

## CHAPTER V

### **THE ST. ELOI CRATERS AND MOUNT SORREL, 1916**

(See Maps 3 and 4, and Sketches 23 and 24)

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#### **Opposing Plans for 1916**

THE SITUATION at the beginning of 1916 offered the Allies little encouragement. In spite of the costly Artois and Champagne offensives large areas of France and Belgium were still in German hands, and in the north the German offensive at Ypres had left the Allies holding only a part of the salient there. Italy, not yet at war with Germany,\* had achieved only minor victories over the Austrians. On the Eastern Front the big Austro-German drive had forced the Russians back to a line 215 miles east of Warsaw. Thus encouraged, Bulgaria had joined the Central Powers. Together they had overrun Serbia and Montenegro and compelled the Serbian army to withdraw to the Adriatic coast. When King Constantine of Greece dismissed his pro-Allied Premier Venizelos and repudiated Greek treaty obligations to Serbia, Franco-British troops, brought to Salonika from Gallipoli on the urgings of Venizelos, found themselves helpless spectators of Serbia's rout. The Gallipoli campaign had failed and the evacuation of the Dardanelles was nearing completion. In the middle East, the Suez Canal still faced a Turkish threat; an Indian expeditionary force under British command, directed against Baghdad, was shut up in Kut-el-Amara. Another Indian force sent to aid local forces against German East Africa had been defeated, and the enemy was now making raids into British and Belgian colonial territory. The surrender of German South-West Africa in July 1915 marked the only substantial Allied success on land.

It was a disturbing picture, which seemed to indicate that although the Allies still commanded the sea and were far stronger than their adversaries in troops and material resources, they had failed to exploit these advantages properly. There was a real danger that should the Central Powers use their interior lines to transfer large forces from one front to another before the Allies could make their own superiority felt, the war might be lost. Up to this stage the Allied effort had suffered from a want of purposeful, unified direction; conflicting aims had resulted in wasteful dissemination of forces, and little

\* Italy's declaration of war on Germany came on 27 August 1916.

attention appears to have been given to studying what courses might be open to the enemy. There was clearly need for a comprehensive Allied policy, and a sound over-all plan.<sup>1</sup>

Early realization of this essential factor in victory prompted General Joffre to convene an inter-Allied military conference at his headquarters at Chantilly in July 1915. The meeting brought home to the commanders and military attaches representing the various powers a recognition of the serious problem confronting the Allies. Because of national susceptibilities the time was not yet ripe to centralize the conduct of the war, but Joffre urged the soundness of a vigorous offensive launched simultaneously by the Allied armies against the Austro-German "bloc" Yet beyond a general agreement "that each national army should be active in its own way", the conference brought no immediate results. In November, however, a meeting of the French and British Prime Ministers adopted "the principle of a mixed permanent committee designed to co-ordinate the action of the Allies". At a second inter-Allied military conference in Chantilly early in December, representatives of the Allied armies unanimously agreed that the war could be decided only in the principal theatres - on the Russian, Franco-British, and the Italian fronts. There would have to be offensives on all these fronts, with every Allied army contributing the maximum in men and material.<sup>2</sup> It was recognized that decisive results would be obtained only if these offensives came simultaneously, or at least at dates near enough together to prevent the enemy from moving reserves in strategically significant numbers from one front to another - a transfer estimated to require at least thirty days. Accordingly the Allied offensives would begin within a month of one another as soon as possible after the end of March 1916. The conference felt that in secondary theatres of war only minimum forces should be employed, and that troops already in these areas were adequate.

The enemy, unlike the Allies, proposed to treat the Eastern Front as a secondary theatre in 1916. There was some disagreement between the Chiefs of the Austro-Hungarian and German General Staffs as to the relative importance of the Western Front and the Italian theatre. In December 1915 the Austro-Hungarian Chief of the General Staff, Colonel-General Conrad von Hotzendorff, requested the loan of nine German divisions for the Eastern Front (in addition to four already with the Austrians) so as to release Austrian troops for an offensive designed to knock Italy out of the war; with this accomplished 400,000 Austrians could be transferred to the Western Front. Von Falkenhayn felt unable, however, to spare sufficient forces for such a purpose, and in a counter-proposal he asked Conrad to replace as many German formations on the Eastern Front as possible with Austrian troops. Maximum German forces would thus be available for operations in France. Unable to reach a compromise, each adopted a course of his own.<sup>3</sup>

On 21 February 1916 the Germans struck at Verdun, near the centre of the Western Front - the first of five major offensives to be launched by one side or the other on all European fronts in the first seven months of 1916. On 14 May

two Austro-Hungarian armies attacked in the South Tyrol. According to a document prepared by Falkenhayn “to serve as a basis for a report to H.M. the Kaiser”, the German offensive was calculated to bleed the forces of France to death, and thus deprive Britain, the “arch-enemy in this war”, of her “best sword”.<sup>4</sup> Although neither this nor the Austrian venture succeeded, they limited the scale of the intended Allied offensives and altered their timing.

The Allied Powers had agreed at the Second Chantilly Conference that each would stand ready to repel any offensive against its own front with its own resources, and that the others would assist to the fullest extent the one attacked. Now these new enemy blows brought French and Italian appeals for the British and the Russians, respectively, to strike ahead of schedule. Even before the Verdun offensive Joffre had warned the British Commander-in-Chief (since 19 December 1915, Sir Douglas Haig) that the French armies, which had lost nearly two million men in the offensives of 1914 and 1915, were not capable of making large-scale attacks except to exploit British success. He wanted the British Expeditionary Force to undertake preparatory “wearing down” offensives, whereas Sir Douglas advocated that the French and British forces should attack simultaneously. On 14 February the two commanders reached a compromise (Haig being under instructions to cooperate unless to do so would endanger his armies). Until the French were ready to launch a major attack, the B.E.F.’s operations would be no more extensive than were required to maintain the initiative. After mid-June limited attacks would be made in the Ypres-La Bassée areas; and about 1 July the British and French forces would join in a full-scale offensive astride the Somme.

At the same time the enemy would be under pressure on the Eastern Front, where the Czar, in keeping with his pledge to give effect to the Chantilly agreement, was planning a Russian attack scheduled to begin on 15 June. (The date of the Russian effort was advanced in response to Italian appeals for help against the Austro-Hungarian offensive. On 4 June, in what proved to be the greatest Russian contribution of the whole war, General Brusilov attacked with four armies on a front extending nearly three hundred miles northward from the Rumanian border to the Pripet marshes, driving back five Austrian armies a distance of 20 to 30 miles and capturing 450,000 men and more than 400 guns.)<sup>5</sup>

As the opposing sides drew up their respective plans of action, a comparison of their strengths shows the Allies enjoying a considerable advantage in numbers. According to an intelligence report issued at the end of May, in the West 125 German faced 150 Allied divisions (95 French, 49 British and 6 Belgian). On the Eastern Front the enemy’s 90 divisions (48 German and 42 Austrian) were opposed by 141 Russian divisions; in the south the relation was 35 Austrian to 53 Italian divisions; and in the south-east on the Salonika Front sixteen enemy divisions, twelve of them Bulgarian, were holding down an assortment of eighteen Allied divisions.<sup>6</sup> But this Allied numerical superiority of more than 100 divisions (a superiority which was the greater because many Russian divisions contained sixteen battalions to the Germans’ nine) was largely offset by the central position of the German and Austrian armies and the

homogeneity of the German forces which enabled them to operate on interior lines, concentrating men and guns for an operation more rapidly than could the Allies.

The Germans were well fitted for defensive tactics, on which they intended to rely -except at Verdun - in 1916. Their field defences were much stronger than those of the Allies, whose senior officers, thinking always in terms of advance, tended to treat the defensive as only a temporary measure and did little to improve their own positions. The enemy's wire formed a more formidable obstacle than the Allies'; his deep dug-outs, capable of accommodating most of his front line garrison, had no British or French counterpart; and his superiority (both in quantity and quality) in hand grenades, rifle grenades and trench mortars, far better equipped him for trench-warfare. Thus while the French and British forces sought to retain the initiative and wear down the enemy, the latter in the main continued with great industry to better his defences. Between the middle of December 1915 and the end of May 1916, British (including Canadian) forces carried out 63 raids in strengths of 10 to 200 men, of which 47 succeeded; of 33 German raids on the British front, 20 were successful.<sup>7</sup>

The year 1915 had seen significant developments in the air, and there was promise of further advances in 1916. At first the military aeroplane was primarily a vehicle, armed or unarmed. For serious fighting, however, it had to become a winged machine-gun - as it did when Anthony Fokker, a Dutch designer, designed for the Germans a means of firing through the propeller arc without hitting the blades. Fokker monoplanes so equipped first appeared in the summer of 1915, and their influence began to be felt in October, towards the end of the Loos battle.<sup>8</sup>

"It is hoped very shortly to obtain a machine which will be able to successfully engage the Fokkers at present in use by the Germans", the Royal Flying Corps\* announced in mid-January 1916. In the meantime, there was emphasis on flying in formation for protection. The Corps made an inflexible rule that no machine should proceed on reconnaissance unless escorted by at least three other machines. Should one of these become detached from the formation the reconnaissance was not to be continued.<sup>9</sup> The British answer to the Fokker monoplane was the De Havilland "pusher" (propeller in rear), armed with a flexible Lewis gun in front and capable of about 85 miles per hour. The French reply was the Nieuport Scout, a biplane fighter with a semi-flexible Hotchkiss or Lewis gun on the top wing, above the propeller. In February and March several British squadrons were fully or partly equipped with both types, and the "Fokker scourge-never as serious as was widely supposed-soon abated."<sup>10</sup>

While fighter frequently engaged fighter, the primary role of such aircraft was to attack enemy reconnaissance, artillery observation and bombing planes and protect their own. Aerial reconnaissance included air photography,

\* The R.F.C., formed in 1912, originally consisted of military and naval wings. Shortly before the war the naval wing became the Royal Naval Air Service. On 1 April 1918 the R.F.C. and R.N.A.S. were reunited as the Royal Air Force.

with which members of the R.F.C. had experimented before the war. Artillery observation was carried out from both aeroplanes and captive balloons, wireless gradually replacing coloured lights and signal lamps as a means of communication with batteries. In the battle of Loos, British planes fitted with proper bombsights had dropped bombs of up to 112 pounds on German communications.

