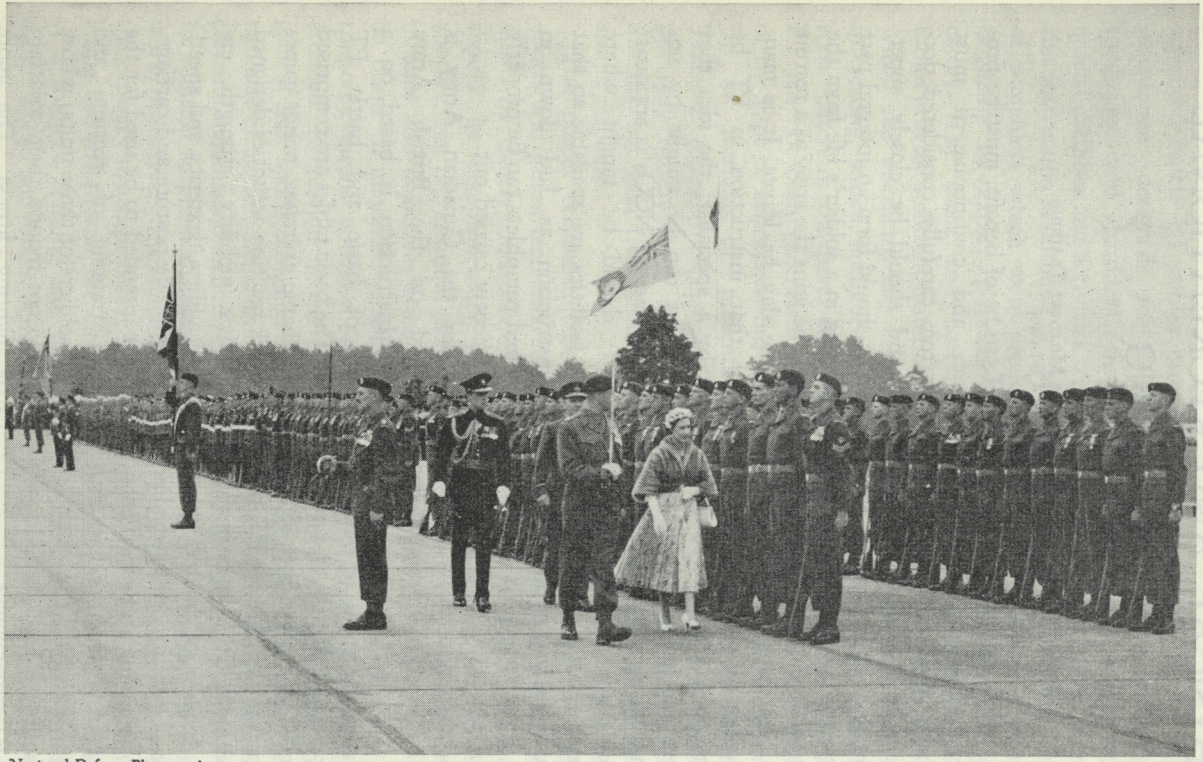
Germ Detection

A very thin filter which will trap bacteria and permit them to be identified within 15 hours—or one-sixth of the time previously required—was recently displayed by the [U.S.] Department of Defence. The flimsy disk, which resembles paper, is only slightly larger than a silver dollar. Similar to membrane filters used in laboratories, its extreme porosity permits water to flow through it rapidly, yet it traps on its surface all micro-organisms, or their poisonous products which constitute a chief instrument of bateriological warfare. In order to provide a method for bacteria count, the surface of the disk is marked off in small squares.

Previously, a gelatin plate-culture method required almost four days to produce similar information. About 300 of the new filters can be packed in a small pocket-size container, whereas the former detection system required a case of glass plates as large and as heavy as a desk for the amount of equipment required.

According to the report, the new filter will bring greater speed, reduced cost, and less weight and bulk of equipment to bacteria detection in the field.—*News release.*



National Defence Photograph

A 100-man Guard of Honour from the 2nd Battalion of the Princess Patricia's Canadian Light Infantry represented Canada's NATO Army formation in a Joint Services Guard of Honour for the arrival of HRH Princess Margaret at the RAF station at Wahn, Germany, this summer. The Queen's Colour was paraded by the battalion for the first time since its formation in 1950. The photograph shows Major K. Arril of Port Arthur, Ont., Commander of the Canadian section, accompanying Her Royal Highness during her inspection of the Canadian troops.

PHYSICAL AND RECREATIONAL TRAINING

By
MAJOR C. S. GLEW, DIRECTORATE OF MILITARY TRAINING,
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In the past, and more recently from Korea and Germany, field commanders have stressed the need for top physical fitness in the troops serving under their command. It is generally recognized that since the end of the Second World War, insufficient attention has been paid to the physical conditioning of Canadian Army personnel. Physical Training as a subject has had a low priority rating in training programmes; moreover, when taught, instruction has not always been of a high standard. Consequently, physical training, abbreviated by the initials PT, has more often than not been accepted with reluctance and active dislike. As a result, little general benefit has accrued.

The reasons for these serious deficiencies are varied. Firstly, the policy concerning PT has never been clearly defined nor has the Army's PT programme been effectively co-ordinated. Secondly, because of limited career possibilities, inability to specialize, and lack of planning and supervision, the calibre of instructors has been indifferent. Thirdly, the lack of proper facilities has resulted in desultory PT programmes.

PT, to be of benefit, must be progressive and continuous; it must stem from carefully considered doctrine and should be closely supervised. It should form an integral part of training in a soldier's life from the moment he joins the army as a recruit until the day he leaves. It is mandatory that instruction in PT be given by a specialist; the idea that this subject can be taught by unskilled regimental NCOs is antiquated. PT should be taught where proper facilities are available so that the instruction as laid down in authorized pamphlets can be properly and efficiently carried out.

PT for the Canadian Army is patterned on the British Army system. Instruction is based on a number of basic and battle PT tables. The basic tables are comprised of callisthenic exercises, minor games and quick reaction activities designed to produce mobility, strength, endurance, agility, dexterity and speed, and to improve posture and carriage. They are intended to be used for the physical training of recruits and trained soldiers of those units, whose duties do not require them to attain battle fighting fitness. The more

advanced battle PT tables provide instruction designed to develop toughness and hardness through special exercises and activities. All of this instruction is outlined in a series of pamphlets which were produced originally by expert physical educators. The basic and battle PT tables provide sufficient material from which the instructor can construct interesting, varied, and effective lessons. Often in the past, dislike for PT has not been generated because of the type of instruction but rather by its method of presentation. Trained, competent personnel can not only benefit those whom they instruct but gain from them enthusiastic response.

The proper relationship between sports and games recreation and PT must be clearly understood. They should be complementary to one another but the essential differences in aims and objectives must always be borne in mind. PT itself is not the only means whereby fitness is attained. Recreation in the form of games and sports common to our national character, helps to develop physical stamina and mental alertness. In addition to physical fitness, teamwork, initiative, determination and the capacity to accept defeat without losing the will to win, are vital parts of a soldier's training and development. These and other benefits are gained from competitions and tournaments on the playing field, and in the gymnasiums. Sports and games play a great part in promoting morale. Few activities will foster morale more rapidly than a well organized sports and games programme which invites the participation of all personnel. Further, the army's command organization lends itself to the establishment of large scale sports recreation programmes. Area, command, and army championships in major team games and sports will be promoted and eventually, inter-service competitions and tournaments arranged. Apart from the factor of morale, other advantages will accrue. Army-wide sports and games competitions will be an effective aid to recruiting; possibly contenders for places on Canada's Olympic and British Empire Games teams will be discovered. The success of such a programme requires the continuous efforts of skilled personnel.

Many of Canada's top military men have, in the past, recognized the need for a special branch to organize and supervise the Army's PT programme. As a result of this and on the basis of extensive study, the formation of a Physical Training Cadre (PT Cadre) has been authorized. The purpose of the cadre is to develop and maintain a set standard of physical fitness in the Regular Army.

The development of the cadre is to be carried out over the next few

years by stages, as follows:

(a) *Stage 1*: The establishment of a Physical Training Section in the Directorate of Military Training for planning purposes.

(b) *Stage 2*: The establishment of a Physical Training element in units where corps recruits are trained, and the training of assistant instructors for the PT Cadre.

(c) *Stage 3*: The establishment of a Physical Training Cadre element at gymnasiums in commands and areas, and the development of command HQ supervisory staffs.

(d) *Stage 4*: The establishment of a Physical Training Cadre element in all Regular Army units.

In the organization of the cadre, the divisions of responsibility have been clearly defined. The Director of Military Training is to be responsible for executive direction and supervision. The task of PT section in DMT is to formulate policy, inspect and co-ordinate PT, arrange for the provision of courses, and formulate the policy concerning games and sports in the army. Future instructors for the cadre will gain qualification at the PT Wing of the Royal Canadian School of Infantry.

Selection of personnel to form and maintain the cadre is being made at AHQ. Regular Army personnel who possess recognized qualifications are being carefully screened and will be fitted into the cadre establishment as vacancies occur. Members of the cadre will retain their corps affiliations and will be attached to units as specialist instructors. The conditions governing selection of officers, warrant-officers, and NCOs have been published. The small number of officers who will be required initially must possess satisfactory military or university PT qualifications. WOs and NCOs must be confirmed in the rank of Corporal and possess British or Canadian Army PT instructors qualifications, up to Group 2 trades level.

Employment in the cadre will provide career possibilities for suitable personnel up to commissioned officer rank. The career of a Regular Army PT instructor could conceivably follow this pattern. During his recruit stage of training he shows an aptitude for and interest in PT and receives encouragement from his instructor. When he becomes a trained soldier he is closely watched and assisted by unit assistant PT instructors and is selected to attend a short assessment course where his potential as a future instructor is gauged. Upon return to his unit he becomes a PT "leader" in his platoon or section. In due course he attends an assistant PT instructor's course and gains qualification. This entitles him to instruct at platoon or section level under supervision, and to help with the staging of unit sports and games.

He is employed in this manner until he gains sufficient experience to warrant selection for the PT advanced course. Upon qualification and recommendation, he may be accepted into the PT Cadre in the rank of Lance Sergeant and provided that he passes assessment, is then posted to a unit. Thereafter he may advance to the rank of WO 1, serving on the staff of PT Wing of the RCS of I, at command or area gymnasiums, service colleges, or in units where recruits are trained. During this period, provided that he can meet the requirements, he may be offered commissioned rank to fill an establishment vacancy. The career of a PT instructor would continue throughout his length of service; upon retirement, and after completion of a Board of Education PT course, he would be suitable for employment as an instructor at a private or public school or college.

Because of extremes in the Canadian climate, much of our training must, of necessity, be carried on indoors. Inclement weather is a deterrent to physical training, as it is to training in other subjects. Apart from the weather factor, benefit from instruction can best be gained when PT periods are conducted in the right environment. Dusty unit drill halls, with concrete floors, poor ventilation, and lack of facilities, are inadequate substitute for gymnasiums. The modern physical education plant is designed to produce maximum results from the activities carried on within its walls. A great many of our nation's communities and educational institutions boast standard gymnasiums. Moreover, the programme of PT as outlined in our reference pamphlets is dependent on the apparatus found in properly equipped gymnasiums. Recognizing this, and keeping pace with modern educational theory and practice, PT plants are being constructed in various army camps and training centres throughout the country. This building programme coupled with construction of playing fields will increase the effectiveness of the PT and recreation programme.

Thus the establishment of a PT Cadre has fulfilled a long-time need. Some time will elapse before concrete results are achieved, but at least a positive approach to the problem has been made. The demands of modern warfare are such that a soldier requires intensive training and top physical condition before he is ready to meet them. In the era of world-wide tension in which we live, Canada's army must be ready to meet the challenge of any would-be aggressor; it must maintain ceaseless vigilance and be, at all times, physically fit to fight. The formation of the PT Cadre is a major contribution towards the attainment of this goal.

OFFICERS OF THE FUTURE TRAIN IN GERMANY

NARRATIVE AND PHOTOGRAPHS CONTRIBUTED TO THE JOURNAL BY THE DIRECTORATE OF PUBLIC RELATIONS (ARMY), ARMY HEADQUARTERS, OTTAWA

Lessons in man management occupied the attention of 75 officer cadets and 2nd-lieutenants of the Canadian Officers Training Corps and the Services Colleges this summer as they completed their third-year practical phase of training with the 1st Canadian Infantry Brigade in Germany. Each man served with a unit of his corps. The cadets were selected for service in Germany on the basis of high academic and military training standards.

As a main training feature the officer cadets took over normal day-to-day unit duties of an officer. They were assessed on the manner in which they handled these duties.

For most, it was their first experience of serving with a unit.

2/Lieut. H. A. Pankratz inspects his platoon's rifles during summer training in Germany.

Above: 2/Lieut. J. Morneault instructs his men in map reading. *Below:* Instruction in personal camouflage is given by 2/Lieut. R. Martin during fieldcraft training.

Previous practical training had been carried out at corps schools in Canada.

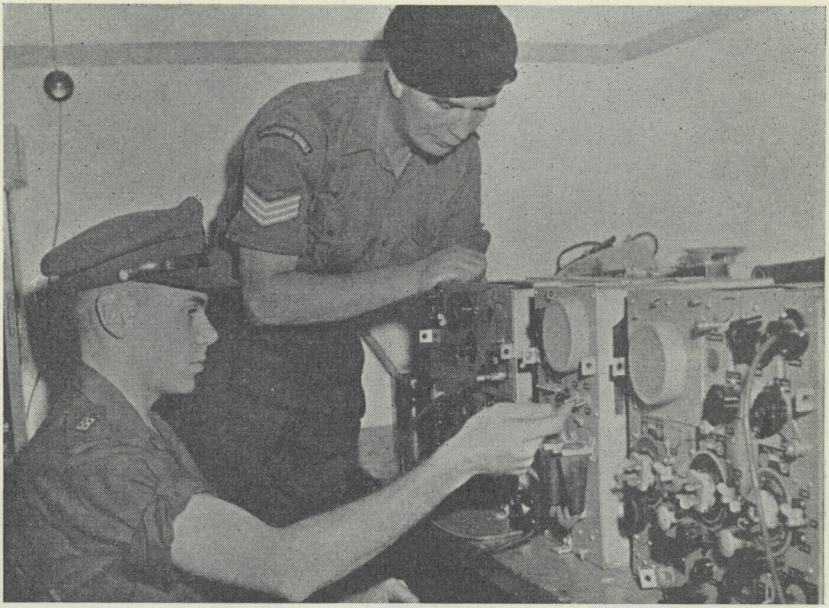
Close contact with the men provided what they considered "most valuable lessons", cadets said. Problems in man management have increased their self confidence. Cadets also received practical training in how a unit lives, trains and functions on active service.

Duties assigned to the cadets were numerous and varied. During attendance at Commanding Officers' Orders they witnessed the application of military law and justice. As members of Boards of Inquiry they had the opportunity to interrogate witnesses and assess facts. The student officers also took over as orderly officers. Responsibilities of Regimental Institutes added to their accounting ability.

Relations between Regular Army officers and the cadets were good and many friendships developed. According to the cadets, they were advised by regimental officers on matters not only of duty but also on

Officer Cadet M. Barlow checks the cleaning of a 25-pounder gun.

Above: 2/Lieut. R. Hall checks notes with Sgt.-Maj. J. De Cou while training with the Canadian Provost Corps. *Below:* 2/Lieut. E. Dube (pointing), infantry platoon officer, instructs during assault boat training.



Officer Cadet M. Lennox checks a No. 52 wireless set with Sgt. E. MacKay.

service, unit and corps customs. However, previous training at corps schools stood them in good stead in this respect. Throughout the summer training they were encouraged to express opinions and mix freely with all officers.

During their European tour of duty the cadets were permitted seven days' leave which enabled them to see and talk to many peoples of Europe. Some of the more popular cities visited were London, Hamburg, Paris and Copenhagen.

One group of three enterprising cadets pooled financial resources to purchase an automobile. On each duty-free weekend they toured different districts, visiting such places as the Rhine Valley, Bavaria and the United States Zone.

Unit commanding officers strongly favour the training of COTC and Services Colleges Cadets within the brigade. They report that young officers are enthusiastic in their work and willingly accept responsibility. Addition of cadets to unit strengths in the summer provides assistance when training commitments are at a peak.

Training was intensified during the summer, particularly on various exercises. Lord Strathcona's Horse (RC)

have taken part in exercises at the Hohne tank ranges. Cadets attached to "D" Squadron were employed as assistant troop commanders. They also engaged in infantry-tank manœuvres at Putlos and gained experience in handling armour with troops on the ground.

Cadets with infantry units at Putlos participated in live-firing exercises, patrols, platoon and company attacks, defence and withdrawals. They also worked with artillery and armour during these exercises.

Artillery cadets acted as assistant command post officers and troop leaders with the 2nd Regiment, Royal Canadian Horse Artillery.

Cadets with the Corps of Royal Canadian Engineers were employed in demolition and bridging exercises, including "Bridging Gallop", a joint exercise with the Royal Engineers.

Cadets of the Medical, Dental and Chaplains Corps were more nomadic than most. They moved from unit to unit within the brigade as required.

Changes in Tactics and Techniques

AN EXTRACT FROM THE "MILITARY REVIEW" (U.S.)

One of the most important lessons a military student can learn from history is the necessity of quickly recognizing the changes in tactics and techniques which are indicated during the course of a war, and especially during the meeting engagement. It is at these times that secret weapons and differences in tactics and techniques show up most clearly and require immediate adjustment to conditions on the battlefield.

History teaches that commanders must react quickly to the new conditions and, at the same time, transmit information to higher commanders concerning the circumstances and occurrences on the battlefield which indicate a need for changes in equipment, tactics, and techniques. The study of the initital phases of military operations deserves special attention. These are the periods that mark the introduction of new weapons, new tactics, or inexperienced troops; that involve a sudden shift in type of terrain, in defensive arrangements, in weather, or in seasonal conditions. It is during these periods that faulty organization, inadequate or impractical training, inefficient weapons, failure of leadership and communications, inadequate logistical support, faulty co-ordination of the various arms, unforeseen effect of weather and terrain, rumours and many other factors, some almost intangible, create a state of confusion which should challenge every military student.

Knowledge gained through a study of the initial phases of past operations will pay untold dividends to those who may be involved later in similar situations.

Ceremony at Petawawa

MAJ.-GEN. ROCKINGHAM LEADS FIRST PEACETIME DIVISION

In a brief ceremony held at Camp Petawawa, Ontario, on 2 September, Major-General John M. Rockingham, CB, CBE, DSO, ED, formally took command of the Canadian Army's first peacetime division. The divisional commander called it a "historic day for the country and the most memorable day in my career."

As General Officer Commanding the First Canadian Infantry Division, General Rockingham has under him more than 14,000 troops. His division includes the 1st Brigade, now in Germany; the 2nd Brigade at Edmonton, Alberta; and the 3rd Brigade at Valcartier, Quebec. In addition to these infantry formations, the division will have the normal elements of the Royal Canadian Artillery, Royal Canadian Armoured Corps and three battalions of the newly-formed Regiment of Canadian Guards.

Major-General Rockingham has the primary responsibility of implementing the training policies for the bulk of the Regular Army in the field and the direct responsibility for the collective training programme when the various formations are concentrated during the summer months.

On arrival at his Petawawa headquarters, General Rockingham was greeted by Brigadier R. M. Bishop, OBE, ED, divisional artillery commander; and Lieut.-Colonel N. G. Wilson-Smith, DSO, MBE, who is GSO 1 of the division.

Following the parade square ceremonial, the new divisional flag which will fly over General Rockingham's headquarters was raised.

New Honorary Colonel for Canadian Scottish Regiment

Appointment of the Honourable Robert Wellington Mayhew, PC, retiring Canadian Ambassador to Japan, as Honorary Colonel of the Canadian Scottish Regiment (Princess Mary's), is announced by Army Headquarters, Ottawa. A Militia unit, The Canadian Scottish Regiment is based at Victoria, B.C.

The appointment previously was held by Colonel, the Honourable C. M. Banks, CGM, of Victoria, B.C., whose tenure of office expired last spring.

THE ARMY'S FINANCIAL WELFARE PROGRAMME

By
H. C. Chadderton, National Secretary of the Army Benevolent Fund*

The Minutes of the first business meeting of the Soldiers' and Sailors' Families Association of Great Britain contain a report that in April of 1885 a grant was made to provide "all expenses attending the removal of Mrs. Aldercroft from the Union [i.e. workhouse] in Plumstead, Kent, to Watford."

This interesting bit of history is apparently the first record of an Armed Forces benevolent association providing assistance to a serviceman's dependents. Mrs. Aldercroft had encountered financial distress while her husband was on overseas service with the Imperial Army and the problem was solved by moving her to more favourable surroundings.

This organization has grown with the years and today, under the present name of the Soldiers', Sailors' and Airmen's Families Association, it is carrying on responsibility for the welfare of dependents of members of the United Kingdom Forces.

In the United States, the soldier has the protection of the Army Emergency Relief—an official Army agency which provides financial assistance to Army personnel and their dependents. The Army Emergency Relief is financed through annual subscription campaigns, augmented by the proceeds of Army entertainment activities. In this latter connection, Irving Berlin's hit show, "This is the Army", has produced some $9,000,000 for Army Emergency Relief coffers.

The counterpart of the Soldiers', Sailors' and Airmen's Families Association and the Army Emergency Relief, insofar as the Canadian Army is concerned, is the Financial Welfare Programme, consisting of the Army Emergency Loan Fund and the Army Benevolent Fund. These sources of help became available to all Army personnel and their dependents as of April 1st, 1953. The purpose of this article is to explain the main points of this new programme and to provide some background information with respect to its development.

As far back as 1885 financial aid has been necessary as a supplement to the perquisites provided to the soldier through the Government to ensure the well-being and morale of members of

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the Armed Forces and their dependents. The need for this type of help is apparently a constant one—whether in peace or during a war—and for some very plausible reasons. In the first place, the serviceman is susceptible to the same causes of financial distress as his civilian neighbour; that is, sickness, accident, death, fire and other family disasters which create a demand for money over and above that which can be set aside out of normal income.

On top of these unexpected contingencies, which happen to most of us at some time or another, the soldier is exposed to additional hazards brought about by service conditions. For example, there is the housing problem, or the requirement for long-distance transportation in a family crisis. A third factor, which is perhaps not so obvious but which nonetheless often places the serviceman at a disadvantage, is his ineligibility for public welfare due to lack of residency qualifications. In short, the soldier who is subject to frequent postings and separation from his family is in a vulnerable position in the matter of financial welfare. Many will need a helping hand if they are to get over the rough spots during the years when they are raising a family and soldiering at the same time.

Development of the Programme

Until recently, the Canadian Army relied upon local effort to provide a means of dealing with these family problems. Some camps and units had their own regimental funds and "barrack-box" campaigns. In addition, the Army Benevolent Fund was spending $50,000 to $75,000 a year on those eligible for its benefits by reason of Second World War service.

The results were most praiseworthy. Nonetheless, the stage had apparently been reached where voluntary endeavours on the part of commanding officers, chaplains, etc., in scattered units and camps, plus the ABF for those with Second World War service, were simply not enough to meet the situation. A detailed study of welfare problems had shown a steadily-increasing demand for an overall, co-ordinated plan which would ensure adequate facilities to deal with the financial welfare of all Active Army personnel and their dependents.

Accordingly, the Adjutant General's Branch made a survey of the programmes available in the United Kingdom and the United States, and spent some time analyzing the operations of the Canadian Naval Service Benevolent Fund, the Army Benevolent Fund and the RCAF Benevolent Fund. Two definite requirements for a complete financial welfare plan were indicated:

1. A system of emergency loans to deal with urgent problems where

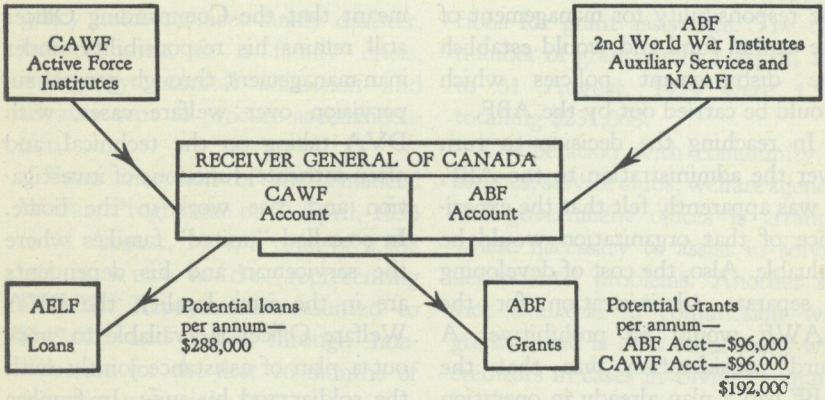
the immediate need for money was the primary factor; and

2. Facilities for outright grants, to be made in conjunction with welfare service (counselling, budgetting, housing, child care, etc.) as a means of overcoming deeply-rooted financial problems.

Out of this survey the Canadian Army's Financial Welfare Programme was developed—a programme which represents the combined efforts of the Canadian Army Welfare Fund, the Army Benevolent Fund and the Welfare Services Branch of the Department of Veterans Affairs. A chart outlining the various functions under the Programme is reproduced here.

The first step was to institute a means of raising money from the Regular Army. The National Defence Act provides that non-public funds accumulated through Active Force Institutes can be expended at the direction of the Chief of the General Staff. Under this authority, arrangements were made for contributions from canteens, messes and other institutes to be paid into the Canadian Army Welfare Fund, which was incorporated as a non-profit company under Part II of the Dominion Com-

FINANCIAL WELFARE PROGRAMME
CANADIAN ARMY ACTIVE FORCE



(1) Loans for *all* Active Force personnel are paid from the CAWF account. Grants for Second World War veterans are paid from the ABF account while grants for Army personnel who enlisted subsequent to Sept. 1946 are paid from CAWF account.

(2) The serviceman may apply for a loan through his CO and the application will be submitted to the nearest AELF Field Committee. A request for grant assistance is initiated through CO and an interview is the responsibility of the DVA Welfare Services with the application being forwarded to the nearest ABF Provincial Committee.

panies Act. The Chief of the General Staff, the Adjutant General, the Quartermaster General, the vice-heads of the three Branches and the Director of Administration were appointed as the Board of Directors.

The second step concerned the method of administration. The Board of Directors of the CAWF decided to request the ABF to administer the proposed programme of expenditure. It was agreed that the Board of Directors of the CAWF would retain the responsibility for management of the capital fund and would establish the disbursement policies which would be carried out by the ABF.

In reaching the decision to turn over the administration to the ABF, it was apparently felt that the experience of that organization would be valuable. Also, the cost of developing a separate administration for the CAWF would be prohibitive. A third consideration was that the ABF had a plan already in operation for the 20,000-odd Second World War veterans in the Regular Army, and the ABF Board had indicated that this could continue in existence as part of an all-embracing programme for all Regular Army personnel. Moreover, there was a great deal to be said for placing the management in the hands of an agency such as the ABF which has no official connection with either the Army or the Government. This is particularly desirable in view of the necessity for frequent negotiation with doctors, hospitals, banks, loan companies, merchants, welfare agencies, medical associations and a host of other public and private groups.

The use of the ABF facilities led to the development of the third major step; that is, the employment of the Welfare Services Branch of the Department of Veterans Affairs for all case work in connection with applications for financial grants. This has meant that the Commanding Officer still retains his responsibility under man-management through general supervision over welfare cases, with DVA taking on the technical, and often intricate, functions of investigation and case work in the home. In so-called "united" families where the serviceman and his dependents are in the same locality, the DVA Welfare Officer is available to work out a plan of assistance jointly with the soldier and his wife. In families separated by service conditions, the coverage of DVA itinerant service extends to practically every town and hamlet in Canada, thus permitting the Welfare Officer to call upon the wife and devise a plan of help with her, enlisting the aid of regimental auxiliaries and other community groups, when required.

Army Emergency Loan Fund

Field Committees of the Army

Emergency Loan Fund have been established at commands and other headquarters in Canada, Washington, D.C., London, England, Continental Europe and in the Far East. These Committees can loan up to $150.00 and the money is made available either in Canada or abroad, depending on the place of residence of the dependents. The loans are interest-free and are repaid through assignment of pay.

The types of loans include emergency needs to meet family disaster, transportation in a family crisis, emergency hospital admission and advance rent to procure accommodation.

From inception of the Financial Welfare Programme on 1 April, 1953 to 31 August, 1954, a total of 2,588 loans were made, representing $280,021. Repayments amounted to $147,020 and losses through non-collection for the first 16 months of operation were only $167.

Army Benevolent Fund

It is perhaps easier to understand what the ABF represents if we think of the Fund in terms of "paid-up insurance". That is to say, every eligible person has an equity in the Fund and a claim can be made against this equity whenever the individual encounters financial difficulties which can be considered as a genuine reason for an applicant's inability to balance his budget.

Grant assistance is awarded usually to meet financial problems resulting from sickness, accident, death, fire or other unexpected contingency. These grants are made by the Army Benevolent Fund, through its voluntary committees of prominent business and professional men in Canada and the United Kingdom. The counselling, case work and investigation services of the Department of Veterans Affairs are utilized in connection with applications for grant assistance. The total number of grants from 1 April, 1953 to 31 August, 1954 were 1,310, totalling $231,068.

Co-operation with community resources, service clubs, welfare agencies and government offices is arranged where necessary to assist in solving dependents' problems. Another service available in conjunction with grants-in-aid is debt adjustment with creditors in cases involving outstanding debts. In all grant cases the families are required to adopt a sound plan for household management, including a budget and debt repayment plan, and are encouraged to protect the family through medical, fire and life insurance.

Safeguards in the Programme

In the administration of a financial welfare plan there are always two considerations—and very often it is found that these considerations are in

direct opposition to one another. The first is to make assistance available when a serviceman is in trouble. The second is to ensure that the funds are protected against exploitation. The difficulty lies in giving adequate observance to one consideration without sacrificing the other.

In outlining this programme we have dealt thus far only with the primary consideration of what is available for the applicant. It seems appropriate at this point to give some attention to the safeguards.

Insofar as the Army Emergency Loan Fund is concerned, there are two principles which have been adopted to prevent abuse. The first is that loans may *not* be made when it is evident that the serviceman cannot afford to make repayment through assignment. The second principle involves the necessity to avoid exploitation. Loans must *not* be made merely as a convenience and the facilities of AELF can be utilized only where there is a genuine financial problem.

There are five basic principles which form the yardstick used in adjudication of cases involving grants from the Army Benevolent Fund. Firstly, there must be an unexpected contingency; secondly, there must be genuine evidence of distress; thirdly, there must be assurance of a permanent solution to the problem; fourthly, the case must be deserving and both the serviceman and his wife must show a willingness to help themselves; and fifthly, the Fund must not be used to relieve other agencies of their responsibilities.

Audit Requirements

Insofar as the Army Emergency Loan Fund is concerned, the accounts of the Field Committees are audited monthly under direction of the Command or Area Paymaster. The Auditor General of Canada has accepted responsibility for the principles followed in the audit of the Fund, as well as the direct audit of the accounts of the Fund's Central Committee. In addition, the Auditor General audits the books of CAWF and ABF. All grants are paid directly to the creditor or the supplier by the Federal Government Treasury Officer and ABF officials do not handle cash.

General

The Army Benevolent Fund Board has accepted the responsibility for the administration of this Financial Welfare Programme. The Chairman of this Board is Lieutenant General J. C. Murchie, former Chief of the General Staff, who serves, along with the members of the Board and its Provincial Committees, without remuneration. All are ex-Army personnel who have maintained a strong association with the Regular and Militia forces and it is evident that these ex-soldiers

will continue to act in the best interests of servicemen and the Army generally. They consider their functions under this programme is to represent a link between the Army and the civilian community, and both the officers and employees of the ABF are proud to play a part in this important adjunct to the defence effort.

