

No. 751,041.

PATENTED FEB. 2, 1904.

C. BACKES.
DETONATING TOY.
APPLICATION FILED NOV. 20, 1903.

NO MODEL.

Fig. 1.

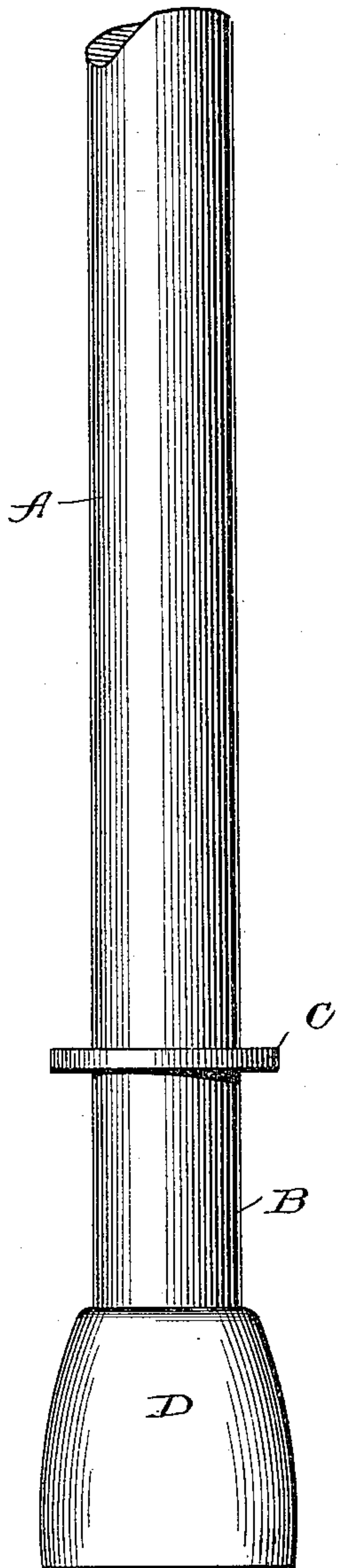


Fig. 2.

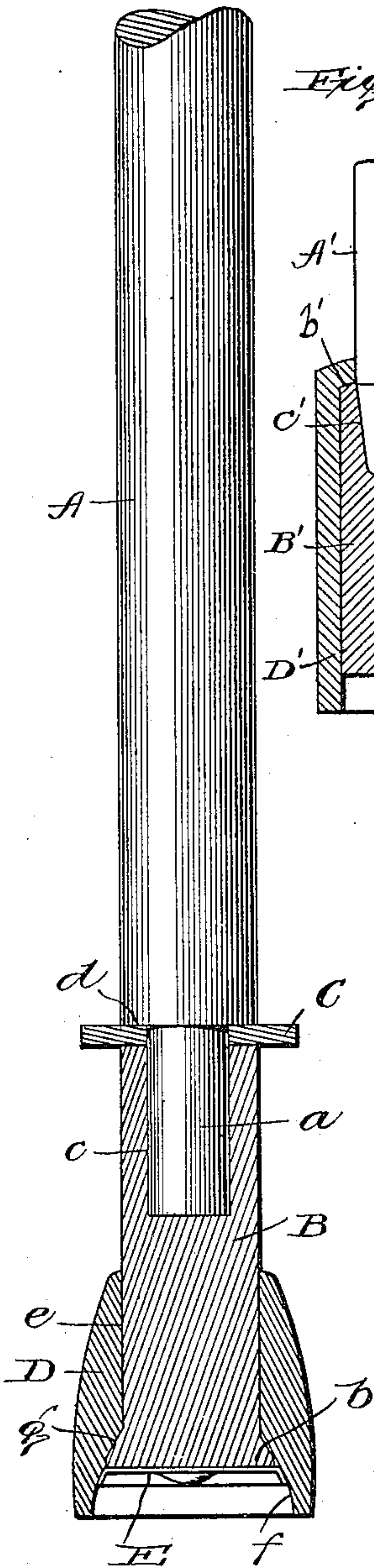


Fig. 4.