### **The 3rd and 4th Divisions Formed**

In December 1915 the United Kingdom's War Committee, in line with the decisions at Chantilly, had decided that for the British Empire France was the main theatre of war, and in the months that followed every effort was made to strengthen the British Expeditionary Force. Territorial Force and New Army troops crossed the Channel, and nine divisions were brought home from Egypt. Between Christmas and 1 July the forces under Sir Douglas Haig's command grew from three armies numbering 38 infantry divisions to four armies (and a reserve army) of 49 infantry divisions, the number of cavalry divisions remaining at five. The reserve army became the Fifth Army in October.<sup>11</sup>

Each of these increases reflects an additional Canadian division. Late in June 1915 the War Office had formally inquired whether Canada, in addition to maintaining her present overseas force with some 5000 reinforcements monthly, could see her way to raise "further formed bodies of troops".<sup>12</sup> Although General Hughes, two months earlier, had intimated that a third division could and would be raised (above, p. 114), Sir Robert Borden, the Chief of the General Staff, and others now doubted its feasibility. However, after General Alderson pointed out that in France it was the policy to have army corps of three divisions, with always one being kept in reserve,<sup>13</sup> it was decided to form a new division largely from unallotted units already overseas and to complete the establishment with troops still in Canada.<sup>14</sup> Meanwhile the maximum number of men under arms had been set at 150,000.<sup>15</sup> By September 1915, 56 battalions had been authorized besides the units of the 1st and 2nd Divisions and the 7th and 8th Brigades. Three months later the War Office asked whether Canada would be prepared to provide twelve battalions for service in Egypt - either in addition to completing the 3rd Division, or by deferring the formation of the 3rd Division until the spring. Now confident that they could maintain four divisions in the field, and preferring to keep them all together, the Canadian authorities made the counterproposal (which was accepted) of both a third and a fourth division for the Western Front.<sup>16</sup>

The 3rd Division came into being towards the end of December 1915. The G.O.C. was Major-General M. S. Mercer, formerly of the 1st Brigade, and at the time Commander of Headquarters Corps Troops. General Mercer was a Canadian, as were also his brigade commanders and a number of his staff officers; by the end of 1916 all staff appointments in the division except three (the G.S.O. I, G.S.O. II and the B.M. Artillery) were held by Canadians. Most of the divisional and brigade staff officers and some of the unit commanders had served in France six months or more; but comparatively few of the regimental

officers other ranks had had previous experience in the field.<sup>17</sup>

The 7th Brigade, formed on 22 December 1915 under Brig.-Gen. A.C. Macdonell, consisted of one veteran battalion and three units with no field experience. From the 27th British Division, after a year's distinguished service in France with the 80th Brigade, came Princess Patricia's Canadian Light Infantry. The Royal Canadian Regiment, at that time the only Permanent Force battalion, had been employed on garrison duty in Bermuda for eleven months; it had arrived in France in November 1915 and trained with the 2nd Brigade. The two remaining units, the 42nd Battalion (from Montreal) and the 49th (Edmonton), had both undergone a tour of non-operational duty in France. The 8th Brigade was organized on 28 December and Colonel Williams, though still holding the appointment of Adjutant General, was placed in command with the appropriate rank. It was made up of the 1st, 2nd, 4th and 5th Battalions, Canadian Mounted Rifles, formed by the conversion to infantry of the six C.M.R. regiments (above, p. 110). The units of the 9th Brigade (Brig.-Gen. F. W. Hill), which joined the division in February 1916, were the 43rd, 52nd, 58th and 60th Battalions. They came from Winnipeg, Port Arthur, the Niagara area and Montreal, respectively, and in the main had reached England in November. Except in artillery, the 3rd Division was complete by late March 1916. Until the middle of July, when its own gunners arrived, it was supported by the artillery of the Indian 3rd (Lahore) Division.

In accepting the offer of a fourth Canadian division, the War Office stipulated that Canada's first obligation was to complete the provision of 18 reserve battalions in England; these were required as a source of reinforcement drafts for the 36 battalions of the three existing divisions. For that reason the 4th Division did not go overseas as such but was formed from units already there, or soon to arrive, on 26 April 1916. A tentative selection was made by representatives of the Canadian Training Depot and the War Office.<sup>18</sup>

Concentration and preliminary divisional training took place at Bramshott, in Aldershot Command. The divisional commander, Major-General David Watson, was brought back from commanding the 5th Brigade in France. Like the 2nd and 3rd Divisions, the 4th did not at first have its own artillery: the 4th Divisional Artillery was formed in June 1917 by a distribution of units in France. Otherwise the new division was complete by August 1916, when it crossed the Channel; though there had been substitutions in the slate of battalions originally proposed.

The 10th Brigade, commanded by Brig.-Gen. W. St. P. Hughes, consisted of the 44th Battalion (from Winnipeg), the 46th (South Saskatchewan), the 47th (New Westminster, Vancouver and Victoria) and the 50th (Calgary). In the 11th Brigade (Brig.-Gen. V.W. Odium) were the 54th (Kootenay, British Columbia), 75th (Toronto-Hamilton-London), 87th (Montreal) and 102nd (North British Columbia) Battalions. The 12th Brigade was commanded by Lord Brooke, who had previously led the 4th Brigade in France. One of its battalions -

the 38th, from the Ottawa district - had previously served in Bermuda, relieving the R.C.R. The other three units were the 72nd, 73rd and 78th Battalions, from British Columbia, Montreal and Winnipeg respectively.<sup>19</sup>

The demands created by the organization of the two new overseas divisions and the necessity of maintaining in the United Kingdom an adequate number of reinforcement battalions (one for every two battalions in France) were met by an increasing flow of infantry units across the Atlantic. Although in the first two months of 1916 a shortage of accommodation in England restricted troop movements from Canada, by the end of June forty-two infantry battalions had sailed. Meanwhile the total establishment of the armed forces had been doubled.<sup>20</sup>

### **Canadian Operations, January-March 1916**

By the end of January there were 50,000 Canadian troops in the field. The Canadian Corps, as part of General Sir Herbert Plumer's Second Army, was holding a six-mile front immediately south of the Ypres Salient, extending from Ploegsteert to north of Kemmel. General Alderson, with headquarters at Bailleul, had his 1st Division on the right and the 2nd Division on the left; during the first three months of 1916 he relieved these on a brigade or battalion basis with troops of the newly formed 3rd Division. The Canadians' first winter in Flanders exposed them to the twin miseries of water-logged trenches and bitterly cold winds. The extensive sector which they were holding meant that no battalion could be out of the front line for long; in general, units served six-day tours successively in the support trenches, in the front line, and in reserve. At their rest billets in the battered little towns behind the lines the weary, muddled men from the trenches found valued refreshment in even the shortest period of relief. There was the luxury of hot baths and laundry facilities improvised by the engineers - and enterprising commanders contrived to have occasional showings of films.<sup>21</sup> The period saw the introduction of the divisional concert parties which were to become famous all over the Western Front. As early as March 1916 the popular "Dumbells", organized by Captain Merton Plunkett, though not yet excused from duty were delighting audiences of the 3rd Division.

In accordance with the policy of "wearing down" the enemy the Canadians carried out their orders to harass the Germans by sniping, raiding, and surprise artillery shoots. The second night of the new year saw some 65 members of the 25th Battalion (5th Brigade) adopt a device only recently introduced into trench warfare. To achieve surprise, the raiding party cut the enemy's wire by hand rather than with the artillery. Ironically enough, the experiment proved too successful. The wire-cutting group completed its task before the assault group was ready to enter the gap; and in the meantime a German wiring party discovered and repaired the damage, making the obstacle much stronger than before. The approach of daylight obliged the raiders to withdraw. Not long after this the enemy introduced tempered steel wire, and hand-cutting became a very slow and difficult process.<sup>22</sup>

In the early morning of 31 January 1916 the 6th Brigade staged a more eventful raid against the enemy's Spanbroekmolen salient, near the centre of the Canadian sector. Brig.-Gen. Ketchen's various objects were to obtain prisoners for identification purposes, to injure the enemy's morale and destroy his works, and to kill Germans - all in the shortest possible time. Picked parties of 30 men from the 28th and 29th Battalions were given special training at the brigade bombing school. After scouts had cut the wire at great risk the two parties, working to a pre-arranged schedule, crossed no man's land shortly before 2:40 a.m. and reached the German trenches at points 1100 yards apart.

As the raiders' bombs burst among them the startled enemy were further unnerved by the terrifying appearance of the Canadians, who had blackened their faces with burnt cork. The Vancouverites (29th Battalion), encountering little resistance, secured three prisoners, bombed the enemy in his dug-outs and in four and a half minutes were on their way back to their front line, which they reached without loss of life. The men of the 28th remained in the German trench for eight minutes, the limit allowed by the brigade staff. A German relief was in progress when they attacked, and the Canadian bombs took terrible toll of the clustering enemy. In the return journey across no man's land their prisoners were killed by enemy machine-gun fire. The raid was considered a marked success and attracted great attention along the entire British front. Three German regiments opposing the 6th Brigade had been identified, the total cost to the Canadians being two killed and ten wounded.<sup>23</sup>

The part played by the 29th Battalion at Spanbroekmolen and by the 7th Battalion in the raid across the Douve in the previous November (above, page 124) received recognition from Sir Douglas Haig. In his first Despatch, dated 19 May 1916, he included these two battalions among 95 units and formations (six of them Canadian) which had been "specially brought to my notice for good work in carrying out or repelling local attacks and raids". The two Canadian raids illustrated the phases through which patrolling in trench warfare had progressed. The casual encounters of hostile parties in the dark, which marked the first stage, had given way to the organized trench raid by night, the pattern of which the Canadians had set.<sup>24</sup> The summer of 1916 was to see the third and final stage-the daylight raid.

Between 8 and 19 February the Germans launched a series of diversionary attacks against French and British positions in preparation for their Verdun offensive. One such attack fell on "The Bluff", a low tree-covered mound on the north bank of the Ypres-Comines Canal, in the sector held by the British 5th Corps. In bitter fighting the enemy captured The Bluff on the 14th, only to lose it seventeen days later to a well-mounted counter-attack.<sup>25</sup> Although not directly involved in the fighting, the Canadian Corps assisted its British neighbours with artillery support and by taking over the southernmost 700 yards of the 5th Corps' front on the 17th - a relief which extended the Canadian sector to the outskirts of the ruins of St. Eloi.<sup>26</sup> The Canadian operations in this period brought distinction to a member of the 1st Brigade. For conspicuous bravery



under a heavy bombardment on 18 March, Corporal R. Millar of the 1st Battalion received the Military Medal - the first Canadian to be so honoured. (The M.M., inscribed "For bravery in the field", had been instituted only that month. At first reserved for N.C.Os. and men, it was later awarded also to warrant officers.)