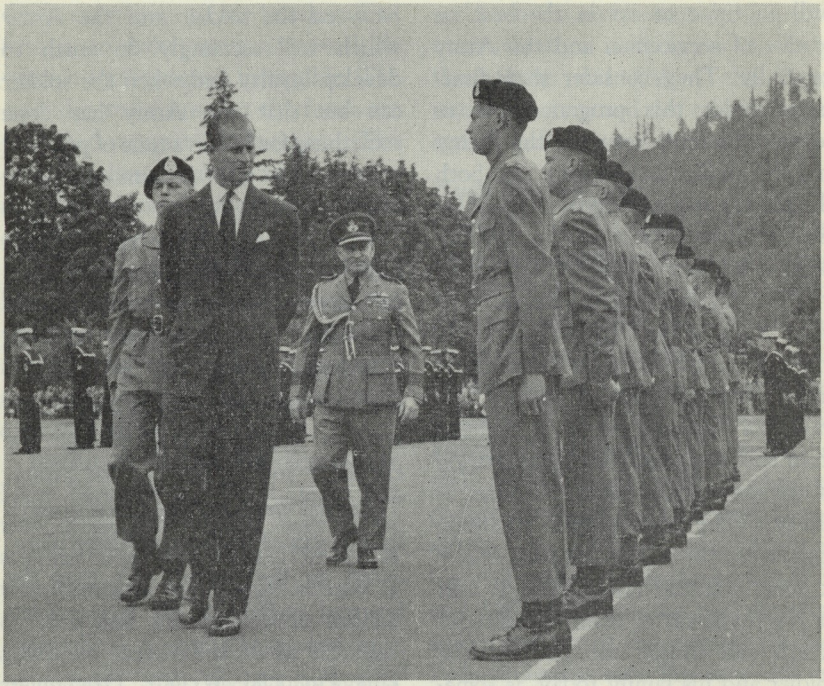
The programme is, of course, very new. Nonetheless, verbal reports provide an indication of its far-reaching significance in two spheres. The value of financial welfare facilities from the viewpoint of the well-being of the soldier and his dependents, is obvious. The availability of a helping hand when there is the need for money to meet a family crisis, medical bills or the hundreds of other vicissitudes which can plague the path of the soldier and his family today, is something which every soldier can and will appreciate. This represents a tie between the soldier and the Army which will seemingly do much to develop loyalty and when the soldier can see that the Army has done something for him in a time of personal trouble, he will become a better soldier.

It is obvious, however, that the significance of this programme goes far beyond the well-being of the individual. These facilities will undoubtedly develop as a beneficial force in man-management and morale with a consequent effect on the efficiency and conduct of the Army. There has been a tremendous growth in industry of employee-welfare plans, based on the proven fact that the financial welfare of the labour force is an important factor in production. This Financial Welfare Programme is being welcomed as having a similar effect in the Army.

Improved Microphone

A dynamic-type microphone that has a transistor amplifier built into its handle is expected to improve battlefield communications. Although it is still in the experimental stage, its creators believe it shows promise as an answer to scratchy, sometimes unintelligible, field communications —particularly from tanks and other combat vehicles that jounce over rough terrain.

A transistorized amplifier is used to magnify the tiny electric signals developed when words are spoken into it. Carbon-type microphones often obscure battlefield messages with a peculiar frying sound, usually caused by agitation of the tiny carbon particles in the microphone brought about by rough treatment. With the new device, it is felt that military personnel will be able to recognize familiar voices more readily — a valuable asset where security is concerned.—*Military Review (U.S.).*



His Royal Highness the Duke of Edinburgh inspects a Guard of Honour composed of Royal Canadian Army Cadets at Vancouver during his visit to Canada this summer.

Military Hospital For Barriefield

Construction of a 125-bed military hospital at Barriefield Military Camp has been approved, Canadian Army Headquarters has announced.

According to the Army's Director General of Medical Services, Brigadier K. A. Hunter, and Brigadier J. N. B. Crawford, Canadian Forces Medical Council, the new hospital will replace the present inadequate wartime temporary structure. Located between highways 15 and 2 and overlooking the Cataraqui River, it will be specially designed to meet present military needs and possible expansion for wartime operations.

Plans and specifications are being prepared by the Army and construction is expected to commence in 1955. —"*Armed Forces News*" (*Department of National Defence*).

DIEN BIEN PHU

Captain M. Harrison, in
The Irish Defence Journal (Dublin)

This account was written before the cessation of hostilities in Indo-China.—Editor.

* * *

Before the recriminations begin and Dien Bien Phu is smothered in its consequences a serious analysis of the siege must be attempted, not in terms of heroics, but of ground and men, material and tactics.

While it is misleading at all times to generalize from one particular this maxim is notably applicable to the action which culminated in the fall of the French fortress.

It was an operation so highly specialized as not likely to be duplicated often in future. But it highlighted two very important aspects of military science, namely, Chinese Communist tactics at low level and the apparent failure of air power when employed against such tactics.

Stripped to the essentials, Dien Bien Phu was a simple contest between infantry besieging and infantry besieged.

The logistics of the Communist forces were based mainly on the human pace as the measure of distance and on the human back as the measure of load. As for the besieged, their logistics were based on the ultra modern—cargo aircraft and helicopters.

The only other notable factor deserving early mention is this, that the attackers had no air capacity whatever—not even a single aircraft —while the besieged had the services of considerable air support. The latter, then, had two great advantages both derived from air power—quick support and quick supply.

Despite the apparent superiority which modern equipment and advanced techniques created for the French, the Viet Minh continued to assault the fortress resolutely. If their first attempts did not succeed it was no tribute to air power but rather to the steadfastness of individual infantrymen who maintained a high volume of effective fire, and who, when the assault was spent, moved out to disperse the invading remnants with the twin weapons of cold steel and high morale.

Here then, selectively consolidated from many sources, is the story of Dien Bien Phu.

As announced by General Navarre, French overall commander in Indo-China, the plan for this season's campaign was to be aggressive everywhere so that by stealing the initiative from the Viet Minh he could dictate the course of the war and so finish it.

To this end he had concentrated on

building a force of some 300,000 troops, French, French Colonial and native. A feature of his plan was the emphasis on air, mainly as a transport service, but also as a tactical weapon. Total aircraft of all types available at the start of the campaign season last October was about 300.

In furtherance of his plan, General Navarre staged two airborne sorties into Cochin China which were successful at least as demonstrations of strength to sway the populations of indifferent or disaffected areas although no great opposition was either expected or encountered.

The decision to sit astride Viet Minh routes south from China was in the spirit of the Navarre plan since it would seriously threaten them in their annual excursion into Laos. The fertile valley just 12 miles north of the Laos border, situated high up in the Thai mountains in which the roads converged, was the only possible site for a base from which French offensive sorties could radiate. In the centre of the valley grouped about the road junctions lay a straw-hut village watered by a river.

During the Second World War this site had been an important garrison for the Japanese who had built an airfield with a 4000-foot runway, surfaced with steel mesh.

As readers of "Beau Geste" and such literature will appreciate, the concept of a fort isolated from its base area is no new departure for French colonial garrisons. In Indo-China it was no novelty, having been tried out at least twice with success. The experience during the defence of the fortified area of Na-Sam would, indeed, lend support to those who considered such tactics to be militarily sound.

The difficulties inherent in the siting of the proposed defences were those experienced usually by commanders of combined arms. Artillery will demand secure gun areas, capable of concealment from above and not in view of enemy ground observers. Armour, being essentially offensive, will demand to be placed in localities from which it can counter-attack with avenues of advance which will not be hazardous by reason of minefields, marshes or too steep slopes. Infantry, to achieve security, will seek commanding ground from which approaches can be dominated. This generally means a height with capabilities for all-round defence.

Air, whether it be tactical or logistical, must, too, be secure. Tactical aircraft is secure only when the landing ground is protected by other arms from enemy fire and penetration. The same holds good for troop and cargo aircraft. Since, for the projected French operation, all goods, stores, and personnel were to be air-ported and air-landed, the airfield had to be the major factor, over-

riding other factors, since without it no sustained effort would be possible; the defence would be nothing but a suicidal gesture.

This, then, was the problem confronting the French staff, and on analysis it permitted of only one solution. Sacrificing the interest of other arms—of infantry mainly—for the greater good, the defence was sited with reference to air support generally. The place had to be Dien Bien Phu.

Build-up

The implementation of the decision resulted in a protected airhead. The main mission—denial of lines of communication and approach, by offensive sorties from a firm base—came a bad second.

As the official title of the type of operation—defensive centre—implies, this was to be no small fort holed up in the wilderness but a large-scale installation. It was considered that encirclement of the valley positions would require a force of 30 Viet Minh battalions which, if that were correct (as indeed it proved to be) would justify its organization and maintenance.

The operation was called "CASTOR" and on 21st November, 1953, it began with the parachuting from 150 Dakotas of thousands of troops and their equipment. First dropped was 6 Battalion which quickly annihilated the Viet Minh garrison.

The work of organization went on until early March when all installations possible were secured underground. The various headquarters, a 250-bed hospital, wireless station, billets, dumps, car parks, were all dug in and solidly roofed over.

Bunkers, gun pits and weapon pits were thoroughly concealed and protected.

Artillery up to 155 mm. calibre was integrated into the scheme and light tanks, in unknown numbers, were available to give offensive punch.

The airfield was made usable at an early date and an emergency landing ground was levelled at Isabelle (see map on page 49).

By early March the French were sending tank-infantry teams into the surrounding countryside and inviting the enemy to fight.

French Forces

The combat element as finally organized consisted of twelve battalions made up of Moroccans, Africans, Legionaires and Vietnamese; Thai tribesmen organized in battalion strength were also present, their quality being, however, indifferent. Numerous technical and specialist troops completed the garrison.

The total force of all arms and services amounted to about 12,000 which strength was maintained throughout the siege by the addition

of some 2400 paratroops and volunteers to replace casualties.

The Fortress

The "defensive centre" was based on seven defended localities—some reports mention eight—each sited on such elevated features as existed. Although the valley has been described as a plain it is . . . not entirely featureless, but has heights of such eminence as to command adequately the entire surrounding countryside.

Each locality appears to have been self-contained and almost all would have been mutually supporting.

Isabelle, in the extreme south, held two battalions and a proportion of support arms. Being some three miles distant from the main group of localities it was well-nigh isolated and could not directly support or be supported by them.

Beatrice in the north-east and Gabrielle in the north were the other outlying localities. Each held one battalion. They were both so close to the main centres as to be capable of support and were not in serious danger of isolation. These localities protected the airfield on the north-east and north respectively.

A further locality, Anne-Marie, in the north-west, situated in a complementary position to Beatrice, appears on a map originating in a French newspaper. It was not mentioned in the actions, however, and strong doubts remain as to its existence as a permanent installation. If Anne-Marie had existed, its role would have been to protect the approaches to the airfield from the north-west.

The redoubt itself, the main complex of fortifications, installations and reserve areas, had four defended localities so sited as to present a solid front in all directions. These localities were Elaine, Dominique, Huguette and Claudine.

From Isabelle to Gabrielle was about seven miles. From Huguette to Beatrice was about three miles.

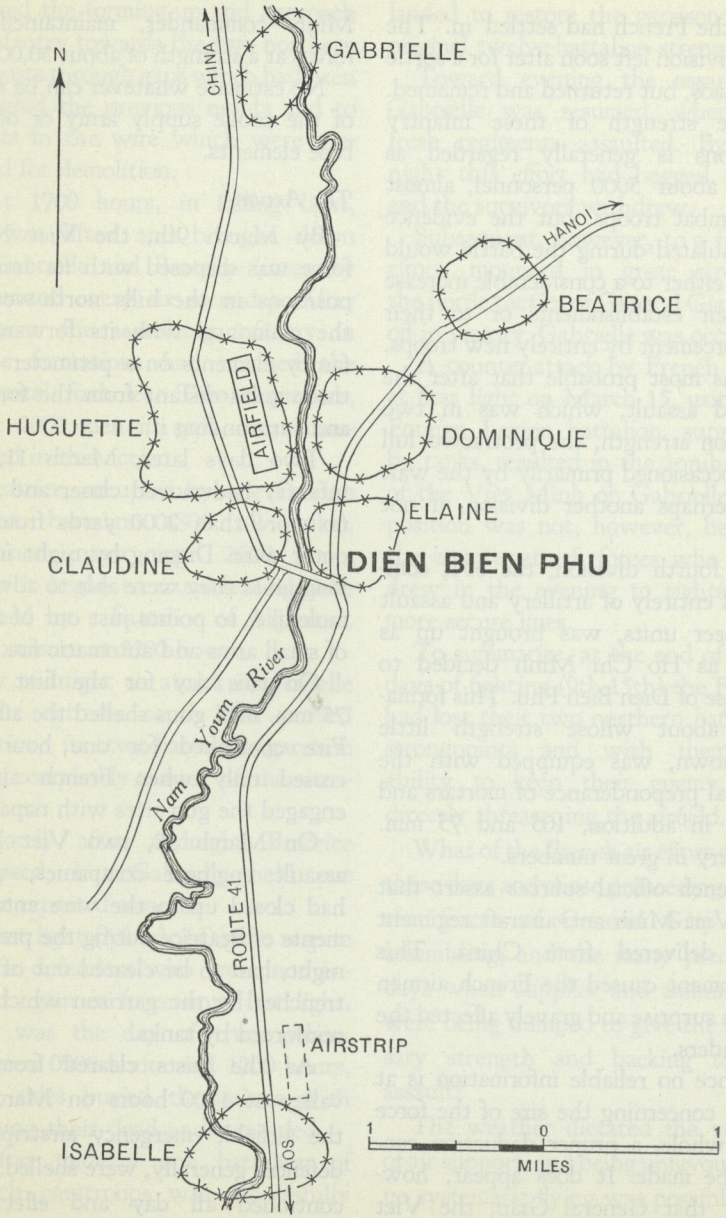
The main bastion with its four localities was about 3000 yards in diameter.

While there are many references to wire on the perimeter of the localities there is no reference whatever to that most necessary adjunct to all defensive schemes—minefields. Their omission is inexplicable and, to date, is the major mystery of Dien Bien Phu. No mention of their use appeared in any report available to the writer.

Viet Minh Forces

Best estimates give the Viet Minh a total force of eight divisions of Regulars plus an unknown number of garrison and guerilla units. Of the eight divisions, half fought at Dien Bien Phu and they can all be identified.

The 308, 312 and 316 divisions invested Dien Bien Phu immediately


N
CHINA
GABRIELLE
HANOI
BEATRICE
HUGUETTE
AIRFIELD
DOMINIQUE
ELAINE
CLAUDINE
DIEN BIEN PHU
Nam Youm River
ROUTE 41
AIRSTRIP
ISABELLE
LAOS
1 0 1
MILES

after the French had settled in. The 308 Division left soon after for a sortie into Laos, but returned and remained.

The strength of these infantry divisions is generally regarded as being about 5000 personnel, almost all combat troops, but the evidence accumulated during the battle would point either to a considerable increase in their establishments or to their reinforcement by entirely new troops. It was most probable that after the second assault, which was in two division strength, the protracted lull was occasioned primarily by the wait for perhaps another division, if not more.

A fourth division, the 351, composed entirely of artillery and assault engineer units, was brought up as soon as Ho Chi Minh decided to dispose of Dien Bien Phu. This formation, about whose strength little is known, was equipped with the typical preponderance of mortars and used, in addition, 105 and 75 mm. artillery in great numbers.

French official sources assert that the Viet Minh anti-aircraft regiment was delivered from China. This equipment caused the French airmen much surprise and gravely affected the defenders.

Since no reliable information is at hand concerning the size of the force as a whole, a proper deduction cannot be made. It does appear, however, that General Giap, the Viet Minh commander, maintained his forces at a strength of about 30,000.

No estimate whatever can be made of the coolie supply army or of the base elements.

The Action

By March 9th, the Viet Minh force was disposed with its artillery positions in the hills north-west of the plain and with its forward infantry elements on a perimeter some three miles distant from the fortress and surrounding it.

Two days later, March 11, the infantry had moved closer and were no more than 2000 yards from the outer wire. Digging by night in the long grass they were able to advance, mole-like, to points just out of range of small arms and automatic fire.

On this day for the first time, 75 mm. field guns shelled the airfield. Fire continued for one hour and ceased only when French aircraft engaged the gun sites with napalm.

On March 12, two Viet Minh assault engineer companies, which had closed up to the wire entanglements of Beatrice during the previous night, had to be cleared out of their trenches by the garrison which was reinforced by tanks.

As the mists cleared from the valley at 1100 hours on March 13 the airfield, emergency airstrip, and defences generally, were shelled. This continued all day and effectively

masked the forming-up and approach of infantry towards the two northern outposts through gaps which had been prepared the previous nights and to points in the wire which were prepared for demolition.

At 1700 hours, in failing light, fire was lifted and brought down on Gabrielle and Beatrice (intensity one round every six seconds). After an hour the assaulting infantry in dense formations had reached the outposts' foxholes. Two regiments, some 2000 men in each, were committed in this action.

Beatrice, occupied by one Foreign Legion battalion (800 all ranks), remained intact until 2000 hours when it began to crumble. Gabrielle manned by a battalion of Algerians, felt pressure at 2200 hours.

By midnight an attack on Isabelle in the extreme south had proved abortive, its two-battalion garrison being completely master of the situation.

Shortly after midnight Beatrice collapsed, but Gabrielle held out under repeated assaults.

First light (March 14) gave respite to the defenders who were not engaged again in force until last light. This was the day of truce when, between 0900 hours and 1200 hours, both sides busied themselves with claiming their dead and wounded.

After mid-day one battalion of French paratroops was successfully landed to restore the garrison to its original twelve-battalion strength.

Toward evening the assault on Gabrielle was resumed, when two fresh regiments assaulted. By midnight this effort had bogged down, and the survivors withdrew.

Subsequent, however, to a further effort, mounted in great strength, the horde tactics of General Giap paid off in victory. Gabrielle was occupied.

A counter-attack by French forces at first light on March 15, using one Foreign Legion battalion, supported by tanks, resulted in the annihilation of the Viet Minh on Gabrielle. The position was not, however, held by the counter-attack forces who withdrew in the evening to tighter and more secure lines.

To summarize, at the end of these days of fighting (9th-15th) the French had lost their two northern battalion strongpoints and with them the ability to keep their enemy from directly threatening the airfield.

What of the French air effort during these days and those proceeding when the forces of General Giap were assembling, and the many preceding days when supplies and ammunition were being dumped to give the necessary strength and backing to the assault?

The weather dictated the volume of air support, and being unfavourable, no systematic flying was possible.

First Lull

At this time various hard facts became clear as the battle was analyzed. It was noted that there was a complete change in Viet Minh tactics. Far from merely flowing around the defences as they had done in such situations previously, they now launched co-ordinated set-piece attacks against definite if limited objectives. Support was massive; their artillery fire was described as "without precedent in Indo-China." Further, it became clear that gun sites dug deep and well camouflaged were well-nigh impervious to both napalm and H.E.

The third fact was the manner in which the Viet Minh were able to spring up in great numbers close to the wire and seemingly right out of the ground.

By March 20, when B-26 bombers were operating (probably their first sortie) they were used to burn the high grass around the perimeter so as to expose the attackers. This, as will be seen later, did not prove successful.

But it was to air power that the French staff turned as the means of salvation. On March 17, General Navarre, in an Order of the Day, announced: "The whole airforce must join without restriction in the battle. Upon the efficacy of its action depends our success."

Echoing this was the plaint (so often echoed in all wars in one connection or another): "If I had ten times more bombers. . . ."

There were at this time some 200 combat aircraft in Indo-China, almost all of which were at the disposal of Dien Bien Phu. In addition, upwards of fifty cargo aircraft could, by dropping napalm, function effectively as combat aircraft from time to time.

The overall effect of this force of aircraft was, for the defenders, something less than nil. On the third day and for the ensuing week, as the weather cleared, aircraft mounted sorties against the besiegers who were now pulled back to the relative security of the bush. These sorties averaged 150 daily. Concurrently with close air support, supply and evacuation proceeded by helicopters and transports.

The southern strip, intended for emergency use only, had by now dropped out of the picture entirely.

The airfield proper was under close observation by artillery and mortar observers who could call down fire at will on any part of it. In consequence, no further landing operations could be carried out. This was the first defeat for air power and was the beginning of the end for the defenders since it denied to the commander large-scale reinforcements and resupply or augmentation of heavy equipment; air-drops could only provide a fraction of what was possible

by air landings.

Evacuation, too, was seriously affected since helicopters cannot take out appreciable numbers. Even on this scale, evacuation could not be systematic since the Viet Minh gave no quarter to the Red Cross, turning even the accumulating wounded to their own tactical advantage.

Inability to base tactical aircraft on the site reduced greatly the entire support effort, for even with a small number of machines under his control the garrison commander could use them most effectively—and in time, which was most important. The hour's delay before the arrival of air support and the frustrating errors of indication coupled with the fleeting nature of many targets must have been a trial to ground and air alike. Aircraft at hand could engage targets for far longer by contrast with Hanoi-based machines which had to deduct some 360 miles from their range and time on targets.

On the ground the interval was spent by the Viet Minh in harassing by artillery and infiltration by infantry and assault engineers. At night working parties wormed their way close up to the fortress wire, digging first fox-holes, then weapon pits, and enlarging the isolated holes into trace systems and saps all to a general plan designed to bring the assaulting infantry so near to the outer wire that exposure to defensive fires would be for the minimum time.

During this period Isabelle, with its two battalions, was isolated by infiltrating infantry. Each day tank-infantry teams moved north from this strongpoint up the road to Dien Bien Phu to re-establish the link and each night the Viet Minh came out to dig in again in greater numbers. Since permanent patrols could not remain out to control the road to Isabelle, this fort remained virtually isolated and cut off during all the succeeding actions.

All during the interlude the airfield was the main target, not alone for artillery and mortars, but also for assault engineers who time and again blew up sections of its steel grid. By the end of March the area intact was very much reduced.

By March 21, General Giap was considered to be ready for the next operation. His dispositions and technique could be noted by the defenders.

Close up, particularly east and south of the perimeter, trenches were ready. These ran parallel with the wire, at some points a bare hundred yards from it and stretched in an arc for almost 2000 yards. Radiating back from these assault trenches into dense high foliage were the communication trenches. At their terminals, some 800 yards distant, further trench systems held the support elements, the equipment, men and material needed for the assault.

For their part the French had tidied up their salients and were now confined in an area some 3,500 yards in width, re-supplied and reinforced.

Air strikes concentrated on the masses of Viet Minh in the support lines.

The entire ground set-up exactly paralleled the ancient and medieval concept of siege warfare.

Two strongpoints one mile west of Dien Bien Phu on an area of open ground had long been noted as anti-aircraft gun sites from which most of the night engagements of supply aircraft were directed. These sites were fronted by strong infantry positions. Heavy air assaults had not reduced the guns' effectiveness.

At first light on Sunday, March 28, twin sorties from Huguette and Claudine composed of tank-infantry teams supported by artillery moved out over the pocked plain and, surrounding both the installations, annihilated their garrisons—upwards of one thousand—capturing among other weapons five 20mm. LAA guns and two AAMGs.

Viet Minh artillery, taken unawares, did little to harass the French forces which returned to base with scarcely a casualty.

Second Assault

After 30 minutes pre-H-Hour bombardment of all localities, an assault was mounted on Isabelle on March 30. This effort—probably a feint—was not pushed through.

At 1700 hours Dominique and Elaine were attacked while 105 mm. guns laid down fire. By 1900 hours the wire was cut and avenues opened by assault engineers. In far greater strength than previously the infantry moved in, one division to each locality, making a total strength of some 10,000 men.

The object of this assault was soon noted to be the biting out of a semi-circular wedge on the east side of the fortress amounting to about one-third of the entire fortress area.

On the ground the objective was Baldhead Hill, an area which if taken, would dominate Huguette and Claudine and would provide sites for close observation of the southern end of the airfield.

In one hour the Viet Minh divisions had gained the objective, a very limited one, but were then subjected to an all-out air assault. Everything that could take the air, from B-26s to Hellcats, was employed to pound the forward elements and to cut them off from their reliefs and supplies which were still a little way back.

On that night successive counter-attacks were put in by Moroccan infantry supported by tanks, and by first light the situation was stabilized.

On March 31, Elaine was clear of Viet Minh, but Dominique was still occupied. The day being clear, air

strikes were concentrated on the reorganizing infantry in Dominique. As the light began to fail the defenders mounted a counter-attack on the areas pulverized by air strikes and succeeded in re-occupying Baldhead Hill, driving the Viet Minh back north-east, but not entirely out of the locality.

The succeeding day and night (April 1) were spent in attack and counter-attack to restore the situation in Dominique; it ended in stalemate with French tightening their eastern lines and conceding some ground.

A new area, Huguette, the north-west locality, came under assault by the third remaining Viet Minh infantry division. Attacking shortly after midnight, on April 1, this formation soon overran the entire locality and exploited well in to the fortress but only in small groups which were pinched out by an emergency rally of administration and staff personnel.

If General Giap had had sufficient reserves to back it up, this assault might well have spelled the end of the defence.

Aircraft were again out in force, bombing by flare light.

Between first light and mid-day, on April 2, repeated French counter-attacks were mounted in greatest possible strength but without budging the Viet Minh whose trench system now straddled the north-west end of the airfield.

For the second time the French found that even by day and at times of their own choosing they were unable to iron out the enemy lodgement.

During the night of April 2-3, a French attack north-west into Huguette was successful and at first light an attack into enemy positions in Dominique in the north-east also paid dividends, clearing the Viet Minh finally from Baldhead Hill. During this day the greater part of one battalion parachuted in.

To sum up, after this second assault the Viet Minh had pushed in the perimeter in three areas, Elaine, Dominique and Huguette. In the two latter areas the dent was about 800 yards deep.

The fortress, now reduced to a triangular area, was, however, still intact.

The greatest loss to the defenders was the northern half of the airfield now held by the Viet Minh. From then on, the parachuting of supplies (from a height of some 1500 feet) called for great skill; in fact, appreciable amounts of supplies were lost which meant for the garrison a diminution in effectiveness below the essential required to survive.

During this time the French were able to keep about 60 aircraft constantly over the fortress. But while there was some evidence that air

power had slowed up the Viet Minh there is no evidence that General Giap's objectives had to be abandoned; his troops, in fact, appeared not to be affected by the massive strikes which caught them on the move. Conditions were very favourable for air strikes and considering the absence of air opposition, concentrated nature of the targets, and small area of operations, it is a matter for wonder that air support did not play a more vital role.

It is not irrelevant in view of this, to consider the question of what amount of conventional tactical air power will be sufficient to counter the horde tactics of Asiatic Communists.

The Second Lull

On April 6 some twenty-five B-26 bombers began the long-term task of blocking-off the Viet Minh from their supply bases. Used in this role the B-26 should have been far more efficient than the PB4Y Privateers and fighter types which had been diverted for the task. The total force of Marauder B-26 bombers then in action in Indo-China amounted to about 50 which were serviced entirely by U.S. technicians.

The advent of the Marauders was the climax to the build-up of air power for the support of Dien Bien Phu.

All the other combat types were naval aircraft which in 1943 would have been rated first-class. They included, in addition to the Privateers, bomb-carrying Corsairs and Helldivers, Bearcats and Hellcats—all U.S. planes.

In Hanoi a new plan was formulated to counter the unexpected features of Viet Minh activity. These features included:

(a) the presence of a regiment of anti-aircraft artillery;

(b) the existence of truck convoys to supply those heavy items of equipment which could not be ported in manpacks;

(c) The complete change-over from their hit-and-run tactics of previous campaigns to the type of formal warfare waged by the Chinese in Korea, i.e., mass fire support for mass infantry assaults.

The new French plan was designed to seal off the supply routes and destroy the anti-aircraft guns. To effect this would require a sustained heavy bomber offensive and dive-bombing.

The aircraft best suited for these tasks were not at hand and, for reasons not pertinent to this story, were not made available.

Obviously, at this time a strong support drive from the delta overland was considered. Nothing was done, however, to translate the consideration into reality and while General Navarre's forces remained idle the fall of Dien Bien Phu was inevitable.

On April 7, an additional two

companies of paratroopers joined those dropped four days previously to bring them up to battalion strength.

As the interlude lengthened from days to weeks the French became optimistic. Most likely cause of the continuing lull was considered to be General Giap's inability to master sufficient forces to break it. A contributory cause was, perhaps, one not much adverted to, the imminence of the rains which put an end to systematic air operations.

Air sorties, massive by any standard considering the size of the force supported, continued to grow in intensity. Upwards of 200 were flown daily.

The air plan of early April was shaping up well with its two objectives being implemented. Viet Minh gun sites and troop concentrations were incessantly plastered and simultaneously roads, dumps and depots on the routes from the north were destroyed.

Day and night an air umbrella was maintained to assist the ground forces. Flareplanes remained permanently on station during darkness to light up the area as an aid to defence. Supply aircraft increased the lift above the standard drop of 200 tons daily.

By the last week of April the dominant Viet Minh activity was that of burrowing, elevated to the level of a tactical operation and popularly called "nibbling". As they had done since the first days of the siege, every night Viet Minh sappers drove trenches from their lines 800 yards distant from the outer defences. They covered and completed works with the top sod so that by day they were invisible. As the pattern of the terrain in no man's land changed from foliage to scorched and pitted earth, so did the camouflage. By digging innumerable concealed saps and traces from rear to front the Viet Minh ensured that their assaults would have the advantages of cover from view and from fire.

The long saps ended in bunkers and fire positions, camouflaged and concealed, from which fire could be directed or brought to bear, or from which infiltrating patrols could depart.

The French countered these activities by sorties to fill in the saps and destroy the bunkers, or where this was too hazardous, by constructing counter saps into no man's land.

Despite French effort, however, the Viet Minh burrowed right into Huguette, reducing it progressively.

This type of mole-like operation does not appear to have been a spur-of-the-moment development but rather a recognized technique resorted to when conditions demanded. From the very start it proved a great danger to the defence but neither its extent nor purpose appears to have been ap-

preciated.

Various writers have likened the "nibbling" tactic to the trench warfare of 1914–18 without harking far enough back to its true origins. The siege of Troy must have seen such digging, and down through the ages, when walled fortresses had to be reduced without the aid of gunpowder, the main task of the engineer was to build saps to the selected points from which the assault would eventually debouch.

Third Assault

For three days prior to the attack on May 1, Viet Minh artillery saturated the defenders; also used for the first time were multiple rocket-launchers firing eight rockets per salvo.

The third attack was according to standard procedure. Two hours before last light in dull and cloudy weather the avenues of approach were prepared. At 2200 hours—without artillery since the attackers were too close—all centres of resistance, including Isabelle, were assaulted.

At first light on May 2, Isabelle continued to hold, but all other areas were severely beset. Elaine was in best shape and Claudine was half gone. The northern positions were untenable and had to be conceded. All remaining areas were now capable of close engagement by small arms fire.

A French counter-attack on this day resulted in the lodgement of the counter-attack force in pockets distributed among the attackers.

As the mists cleared all available aircraft took to the air but no close support was possible since friend could not be distinguished from foe. In an effort to buy time, General Giap's reserves and artillery positions were saturated by B-26's, Corsairs, and all types which could carry bombs.

At the end of the day the Viet Minh were some 500 yards from fortress H.Q.

During the night of May 2–3, the rains came and flooded trenches, bunkers and staff installations; but there was no renewal of the attack.

On May 3, General Giap called on the French to surrender, but they refused.

Between 0100 and 0400 on May 4, pressure from the north on Claudine heralded a renewal of fighting. Volunteer paratroop reinforcements helped to thicken up the phalanx, but the remaining days were spent in hand-to-hand combat until at 1800 hours on May 7, formal resistance ended with the destruction of their dumps by the French.

In one last gesture Isabelle emptied its two-battalion garrison into the plain in a charge against forces which outnumbered it by ten to one.

Viet Minh Tactics

Some Lessons

Various Western commentators, more sympathetic than accurate, have seen the massacre of the defenders where none existed.

It is an axiom that, where modern defence is based on fortifications which are not to be outflanked, attack must be "set-piece", i.e., planned, rehearsed (where possible) and mounted with a preponderance of all arms, including specialist equipment and overwhelming infantry.

Where "set-piece" attack is not to be mounted (the defence not being so secured as to warrant it) the attacking force needs a superiority of about three to one locally in order to be reasonably sure of success. This is standard Western doctrine.

Against the 10,000 French combatants so prepared and so supported by aircraft, General Giap would have been violating Western doctrine if he had launched his assault with less than 30,000 troops. Prudence and experience would demand of a Western general in Giap's position that he wait for some 100 tanks and a tactical air group. Prudence would also demand an eye rearwards to ensure adequacy of supplies. All these requirements being fulfilled, the Western general might then commit his 30,000 infantry as part of an all-arms force and expect to overcome the opposition in two to three days.

