

## From factory to field: the life story of a British shell.

London: Roberts & Leete, Printers, 1917

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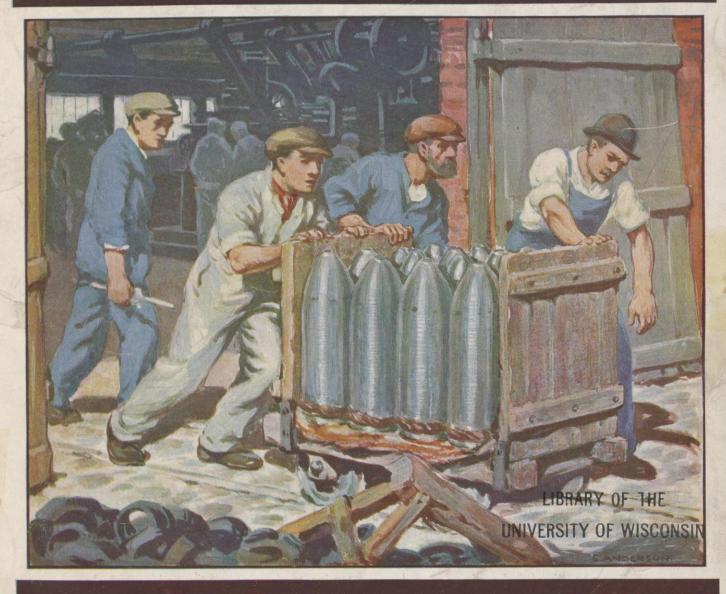
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## FROM FACTORY TO FIELD



THE LIFE STORY OF A BRITISH SHELL

## FOREWORD.

HE photographs in this volume tell their own story—a story as truly romantic as any in human history. First shewing the rough heap of raw material from which the shell-steel is made, they pass in quick review the various processes of manufacture, and then illustrate the loading of the shells on the railway and their despatch to France. The scene shifting, they next show the shells being hurried up to the Front, and the great guns being loaded and fired. Photographs of the shells bursting over the German lines are followed by some vivid illustrations of the effects of British gun-fire—trenches demolished, trains wrecked and derailed, guns knocked out of action, and the fearsome net-work of barbed wire entanglements destroyed. The last photograph in the book shows British troops occupying a former German trench, when the shells have completed their deadly work.

This story, multiplied many a million millionfold, is the story of Britain's ever-increasing superiority in the field. Even when unsupported by an adequate shell supply, British valour—as in the Battle of Ypres—has before now heroically held the breach. But valour alone, however heroic, can never push home the decisive thrust, by which final victory must be achieved. Shells, Shells and still more Shells are needed to break down the elaborate defences upon which Germany has lavished nearly three years' laborious preparation and to destroy the complicated system of communications which lies behind the German lines. With every fresh development of the campaign, the demand for shells grows more insistent. In a week of the Battle of Messines  $2\frac{2}{5}$  times the amount of munitions was expended as in a week of the Somme Offensive of 1916, and in the more extended operations which commenced on July 1st, 1917, the proportionate expenditure has been considerably higher. Germany knows to-day that she is being resistlessly overborne by the pressure, not only of superior man-power, but of superior gun-power.

British labour, tenacious as it is of its rights, has freely surrendered "for the period of the war" the trade union restrictions for which it fought unremittingly in days of peace. Willingly has the British artisan worked at the tension of chronic overtime and willingly has he consented to a wide-spread scheme of industrial "dilution." When the full story of the war comes to be written, the sacrifice of their most cherished traditions by the working-men of Britain will prove one of its most splendid chapters.

Rasmus B. Anderson

## From Factory to Field

THE LIFE STORY OF A BRITISH SHELL



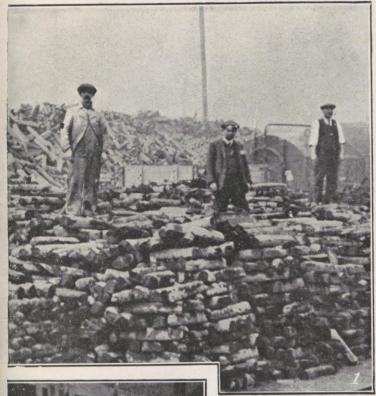
Presents for Fritz: 9.2" High Explosive Shells, Ready for Despatch.