Canadian battle casualties in the first three months of 1916 numbered 546 killed, 1543 wounded, three gassed and one taken prisoner. There were 667 accidents and other non-battle casualties, of which 20 proved fatal. In spite of weather and living conditions the health of the troops was good; though there were cases of influenza, paratyphoid, and - trench feet.

### **The St. Eloi Craters, 27 March-16 April**

By the end of 1915 mine warfare had reached a stage where it was regarded by both sides as an important factor in the siege warfare which now characterized hostilities on the Western Front. Whole sections of the line between Givenchy and Ypres had become the scene of extensive mining operations. German mining and British counter-mining had figured prominently in the fighting for The Bluff, and one of the most elaborate schemes in underground warfare yet undertaken by sappers of the Second Army was now to be the occasion of a costly and frustrating operation by the 2nd Canadian Division.

The German practice had been generally to work between ten and thirty feet underground, driving galleries forward from which to explode mines beneath the British trenches or blow the more lightly charged camouflets which were designed to destroy hostile workings without cratering the surface. At first British countermining was carried out at the same shallow level from shafts in the foremost trenches, and was primarily directed towards locating and wrecking the enemy's galleries. In time the British sappers found the answer to the extensive German mining under the front line by sinking their shafts at secluded points well to the rear, going down fifty to ninety feet through sand to reach hard packed strata through which they ran their galleries forward comparatively dry and almost undisturbed by the Germans, who lacked the skill and equipment to compete at these greater depths. So numerous (and on occasion unnecessary) were the local demands for trained tunnellers that in December 1915 a special expert training staff headed by an Inspector of Mines was appointed at G.H.Q., to prepare and supervise mining schemes in connection with major operations and to coordinate, through a controller of mines at each army headquarters, the employment of the more than twenty tunnelling companies (among them the 3rd Canadian Tunnelling Company). The first of a number of mining schools, to give special instruction in mining tactics, listening and mine rescue work, was organized in June 1916.<sup>27</sup>

In retaliation for the German capture of The Bluff (and before its recovery on 2 March) General Plumer ordered the 5th Corps to attack and cut off the enemy- held salient at St. Eloi, about a mile south-west of the Ypres-Comines Canal. The St. Eloi salient, which had been formed by a German attack in March

1915, from a base 600 yards wide penetrated 100 yards northward into the British lines, which in this sector ran due east and west. Part of the salient here was elevated 10 to 20 feet above the surrounding water-logged area. At the western end of this rise was "The Mound"—a clay bank covering half an acre which had been formed by the overburden from a brickfield nearby. Its original height of thirty or more feet had been reduced by much shelling and mining, but as an observation post overlooking the adjacent trenches it was still an important objective for either side. The Mound had unpleasant memories for the P.P.C.L.I., who had had the task of holding it in January 1915, when it was still in British hands. Within this area miners on both sides had waged an almost continuous battle throughout 1915, laboriously driving their sheeted galleries through the shifting quicksands below no man's land and the opponent's trenches. Altogether 33 mines and 31 camouflages had been blown in a space of ten acres.<sup>28</sup>

To offset the enemy's aggressive activity near the surface, British tunnellers had in August 1915 begun sinking three shafts 50 to 60 feet deep, running galleries forward well below the sand. So quietly did they work and so skilfully did they conceal the spoil from the tunnels that the enemy's suspicions were not aroused. Early in March they were under the German positions. On a front of 600 yards six mines (numbered consecutively from west to east), with charges ranging from 600 to 31,000 pounds of ammonal, were in readiness to initiate the British attack by blowing up The Mound and the enemy's front-line trenches. Staffs were confident that the outcome of the mining would ensure the success of the operation, even if the approaching spring weather should fail to improve the deplorable conditions of sticky mud and water-filled shell-holes and craters through which the infantry must assault. Capture of the objectives would reverse the salient by securing a new line which would thrust south into the German position to as much as 300 yards from the existing British trenches.

When the operation against the salient was planned the British 3rd Division had been selected for the assault because it was then still fresh; but by mid-March it was tired and depleted, and its ability to carry out the whole task or even part of it was in question. General Alderson proposed that the Canadian Corps' relief of the 5th Corps, which was about due, should be completed before the operation, and the attack made by the 2nd Canadian Division. But the British force had practised the assault over a course simulating the German front, and there was no time for Canadian troops to undergo similar training, for delay in firing the mines meant the risk of discovery and a counter-explosion by the enemy. Accordingly General Plumer ruled that the 3rd Division should still provide the striking force, but that the Canadians should take over the line as soon as the objectives had been won. The operation would be launched on 27 March; and it was agreed that the relief would be postponed until the new line had been consolidated.<sup>29</sup>

Promptly at 4:15 a.m. on the 27th an opening salvo from 41 guns and howitzers up to 9.2 inches in calibre burst upon the objectives, and the six mines were sprung at intervals of a few seconds. The terrific explosions shook the earth

“like the sudden outburst of a volcano” and the colossal shower of yellow smoke and debris that leapt into the heavens could be seen from miles away.<sup>30</sup> The eruption blotted out old landmarks and collapsed trenches on both sides like packs of cards. Two front line companies of the 18th Reserve Jager Battalion were annihilated by the explosion of Mines 2, 3, 4 and 5 (Mine 3 turning what was left of The Mound into a gaping hole).<sup>31</sup> Mines 1 and 6, being short of the German positions, formed craters in no man’s land, which were later to serve as strong points of defence on either flank. While the last clods of earth were falling, the British 9th Brigade, whose troops had spent much of the night lying prone in the chilling mud, assaulted with two battalions. In less than half an hour the right-hand unit had captured the first three craters, and 200 yards beyond had carried its objective, the German third line.

Of the craters on the left, however, only No. 6 and the nearby hole left by an earlier explosion (subsequently labelled Crater 7) were secured. The blowing of the mines had so completely changed the landscape that the occupying troops on this flank believed that they were in Craters 4 and 5, which in reality were held by neither side. For the next three days the 3rd Division failed to realize that a considerable gap existed in its defences. By then the alert enemy (who had continued to man a machine-gun emplacement at a trench intersection, 150 yards to the south-west, identified on battle maps of the period by the number “85”) had slipped troops forward to occupy Craters. On the same day (30 March) the 3rd Division established a machine-gun post in Crater 4.<sup>32</sup>

For nearly a week the enemy resisted every attempt to dislodge him from his positions on the left. Finally, on 3 April, an assault by the last uncommitted battalion of the 3rd Division won back Crater 5, leaving as the only objective uncaptured Point 85, which had become the key point for mounting the German counter-attacks. By that time the units of the 3rd Division were nearing exhaustion. The enemy losses in the first three days were by German accounts 921, an estimated 300 being killed or buried by the mines. These losses would undoubtedly have been higher but for careless conversation on a British field telephone, loose talk in neighbouring towns and villages, and tell-tale subterranean noises - all of which had prompted the enemy to thin out his front line and alert his rear positions.<sup>33</sup>

The capture of Crater 5 ended a week of fighting during which every battalion of the 3rd British Division had been engaged in the most appalling conditions. The newly-won ground was under constant enemy shelling, and men had been forced to crouch in mud-filled ditches and shell-holes, or stand all day in water nearly to their waists with no possibility of rest. So exhausted and depleted were the British battalions it was decided on 1 April that the relief of the 5th Corps could not wait, as originally intended, for the front to be stabilized. During the night of 3-4 April the Canadian Corps, hitherto occupying the sector to the south, changed places with its British neighbours, command of the new area passing to General Alderson at noon on the 4th. As it seemed unwise to register new guns in the middle of an operation, the British 3rd Divisional

Artillery remained in position, as did also the mortars, one Vickers battery and 24 Lewis guns. It had been the practice in the B.E.F. for reliefs to be made on a divisional or lower level; this was the first instance where an entire corps relieved another-and it was carried out on an active battle front. In keeping with Ottawa's wishes it became the rule rather than the exception that the Canadian Corps entered and left the line as a whole.

At three in the morning of 4 April the 6th Canadian Brigade, commanded by Brig.-Gen. H.D.B. Ketchen, wearing steel helmets for the first time (only 50 per company were available), took over from the British 76th Brigade in front of the craters. The 27th Battalion occupied the old trenches next to the corps right boundary, and 1000 yards of the new front line running eastward in front of the first five craters. This line was so badly battered that it was almost impossible to identify it; at best it was little more than a drainage ditch. Along the 250 yards in front of Craters 4 and 5 the incoming Canadians found a machine-gun in only four of the 12 posts that were supposedly held by British Lewis gunners.<sup>34</sup> All that the 27th Battalion could do immediately was to attempt to defend this stretch with small bombing posts insecurely linked by visiting patrols. The 31st Battalion manned the former British trenches on the east side of the salient and a short section of newly-won positions extending to cover Crater 7.<sup>35</sup> The craters themselves had not been manned by the 3rd Division, who considered them too obvious a target for German howitzers and mortars. Being on higher ground, however, they were relatively dry, and Brig.-Gen. Ketchen made plans to fortify them.<sup>36</sup>

There can rarely have been a less advantageous position than the sector taken over by the 27th Battalion. Its limited extent made it an ideal target for German concentrated artillery fire; the whole area lay spread out like a map under the eyes of enemy observers on the Wytschaete ridge, with the sun at their backs through much of the day. There was no such commanding position for British artillery observers. To them the lips of the craters formed the sky-line for the most critical 500 yards, and only when the sun was low was it possible to identify each crater by its shadow; the front line lay invisible in the dead ground 150 yards beyond. The reserve line, which had been the British front line on the day of the original attack, was obliterated and untenable for a thousand yards. The whole system was sodden, with every shell-hole a pond. Long stretches of trenches were from two to three feet deep in water, for all drains had been disrupted by shellfire or the explosion of mines.

To the commander of the 2nd Division the most unsatisfactory feature in the whole grim situation was the complete absence of any communication between the captured line and the rear, except around the flanks of the crater system. The four central craters had been blown so close together that they formed an impassable obstacle-the largest hole was 50 feet deep and 180 feet across,\* with a rampart of loose earth (by now rapidly turning to mud) some 12 to 20 feet above ground level extending fifty yards in all directions.<sup>37</sup>

\* Forty-three years later the author found these four craters full of water and well stocked with fish. On the banks of No. 5, which was surrounded by trees, stood a summer cottage, with a row boat moored to a small wharf.

As we shall see, this lack of communication through the centre, combined with the difficulties of observation from the rear, was responsible for misconception of the true Canadian positions that was to have disastrous results.

