

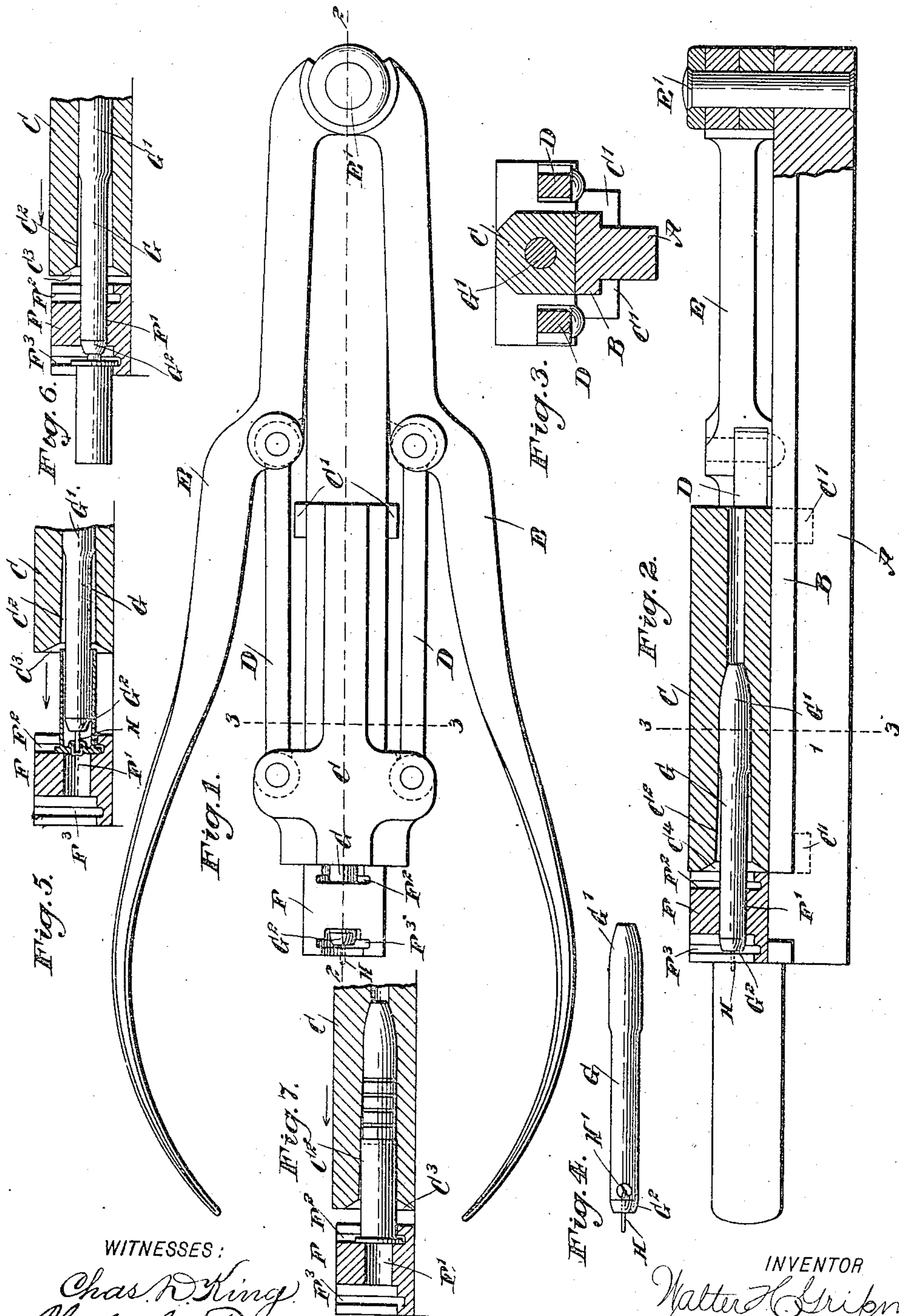
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Patented Nov. 21, 1899.

W. H. GRIPMAN.
CARTRIDGE RELOADING TOOL.

(Application filed May 27, 1899.)

(No Model.)



WITNESSES:

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CARTRIDGE-RELOADING TOOL.

SPECIFICATION forming part of Letters Patent No. 637,730, dated November 21, 1899.

Application filed May 27, 1899. Serial No. 718,538. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. GRIPMAN, of Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented a new and Improved Cartridge-Reloading Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved cartridge-reloading device arranged to permit of conveniently and rapidly expelling the old primer, accurately inserting a new primer, resizing the bullet and shell, expanding the mouth of the cartridge-shell, and securely fastening the bullet in place in the filled shell.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement. Fig. 2 is a longitudinal sectional elevation of the same on the line 2 2 in Fig. 1. Fig. 3 is a transverse section of the same on the lines 3 3 in Figs. 1 and 2. Fig. 4 is a side elevation of the pusher. Fig. 5 is a sectional side elevation of the improvement arranged for expelling the old primer. Fig. 6 is a similar view of the improvement arranged for seating a new primer; and Fig. 7 is a like view of the improvement arranged for compressing the powder, crimping the shell around the bullet, and resizing the cartridge.

The improved reloading device is provided with a stock A, on which are formed the longitudinal guideways B for engagement by the bearings C' of a die C, pivotally connected at its sides near the forward end by links D with hand-levers E, fulcrumed on a pivot E', carried by the stock A, as plainly illustrated in Figs. 1 and 2. The ends of the links D are preferably fitted into sockets in the die C and the levers E, so as to relieve the pivots for the said links of as much strain as possible when the device is used, as hereinafter more fully described.

