

building, and they were so impressed with the expedition with which the work was carried out that they had illustrations of it published in *Le Miroir*, in Paris. The construction was similar to that of a standard railway trestle in this country. It is 600 ft. long and about 40 ft. high. The work was carried out by the A company of the battalion, under command of Major J. B. Heron, with Lieut. John Hamilton, an old C.P.R. bridge man, in immediate charge. It was at first estimated by the army authorities that the work would take from a month to six weeks, but as before stated, it was built in seven days.

**Officers of Battalion.**

Following is a complete list of the battalion's officers, giving their former occupations and addresses as far as possible:—

- Lieut.-Col. Blair Ripley, C.B.E., D.S.O., Engineer of Grade Separation, C.P.R., Toronto;
- Major A. R. Ketterson, D.S.O., Assistant Bridge Engineer, C.P.R., Montreal;
- Major T. R. Loudon, Civil Engineer, Toronto;
- Capt. and Adjt. E. D. Toye, Storekeeper, Ontario District, Canadian Northern Ry., Toronto;
- Major R. R. Holland, District Engineer, National Transcontinental Ry.;

- Lieut. R. R. Hicks, Toronto.
- Lieut. C. P. Van Norman, Toronto and York Radial Ry., Toronto;
- Lieut. C. A. Scott, City Works Department, Toronto;
- Lieut. P. L. Scott, Electrician, Toronto;
- Lieut. John Hamilton, Bridge and Building master, C.P.R.;
- Lieut. R. Francis, Contractor, Timiskaming, Ont.;
- Lieut. J. E. Tremayne, Civil Engineer, Toronto;
- Lieut. W. S. Hunter, Contractor, Vancouver, B.C.;
- Lieut. J. M. Berry, Contractor, Toronto;
- Lieut. R. Richards, Contractor, Toronto;
- Lieut. M. L. Bouzon, Mining Engineer, Cobalt, Ont.;
- Lieut. R. Nickle, Civil Engineer, London, Ont.;
- Lieut. W. J. Nichol, Civil Engineer, Toronto;
- Lieut. R. E. Lindsay, Civil Engineer, Toronto;
- Lieut. F. O. D. Keily, Contractor, Winnipeg;
- Lieut. H. M. Jupp, Contractor, Orillia, Ont.;
- Lieut. E. Jupp, Civil Engineer, Orillia, Ont.;
- Lieut. C. M. Lane, Civil Engineer, Montreal;
- Lieut. A. S. Millar, Civil Engineer, Toronto;
- Lieut. W. J. Wright, Civil Engineer, Toronto;
- Lieut. T. Graediger, Civil Engineer, Montreal;
- Lieut. E. Thomas, Civil Engineer, Montreal;
- Lieut. H. L. Gilmour, Civil Engineer, Ottawa, Ont.;
- Lieut. F. G. Pusey, Contractor, Montreal.

**Summary of the Battalion's Work.**

Following is a summary of the work accomplished by the battalion, after going to France in Oct., 1916, up to Dec. 31, 1918:—

latter method rendered tracks more difficult to rebuild than the blown up ones.

**Bridging.**

Somme area, 1917.....	981 lin. ft.
Dunkerque area, 1917.....	276 " "
Flanders front, 1917-1918.....	345 " "
Hesdin to Frevent.....	630 " "
Amiens-Maubeuge, 1918.....	2484 " "

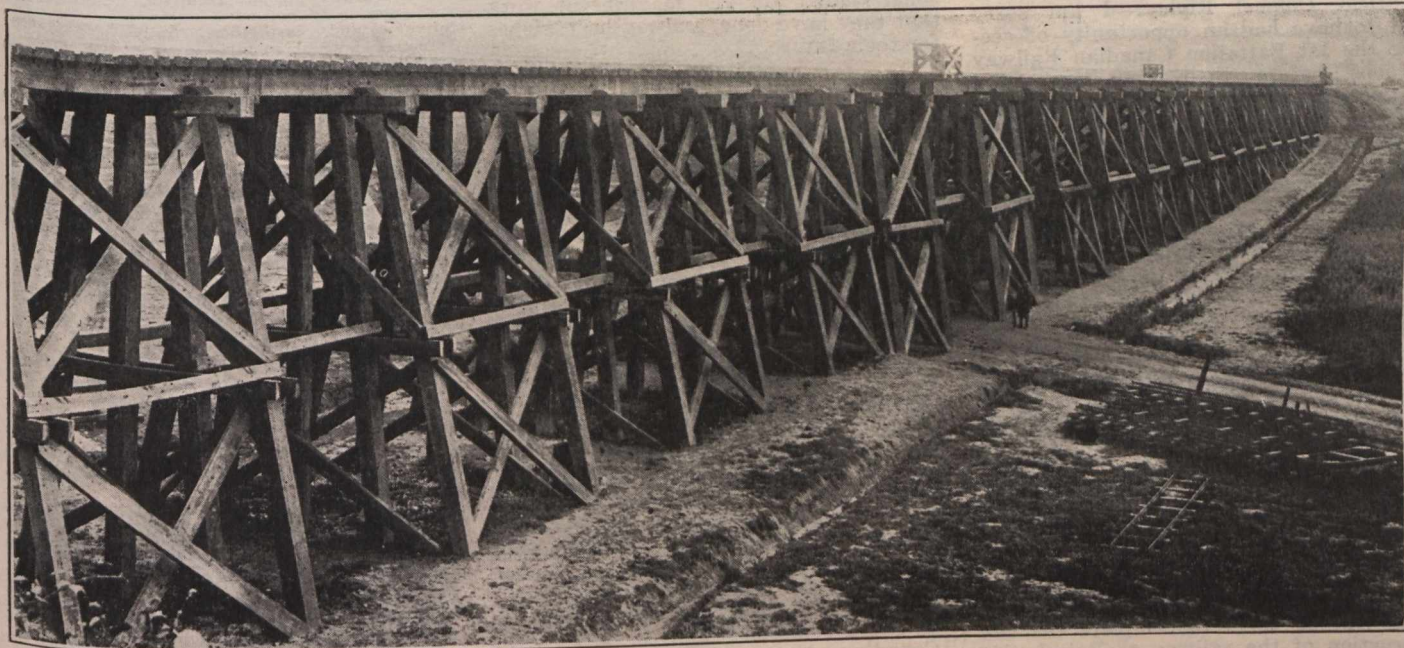
4716 lin. ft.