In spite of these disadvantages General Turner felt that, given time, "we could make a pretty good line of the position selected, but that a very great amount of work would be required". The advice of the commander of the outgoing division, based on some experience in crater-fighting, was "to make good the [new] front line and wire it ... dig a support line in front of the craters and wire it ... provide communication trenches between old and new front lines ... make tunnelled dugouts in the rear exterior slopes of the craters as soon as the earth had consolidated sufficiently ... make and maintain dummy trenches round the lips of the craters to induce the enemy to waste ammunition by shelling them."<sup>38</sup>

Brig.-Gen. Ketchen was not in agreement with this proposed scheme of developing field works. The 3rd British Division, handicapped by the impossible ground and weather and the enemy's harassing fire, had made little progress on such a programme. Although two communication trenches had been dug, only one was still recognizable by the time of the hand-over. Ketchen was concerned over the extreme vulnerability of the new trench line and wanted instead to occupy and fortify the craters as the main defensive position -which is exactly what the Germans later did. But there was no time to change policy or to arrange for the men and materials required for such a task. The work of consolidation was attacked with energy. During the first two nights the 2nd Canadian Pioneer Battalion, under engineer direction and assisted by large parties drawn from the 4th and 5th Brigades, toiled vigorously to improve the defences. Firing positions in the captured German trenches which formed the front line were reversed, pumping slightly reduced the water level, British wounded were evacuated and the bodies of British and German dead were removed. A support trench running eastward was started south of the line of craters.

Throughout 4 and 5 April the whole of the Canadian front line came under almost continual bombardment. The intensity of the German fire was described by a British artillery officer who had been in the Ypres Salient for the past year as far greater than any he had hitherto experienced.<sup>39</sup> Both battalion sectors were hard hit, and 200 yards of trench in the 27th Battalion's area were completely demolished. The destruction of the sandbag parapet in one of the 31st Battalion's trenches exposed the Canadians to enfilade machine-gun fire from position 85 as well as to sniping from the German lines, only 150 yards away. Although each man dug his own slit trench in the mud, casualties mounted rapidly. By noon on the 4th every second man in one of the 27th's forward companies had been hit. The battalion commander, Lt.-Col. I. R. Snider, was forced to thin out his front line, leaving in front of the craters only bombing parties supplied by battalions of the 5th Brigade and four Lewis gun detachments from the 5th Brigade Machine Gun Company. He had no contact with the 31st Battalion on his left. On the evening of 5 April small parties from the 28th Battalion were sent out to station themselves in the four big craters and act as

snipers and observers until these could be trenched and garrisoned. There is doubt that the positions which they occupied were actually the designated craters. Later that same night the 29th Battalion began relieving the badly depleted forward companies of the 27th Battalion.<sup>40</sup>

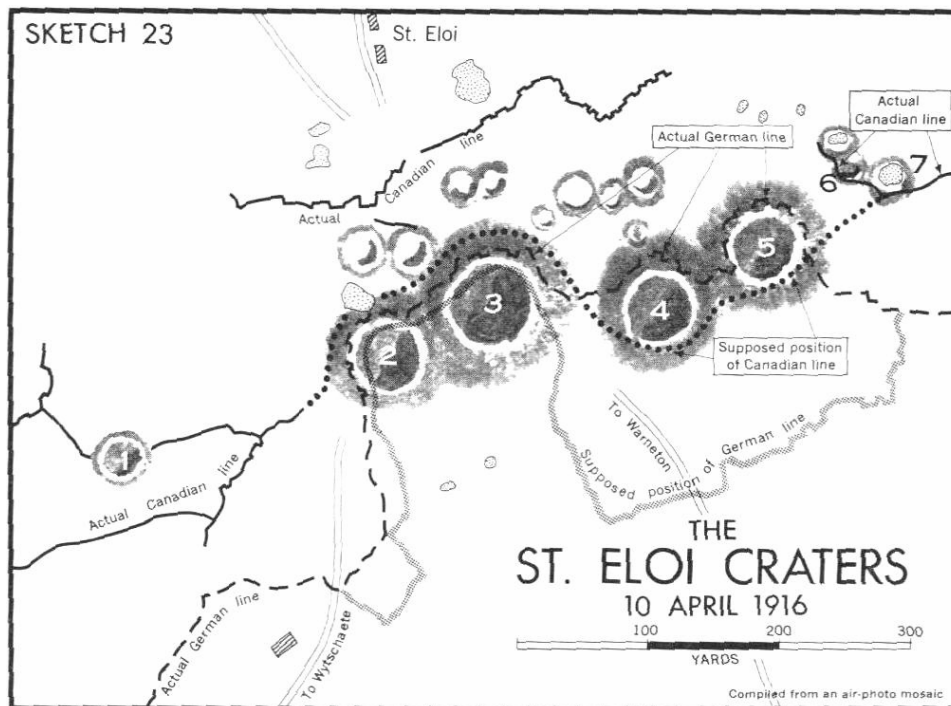
This relief dragged out interminably. The incoming troops, burdened with extra equipment, had to struggle forward in a long line through the mud and congestion of the same narrow communication trench that was being used by pioneers moving up to work on the craters and by other parties coming to the rear, many of them wounded. The exchange was still in progress when at 3:30 a.m. on the 6th, following an intense barrage, the Germans attacked with two battalions\* astride the road which ran from St. Eloi south-eastward to Warneton and before its destruction had passed between the sites of the 3rd and 4th craters. Effective resistance was impossible. West of the road the two relieving companies were not yet in position, having failed to find the positions manned by the 5th Brigade. They could do little more than deflect the tide of the German attack eastward, where it quickly wiped out the machine-gun posts and flowed through the resulting gap in front of the central craters. The eastern wing of the assault was held up momentarily by crossfire from the 31st Battalion's machine-guns, which also repelled attacks against Craters 6 and 7 and the line to the east. Artillery fire on the enemy's lines of approach by all available British field guns failed to stop the attackers, some of whom got through by splitting into small groups. The Germans quickly secured Craters 2 and 3 and from these points of vantage soon spread into Craters 4 and 5. In less than three hours the enemy had regained all the ground taken from him between 27 March and 3 April.<sup>41</sup>

The Canadians launched local counter-attacks with the minimum of delay. The only feasible way to regain the craters seemed to be by bombing, but the element of surprise was missing and the efforts accomplished nothing. On the right bombers of the 27th and 29th Battalions attempting to reoccupy Craters 2 and 3 were caught in the mire and shot down before they could get close enough to fling their grenades. On the left Brig.-Gen. Ketchen ordered the 31st Battalion, reinforced with a detachment from the 28th, to retake Craters 4 and 5. But their unfamiliarity with the ground and the complete absence of recognizable landmarks caused the attackers to repeat the mistake made by British troops ten days earlier. Forced to make their approach from the side, they lost direction and occupied Craters 6 and 7, reporting that they had regained 4 and 5. German shellfire during the remainder of 6 April and on succeeding days isolated the two craters that the Canadians were holding, so that no reconnoitring officer could reach them in daylight. Because of bad weather no air photograph of the positions was taken from the 8th until the 16th. The mistake was to persist throughout that entire period.<sup>†42</sup> The occupants of the two craters could see on

\* The 1st Battalions of the 214th and 216th Reserve Regiments (46th Reserve Division).

† It is hard to understand why staff officers failed to interpret air photographs correctly. The photo taken on 8 April clearly shows Craters 6 and 7 half full of water and the others comparatively dry. Apparently no use was made of this obvious means of identifying the positions held by the Canadians.

their right the high edge of what they believed to be Crater 3 (The Mound), but which was in reality No. 5. On the night of 6-7 April the 28th Battalion sent out 75 bombers, supported by two companies, to regain this objective. Enemy shellfire and heavy rain held them up. Losing their way in the darkness they occupied a group of craters north of No. 4, and there captured several small German patrols. They had failed to attain their objective, or even identify it correctly. During the night the 4th Canadian Brigade (Brig.-Gen. R. Rennie) relieved the 6th Brigade, which had suffered 617 casualties in its four days of fighting.<sup>43</sup> For the next week confusion was to persist with respect to the exact positions held by the Canadians.



On the 8th General Turner suggested to the Corps Commander two alternatives for clearing up the situation: either to “evacuate the craters, and to shell the Germans out of the line they held, in the same way as they had dealt with us”, or to “attack on a wider frontage ... and to consolidate the ground gained; thus giving the German artillery a wider objective for their retaliation”.<sup>44</sup> The former of these proposals seemed the more practicable; a large-scale assault was ruled out by the impossibility of gaining surprise in this disturbed sector and the heavy requirements of men and material for the projected offensive on the Somme.<sup>45</sup> When General Alderson referred the matter to the Army Commander, however, General Plumers basing his decision on the mistaken belief that only Craters 2 and 3 had been lost, ordered the Canadians to hold their present

positions and make every effort to recover these craters. General Turner was told that General Joffre had spontaneously thanked the Army Commander for the present operations at St. Eloi, which he described as “an appreciable help to the French operations at Verdun”.<sup>46</sup>

Work on the Canadian trenches was pushed forward by the 4th Brigade and 2000 reserve troops. On the night of the 8th-9th an attempt by the 21st Battalion to seize (the real) Craters 2 and 3 by attacking from the west was repulsed by German rifle and machine-gunfire. Simultaneous attacks on the next night by three battalions (the 18th, 20th and 21st) also failed. The following night it was the enemy's turn to strike, but two attempts to enlarge his holdings were driven off by Canadian bombers. A further attack on the German-held craters, which the 5th Canadian Brigade, relieving the 4th Brigade, was to have carried out on the night of 12-13 April, was cancelled. With the concurrence of the Corps Commander, General Turner decided that for the time being all efforts should be concentrated on improving the existing front line.<sup>47</sup>

Although as early as 10 April one of Turner's staff officers reported having been fired on from Crater No. 4, the belief that only Craters 2 and 3 were in German hands persisted. The 2nd Division's Daily Intelligence Summary for 15 April reported, “At 2:30 a.m., assisted by artillery fire, the enemy made a bombing attack on Craters 4 and 5. The craters were both in our possession and there are no casualties.”<sup>48</sup> Yet on the same night of the 14th-15th, Major J.A. Ross of the 24th Battalion made a personal reconnaissance of Craters 2, 3, 4 and 5 and found all four in the possession of the enemy. This was confirmed on the 16th by aerial photography; and preparations for further Canadian attacks in the area were immediately stopped. The bitter realization came as a heavy blow to the divisional staff. In a sympathetic note on April 16 to the G.O.C. General Alderson wrote: “It seems extraordinary yet if one thinks of it quietly and calmly, it is not only a very likely, but almost a natural outcome of the conditions under which your Division took over the line .... Our Army Commander, gallant gentleman as he is, has taken it well, though he is probably the most hit, because the Army originated the situation ....”<sup>49</sup>

For nearly two more weeks the St. Eloi area continued to be the scene of heavy bombardment by both sides. The Canadians were now supported by their own guns, the 2nd Canadian Divisional Artillery having relieved the gunners of the 3rd British Division on the night of 12-13 April. Preparations for the Somme were restricting the supply of ammunition for the British heavy artillery, and this meant that the new enemy line covering the craters suffered less severely than the Canadian positions. On the 19th the Germans captured Craters 6 and 7 but did not occupy them. Thereafter both sides reverted to static warfare, glad to end fighting under conditions so indescribably miserable. Enemy records give the German losses in the recapture of the craters and the subsequent fighting as 483;<sup>50</sup> between 4 and 16 April the Canadian casualties numbered 1373.