1. A Heap of Raw Material for making High Explosive Shell Steel. 2. Tapping a Charge from an Open-hearth Furnace.







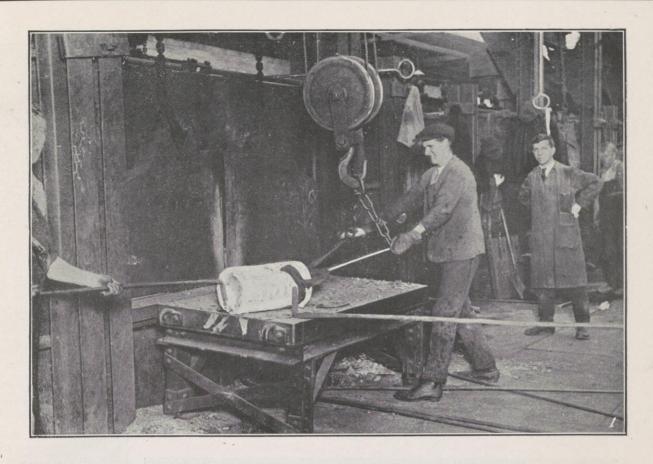


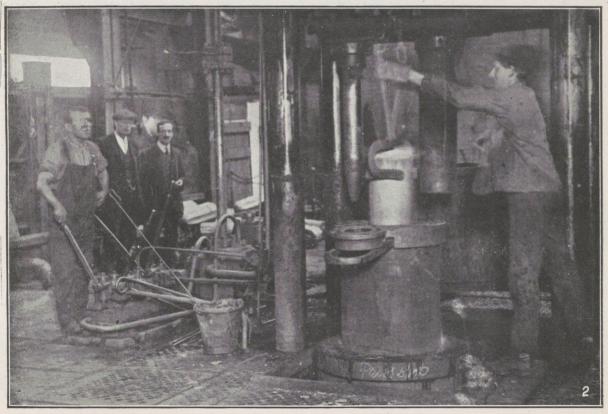
3. Loading Double Billets by Electric Magnets. 4. Double Billets for High Explosive Shell. 5. Breaking off Heads and Billets.





1. Loading Divided Billets for delivery to the Forge. 2. Removing Billets from the Heating Furnace.

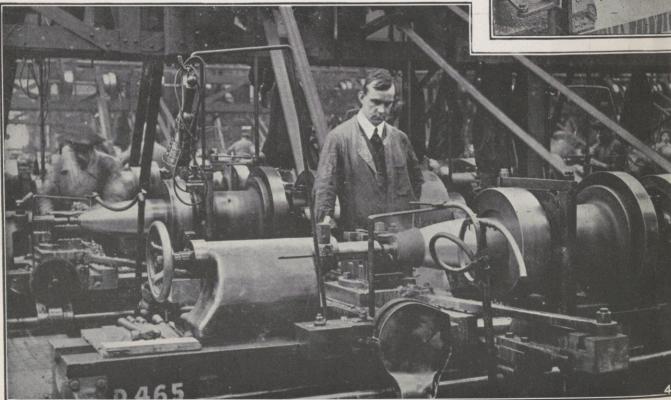




1. Billet for Forging Shell, after its removal from the Furnace. 2. Forged Shell Body being removed from the Forging Press.