Without benefit of these refinements and ingredients for success, General Giap did attack and was victorious. His assault technique, dictated by the nature of the defences, had to be based on (a) very limited objectives, and (b) mass manpower—both resorted to as the next best thing to fire power, mechanized, airborne and man-carried. The Viet Minh, too, had to select the dirty nights when minimum air support would be available to the defenders. In retrospect it appears they made a virtue of this necessity.

The employment of mass against a limited objective can be studied well in the second assault since coherent accounts, based on hindsight, have been released.

Thrust in from the west, this two-division operation aimed itself at Baldhead Hill, committing one division to each of the localities—Elaine and Dominique. Locally, the effect must have been overwhelming; the zone of action being so narrow and the objective so close the attackers must have been echeloned in great depth. The popular newspaper terms, "horde tactics", "human sea charges" and the like, applied to the Viet Minh tactics, express the idea of savage abandon and fail to convey that this is deliberate tactical policy to which there is no better alternative.

The tactic called "nibbling" has

been referred to in previous pages.

The suggestion by a staff officer to a Western commander faced with the task of destroying a fortress such as the Dien Bien Phu, that he resort to medieval saps, traces and burrows in order to gain a start-line or take ground would be sufficient reason for the initiation of a psychiatric report on, if not the prompt removal of the staff officer. Yet the Viet Minh commander, deliberately using this tactic from a very early date (during which its intent was not appreciated), must have reckoned on its value and considered that it would repay him. That it did repay him, not alone as a means of approach but as a means of capturing and occupying ground, is clearly evident. Like mass manpower, it was not a primitive subterfuge but the best means at hand to achieve the end in view.

Both these techniques, while they were eminently successful in this one instance, are hardly likely to be employed again in combination in Indo-China, for it is inconceivable that the French will again permit the same set of circumstances to arise. The answer, of course, to such siege tactics—if it cannot be atomic air power—is speedy relief by a large diversionary column of all arms. Long periods must interpose between attacks while the attacker gathers up more masses and makes more complex his warrens. During these periods the attacker must be put on the defensive by an adequate threat to his build-up. There is no evidence that air power alone can constitute that threat.

The prolonged resilience of the garrison proved that they were neither overawed by the "human seas" nor seriously disconcerted by the underground penetrations and intensive artillery and mortar fire. If any relief had been afforded them by a diversionary column, the internal evidence points to the distinct possibility that they would not alone have broken out, but, such was their mettle, that they would have wrested from Giap, however temporarily, the initiative he had so long enjoyed.

It is not easy to understand why no relief column ever took the field.

Air Power

French domination of the air over Indo-China was all promise but no achievement. A reader of the reports might be excused if, generalizing, he condemned the efficacy of air support as a whole and for all operations.

Air power cannot be represented by aircraft which are few in number and inadequate in quality for the role thrust upon them. Tactical air support, in the modern sense, was absent at Dien Bien Phu; there were too few aircraft and even these were of a poor vintage.

If it is conceded that air power did not exist in Indo-China, then the plain inference is that such power is

an expression of military strength so demanding as to be incapable of attainment by any but the few major powers.

Late in the siege the French asked for a hundred B-29's—a force which would have provided a bomb lift of at least 500 tons. These bombers, if made available, would have been used to support the French garrison indirectly by destroying the Viet Minh lines of communication, their dumps and depots. To be really effective, however, such an effort should have been mounted in anticipation of the situation. By the time the need was realized it was too late.

One probable effect of such bomber raids would have been the incursion of Chinese MIG's.

Apart from the heavier bombers, a strong element of up-to-date tactical aircraft was required. Fighter bombers and dive-bombers in appreciable numbers, say 200 of each, would have found useful employment.

The cargo and transport aircraft available, which must have amounted to some 250 machines, were adequate.

Of course, the idea of placing on aircraft the onus of breaking a stranglehold such as was maintained by the Viet Minh was a misconception of the capability of tactical air power operating with conventional armament.

Means certainly exist in the form of atomic weapons to neutralize, if not to destroy, such concentrations as were made by the Viet Minh, but even so the task would have been no simple matter of a few hours bombing. The fact remains that with the means available—some 200 combat aircraft—the desired end could not be achieved.

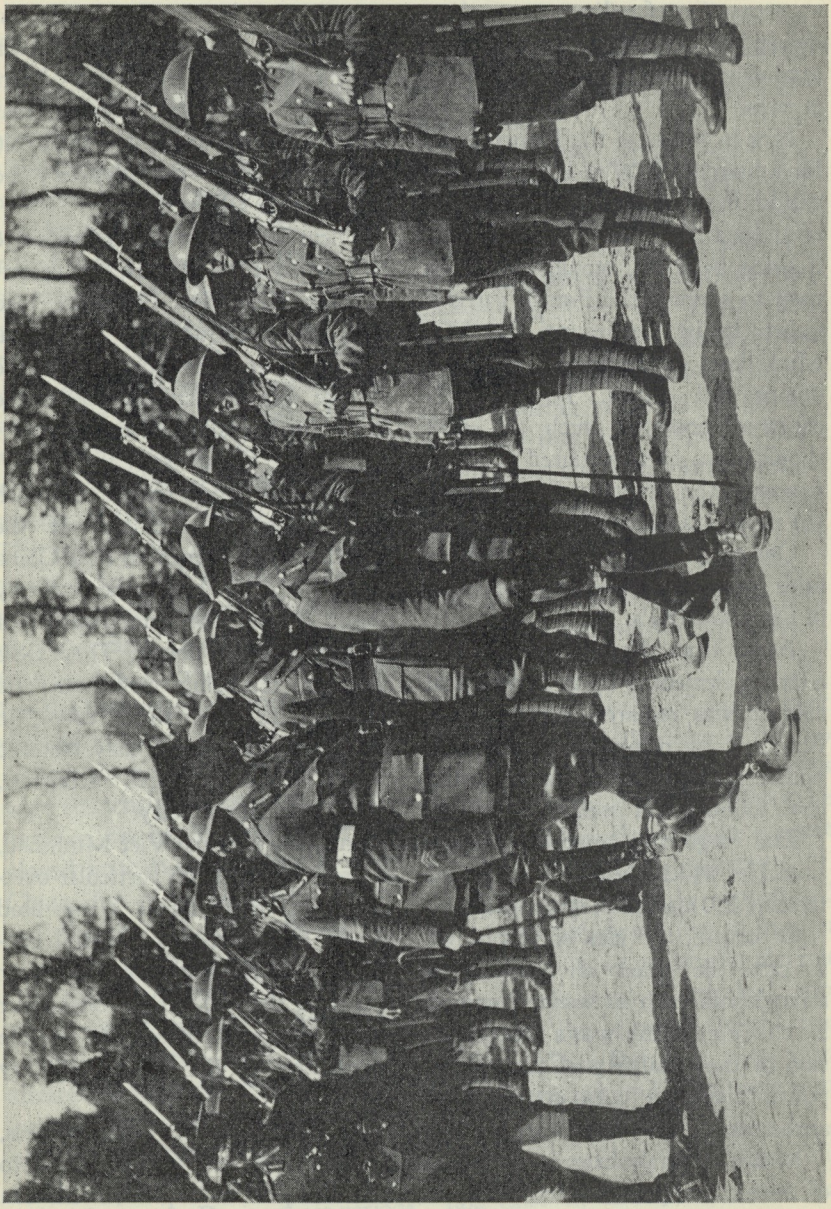
There are some valuable lessons to be learned from the use of aircraft at Dien Bien Phu. Until we read what the acknowledged commentators on air matters have to say, the average infantryman can see in the story only the failure of air power.

Conclusion

The final word has to do with appreciations or estimates of the situation. The French in Indo-China consistently have had as their military object or aim the *neutralization* of their opponent's power. They were bent on rendering ineffective and impotent all Viet Minh effort; in pursuit of this object they fostered every means—political, economic, educational and military.

For their part the Viet Minh had, in previous years, no particular overall object, their forces being used mainly as agencies of political conversion and consolidation. This year it is plain the Viet Minh commander has a clear-cut object. It is the destruction of the French military forces.

As Dien Bien Phu bears witness, General Giap appears not alone to have the plan to implement his aim but has also the means to achieve it.



Flashback: No. 8

INSPECTION OF THE CANADIAN GUARD OF HONOUR IN FRANCE, DOMINION DAY, 1918

NARRATIVE SUPPLIED BY THE HISTORICAL SECTION,
ARMY HEADQUARTERS, OTTAWA

The photograph on the opposite page shows Field-Marshal H. R. H. The Duke of Connaught, late Governor General of Canada, accompanied by the Canadian Corps Commander, Lieut.-General (later General) Sir Arthur Currie, inspecting a Guard of Honour at Tinques, France, on 1 July 1918. The occasion was the Dominion Day Sports Meet held by the Canadian Corps to commemorate the sixty-first anniversary of Confederation.

The Guard of Honour, drawn from the 1st, 2nd, 3rd, and 4th Battalions, 1st Canadian Infantry Brigade, 1st Canadian Division, was commanded by A/Major (later Lieut.-Col.) P. N. Alexander, MC, of the 2nd Battalion. This officer commanded the 1st Battalion, The Queen's Own Rifles of Canada, from February 1927 to December 1929.

At the extreme left of the photograph is Major-General (later Lieut.-General) Sir A. C. Macdonell, General Officer Commanding 1st Canadian Division—the "Old Red Patch" as he affectionately dubbed it in his Final Order of the Day in 1919. The officer with a stick in his right hand is Brig.-General (later Major-General) W. A. Griesbach, Commanding the 1st Canadian Infantry Brigade. General Greisbach was appointed to the Senate of Canada in 1921. From June 1940 to May 1943, he held the appointment of Inspector-General of Militia and Canadian Active Service Force units, Western Canada. For nearly twenty years, until his death in January 1945, he was Honorary Colonel of the 19th Alberta Dragoons and The Loyal Edmonton Regiment.

Among the notable guests present at the 1918 sports meet, in addition to the Duke of Connaught, were Sir Robert Borden, Canada's Prime Minister, and Generals Horne and Birdwood, First and Fifth Army Commanders. A feature of the programme was an exhibition of stunt flying by Canada's famous air "ace", Major (later Air Vice-Marshal) R. Collishaw, who destroyed sixty enemy aircraft in the First World War.

CALL UP A HELICOPTER

RICHARD ELLEY IN "SOLDIER" (UNITED KINGDOM)*

Tank bogged down in a shell-hole? A helicopter will exert a vertical haul until it can struggle free—or even lift it right out and deposit it on hard ground.

A field-gun to be sited on an unscalable peak? A helicopter will deposit it on an appropriate ledge, along with a detachment of Gunners.

One more river to cross? A helicopter will bring up a bridge and place it in position.

For these, and other slightly less improbable tasks, the helicopter is already being considered.

It was announced last month that more than 200 new helicopters have been ordered for the fighting Services. This followed a statement by Mr Antony Head, Secretary of State for War, that the Army was using three helicopters for experiments and training Army pilots.

He added: "We are very interested and keen on helicopters. We are doing everything we possibly can to get more."

In an earlier debate, Mr Head had said it was the Army's aim to introduce helicopters to the maximum extent and said: "Anything we can do to reduce that very vulnerable mass of wheeled vehicles, which is the lifeline of the forces, will be invaluable to a modern army when atomic weapons are used."

The American Army plans to have 12 helicopter battalions, each with 67 machines, by the end of 1959. Some machines will have a lift of 20,000 pounds, enabling them to be used as cranes to move trucks past road blocks or destroyed bridges. One American firm has built a 40-seater model. The British firm of Westland has announced probably the most advanced project so far—a machine to carry 450 troops or a 45-ton tank.

In Korea, the helicopter has shown great versatility. It has been used for observing artillery fire, for reconnaissance, liaison flights, laying signal lines and smoke-screens. It has served as a watch-post. It has been engaged on air supply, rescue work, tactical troop movements and evacuation of casualties.

An American helicopter company moved nearly 5,000 Indian troops from Inchon to Panmunjon in eleven days, and demonstrated that one helicopter company can keep an Infantry division supplied in the field.

*Reproduced by permission of the Controller of Her Majesty's Stationery Office, United Kingdom.—Editor.

British Official Photograph

A tracker dog is hauled into a helicopter after jungle duty in Malaya.

American Marines in Korea have used the helicopter for hit-and-run raids. One craft, with a rocket-launcher dangling beneath it, landed the weapon and crew at a firing spot. There it waited with its rotor turning while the launcher was fired, then re-embarked the crew and hauled the launcher away before enemy artillery could register on the spot.

In Malaya, helicopters have proved their worth in the war against guerillas. One machine broke new ground when it recovered (in sections) another which had made a forced landing in an inaccessible paddy-field.

All this has led helicopter enthusiasts to conceive a host of new tasks for the rotor craft. Some even see the end of parachute and glider troops. Now, they say, troops without special airborne training can be landed behind enemy lines. No special dropping places need be picked out, since helicopters can land their men and materials almost anywhere. Scattered landings, the bane of parachute and glider operations, will be avoided. Raiding parties will be picked up as soon as their mission is accomplished.

Major-General R. H. Bower, writing in *The Aeroplane*, has envisaged a sea-landing in which a small number of helicopters, operating from aircraft carriers, could put a large number of troops ashore. Large helicopters would act as cranes, to unload supply ships on an invasion beach. Smaller ones would be used for setting up radio stations on remote mountain tops, to relay the high frequency signals which need an "optical" path.

In battle, the enthusiasts say, helicopters will be able to fly reserves quickly to any hardpressed sector of the line and land them almost in combat positions. With reserves thus mobile, commanders may no longer need to keep as many troops in reserve as they do in surface-bound warfare.

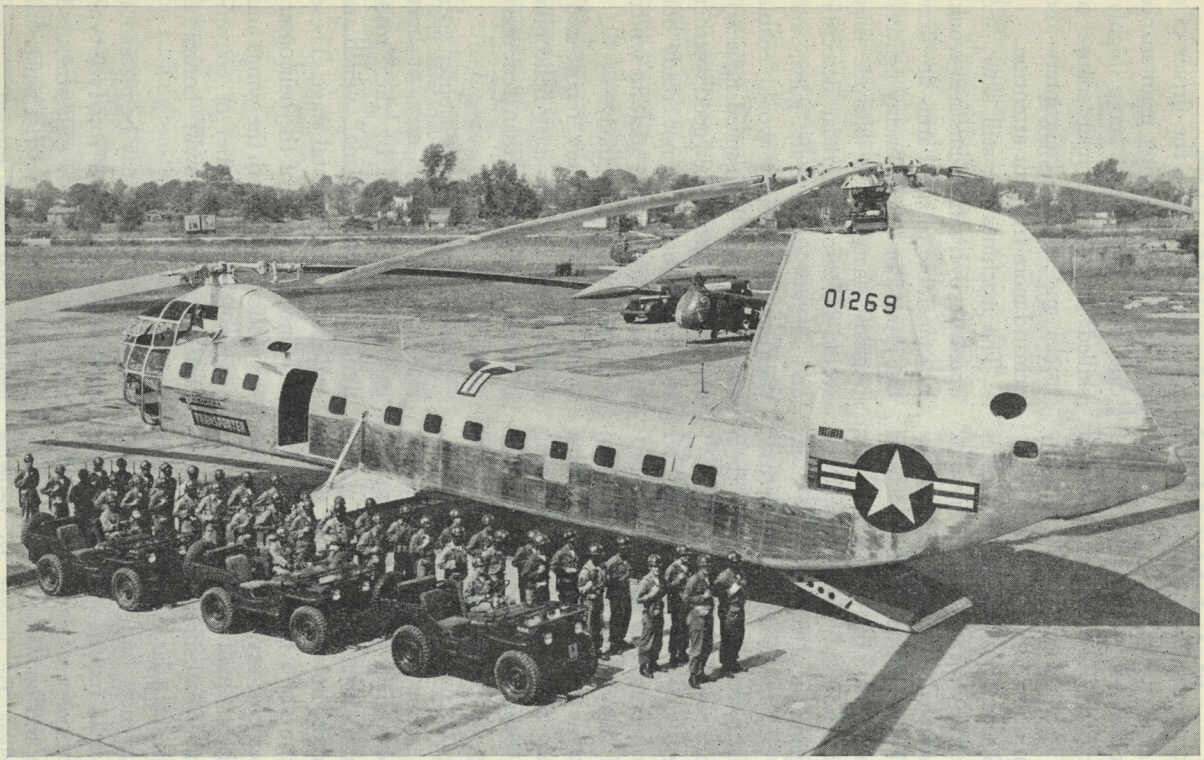
In retreat, it is contended, helicopters would evacuate engineers' demolition parties and enable the rearguard of an army to leave its positions quickly, thus making a clean break with the enemy—unless the enemy had helicopters as well. They might equally be used by a pursuing army to prevent a running battle from being broken off, by leap-frogging troops over the enemy rearguard. Another front-line duty of the helicopter, when the inventors get round to it, may be to clear minefields.

On the supply line, the most obvious advantage of the helicopter is that it can carry its cargo over any kind of country more rapidly than surface transport. Where there is no airstrip, it can land supplies more accurately than conventional aircraft and without the use of parachutes, which are expensive and often cannot be returned for further use.

By providing a quick, direct service from base to consumer it may cut out intermediate supply depots. A helicopter taking off from an ammunition depot in England might deliver its cargo direct to a division, brigade or even battalion a couple of miles from the fighting-line in, say, France or Germany. By doing so, it would release for other work the hundreds of men who would otherwise be ferrying the ammunition along roads and railways and over the seas, and caring for it at dumps at various stages of its journey. "Pods", detachable containers, may hasten the turn-round of freighter helicopters.

To all this is added another advantage over the conventional aeroplane—the helicopter can be easily concealed. It has no runway to give away its location.

In America, tests have shown that existing helicopters can carry two and a half times as many stores as an equal number of three-ton trucks in a given time, even when the trucks operate in ideal road conditions, a luxury often denied them in war. The



Piasecki Helicopter Corporation Photograph

A Piasecki H-16 helicopter is capable of carrying a platoon of combat-equipped troops or three jeeps. Aircraft manufacturers are now planning even larger helicopters: one British firm is contemplating a helicopter to lift 450 troops or a 45-ton tank.

Americans, also, have flown a durable shelter, equal in size to a 38-man barrack-room, for several miles under a helicopter. The shelter, made of wood and plastic, would be very acceptable in Arctic warfare.

In Germany, an Allied Air Forces exercise, in which Rhine Army took part, showed that casualties evacuated by helicopter from a forward air evacuation centre to a base for orthodox hospital aircraft could be in England in a few hours—fewer hours, perhaps, than in war a road ambulance would take to carry them back to a base hospital.

Recently, a midget helicopter weighing only 100 pounds but capable of carrying four times its own weight, has made its appearance. This may be the vehicle for dropping agents behind enemy lines, or for picking up the pilots of crashed planes. It may be the dispatch-rider's motor-cycle of the future, and the jeep in which a commander tours his battlefront.

There is, however, another side to the picture of a helicopter war. The machines cost several times as much to build as road vehicles, and use much more fuel. Fleets of helicopters would make a large hole in a peace-time defence budget. In wartime they would require materials, labour and factory-space urgently needed for fighters and bombers.

It takes far longer to train a helicopter pilot than the driver of a road vehicle. Helicopter maintenance calls for bigger and more highly-skilled crews than maintenance of trucks and lorries. Helicopters also demand more frequent attention.

The machines are still slow, and operating over a front-line area would be vulnerable to small arms fire from the ground or slower enemy fighters. (Against that, at low altitude they would be safe from radar detection and heavy anti-aircraft guns, and their manœuvrability would enable them to dodge high-speed fighters). As yet, helicopters need good weather to operate and are not ready for blind or night flying—defects which designers may soon remedy.

An American Army report concludes, "the ideal military helicopter is undoubtedly more than ten years away".

Finally, before the helicopter goes into a major war, it may, at least partly, be displaced by the "rotodyne" or "convertiplane", which are still in the experimental stage. These combine the rotors of the helicopter, for vertical flight, with the wings and airscrew (or jet engine) of conventional aircraft for swift horizontal flight.

Eventually there may be places for both helicopters and rotodyne-type aircraft. While heavily-armoured helicopters, acting as aerial tanks and armoured personnel carriers, "hop"

HOW TO WRITE EFFECTIVE ENGLISH

By
COLONEL STROME GALLOWAY, ED, PSC, THE ROYAL CANADIAN REGIMENT*

Introduction

"One of the first signs of education is the use of short, expressive English, instead of the muddled jargon of eight syllables which reflects the muddled mind." So said Dr. Fieldhouse, a professor at McGill University.

And it was an 18th Century scientist, Pascal, who wrote: "I hope you will pardon me for writing such a *long* letter, but I did not have the time to write a shorter one."

In these two statements we have the keynotes of the Effective Writing Series at the Staff College. It is a matter of fact that most writing done by Staff Officers falls short of the required standard because the writers present papers which are full of muddled jargon and do not take the time to write short, clear, understandable English.

Unless this Class is different from those Classes which have been within these walls before, the main weakness in its written expression will be that SIMPLE, DIRECT, BRIEF English will not be used, but that fancy-worded, long-winded papers which are difficult to understand, tiresome to read and incapable of achieving their aim will be produced by nine out of ten students!

Nor is poorly written English the province of the Army Officer alone. University professors and leading

*This lecture was given to the 1954 Class at the Canadian Army Staff College. It was designed to familiarize students with the type of written English required at the College. Much of the basic material was obtained from Sir Ernest Gowers' "ABC of Plain Words."—Author.

Call Up A Helicopter

(*Continued from preceding page*)

over minefields, spitting shells and landing Infantrymen, rotodynes may be rushing up the supplies and reinforcements, evacuating casualties and successfully dodging enemy fighters and anti-aircraft fire.

Conceivably, military policemen will operate on rotors, too, to direct the aerial traffic. A recent development is the "hoppicopter", a haversack-size helicopter with collapsible rotor-blades, which is strapped to the flyer's back.

Just the thing for an aerial pointsman?

business executives join with senior army officers in telling us that the greatest offenders against good writing today are not school children, but educated adults, people who, since they have left school or university, have allowed their written expression to become so laden with unnecessary, pompous, empty and abstract words; so full of padding and circumlocution that they have almost lost the art of communicating ideas to others. Why this should have come about is not easy to understand, but certainly among the reasons is the fact that it stems from an idea that long, involved writing shows education, dignity and literary ability. This idea, I assure you, is quite wrong.

Before I get into the subject of my lecture in earnest—that subject being, "How to write Effective English", I want to point out *why* it is important that you do write what we call *Effective* English. There are two main reasons:

First, the aim of all writing is to communicate ideas. If your writing fails to communicate the ideas it is supposed to, then it serves no purpose. If it even slightly confuses it is doing a dis-service, rather than no service at all. It may confuse because you, the writer, are incapable of, or too careless to bother, expressing yourself properly. It may confuse, not because your style of expression is perfectly clear to those of your own intellect, but because you are not clever enough to realize that there are others, including your readers, who need things stated simply.

Second, your written work is a mirror of your mind at the time you wrote it. More dreadful even than this, is the fact that it is a *permanent* reflection! As the Bible says: "That which is written is written." And in the *Rubyat of Omar Khayyam* we find:—

> "The moving finger writes; and, having writ,
> Moves on; Nor all your Piety nor Wit
> Shall lure it back to cancel half a Line,
> Nor all your Tears wash out a Word of it."

That these statements are true will be perfectly obvious when you look through any Headquarters' files. There it is, what you, or some other Staff Officer has written. Faulty, obscure, even meaningless English for all the world to see. No matter how extensive your knowledge, how brilliant your thoughts, it is the written expression which sits in judgement upon you. You have condemned yourself in writing. You have been guilty of expressing yourself so that others cannot understand you. Mark well, many an average fellow has written himself into the seats of the mighty by painstaking development of his writing ability and many a self-confident, embryo-

genius has remained in the background because he either could not, or would not write so that others could understand! And now, how can we overcome these faults? How can we improve our writing and by doing so, perhaps even improve our own position in the military field? I think I can give you some useful hints on how to do it.

The aim of this lecture is two-fold:

First, to point out to you why so much written English is not effective, and,

Second, to give you some hints on how to write Effective English; or, to be precise, how to write *one* brand of Effective English.

Now, the brand of Effective English which we want to develop at the Staff College is that which has four main qualities. These qualities are:

CLARITY
CONCISENESS
SIMPLICITY
ACCURACY

Since the aim of all writing is to *communicate ideas* it is perfectly obvious that to be effective in this respect it must be *clear*. If it is not clear, then there is really no purpose in writing. Words are the messengers which convey our ideas to others. Therefore, we must choose our words and arrange our words so that those who receive them from us are able to understand exactly what we mean. Remember, if a Staff Officer has all the knowledge and thinking ability in the world and cannot communicate his ideas in writing, his knowledge is in doubt and his thinking is of little use.

Conciseness. It may not be important to the novelist who writes to give entertainment by means of long, drawn out narratives and descriptive passages; but to the Staff Officer it *is* important. Neither he, nor his reader, has the time to flounder through long, involved writing trying to find the hidden jewel of meaning which nestles among excess verbiage like a pearl in a sack of wool.

Simplicity. This is the key to everything, I think. If we are simple we have a much greater chance of being understood than if we are not. If we use simple words we can cut out explanatory phrases. If we use short, simple sentences we can steer clear of the pitfalls of punctuation. If we strive for simplicity in construction we need not fear grammatical errors to the same degree.

Accuracy. The staff officer must be accurate in his writing, as in all other phases of his work. If we are guilty of inaccurate statements in our writing we are going to create the need for letters of inquiry, letters correcting mistaken impressions—we are going to communicate *wrong ideas*. Thus, our writing, no matter how CLEAR, how CONCISE and how SIMPLE it

has been, is not going to be effective unless it is ACCURATE.

Our watchwords, therefore, are: CLARITY, CONCISENESS, SIMPLICITY and ACCURACY. Few of us are competent enough with the pen to adorn our writing, to attempt oratorical phrases, to use what is sometimes called "the well turned word" and the "well rounded phrase", without obscuring our meaning, or without trespassing on the time available to the recipient of our writings. Leave these niceties to the experts in language; let us speak "plain and to the point like an honest man and a soldier."

I know, that while I have been speaking, you, like most educated English-speaking adults, have been thinking: "Why all this? We have been writing English for years!" And so you have; and as a result you are probably just as *unwilling* to take advice on this subject as you would be on your table manners or your love life! For your writing, like these other two matters, is a very personal thing. It is a habit which you have developed over a long period; a way of doing which is acceptable to yourselves. Well, your table manners do not concern us, nor does your love life, *really*. However, it has been our experience here that most students' writing, unless they have been literary paragons, although acceptable to themselves, was not acceptable to the Staff College. Therefore, your writing *does* concern us.

Unfortunately, we have neither the ability, nor the time here to go into lengthy instruction in the refinements of grammar and composition. We cannot, really, get to the root of the trouble in a thoroughly academic way. But, we can give you a remedy to help. We are not Doctors of Letters, we are merely pharmacists —the Staff College is not a literary clinic, it is just a corner drug store. We can give you the doctor's prescription, but not his treatment. You, in turn, must have faith. Take the prescription, and if the doctors, (that is, the language experts) who have diagnozed the writing ills of the adult English-speaking world are correct, then your writing will improve. We will give you exercises, letters, memoranda and essays as the sugar-coated pills necessary to get you to benefit from the medicine recommended by the authorities!

Now, if you are really bad, you will probably be writing this way: "It is with considerable pleasure that I inform you that experience has provided us with undoubted proof that the process of osculation is one which renders us capable of achieving an extreme degree of amusement."

After eleven months of using the prescription you will write: "Kissing is fun."

That, gentlemen, is *Effective* Eng-

lish: the verbiage preceding it will get you nowhere.

or,

you will write: "The proprietor of an agricultural establishment proceeded to extract the lactic secretion contained in the mammary glands of a female quadruped of the bovine species." What you mean, of course, is: "A farmer milked a cow."

And now, to more specific things:

To supplement our lectures and our exercises we issue you with two books—"*Writing and Thinking*" and the "*ABC of Plain Words*". Use these books constantly and with them use a good dictionary. I suggest "The Concise Oxford Dictionary" as the most suitable for Canadian Army purposes.

It was Anatole France who said: "There are three requisites for all good writing; the first is clarity, the second is clarity and the third is clarity." The easiest way to achieve clarity is to be CONCISE, SIMPLE and ACCURATE. The enemies of these four qualities are:

Pompous and unfamiliar words.

Abstract words.

Padding or verbosity (too many words).

Circumlocution (the roundabout procession of words).

The passive voice (the weak arrangement of words).

Clichés and slang (worn-out, hackneyed words and careless words of doubtful meaning).

Wrong words (misused words).

Remember, words are of no use except to convey ideas. They are not used to fill up gaps in our thinking, to obscure meaning, or to show our readers how many words we know and how badly we can use them. Your choice and arrangement of words is the basis of your writing. They are the agents which will do your bidding. After all, phrases, sentences and paragraphs are only platoons, companies and battalions of words marshalled to express your thoughts. It is the *words* that count in the first place. It is the poor selection and arrangement of words which makes your phrases, sentences and paragraphs incapable of carrying out their task, which is to express your ideas.

Choice of Words

Here are *six* rules for the *choice* of words:

1. *Prefer the familiar word to the far-fetched:*

"Start" or "Begin", not "Initiate"

"Make" not "Render"

"Send" not "Transmit".

2. *Use concrete words not the abstract:*

Don't write: "The unfortunate situation in China"

Write: "The FLOOD in China"

"The FAMINE in China"

"The WAR in China".

Your readers can *see* or *feel* these things. "Unfortunate situation" is not concrete: it is vague, indefinite.

3. *Use the single word instead of the circumlocution:*

"No", not "the answer is in the negative"

"Scarce", not "in short supply"

"Some", not "a percentage of" or "a proportion of".

4. *Prefer the short word or words, to the long:*

"carry out", rather than "implement"

"died before", rather than "predeceased"

"able to walk", rather than "capable of locomotion"

"please tell me", rather than "will you be good enough to advise me"

"as soon as possible", not "with the minimum of delay"

"go", not "proceed"

"so", not "consequently".

5. *Prefer the Saxon word to the Romance:*

The Romance is usually pompous or unfamiliar.

"steal", not "purloin"

"many", not "numerous"

"ground", not "terrain"

"brave", not "gallant"

"theft", not "larceny".

6. *Use words which mean what you mean:*

Don't write *LIABLE* if you mean *LIKELY*. *Liable* means that your subject is going to suffer something *prejudicial*. He is *liable* to a fine for speeding. He is *likely* to get his majority.

Don't write *PRACTICAL* if you mean *PRACTICABLE*. *Practical* is the opposite to theoretical. It means useful in practice. *Practicable* means capable of being carried out in action. The lawn mower is *practical*, but it is not *practicable* to use it on this slope.

6. Don't write *AFFECT* when you mean *EFFECT*. *Effect* is both a *noun* and a *verb*. *Affect* is only a *verb*. You can say, "the effect was startling" (noun). "My plans are *affected*" is almost the exact opposite to "my plans are *effected*" (verbs). In one, (affected) they were met by an obstacle; the other (effected), they were *carried out*.

Now, I do *not* mean, for a minute, that you must not use some long, elegant, or Romance words. There may be that place, or this, when the choice falls on the pretty word as the best word. But, generally speaking, for the purposes of *military* writing, they are not as easily understood, not as brief, not as easily worked into the fabric of your writing as the short, concrete, Saxon, single words. If you habitually use them your writing becomes involved, woolly and lengthy; in other words, you are in danger of losing *clarity*.

When we don't strike down the enemies of clarity we find that we are writing to a greater or lesser degree

a form of English known as "gobbledygook". That is the type of writing which includes empty words, unfamiliar words, pompous words, verbosity, the weak passive voice and circumlocution. And when we fall into this morass we automatically get entangled with the additional difficulties of spelling errors, punctuation errors, faulty sentence construction and long and vague paragraphs. I will have more to say about "gobbledygook" later.

Abstract versus Concrete Words

When you use an abstract word where you *could* use a concrete word you are handicapping yourself in your task of making yourself understood.

What are abstract words? What are concrete words?

Well, abstract words are those words separated from matter, like "*thought*", whereas concrete words are those words which are things, rather than qualities: like "brain". Some familiar abstracts are: "situation", "condition", "position".

Here is an abstract: "The situation in regard to gold is causing alarm."

What situation, you ask? In what regard? Why alarm? The sentence may mean several things to several different people, but if we use the concrete we say "Gold is scarce", then everyone knows what we mean. Note, also, how *concise* the statement becomes when it is concrete; how *simple*, how *clear*, and *accurate*. It obeys all four qualities of effective writing!