As is not unusual after unsuccessful operations, inquiries soon began at various levels to determine the responsibility for the St. Eloi fiasco, particularly with respect to the delay in the original capture of Craters and the failure to take position 85, the loss of the craters and the unsuccessful attempts to regain them, and the misinformation about Craters 4 and 5. On 26 April the General Representative of Canada at the Front, Sir Max Aitken (see below, p. 146), cabled Sir Sam Hughes that the British viewed the error as serious "and responsibility wide spreading". A number of changes of appointment followed. The Second Army's Major General, General Staff went to command a brigade; and a brigade major and a battalion commander in the 3rd British Division were replaced, as was the commander of the 27th Canadian Battalion.<sup>51</sup> Ordered by General Plumer (who, according to Sir Douglas Haig, wanted to remove both Turner and Ketchen) to take "severe disciplinary measures", General Alderson initiated an adverse report on the commander of the 6th Canadian Brigade (Brig.-Gen. Ketchen). General Turner however, refused to associate himself with this, and this refusal, aggravating the already strained relations between the divisional and corps commanders (above, p. 80), led to a request by Alderson for Turner's removal. The Commander-in-Chief, however, refused to dismiss Turner. On the 21st Haig noted in his diary the existence of "some feeling against the English" amongst the Canadians; and having weighed "the danger of a serious feud between the Canadians and the British" against "the retention of a couple of incompetent commanders", he had already decided to keep Turner on. He noted that in abnormally difficult conditions-conditions in which mistakes were to be expected-all did their best and made a gallant fight". Haig's decision, as he learned from Sir Max Aitken two days later, coincided with the views of Prime Minister Borden; the two Canadian officers retained their commands.<sup>52</sup>

Meanwhile steps had already been taken to improve fighting techniques in the 2nd Canadian Division. A memorandum from General Turner to his brigades and units on 12 April listed fourteen "points which may be learnt from our recent operations at St. Eloi". Of these no less than seven dealt with methods of securing and transmitting reliable information, the absence of which had been "one of the greatest obstacles to the success of the enterprise".<sup>53</sup>

The struggle for the craters left an important tactical question unsolved. The operations demonstrated that it was possible in trench warfare, given proper preparations and the help of surprise, to seize a limited objective. But they also proved the impossibility of holding out against the volume of observed artillery fire which such a narrow front invited. Future planners still had to decide the best width of front to attack-small enough to ensure success but large enough to prevent the enemy's artillery making it impossible to hold the captured ground".<sup>54</sup>

St. Eloi was the 2nd Division's first fight, and from it the troops emerged with a sense of frustration. Fortunately this was only temporary, for the Battles of the Somme were approaching, and in September the Division was to prove its prowess and re-establish its reputation by its sterling performance at Courcelette.

### **A Change in Command**

Four months were to elapse before the Canadians entered the great offensive at the Somme. Before they moved south they were called on to fight a battle in defence of the Ypres Salient which was to bring them a measure of the success which hitherto had too often eluded them.

The sector taken over from the 5th Corps on 4 April extended from half a mile south-east of St. Eloi to 500 yards north-west of Hooge, on the Menin road. During the 2nd Division's fighting for the St. Eloi craters activity in the centre and on the left of the Corps front, held respectively by the 1st and 3rd Divisions, had been confined principally to shelling, patrolling and sniping, as each side strove to improve its own positions despite harassing fire from the opponent. On the night of 26-27 April the Germans exploded two mines on the 1st Division's front and attacked both the 1st and 2nd Divisions - in no great strength, but with formidable artillery support. These incursions were beaten off, and a threatened attack against the 3rd Division failed to materialize. May was quiet. The term is relative only, for the Canadians suffered upwards of two thousand casualties that month. In the continual artillery duel the Germans had an overwhelming advantage in gun power; for the tremendous build-up for the Somme left few extra guns available for other parts of the British line.<sup>55</sup> It was in May, however, that the Canadian Corps first made use of wireless for controlling artillery fire. The experiment was awkward and confused and nearly ended in tragedy, but it marked the beginning of a new system of control which gave more rapid and accurate fire.

On 28 May 1916, in an abrupt change of command, General Alderson was appointed Inspector General of Canadian Forces in England. His removal came as an aftermath of the St. Eloi fighting and the conflict between the Corps Commander and General Turner - although, ironically enough, no censure was attached to either for his conduct of the operation. Sir Max Aitken had arrived in France on 22 April, and on the 23rd he had a long interview with Haig during which the whole matter was discussed. While agreeing to keep Turner and Ketchen the Commander-in-Chief recognized the impossibility of retaining both Alderson and Turner, and indeed had to anticipate the possibility that General Plumer might resign if the recommendation for Turner's removal was not approved. Haig was prepared to attempt to pacify the aggrieved Army Commander but, according to Sir Max, "stipulated that Canada should give him the assistance he required in disposing of General Alderson". Out of the conversations between Haig and Aitken arose a proposal that Alderson should be offered the post of Inspector General of the Canadian Troops in England.

This, noted Haig in his diary on the 23rd, would help meet "the difficulty under which the commander of the Canadian Corps in the field now suffered through having so many administrative and political questions to deal with, in addition to his duties as commander in the field".<sup>56</sup> In recommending to Sir Sam Hughes that the proposal be approved. Aitken cabled "that the loss of Turner and

Ketchen would affect disastrously the Second Division and must be followed by many resignations". He had "reluctantly" come to the conclusion that General Alderson was "incapable of holding the Canadian Divisions together".<sup>57</sup> In Ottawa the Prime Minister and his cabinet gave their assent on 26 April and Alderson's appointment to the post in the United Kingdom followed.<sup>58</sup> For many years, during and after the war, it was widely believed that the immediate cause of Alderson's removal had been the differences of opinion between himself and the Minister of Militia regarding the use of the Ross Rifle (below, p. 158). As we now know,<sup>\*</sup> this was not the case.

General Alderson's new appointment was to be of brief duration; for in November 1916 a reorganization of Canadian command in the United Kingdom terminated his employment. During his eighteen months in command of Canadian forces on both sides of the English Channel he had made an important contribution. It had not been an easy task to organize equip and train the Canadian Division in the mud of Salisbury Plain particularly when so often his views had clashed with those of the Minister of Militia. Under his leadership Canadians had sturdily withstood the German onslaught at Ypres<sup>†</sup>, and to him must go no small part of the credit for building the staunch Canadian force that within a year was to win its spurs as a corps on Vimy Ridge.<sup>59</sup>

The Canadian Government had left the nomination of Alderson's successor in the hands of the Commander-in-Chief. He selected a distinguished British officer and a future Governor General of Canada-Lieut.-General the Honourable Sir Julian H.G. Byng. Sir Julian was a cavalry officer who at the outbreak of war to win as recalled from service in Egypt to command a cavalry division and subsequently the Cavalry Corps in France. He commanded the 9th Corps in the Dardanelles Campaign, returning to the Western front in February 1916 to take over the 17th Corps.

### **The Battle of Mount Sorrel, 2-13 June**

The beginning of June found the 2nd Canadian Division still in front of St. Eloi. Major-General Currie's 1st Division had battalions in its front line, which centred on Hill 60, immediately north of the Ypres-Comines railway. The remaining two miles of front on the Corps left were held by the 3rd Division (Major-General Mercer), with four battalions forward. This part of the Canadian line formed the most easterly projection of the Ypres Salient into enemy territory. The challenge to German aspirations presented by this obtrusion was the greater in that the 3rd Division's sector included the only portion of the crest of the Ypres ridge which had remained in Allied hands - a tenure which gave the Canadians observation over the enemy trenches. This advantageous position extended from a point about a thousand yards east of Zwarteleen (beside Hill 60),

<sup>\*</sup> Sir Robert Borden's Papers did not become available for examination at the Public Archives of Canada until 1952.

<sup>†</sup> Mount Alderson, in Alberta, overlooking the Waterton Lakes, is named after the first commander of the Canadian Corps.

passing in succession over a flat knoll called Mount Sorrel and two slightly higher twin eminences, "Hill 61" and "Hill 62", the latter known also as Tor Top. North of these points the ground fell away to the Menin Road, but from Tor Top a broad spur, largely farm land, aptly named Observatory Ridge, thrust nearly a thousand yards due west between Armagh Wood and Sanctuary Wood. If the enemy could capture Tor Top and advance along Observatory Ridge he would gain a commanding position in the rear of the Canadian lines, and might well compel a withdrawal out of the salient. At the least such an advance might, as the Germans themselves stated, "fetter as strong a force as possible to the Ypres Salient", and thus reduce the number available for a British offensive elsewhere.<sup>60</sup>

Opposite the 1st and 3rd Divisions the enemy's 27th and 26th Infantry Divisions, of the 13th Wurttemberg Corps, had for the past six weeks been stealthily preparing just such a blow. Warnings were not lacking. During May Canadian patrols reported that German engineers were pushing saps forward on either side of Tor Top. These progressed slowly but steadily in spite of our artillery and machine-guns; and before the end of the month a new lateral trench connected the heads of the saps, now fifty yards in advance of the main front line. The same kind of thing was going on south of Mount Sorrel and at other points beyond. Some weeks earlier observers of the Royal Flying Corps had seen near the Menin Road, well behind the enemy lines, works curiously resembling the Canadian positions near Tor Top. (The history of the German 26th Infantry Division confirms that these were practice trenches used to rehearse the assault.)<sup>61</sup> Other indications of forthcoming action appeared in the bringing up of large-calibre trench mortars, and abnormal activity by the enemy's artillery, aircraft and observation balloons. Weather conditions, however, prevented systematic observation of the German rear areas; and the absence of significant troop movements seemed to signify that the looked-for attack was not imminent. (Actually the only additional enemy troops transferred to the sector for this operation were artillery.) Then on the night of 1-2 June the Wurttembergers refrained for seven hours from shelling the Canadian trenches, in order, as it subsequently transpired, to avoid interference with their own wire-gapping parties. Later their guns resumed normal activity, and Canadian suspicions were allayed.