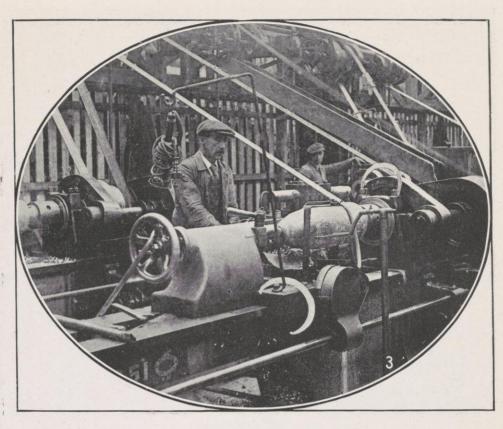


1. Loading Forged Shell on Pin Bogies.

2. Centering Shell Forging.

3. Rough Machining the Body of the Shell.

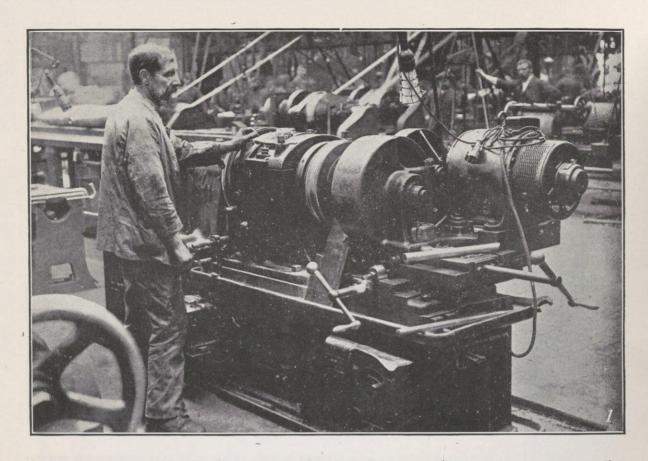


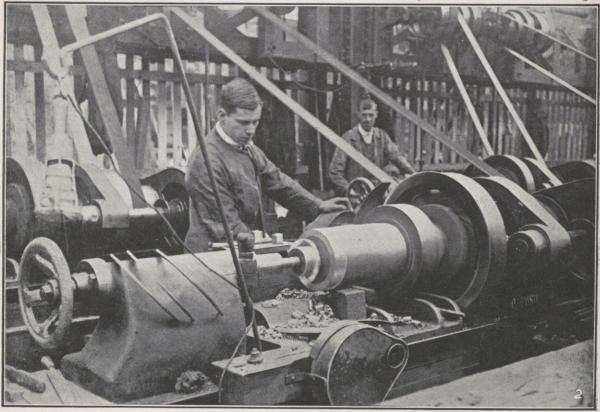




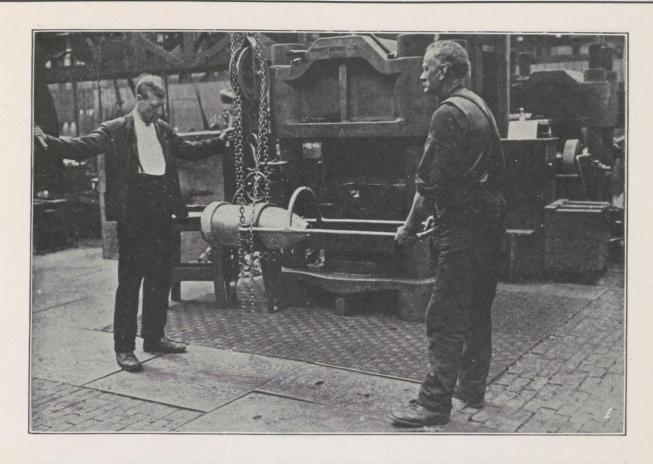
4. Machining the Ogive of the Shell.

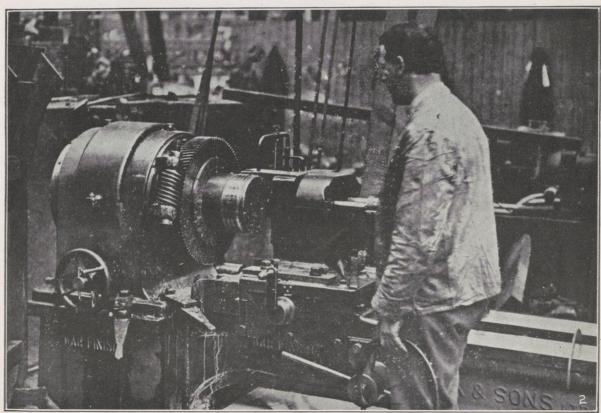
5. Boring the Interior to Profile.