Again, the abstract: "Weather conditions are not good."

What conditions? What have they to do with the weather? Is the weather fair?

Concrete: "The weather is bad."

Beware of such words as "situation", "position", "conditions". Avoid the words which end in "tions".

Mr Churchill in a radio address of 1940 wanted his listeners to understand him. He did not say: "The position in regard to France is extremely serious." His listeners would wonder "what position", "in what regard", "serious", "how serious"? He said: "*The news from France is bad.*" Everybody knows what "news" is; and everybody knows what "bad" means.

Force your reader to touch, feel and see what you are talking about:

"Man" is concrete. It is a physical object.

"Humanity" is abstract. It is a quality—the quality possessed by man. You cannot see "humanity", but you can see "man".

We need abstract nouns, but we should not use them to excess. There are two main reasons:

1. Abstractions cause statements to be made in a roundabout instead

of a direct way and the meaning is more difficult to grasp.

2. Abstract nouns have less precise meanings than concrete ones. They should be avoided if you want your meaning to be plain.

One more example: "Dealing with the egg position, he said it exceeded all expectations." What is an "egg position"? Do you know? I don't. How can "a position" "exceed all expectations"? I think that what he meant was: "Eggs will be more plentiful than expected." That is a concrete statement.

Padding, Verbosity, the Use of Empty or Useless Words

Some good examples of this very common fault in writing are phrases like:

"It will be noted that . . . "

"It will be appreciated that . . . "

Instead of writing, "It will be noted that tomorrow is Sunday and the stores will be closed", all we need write is, "Tomorrow is Sunday and the stores will be closed." What does "It will be noted that" add? The answer is *nothing*, yet the type of writer who puts in these empty words once will do it a dozen times and in a paper of three or four pages we will find six or seven lines which mean *nothing*. Is that effective writing? There are other choice phrases:

"You will moreover observe that . . . "

"You will moreover observe that women are beautiful."

This phrase is almost an insult. The writer is assuming that the last part of the sentence "*women are beautiful*" cannot be understood by the reader, that the reader has not this power of discernment.

Then there are:

"I am further to point out . . . "

"I would also add . . . "

Away with such nonsense! And the same with such phrases as:

"in relation to"

"in regard to"

"in connection with"

"in the case of"

What do all these things mean? The answer is *nothing*.

Don't say: "In the case of unmarried personnel they will be given ten days' notice."

Say: "Unmarried personnel will be given ten days' notice."

Padding comes partly from a feeling that wordiness is an ingredient of politeness and that a blunt statement is crude, if not rude. There is *some* truth in this; but it is a matter of degree. In the main, however, military prose calls for plainness rather than elegance. The false dignities which surround much official writing (or should I say writers) seem to demand a certain verbosity. Naked truth is considered indecent by some. They think it must be clothed in wrappings of woolly words and

phrases. Men who write with padding as their hallmark are gilders of the lily.

One last example, the ubiquitous "in order". "*In order* to tell you the news quickly I phoned" . . . "in order", like the artillery, is everywhere, but unlike the artillery it serves no purpose. Strike it out ruthlessly. *Never* write "in order"—"to" is sufficient. "To tell you the news quickly, I phoned."

Other choice bits of padding are:

"for your information"

"for your benefit"

Example: "I have received your letter of 4 December, and for *your information* the following extract from regulations under the Act is quoted *for your benefit.*"

It is obvious that it is "for your information" and "for your benefit". Therefore to state the obvious is a waste of words.

Circumlocution

Here we have the roundabout procession of words—the *indirect* statement. Circumlocution is that quality of writing which develops when we use the *Passive Voice*, and the prepositions which I have touched on in my remarks on padding, such as:

"as regards"

"as to"

"in respect of"

. . . and so on.

Here is a circumlocution: "I should be glad if you would be good enough to confirm the settlement and it would be of assistance to me if you are prepared to state the terms thereof and the approximate proportion of the full claim which such settlement represents." (Indirect—43 words).

The same statement: "Will you please confirm the settlement. It would help me if you tell me its terms, and how the amount compares with your full claim." (Direct—25 words).

The Passive Voice

This is the only real sally which I make into the realm of grammar. As you probably recall from your school days there are two voices:

1. The Active Voice
2. The Passive Voice

The active voice is where the *subject* performs the action.

Example: "The colonel kicked the wine steward."

1. "Colonel"—subject; "kicked"—verb; "wine steward" — object. When, however, the subject *suffers the action* the verb is said to be in the passive and we call it the *passive voice.*

Example: "The wine steward was kicked by the colonel."

2. "Wine steward" becomes the subject: "colonel" is merely the agent of the verb.

The passive voice is generally

agreed to be weak. Usually there is an increase in words, i.e., verbosity, a lack of power; the act is not *as easily pictured* by the mind of the reader. The verb has no strength.

Other examples are:

Active: "John kissed Mary." (SMACK) You can *almost* hear it!

Passive: "Mary was kissed by John." A rather dull statement, don't you think?

Active: "He gave me a book."

Passive: "A book was given to me by him." (Wordy, woolly).

These sentences in the passive voice are not as clear and strong; that is, as *effective* as those in the active voice. Of course, some variety may be required, but use plenty of the active voice in preference to the passive.

Clichés and Slang

Clichés and slang are to be avoided in writing, even more so than in speech. Clichés are hackneyed, worn-out, over-worked words or phrases which do little but show the writer's barren brain in full relief. They must be avoided. "Break the ice", "Cry over spilt milk", "tender mercies", "the acid test". These may have been good in the days of their youth, but now in their decrepitude they merely annoy readers and point out that their user is without adequate reserves of good English. They are the *volksgrenadiers* of our army of words. When we use these battered old veterans we are almost defeated!

Slang may be acceptable in conversation, but it has little place in writing. It is like a risqué story; it may go over in intimate, face-to-face conversation, but when it is committed to paper it loses much of its spice and only condemns the writer in the eyes of those who may not have the same sense of humour or the same lack of propriety as he has. Two familiar examples:

"Laid on", when you mean "arranged" or "organized."

"Tidied up", when you mean "completed".

Now, just some suggestions on a few points of construction. I am no grammarian; I really know nothing about it. However, CLARITY and CONCISENESS can be helped by such things as:

PUNCTUATION
ARRANGEMENT
LENGTH OF SENTENCES
LENGTH OF PARAGRAPHS

Punctuation

This is a subject which causes much argument even among the experts. If you make a practice of writing short, simple sentences you need not worry too much about it. The best advice I have on this subject is to tell you to study the sections on punctuation which are contained in the textbooks which have been

issued to you. Remember, punctuation is meant to give *clarity in meaning.* The comma is the most misused of all punctuation marks. When in doubt, don't use it. Beware of semi-colons. More often than not you can make a new sentence. Overuse of the semi-colon can get you into involved sentences which cannot be understood. The test of really good writing is *when it can be readily understood with a minimum of punctuation.* And in *your* writing don't use dashes, they are the "word-whiskers" of the written page.

Arrangement

Proper arrangement is usually the result of constant practice, plus a little forethought before committing your words to paper. Don't confuse people by writing sentences like this:

"He was appointed Commander-in-Chief although he had limited military experience and no naval."

That is not only *bad English* it is a phenomenon!

Length of Sentences

How long should a sentence be? People often ask for yardsticks here. Well, Rudolph Flesch, an expert in writing, defines "standard" English as that level of writing found in *Reader's Digest,* and here sentences average 17 words. In Queen Elizabeth I's day the average written sentence ran to about 45 words; the Victorian sentence to about 29 words and ours to 20 or fewer. In these days of haste we are becoming briefer. Remember, again, that *short* sentences avoid the pitfalls of grammar and punctuation, and therefore obscurity of meaning. Read some Elizabethan writing and you will know what I mean. However, some variety in length of sentences is desirable so that the reader is not jolted and jerked continuously. Too much starting and stopping makes unpleasant reading.

Paragraphs

A paragraph has been described as a "mindful". It is a group of sentences which relate one to another. When that which the succession of sentences have discussed can be boxed up as a "mindful" stop your paragraph and start a new one. Don't ask your reader to grasp too much without a break. The paragraph is *not* a unit of *length,* but a unit of *thought.* Do *not* contain in one paragraph sentences which do not have unity of thought among themselves.

A paragraph should be a complete development of a topic. The average length of a paragraph in a piece of serious writing is about 150 words. It should not exceed 300 words. When you see several paragraphs on a page, or a paragraph of a page or more in length, you should look for *lack of unity*—undeveloped topics in

the first case, or a multitude of topics in one paragraph in the second case.

If you practise conciseness you can probably say all you need about a topic in under 150 words. But, "be ye moderate in all things": avoid a succession of short choppy paragraphs if you want your ideas to flow like a golden stream of wisdom.

In SUMMARY, I will return to the descriptive word "Gobbledygook". Gobbledygook is that form of written English which results when people do not take the advice I have just been giving them. It has been defined as "a written output obscurely constructed, full of tiresome phrases and encumbered with many ill chosen combinations of words." It is a legacy we have inherited from the Victorian Age. It is as much out of date as button boots and bustles. In 1890 it *might* have been acceptable to write:

"It is with regret that I beg to advise you that the answer must, of necessity, be in the negative."

But today our surreys have no fringe on top and neither should our writings. We must streamline our writing to keep up with modern conditions. We must learn to say "NO"; —tactfully, but not fearfully; briefly, not hidden in a maze of meaningless verbiage.

Those who think they appear rather well-educated by using pompous, verbose English usually are afraid to say what they mean. They don't *communicate their ideas* so they can be readily understood. Their statements lack effect. They say: "Commit yourself to that place of unredeemable souls." That is not nearly as effective as "GO TO H—L."

These same people say: "in the initial stages", instead of "at first"; "circumstances which obtained prior to the outbreak of hostilities", instead of "matters before the war".

This type of English must be abandoned by every one of us. Never be guilty of "gobbledygook". It is not the hallmark of the literary giant; it is the brand on the brow of the unlettered pigmy.

There is just one more warning. Two things to remember:

First: To whom am I writing?

Second: For whom am I writing?

Here it is where you will find the secret of whether or not it is permissible to deviate somewhat from the bald, simple English I have recommended; whether a certain indirectness is needed at the expense of conciseness. But, whatever you do, don't sacrifice CLARITY.

In conclusion may I quote to you from Mika Waltari's, *The Egyptian*. This is a novel, the scene of which is laid 2000 years before Christ. A wise man counselling a would-be soldier, said:

"A warrior need not write, only

fight. If he could *write*, he would be an officer with command over the most valiant, whom he would send before him into battle. Anyone who can *write* is fit for command, but a man who cannot scribble pothooks will never have even so many as a hundred under him. What joy can he take in gold chains and honours when it is the fellow with the reed pen in his hand who gives the orders? Thus it is, and thus it will be—and so, my lad, if you would command men and lead them, learn to *write*. Then those with the gold chains will bow down before you, *and slaves will carry you in a chair to the field of battle.*"

Now, in the 20th Century you may not achieve the privilege of being carried to the field of battle in a chair borne by slaves, but, you may, if you can write, ride to the field of battle in a well-heated, well-lit, comfortable caravan.

Learn to write, gentlemen. Learn to write with *CLARITY, CONCISENESS, SIMPLICITY* and *ACCURACY*. It will make it possible for you to serve the Army as Staff Officers with increased efficiency. It may even mean that your own career will be the greater.

Macedonian Warfare

The Macedonians revolutionized warfare. The great change they made was not this or that technical development, or even better generalship: it was the infusion of a new spirit.

When Alexander after Gaugamela took steps to prevent his enemy ever fighting again as an organized force, he was doing exactly what Nelson afterwards meant when he said that a victory was not complete if one ship of the line got away. This new spirit is not quite expressed as a change from the amateur to the professional—we almost feel as if we had passed from the ancient to the modern world.

It was rather the intense earnestness and thoroughness they brought to bear on the matter. They had no precedent, but they understood principles; if you had to fight, you fought for all you were worth, and with every sort of weapon except one. They did not, as a rule, practise the things we call atrocities; on balance, Macedonian warfare was distinctly more humane than either Greek or Roman. . . But if unorthodox methods helped you . . . you did just these things as part of the day's work. When somebody put to Antigonus Gonatus the question beloved of later text-book writers: "How should one attack the enemy," his answer was, "Any way that seems useful."—*W. W. Tarn in "Hellenistic Military and Naval Developments."*

THE IMPERIAL DEFENCE COLLEGE

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Ottawa.

The Imperial Defence College came into being in 1927 at a time when much thought was being devoted to improving the machinery for the higher direction of war, and after Sir Winston Churchill, who foresaw the future need for combined staffs, had propounded the idea of a College where senior and carefully chosen officers of the Fighting and Civil Services, drawn from all parts of the Commonwealth, should study jointly the problems of the higher direction of Commonwealth defence.

Experience had shown that defence involved almost every aspect of a nation's life. The military and civil effort had become so integrated that it was obvious that those taking part in strategic planning and direction had to possess, besides a specialized knowledge of their own field, a sound appreciation of all other aspects of the national effort. It followed, therefore, that the object of the Imperial Defence College should be "to produce throughout the Commonwealth a body of senior officers of the fighting Services and Civil Services who will be capable of holding high commands and key appointments in the structure of Commonwealth defence both in peace and war."

The experiences of the Second World War not only confirmed the need for such an institution for training on the highest level, but enabled many past students of the Imperial Defence College to provide the most convincing evidence of their value in key appointments all over the world. At the end of hostilities there was complete unanimity among the Governments and Services of the Commonwealth that the College, which had had to close at the beginning of the war, should resume its work. In 1946 it reopened in Belgrave Square, London, with General (later Field Marshal) Sir William Slim as Commandant. Not only were the new premises much more suitable for their purpose, but the number of students attending was more than double the pre-war number.

It is natural that in organization and in method of study there should be much in common between the Imperial Defence College and the National Defence College in Kings-

ton, since the former was the prototype after which the latter was to a large extent modelled. The Imperial Defence College is administered by the United Kingdom Ministry of Defence. At its head is a Commandant, who is responsible to the Chiefs of Staff Committee for the instruction at the College. The Commandant is drawn in turn from each of the Fighting Services of the United Kingdom. The Directing Staff is supplied, in equal proportions, by the Royal Navy, the British Army, the R.A.F., and the U.K. Civil Service. Members are selected not only because of their background as administrators, commanders or planners, but because they have all had considerable experience of the widest aspects of defence.

A study of the higher direction of the effort of the Commonwealth countries in war covers, as will be realized, a vast field — military, economic, scientific, social, industrial, political and financial. It entails a knowledge of national trends, of the relations of Commonwealth countries with other powers, of the development and importance of the United Nations and other international organizations, and of the world economic situation and its effect on almost every field of activity within the Commonwealth. In order to increase and clarify the students' knowledge and thinking on this very broad range of subjects to be examined, a series of problems is studied by student syndicates, or seminars, consisting of members of the Services represented at the College in balanced proportions, with the assistance of lectures by the highest authorities available on the various subjects under discussion. The lectures are given by Cabinet Ministers, ex-Ministers, Ambassadors, Commonwealth High Commissioners, Service Chiefs of Staff, Heads of Government Departments, Naval, Military and R.A.F. commanders, civil servants, university professors and lecturers, together with leading political theorists, economists, writers, businessmen, trades union officials, scientists, and specialists on the particular problem under discussion. There is no need to emphasize the advantage, from the point of view of obtaining lecturers of the kind just mentioned which the College derives from being situated in London.

The studies in the College are supplemented by visits to specialized Navy, Army and R.A.F. establishments in the United Kingdom, as well as to a wide variety of industrial undertakings including heavy and light engineering, electrical, and chemical plants, coal mines, shipyards and others. In the summer recess the students have an opportunity of visiting a number of parts of the world. They are divided into three

groups; one spends five weeks in North America, mostly in Canada; a second spends the same time touring a wide area of the Middle East; and a third spends just under three weeks visiting Western European countries.

In this way the students are afforded a practical and most valuable insight into some of the many and varied problems which have to be considered not only at the Imperial Defence College, but wherever they may be serving afterwards. To the practical value of the College must be added the more intangible but equally important benefits which the students derive from associating with one another. There are fifty-eight of them on the course, of whom about one quarter are from Commonwealth countries other than the United Kingdom (there are usually four from Canada each year). By being brought to work together intimately but informally for a year, these men deepen their understanding of each other's part of and special interest in the Commonwealth, sharpen their appreciation of the ties which bind the Commonwealth countries to each other, and thus cannot fail in their ensuing career to make some contribution to the preservation and strengthening of those ties. Finally, the friendships which they form at the College are themselves a not insignificant contribution to the Commonwealth tradition of informal, friendly, and, when necessary, very close co-operation.

* * *

Four to Attend IDC Course

Ottawa, Sept. 13: Four senior officers of the Armed Forces have been selected to attend the 1955 course at the Imperial Defence College in England. it was announced today at National Defence Headquarters. The course begins January 4 and ends the following December.

The officers are Captain James Plomer, OBE, DSC, CD, RCN, of Winnipeg and Saint John, N.B., now commanding HMCS Cornwallis at Digby, N.S.; Brigadier A. E. Wrinch, CBE, CD, of Ottawa now Vice Quartermaster General at Army Headquarters; Group Captain R. J. Lane, DSO, DFC, of Victoria, B.C.; now Assistant for Logistics Planning at Air Force Headquarters; and Group Captain H. A. McLearn of Ottawa, now serving in the office of the Judge Advocate General at National Defence Headquarters.—*Directorate of Public Relations News Release.*

FROM COLONEL TO SUBALTERN

By
COLONEL A. G. CHUBB, DSO, CD, DIRECTOR OF THE ROYAL CANADIAN ARMOURED CORPS, ARMY HEADQUARTERS, OTTAWA

Owing to the interest which many readers have expressed in this series, the author has consented to continue the writing of his "father-to-son" letters which deal with the career of an imaginary subaltern in the Canadian Army. Letters X, XI and XII were published in the April 1954 issue of the Journal*; none appeared in the July number.*—Editor.

* * *

XIII

Dear John:

Your mother is still rather starry eyed over the wedding and spends hours on the phone spelling out the frivolous details of Mary's dress, the bridesmaids, how handsome the officers looked in their blues, etc., etc. I never could understand why women get so excited about these things but they all do. At that, I must confess it went off very well and your father-in-law and I managed to get off in a corner and swap a few lies about our respective offspring. He seemed like a decent old gent in spite of his artillery background!

I had quite a talk with your troop Sgt Graham before I left. I was wandering around the tank hangar and he came up and introduced himself. A fine man and I would judge a good soldier. He seemed to think that you were doing a good job but was a little worried because he had heard a rumour that you were thinking of asking for a posting outside the regiment. It surprised me a little and I have made a stab at assessing your military career to date.

You have three years and a bit under your belt at this point. As I remember it, you have successfully passed the Young Officers Course at Borden and have also qualified in two of the three RCAC courses, to wit, you have taken the Advanced Gunnery and Advanced Wireless. You have had two years in command of a troop and have had two full summer periods of training at Wainwright. You have been promoted from 2/Lieutenant to Lieutenant and taken to your bosom a helpmate, to wit, Mary. Makes quite an impressive list, doesn't it? And in fact it is merely the getting together, as it were, the tools of your trade.

As I remember it, you must serve

one year in the rank of Lieutenant before you can write your Lieutenant to Captain's examination and must serve five years in the rank of Lieutenant before becoming eligible for promotion. That part is clear enough and to my way of thinking is fair enough. How should you spend this time?

As I have said before, I feel very strongly that the basis of all soldiering is found in the regiment. The tools of the trade, i.e., equipment, men and training facilities, are concentrated and available to you. You should seize upon every opportunity to use these facilities to the full. It seems to me therefore that your best bet is to remain, if possible, with the regiment at least for one more year, during which time you should prepare yourself for your Lieutenant to Captain's examinations. Having successfully passed this hurdle and with four years regimental service, you might then look for a posting to the RCAC School or to I & A.

A tour of this sort will do you a world of good in that your horizon will be broadened; you meet new people, face up to new situations and conditions of service. The four years of regimental service will serve you in good stead as you will have the confidence of experience and knowledge. Anything less than four years is to my way of thinking too short.

Having completed a tour in the School or with I & A, I think you should then hope to return to regimental duty as a Captain and prepare yourself for the Staff College. Certainly it is easier and more pleasant to work to this from within the sanctuary of the regiment than when slugging it out more or less on your own as a junior officer on a HQ or in some small town.

Sounds pretty simple and straightforward doesn't it, when it is written down like this? You and I both realize that it is not quite as simple as that, but at least it is a plan of operation which will lead you to your goal in reasonable steps. Certainly I think you should make a plan for your own future along these lines, starting with the regimental service as your base of operations, as it were.

This will greet you on your return from your honeymoon and may bring you out of the clouds a bit. I have never been a grandfather before and am looking forward to it. Give our best to your child bride.

As ever,
Dad

* * *

XIV

Dear John:

Your mother is in an absolute frenzy. I have never seen her so excited. I gather that Mary wrote to her on the old girl net to say that there was a distinct possibility that you would become a father in the not-too-

distant future. All I can say is I told you so and offer my congratulations, though I must confess that the prospect of becoming a grandfather fills me with a certain amount of alarm.

I think you and Mary will like the posting to your I & A job. I used to know the CO of the 64th Heavy Dragoons when he was a Major and a very nice chap he was too. It can be a little tricky taking on a job of that sort and first impressions are most important. I think that one thing you should bear in mind is that these chaps in the Militia for the most part are doing the job from a sense of duty which is much to be commended. It is really a tremendous lot to ask a man to give up so much of his time to prepare himself for the emergency which may never come.

You have become accustomed to the Regular Army way of doing things and may find that you have to adjust your outlook to quite a degree. The Militia cannot hope to have the equipment and facilities available to the Regulars and a great deal of "make do" is required. You will find it quite a challenge to your ingenuity to get the best out of what is available to you.

The other thing you must bear in mind is that, with the best intentions in the world, the average Militia chap simply cannot put in the time that you would like to have for training. You must accept this limitation and do your utmost to achieve the best training results possible in the time available, which will never be enough. A cheerful, willing and persevering attitude is the only possible answer.

The town to which you are going is smallish in size and it should be possible for both you and Mary to get to know most of the local citizens. I think that Mary will be a big help to you in this regard as she is friendly and meets people easily. This grandchild business may complicate things for a bit but once over that hurdle things should work out reasonably well. Your relations with the townspeople are most important and will reflect on the strength and success of the unit. Take an active interest in the life of the town and I think you will find that your tour will be most interesting and helpful to you in future years.

I gather that your mother plans to be on hand when the day arrives and we expect the call any time now. Personally I expect to retire to a secluded spot until the first flurry is past and recommend that you do likewise if you can swing it. A liaison trip might be sound, though Mary might be a little peevish about it. Let me know how you make out.

As ever,
Dad

* * *

XV

Dear John:

Well I'm damned—TWINS! It sounds almost indecent but at least they are of the proper sex which may help recruiting twenty years from now. I don't blame you for being a little shaken but I was glad to hear that all is well with Mary and I will get all the details when your Mother returns. Her wire was a little incoherent but she always was a little excitable.

When I sat down to write I was full of profound advice but I find now that all coherent thought has left me. I am a grandfather of twins! Good Lord, that *is* a shattering state of affairs and all I can say is good luck and bless you my boy, but DON'T DO IT AGAIN!

Somewhat shaken,

Dad

New Zealand Army Journal

The Editor of the *Canadian Army Journal* was privileged recently to receive the first two issues of the *New Zealand Army Journal*, a new monthly published under the authority of Army Headquarters. The Editor is Major E. E. McCurdy, ED, The Wellington Regiment.

In a foreword published in the first issue (July 1954), Major-General W. G. Gentry, CB, CBE, DSO, Chief of the General Staff, New Zealand Army, said:

"We are members of an Army which is comparatively young, but which has had a vast experience under many differing conditions in many wars. Most of us have from our own experience and study got some lessons of value which we can pass on to others, and we have all a lot to learn. I hope therefore that many of you will be the authors of articles. In fact, I hope that most of the articles will be written by you, and that you will contribute your own ideas and suggestions to make the magazine a live one. Its success will depend in a large measure on the quality and number of your contributions."

The *Canadian Army Journal* echoes these sentiments, and wishes the magazine continued success.

The subscription rate for the new publication is £1 (overseas 25/-) to cover the first year's subscription. Inquiries should be addressed to The New Zealand Army Journal, P.O. Box 5059, Wellington, New Zealand.

National Defence Photograph

Canadian troops crouch down during the simulated explosion of an "atomic bomb".

ATOMIC WARFARE TRAINING FOR CANADIANS

Troops of the 1st Canadian Infantry Brigade in Germany had their first experience of atomic warfare training during September.

Mushroom smoke clouds over German fields heralded this latest phase of the brigade's training as part of the NATO forces in Europe. The clouds came when three simulated atomic bomb devices were detonated. The "bombs" were set up and fired by sappers of the 2nd Canadian Field Squadron.

Deep zig-zag defensive trenches were dug by soldiers of the three Canadian infantry battalions in preparation for H-Hour. Troop drills and procedures were similar to measures they would adopt in event of real atomic bomb explosions.

Troops were strategically located at a minimum of 300 yards from the centre of the explosion. Moments before the device was fired, all soldiers turned their backs to the weapon.

DUELLING IN THE ARMY

Captain F. L. Jones, late The Irish Regiment of Canada*

A young officer reading the Army Act for the first time might well get the impression that the rules of conduct so clearly set forth were drawn up to prepare him for seventeenth century warfare. He is solemnly adjured not to shamefully cast away his arms in the presence of the enemy. Leaving his Commanding Officer to go in search of plunder; drawing a sword or beating a drum to occasion false alarms; sending a flag of truce, beating a parley or entertaining parlementaires leads to an inevitable court martial. It is most disturbing for him to learn that a court martial is empowered to sentence him to death or cashier him for committing any of the foregoing offences.

If he is wise, he will devote himself to a whole-hearted study of Section 40 —that all encompassing section— which seems to take care of everything from dirty boots to fouling the ground. Grave matters like flags of truce and parlementaires should be left to his seniors. In passing, however, he should take note that he is forbidden to fight, promote, be concerned in or connive at fighting a duel. With a certain wry humour the authorities have seen fit to forbid him attempting to commit suicide in the same section of the Act.

The manners and customs of a vanished age in which the concept of personal honour required officer to face officer with pistols is reflected in this injunction against duelling. The practice of duelling in the army survived into Victorian times despite the fact that the duel had never been recognized by law and had several times been forbidden by Royal Proclamation. Its survival into the mid-nineteenth century may be attributed to two reasons: the attitude of both the civil and military courts and the code of honour which, though unwritten, governed the conduct of gentlemen.

Although the duel was illegal, the vast majority of the gentry regarded it as a personal matter between gentlemen, in which the law had no cause to interfere, provided that the principals were persons of honour, and that the affair was conducted in the presence of seconds as a guarantee of fair play. The magistrature and officers of the army were drawn from that class of society which held themselves bound by this code of

*Commissioned in The Irish Regiment of Canada in 1938, the author went overseas with the Regiment and was wounded in action in Italy while a company commander (Acting Major). He was placed on the Retired List in 1945 and is now engaged in commercial life in Hamilton, Ontario.—Editor.

honour. Hence the laxness on the part of the magistrates during this period to enforce the law. An army is a mirror of the social order from which it is drawn. The officers carried into the Service this concept of honour and saw nothing unusual in challenging either their superiors or subordinate officers to fight a duel.

The Articles of War laid down very stringent regulations against duelling but these were rendered unavailing by long established custom. Concealment was the order of the day. If an officer was wounded in a duel, it was represented to the authorities that he had sprained his ankle or broken his leg. If he was killed in the encounter, his death was put down to disease. In England apoplexy was put forward as the reason. On such foreign stations as India and the West Indies, cholera or fever carried him off. This in face of the fact that every officer and man in the regiment knew otherwise!

The habit of sitting so long and taking so much wine at dinner was the cause of more than one duel. Then again, officers were very sensitive about the "point of honour" in the eighteenth and early nineteenth century. Certainly, some of them made a fetish of it. Good-natured badinage which became too personal as the decanters went up and down the mess table; a quibble about a bet or an argument over an evolution in the drill book could end suddenly with officers exchanging formal bows and the seconds busily arranging the details for a meeting. "That satisfaction which a gentleman has the right to expect and which no gentlemen can decline to give" was usually offered in a secluded place at dawn. The only witnesses would be the two seconds and the bored regimental surgeon, yawning over his probes and lint.

That scene was played out time and again especially in India where the duel continued to flourish long after it had died out in England. Perhaps the climate and the boredom of garrison duties engendered a choleric type who looked upon an exchange of shots at fifteen paces as the only possible way to settle a dispute or clear up a misunderstanding with a brother officer. A Commanding Officer who set his face against duelling could prevent this useless effusion of blood. For then, as now, nothing which goes on in a regiment could be hidden from a good C.O. Unfortunately, too many of them accepted the duel as a social institution and did nothing to enforce the regulations against it.

It must be said in their defence that the example set them by persons holding high rank in the army or in important positions in the government was deplorable. In 1789, Frederick Augustus, Duke of York, the second

son of George III, fought a duel with Lieutenant-Colonel Lennox of the Coldstream Guards. At the time, the Duke was holding the appointment of Colonel of the Regiment which made the affair even more damaging to discipline. They fought at twelve paces and the Lieutenant-Colonel's ball clipped one of the side curls from the Royal Duke's head. The Duke declined to return the fire which was his right and both parties left the ground with honour satisfied.

Nine years later, William Pitt, the Prime Minister, was called out by Mr Tierney, a prominent member of the opposition, as the result of a heated debate upon a Bill for Manning the Navy, in the course of which Pitt had publicly accused Tierney of wishing to betray his country to the French. In 1809, Lord Castlereagh, then Foreign Secretary, fought Mr Canning, the dispute arising over the responsibility for the failure of the Walcheren expedition. The first fire not taking effect, they exchanged shots a second time. Mr Canning fell with a wound in the thigh while Lord Castlereagh escaped serious injury by the ball being deflected by a button on his coat. The Duke of Wellington, when he was Prime Minister in 1828, felt constrained to send a personal challenge to Lord Winchelsea who had made an attack upon his character in a debate on the Catholic Emancipation Bill. With the politicians banging away at each other in such a fashion, it is little wonder that duelling went unchecked in the army.

The Duke's fight with Lord Winchelsea was the more remarkable in that Wellington was known to object to the practice of duelling. He had never taken part in any such affair during his long service career. When in command of the army in the Peninsula, he had done everything in his power to stamp it out. The Duke held that an officer in the public service had no right to hazard his life in a private quarrel. Besides, there were plenty of the enemy to be shot at in front of the Lines of Torres Vedras and beyond instead of having his officers shooting one another. He could not afford to lose good regimental officers and he let his views be known throughout the army.

The measure of his success may be seen in the records of courts-martial held in Portugal and Spain during the course of the long war, 1808–1814. Only four fatal duels appear in the official records. No doubt many non-fatal ones were hushed up but it is safe to say that there were fewer duels in the Peninsula than in England at the time. The Duke held a tight rein on the army for there were many hot-heads among the officers, especially the ones from "the less civilized strata of society beyond

St George's Channel." In one military memoir of the period, a newly-joined ensign from Ireland complains that he has been with the regiment for six weeks and has yet to fight a duel with any of his brother officers. He proposes to start with the senior captain and work down the list. The "King's hard bargains" were to be found in the Officers' Mess as well as among the other ranks.

That duels were fought for the most trivial reasons and fought with impunity may be seen in the sudden passing of an officer of the 9th Foot. Lieutenant-Colonel Montgomery of the 9th and Captain MacNamara R.N. were riding in Hyde Park on the morning of April 6, 1803, each followed by a dog. The two dogs began fighting. In separating them, Lieutenant-Colonel Montgomery exclaimed angrily, "Whose dog is that? I've a good mind to knock him down." Captain MacNamara resented this remark and cards were exchanged. They met with their seconds at seven o'clock in the evening of the same day. The 9th lost their colonel with a bullet in his heart.

The Captain in the senior service was tried for murder at the Old Bailey. His defence was that he was a captain in the Royal Navy and had the feelings of a gentleman. This seems a flimsy enough argument to put against a murder charge but it impressed the jury. Perhaps memories of the Nile and Copenhagen made them sentimental about hearts of oak. Although the judge instructed the jury that if they did not bring in a verdict of guilty on the charge of murder they must find a verdict of manslaughter, the jury was of a different opinion. Captain MacNamara left the court a free man.