At six o'clock on the morning of the 2nd, General Mercer and Brig.-Gen. Williams, commander of the 8th Brigade (which was defending the threatened area about Observatory Ridge), set out to reconnoitre Tor Top and Mount Sorrel. They had just reached the front-line trenches of the 4th Canadian Mounted Rifles on the brigade right when the enemy's preliminary bombardment burst upon them. It was the Canadian Corps' first experience of the terrific violence that artillery preparation was to attain in the summer of 1916. "All agreed", writes Lord Beaverbrook,\* "that there was no comparison between the gun-fire of April and of June, which was the heaviest endured by British troops up to that time."<sup>62</sup> For four hours a veritable tornado of fire ravaged the Canadian positions from half a mile west of Mount Sorrel to the northern edge of Sanctuary

\* Sir Max Aitken was elevated to the peerage in January 1917.

Wood. The full fury fell upon the 8th Brigade and the right of the 7th Brigade. Hardest hit was Brig.-Gen. Williams' right-hand battalion, the 4th Canadian Mounted Rifles, in front of Armagh Wood. Their trenches vanished and the garrisons in them were annihilated. Of this unit's ordeal a German eye-witness was to write: "The whole enemy position was a cloud of dust and dirt, into which timber, tree trunks, weapons and equipment were continuously hurled up, and occasionally human bodies".<sup>63</sup> "The Tunnel", a gallery dug on the reverse slope of Mount Sorrel by the 2nd Canadian Tunnelling Company (whose sappers were to do stout work in evacuating casualties), afforded some safety until it was blown in; its surviving occupants were captured. In all, the 4th Mounted Rifles suffered 89 percent casualties - of 702 officers and men only 76 came through unscathed.<sup>64</sup>

Neither Mercer nor Williams returned from the Mounted Rifles' area. The latter, wounded, was taken prisoner when the German infantry assaulted. The death of Mercer - his ear-drums were shattered by shellfire, his leg broken by a bullet, and finally he was killed by a burst of shrapnel as he lay on the ground - came tragically at a moment when his new command was entering its first big action.<sup>65</sup> That afternoon Brig.-Gen. E.S. Hoare Nairne, of the Lahore Divisional Artillery, assumed temporary command of the 3rd Division.\* Williams' place was taken for the time being by Lt.-Col. J.C.L. Bott, Commanding Officer of the 2nd Canadian Mounted Rifles (then in brigade reserve). For several critical hours, however, both the 3rd Division and the 8th Brigade were leaderless; and the conduct of the defence suffered accordingly.

During the morning the deluge of hostile fire increased in intensity. Our artillery, assisted by two squadrons of British aircraft, accomplished little. Enemy shellfire eventually killed or wounded all forward observation officers and cut all telephone lines. A few minutes after 1:00 p.m. the Wurtembergers exploded four mines just short of the Canadian trenches on Mount Sorrel, and then attacked - two battalions each of the 121st and 125th Regiments (26th Infantry Division) on the right, and two battalions of the 120th Regiment (27th Infantry Division) on the left at Mount Sorrel.<sup>66</sup> Five other battalions were in support, and six in reserve. In bright sunlight the grey-coated figures advanced in four waves spaced about seventy-five yards apart. Afterwards Canadian survivors spoke of the assured air and the almost leisurely pace of the attackers, who appeared confident that their artillery had blotted out all resistance.

All was methodically planned. The men in the first line had fixed bayonets and carried hand grenades and wire cutters. Those who followed were equipped with entrenching tools, floor boards and sandbags. As they flowed over the flattened trenches along Mount Sorrel and Tor Top they encountered only small, isolated bands of survivors from the 1st and 4th C.M.R. who could offer little effective resistance. There were brief episodes of hand-to-hand fighting with bomb and bayonet, and where sheer numbers were not sufficient to

\* On 16 June Brig.-Gen. Lipsett was promoted to Major General and succeeded General Mercer in command of 3rd Division.

overcome resistance, the enemy used flame projectors. The machine-guns of Princess Patricia's Canadian Light Infantry and the 5th Battalion (1st Division) - on the left and right flanks - raked the attackers. Though they inflicted substantial casualties they could not halt the advance. It remained for the 5th Battalion Canadian Mounted Rifles holding a series of strongpoints immediately behind the 1st and 4th battalions to check enemy attacks on the east and south-east sides of Maple Copse with rapid and accurate fire. Exploiting along Observatory Ridge, the Germans captured three strongpoints and overran a section of the 5th Battery C.F.A., killing or wounding all the gunners.\* Of this incident a German regimental historian was to write: "It is fitting to stress that here too the Canadians did not surrender, but at their guns defended themselves with revolvers to the last man."<sup>68</sup> Before the Germans began consolidating they had seized most of Armagh Wood and pushed back all but the northernmost 600 yards of our line in Sanctuary Wood.

Credit for temporarily checking the enemy's right wing belongs to the Patricias. One of their two companies in the firing line, next to the 1st C.M.R., had been overrun. But the second had escaped the worst of the bombardment, and as the Germans surged eastward its rifles volleyed into the enemy's right rear. It was to hold out successfully for eighteen hours, isolated from the rest of the battalions and with all its officers killed or wounded. Patricia companies to the rear bore the brunt of the fighting, beating off German attempts to reach the vital support line before it could be reinforced. Resolute detachments held successive blocks in the communication trenches, and the enemy's advance was over the dead bodies of each little garrison in turn. Sanctuary Wood cost the P.P.C.L.I. more than 400 casualties including 150 killed, among them the Commanding Officer, Lt.-Col. H.C. Buller.<sup>69</sup>

Under orders issued before the attack the Germans dug in 600-700 yards west of their former line, though short of "the position to be occupied in the most favourable case". Their formation histories, reporting the road to Ypres open, regret the brake upon exploitation applied in advance by the command. Fortunately for the Canadians no German officer had the initiative to exceed instructions and capitalize on success. Pressure to the north against the weakened defenders might well have rolled up the Canadian left wing, which had been so gallantly held by the Patricia company backed by The Royal Canadian Regiment at Hooge.<sup>70</sup>

By evening of 2 June machine-guns of the 10th Battalion and batteries of the Motor Machine Gun Brigade sent forward by the G.O.C. 1st Division had established a new line sealing off the German encroachment, and at 8:45 p.m. General Byng issued orders that "all ground lost to-day will be retaken tonight". The counter-attack was timed for 2:00 a.m. Because of the 3rd Division's heavy losses two brigades of the 1st Division were temporarily placed at Brig.-Gen. Hoare Nairne's disposal (the 2nd Brigade to operate against Mount Sorrel and the

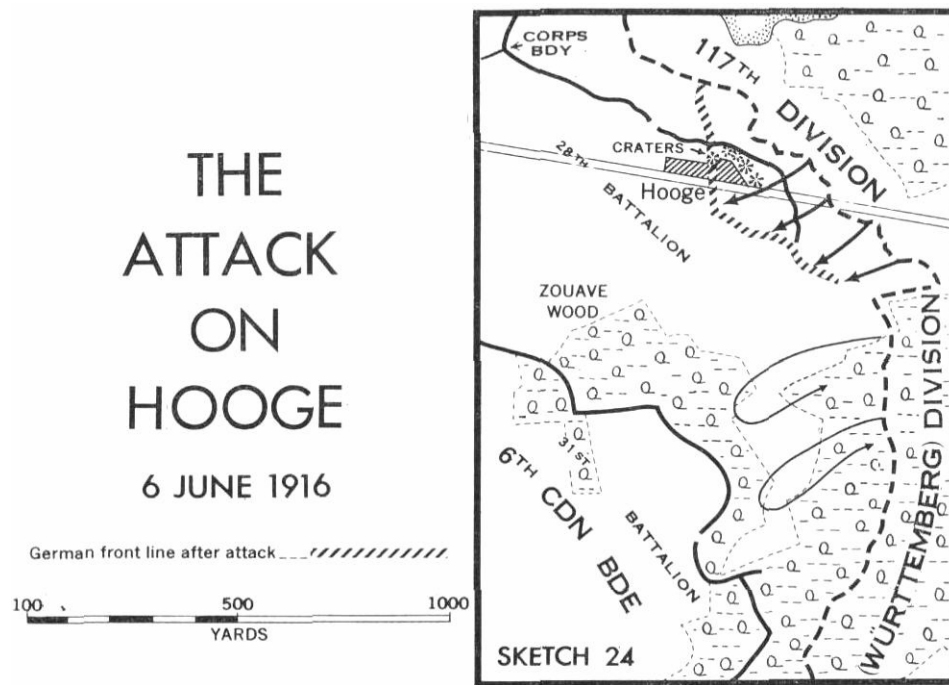
\* This was the only occasion in the war when guns of the Canadian Corps fell into German hands. The two 18-pounders were recovered in the subsequent fighting.<sup>67</sup>

3rd against Tor Top), and his 7th Brigade (on the left) was strengthened by the addition of two battalions of the 9th Brigade. But because of the distances that had to be covered, the difficulties in communication and the interference by enemy fire, the time allowed for assembly proved inadequate and the attack had to be postponed until after seven o'clock. Then came more trouble. The signal to begin was to be six simultaneous green rockets. Some misfired, and in all fourteen rockets had to be used to send up six. Since these had not burst simultaneously (and at least two battalions saw no rockets), units still awaited the starting signal.<sup>71</sup>

As a result the 7th Battalion, on the right, the 14th and 15th Battalions (centre) and the 49th (left) assaulted at different times. The uneven start permitted a concentration of enemy rifle and machine-gun fire that would have been impossible against a whole line advancing at once. The four units suffered heavily as they moved resolutely forward in broad daylight over fairly open ground, and only small parties reached their objectives, to engage the Germans in hand- to-hand fighting. Weakened by casualties they could not overcome the defenders, and many were killed or captured. Before 1:00 p.m. the right and centre units had withdrawn to their start line, though on the left the 49th Battalion remained in possession of some of the trenches just short of the old German line.<sup>72</sup> The Edmonton unit had suffered heavily. Its casualties brought the total losses of the 7th Brigade for the first four days of June to 1050 all ranks.