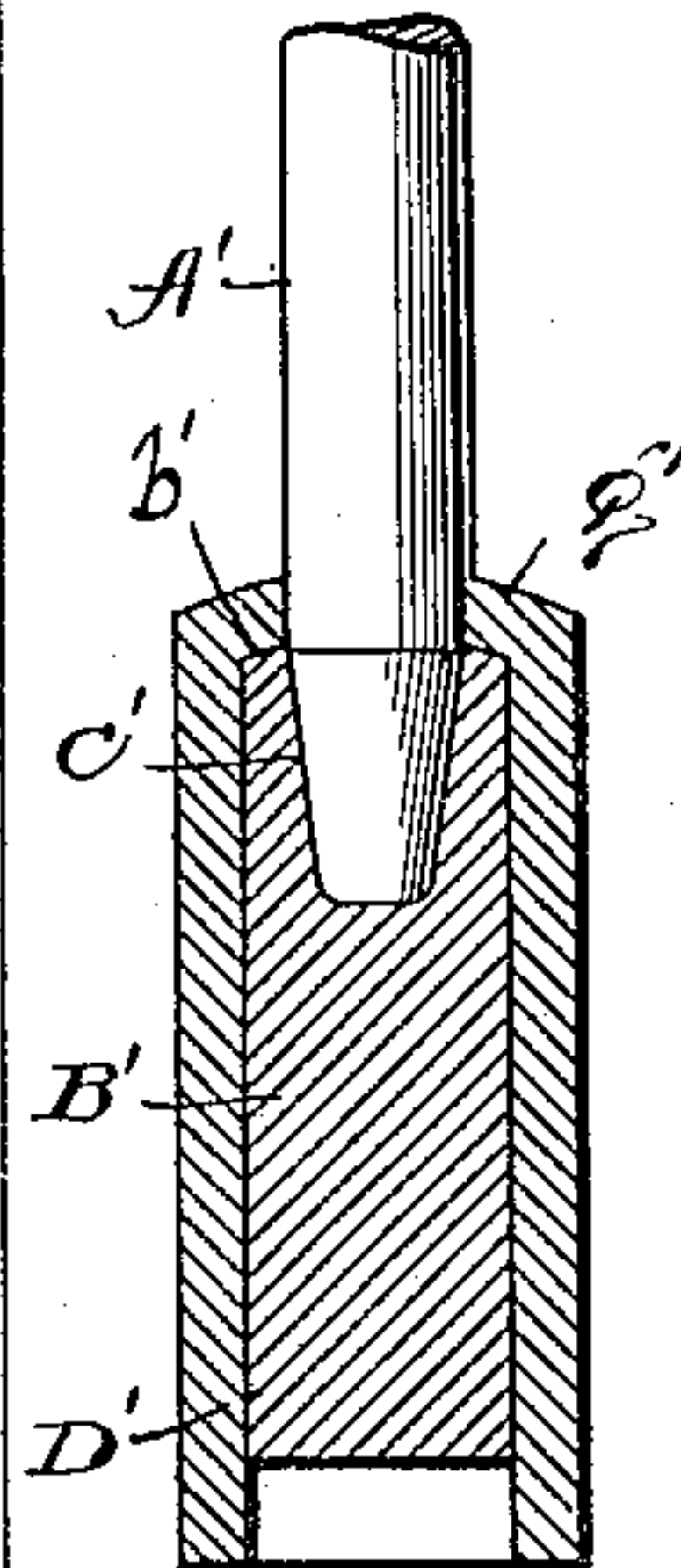
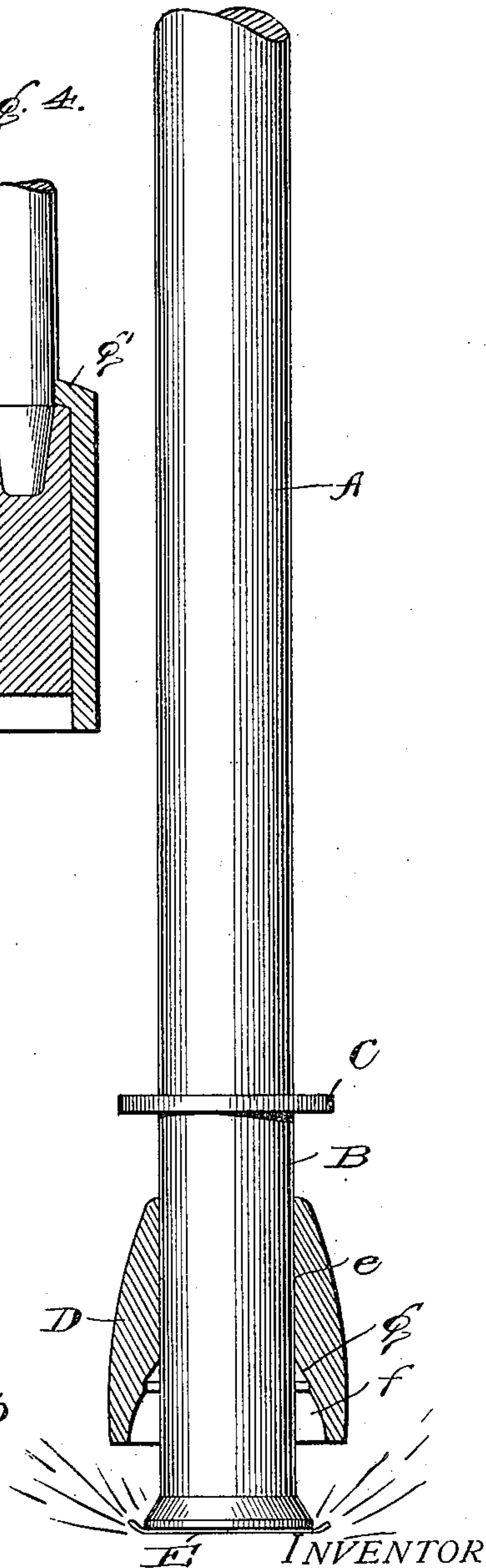


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES BACKES, OF WALLINGFORD, CONNECTICUT.