On the forward end of the stock A is removably secured a stationary die F, having a longitudinal bore F' in axial alinement with a tapering bore C², formed in the movable die C, and on the inner face of said stationary die F is arranged a vertically-disposed guideway or retainer F² for receiving and holding the head or flange of the cartridge-shell against longitudinal, transverse, or downward movement and to hold the shell in axial alinement with the bores F' and C². A similar guideway or retainer F³ is arranged on the outer face of the stationary die F likewise for receiving and holding the head or flange of the cartridge-shell in position and in axial alinement with the bores F' and C² at the time a new primer is seated, as hereinafter more fully described.

A pusher G, having an enlarged inner end G', is adapted to be inserted in the bore C² of the movable die C, said enlarged end G' engaging the inner or apex end C³ of said bore C². The outer end of the pusher G is adapted centrally to receive a pin H, removably fastened in position by a set-screw H', so as to project the pin a suitable distance beyond the beveled forward end G² of the pusher G. This pin H is used on the pusher G at the time the latter is inserted in the movable die C for removing the old primer from the cartridge-shell, as indicated in Fig. 5.

The device is used as follows: When the levers E are swung outward by the operator having hold with his hands on the free ends thereof, then the die C is moved rearward away from the stationary die F, and when said levers are swung inward the die C is caused to slide thereon against the stationary die F. In order to remove the old primer from the cartridge-shell, the operator places the head of the shell in the guideway or retainer F², so that the shell extends with its open end toward and in alinement with the pusher G, inserted in the bore C² of the movable die C now in a rearmost position. The operator now closes the levers E and moves the die C, with the pusher G and its pin H, forward, so that the said pusher passes into the shell and the pin H engages the primer and pushes the same out of the head of the shell

into the bore F', and at the same time the mouth of the shell comes in contact with the bevel between the pusher G proper and the beginning of its enlargement G', so that the mouth of the shell is opened. When this has been done, the operator swings the levers E outward to withdraw the pusher G from the shell, and the latter is now removed from the guideway or retainer F², a new primer is inserted in the opening in the head of the shell, and then the head is placed in the guideway F³, the shell extending outwardly. The pin H is now removed from the pusher G, and then the operator closes the levers E to again move the die C forward, the pusher G passing through the bore F' to engage with its forward end the primer and seat the same firmly in the head of the shell. The levers E are now again swung outward to withdraw the pusher G from the stationary die F, and then the pusher is removed from the movable die C and the shell is removed from the die F. The shell is now filled with powder and a bullet is inserted in the mouth of the shell, and then the latter is again placed with its head in the guideway F² to extend toward the die C. The operator now closes the levers E, so as to move the die forward and bring the bore C² over the bullet and the shell to cause a crimping of the shell upon the bullet to securely fasten the same in place and at the same time compress the powder by pushing the bullet inward and likewise resize the cartridge by the latter coming in contact with the wall of the bore C² of the die C. The outer end of the bore C² preferably terminates in a flaring mouth C⁴ for the ready entrance of the shell and cartridge.

In order to size the bullet, I make use of the bore F' and the pusher G without the pin H, the pusher being inserted in the die C. The bullet is placed at the inner end of the bore F' and extends toward the die C, and then the levers E are closed to cause the forward end of the pusher G to engage the bullet and force the same through the bore, so as to trim off surplus material, grease, or the like and give the bullet the desired diameter and at the same time fill the annular groove with lubricant scraped off from the preceding peripheral surface of the bullet. Thus it will be seen that the bore F' serves for sizing the bullets, allows passage of the pusher when seating a new primer in the head of the shell, and said bore also serves as an outlet for the old primer removed from the head of the shell, as before explained.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A cartridge-reloading device, comprising a stationary die having a longitudinal cylindrical bore, retainers or guideways at the ends of the bore for receiving and holding the head of a shell in longitudinal alinement with said bore, a die movable longitudinally toward or from said stationary die, and having a tapering bore in axial alinement with said cylindrical bore and a pusher for removable insertion in the bore of said movable die and projecting beyond the front end thereof and passing through the bore in the stationary die, for seating the new primer on the shell, said pusher also serving for forcing a bullet through the bore in the stationary die and sizing the bullet, substantially as shown and described.

2. A cartridge-reloading device, comprising a stationary die having a retainer or guideway at its inner face or end, for receiving and holding the head of the shell, a die movable longitudinally toward or from said stationary die, and a pusher removably held in said movable die in axial alinement with the shell, said pusher carrying at its front end a pin for engaging and removing the old primer in the shell, substantially as shown and described.

3. A cartridge-reloading device, comprising a stationary die having a retainer or guideway at its inner face for receiving and holding the head of the cartridge, and a die movable longitudinally toward or from said stationary die and having a tapering bore in axial alinement with the cartridge, the walls of the bore being adapted to engage the bullet and shell of the cartridge, to crimp the shell upon the bullet and compress the powder by moving the bullet in the shell, and to resize the cartridge, substantially as shown and described.

4. A cartridge-reloading device, comprising a stationary die having a longitudinal cylindrical bore, retainers or guideways at the ends of the bore for receiving and holding the head of the shell or cartridge in longitudinal alinement with said bore, a die movable longitudinally toward or from said stationary die and having a tapering bore in axial alinement with said cylindrical bore, a pusher for removable insertion in the bore of said movable die, links pivotally connected with said movable die, and hand-levers pivotally connected with said links, for imparting a sliding motion to said movable die upon swinging said levers outward or inward, substantially as shown and described.

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Witnesses:

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