



Shrapnel Shells

Shrapnel shells in WWI were designed as an anti-personnel device. The shells were made with the thinnest wall possible and packed with bullets that weighed between 150 – 170 grains each. Each shell contained between 285 and 340 shrapnel bullets. The shells were designed to explode in the air, spraying their projectiles at a velocity of about 200 feet per second. One of the functions of the steel helmet was to protect from overhead shrapnel fire. The shrapnel was generally made of forged steel with a high tensile strength. Diagrams of commonly used shrapnel shells is shown below.

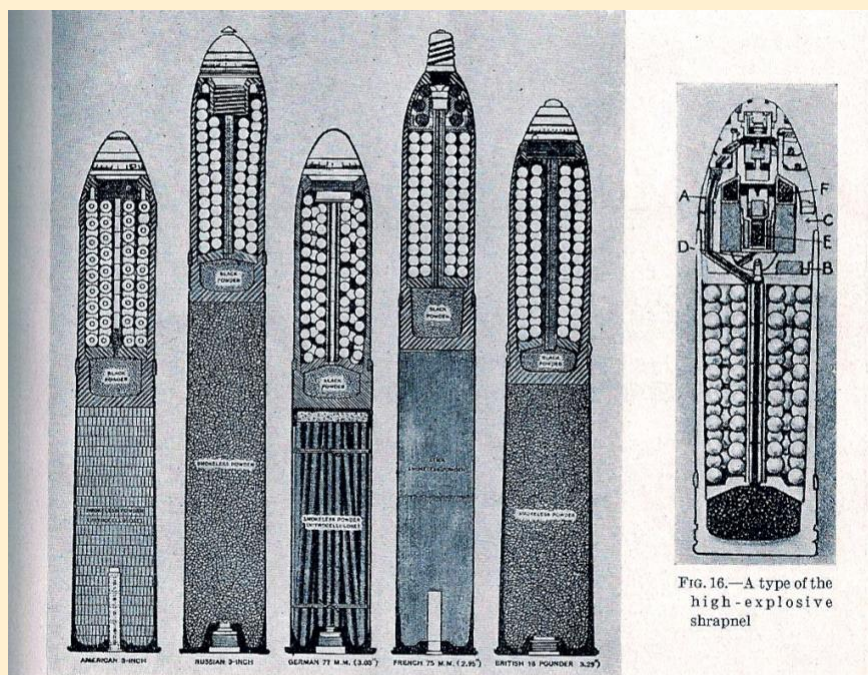


FIG. 15.—Types of shrapnel in modern use

FIG. 16.—A type of the high-explosive shrapnel

TABLE 3.—Shrapnel shell used in light field guns ^a

Army	Caliber of gun		Approximate weight of shell, pounds	Muzzle velocity, foot-seconds	Approximate weight of one bullet, grains	Number of bullets in shrapnel shell
	Milli-meters	Inches				
France.....	75	2.95	15	1,755	150	285
Great Britain.....	82.5	3.30	18.5	1,635	170	340
Germany.....	77	3.03	15	1,555	150	300

^a Sources of information: (1) The Story of the 75 (75 millimeter field gun), by W. N. Dickinson, Washington, Government Printing Office, 1920, 5, 116, 117. (2) Schneider & Cie.: Services de L'Artillerie, Ateliers du Crenset, Du Havre et D'Harfleur, Matériel de Campagne, a Tir Rapide de 75-mm., type L. D. P., 1908, 7. (3) Handbook for the Q. F. 18-pounder Gun, MK IV. on Carriages, Field, MKS. III and III*, Land Service, 1919, printed by His Majesty's Stationery Office (London—Ed.), 10, 64, 65. (4) Ordnance Data, VI, European Artillery, German. Report on the comparative characteristics of German ammunition for 77-mm. Gun, models 1896 and 1916, dated Oct. 31, 1918, source unknown, and French translation of a German document, Headquarters, A. E. F., January, 1918. On file, Office of Chief of Ordnance, Ordnance Library, UF 530, XCOO, Vol. VI. (5) Notes on German Artillery Matériel, I. Divisional Artillery, second edition, issued by second section, General Staff, American Expeditionary Forces, Nov. 1, 1918.

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Novels of the Great War

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Ireland, M.W, ed. *The Medical Department of the United States Army in the World War, Volume XI, Surgery, Part One*. 1927, Washington D. C. Government Printing Office.