

**POLLOCK, JAMES ARTHUR.**

D.Sc., F.R.S., B.E. (Queen's Coll., Cork), Professor of Physics :  
Major, Mining Battn., A.I.F., attached 177th Coy. R.E.,  
B.E.F., France, and R.A.F., England.

Enlisting 1st January, 1916, and sailing 20th February, served as Geophysics Officer in charge of "The Mining School" at Proven near Poperinghe, forming there a military physics laboratory. Sound waves through the earth were studied by means of the geophone, a new French invention, and instruments were designed by himself and other distinguished scientists. Officers and N.C.O.'s were efficiently trained in the use of these, occasional visits to Hill 60 via Hell Fire Corner being necessary. Our mines were thus saved from being exploded by camouflets (heavy charges fired underground without breaking the surface), the positions of the enemy's countermines located and we were enabled to drive long tunnels under German mines without being discovered. Twenty-two enormous mines were exploded on the morning of 7th June, 1917—"the greatest piece of military mining ever seen"—immediately before the storming of Messines Ridge, shattering 19 German strongholds and helping materially in the success of the British in this battle. For this work he was specially Mentioned in Despatches and later promoted major. When the school was closed and he had assisted in constructing a trench line near Strazeele in April, 1918, after the taking of Kemmel, he was transferred by special request of War Office to Bookham, near Farnborough, to study through physics, methods of orienting planes at over 10,000 ft. without direct observation of surface objects and the compass, and had made some progress when further experiments were stopped by the Armistice. Then returned for demobilisation.