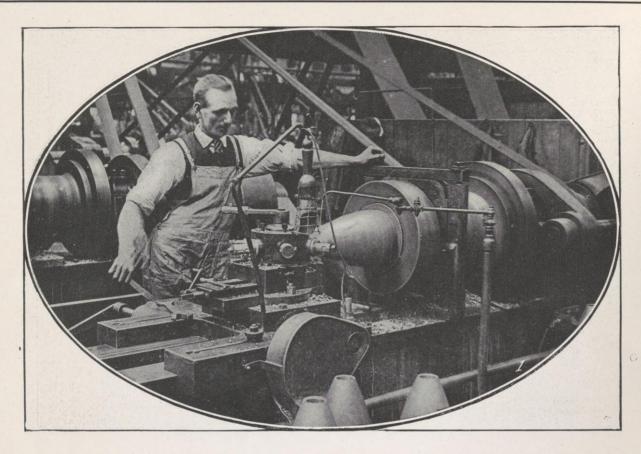


1. Screw-milling the Base. 2. Machining and Beading the Groove for Copper Band.



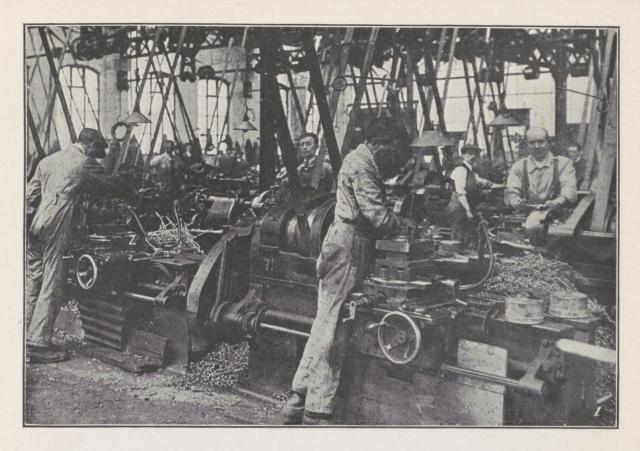


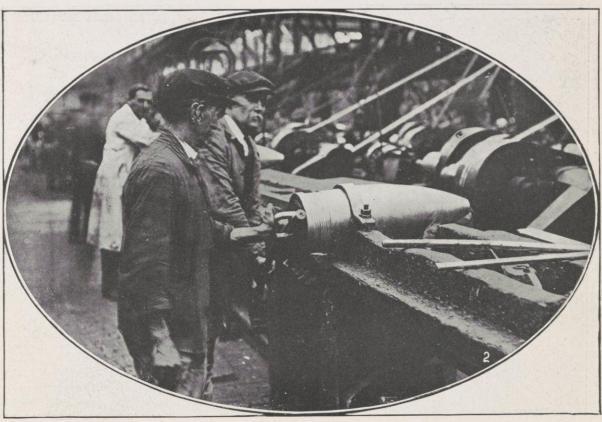
1. Fixing Copper Band. 2. Milling Copper Band.





1. Boring and Finishing the Fuse-Hole. 2. Cutting off Billets for Base Adapters.





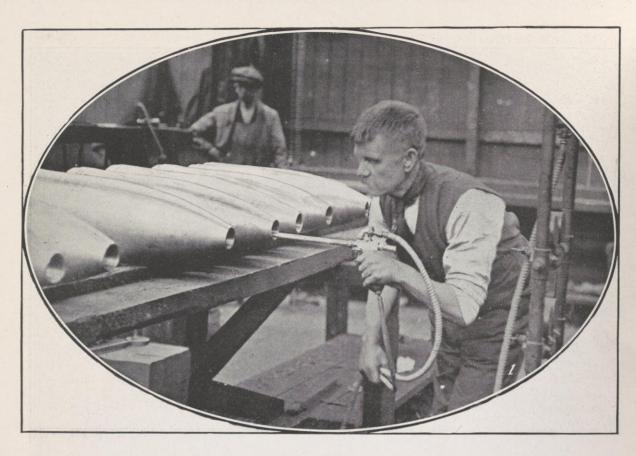
1. Machining Base Adapters. 2. Screwing Adapters into the Shell.

