

(No Model.)

G. BLOEM.
SHELL FOR DETONATING CAPS.

No. 342,423.

Patented May 25, 1886.

fig: 1.

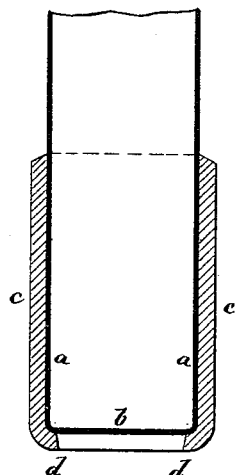


fig: 2.

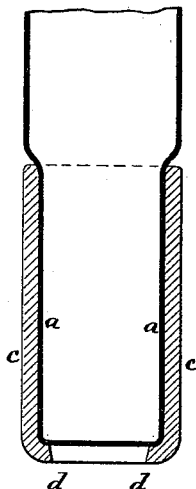


fig: 3.

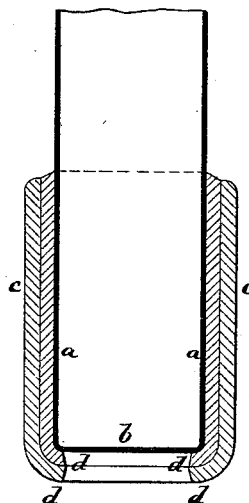


fig: 4.

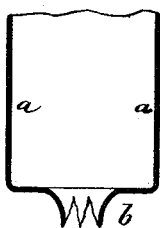


fig: 5.

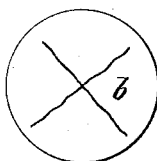
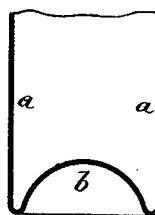


fig: 6.



WITNESSES:

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SHELL FOR DETONATING CAPS.

SPECIFICATION forming part of Letters Patent No. 342,423, dated May 25, 1886.

Application filed January 20, 1886. Serial No. 189,131. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV BLOEM, of Dusseldorf, in the Kingdom of Prussia, German Empire, have invented certain Improvements in Shells for Fulminate and Dynamite Exploders and Cotton-Powder or Gun-Cotton Detonators, of which the following is a full and clear specification, reference being had to the accompanying drawings, forming part of the specification, in which the same letters of reference indicate corresponding parts in all figures.

In the drawings, Figures 1, 2, and 3 are sectional views showing the invention. Figs. 4, 5, and 6 show different forms of shell-bottoms.

The invention relates to an improved construction of the shell of exploders or blasting-caps or detonators filled with a fulminating compound, and used as primers to explode blasts or charges of gunpowder, dynamite, gun-cotton or cotton-powder and similar explosive substances.

The invention consists in combining such a shell having a weak bottom with an outer cylindrical strong sleeve.

The bottom *b* of the shell *a* is pierced, (see Figs. 4 and 5,) without disengaging therefrom any portions of the bottom or otherwise made quite thin and weak. The shell *a* is surround-

ed as far as the fulminating compound extends by a sleeve, *c*, (or more than one,) grasping by a narrow inward rim, *d*, under the edge of the bottom *b*. The sleeve *c* or the sleeves may project from the outside of the shell *a*, as in Figs. 1 and 3, or be flush with it, as in Fig. 2, in which latter case the inside diameter of the shell *a* becomes at this place smaller in proportion. By these constructions the concentration of the effect of the explosion in an axial direction of the exploder is increased. It must be remarked that the bottom *b* of such exploder with sleeve *c*, or sleeves, may be pressed inward hemispherically, as in Fig. 6.

The improved shell is used in blasting-caps, exploders, or detonators for gunpowder, dynamite, gun-cotton or cotton-powder, and other explosive substances.

I claim—

The shell *a*, having weak bottom *b*, combined with the surrounding sleeve or sleeves *c*, having inward rim, *d*, substantially as herein shown and described.

This specification signed by me this 18th day of December, 1885.

GUSTAV BLOEM. [L. S.]

Witnesses:

FR. F. BLOEM,
JEROME ERNST.