Although these attacks failed to achieve their purpose, they had nevertheless closed a 600-yard gap from Square Wood across Observatory Ridge to Maple Copse, and advanced the Canadian front about 1000 yards from the scratch positions taken up after the German assault. Work now began on extending this line northward to Hooze, so as to give depth to the 7th Brigade's defences. The enemy, too, had not been idle. Setting himself to defend his important gains he had fortified his new line with machine-guns and barbed wire and constructed eight communication trenches leading forward from his old front line. It would almost seem that the fact of the struggle being between two national corps - Canadian and Württemberger - had strengthened the determination of each to win.

Sir Douglas Haig agreed with General Plumer's desire to expel the Germans from such a commanding position only two miles from Ypres; but in view of the preparations for the Somme offensive he did not wish to divert to the Salient more troops than necessary. He therefore restricted further support from outside the Canadian Corps to artillery and one brigade of infantry, and suggested that the next counter-attack be carried out with few infantry but many guns. This emphasis on artillery - which followed the tactics so successfully employed by the Germans at St. Eloi - brought to the disposal of the G.O.C. R.A. Canadian Corps, Brig.-Gen. H. E. Burstall, one of the greatest arrays of guns yet employed on so narrow a front. The 218 pieces included 116 eighteen-pounders, and ranged in calibre up to two 12-inch howitzers. They represented the Canadian Corps Heavy Artillery, the 1st and 2nd Divisional Artilleries and the Lahore Divisional Artillery; the British 5th, 10th, 11th Heavy Artillery Groups,



3rd Divisional Artillery, 51st Howitzer Battery and 89th Siege Battery; and the South African 71st and 72nd Howitzer Batteries. The “heavies” of the British 5th and 14th Corps, on either flank, were to cooperate.<sup>73</sup>

The main task of the artillery before the counter-attack was to hamper the enemy’s consolidation by pounding his front and support lines and seeking out hostile batteries for destruction. German accounts admit the success of this programme. “The losses of the 120th Regiment and the 26th Infantry Division mounted in horrifying numbers ... What was constructed during the short nights was again destroyed in daytime”.<sup>74</sup> But bad flying weather made it impossible to register the heavy guns, and the counter-attack, originally set for 6 June, had to be postponed.

In the meantime the enemy struck again. The target was the spur at Hoge, which had changed hands many times since the Germans first took it in 1914. Their most recent tenancy had been for eight days in the previous August. The spur overlooked Ypres, and its possession would complete the enemy’s domination of the salient. In a series of reliefs the 6th Canadian Brigade, brought up from the 2nd Division’s reserve, had taken over the 7th Brigade’s sector north of Sanctuary Wood, and was thus holding the extreme left of the Corps front. At 3:05 p.m. on the 6th 200 yards of trenches covering the eastern outskirts of the ruins of Hoge were shattered by the explosion of four large mines. Two companies of the 28th Battalion holding these trenches suffered heavily, one being almost wiped out.<sup>75</sup> Determined rifle and machine-gun fire from the remainder of the battalion and the 31st Battalion on the right beat off German



attempts to reach the support line. But "Hooge had gone ... and Ypres remained open to its assailants".<sup>76</sup>

In keeping with the C.-in-C.'s policy of limiting operations in the Ypres Salient so as not to hamper preparations for the Somme offensive, General Byng decided to leave the Hooge trenches in German hands and to concentrate on regaining Mount Sorrel and Tor Top. To guard against further trouble on his left, the British 2nd Dismounted Cavalry Brigade, organized in three battalions, came on loan to the Canadian Corps as a counter-attack force.<sup>77</sup> After further postponement because of bad weather the Canadian operation was set for 1:30 a.m. on the 13th. It was to be carried out mainly by the 1st Division. Because of the casualties suffered by units of two of his brigades in the unsuccessful counter-attack of 3 June, General Currie regrouped his stronger battalions into two composite brigades. Brig.-Gen. Lipsett on the right had the 1st, 3rd, 7th and 8th Battalions, and for the attack on Tor Top Brig.-Gen. G.S. Tuxford (3rd Brigade) commanded the 2nd, 4th, 13th and 16th Battalions. The 58th Battalion (9th Brigade), plus a company of the 52nd, was to assault on the left. The 5th, 10th, 14th and 15th Battalions were placed in a reserve brigade under Brig.-Gen. Garnet Hughes.<sup>78</sup>

Four intense bombardments of 20 to 30 minutes' duration carried out between the 9th and the 12th four times deluded the enemy into expecting an immediate attack; it was hoped that when none materialized he would suppose the artillery preparation for the real thing to be merely another feint. For ten hours on 12 June all German positions between Hill 60 and Sanctuary Wood were shelled unremittingly, particular attention being given to the flanks, from which machine-gun fire might be expected to enfilade the attackers. At 8:30 that evening, after an intense half-hour shelling which proved extremely accurate, the assaulting units moved up to their start lines - in some cases in no man's land. For forty-five minutes before zero there was one more blasting by the heavy artillery, and then the attack went in behind a dense smoke screen and in heavy rain.

Brig.-Gen. Burstall had hoped that with so much artillery support our infantry would be able to advance "with slung rifles", and events proved him very nearly right. In four long lines the battalions pushed forward through the mud, each on a front of three companies-from right to left the 3rd, the 16th, the 13th and the 58th Battalions. There were occasional checks by fire from some machine-gun emplacement which had escaped destruction, or from grenades hurled by isolated pockets of Germans. But the majority of the Wurtembergers, completely surprised and badly shaken, offered little resistance. Almost 200 were taken prisoner, the survivors falling back to the original German line. In an hour the battle was virtually over. "The first Canadian deliberately planned attack in any force", states the British Official History, "had resulted in an unqualified success."<sup>79</sup> The 3rd Battalion had retaken Mount Sorrel, the 16th now held the northern part of Armagh Wood, the 13th had cleared Observatory Ridge and Tor Top, and the attached 58th Battalion (reporting casualties of 165 all ranks) had

recovered much of the old line through Sanctuary Wood. Between 2 and 14 June the Canadian Corps losses numbered approximately 8000; in the same period the Germans in that sector sustained 5765 casualties.<sup>80</sup>

Inability to take effective counter-measures because of the Allied superiority in aeroplanes, artillery (40 batteries to 28 German) and supplies of ammunition was cited by the Germans for their failure to hold their gains of 2 June. They even judged the weather to be in our favour. "For the continual rain contributed to the softening up of the troops, which were exposed to heavy fire day and night."<sup>81</sup> It was a meteorological viewpoint which the Canadian veteran lying in lashing rain in no man's land until the assault or standing knee-deep in water in the assembly trenches might find difficult to share.

Consolidation of the new front line began early on the 13th, as did the enemy's bombardment as soon as he realized the extent of his lost positions. On the morning of the 14th he launched two counter-attacks against Mount Sorrel, both of which were broken up by our artillery. He subsequently advanced his own line to within 150 yards of ours (the average distance which had existed between the forward positions before 2 June) but made no further move to reopen the battle.

### **Summer in the Salient**

The Canadian Corps remained in the Ypres Salient until the beginning of September - its role "stationary yet aggressive". Though holding their positions but thinly the Canadians continued to harry the enemy with bombardment, mining and raids. A German attempt to recapture The Bluff on 25 July by blowing a mine beneath our trenches was frustrated when the 7th Battalion, warned by the 1st Canadian Tunnelling Company of the forthcoming explosion, seized the crater ahead of the enemy. Advanced patrolling entered its third stage on the 29th, when twenty members of the 19th Battalion raided enemy trenches opposite St. Eloi in broad daylight to secure identifications and evidence of mine-shafts or gas cylinders. They killed or wounded an estimated 50 Germans, identified as Wurttembergers, and found the suspected gas-cylinder boxes; Canadian casualties were only minor. Encouraging as this success was, with complete surprise an essential factor such raids could be carried out at only irregular intervals. On 12 August an enemy attack in company strength at Hill 60 was repulsed by the 60th Battalion, whose "steadiness and tenacity" brought commendation from the Army Commander. There was warm praise for the support given on the occasion by the Canadian Corps Heavy Artillery and the 1st Divisional Artillery.<sup>82</sup>

On the 14th the Canadian Corps played host to King George V and the Prince of Wales. While the royal visitors looked on from Scherpenberg Hill, near Kemmel, 6-inch howitzers of the Corps Heavy Artillery and field guns of the 2nd Divisional Artillery and a Belgian unit under command of the 3rd Divisional Artillery bombarded the St. Eloi craters. Four days later Canada's Minister of Militia and Defence, Sir Sam Hughes, visited Corps Headquarters and the 3rd Division.<sup>83</sup>

As units withdrew into reserve the emphasis was on more advanced training, with new techniques being practised. Demonstrations in artillery-infantry cooperation showed how closely the barrage could be followed without incurring unnecessary casualties. This was the period when cooperation between the air and infantry at last reached a practical stage. There were exercises with the Royal Flying Corps\* based on the newly adopted system of "contact patrol". The attacking infantry carried flares, mirrors and special signalling panels, and as they advanced they signalled their positions to aircraft assigned solely to tactical observation. The information thus received was then dropped at formation headquarters or sent back by wireless.<sup>84</sup>

A worthwhile administrative development about this time provided for a supply of reinforcements to be held in close proximity to the fighting units, besides giving reinforcements a less abrupt introduction into active operations. Hitherto replacements for Canadian field units had arrived direct from the Base Depot at Le Havre. Early in August, however, each division was allotted an "Entrenching Battalion-an advanced reinforcement unit to which infantry and engineer reinforcements were posted pending their assignment to a battalion or field company. During their stay in the Entrenching Battalion personnel were employed in the construction and repair of trenches and roads and in similar maintenance duties. When the 4th Division reached the Corps area in mid-August it followed the pattern set by the 1st Division in attaching its brigades to a division in the line for seven days' training in trench warfare. There was special emphasis on instruction in anti-gas measures, and each battalion of the 4th Division was put through a gas cloud.<sup>85</sup>

After the Corps moved from Flanders to the Somme all formations and units adopted identifying patches. A rectangular patch, sewn on the upper sleeve, denoted the division by its colour-red for the 1st Division, dark blue for the 2nd, black (later changed to French grey) for the 3rd and green for the 4th. It was surmounted by a smaller patch the colour of which indicated the wearer's brigade (in order in each division, green, red, blue), and the shape (circle, semi-circle, triangle or square) his battalion (first, second, third or fourth) within the brigade. Divisional troops wore the divisional patch only or markings peculiar to their particular service.<sup>86</sup>

### **The Ross Rifle Withdrawn**

The summer of 1916 brought the Canadians certain changes in armament. The light trench mortar batteries were reorganized and equipped with the 3-inch Stokes; all 3.7 and 4-inch trench mortars were withdrawn. Owing to difficulty in obtaining spare parts, the Colt machine-gun was replaced by the Vickers, which British factories could now supply in sufficient quantities.<sup>87</sup> By the end of August the 2nd and 3rd Divisions had exchanged their Ross rifles for Lee-Enfields, as the 1st Division had done more than a year earlier. The 4th

\* The Royal Flying Corps numbered many Canadians in its ranks. An account of the activities of some outstanding Canadians appears in Chapter XVI..