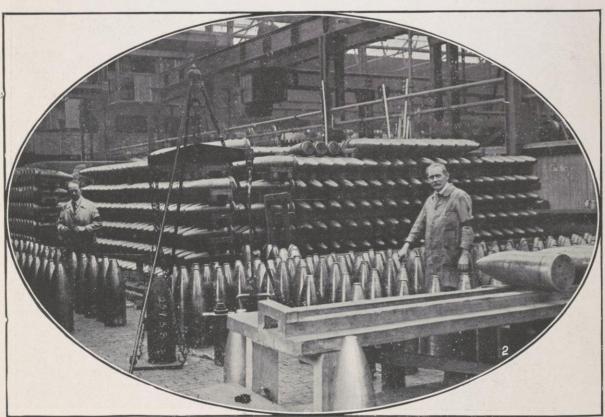


A Scene in one of Great Britain's High Explosive She

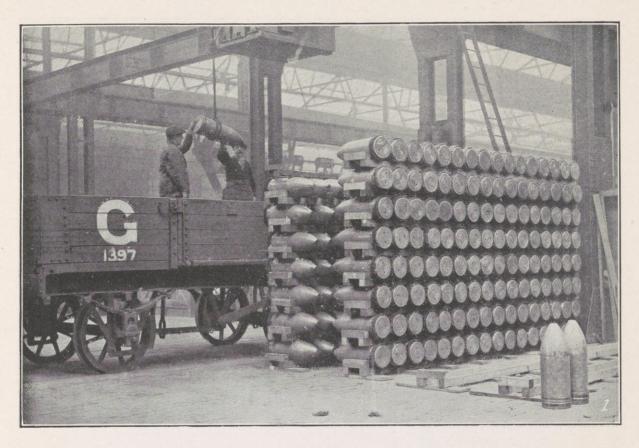


Shell Factories: A General View of one of the Six Bays.





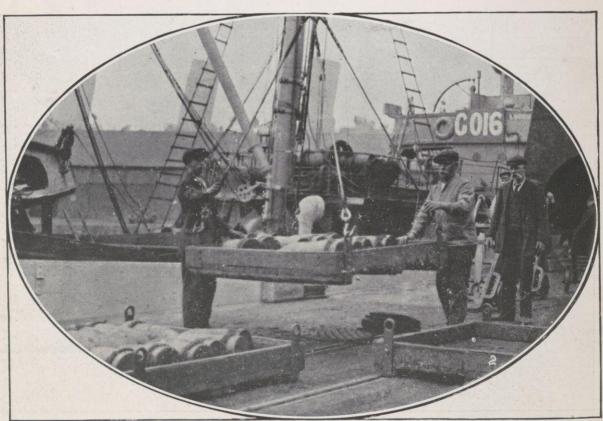
1. Varnishing the Shells. 2. Final Examination and Bonding of the Shells.



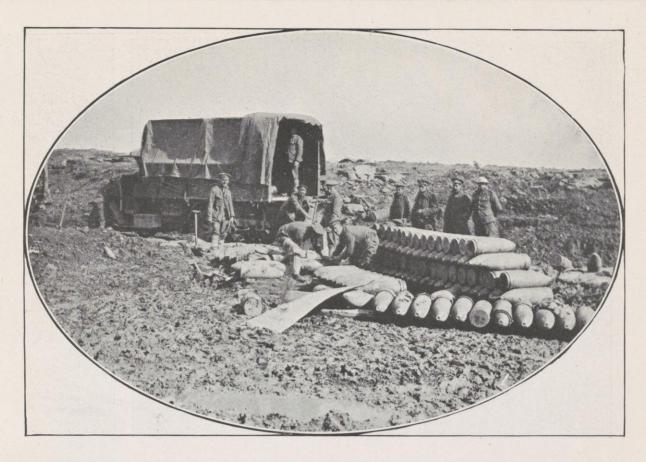


1. Loading Shells on to a Railway Truck. 2. Unloading Shells at the Docks.



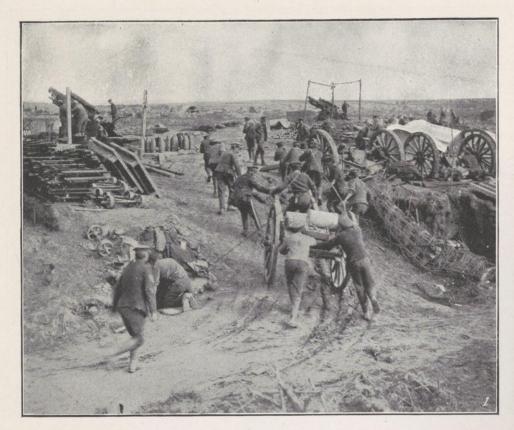


At Southampton Docks: Shells being slung on board a Vessel, for conveyance to France.