Bridges re-inforced for French to carry British and U.S. heavy guns.. 511 lin. ft.  
Bomb proofing of Wimereux viaduct 245 " "

This last item covers the recentering of a 3-arch, double-track, masonry bridge about 80 ft. high and the placing of a steel rail, bomb bursting, floor thereon. About 175,000 f.b.m. of timber and 3½ miles of steel rails were used. The Frevent trestle also contained about 150,000 f.b.m. of timber, and altogether, after going to France, the battalion placed in bridges, approximately 1,500,000 f.b.m.

Of culverts of various sizes over 6,000 ft. were laid of corrugated iron, concrete and wooden box.

Water supply works—At Candas, 8 miles of 4 in. pipe line were laid in trench 2 ft. deep, pumping station was built and pumps installed to deliver against a 200 ft. head. Earth work, 1400



Trestle Bridge on the Frevent-Hesdin Strategic Railway in France. 600 ft. long, 40 ft. high, containing over 150,000 f.b.m. of timber; built in 7 days by 1st Battalion Canadian Railway Troops.

- Major F. G. Cross, Assistant Engineer, C.P.R., Calgary, Alta.;
- Major H. B. Muckelstone, Assistant Chief Engineer of Irrigation, Natural Resources Department, Calgary, Alta.;
- Major J. B. Heron, District Engineer, Canadian Northern Ry., Toronto;
- Major W. Woods, Consulting Engineer and Contractor, Toronto;
- Major A. T. MacDonald, Assistant Engineer, Halifax Ocean Terminals, Intercolonial Ry.;
- Major L. B. Allen, City Works Department, Toronto;
- Capt. J. H. Black, Resident Engineer, C.P.R., Sudbury, Ont.;
- Capt. G. O. Fleming, Toronto Ry.;
- Capt. W. J. Norman, Resident Engineer, C.P.R., Toronto;
- Capt. E. P. Muntz, Resident Engineer, Welland Canal, St. Catharines, Ont.;
- Capt. G. H. Pethick, Engineer and Contractor, Vancouver, B.C.;
- Capt. G. S. Grant, Contractor, Ottawa, Ont.;
- Capt. G. B. Little, Toronto;
- Capt. H. R. MacQueen, Civil Engineer, New Glasgow, N.S.;
- Capt. H. G. Hanson, Architect, Montreal;
- Capt. C. P. Fenwick, Medical Officer, Toronto;
- Lieut. O. P. Hertzberg, Assistant Resident Engineer, C.P.R., Toronto.
- Lieut. F. A. R. McNair, City Works Department, Toronto;
- Lieut. L. McD. Fleming, formerly secretary to Sir George Bury, as Vice President, C.P.R., Toronto;
- Lieut. Joseph Johnston, Toronto;

**Decauville Railways—Somme Area, Dec., 1916-**

Miles taken over from French for operation..	30.0
Miles built by battalion.....	26.9
Miles maintained (about 30% was re-ballasted .....	169.7

**Standard Gauge Railways—April, 1917-Dec. 31,**

	1918.		Yards graded.
	Miles built.	Turn outs.	
Frevent-Hesdin line.....	13.12	33	55,600
5th Army, in 1916.....	8.0	33	30,320
Somme, 1917.....	45.42	52	72,000
Dunkerque area.....	5.87	15	22,000
Flanders front 1917-18..	13.34	49	55,250
Amiens-Maubeuge line rebuilt .....	153.00	122	33,200
Total.....	238.75	304	268,370

On the reconstruction between Amiens and Maubeuge, 70 miles of new British rails were laid. German rails salvaged from their dumps and laid in the battalion's work, amounted to 5 miles. The balance of this work was construction, building one main line from two damaged ones, and 78 miles was thus built. The tracks were either systematically blown up or destroyed with a machine made for the purpose and which was dragged behind a heavy locomotive. This

cu. yd. Rock 400 cu. yd.  
On Somme front, 1917—Water supply put in at Peronne and at Roisel. This included erection of water towers, stand pipes, pipe lines and putting in of permanent pumping plants.  
On Flanders front, 1917—Six miles of 6 in. pipe were laid in 3 ft. trench, between pumping plant, west of Proven and International Corners. Ten miles of 4 in. pipe were lowered between International Corners and Poperinghe, without interrupting water supply. Excavation and backfill—12,000 cu. yd.  
Boubers system, 1918—Laid 887 ft. of 3 in. pipe and 158 ft. of 6 in. pipe, also erected stand pipe and water tower.  
Omiecourt system, 1918—Set up new pumping plant and repaired old line that had been broken by bombing.  
Peronne, 1918—Repaired existing system that had been put in by the Huns and made extensions to it.  
Roisel, 1918—Repaired existing system, erected new water tower and stand pipes to supply the yard.  
Caudry, 1918—Repaired existing sys-