McArthur, in his work upon Military Law, when referring to duelling in the army says, "It is believed that there is no instance of an actual execution in Great Britain or Ireland in consequence of one person killing another in a duel fought fairly, and on equal terms; and where friends, or in other words, seconds, were called in to bear testimony to the equality and fairness of the combat." It will be noted that the presence of seconds was essential if such a combat was to be classed as a duel. An event took place in 1807 which should have given the duelling fraternity pause before recourse was made to the matched pistols always ready in the flat, rectangular box. The Campbell-Boyd affair was a cause célèbre and pointed a warning finger that the formalities must be observed or a rope awaited the winner.

The second battalion of the 21st Royal North British Fusiliers (now the Royal Scots Fusiliers) was quartered at Newry in Ireland. The senior captain was Alexander Boyd who was none too pleased when

Brevet-Major Alexander Campbell, late the 42nd, was brought into the regiment. The fact that Campbell held the rank of major by brevet meant that when his regiment was acting with another he would become a field officer and senior, of course, to all the captains in his own regiment. This was the cause of a feeling of hostility against Campbell among the officers. Boyd, in particular, took little pains to conceal his dislike of the former Black Watch major, who, in his turn, was quick to take offence at anything Boyd said or did.

On 21 June, 1807, the battalion was inspected and Major Campbell was corrected by the inspecting officer, General Kerr, for not giving the right word of command during the drill. That evening Campbell, Boyd and two other officers sat long over their wine in the mess. The four of them became a little the worse for wear and a dispute arose between Major Campbell and Captain Boyd over that little matter of drill and the Major's discomfiture on the parade ground. They argued back and forth until Captain Boyd said "I know better than you, Major Campbell, and you may take that as you like." Campbell left the mess in a white heat and hurried to his lodgings near the barracks. Needless to say, he was going for his duelling pistols.

Twenty minutes later he was back in the mess, now deserted, and sent a waiter to tell Captain Boyd that a gentleman wished to see him. Boyd came to the mess room and found it empty. The waiter pointed to a small room adjoining the mess and retired to the kitchen. Boyd found himself confronted by Campbell, ready with his pistols.

They fought each other at a distance of seven paces, alone in that small room without witnesses. The sound of two shots brought officers and servants crowding into the room. Boyd lay dying with a bullet in his abdomen with Campbell beseeching him to say that everything was fair. Boyd said that he had been hurried. "You know I wanted you to wait and have friends." He died eighteen hours later saying of Campbell, "Poor man. I am sorry for him."

Major Alexander Campbell was tried by a civil court for the "wilful and felonious murder of Alexander Boyd". The jury brought in a verdict of guilty of murder to which was added a recommendation to mercy. This was refused by the personal decision of George III who hated duelling and who was determined to make an example of Major Campbell for the benefit of all officers. He made a good end and in his dying confession on the scaffold described himself as "one more unfortunate than wicked—hurried on to this much-to-be-lamented catastrophe by insults

past endurance." Talking shop in the mess has been frowned on for many years now and with good reason.

The attitude towards duelling did not change until public opinion became sufficiently aroused to insist on positive action being taken for its suppression. The man responsible for a great public outcry was James Thomas Brudenell, 7th Earl of Cardigan, who is best remembered as the officer who led the Light Brigade down the Valley to the Russian guns at Balaclava. A dandy and a martinet, possessed of great wealth and no scruples, he moved with a high demeanour in a world in which he was already an anachronism. Entering the army as a cornet in 1824, he advanced rapidly by purchase which involved an expenditure of £28,000 to the rank of Lieutenant-Colonel in six years. Getting the command of the 15th Hussars, he quickly made himself the most hated commanding officer in England. In two years' time he held 104 courts-martial and made more than 700 arrests. As the total strength of the unit was never more than 350 all ranks, this was thought to be somewhat excessive in official quarters. It was intimated to him by the Horse Guards as the War Office was then called that he send in his papers.

In two years he was restored to the active list and given the command of the 11th Hussars. He devoted himself to making the 11th the smartest cavalry regiment in the service and spent £10,000 a year out of his own pocket to achieve this end. Brave in waving plumes, blue pelisses laced with gold and crimson coloured overalls, the 11th Hussars (Prince Albert's Own) earned the praise of the aged Wellington. But as one author was moved to write "within the whited sepulchre of outward display lay the bones of insubordination and discontent." For the brutality and savage discipline which the 15th had endured now fell upon the unfortunate Prince Albert's Own.

If Lord Cardigan had the lash laid upon the backs of his troopers, his tongue scourged the officers. A soldier was flogged immediately after Church Parade on the very ground upon which his comrades had been drawn up for divine service. An officer was placed in arrest for putting on the mess table wine contained in a bottle instead of a decanter. He was held in arrest for several weeks without trial. The despotism of the Commanding Officer seemed to know no bounds. Later, a member of parliament was to remark that any officer who joined the 11th Hussars "had the mark of a slave set on his forehead." The situation in the regiment was becoming a public scandal when a letter appeared in "The Morning Chronicle" taking

Lord Cardigan to task for his conduct. Although the letter was anonymous, Lord Cardigan discovered that the writer was a Captain Tuckett, an ex-officer of the regiment. A challenge followed as a matter of course.

Lieutenant-Colonel the Earl of Cardigan and Captain Harvey Tuckett faced each other on the field of honour on 12 September, 1840. The first fire being ineffectual, shots were exchanged a second time and Captain Tuckett was slightly wounded. "Merely a graze," is how Lord Cardigan described it later to a Metropolitan Police inspector. The peer was formally charged with "firing a loaded pistol with either intent to murder, or to maim and disable, or to do grievous bodily harm."

The trial which followed was a solemn farce. Lord Cardigan had challenged and fought a Captain Harvey Tuckett but the man mentioned in the indictment was a Harvey Garnett Phipps Tuckett. On this legal technicality the case for the Crown collapsed and Lord Cardigan departed to flog his troopers and torment his officers as of yore.

But there were serious repercussions. Lord Cardigan had enjoyed a very bad press for years. Now his superiors came under editorial attack. Blunt criticism was directed at the Commander-in-Chief, Lord Hill, for the alleged protection which he had extended to the soldier peer. Macaulay, the Secretary of State for War, had to defend the Government in the House of Commons for retaining the services of Lord Cardigan in the army. It was not only the Earl who was attacked but the institution of the duel itself. A class distinction, the gesture of a class which seemed to set itself above the law, came into collision with the new morality. The aristocratic influence was on the wane and the stolid middle class England of William Ewart Gladstone was beginning to take shape. There were many who thought that the Englishmen's credo of equality before the law had been flouted by an oligarchy to which so many army officers belonged. It was apparent to them that the duel had no place in a more democratic age.

For with the accession of the young Queen in 1837, times were changing fast. No longer was the social scene to be enlivened by the crack of pistols at dawn and a post chaise whirling away down the high road to Dover and a ship for France. Regency rakes who had somehow managed to survive the Regency were now respectable middle-aged gentlemen in sober broadcloth. Gone forever was the world of Becky Sharp and the Marquis of Steyne and the whole raffish society of Vanity Fair. It was Victoria in the morning light.

An association was formed in London with the avowed object of suppressing the duel. Its membership was drawn from the House of Commons and the Lords and included many distinguished officers from the two Services. In a debate in the House of Commons in March 1844, Sir G. Hardinge, Secretary of War, announced to the House that Her Majesty the Queen had expressed her abhorrence of duelling. In April of the same year an amendment was made in the Articles of War. The 98th Article ordained that "every person who shall fight or promote a duel, or take any steps thereto, or who shall not do his best to prevent duel, shall, if an officer, be cashiered, or suffer such other penalty as a general court-martial may award." These articles, with a few verbal changes, were incorporated in the consolidated Army Act of 1879 (Section 38). It is in force to-day.

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Major Defence Arm

A rearrangement of the defence system in favour of air power and the enlargement of the Royal Australian Air Force are some of the important changes being made in the country's defence policy, according to the Australian Minister of Defence. The responsibility for air protection at sea within range of land-based aircraft would be assigned to the Air Force.

The Navy would give priority to surface anti-submarine vessels. The Minister said the country could not hope to have two air arms on a scale previously contemplated, but that it did not mean the abolition of the Naval Air Arm, although it would have to be reduced. Greater emphasis will be placed on land-based air power in the new system.

It was pointed out that the country could not maintain three permanent forces and a large citizen force as well. The Army is predominantly a citizen force and is being built up through national service training to its mobilized target of 115,500 men. A study of the size and cost of the Regular Army is to be made after the expiration of the present commitments in Korea.—*News Release.*

AN OLD GUIDE TO MILITARY WISDOM

MAJOR E. W. SHEPPARD, OBE, MC, IN THE ARMY QUARTERLY (UNITED KINGDOM)*

An interesting branch of military literature is the series of handbooks[**] for the instruction of young British officers of the eighteenth and early nineteenth centuries in the elements of their profession. A typically entertaining specimen has just come my way. Even the title is noteworthy: "The Military Mentor, comprising a Course of Elegant Instruction calculated to unite the Characters and Accomplishments of the Gentleman and the Soldier", but after this, it is somewhat disconcerting to find that the fulsome dedication, to one "who may be held up as a model to all who inspire to honour and distinction through the paths of military glory, whose Friends and Counsellors have always been chosen from among the nations and independent friends of the people", is addressed to that Prince of dubious reputation, the Prince Regent, afterwards George IV. In the year 1809, the date of publication of the book, such high-flown language was, however, habitual. The whole book is written in a style reminiscent of the two great eighteenth-century masters of the English language—Dr. Johnson, whom the author quotes at great length more than once, and Edward Gibbon, of whose "Decline and Fall of the Roman Empire" one critic said that it was a book which was not a book at all as none could possibly read it, and another equally unkindly that it was written in a style in which it was impossible to tell the truth. "The Military Mentor" comprises a series of thirty-four letters purporting to be from "a distinguished and accomplished General Officer to his Son". The field covered is certainly ample; each of the soldierly qualities—health, courage, love of country, greatness of soul, humanity and modesty—this last-named perhaps not a typical military virtue—has a chapter to itself. It seems curious, however, to find these followed by others on love and friendship, now would a present-day manual of this type be likely to deal, as this does, with drinking, gaming and duelling.

*Reprinted by courtesy of The Army Quarterly.—Editor.

**The attention of readers who are interested in these historical military instruction handbooks is directed to a previous article entitled "Portrait of a Commanding Officer" (circa 1760) which was published in the April 1952 issue of the Journal.—Editor.

All these general matters are discussed in the first volume; the second covers ground more particularly military such as the knowledge necessary for an officer, discipline, intelligence, morale, security and tactics, concluding with a well-weighted chapter on "Age Qualifications of a General". After all this, it can hardly have been the father's fault if his son did not rise to his rank, but, of course, for all we know, perhaps he did.

There are some curious points in every one of these chapters. There appears, for instance, in that on "Health and Strength", a recommendation to wear flannel next the skin. Sound as this no doubt is, a military manual is hardly the place in which one would have expected to find it. In hot weather a folded handkerchief between hat and head, between the shoulders, or on the chest, is said "to produce a great degree of coolness, not only by absorbing the perspiration, but by producing a cavity through which the air circulates freely"—hence, no doubt, the puggaree and the spine-pad which later in the century became standard articles of issue for our troops in India. In the chapter on bravery and courage, which the author considers two quite distinct qualities, the one being natural, the other acquired, he gives an odd example of courage; the statement that "the magistrate has need of it to resist the persuasive pleadings of beauty" throws an unexpected light on the administration of justice in the early nineteenth century. The author thinks highly of the courage of the British soldier, in this respect a true representation of the people from whom he springs. Intrepidity is, again, considered to be a quality distinct from courage and bravery, and is defined as "that which faces and beholds with coolness the most palpable dangers and is not alarmed at the view of immediate dissolution." This was the spirit which animated the Austrian Marshal Loudon, who before the siege of Belgrade in 1789 bade his officers "prepare for victory or death, and consider that none of us are born not to die", was also that of David Gam, the original of Shakespeare's Fluellen, who, sent by Henry V to reconnoitre the numbers and positions of the greatly superior French army before Agincourt, reported that . "There were enough to be killed, enough to be taken prisoners and enough to run away." Greatness of soul is exemplified by the Duc de Guise, who, when an assassin had endeavoured to kill him as "the greatest of the enemies of my religion", replied: "If your religion bids you murder me, my religion tells me to pardon you", and released him; and by Marshal Turenne, who, hearing that one of his subordinates had written to the War Minister adversely criticizing his conduct of a

campaign, commented, "Why did he not address himself to me? I should have listened to him with pleasure, and might probably have profited by his advice." Indeed, one of the attractions of "The Military Mentor" is the wealth of such historical examples illustrating the quality or maxim under discussion.

The chapters on love and friendship, drinking, gaming and duelling allow a striking comparison between the differing military manners of 1809 and 1954. The writer in his discussion of love appears a confirmed misogynist; and he calls it "the most dangerous of all the passions; mistrust yourself in this passion more than in any other, for it has often effected the ruin of the bravest characters." "Cultivate a thirst of glory and renown, and you will tear yourself without much difficulty from the allurements of love." He is no less severe on drinking; it is, he says, "not less dangerous or disgraceful to an officer than gaming. What reliance can be placed on him who delivers himself up to this vice?" While as for gambling: "A passion for it is the overthrow of all decorum; the prince then forgets his dignity, the woman her modesty, all men their duty." These bad habits are stigmatized as "particularly dangerous to honour", but a false or excessive sentiment of honour leads to the vicious practice of duelling, on which the "Mentor" is no less severe. That it is no essential part of true courage is shown by the fact that the Greeks and Romans were not addicted to it; soldiers of such acknowledged courage and honourable feeling as Marshal Turenne and Marshal Saxe always refused to fight if challenged: and there follows a pleasing story of a young officer who, on first joining his regiment, was told that to prove his courage he must fight some experienced comrade who had already killed several persons; he tactlessly elected to challenge his colonel, who, remarking that there was an officer who had killed many more men than he had, suggested that the challenge be transferred to the regimental doctor.

The second volume, being more technical than the first, is inevitably less rich in illustrative anecdote. The chapter on the art of acquiring the confidence of the soldier advises that an officer should always be the first to execute a difficult enterprise "lest his men should say of him that it is not so easy to do what is ordered, as to order what must be done", and quotes the story of Frederick the Great, who, informed by a soldier caught in the act of deserting that he had done so because the king's affairs were too desperate, replied, "Go back to your colours, and if I lose the next battle, you and I will desert together."

Regiment Honoured by Canadians

THESE TERRITORIALS ARE ALL VOLUNTEERS

FROM AN ARTICLE IN "SOLDIER" (UNITED KINGDOM)*

In Northern Ireland, the Territorial Army is a very young force which has grown up quickly.

Seven years ago, when the Territorial Army was reconstituted, Northern Ireland had very little recent history of part-time service on which to build, and very few pre-war Territorial soldiers. Today Northern Ireland has a balanced little Territorial Army.

Every member, apart from the permanent staff, is a volunteer since there is no National Service in Northern Ireland. In proportion to their establishments, the units have more volunteers than most units of the Territorial Army, and the 6th Battalion The Royal Ulster Rifles has the greatest volunteer strength of any Territorial Infantry Battalion in the United Kingdom.

The oldest unit is the North Irish Horse, which was formed in 1902, and has several claims to distinction. From 1905 to 1914 it always had one squadron ready to join an expedition-

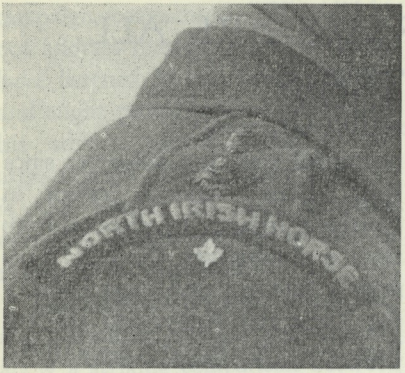
*Reproduced by permission of the Controller of Her Majesty's Stationery Office, United Kingdom.—Editor.

An Old Guide to Military Wisdom

(*Continued from preceding page*)

The chapter on secrecy and security cites the saying of the great Condé that if a general wished not to be afraid of his enemies when they were near him, he should take precautions against them when they were far away, and the anecdote of the Prince of Orange, who to a question about his future plans asked, "If I tell you them, will you keep them secret?" "Assuredly," answered the questioner. "I also" retorted the Prince, "have been granted by Heaven your gift of being able to keep my own counsel."

But although it is the curious and the antiquated in this little book which have been mainly stressed here, its pages abound with sound, wise and well-expressed advice, which its recipient would certainly be the more complete officer and gentlemen for following. Let us hope that their author was more fortunate than the great Lord Chesterfield, whose famous letters on the whole duty of a gentleman so signally failed to influence in any way the conduct and deportment of his odious and boorish offspring, to whom they were addressed.



Courtesy "Soldier" Magazine
The North Irish Horse wear a Maple Leaf in memory of their co-operation with Canadian troops in the Second World War.

ary force. In 1914, along with the South Irish Horse, it was the first non-Regular unit to see action in France, and it was the last Yeomanry unit in action in World War One.

After the war, the Regiment was disbanded. Under the Ireland Act, Great Britain retained coastal defences in Southern Ireland, and in return undertook to raise no Territorial force in Northern Ireland. The North Irish Horse, however, stayed in the Army List, represented by one officer, Major Sir Ronald Ross, MC. Regularly he was the subject of newspaper stories as the one-man regiment.

In 1939, the North Irish Horse was re-formed and fought in tanks in North Africa and Italy. Its men came home wearing maple leaves on the sleeves of their battle-dress, an honour conferred on them by the Canadians for their part in the assault on the Hitler line. The Regiment is affiliated to the King's Dragoon Guards, who provide its permanent staff.

When Britain gave up her coast defences in Southern Ireland in 1937, and was again free to recruit Territorials in Northern Ireland, a heavy battery of the Royal Artillery and a searchlight company of the Royal Engineers were formed in Antrim.

The two units were embodied for the defence of Belfast Lough during the Munich crisis. When the war came, the battery expanded to a Coast Artillery Regiment, and the traditions of the Regiment (and 50 of its men) are now vested in 429 (Antrim) Coast Regiment.

Honorary Colonel of the Regiment is the Earl of Antrim, who is of Scottish descent. He has authorized the regimental pipe band (nine pipers and six drummers) to wear his family tartan and badge.

Imagination and Humour

Imagination compensates you for what you are not. A sense of humour consoles you for what you are.

CANADIAN FORCES IN KOREA REDUCED BY TWO-THIRDS

A Statement by the Honourable Ralph D. Campney, Minister of National Defence

As a result of consultations between the Commonwealth Governments which have forces in Korea and the United Nations Command, it has been decided to reduce the Commonwealth contribution to the United Nations forces in the Korean theatre parallel with and in proportion to the reductions being made in United States forces there.

So far as Canada is concerned, it has been agreed that the Canadian forces will be reduced by approximately two-thirds and that the remaining Canadian element in the United Nations forces in Korea will consist of one infantry battalion, one field ambulance, and the necessary elements for their administrative support.

Canadian troops being returned to Canada will be brought back as rapidly as suitable hand-over and shipping arrangements can be made. It is hoped that the greater part will be at home or en route by the end of the year.

The anticipated order of return to Canada of the major units, together with their locations, pending completion of new permanent home stations now under construction, is as follows: the 2nd Battalion, The Black Watch (Royal Highland Regiment) of Canada, will join its first battalion at Aldershot, Nova Scotia; the 3rd Regiment, Royal Canadian Horse Artillery, is to be located at Debert, Nova Scotia; the 4th Battalion, The Canadian Guards, will occupy Camp Ipperwash, Ontario. The Brigade Headquarters and supporting units will also be included in those returning to Canada.

Remaining in Korea for the present as part of the reduced Commonwealth forces will be the 2nd Battalion, Queen's Own Rifles of Canada, one field ambulance, and the necessary elements for their administrative support. The 2nd Battalion, Queen's Own Rifles of Canada, will have completed its normal tour of duty in May next, at which time, if circumstances still make necessary the continuance of a battalion of Canadian troops in Korea, it will be relieved in the normal way.

In line with the general reduction of United Nations' forces in Korea, one of the three Canadian destroyers serving in Korean waters, H.M.C.S. "Cayuga", will be withdrawn shortly from Korean patrol duties and will

THE QUEEN'S BODY-GUARD FOR SCOTLAND: THE ROYAL COMPANY OF ARCHERS

By
CAPT DONALD M. A. R. VINCE, CORPS OF ROYAL CANADIAN ENGINEERS,
WOODSTOCK, N.B.

In Coronation Year, 1953, one might have expected to see The Queen's Body-guard for Scotland, The Royal Company of Archers, taking a prominent part in the ritual. But until Her Majesty came to Edinburgh late in June for her tour of Scotland, the green jackets and Kilmarnock Bonnets of the Royal Company made little show. For, as Ian Hay made clear in his book, *The Royal Company of Archers 1676–1951*, The Royal Company is a very unusual group.

The Royal Company of Archers is an ancient organization if, in age, it does rank after the Yeomen of The Guard and the Gentlemen at Arms. This Archer Guard was founded in Scotland in 1676 by "an influential body of Noblemen and Gentlemen, who met for the purpose of encouraging the Noble and Useful Recreation of Archery, for many years much neglected". These eager toxophilites applied to The Privy Council for its approval, framed a Constitution of Laws which provided a regular fixture-card and skilled instruction for beginners. It reflected determination to develop to the full the social possibilities of such an organization and selected as their first Captain-General John, First Marquis of Atholl.

This bright beginning was soon clouded. The Glorious Revolution of 1688 which drove James II across the Channel and brought William of Orange to Whitehall affected the Archers. Scotland became a Jacobite stronghold. The Archers went underground. Their last appearance in the Seventeenth Century was 1688. They did not appear again until 1703 when Anne was firmly on the Throne. Then they lost no time in emerging from their self-imposed obscurity and attempting to secure the Royal favour. Application was immediately

Canadian Forces In Korea

(Continued from preceding page)

not be replaced. She has been on station in the Far East since June last. The destroyers "Iroquois" and "Huron" will continue on duty with the United Nations forces for the present.

made for a Royal Charter. Their Captain-General was Principal Secretary of State for Scotland at the time and, in the way of such things, the Archers' Charter came along in March, 1704.

The Charter was a gracious document. The Royal Company were granted "perpetual access to all public butts, plains and pasturages legally allotted for shooting arrows with the bow, at random or at measured distances". In return for these and other favours only one stipulation was made. If requested, the Royal Company was to render yearly to Her Majesty "one pair of barbed arrows". Here was the origin of the now historic *Reddendo.*

Strong now in Royal favour, the Archers began to expand their activities and increase the number of their public appearances. They held their first public match in June, 1714, the day appointed for the annual choice of the Captain-General and his officers. Since it set the pattern for all the matches which followed, it deserves some detail. After the election:

"The said Royal Company, the Right Honourable the Earl of Cromartie their Captain-General, upon their front . . . did march, handsomely drest in their proper garb, with their bows unbent in their right hands, and a pair of arrows under the left side under a white bow-case from the Parl^nt^ Close in good order down through the streets of Edin^b^ and Canongate to the Palace of Hollyrood House, and received from the respective guards they passed by the usual honours that are due to any of Her Majesty's forces, and from thence went in coach to the links of Leith, to shoot for the silver arrow set out by the Town of Edin^b^. . . ."

The Jacobite uprisings of 1715 and 1745 jarred the even progress of the Archers. They were suspected, and probably correctly, of Stuart sympathies and so fell into disfavour with the authorities. But in 1792 the French Revolution dissolved the last traces of sedition. At a public meeting the Royal Company pledged itself "to use their utmost endeavours to counteract sedition, in whatever shape it may appear, and strengthen the hand of the civil magistrate in the preservation of peace and obedience to the laws".

Apart from these (to the Archers) minor crises, the Royal Company's record down through the Eighteenth Century was one of ordered progress and pleasant routine:

". . . Council meetings and elections, parades, marches . . . shooting fixtures, whether domestic or "foreign," all pleasantly intermixed with social intercourse and good fellowship."

In this time the Royal Company began to expand its membership from the original nucleus of Scots nobility and landed gentry to include distinguished representatives of the Arts, the Law, and the Learned Professions in general. At one time they seemed to be especially fond of poets, particularly those addicted to rather bad Latin verse. But they also elected to membership Robert Burns, in 1792; and Sir Walter Scott, in 1821. Raeburn, the painter, was an

Archer. So was Dr. Nathaniel Spens, who rejoiced in the distinction of being the first person to carry an umbrella through the streets of Edinburgh!

In the year 1822 the Royal Company finally absolved themselves from taint of Stuart sympathies, were re-admitted to Royal favour and were formally recognized as the Royal Body-guard for Scotland. All this took place during the state visit George IV made to Scotland. The King was wined and dined—we can be certain he enjoyed both—dubbed that famous Archer, Henry Raeburn, a Knight, and accepted the *Reddendo* —the barbed arrows of the Royal Charter.

With their new prestige the Company bethought themselves of their value and so resolved to admit thereafter none but gentlemen of Scottish birth or descent. Englishmen going abroad, it was feared, might apply for membership with the sordid object of "wearing the uniform at foreign courts". As may be guessed, it was indeed a very attractive uniform to Englishmen since it was all tartan. It featured an Elizabethian ruff, a voluminous frock coat with puffed sleeves, white gauntlets, and an enormous black velvet bonnet.

If we exclude numerous changes of uniform—the ruff was unpopular with the practical Scots—the Royal Company led a placid existence throughout the Nineteenth Century. They successfully resisted an attempt by an antique but plebian Society of Kilwinning Archers to become the Royal Body-guard. They escorted Queen Victoria when she came North, and grew steadily richer, more exclusive and more Scottish. To their great credit, the Archers never abandoned their original object, the practice of archery, which they continued to participate in and to encourage.

As part of their ceremonial duties they always mounted the Throne Guard when The Monarch held Court in Scotland. And, in accord with their Charter, they presented "The one pair of barbed arrows"—*The Reddendo* — whenever The Monarch demanded it.

This is a simple ceremony. The Captain-General presents the arrows, usually in the form of a brooch, with this usual form of words:

"According to our ancient Charter, I present to Your Majesty The Reddendo, craving that Your Majesty will be graciously pleased to continue your Royal countenance and recognition of all the ancient rights and privileges of the Royal Company of Archers, Your Majesty's Body Guard for Scotland."

The Sovereign replies:

"I accept The Reddendo from the Royal Company of Archers of my Body Guard, whose ancient rights and privileges it is my pleasure to recognize and continue."

In spite of the obvious temptations, the Archers, as an organization, have never become a military body. (Since the Eighteenth Century a very large

(*Continued on page 117*)

EISENHOWER IN COMMAND

Reviewed by Colonel C. P. Stacey, OBE, CD,
Director of the Historical Section, Army Headquarters, Ottawa

The latest volume in the United States Army's history of the Second World War is one of the most important and one of the best.* Entitled *The Supreme Command* and written by Dr. Forrest Pogue, it deals with Supreme Headquarters, Allied Expeditionary Force, in the North-West Europe campaign. The author has had the advantage of access to General Eisenhower's personal files; his book adds very considerably to our knowledge; and it is a vital contribution to the study of the remarkable campaign of 1944–45 from both the strategic and political viewpoints.

This book is a fine piece of historical scholarship. It is lucidly and effectively written. It is based on examination of a very wide range of documents and on interviews and correspondence with a great number of important people, including General Eisenhower, Lord Alanbrooke, Lord Tedder, Lord Mountbatten, General Bradley and General Simonds (Lord Montgomery is not on the list). And while its commentary is restrained it is notable for its frankness and for its objectivity and even-handedness in dealing with the differences of opinion which arose within the Allied camp. The book's distinguished central figure, the Supreme Commander, holds today an even greater position than he held during the campaign; but the author does not hesitate to quote a German intelligence estimate beginning "Tedder is on good terms with Eisenhower to whom he is superior in both intelligence and industry" (the German writer, of course, was by no means necessarily right); nor does he scruple to remark that some of the Supreme Commander's comments on the conduct of operations in Normandy resulted from his "perhaps misunderstanding the full import of Montgomery's plans". Dr. Pogue pretty clearly is an admirer of Montgomery's direction of the Normandy campaign, though he probably has reservations about the Field-Marshal's strategic views at later stages.

This is not to say that the author

* *The Supreme Command.* By Forrest C. Pogue. ("*United States Army in World War II: The European Theater of Operations*"). Office of the Chief of Military History, Department of the Army, Washington, D.C. $6.50.

is not an admirer of Eisenhower too, for he evidently is, though, with the restraint characteristic of this series and natural to an official history compiled soon after the events described, he never attempts a full-length estimate or portrait of the Supreme Commander. The book is not a biography, and Dr. Pogue has not tried to convey to the reader General Eisenhower's personal magnetism, or the strong impression of modest sincerity which he makes on everyone who meets him and which must have contributed greatly to his success in his incredibly difficult wartime task.

It is interesting, however, to try to define the final impression of the Supreme Commander left by the book on the reader. It is quite different, needless to say, from the idea most of us have of Lord Montgomery, whose controversies with General Eisenhower receive so much attention here. Rightly or wrongly, people think of the Field Marshal as a lone wolf and an idea factory. Eisenhower seems to have been much more the leader of a team. One receives the impression of comprehensive competence rather than brilliance. It would seem that the strategic conceptions to which General Eisenhower worked were not so much ideas which he produced out of his own head as plans developed by a staff group which he led and directed. Perhaps this was the natural result of a system of training different from the one that produced Montgomery. This approach, as well as the general's natural generosity, may be reflected in the fact that in March 1945, looking back on the Rhineland battle, he spoke in a letter to General Marshall of "the campaign west of the Rhine that Bradley and I planned last summer". There is something very attractive in this readiness to share the credit for a successful plan.

This book is enlightening on the long argument with Montgomery over the questions of "broad front versus concentrated thrust" and of the appointment of an overall ground commander; and the material which is presented from the Supreme Commander's files will be important to the final conclusion on those matters when all the papers are available. Dr. Pogue himself attempts no verdict. One interesting point which does emerge on the controversies between Eisenhower and Montgomery relates to the consequences of the shift in command during the Ardennes battle (when U.S. forces north of the Bulge were put under 21 Army Group) and of the famous press interview given by the Field Marshal after the battle which so enraged General Bradley and other American commanders and continued to "rankle" in their minds long afterwards. The author remarks, "General

Eisenhower could scarcely have ignored this factor in the debates which followed relative to making the main drive on Field Marshal Montgomery's front and on the question of placing additional U.S. troops under 21 Army Group command." It seems evident that Dr. Pogue believes that this resentment, and the resulting desire to give the 12th Army Group its chance, was a powerful factor in leading the Supreme Commander to abandon his early plan for the final phase—a rather unusual thing for him. Instead of delivering the main attack on the 21 Army Group front in the direction of Berlin, he resolved late in March to take the Ninth U.S. Army away from Montgomery and place the point of main effort on Bradley's front in the centre. In coalition wars, strategic questions are not always decided on exclusively military grounds.

In one matter, however, General Eisenhower followed a strictly military line. In the final weeks of the war, when German resistance was crumbling, he refused, in spite of strong British urgings, to try to beat the Russians into Berlin and Prague. Dr. Pogue observes, with rather unaccustomed bluntness, "The British Chiefs of Staff tried doggedly to inject a note of political realism into the situation, but found that remote control of a battlefield stretching from the North Sea to the Italian Alps was well-nigh impossible, especially when the U.S. President and the U.S. Chiefs of Staff preferred to leave the final stages of the battle in the hands of the Supreme Commander." It was not only the British who suggested a different line. On 12 April 1945 General Simpson's Ninth Army reached the Elbe near Magdeburg, and he asked permission to go for Berlin. Eisenhower refused it, and ordered him to undertake lateral clearing operations instead. This American determination to conciliate the Russians looks strange in 1954. Perhaps it was based on a fundamental political miscalculation, but it is well to note that it proceeded from the highest motives. It was not the Western Allies who started the Cold War.

In this excellent book there are very few serious omissions and very few errors. As is appropriate to a volume so largely concerned with General Eisenhower, its attitude towards international questions is generous and liberal. On matters of fact it is extremely informative. It is a book which no student of the great campaign it chronicles can afford to be without.

