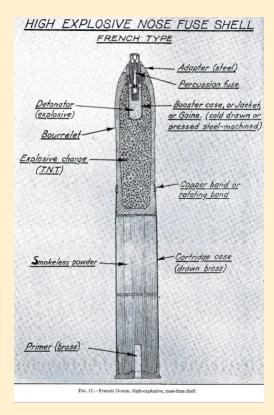
John Frederick Andrews Novels of the Great War



High Explosive Artillery Shells

There were two types of high-explosive artillery shells. One type had thick strong walls and a reduced charge designed to produce smaller fragments to wound and kill troops. The other type had relatively thin walls and a larger explosive charge designed to destroy buildings, wire, and dugouts.

The German 77 mm contained 135 grams of picric acid explosive and produced about 500 fragments when it exploded, each weighing between 10 - 200 grams with initial velocities ranging from 300-400 meters per second. The French 75 mm shell contained 825 grams of melinite explosive. On detonation it produced about 2,000 small splinters with initial velocities ranging from 1,000 – 1,200 meters per second. The small splinters lost their velocity quickly. Another 75 mm shell produced about 50 fragments weighing about 100 grams each, spreading over an area of 25 square meters.



Reference:

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.