

The Canadian Engineer

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Mining Methods and Tunnelling at the Front

Underground Adventures with Second Canadian Tunnelling Company—Defense of Mount Sorrel—Construction of Galleries and Dugouts—Surveying Under Difficulties—Experiences at Listening Posts—Light Charges in Bore Holes Rout Enemy Listeners

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THE Second Canadian Tunnelling Company arrived in France in March, 1916, all the personnel being drawn from the Canadian mining camps. My personal knowledge of the company dates from July 1st, 1916, when I joined it on transfer from the cyclists. On June 2nd, 1916, when the Germans launched an attack on Sanctuary Wood, this company was mining in the front line and had about 50% of its personnel rendered casualties. It was then withdrawn and reorganized, and several of us were taken on as probationers for commission, as the supply of mining officers was very low. I was first given one stripe and a gang of fourteen men, working at the reclaiming of some old saps which had been

captured by Heinie and later retaken by our Second Division. As soon as we had living quarters arranged, we commenced to drive towards the German line, as we wanted to get a protecting gallery around the high ground known as Mount Sorrel, about 1½ miles south-east of Ypres and only 200 yds. to the left of Hill Sixty.

Our infantry had such a precarious hold on the edge of Mount Sorrel that every precaution was necessary. Behind us was nothing but low swamp through which it was quite impossible to make trenches. The natural thing for Fritzie

to do was to try to blow us off the edge, and figuring that he would do the natural thing, we were ordered to put in a protective gallery to keep him back. Finding that our progress was too slow, the O.C. ordered us to start an incline from the front line, and we had no sooner reached the desired level (25 ft.) and commenced to drive horizontally than we ran into one of Fritzie's surprises, and he blew us, killing five men and wrecking our stair. This was very serious, as it showed us that he was already almost under our trench, and also was suspicious of us.

We then went about thirty yards to the right and left and started two inclines. Great care was taken to keep these saps secret, and strict quietness enforced. These were both driven down to the level required and galleries were driven out about 30 yds. We were then ordered to cross cut and connect. As these cross-cuts were expected to cut his gallery, our job was not very inviting, as we expected that he

was patiently waiting for us to get near again to repeat his former kick. The officers in charge of this work adopted a very novel scheme which, although daring, worked all right. Work in each face would be stopped while a small bore hole was teased ahead about 25 ft., angling slightly outwards, then a very light charge would be placed in this hole and blown. Figuring that any listeners in the enemy galleries would have been chased away by the sound of the blow, our men would work like fiends for a couple of hours, when the ruse would be repeated.

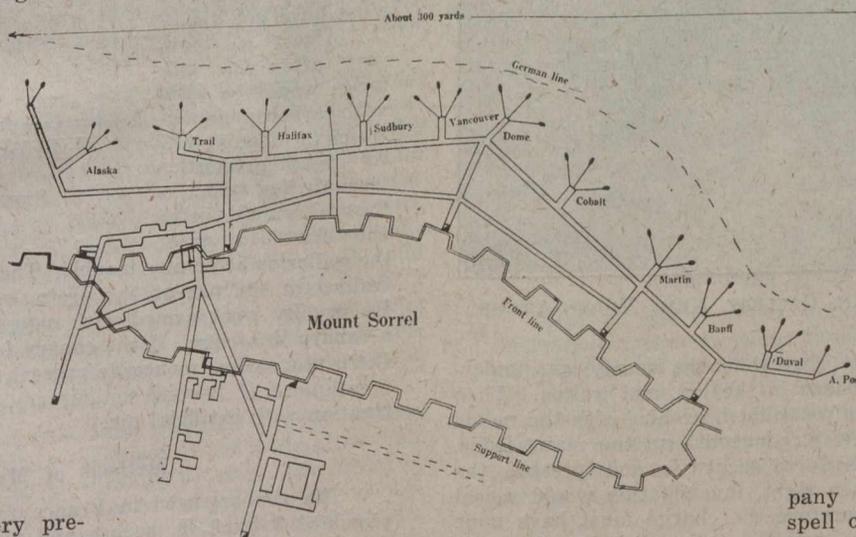
In due course we cut his gallery and connected up our two stairs without losing another man. In this case our officers simply gambled on the probable effect of the blows on the Huns' actions and we won. It was considered quite a feat. After this the belt was continued with varying success till all the high ground was protected, about fifteen small mines being blown by each side. Sometimes Heinie caught some of our men, but we finally got the system finished as shown on plan.

After this the company settled down to a long spell of fighting the Hun back from our line till June 7th, 1917, when, at the battle of

Messines Ridge, every large mine on our front was successfully blown and tunnelling was ancient history.

While work was proceeding in offensive mining, the greatest thing necessary was to hear the enemy and not to let him hear us; therefore quietness was essential. This need of silence was the main reason why no mechanical devices were used. No one was permitted to wear boots in the galleries, the men mostly using sandbag slippers which they made themselves. The tunics were left off for fear the buttons would rattle on the timber, and all tools, timber, etc., which were carried through were swathed in sandbags to deaden any sound. No talking above a whisper was allowed.

Every 50 ft. along the main gallery, small listening pockets were driven off and bore holes radiated from the end. At the end of each bore hole there was placed a sealed torpedo containing 100 lbs. of ammonol, with an electric detonator and leads, and main leads were stretched down the main gallery from the office. Also each pocket had an electric



MOUNT SORREL DEFENSE SYSTEM