STEPPING-STONES TO TOKYO

A BOOK REVIEW BY LIEUT.-COLONEL G. W. L. NICHOLSON,
DEPUTY DIRECTOR OF THE HISTORICAL SECTION,
ARMY HEADQUARTERS, OTTAWA

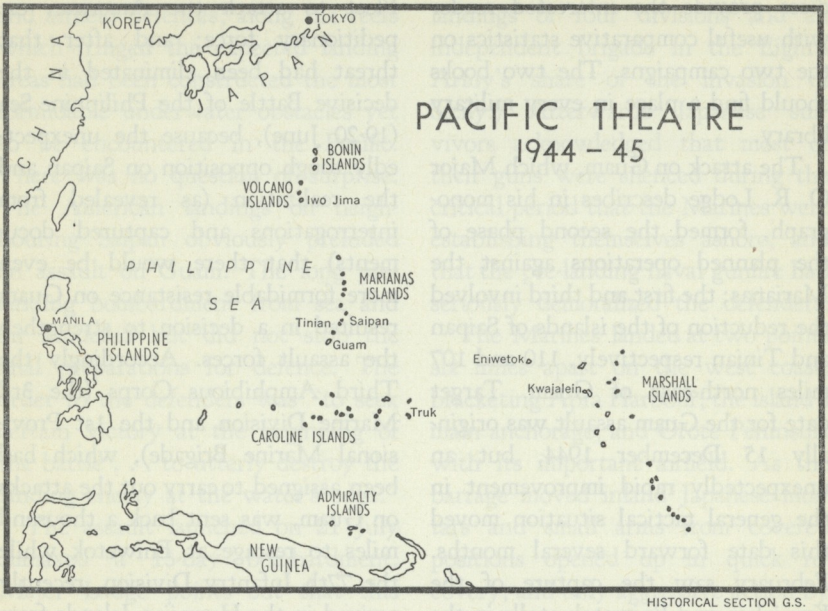
During the first half of 1944 public attention was focussed on North-West Europe, where the invasion of Normandy tended to obscure the significance of the current campaigns in the Pacific. Yet by June of that year American attacks in that theatre had riddled the outer island screen of Japanese defences. In six months United States forces had seized bases in the Marshall Islands on the eastern part of the perimeter, and in the south had captured the main islands of the Admiralties and landed on northern New Guinea. The inner ring of defences curving through the Philippines and the Marianas was now under threat. American occupation of the Marianas would not only cut the enemy's strategic line of communications to the islands he still held in the South Pacific, but would provide the forces closing in on Japan with advanced naval, and, what was more important, air bases.

The Marianas group of islands, midway between Japan and New Guinea, are within 1300 miles of Tokyo; from airfields on Guam and Saipan and Tinian B-29 Superforts would be able to launch round-the-clock strikes at the Japanese homeland. Some 600 miles closer to Japan are the Volcano-Bonin Islands; once bombing raids began from Marianas bases Allied possession of Iwo Jima in the Volcanoes would furnish an intermediate base from which fighters could provide protection over the target and where returning damaged bombers could land safely.

The manner of the American return to Guam in July 1944 and the capture of Iwo Jima in the following March are described in the twelfth and thirteenth* of a series of operational monographs prepared by the Historical Branch, Headquarters, United States Marine Corps. These monographs have been appearing since 1947 at an average rate of two a year.** They are designed, the preface informs us, "to give the military student and the casual

* *The Recapture of Guam.* By Major O. R. Lodge, U.S.M.C.; and *Iwo Jima: Amphibious Epic.* By Lt.-Col. Whitman S. Bartley, U.S.M.C. U.S. Government Printing Office, Washington.

** The fourteenth of the series, *The Marshalls: Increasing the Tempo*, by Lt.-Col. Robert D. Heinl, Jr., U.S.M.C. and Lt.-Col. John A. Crown, U.S.M.C., reached the *Journal* too late for review in this issue.—Editor.



reader an accurate and detailed account of the operations in which Marines participated during World War II." Eventually they will be integrated into a definitive operational history of the U.S. Marine Corps in that war.

Here are two well-organized narratives, adequately documented, well indexed, and generously illustrated with fine photographs and excellent maps. As befits the purpose for which these volumes are intended both are written in an unpretentious, clear style. Probably the amount of detail, reaching down to battalion and sometimes company level, will appeal more to the "military student" than the "casual reader". (Until the overall Marine Corps history appears the latter might well turn to Admiral Samuel Eliot Morison's volumes dealing with the Pacific operations.) The authors have drawn on formation and unit war diaries and operation reports at all levels of command, supplementing these sources by correspondence or interviews with many participants in the operations concerned. In presenting the enemy picture full use has been made of the rather meagre Japanese documentary material available—not many Japanese officers survived to record their experiences on Guam or Iwo Jima. A number of well-prepared appen-

dices provide the interested reader with useful comparative statistics on the two campaigns. The two books should find a place in every military library.

The attack on Guam, which Major O. R. Lodge describes in his monograph, formed the second phase of the planned operations against the Marianas; the first and third involved the reduction of the islands of Saipan and Tinian respectively, 110 and 107 miles north-east of Guam. Target date for the Guam assault was originally 15 December 1944, but an unexpectedly rapid improvement in the general tactical situation moved this date forward several months. February saw the capture of the Kwajalein and Eniwetok atolls in the Marshalls at a lighter cost than had been anticipated; and the seizure of the Admiralties in March put land-based aircraft within range of Truk in the Caroline Islands, thereby making possible the neutralization of that Japanese naval base, which had already shown surprising vulnerability to carrier strikes. With the removal of this threat to its flank the drive through the Central Pacific could go forward. Marines landed on Saipan on 15 June.

The Guam landings were now scheduled for 18 June, but this date was set back five weeks, first because of the (not unexpected or unwelcome) advance of the Japanese First Mobile Fleet to attack the American expeditionary force; and after that threat had been eliminated in the decisive Battle of the Philippine Sea (19-20 June), because the unexpectedly tough opposition on Saipan and the realization (as revealed from interrogations and captured documents) that there would be even more formidable resistance on Guam resulted in a decision to strengthen the assault forces. Accordingly the Third Amphibious Corps (the 3rd Marine Division and the 1st Provisional Marine Brigade), which had been assigned to carry out the attacks on Guam, was sent back a thousand miles to restage at Eniwetok while the 77th Infantry Division, recently arrived in the Hawaiian Islands from the United States, was being brought forward as floating reserve.

Guam is the biggest of the Marianas; its area (30 miles long with an average width of seven miles) approximates that of all the remaining islands in the group. When the Japanese struck in December 1941 the island's garrison of 670 could offer only token resistance against a landing force that outnumbered it ten to one. Now, two and a half years later, a Japanese defence force of 18,500 stood on guard. From the time of its arrival from Manchuria in March 1944 the main army formation, the 29th Division, had worked intensively at building up beach

and airfield defences; along the reefs which fringed the expected landing areas had been constructed the most formidable underwater obstacles yet to be encountered in the Pacific. There was no question of surprise. The American landings on neighbouring Saipan obviously preluded an assault on Guam. The long pre-landing bombardment from sea and air hindered but did not stop the final preparations for defence. The order to the defenders was "to seek certain victory at the beginning of the battle . . . to utterly destroy the landing enemy at the water's edge."

The assault launched on 21 July climaxed a 13-day bombardment. Major Lodge points out that this was the most prolonged of its kind of the whole war (28,764 rounds of from five to 16-inch calibre were delivered). The landings themselves were covered by an unprecedented volume of fire. The postponement of the assault had resulted in powerful naval and air strength becoming available from the Saipan operation, with the result that as the Marine division and brigade went ashore they were supported by an armada of six battleships, nine cruisers, 57 destroyers and numerous lesser craft, while additional fire power was provided by aircraft from 15 carriers and five escort carriers. (This naval force was considerably larger than that which a year before had supported the landings of four divisions and an independent brigade in the Eighth Army's share of the invasion of Sicily.) Afterwards Japanese survivors acknowledged that most of their guns were silenced during the critical period that the Marines were establishing themselves ashore, and that the pre-landing naval gunfire had seriously demoralized the defenders.

The Marines landed at two points six miles apart on the west coast, bracketing Apra Harbour, the island's main anchorage, and Orote Peninsula with its important airfield. As the barrage moved inland Japanese mortars and small arms from covered positions opened up in quick recovery, and only aggressive action by troop leaders in moving their men off the beaches kept the first day's casualties (about 1000 for the five assaulting regiments) from being much heavier. By nightfall the 3rd Division on the left and the Provisional Brigade on the right were holding bridgeheads about 1200 yards deep. The next four days saw bitter fighting to enlarge these separate footholds. By the end of 24 July the Provisional Brigade had advanced northward to cut the base of the Orote Peninsula; now as the newly landed 77th Infantry Division relieved it in its assault area the Brigade began liquidating the stubborn Japanese force cut off in the peninsula.

The major Japanese bid for victory on Guam came on the night of 25–26 July. On the Orote Peninsula it took the familiar form of a *banzai* rush by a swarm of *saké*-crazed Nipponese, their unsteady hands clutching "pitchforks, sticks, ballbats, and pieces of broken bottles, together with the normal infantry weapons." Concentrated artillery fire struck them down in hundreds, and steady small-arms fire from the Marine lines accounted for many more; nowhere did the attempted break-through succeed. In contrast to this wild, unorganized effort the enemy's counter-attack in the northern sector was a well-planned and carefully co-ordinated attempt to drive the 3rd Marine Division into the sea. The excellent observation from the high ground overlooking the American bridgehead had enabled the Japanese to pinpoint the Marine positions, and through gaps in the line (where 7000 Marine riflemen were holding a front of 9000 yards) they launched night attacks of varying size, employing seven of their best battalions. Taken by surprise the Marines fought back savagely. Where breakthroughs occurred the shoulders of the penetration held and tank and artillery fire decimated the intruders. Star shells kept the battle area as light as day, each front line battalion having been assigned a ship to provide it with this illumination on call. One attack hit the Division Hospital area, and doctors, medical corps men and pyjama-clad patients seized rifles and grenades and joined in the battle. The counter-attack cost the 29th Division 3500 casualties, and its failure ended any Japanese hope of striking another sizable blow on Guam.

The Final Beach Line, which marked the limit of the assault phase of operations, was reached on 29 July. On the Orote Peninsula the Stars and Stripes were raised over the ruins of the Marine barracks lost to the Japanese in 1941. There remained the arduous task of clearing the dense jungle which covered the northern half of the island. Organized resistance ended on 10 August with the 77th Infantry Division's capture of the final stronghold on Mt. Santa Rosa after a bitter five-day struggle. (A satisfying feature of this Marine Corps history is the scrupulous impartiality with which it treats all the services participating in the campaign.) Mopping up operations continued however for many more weeks. Altogether 18,377 Japanese were killed on Guam and 1250 taken prisoner. The price paid in American casualties (including Marine Corps, Army and Navy) was 7800, of which 1769 were fatal.

The Guam operation saw several innovations, none more important than the adoption of a new procedure

for co-ordinating naval and air support. By limiting the height of gunfire trajectories and controlling aircraft pull-out levels simultaneous air and naval bombardment of the same area became possible; the result was a combination of fire more devastating than any concentration laid down by only one of the supporting arms. Guam was the first campaign in which the Marines placed a significant corps artillery of their own (three 155-mm battalions) in the field; they afterwards rated their artillery the most effective weapon employed during the operation. The first blood bank to be waterborne to a fighting front landed on D plus 3 with 100 pints of whole blood donated three days earlier by the Marine garrison on Eniwetok. Probably the most novel "first" was the employment of a group of Navajo Indians to operate voice radio nets in their own language, which was completely incomprehensible to the Japanese.

While fighting was still in progress on Guam, a Marine force of two divisions had seized Tinian, to complete the final phase of the Marianas campaign. No time was lost in developing on all three islands airstrips from which American bombers could carry the war to Japan. On 24 November 100 B-29s left Saipan to hit Tokyo. By the late summer of 1945 nearly 1000 giant planes based in the Marianas were hammering targets in the Japanese home islands. It was from Tinian that two B-29s rose in August to explode atom bombs over Hiroshima and Nagasaki.

The tiny, economically insignificant Iwo Jima (area 7½ square miles) was described in a Japanese geography book as "only an island of sulphur, no water, no sparrow and no swallow"; yet its potential strategic importance was so great that it became, says Lt.-Col. Whitman S. Bartley in his monograph, *Iwo Jima: Amphibious Epic*, "the most heavily fortified and stubbornly defended real estate in the Pacific." The assault on the Volcano Islands climaxed the great 16-month drive of American amphibious forces across the Central Pacific, and provided the supreme test of the doctrines, techniques, weapons and equipment which had been effectively employed in those operations. But at Iwo Jima defenders as well as attackers had an opportunity of demonstrating lessons learned in past battles; and the more than 20,000 Japanese troops on the island were to conduct the most intelligent and dogged defence of any of the Pacific battles.

Their build-up on Iwo (the only island of the Volcano group on which airfields could be constructed) began when the Marshalls were invaded in February 1944. When Saipan fell in June the forces on the island were quadrupled with the organization of

a new command, the 109th Infantry Division, whose commander, Lieut.-General Kuribayashi, was described by Radio Tokyo as a man "whose partly protruding belly is packed full of strong fighting spirit". Abandoning the idea of all-out *banzai* counter-attacks against the beaches, Kuribayashi organized across the centre of the island strong mutually supporting positions in depth, to be occupied prior to D Day and defended to the death. These positions involved an elaborate system of caves, concrete blockhouses and pillboxes, the latter with walls four feet thick and protected by sand piled 50 feet high.

The assault landings were made on 19 February by the Fifth Amphibious Corps, after an eight-day naval bombardment which marked the culmination of many months of air strikes from carrier raids and Marianas-based bombers. Swimmers of underwater demolition teams who at Guam had found their hands full destroying beach obstacles encountered no barriers to navigation at Iwo Jima. The 4th Marine Division, battle wise from the Saipan and Tinian operations, landed on the south-east coast alongside the untried 5th Marine Division, eight battalions taking part in the initial attack.

The Japanese defenders, who had waited out the terrific pre-H Hour bombardment in underground bunkers, quickly emerged, and soon the beaches were swept with fire directed from Mount Suribachi, which rose 500 feet high in the extreme southern tip of the island. Yet within 90 minutes a small group of Marines had crossed the 700 yards to the western shore and sealed off Suribachi from the rest of the island. The height was scaled and won on D plus 4, but it took 14 painful days from the initial landing for Marines to reach the enemy's main defence line — "a maze of caves, pillboxes, dug-in tanks, stone walls and trenches." On 25 February the 3rd Marine Division, veterans of Guam, had been committed between the two assault formations, and each division was now fighting on a front of 1000 yards. The slow advance followed a deliberate pattern. Armoured bulldozers, covered by tank and infantry fire, levelled a path over which Sherman flame throwers could advance to neutralize each enemy position. Then the infantry would move forward, leaving demolition teams to deal with by-passed caves and pillboxes. This procedure resulted in few Japanese being seen alive, except when tanks flushed some enemy who could be killed by the infantry. "This always raised the morale."

By D plus 17 progress was such that the daily corps order could depart from its usual phase-line objectives and call for the capture of the remainder of the island. That night

General Kuribayashi apologized to Tokyo: "I am very sorry that I have let the enemy occupy part of the Japanese territory, but I am taking comfort in giving heavy damages to the enemy." On 16 March, 26 days after the landings, Iwo Jima was declared secured, but it required ten more days to end organized resistance on the island. By that time only 216 prisoners had been taken; mopping-up operations in April and May captured 1600 more. American fatal casualties numbered 6821, a little more than one third the total of Japanese dead.

"Never before in the Pacific War had troops engaged on amphibious assault been able to see so clearly the immediate importance of the objective," declares Colonel Bartley. Long before the fighting ended Marines had seen the first of many damaged Superforts returning from raids over Japan make an emergency landing on one of Iwo Jima's captured airfields. By the end of the war 2251 distressed B-29s carrying 24,761 crewmen had landed safely on the island.

The epic struggle for Iwo Jima once again demonstrated that powerful American amphibious forces, given control of the surrounding seas and skies, could seize any objective, no matter how strong its installations or how stubborn and skilful its defenders. Contributing to this success were overwhelming fire power, the employment of specialized weapons and equipment, highly efficient communications, a skilful co-ordination of supporting arms and the maintenance of supply in phenomenal proportions—but above all the bravery and determination of the front line soldier, "who walks up beaches and takes enemy positions with a rifle and grenades or his bare hands." There is no more fitting tribute than that paid by Admiral Nimitz: "Among the Americans who served on Iwo, uncommon valor was a common virtue."

The Queen's Body-guard for Scotland

(*Continued from page 106*)

proportion of Archers have served at one time or another in the Armed Forces.) A well meant but silly attempt in the midst of the Crimean War to make them a Volunteer Rifle Company foundered on the logical argument that an Archer Guard carrying rifles was incongruous. Other efforts, in other wars, have proved equally barren and the Royal Company still remains, as it was in the beginning, a private society of private gentlemen interested in archery, but possessing the unique honour of being the Queen's Body-guard for Scotland.

THE AIR WAR: THE TIDE TURNS

Reviewed by Colonel C. P. Stacey, OBE, CD,
Director of the Historical Section, Army Headquarters, Ottawa

The second volume of the short "interim" history of the Royal Air Force in the Second World War has lately appeared.* It covers the middle period of the war, from the attack by Japan to the fall of Rome—in other words, from the darkest hour to the beginning of the end. It is the work of two authors—Denis Richards, the highly competent author of the preceding volume, and the late Hilary St. George Saunders, who was Librarian of the British House of Commons and famous as the writer of several very successful official pamphlets of the war period, notably *The Battle of Britain.*

This volume strikes the present reviewer as being perhaps not quite so good as its predecessor, but it is very good indeed. Four chapters tell the grim story of the early phases of the war against Japan; four more deal with the air war as conducted from the United Kingdom; four more tell about North Africa; and after another on the bomber offensive there are three on the Italian campaign. (A third volume covering the final months of the war is promised for early publication.) On the whole, the North African story is the best part of the book, and is certainly the most interesting to a soldier. This portion of the volume is Mr. Richards'; he is probably a better historian than Mr. Saunders, who was perhaps more publicist than scholar.

The account of the evolution of army-air co operation in the desert war is quite fascinating. It is, of course, written from the R.A.F. viewpoint but it does not impress one as prejudiced and it carries conviction —the more so as it is based on such sources as the demi-official correspondence between Lord Tedder and the Chief of the Air Staff. The reader—this reader, at any rate—is left with the impression that in the first instance the British forces in Africa were not particularly efficient, either on the ground or in the air; that they achieved a high standard of efficiency in the end; and that the R.A.F. achieved it rather earlier than the Eighth Army. Tedder took command of the R.A.F. in the Middle East in June 1941; the Eighth Army went on changing commanders for a long time after that. The author quotes an interesting letter of Lord

* *Royal Air Force, 1939–1945: Vol. II. The Fight Avails.* By Denis Richards and Hilary St. George Saunders. $3.15. Available from United Kingdom Information Office, 275 Albert Street, Ottawa.

Tedder's written on the very eve of the battle of El Alamein, after Lord Montgomery had appeared on the African scene:

> Co-operation with the Army has further improved, thanks undoubtedly in some part to the lead given by Montgomery on the subject. It was very refreshing to see in Eighth Army Advanced Headquarters the embryo of a real operations room copied directly from our own mobile operations rooms. As I told the soldiers, it was the first sign I had seen of their being able to collect and sift information of their battle, and consequently the first sign one had seen of their being able to control it. For the past two years they had been saying such a thing was impossible; now they have started it and realise its potentialities. I think it should develop well and make an enormous difference.

This bit of information comes as something of a shock.

Mr. Saunders' chapters on Italy are rather disappointing. There are a fair number of inaccuracies—the Canadians did not make contact with the Fifth Army at Potenza (or anywhere else) in September 1943; the Termoli landing was not a failure, and was not an attempt to turn the German winter line (which was 40 miles beyond it). The name of General Eisenhower's intelligence chief was Strong, not Strom. In contrast with some relatively minor operations about which pages are written, the majestic offensive in the Liri Valley which produced the capture of Rome gets three lines.

The Dieppe raid is competently treated. It is duly noted that the great air battle which it produced had a less satisfactory outcome than was believed at the time, in that the enemy lost, not our "conservative" estimate of 91 aircraft destroyed, or the 170 reported by a "reliable" source on the Continent (and publicly repeated by Air Vice-Marshal Leigh-Mallory), but only 48 — a balance of two to one in favour of the Germans. (We lost 106, which must have been about the heaviest day's losses suffered by the R.A.F. during the war.) But the protection afforded the naval assault force was extremely effective.

As in the earlier volume there are only brief and incidental references to the R.C.A.F. One would like to see some account of such operations as those of Group Captain C. R. Dunlap's Wellington wing in the Mediterranean in the Sicily period; but of course there are limits to what can be done in so small a book. All the R.C.A.F. squadrons serving with the R.A.F. in 1941–3 are listed in the very useful tables in the back. Those tables help make a most readable book a very valuable work of reference as well. As with Volume I, the most extraordinary feature of *The Fight Avails* is the combination of a great mass of accurate information with a remarkably high standard of narrative interest. From it army officers may learn a great deal about the practical workings of air power, and find the process of learning a very enjoyable one. (Kingston, Ont., papers please copy.)

A GREAT MODERN SOLDIER

Reviewed by Colonel C. P. Stacey, OBE, CD,
Director of the Historical Section, Army Headquarters, Ottawa*

Field-Marshal Erwin Rommel is one of the genuinely legendary figures of the Second World War. He was idolized by his men and by the German public. The British soldiers whom he fought, and frequently beat, in the North African desert had more admiration for him than for many of their own commanders; in the British House of Commons Winston Churchill saluted him, "across the havoc of war", as "a very daring and skilful opponent and . . . a great general"; and a British brigadier wrote a laudatory biography of him which had a tremendous sale and was made into a film which Britons—and Canadians—lined up for blocks to see. He was Hitler's favourite commander; and in 1944 Hitler forced him to commit suicide to avoid trial for treason. It is an extraordinary story; and it must be said that the legend is unlikely to be diminished by the recent publication of *The Rommel Papers*.** Many who have been sceptical till now have been convinced by this book that Rommel was in fact exactly what Churchill called him in 1942. It is a remarkable volume, and an important contribution to the history of the Second World War.

Rommel intended to write a book about his campaigns; and whenever a quiet interlude gave him the chance he made a practice of putting on paper an account of the most recent operations and a commentary upon them. Though he didn't survive to write the book, these preliminary papers have fortunately been preserved, as have most of his letters to his family. Together they make up the greater part, and the most important part, of this volume. The gaps have been filled by chapters written by General Fritz Bayerlein, sometime Chief of Staff of the Afrika Korps, and by Rommel's son Manfred. But about four-fifths of the book is Rommel, and fascinating stuff it is. Rommel wrote pungently; the translation is lively; and the editor, Captain B. H. Liddell Hart, has done a skilful and helpful job, though more attention to scholarly minutiae would have made it more valuable to the student. The narrative is subject to checking on points of detail, but the book's general significance is beyond doubt.

From these pages Rommel emerges as a rather attractive personality and

* This review article originally appeared in the *University of Toronto Quarterly*, from which publication it is reproduced by permission.—*Editor.*

** *The Rommel Papers*. Edited by B. H. Liddell Hart, with the assistance of Lucie-Maria Rommel, Manfred Rommel and General Fritz Bayerlein. Translated by Paul Findlay, London: Collins. 1953. Pp. xxii, 546.

an extremely brilliant tactician—that is to say, battlefield commander. In this department, the war probably produced no abler general. The present writer must admit, however, that he finds little here to contradict Field-Marshal Montgomery's coldly laconic comment, "Rommel was no strategist". (In general, it is the commanders whom Rommel beat, rather than those who beat him, who have made the largest contributions to the Rommel legend.) But it is piquant to discover that a few weeks before his own death Rommel wrote, "Montgomery was undoubtedly more of a strategist than a tactician".

Rommel's description of the campaign in France in 1940, in which he commanded the 7th Panzer Division, is one of the most illuminating accounts of that bizarre and dramatic episode. The worst crisis the 7th Panzer had to surmount was apparently the British counter-attack at Arras on 21 May. French resistance ran the gamut from desperate courage down to total apathy. After the break-through, the German tank columns sometimes motored for miles past French troops who merely looked at them. An interesting point is that Rommel insisted on the advance being made across country, avoiding villages and main roads. One reflects that, had he come to England, much of the effort devoted there in 1940 and 1941 to making towns and villages into what were known as "tank-proof localities" might have turned out to be wasted.

In February 1941 Rommel was sent to Africa, where the Italians had taken a terrible beating from Lord Wavell, to try to recoup the Axis fortunes. It was there that he really made his name, and his narrative of the early desert operations, which in general is markedly objective, makes absorbing reading. The striking thing is that he contrived to do so much with so little. His forces were usually smaller than those the British brought against him, though as he admits he long had the advantage of having better tanks and anti-tank guns. The supplies that reached him across the Mediterranean were normally inadequate. Yet thanks mainly to his masterly handling of his armour he won great victories.

These successes were not the result of new tactical conceptions. There are no ideas in this book that are not to be found in the excellent British Field Service Regulations of the days before 1939. (There is a story that a German officer once observed that the British had the best training manuals in the world, and that it was fortunate they didn't read them.) Rommel simply applied the well-established principles to armoured warfare more effectively than his opponents. He knew the importance of speed, and of concentration at the

decisive point; and he criticizes his British opponents for failing to take proper account of these things. His comment on the 201st Guards Brigade at Knightsbridge is typical: "This brigade was almost a living embodiment of the virtues and faults of the British soldier—tremendous courage and tenacity combined with a rigid lack of mobility." Faithful, they say, are the wounds of a friend. The censures of a skilful enemy are sometimes useful too.

In some respects Rommel was a thoroughly typical German, and not least in his politics. There were some German General Staff officers who opposed Hitler before 1939—not, in most cases, for moral reasons, but because they feared he was going to start a war which Germany could not win. There were other Germans who opposed Hitler from higher motives. Rommel was in neither category. (Incidentally, he never belonged to the General Staff Corps.) He was one of the uncounted millions who supported Hitler as long as he was winning. He wrote to his wife in June 1940, "The Fuehrer's visit was wonderful. . . His whole face was radiant and I had to accompany him afterwards. I was the only divisional commander who did." But disillusionment came in time. It came, in fact, suddenly, in the last stages of the Battle of El Alamein. At the moment when Rommel's battle sense told him that he must retreat in order to save what was left of his army from destruction, Hitler, far away in Europe, sent him a signal forbidding him to yield an inch of ground. He obeyed, with the result that when he had to give way two days later his army was a remnant, which never took the offensive effectively again. His confidence in Hitler probably never recovered. This book tells us little about Rommel's share in the plotting against the Fuehrer. If there were any documents the Field Marshal was too wise to preserve them. But readers of Wheeler-Bennett's *The Nemesis of Power* (a book which, though unnecessarily hostile to Rommel, serves as a corrective to the extreme pro-Rommel interpretation of this episode) know that he was certainly involved; though apparently he was not privy to the assassination attempt of July 20, 1944.

One could write about *The Rommel Papers*, and quote it, at indefinite length. But those who are interested in the mind of a great captain, in the military operations of the Second World War, or in the problem of modern Germany, should read it for themselves. They will find it rewarding.

THE ARMY CAME TO SALISBURY PLAIN

CLIFFORD S. DEALL IN "THE FORCES MAGAZINE"
(UNITED KINGDOM)

For hundreds of years, Salisbury Plain has been used for various purposes—even connected with old witch-hunts of the past, and only a hundred years ago it was the happy hunting ground of nature in the raw. Possibly the only sound on a summer day would be the lark high up in the blue, and the bark of the shepherd's dog as he rounded up wayward sheep.

In those days the eye could still trace a Roman road, winding over Beacon Hill away into the haze. It was a place noted for coursing; greyhounds which followed the hares were of the fleetest breed. The villagers on the Plain knew little of soldiers until sham battles were fought around Shaftesbury and Wylye, and were followed by the battle of the Avon in 1872.

Then, in the year 1895, the Aldershot Command made it a summer training ground for its troops. That was the start.

To-day, this plain is famous the world over. Men from every quarter of the Commonwealth trained as soldiers there.

When the South African war started troops trained under canvas at Bulford, the Artillery at Larkhill. At the appropriate time they were ordered to South Africa. Tents were loaded in farm wagons and conveyed to Porton Railway Station.

While the Boer War continued, the building of Bulford Barracks started, and a light railway constructed to Amesbury.

Two years later, on their return, the soldiers found the place on which they had once pitched their tents a town of huts, known as "Tin Town". Five miles further north, at Tidworth, well-built brick barracks were nearing completion. Camps sprang up at Larkhill and Shipton, and slowly the rural atmosphere faded.

The outbreak of the 1914 war produced a state of turmoil in the monastic village of Amesbury. The 2nd Army Corps left for France. Canadian troops disembarked at Plymouth and were posted to the Plain. They were rough riders, tough as nails, and they trained with Kitchener's Army. When fit and ready for action, they left the Plain silently overnight to take their place by the side of their British comrades in France.

But Salisbury Plain was not des-

THE ARMY AS A PROFESSION

CONDENSED FROM AN EDITORIAL IN "THE CANADIAN GUNNER", CAMP SHILO, MANITOBA

Some years ago there may have been some little justification for the popular idea that a young man who could not find a place in the economic structure of civilian life could always join the Army. The reverse is true today. To be accepted as a member of the modern Canadian Armed Forces, the would-be recruit must have education, latent ability, character and a clearly discernible aptitude for the branch of the Service to which he seeks admission. He must of necessity realize he is not merely seeking a job: he is seeking admission to an honourable profession of which

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The Army Came to Salisbury Plain

(*Continued from preceding page*)

tined to settle down to any quiet régime, for following in their tracks came men from the Dominions. New buildings popped up—School of Artillery, Larkhill; Balloon School at Rollestone and a machine-gun school at Netheravon. There was a flying school at Upavon, aerodromes at Andover and Old Sarum and Boscombe Down. The tanks took up quarters at Perham Down.

So this once wide open space now echoed with the sound of marching feet, young voices with many accents and the hum of machines of war.

In this same year, the late King George with Queen Mary, attended by Lord Kitchener and Lord Roberts, inspected a Canadian contingent at the Bustard; and in 1915 His Majesty proceeded, with Lord Kitchener, to Hamilton Camp, where he inspected them before they embarked for France.

In 1916 the King, mounted, reviewed an Australian contingent at Bulford.

There were, of course, early battles on the Plain. In 1645, during the Civil War, General Sir Thomas Fairfax halted his force of Ironsides at Stonehenge for one night after fighting an engagement with the Royalists near Netheravon.

To-day, the garrisons on the Plain are little towns, with churches, hospitals, cinemas and shopping centres. Bulford has adopted the name of Bond Street.

The military have come to stay and are growing more mechanized, more skillful and more watchful every year. The monoliths of Stonehenge do not stand more firm than the defenders of Great Britain.

he may be justly proud and which demands of him the utmost in loyalty, character and the will to achieve.

Many of the officers and men in the Army of today are the sons and grandsons of Canadian soldiers. These men are at last seeing the realization of the hopes and dreams of their forbears and for them, as it must be for the newcomers, only the best is good enough.

To return to the Army as a profession. It is not only a profession but a mother of professions. In its ranks are to be found outstanding doctors, lawyers, dentists, architects, engineers—members of all the professions gathered under the sheltering wings of the oldest of them all. These men have at their command the very latest scientific knowledge, allied to the most up-to-date means of applying it. Their studies, in their various fields, are encouraged and the practical application of their findings made easy through channels which would otherwise be closed to them.

Tradesmen, too, are kept up-to-date on methods and materials in their ever-changing fields of endeavour, whether they brought their trades to the Army or learned them therein.

The Private Soldier, too, is a specialist in whatever branch he may serve. He must be completely familiar with the many and complicated mechanisms which constitute the arms of today: with maps and map-reading; with all manner of terrain and its possibilities from an offensive and defensive viewpoint; with complicated signals and their meanings, with radio and radar and the hundred-and-one details that make him an invaluable cog in the all-important Defence mechanism.

The professional soldier of today, whatever his rank, may rest assured that nowhere in this great country of ours is there a profession comparable with his in terms of honour, distinction, importance and financial security.

