

Because its rays are bent by the atmosphere, the sun appears to rise or to set when it is really below the horizon. A study of this diagram will make this clear to the reader

The Sun Really Rises After We See It Rise. Why?

HAS it ever occurred to you that we never see our Sun either rise or set? When it seems to rise or when it seems to set it is below the horizon.

These statements are absolutely true. Our eyes do not deceive us, but the atmosphere does. It possesses a quality of refracting or changing the direction of the Sun's rays. These rays enter our Earth's atmosphere, at sunrise or sunset, obliquely, and then instead of proceeding in a straight line they are so bent out of their natural course that the Sun's rays reach us before he begins to appear above the eastern horizon and after it has wholly disappeared below the western horizon. In other words, our Sun really rises after we have seen it rise and really sets before we have seen it set.

How the Deadly Mills Hand Grenade Is Made and Exploded

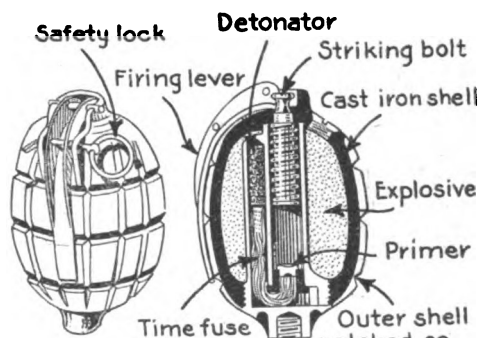
THE grenades which are used by the French and allied troops at the West front are of the type invented by William Mills, an Englishman.

The grenades of the Mills type are egg-shaped, about four inches long and nearly three inches in diameter. The outside shell is of cast iron and deeply notched. The fuse

and the ignition device are enclosed in a separate tube which is inserted into the outer shell and secured by a screw thread at one end.

The inner core consists of two parallel tubes connected by a U. In the wider of the two tubes is a plunger or striking bolt surrounded by a spiral spring which has the tendency to press the bolt against the ignition cap. The bolt is drawn away from the cap by overcoming the pressure of the spring and is held back by a trigger or firing lever locked securely by a pin to which a ring is attached. When the grenade is to be used, the locking pin holding the firing lever is pulled out, and the man clasps his hand around the shell, to prevent the lever from moving. When the grenade is thrown, the firing lever under pressure of the spring around the striking bolt flies up, releasing the bolt, which is flung down upon the ignition cap by the action of the spring. The cap explodes and ignites the time fuse, a slow-burning powder, which communicates with the detonator in the upper end of the narrower part of the U.

The detonator causes the lyddite or other powerful explosive with which the grenade is loaded, to explode. The grenades now used by our allies may differ in small details, but the main features are alike in all. There is a good reason for the deep notching of the outer shell. It is that when exploded the grenade may break into many pieces.



Pineapples of death. The notches cause the grenade to break into many pieces