DETONATING TOY.

SPECIFICATION forming part of Letters Patent No. 751,041, dated February 2, 1904.

Application filed November 20, 1903. Serial No. 181,981. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BACKES, a citizen of the United States, residing at Wallingford, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Detonating Toys, of which the following is a specification.

This invention pertains to detonating toys, more particularly devices of the cane type for exploding toy percussion-caps; and it has for its object to provide such a device embodying a simple, inexpensive, and sturdy construction and one which is reliable in use and which in virtue of its sturdiness is calculated to withstand the rough usage to which such devices are ordinarily subjected.

With the foregoing in mind the invention will be fully understood from the following description and claim when taken in connection with the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation, on an enlarged scale, of the device constituting the preferred embodiment of the invention with the upper portion of the stick thereof broken away and the movable cap receiver and holder in its normal position. Fig. 2 is a diametrical section showing a toy percussion-cap in the movable holder and ready to be exploded. Fig. 3 is a diametrical section illustrating the manner in which the holder moves up on the plunger to expose the cap to the impact of the latter when the lower end of the device is forcibly dropped on a pavement or brought against any other hard surface; and Fig. 4 is a view similar to Fig. 2, illustrating a modification.

Similar letters of reference designate corresponding parts in Figs. 1 to 3 of the drawings.

In the present and preferred embodiment of the invention the device comprises, among other elements, a stick A, of wood, having a reduced lower end *a*, a solid plunger B, of steel or other suitable metal having a shoulder or flange *b* at or adjacent to its lower end, and also having a socket *c* in its upper end receiving the end *a* of the stick, and a metallic washer C, surrounding the reduced end *a* of the stick and interposed and held between the upper end of the plunger and the shoulder

d of the stick afforded by the reduced end thereof. This construction is advantageous because of the lightness of the stick and the facility with which the parts named may be assembled, and also because frictional contact between the plunger B and the end *a* of stick A may be depended on to hold the former on the latter. It should be understood, however, that the plunger B and the stick might be formed of one piece of metal or other suitable material and that the stop afforded by the washer C might be struck up from or otherwise produced of the same piece or altogether omitted without involving departure from the scope of this invention.

In addition to the elements mentioned in the foregoing the device comprises a holder D for toy percussion-caps, such as E. The said holder is formed of a piece of steel or other suitable material and has a bore *e* in its upper portion of a diameter to snugly receive the plunger B, and a diametrically enlarged interior *f* in its lower portion adapted to receive and frictionally hold a percussion-cap, after the manner illustrated in Fig. 2. The bore *e* and the enlarged lower interior *f* are separated by a shoulder *g*, which is preferably beveled or inclined, as shown, to conform to the upper side of the flange *b* on plunger B.

In the practical use of the device a percussion-cap is placed in the holder D while said holder is in its normal position—*i. e.*, with its enlarged interior *f* extending below the lower end of the plunger—as shown in Fig. 2. When the cap is thus placed in the said interior, it will be securely held by virtue of friction between its paper portion and the wall of the interior, and hence will not be likely to fall out incident to forcible downward movement of the device. When, however, the lower end of the holder D brings up against a pavement or other hard surface, the holder will move upwardly on the plunger, with the result that the cap will be caught between the lower end of the plunger and the pavement and exploded, after the manner illustrated in Fig. 3.

An important feature of the construction shown is its extreme sturdiness, which follows from the fact that the holder D is confined within certain limits on the plunger without sub-

jecting any part to shock or strain. From this it follows that even with extraordinary rough and careless usage the device will last for an indefinite period without any of its parts becoming impaired, which is an important desideratum.

While the foregoing specification includes a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiment of the invention, it should be understood that such changes or modifications may be made in practice as fairly fall within the scope of the invention as claimed.

The modified device shown in Fig. 4 is designed more particularly for exploding explosive pellets. The said device comprises a handle A', preferably of wood, a plunger B', preferably of steel, having a socket c' in its upper end receiving the lower end of the stick and also having a shoulder b' at said upper end and a holder D', also preferably of steel, loosely mounted on and arranged to normally depend below the plunger and having an inverted shoulder g', adapted to bring up against the shoulder b' of the plunger. This modified device is used in the same manner as that shown in Figs. 1 to 3, the pellet to be exploded being placed in the lower end of the holder D'.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The herein-described toy cap-exploder, consisting essentially of the following elements, viz: a stick having a reduced lower end, a plunger having a socket in its upper end receiving the reduced end of the stick, and also having a flange, a washer surrounding the reduced end of the stick, and interposed between a shoulder formed by said reduced end and the upper end of the plunger, and extending laterally beyond the side of the plunger, and a cap-holder having a bore in its upper portion snugly receiving the plunger, above the flange thereof, and also having an interiorly-enlarged lower portion adapted to receive and hold a cap, and also having a shoulder between said interiorly-enlarged lower portion and the bore, adapted to normally rest against the flange of the plunger.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES BACKES.

Witnesses:

GEO. J. WHITE,
JOHN W. WELCH.