Division was similarly rearmed in September, after which (except for a few snipers who retained the Ross), all Canadian troops in France carried the British rifle. Canadian rifles returned from France, or still held in England, were taken by the British Government in exchange for the Lee-Enfields and issued to British units remaining in the United Kingdom and to the Royal Navy.

The withdrawal of the Ross rifle from the Canadian Corps followed a decision by the British Army Council based on a recommendation from the Commander-in-Chief. It was the culmination of two years of painful controversy which had seen the Minister of Militia uncompromisingly defending the weapon against charges of unsatisfactory performance in the field. As we have seen, the men of the First Contingent went overseas armed with the Ross, but before going into action with a British brigade the P.P.C.L.I. had changed to the Lee-Enfield. In spite of complaints of defects in the Canadian rifle during the training period on Salisbury Plain, the 1st Division (with the exception of the Divisional Cavalry Squadron) took their Ross rifles to France with them. In the spring of 1915, however, the Commander of the Canadian Cavalry Brigade, Brig.-Gen. Seely, arranged with the War Office to have his brigade equipped with Lee-Enfields, claiming that because of its length the Ross was not a suitable weapon for cavalry. The Ross was unpopular with the artillery because the limber brackets, designed for the Lee-Enfield, failed to hold the Canadian rifle securely, with the result that it often slipped sideways and fouled the wheel spokes.<sup>88</sup>

In France the harsh test of trench warfare served to emphasize the new rifle's imperfections. The long barrel struck the overhead struts of the revetting frames as the men moved along the trenches. There were complaints that the backsight was easily broken, or put out of order by the slightest jar. A bayonet jumping off during firing meant a search over the parapet - only practicable after dark. The most serious defect, as reported by Brig.-Gen. Currie to the Divisional Commander, was that after a few rounds of British-made ammunition had been fired "the shells seem to stick in the bore and are not easily extracted, in fact, more than the ordinary pressure must be applied". It is not surprising that many of the 1st Division armed themselves with Lee-Enfield rifles acquired from British casualties; and on 14 March the G.O.C. found it necessary to publish a Routine Order forbidding troops other than the Divisional Mounted Troops to be in possession of Lee-Enfields. After the first gas attack in April twenty-six reports from brigade and battalion commanders varied from accepting the Ross rifle as "a satisfactory weapon" to the condemnation that "it is nothing short of murder to send our men against the enemy with such a weapon". Almost one third of the 5000 troops who survived the ordeal at Ypres had given an unmistakable verdict by throwing away the Ross and picking up the Lee-Enfield. By the time the battle of Festubert had been fought more than 3000 men of the 1st Division had irregularly possessed themselves of Lee-Enfields.<sup>89</sup>

A test made by General Headquarters early in June 1915 brought findings that the only ammunition suitable for rapid fire with the Ross was that manufactured by the Dominion Arsenal. Of the various patterns of .303 ammunition being supplied to the armies in France the Canadian-made cartridge

case (the D.A. 1914 Mark VII) was of smaller calibre (by .010 inches) than the standard British equivalent. The reduced specification had been adopted because the chamber of the Ross rifle was smaller than that of the Lee-Enfield.\* At the same time the hardness of the brass in the Canadian case had been increased to lessen the amount of expansion in firing. On orders from the Canadian Master General of the Ordnance, ammunition accepted from the Dominion Arsenal had to conform to narrow limits of tolerance far more stringent than the latitude which Woolwich standards allowed the commercial factories. These precautions were designed to ensure ease of release of the empty case from the Ross, whose "straight pull" system of ejection could not achieve the unseating force exerted by the Lee-Enfield's bolt lever acting powerfully on a screw thread. Not only did the mechanism of the Lee-Enfield give a much more powerful leverage in disengaging the cartridge case swelled by explosion of the propellant, but the weapon's simpler and more exposed action was much less susceptible to clogging by mud and dust.<sup>91</sup>

Unfortunately no one seems to have warned the Canadians before they went into action of these differences and of the danger of using the larger, unhardened British cartridge in the Ross rifle. "As far as I know", wrote General Alderson after tests carried out on the Ross in May 1915, "this is the first occasion that it has been stated that the size of the chamber is smaller than that of the Lee-Enfield".<sup>92</sup> When inspecting the Canadian military forces in 1910 Sir John French had commented on "the difference in armament between the Canadian and Imperial Forces", but had noted "that the most important essential is assured in the similarity of the ammunition used by the Ross rifle and that used in other parts of the Empire".<sup>93</sup> Yet the complete interchangeability which he envisaged had not been achieved, and now five years later, as Commander-in-Chief, when he learned in June that sufficient supplies of Canadian ammunition were not available in France, he had ordered the 1st Division to be rearmed with the Lee-Enfield.<sup>94</sup>

Remedial action was taken in July 1915 when the Militia Council ordered the Ross Rifle Company to adopt the dimensions of the larger Lee-Enfield chamber in future manufacture and to ream out to this size all rifles in stock at the factory. All Ross rifles in the United Kingdom were rechambered, with priority being given to those held by the 2nd Division, which was about to move to France; altogether 44,000 rifles were so treated. Even with the rechambered rifles however instances of jamming continued with certain makes of .303 ammunition; and tests conducted in the field confirmed the superior ability of the Lee-Enfield to handle oversized cartridges. The results of these tests became known to the troops, as did the experiences at St. Eloi, where the mechanism of the Ross had proved more sensitive to mud than its British rival; and even warnings of strict disciplinary measures did not deter men in both the 2nd and 3rd Divisions from continuing to acquire unauthorized Lee-Enfields whenever the opportunity offered. The cause of the trouble was now diagnosed

\* The Lee-Enfield chamber measured .339 inches at the neck and .462 inches at the base. Comparable measurements for the Ross were .338 and .460 inches. When modified later the Ross chamber was enlarged to .341 inches at the neck and .464 inches at the base.<sup>90</sup>

as a variation in the temper of the bolt head and an inadequate surface of impact between the bolt head and the bolt stop. Increasing the size of the bolt stop to double this area of engagement proved effective, but the modification came too late.

In the spring of 1916 events marched steadily to a climax. Asked by the C.G.S. in Canada to comment on remarks about the Ross rifle made in a letter from an American serving as a subaltern in the Canadian Ordnance Corps at Shorncliffe, General Alderson replied at length, listing ten reasons for which “8S per cent of the men do not like the Ross”. He denied knowledge of any “more or less organized attempt to discredit the Ross rifle”, but declared, “I should not be fit for my position if I passed over anything which endangered men’s lives or the success of our arms.”<sup>95</sup>

The Corps Commander’s letter to Major-General Gwatkin drew from the Minister of Militia a strongly worded reply, which contained a spirited defence of the Ross and a series of innuendos regarding General Alderson’s criticisms of the weapon. “You seem to be strangely familiar”, wrote Sir Sam, “judging from your letter with the list of ten suggestions intended to prejudice the Ross rifle in the minds of the Canadians.... Some of them are so absolutely absurd and ridiculous that no one excepting a novice or for an excuse, would be found seriously advancing them.” He attacked the “criminality” of permitting “bad ammunition being placed in the hands of soldiers who are risking their lives in defence of the liberties we all hold so dear.” And he concluded, “Your emphatic energy concerning what your intentions are, if you will pardon me, might better be directed to having your officers of every grade responsible in the premises to make sure that none of the defective ammunition again finds its way into the Canadian ranks.”<sup>96</sup> On the Minister’s instructions copies of this letter were sent to all officers down to battalion commanders both in England and France -281 addressees in all.

General Alderson’s reaction to this remarkable epistle<sup>\*</sup> was to direct on 2 May, “that a definite and independent opinion be obtained from every Brigade, Battalion and Company Commander” in the 2nd and 3rd Divisions as to the Ross rifle’s performance and whether “the men under their command have every confidence” in their weapon.<sup>98</sup> (In relaying a copy of this directive by “reliable messenger” to the Minister’s Special Representative in London, the G.O.C. 2nd Division predicted that it would “cause serious trouble to Canada”. He suggested that “naturally amongst a large number of officers of British birth, their reply will be in favour of a change of rifle”, and he went so far as to write, “action is being delayed too long as regards Alderson”.<sup>99</sup>) The answers received from the 2nd and 3rd Divisions to the questionnaire were laid before the Commander-in-Chief. Of 63 officers of the 2nd Division 25 had reported for the Ross, 25 against, and 13 were undetermined. Every unit and formation of the 3rd Division reported adversely. Sir Douglas Haig then recommended to the War Office that the two

<sup>\*</sup> In writing General Alderson’s obituary in 1928, Major-General W.A. Griesbach declared that the Corps Commander’s position had been made impossible by the circulation to his subordinates of Sir Sam’s offensive letter. “A commander in France”, wrote Griesbach, “was faced with the prospect of having his military career blasted if he did not swallow the Ross Rifle, lock stock and barrel.”<sup>97</sup>

divisions should be rearmed with the Lee-Enfield.<sup>100</sup> On 6 June the War Office was informed of the Canadian Government's readiness to abide by the C.-in-C.'s judgment, and upon General Haig reiterating his recommendation on 21 June the Army Council approved the change. In advising Canada of this decision the Colonial Secretary asked "that no more Ross rifles should be brought to England" and suggested that if the Canadian Government contemplated manufacturing "different rifles suitable for use during war, Army Council think that rifles now being produced in America for British Army on lines of Lee-Enfield Mark III but with improvements would be best."<sup>101</sup> Wartime production of rifles in Canada came to an end. The existing contract with the Ross Rifle Company for the supply of 100,000 weapons was cancelled, and an Order in Council in March 1917 authorized the expropriation of the factory.\* Plans to proceed with the manufacture of the new Enfield pattern did not materialize, for two years would be required for the transition, and the needs of the Canadian forces could now be met from British production.

\* The Ross rifle stocks remaining in Canada were reconditioned and modified and placed in reserve. At the time of Dunkirk during the Second World War many were sent by fast passenger ship to the United Kingdom, where they were used to arm the Home Guard and other units for whom no weapons were available.