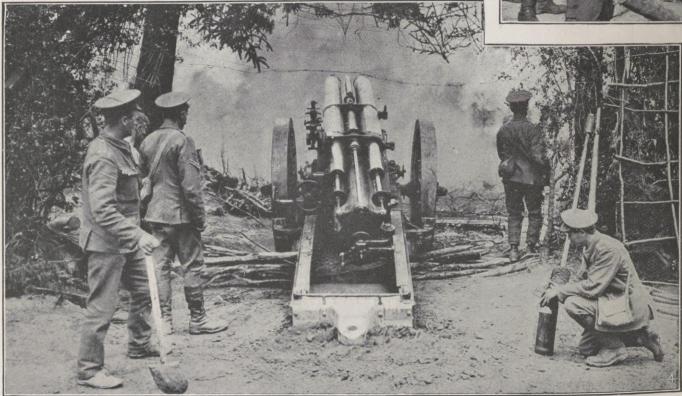




At the Front.—1. Unloading Big Gun Ammunition. 2. Loading up Shells on a Trolley, to be taken to the Guns.

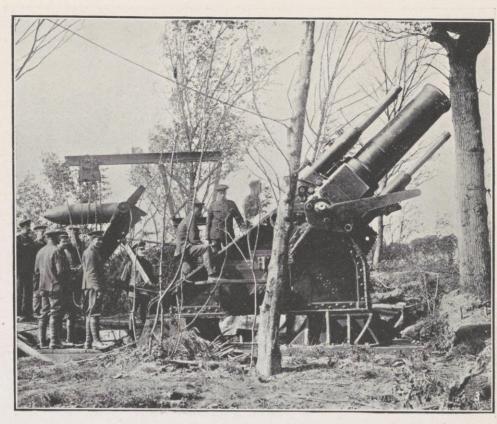






A Bombardment on the British Front.—1. Rushing up Shells to the Guns. 2. Loading a Big Howitzer.







3. A Big Howitzer ready for Action. 4. Firing a Big Howitzer. 5. The Charge leaving the Muzzle of the Gun.

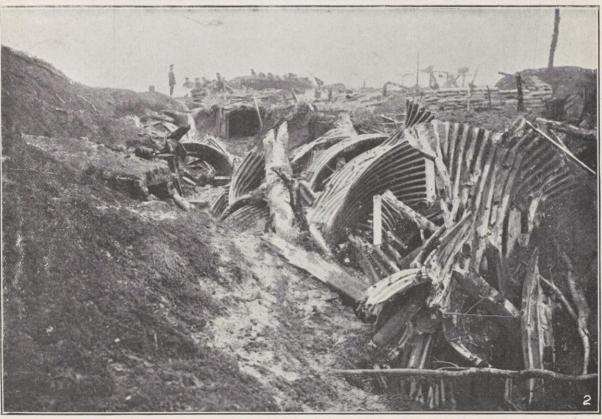






A Bombardment on the British Front: Shells Bursting over the German Lines.

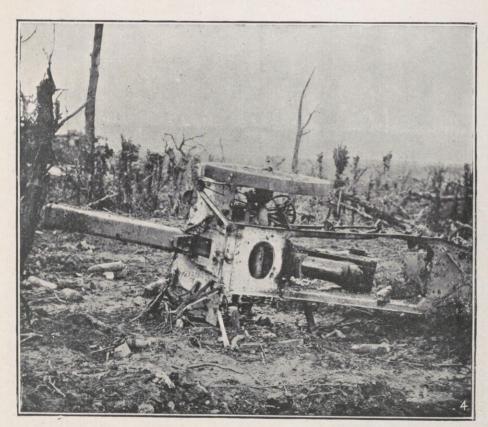




The Effects of British Shell-Fire: Some Shattered German Trenches on the Western Front.







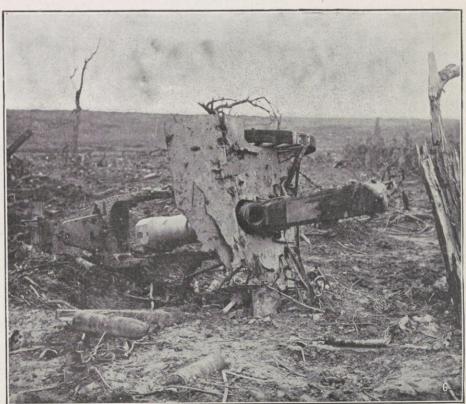


The effects of British Shell-fire.—1. A German Train completely wrecked. 2, 4 and 6 German Guns knocked out of action.









3. A German Light Engine smashed up by our Artillery. 5. Demolished German Barbed-Wire Defences.



After the Bombardment: British Troops occupying an old German First-line Trench.

Roberts & Leete, Ltd., Printers, 19-25, Bermondsey Street, London, S.E. 1.