Disconcerting Thought

The following is the hand-written comment by a senior officer on an old military file: "This report is useless. The only thing to remember of it is the identity of the officer who wrote it!"—*Contributed by Capt. G. T. J. Barrett, Royal Canadian Army Medical Corps.*

THAT BILLIARD BALL PROBLEM

To satisfy the curiosity of many readers who have requested an explanation, the *Journal* publishes herewith the solution to the billiard ball problem which appeared in the July 1954 issue under the title "Twelve Billiard Balls". It was contributed by Lieut.-Colonel J. A. Stairs, MBE, CD, who collaborated with Mr. H. M. Hands of the *Journal's* staff in writing the solution. The problem reads:

"Twelve billiard balls look identical in size, but it is known that one of them is slightly off weight. A set of scales is provided and the problem is to find which ball is off weight, and whether it is *heavier* or *lighter* than the other eleven. The trick is to do it in three weighings."

The solution follows. (Note: The numbers represent the billiard balls, the letter "N" indicating any ball known to be of normal weight, and the lines under the balls representing the weighing pans of a set of scales. If, in paragraph (e) below, the group on the right is light, the words "light" and "heavy" must be interchanged in paragraphs (e), (f), (g) and (h)).

Assume that the balls are numbered 1 to 12. Weigh as follows:

1 2 3 4 — 5 6 7 8

(a) If, as shown, the two groups balance, then the odd ball must be 9, 10, 11, or 12. Now weigh

9 10 11 — N N N

(b) The groups are even, so the odd ball must be 12. Weigh with a normal ball to determine whether 12 is light or heavy.

9 10 11

N N N

(c) 9, 10, or 11 is light. Weigh 9 and 10 to determine which. If even, 11, of course, must be light.

N N N

9 10 11

(d) 9, 10 or 11 is heavy. Proceed as in (c) above.

* * *

Now back to the first move:

1 2 3 4

5 6 7 8

(e) A light ball is on the left, or a heavy ball is on the right.

1 5 6 7 — 8 N N N

(f) 2, 3, or 4 is light. Proceed as in (c) above.

1 5 6 7

8 N N N

(g) 8 is heavy or 1 is light. Weigh either with a normal ball.

8 N N N

1 5 6 7

(h) 5, 6, or 7 must be heavy. Proceed as in (c) above.

THE ROYAL CANADIAN ARMY SERVICE CORPS

Mile 45 on the Alaska Highway.

TRANSPORTATION PROBLEMS ON THE NORTH-WEST HIGHWAY SYSTEM

Written Specially for the Journal by Headquarters, Royal Canadian Army Service Corps, Western Command, Edmonton, Alberta

At no other station in Canada is such a challenge presented to a Company of the Royal Canadian Army Service Corps as that faced by 19 Company RCASC in providing an efficient transport service on the North-West Highway System. The operation of a transport service over the 1600 miles of gravel surfaced roads which comprise the North-West Highway System calls for very careful planning on the part of Company officers, and the ultimate in driving skill and vehicle maintenance on the part of drivers.

Before expounding some of the problems encountered during normal operations, it is felt some statistics on the Alaska Highway are relevant. The overall length of the Alaska Highway in Canada is 1221.4 miles and it is gravel surfaced, varying in width from 24′ to 45′. The lowest point is at the Muskwa River Mile 296.6, elevation approximately 1000 ft. The highest point is less than 100 miles distant at Mile 392, elevation approximately 4250 ft. The longest

gradient occurs between Mile 335 and Mile 356, the elevation above sea level being approximately 2300 feet higher at Mile 356 than at Mile 335. The steepest gradient encountered is approximately 1 over 10. There are 129 bridges over 20 ft. long, ranging from bridges of simple wooden construction to a majestic suspension bridge over the Peace River and a 1600-foot steel and concrete bridge built by the Royal Canadian Engineers over the Donjek River at Mile 1130. Communications between military installations is by land line, leased by the Canadian Army from the Canadian National Telegraphs. With over 50 'phones on the one line this is probably the "tops" in party lines. As for weather, temperatures ranging from plus 80° Fahrenheit to minus 50° Fahrenheit are frequently encountered.

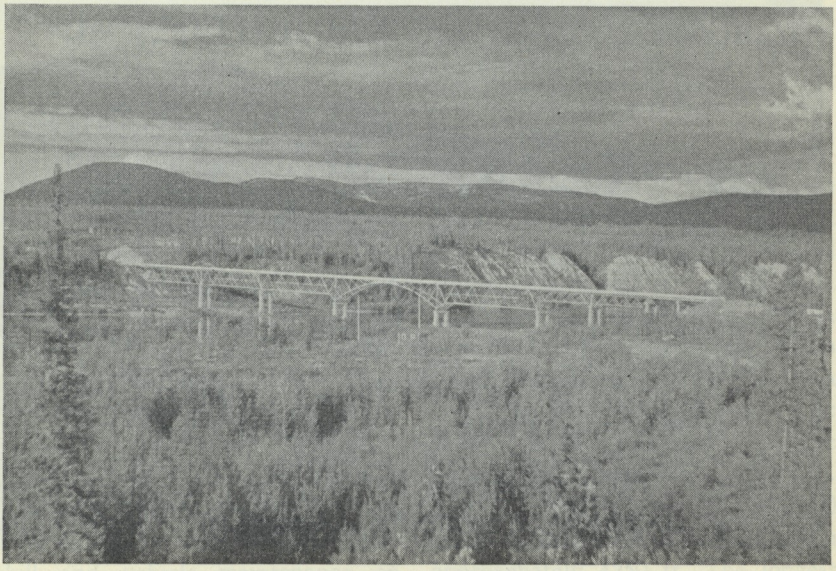
Probably the greatest single problem faced by 19 Company RCASC in the operation of a transport service is the selection and training of drivers. On arrival at 19 Company drivers are, with a few exceptions, qualified to drive vehicles up to three tons only. To assign one of these men to a diesel engined 10-tonner or a 40-passenger bus, and then to despatch him on a detail of a thousand miles over one of the most tortuous roads to be found in Canada, would be sheer suicide. Obviously then, the answer is a driver-training programme.

Otter Lake as seen from the Aishihik Road.

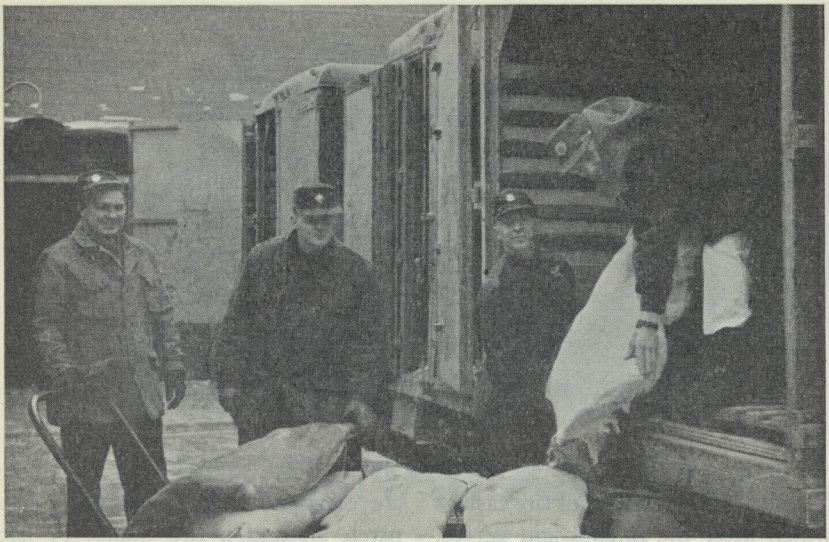
When a driver arrives at 19 Company RCASC, his documents are perused and he is interviewed by both the Commanding Officer and the Officer in charge of the MT Section. He is given a driving test on each type of vehicle operated by 19 Company to ascertain the level of his driving skill and his aptitude to drive the heavier type vehicles. With this knowledge of his apparent capabilities, he is assigned as co-driver to a driver operating the type of vehicle which, it is hoped, he will become capable of driving and maintaining. Generally, after six weeks of in-job training he is ready to proceed on a detail unaccompanied by an experienced driver.

An extremely high standard of initiative on the part of the individual driver is required at all times. The driver of a ration vehicle who discovers that the vehicle's heating unit in winter, or the refrigeration unit in summer, is not functioning, must be capable of either effecting the necessary repairs or arranging for the protection of his load at a road camp if the rations are not to be spoiled. Spoilage of rations means more than just the loss of the foodstuffs—it can also mean despatching a vehicle on a detail of approximately a thousand miles, and a hardship to the consumer who must eat reserve rations until the replacement rations arrive.

During the winter months,



The bridge over the Teslin River at Mile 740.



Loading rations at the RCASC Supply Depot, Whitehorse.

December to March, ration vehicles proceeding to RCAF Stations at Smith River and Aishihik are provided with a second driver. This precaution is necessary for reasons of safety. These stations are located 79 and 84 miles off the main highway, on access roads which carry very little traffic. Even a minor accident at minus 40° could easily prove fatal if help were not immediately available.

To assist drivers in obtaining aid, vehicles proceeding outside the Whitehorse area, particularly the ration vehicles, are provided with an emergency telephone. In the event of a breakdown, the driver simply connects his telephone to the telephone line which parallels the road and calls the nearest Highway Maintenance Camp.

The importance of maintaining the highest possible standard of vehicle maintenance cannot be overemphasized. Vehicles proceeding on a routine detail must be capable of travelling distances in excess of a thousand miles over gravel surfaced roads between visits to the Unit Repair and Maintenance Section. To ensure that vehicles are roadworthy, drivers are, whenever possible, given three or four days between trips to perform "driver maintenance" and to have the Repair and Maintenance Section carry out all necessary repairs and adjustments.

Probably one of the things that will always be remembered by anyone who has travelled the Alaska

Refrigerated ration vehicles ready for the ration delivery detail.

Highway is the number of tire casings which litter the ditches and verges. If one stopped to examine these tires they would discover that their useful life had been cut short by a blowout. These blowouts result from the tire striking the edges of potholes and large stones protruding through the surface of the road. All light vehicles of 19 Company RCASC are equipped with six wheel and tire assemblies, which suffice to ensure the successful completion of the trip. However, it is not uncommon for a vehicle to blow five or six tires on a single detail. The all-time record is held by a driver of a civilian tractor and semi-trailer combination. It is reported that this driver, on a return trip from Dawson Creek to Whitehorse, suffered 38 flat tires!

Drivers are required to repair, on the road, flat tires resulting from punctures. To this end all vehicles are equipped with tire irons, a hot patch kit and a tire pump. A flat tire on a staff car, while it may be inconvenient, cannot be compared with the problem faced by the driver of a 10-tonner who is unfortunate enough to blow a tire. Wheel and tire assemblies on these trucks weigh in excess of 300 lbs. and changing one during summer, when mosquitoes seem to be as large as bulldogs and are accompanied by black flies, make life miserable; and in winter at minus 40° Fahrenheit, it is not a job for a weakling.

From the foregoing it may appear that the delivery of rations and stores on the North-West Highway System is at best a haphazard affair. This is not the case as 19 Company RCASC has always delivered the goods at the time and place specified. However, never has the Corps motto "Nil Sine Labore" been more aptly applied.

THE ROYAL CANADIAN ARMY MEDICAL CORPS

A Brief History

BRITISH-CANADIAN MILITARY MEDICAL SERVICES

By

Captain W. G. Clever, CD, Royal Canadian Army Medical Corps.
Army Headquarters, Ottawa

Part II

The Royal Canadian Army Medical Corps

Part I of this article explained how a medical service was developed in the British Army during repeated large-scale active operations; Part II tells of militia development in Canada. Active operations in Canada were carried out largely by French and British troops; and not until the withdrawal of Imperial forces from about 1870 on, when Canada of necessity began to form its own defences, was there a need for a Canadian military medical services.—Author.

* * *

Before Confederation

Early Canada was without a civilian medical service other than that provided by the regimental surgeons of British units. The country was too poor and sparsely populated to support medical training schools, or to attract doctors from other countries. However, when their units were recalled to the United Kingdom, many British regimental surgeons settled in Canada: others had come north in 1783 with the loyalist fugitives from the United States. These men founded a civilian medical service, and as the British regular army withdrew and Canada's population increased, medical schools and hospitals were established. A base was thus formed for a military medical service. Initially this was a regimental service, each militia unit having its surgeon-major chosen from the local doctors and still considered a personal attendant of the colonel of the regiment. There was no Army Medical Service and consequently no preliminary medical training was given to the regimental medical officers.

Later, as the British withdrew, Canadian regular garrisons were established at strategic points, such as Quebec, Kingston and Winnipeg. The need then arose for medical attention, but again it was met by the

appointment of local doctors as part-time medical officers to these garrisons. At the time of the Fenian raids additional civilian doctors voluntarily made up any deficiency. Dr. Brewster, of Ridgeway, Ontario, for example, who had served as a medical officer in the American Civil War, treated men of both sides during local fighting near his home in 1866.

The need for medical organization and supervision became evident during the Fenian Raids, but little was done. In 1866, Dr. G. P. Girdwood[1] was appointed Medical Staff Officer at Ottawa, a part-time position. During the same summer militia field brigades were authorized in Canada, each with a surgeon on the staff and a medical officer to every 400 men in the brigade. Panniers were authorized for the staff surgeon and equipment for one field hospital per battalion with the rider added that the field hospital equipment was not to be used if buildings were available. Such medical regulations as were required were published from time to time in General Orders.

Red River Expedition

In 1870 a combined force of British regulars and Canadian militia under Colonel Wolseley[2] was sent to put down a rebellion led by Louis Riel. Surgeon Major Young[3] was appointed Principal Medical Officer, and given six assistant surgeons, including J. H. L. Neilson, later to become the first Canadian Medical Director General. Although the force moved 600 miles and made 47 portages in some seven weeks, and endured some 45 days of rain, Colonel Wolseley was able to report, "Never had any body of men on active service been more cheerful nor more healthy."

North-West Rebellion, 1885

This campaign was the first independent experience of active service for the Canadian militia. No army medical service existed. Limited medical direction from Ottawa was given in General Orders to military districts, concerning such matters as regulations for military hospitals and instructions for the medical care of troops under field conditions. Only the regimental medical service was in being, and a medical service for the field force already being organized, was urgently required.

In April 1885 Lieut.-Colonel D. Bergin[4] was appointed Surgeon-

[1] *Gilbert P. Girdwood, former assistant surgeon of the Grenadier Guards, appointed Medical Staff Officer in Ottawa 31 August 1866.*

[2] *Sir Garnet Wolseley, British Army.*

[3] *Surgeon Major Young was medical officer of the 1st Battalion 60th Rifles.*

[4] *Lieut.-Colonel D. Bergin, MD, MP for Cornwall, Commanding Officer of the Stormont and Glengarry Battalion. Bergin served as a Major in the Fenian Raid. He had practised since 1847 and held the highest medical appointments in Ontario.*

General to organize a medical service, with T. G. Roddick[5] as Deputy Surgeon-General. Roddick left within a week for Qu'Appelle in the north-west to establish hospitals in localities as instructed by General Middleton (General Officer Commanding Canadian Militia), who was already in the field.

Meanwhile two field hospitals had been organized, one under Surgeon-Major C. M. Douglas, VC,[6] and a second under Surgeon-Major H. R. Casgrain. A Purveyor-General was also appointed with complete charge of medical equipment and supplies.

The factors in Colonel Bergin's medical appreciation were difficult to resolve:

1. A hastily assembled field force of 5,000 of which the General in charge and part of the troops had already left for the front, operating in separate columns in unfamiliar country.

2. Most of the required field medical equipment did not even exist and had to be ordered from New York.

3. Transport was lacking, especially for the medical service.

4. The scene of action was in what is now Saskatchewan, the base in Ottawa, and communications were meagre.

5. Discipline was lacking among the regimental medical officers. Some went on active service with scarcely any medical equipment while on the other hand one spent $500 on his stores, enough for the needs of several units.

6. There were no trained medical other ranks.

7. The spring weather in Western Canada was bitter. The journey to the unit was in open cars and included long marches over wild country between the completed sections of the railway.

Despite such problems Colonel Bergin, within seven days of taking over, had the first field hospital on its way to Winnipeg, and the second soon after, followed by reserve supplies. Other ranks he obtained by requesting volunteers and nearly every medical student in Canada responded. The improvized medical service was able to cope with the demands made upon it, but its task was made easier by the light incidence of disease and the low casualty rate. Casualties totalled 129.

As the Canadian railway was incomplete, the field hospitals were sent to Swift Current via Chicago, Minneapolis and Winnipeg. Arrange-

[5] *A Montreal surgeon, later Sir Thomas G. Roddick.*

[6] *Douglas won his VC with the British Army in the Andaman Islands in 1867. In 1885 he took a medical detachment to Calgary and then paddled 200 miles alone down the South Saskatchewan River to get to the scene of action. He was appointed Director of the Ambulance Corps for the campaign.*

ments were made for Winnipeg General Hospital to act as a base hospital. Other hospitals were established, including those at Swift Current, Battleford and Moose Jaw, and the field hospitals set up at Calgary and Saskatoon; but all serious casualties were evacuated to Winnipeg after the fighting ended.

The problem of casualty evacuation with inadequate medical transport affected campaign strategy. At Fish Creek, when a steamer failed to arrive to pick up the wounded, General Middleton reported to the Minister of Militia that "The sick are a regular anchor." Only after his brigade surgeon, Orton, had improvized "stretchers of canvas and fresh cowhide to sling to the sides of the waggon boxes, protected by canvas awnings supported by bent willows", and so cleared his casualties to Saskatoon was the General able to proceed with his plan.

Other noteworthy features of the campaign include:

1. Casualties were evacuated by the steamer Northcote from Batoche to Saskatoon, by cart 50 miles to Moose Jaw, and by barge 1100 miles to Winnipeg.

2. Medical supplies and treatment were given to wounded half-breeds.

3. Some of the first Canadian military comments on equipment and supplies for warfare were put forward by Brigade-Surgeon Orton, who reported on such practical matters as the type of clothing, footwear and rations needed in Canada, and the need for a water bottle to be carried by each man.

4. On General Middleton's decision, based on a knowledge of their value in the Crimea, nurses took part in the campaign. Under Mother Hannah[7] and Miss Miller,[8] they assisted in the hospitals at Moose Jaw and Saskatoon.

5. A Red Cross Corps of unpaid graduates in medicine and surgery gave useful service[9].

In his report of the campaign, Colonel Bergin pointed out that surgeons recruited in an emergency without previous military training had been found inefficient, lacking in discipline and difficult to control. His recommendations included the formation of a military medical service, a university military cadet corps as a source for surgeons, collective training for medical services and the issue of field medical equipment to

[7] *Mother Hannah, of the newly-established Order of St John the Divine, Church of England, was from Toronto.*

[8] *Miss Miller was head nurse of Winnipeg General Hospital.*

[9] *The Red Cross stems from the efforts of a Swiss, Henri Dunant, who in Italy in 1859 spent several days caring for men who, because of the inadequate medical facilities of the armies of the day, had been left unattended on the battlefield of Solferino. His writings led to the Geneva Convention of 1864 and the international adoption of the Red Cross flag as protection for medical services. The Canadian Red Cross Society was organized in 1896.*

each military district. Few of his recommendations were heeded in the inevitable relapse of military activity at the conclusion of the campaign.

1885 to 1904.

The part-time regimental medical service remained after the brief campaign. Central directions from Ottawa continued and covered such matters as claims on medical grounds; complete details of field medical equipment, published in 1894; and physical standards for recruits, published in 1897.

In 1896 Sir Frederick Borden, a former medical officer, became Minister of Militia and Defence. Shortly thereafter, in February 1898, Surgeon-Major J. H. L. Neilson[10] was appointed Director General of Medical Staff, an appointment he held until 1903. A railed-off section at one end of a corridor was his first office and stores depot and contained his complete reserve medical stores. This step was followed in June 1899 by the creation of a Canadian Militia Army Medical Service (AMS).

From July 1899 on, a Principal Medical Officer, a part-time position, was appointed in each military district. During annual camps he was responsible for medical arrangements, using the district medical equipment to form a field hospital. He was also responsible for training and had to guide him the "Manual for the Medical Staff Corps" as well as the "Regulation for the Army Medical Services, 1897".

During 1899 consideration was given to a reorganization of the Canadian Militia on an army basis with a due proportion of administrative elements. The regimental medical component, planned in January 1899, consisted of a stretcher bearer section at battalion level, under command of the regimental surgeon, with a corporal medical orderly attached. In General Order 62 of 1 June 1899 regulations for the Canadian Militia Army Medical Services included a field organization on a basis of one bearer company to each brigade, three field hospitals per division, and a proportional allotment to cavalry and independent brigades. Base hospitals in Canada were to be formed on civilian hospitals. Where distance prohibited this the Director General was to organize temporary base hospitals.

A Canadian bearer company included 3 medical officers, 61 men and

[10] *Colonel J. H. L. Neilson was a bilingual Canadian educated at Laval. His service included: Surgeon of the Quebec Provisional Brigade of Garrison Artillery, 1869; Assistant Surgeon of "B" Battery School of Gunnery; Surgeon-Major with the Red River Expedition of 1870; service in the Fenian Raid of 1870; Red Cross surgeon in the Russo-Turkish War of 1878; surgeon to the Canadian "Voyageurs" in the Sudan Expedition under Sir Garnet Wolseley in 1884-85; two years' attachment to the British Army. He had made studies of the medical services of the United States and of various European countries.*

10 ambulance wagons. A field hospital of 100 beds included 4 medical officers, a quartermaster and 40 men. Transport was to be provided by contract.

The proposed Canadian Militia Army Medical Services were to consist of:

1. *Militia Army Medical Staff Service*, comprised of:

(a) Militia Army Medical Staff—all officers, including a proportion of regular Principal Medical Officers to exercise command and medical supervision in districts.

(b) Militia Army Medical Staff Corps—all other ranks.

2. *Regimental Medical Services*—comprised of the regimental surgeons. The regimental medical service was the only element in existence. To put the new system into effect, volunteers from the regimental surgeons were to be given combatant rank and appointed to the Army Medical Staff. As the vacancies in the regimental medical services were not to be filled, consideration must have been given at this time to a unified corps similar to the RAMC formed in the British Army the year before.

Briefly, the proposal at this time was that, with the exception of a small regular officer staff, medical duties for both militia and regular units were to be carried out by part-time personnel. To ensure that some of the militia officers would gain a practical knowledge, a proportion of them were to rotate through the duties of the few regular Principal Medical Officers in military districts.

Training was planned on the basis of twelve days a year. The bearer companies, known as city units, were to train for nine days at local headquarters and three days at camp. The field hospitals, rural units, were to train at camp for twelve days and at the same time function as camp hospitals, rather incompatible roles. Individuals were to attend Canadian Militia Army Medical Training Schools run by the District Officers Commanding military districts on advice from the regular Principal Medical Officers. At the summer camp, in 1900, courses of instruction were arranged for qualification up to the rank of major or surgeon-major.

Dress at this time for the Army Medical Staff and Staff Corps was the same as for the RAMC except for a distinctive Canadian collar badge—a silver maple leaf with a red Geneva Cross in the centre. The surgeons of the Regimental Medical Services wore the uniform of their units, but with the headdress and belt of the Army Medical Staff.

During the winter of 1899-1900 Colonel Neilson visited most of the major centres to explain the new organization and call for volunteers.

The system was beginning to operate and one bearer company had been formed in Halifax in 1898 when the South African War began. The Canadian contribution of 8300 to this campaign included seven regimental medical officers, No. 10 Canadian Field Hospital Company Army Medical Corps, and 16 nursing sisters. The field hospital was staffed largely from the Halifax Bearer Company which was formed from the medical orderlies supplied by Canada for the British Halifax garrison by agreement with the Imperial authorities. This was the only body of trained orderlies in the Dominion. The Nursing Sisters were not in the AMS, but were paid and ranked as lieutenants.

The regimental surgeons in South Africa saw a great deal of action, as did the nursing sisters. The field hospital, although it did not go overseas until January 1902, some six months before the end of the war, nevertheless saw considerable action. One section, under Major G. C. Jones, later DGMS in Canada, joined the mobile column of General Kitchener's force. The headquarters during one 83-day period handled some 1000 casualties. Among the regimental surgeons was Captain E. Fiset, later to become DGMS in Canada.

The equipment of the field hospital compared favourably with that of the regular British field hospitals. It included the Hubert tent, named for Colonel Hubert Nielson who designed it; a wagon lighter in weight than the British model (although in 1914 the Canadian light wagon proved unsatisfactory and had to be replaced by the British model), and a mobile acetylene gas plant which produced a light for the field hospital so effective the Canadian unit became by night a beacon to guide troops.

The Formation of a Corps

As a result of the lesson of the South African War, and of the brief experience before it, General Order 98 of 2 July 1904 announced a reorganization of the medical services, which in future were to consist of:

1. *The Army Medical Department.* Under the DGMS the Department included:

(a) *The Medical Staff.* This consisted of twelve regular Principal Medical Officers, one for each military district. Its function was the administration of the service throughout Canada.

(b) *The Army Medical Corps* (AMC). This was divided into a Permanent Active Militia Army Medical Corps for professional duties, and a Non-Permanent Active Militia Army Medical Corps, organized in field units. It included medical officers and other ranks, dental surgeons and

nursing sisters.

2. *The Regimental Medical Services.* Officers were given combatant rank, with command limited to stretcher bearers and patients. Compound titles gradually disappeared from the Canadian Medical Service as the officers holding them retired. The last regulation concerning these appointments was issued in 1923.

Canada now had a regular Army Medical Corps. Dental surgeons and nursing sisters were included in the medical services. Dental officers still had compound titles with relative rank. Sisters were given relative rank but were to be termed "Nursing Sisters" and had no military command or authority. Miss Pope[11], the first nursing sister in the AMC, became in 1908 the first matron.

In 1906 the Medical Staff was absorbed in the AMC, leaving only the Regimental Medical Service still outside the corps. Then, on 1 May 1909, instructions were issued that all future appointments would be to the Canadian Army Medical Corps (CAMC). No more regimental medical officers were to be appointed. Thus the Regimental Medical Service, which dated through the British Army back to the Civil War in England in 1643, disappeared in Canada.

Two general hospitals were authorized for the militia in 1910 to service camps at Niagara and Aldershot. This freed the field ambulance for training. In 1913 these hospitals were converted into clearing hospitals on British lines.

Meanwhile in 1906 the British field ambulance organization was adopted in the Canadian Militia. This was a combination of the former bearer company and field hospital in one unit to ensure mobility and to place both the collecting and the temporary treatment organizations under one command. The old bearer company remained as the basis of the new unit, but only the tent and transport sections of the field hospital, less the iron cots and heavy marquees which had restricted mobility, were included.

In effecting the change in the Canadian Militia, Colonel Fiset, the DGMS, instead of amalgamating bearer companies and field hospitals, enlarged both types into complete field ambulances. Colonel Fiset also introduced modern military field sanitation, the need for which had been so tragically demonstrated by disease casualty figures in South Africa. Non-medical units in camp were at this time as indifferent to sanitation as the troops had been in the Crimea, where it was noted that if "a horse happened to die in the lines, it might lie there and pollute all its sur-

[11] *Miss G. Pope, RRC, had seen service in the South African War. She held the appointment of matron until 1914.*

roundings, it being nobody's business to remove it." Officers attempted to condition the nose and stomach rather than to adopt sanitary methods. A series of epidemics eventually forced improvement.

Lieut.-Colonel Jones[12], who succeeded Colonel Fiset as DGMS in 1906 when the latter became Deputy Minister of Militia and Defence, was able to secure the co-operation of all military authorities in an army hygiene campaign. In 1907 instructions were issued that commanding officers instead of quartermasters would in future be responsible for unit sanitation, which ensured that medical officers would be consulted on the subject. Courses in military medicine and sanitation were conducted by the Principal Medical Officer in each district for all regular and militia medical officers.

Sanitation in summer camps showed rapid improvement. In the annual camp of the Nova Scotia District in 1907, for instance, the commandant showed all officers a model installation of a battalion sanitary lay-out. Within three days the plans were physically established throughout the camp. The difference in the health and comfort of the troops here from those at the artillery camp in Petawawa a few months earlier was marked. A typhoid fever epidemic at Petawawa was the price for administrative neglect. Perhaps the main advance in the Canadian militia from 1908 to 1914 was the realization throughout the army of the importance of preventive medicine.

Winter schools were conducted on the instructions of the DGMS in the years before the war, including the winter course in Ottawa on the medical history of campaigns, and laboratory training in sanitation and bacteriology. By permitting details to be studied in the winter these schools left the summer periods free for practical training.

This DGMS also initiated the "Association of Medical Officers of Militia" with the result that in 1911, instead of medical units attending district camps, a combined AMC camp was held at London, Ontario, for 16 days' training which included exercises to casualty clearing station level. The camp also gave an opportunity to review and improve field medical organization, unit establishment, equipment, transport and medical stores and supplies. These combined camps were repeated later.

The Manual of Establishment and Equipment of the Army Medical Corps of Canada, for both peace and war, was produced at this time, the first official publications for the

[12] *Lieut.-Colonel Guy Carleton Jones later became Lieutenant Governor of Nova Scotia. He had been second in command of 10 Canadian Field Ambulance during the South African War and was later Director General of Medical Services of the Canadian Expeditionary Force in France.*

Canadian Militia to use the word "war". Much of the present medical administrative procedure, eg., reports on injuries, dates from this time.

During these years, under the leadership of Sir Alfred Keogh, the British Director General Army Medical Services, a unity of method was developed among the medical services of the Commonwealth. When war broke out, the medical services of the Commonwealth were consequently organized, trained and equipped to work in co-ordination.

During the annual meeting of the Association of Officers of the Medical Services in 1914 a scheme was set afoot for the development from civilian sources of voluntary aid to the militia medical services. The courses then begun by the St John Ambulance Association and the Red Cross Society produced a trained medical reserve in Canada.

As a result of these improvements in organization, equipment and training the medical services were well prepared for active service. In 1914 all the medical units in Eastern Canada were in Camp at London and Farnham. Six of these units trained for 16 days under active service conditions, working out in detail the medical services to divisional level. In the same year Sir Ian Hamilton[13] reported: "In Canada, as elsewhere, the medical corps keeps well ahead of every other branch of the services in the completeness of its preparation for war . . . "

The militia organization at this time, in addition to the regimental medical establishments of militia units and a regular AMC of 20 officers, 5 nursing sisters and 102 men, included the following militia units:

6 cavalry field ambulances
15 field ambulances
2 clearing hospitals

First World War

The Canadian medical services were initially handicapped by the policy of the authorities, which caused more than 33,000 troops to concentrate in ill-prepared accommodation in Valcartier with little in the way of sanitary or hospital facilities. There were further trials for the medical services with the first contingent on Salisbury Plains in England, where rain, cold, mud and scarcity of supplies and equipment prevailed. The CAMC overcame these difficulties and the first contingent was able to take its place on the battlefields of France in the spring of 1915. By 1 June 1918 the CAMC overseas had a strength of 15,519, organized in 68 units, to serve the force of some 425,000.

During the war controversy arose over control of the medical services.

[13] *General Sir I. S. M. Hamilton, GCB, DSO, Inspector General Overseas Forces, British War Office.*

In England criticism was directed at the policy of treating Canadians in British Hospitals and of Canadian medical units serving other troops. Investigation justified this procedure. At home there was criticism of the policy of a civilian organization handling returning casualties. The Adjutant General was eventually given control. After the war, to avoid the maintenance of large permanent military medical services, hospitals for veterans were handed over to civilian control.

In France the need for sanitary training was soon evident, and sanitary squads were eventually formed and trained at the British School of Hygiene in France. The need for field mobility for medical units was met by the extensive use of motor transport and of railway and trams. Eventually, under optimum conditions, casualties were evacuated from the field to hospitals in the United Kingdom within 48 hours. Although Canadian equipment was taken overseas, much of it, because of poor manufacturing at home, had to be replaced from British stocks. The British eventually supplied most of the equipment in France.

The Canadian medical services overseas came under the British DGAMS, and the nursing services under the British Matron-in-Chief. The Commonwealth medical planning of pre-war years made such unity of control effective and enabled the DGAMS to use Canadian medical units to meet commitments in other theatres. Four Canadian stationary hospitals went to the Mediterranean to assist in evacuating casualties from Gallipoli: two at Mudros, one in Salonika in Greece, and one in Cairo, Egypt. Four units accompanied the forces sent to Vladivostock in Northern Russia in 1918.

At home the strength of the Corps reached some 5500. Sixty-five hospitals with a bed capacity of some 12,000 were in operation.

