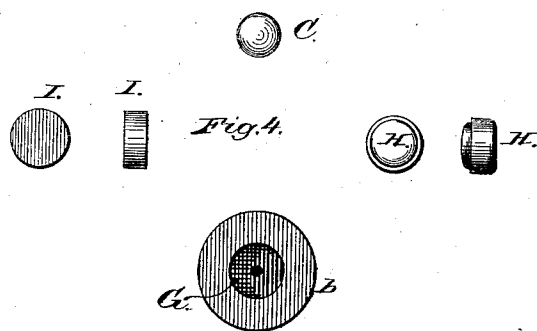
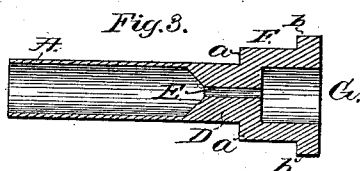
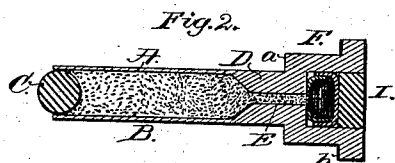


(No Model.)

J. B. DAVIS.
Primer for Ordnance.

No. 233,143.

Patented Oct. 12, 1880.



Witnesses.
John F. C. Prindle
Wm. Smith.

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UNITED STATES PATENT OFFICE.

JAMES B. DAVIS, OF WASHINGTON, DISTRICT OF COLUMBIA.

PRIMER FOR ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 233,143, dated October 12, 1880.

Application filed August 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES BAZIL DAVIS, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented new and useful Improvements in Gas-Check Primers, of which the following is a specification.

My invention relates to the construction of gas-check primers to be used in the discharge of heavy ordnance, as fully described and set forth in an application filed by me simultaneously with this, and described as an "improvement in apparatus for discharging ordnance."

My present invention has for its object to provide a breech-cartridge which, when exploded, shall practically puncture the charge within the firing-chamber of the gun and open or loosen the same centrally, so that the flame from the firing-cartridge shall penetrate to and ignite the said charge centrally, and which shall at the same time form a perfect gas-check; and with these ends in view my invention consists of a shell formed of steel, and constructed in the manner hereinafter and in detail explained.

In order that those skilled in the art to which my invention pertains may know how to make and use my improvements, I will proceed to describe the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a plan or side view of one of my improved gas-check primers. Fig. 2 is a central longitudinal section of the same on an increased scale. Fig. 3 is a similar view with the charge, fulminate, and anvil removed; and Fig. 4 represents the rear view of the head of the cartridge, and plan and side views of the cap or fulminate and anvil.

Similar letters denote like parts in the several views.

A represents the forward or tubular portion of the shell, within which is properly secured the powder B and a small ball, C. The metal is solid at D in rear of the powder-chamber, with the exception of an axial bore, E, through which the flame from the fulminate reaches the charge.

F is the head, so constructed as to form flanges at *a b*, the former resting against the face of the breech-plate when used, and the latter affording a means for extracting the shell after use, as fully described in the application hereinbefore referred to.

A recess, G, is formed in the head of the shell to receive a fulminate-capsule, H, which is retained in place by a circular metal block or anvil I, between which and the bottom of the recess G the fulminate is exploded by the block I when it is driven in by the firing-pin or hammer of the gun. When the fulminate is thus exploded the flame penetrates through the axial channel E and ignites the charge B. The shell portion A expands and forms a gas-check, effectually preventing the usual fish-tail flame escaping rearward, and the block I serves to perfectly close the end of the channel E and prevent the escape at that point, as is usual in ordnance of the present style, and the flange *b* serves as a shoulder to be grasped by the extracting mechanism to withdraw the shell for reuse. After withdrawal of the shell the capsule H and block I are removed by passing a slender metallic punch through the channel E, when the shell may be again loaded and is ready for reuse.

While Fig. 1 represents in size and design the shell which I have used with success, I do not wish to confine myself in these particulars, as they may be varied without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. A metallic gas-check primer for heavy ordnance, consisting of a shell portion, A, to receive the charge, a laterally-extended head portion, F, formed with two flanges, *a b*, the communicating-channel E, and recess G, as and for the purposes set forth.

2. The cartridge-shell having the head portion formed with two projections or flanges, *a b*, as described, the former constituting the seat to rest against the breech-plug, and the latter a rim, under which the ejector mechanism travels to withdraw the shell, as hereinbefore set forth.

3. The shell A and head F, formed with the recess G and channel E, in combination with the independent capsule H and closing-plug I, substantially as and for the purpose set forth.

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

JAMES B. DAVIS.

Witnesses:

M. M. ROHRER,
F. W. SMITH, Jr.