Despite 1,325 casualties in the CAMC it was able to cope with such complex tasks as the 540,500 cases requiring hospital treatment; the 5,500 Canadian casualties in the first gas attack in April 1915; the 134,000 wounded in 1 Canadian Corps between 3 September and 16 October 1916 during the Battle of the Somme, and innumerable other heavy if unspectacular demands of the war. The VC was awarded to two CAMC officers, Captain F. A. C. Scrimger [14] and Captain B. S. Hutcheson [15]. There were 325 other honours awarded in the CAMC.

Inter-War Years, 1919-1939

The inevitable measures of economy curtailed the post-war army

[14] *14th Battalion, in the Second Battle of Ypres.*

[15] *75th Battalion, at the Drocourt-Queant Line.*

and restricted its development. The CAMC reverted to its pre-war regular size. In the militia, although steps were taken to keep in being all the types of medical units found necessary during the war, interest waned; and there was a gradual decrease in the numbers trained each year.

Significant events of the period include:

1. On 3 Nov. 1919 the regular CAMC was granted the title "Royal" by His Majesty, King George V, and became the RCAMC. The militia was granted the title on 29 April 1936 and then was designated as the RCAMC non-permanent, RCAMC(NP).

2. 1921—The RCAMC had 105 all ranks, organized in detachments. With negligible increase in strength it was given the following additional responsibilities:

(a) In 1922 the medical administration of the Royal Canadian Navy and the Royal Canadian Air Force.

(b) In 1927 the medical examination of all pilot candidates, including civilian.

(c) In 1932 the medical supervision of unemployment relief camps which took in some 170,000 men before they closed down in 1936.

(d) In 1933 hospital and specialist services for the Royal Canadian Mounted Police.

(e) In 1938 the administration of the Canadian Dental Corps. (This corps originated during the First World War and retained its own administration until 1938. It became a separate corps again in the Second World War).

3. In 1921 a Reserve unit was authorized for each Active (Militia) unit.

The RCAF commitment increased to the point where in 1938 Principal Medical Officers to Air Commands were appointed, under the DGMS, equal in status to District Medical Officers. In 1939 a Staff Officer Medical Services (Air) was appointed to the Medical Directorate in Ottawa.

By 1939 the RCAMC had 166 all ranks. The Directorate of Medical Services in Ottawa had a strength of seven. The remaining personnel manned the District Medical Offices and the few regular units. In 1938 a skeleton field ambulance company was organized for a brief period of collective training in Camp Borden; but as personnel were scattered in small detachments across Canada, training generally was negligible. Courses in the United Kingdom were insufficient to enable RCAMC officers to maintain effective liaison with the larger and therefore more active RAMC.

The strength and efficiency of the RCAMC (NP) had dwindled by 1931 to the point where a General Staff report that year listed 61 of the

existing 81 medical units as "moderate to poor" in organization and training for war. This was well below average. However, from 1936 on there was steady improvement. The camp training strength in 1939 included some 190 officers.

The militia organization of 1939 included:

24 field ambulances
12 field hygiene sections
6 casualty clearing stations
18 reserve general hospitals

Medical mobilization equipment, well stored since 1919, was in good condition but not of much value in the changed conditions of 1939.

In this state the RCAMC met the challenge of the Second World War.

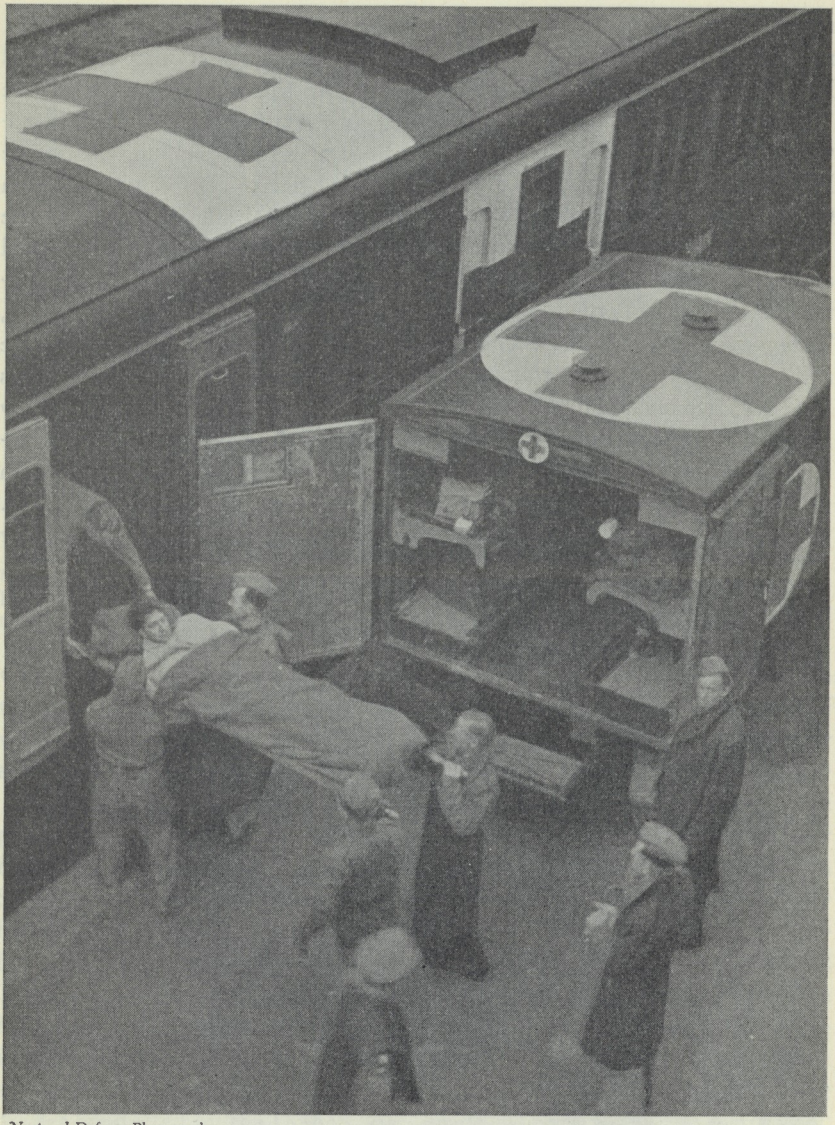
Second World War

A policy was early established that Canadian troops would receive Canadian medical services. This was a boost to morale and furthermore ensured the full development of the RCAMC in organization, equipment, personnel and operational experience under conditions of modern warfare. The hospital bed policy provided for beds for 10% of the Canadian strength in a theatre. By the end of 1944 the 24 general hospitals overseas had a bed capacity of 19,600 In Canada, from ten small pre-war hospitals, the bed capacity was expanded by 1944 to a total of 13,000.

As the Royal Canadian Navy and the Royal Canadian Air Force developed their own medical services, the RCAMC relinquished these functions, despite a difference of opinion as to the merits of a tri-service medical corps.

The strength of the RCAMC rose to 34,786 all ranks, organized in 110 units. It provided hospital treatment in the North-West European Campaign alone for some 150,000 cases. Medical services were provided for an entire field army with numerous base units in addition, and in such widely separated areas as Hong Kong, Sicily and Italy, and North-West Europe. A detachment also accompanied the Canadian troops to Spitzbergen in 1941. The corps suffered 430 battle casualties.

The lessons learned and the modifications made during the war, as dealt with in Part I of this article, also applied to the RCAMC. In 1942 in Italy the field medical organization of 1 Canadian Corps was modified by the Canadian DDMS. Field ambulances were converted to light field ambulances of a headquarters and four sections each. Field dressing stations became corps troops. The casualty clearing stations were given a slight strength increase to enable them to operate as advanced surgical centres, normally the role of a field dressing station. On joining First Canadian Army in North-West Europe the corps was ordered to



National Defence Photograph

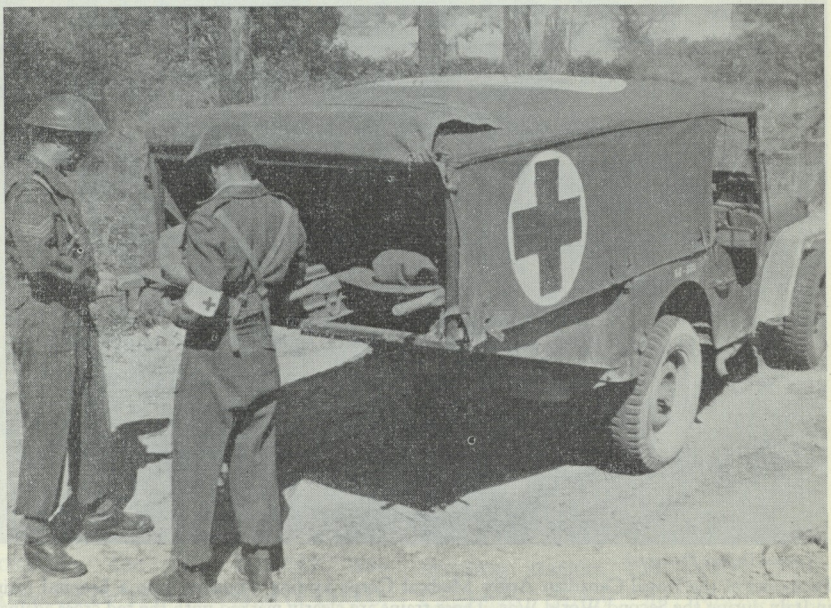
Personnel of the Royal Canadian Army Medical Corps loading wounded into a hospital train in Italy during the Second World War. These trains are clearly marked with the red cross against a white background so that the enemy cannot fail to identify them as hospital trains.

revert to the standard organization in effect in the medical services of the First Canadian Army.

During the war many Canadians were trained at British centres. However, a RCAMC Training Centre was organized in Ottawa in 1940 where it began to train officers and other ranks. The unit was later moved to Camp Borden. As A-22 Training Centre, it gave basic, corps and much of the trades training to RCAMC personnel. From this centre a stream of highly-trained officers and men moved overseas. The centre was retained in the post war army as the RCAMC School.

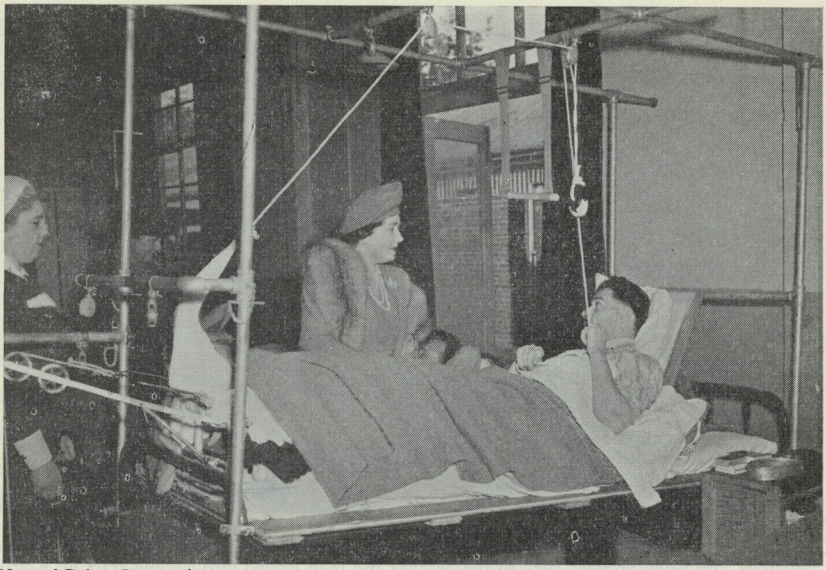
Post-War

An organization was developed sufficient to meet the needs of the Regular Army and to provide administrative and training assistance to the Militia. The pre-war function of the medical administration of the Royal Canadian Navy and the Royal Canadian Air Force, and the administration of the dental service, was not reimposed. Three separate medical services and a dental corps with a tri-service function now operate. However, tri-service committees ensure medical co-ordination and prevent duplication of effort. Other committees co-ordinate military



National Defence Photograph

The jeep ambulance which was developed during the Second World War to evacuate casualties to the Casualty Clearing Post.



National Defence Photograph

Her Majesty Queen Elizabeth, the Queen Mother, visiting a wounded Canadian soldier during the Second World War. Her Majesty is Colonel-in-Chief of the Royal Canadian Army Medical Corps.

with civilian medical facilities. Integration of Canadian medical services wherever it is practicable is thus in effect.

To ensure the efficiency of the post-war RCAMC and its capacity for active service, the RCAMC School and one regular field ambulance were authorized. An airborne medical section was also formed. Training and equipment development have progressed steadily since 1945, including annual study groups for senior RCAMC regular and militia officers conducted by the DGMS. As always, close liaison has been maintained with the civilian profession.

Noteworthy in post-war development has been the increase in strength and scope of employment of non-medical officers in the regular RCAMC. Pharmacists and quartermasters were commissioned in the CAMC during the First World War and quartermasters were retained in militia units after the war, but only three non-medical officers were appointed in the regular RCAMC before 1939. However, during the Second World War, in addition to the quartermasters mobilized with their militia units, new appointments were made. These included instructors, adjutants, staff officers at medical headquarters, technical officers such as pharmacists and bacteriologists,

National Defence Photograph

Canadian soldiers participate in an exercise to train them for an invasion landing. Here the "casualties" are being brought back to the beaches and then loaded into landing craft by Royal Canadian Army Medical Corps personnel in the Second World War.

and stretcher bearer officers; non-medical officers also commanded some units. These positions were retained in the post-war Army, and others, such as the major administrative officers at each command headquarters, were added. As a result, the regular non-medical officer establishment is now about one-third of the male officer slate of the regular RCAMC.

The RCAMC field organization was amended in 1947 to conform with British post-war policy. The changes included the adoption of one type of field ambulance, comprised of a headquarters and one company, the unit having four sections each capable of forming a casualty collecting post; the allotment of one field dressing station, reduced in size and function, to each infantry division; and the reinstitution of RCAMC other ranks in battalion establishments. Some divergence from British policy has occurred, and Canadian amendments to RAMC training pamphlets are not unusual.

With the new commitments of the Korean War and of Canada's contribution to NATO, the RCAMC of the Canadian Army (Regular) has been expanded to the point where for the first time in its history it has in being the equivalent of a divisional medical service. Additional units have been authorized to put into effect the policy of providing Cana-

dian medical service for Canadians.

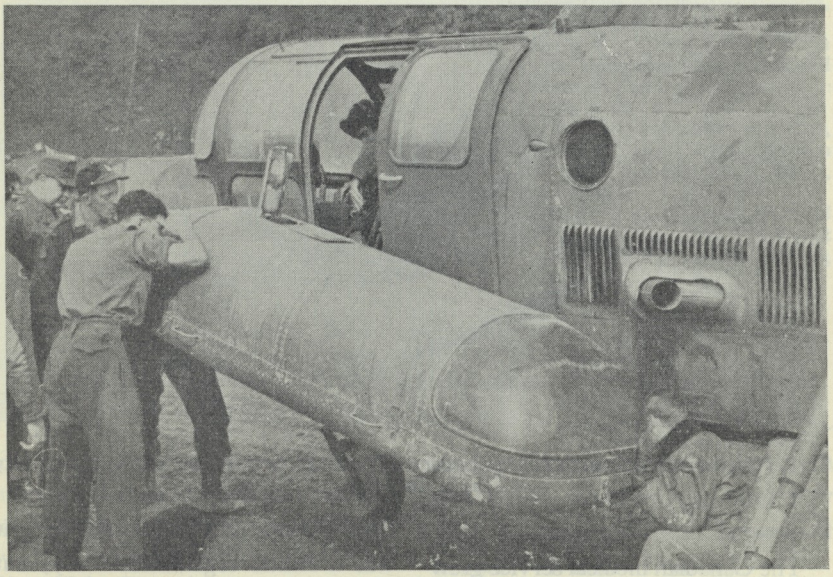
Not least in the advancement of military medical services since the days of Louis Riel is the increased ability to save the lives of men wounded in battle and to prevent the needless waste of death from disease in the field. The accompanying table shows this reduction.

	Death per thousand among wounded	Death from disease per thousand men per year
South Africa (British)	93	22
First World War (Canadian)	114*	6
Second World War (Canadian)	66	0.9
Korea (Canadian)	34	0.7

The slight increase in the First World War may be attributable to gas warfare.

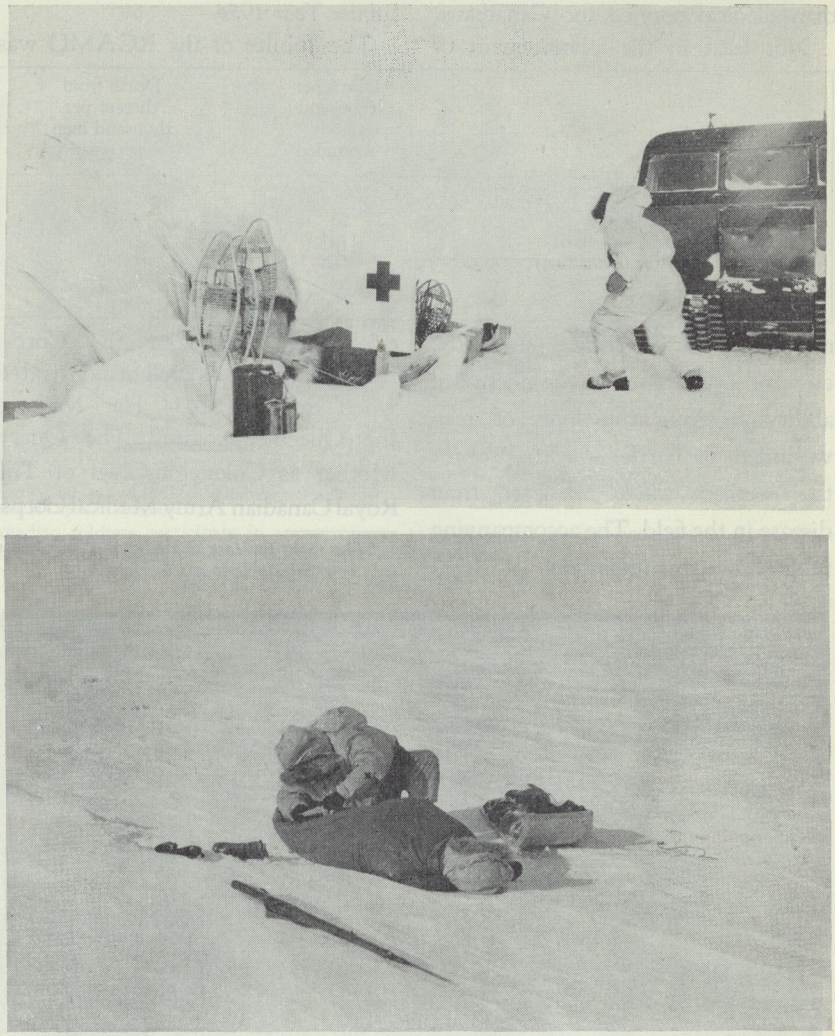
Jubilee Year 1954

The Jubilee of the RCAMC was celebrated throughout the Corps. Its importance was well demonstrated when early in 1954 Her Majesty the Queen appointed The Queen Mother as Colonel-in-Chief of The Royal Canadian Army Medical Corps.



National Defence Photograph

Evacuation by helicopter. Note the "pod" which is attached to the fuselage and in which the casualty is transported.



National Defence Photographs

Top: A Regimental Aid Post in the Arctic. *Bottom:* Treating a wounded serviceman in a casualty bag in the Arctic.

Summary

The Canadian medical service grew from and succeeded that of the British Army in Canada. For long it was a militia organization only, but since 2 July 1904 it has also had a

regular component. The corps has a continuous function in peace and must in addition be prepared to handle the massive casualties of war. It has always fulfilled with high praise this dual role, assisted by a host of Canadians engaged in medical work whose unstinted support has assured success. If the history of the RCAMC is less dramatic than that of other corps, it is eventful enough to have earned for its officers and men their motto *In Arduis Fidelis*, "Faithful in Adversity", and to have produced a corps spirit summed up in these proud lines from the Hymn to the Fallen of the RAMC:

"Unarmed they bore an equal burden,
Shared each adventure undismayed;
Not less they earned the Victor's guerdon,
Not least were they in the crusade."

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A Man's Shield

The only guide to a man is his conscience; the only shield to his memory is the rectitude and sincerity of his actions. It is very imprudent to walk through life without this shield, because we are so often mocked by the failure of our hopes and the upsetting of our calculations. But with this shield, however the fates may play, we march always in the ranks of honour.—*Winston Churchill.*

MEDICAL TACTICS

By
MAJOR W. S. HACON, ROYAL CANADIAN ARMY MEDICAL CORPS*

"Medical Tactics?" The DAAG looked blank. "Why must doctors learn tactics anyway? As for Medical Tactics!" The prevalence of this opinion among combatant officers is not surprising. Medical officers also, particularly junior officers, are somewhat hazy as to the significance of the subject, as the secret has been well kept and literature is scarce. The recognized training pamphlet** does discuss Medical Tactics, but does not grant it the status of a study in itself. Discussion therein is restricted to the employment of each medical unit in turn, and no guiding principles are put forward. In this manner also is it taught at schools of instruction. Perhaps the best published account appears in the book of Lieut.-Colonel T. B. Nicholls,*** but here again no clear principles are laid down. Serious consideration appears to be given to it only at high-level exercises, but these are unfortunately Security restricted, and no communiques are issued for the benefit of all.

"Where do tactics come in? One always finds medical units in their proper places during a battle. They are sited by the medical paragraph of the Administrative Order." What a compliment that is! The medical units are there and they must be there. But they get there by medical planning and by medical orders alone. We are an "A" Service, and the disposition of our resources is the responsibility of the "A" Branch acting for the GOC, but in actual fact the medical plan is made by the Medical Officer at formation HQ and it is almost invariably approved "as is" by the staff. The ADMS at Divisional HQ, the DDMS's at Corps and Army—they all directly command their medical units, and their commands are not small. There would be, for example, at least 20 medical units with 2300 personnel under the com-

* *The author, now Assistant Chief Instructor at the RCAMC School, Camp Borden, was ten years with the Indian Medical Service, during most of which he served in the rank of lieutenant-colonel. He was in action in North Africa, East Africa and Burma. He was second in command of the 60th India Field Ambulance of Korean fame when it was raised in 1942; later he commanded 1st India Field Ambulance; was Chief Instructor of the Medical Wing, Tactical Training Centre, India; and was ADMS of "British Reinforcements Training". He enlisted in the Royal Canadian Army Medical Corps in 1952 and was Deputy Command Medical Officer, Eastern Command, before his present appointment.*—Editor.

** *RCAMC Training Pamphlet No. 2, 1950, with Canadian Army Supplement No. 1.*

*** *"Organization, Strategy and Tactics of the Army Medical Services in War" by Lieut.-Colonel T. B. Nicholls, 2nd Edition, 1941.*

mand of the DDMS of a Corps of two divisions, excluding all Regimental Medical Establishments. The varied ambulance cars under his control number about 280, as he has operational control of the Motor Ambulance Company RCASC in addition to the ambulances of the medical units and Regimental Medical Establishments.

The Medical Service is the only real "tactical" service. No other service has to deploy its resources so widely, so far forward, and so closely to the combatant tactical plan. Every phase and aspect of each battle must be covered, and to the correct degree. Every side show must have medical support. Absence of it would be intolerable to the fighting troops, to the commander, and to the Medical Services. Not only must sudden changes in the commander's plan be anticipated but also setbacks, failures, and enemy counter attacks. Reserves for all contingencies must be held. The number of ways in which plans may go wrong or disasters occur are infinite. The medical officer requires a tactical knowledge every bit as good as that of the combatant officer, and in addition must develop some guiding principles of his own to enable him to deploy his resources satisfactorily and to hold sufficient reserves. He can expect little or no assistance from the Staff. Even the casualty estimate, or guess, is in fact made by him.

The example quoted by Lieut.-Colonel Nicholls is a good, if an extreme case of the responsibility thrust upon the Medical Services. Before a certain battle in the First World War, "G" estimated 20,000 casualties. The Medical Services prepared for 40,000, but the battle produced 60,000. The evacuation of these casualties was equivalent to the tactical withdrawal of three divisions from the front line to the base. At least half would have been stretcher cases at Corps level, and they would have filled 234 ambulance trains at Army level. This battle, and many like it in that war, required a considerable amount of medical organization, but the immobility of trench warfare did not predispose to the evolution of Medical Tactics. The Medical Services were, however, prepared for mobile operations, as the experiences of the Boer War had resulted in the formation of the Field Ambulance out of the old Field Hospital and Bearer Company. The Field Ambulance was then, and still is prepared to evacuate casualties rapidly by motor transport and also to give emergency treatment, the emphasis being decidedly upon evacuation.

It was not until the mobile operations of the North African Campaigns in the Second World War

that the need for some guiding principles in the tactical employment of field medical units became urgently apparent. During these campaigns, basic principles were slowly evolved by the costly process of trial and error. Subsequently, principles were evolved similarly and independently in other campaigns. The benefits of lessons learned in one campaign were not available to another as there was insufficient medical liaison, little propaganda and practically no exchange of information. No official principles were laid down and no publications appeared, but it is a significant fact, discovered only by occasional and chance contact, that medical officers on most fronts thought along the same lines.

A serious effort was made in India during the Second World War to teach Medical Tactics. A Medical Wing was formed at the Tactical Training Centre where selected medical officers were trained for command of field medical units and for appointment to formation headquarters. Some instruction was also given to the Combatant Wings. This teaching was disseminated throughout South-East Asia Command, as all training for that Command was the responsibility of GHQ India.

The Medical Tactics taught at this Centre were based on the lessons learned in North Africa, as the principles evolved there were found to be fundamental and could apply to all types of warfare.

In the absence of any official publication, the following principles, as taught there, are offered for consideration. They are divided into "Principles of Siting" and "Basic Principles of Medical TACTICS".

Principles of Siting

For maximum efficiency, field medical installations should be sited to satisfy the following requirements:

1. *Known to all.* Every man in the force must know where he can expect to find medical attention should the need arise. Confidence here improves morale.

2. *Relatively fixed.* Whatever the phase of the battle, whether it is going according to plan or not, the design of the medical units on the ground should remain as constant as possible. Medical units must always "keep up". If, for example, a medical unit is sited in relation to a formation HQ at the beginning of an operation, it should move when that HQ moves and re-open at that HQ's new location.

3. *Communication.* After a sound appreciation, the Medical Services are usually able to function satisfactorily with communications restricted to personal liaison, DR, and messages carried by ambulance drivers. Sometimes, however, urgent messages must be passed by telephone or wireless. Medical units in the field

seldom have their own wireless sets; at present there are none on any medical establishment. Telephones are also scarce. Therefore Medical Units must be sited fairly close to some formation HQ.

4. *Protection.* Although medical personnel are issued with weapons and are trained in their use, and although the Geneva Convention requires them to protect their patients, it is far better for medical units to be sited in a protected area and to be protected by combatant troops. No medical unit has sufficient personnel to protect itself and at the same time to function efficiently as a medical treatment and evacuation centre.

Basic Principles of Medical Tactics

1. *Centralized Control.* This is essential if reserves are to be immediately available at all times. It should not be confused with "remote control". The necessity for holding medical reserves not only to support the, as yet, uncommitted combatant troops, but for help in crisis, is undebatable. Reserves will not be available if all medical resources are distributed under command of lower formations. For example, Field Ambulances are divisional troops and should not normally be brigaded.

Exceptions to this rule at divisional level may well be restricted to the following circumstances:

(a) A brigade operating independently.

(b) Advance to contact.

(c) Initial stages only of an assault landing or a river crossing.

(d) Periods of rest and training.

Furthermore, the ADMS of a division is not bound to deploy his units as entities. He may utilize units and sub-units in any manner for the common good. The DDMS at Corps may at any time transfer medical units from one division to another although they may be part of the divisional establishment.

2. *Evacuation along one axis.* It is obviously more economical to evacuate along one route than along two. Half the number of treatment centres are required and better use is made of transport. It should be a definite aim, therefore, to converge all evacuation routes on to a common axis as far forward as possible. This does not rule out the need for reconnaissance of alternative routes in case the original is obstructed.

Early convergence of routes also permits treatment centres and specialist medical teams to be brought further forward.

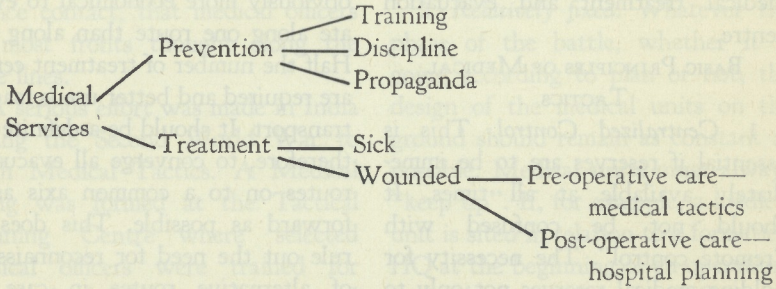
3. *Medical resources well forward.* The sooner treatment facilities are available to the sick and wounded the more chance they have of recovery. Treatment centres must be as far forward as possible. Trans-

portation also must be forward. Before any operation, the carrying agency must be located at the forward end of its shuttle. Casualties may then be evacuated immediately they are ready to be moved, and the carrying agency will be less likely to get lost, as rearward units are easier to find than forward units. Furthermore, the carrying agency should live with the forward unit, move with it when it moves, and return to it after an evacuation mission. Contact is thereby constantly maintained. Two factors hold the medical units back:

(a) The Commander's reluctance to overcrowd the battlefield.

(b) The need to site medical units at junctions of evacuation routes.

4. *Early Surgery.* The provision of early surgery is one of the main duties of the Medical Services. The clinically acceptable maximum time lapse between the occurrence of a serious wound and surgical treatment is less than six hours. The main object of medical planning in the field is to deliver casualties in the best possible condition to a surgeon within six hours. The responsibilities of the medical services may be considered in the following terms:



Casualties are sorted into PRIORITIES at the Advance Dressing Station:

Priority I—For urgent surgery or resuscitation, 2½%.

Priority II—For early surgery or resuscitation, 12½%.

Priority III—The remainder, 85%.

All cases must be seen by a surgeon, but only Priorities I and II totalling 15% need be seen within the six hours. An important factor to remember is that cases are in a more delicate state after operation than before. Post-operative cases should remain undisturbed for at least five days if they are to be given the maximum chance of recovery. Usually, the surgeon is located at the Casualty Clearing Station in the Corps area, but if that is more than six hours from the front, then the

surgeon must be brought forward. Normally, this is arranged by attaching a Field Surgical Team and a Field Transfusion Team to a Field Dressing Station to form an Advanced Surgical Centre. Two factors hold the surgeon back:

(a) The need for undisturbed post-operative rest. If it is imperative on account of the tactical situation to move a casualty, he has more chance of survival if he is moved before operation than after. It might be mentioned here that all casualties have more chance of survival if they are evacuated than if they are left to be captured by the enemy. No case is too ill to be moved if capture is the alternative. It is a firm policy therefore that no casualties will be allowed to fall into enemy hands.

(b) The need for the surgeon to be at the junction of evacuation routes.

5. *Four-hour staging.* Casualties must not go for more than four hours without a check. They must be examined, fed and rested, and facilities must be available to hold them for treatment and further rest. This should be done at intervals of less than four hours, so medical units on the evacuation route must not be more than four hours apart. Time is the factor, not distance. If the usual units are more widely spread, extra staging units have to be set up in the intervals. This applies right back to the Base Hospitals.

Conclusion

All these principles are common sense: there are no mysteries involved. Nevertheless it is contended that they should be considered in all medical planning as factors in the appreciation.

Without Breeches

When Highland units and Highland dress were introduced into the British Army in the 18th Century there was considerable speculation as to whether the kilt was suitable garb for the battlefields of Europe. An article in the August 1954 issue of the *Journal of the Royal United Service Institution* suggests that any doubt was soon dispelled:

> A brigade, consisting of the Highlanders and some other regiments, had occasion to ford a river which was thigh-deep. When they emerged the water drained off the kilts as it does off a woollen bathing dress, and the remaining dampness was dried by their swinging on the march. The white leather breeches of the other regiments were, however, soaked and so remained. When the brigade arrived in camp the war was apparently not very active. The breeches were removed and hung up to dry. Dusk fell and frost gripped. The night was broken by an alarm. The Highlanders quickly stood to. Their comrades, to their consternation, found their breeches frozen as hard as boards. They were obliged to fight the action without them.

THE CANADIAN ARMY, 1939-1945

AN OFFICIAL HISTORICAL SUMMARY

By Colonel C. P. Stacey

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