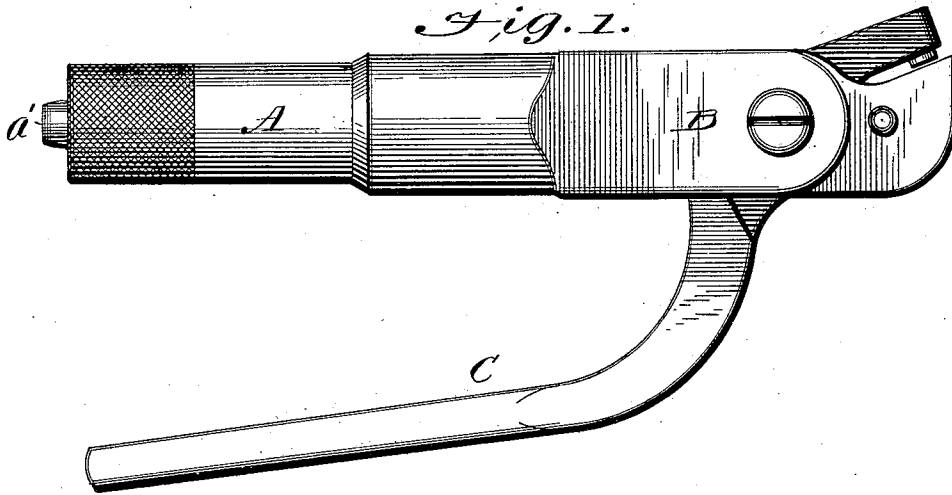
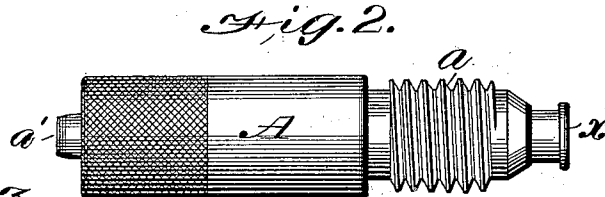
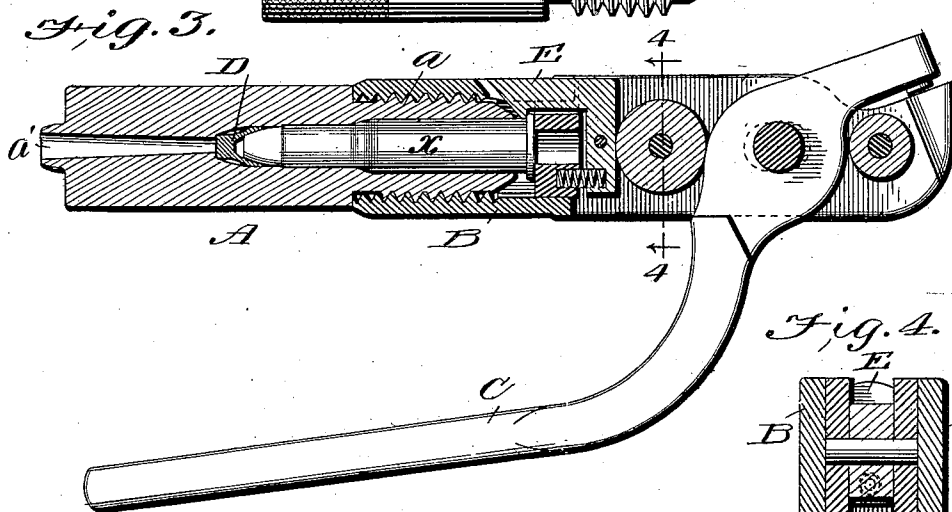
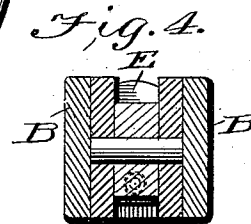
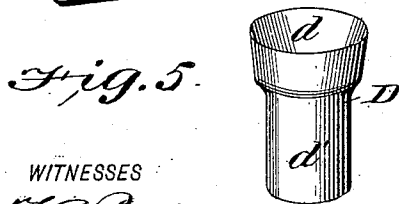
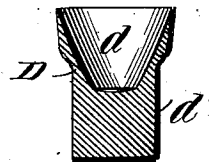


No. 885,589.

PATENTED APR. 21, 1908.

M. H. DOPPLMAIER.
CARTRIDGE RELOADING TOOL.
APPLICATION FILED MAY 27, 1907.



WITNESSES
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UNITED STATES PATENT OFFICE.

MARTIN HARRY DOPPLMAIER, OF EUREKA, CALIFORNIA.

CARTRIDGE-RELOADING TOOL.

No. 885,589.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed May 27, 1907. Serial No. 375,900.

To all whom it may concern:

Be it known that I, MARTIN HARRY DOPPLMAIER, a citizen of the United States, and a resident of Eureka, in the county of Humboldt and State of California, have invented an Improved Cartridge-Reloading Tool, of which the following is a specification.

My invention is an improvement in tools for re-loading ball or rifle cartridges.

Until the production of my invention it was requisite to employ two re-loading tools, for long and short range cartridges, which doubled the expense and rendered it necessary for the hunter or sportsman to provide two tools of the requisite size for long and short range cartridges.

By my invention a single tool suffices for re-loading both long and short range cartridges.

The invention is hereinafter described by reference to the accompanying drawing, in which

Figure 1 is a view of a cartridge-reloading tool of the Winchester model of 1894. Fig. 2 is a side view of the die forming a part of such tool. Fig. 3 is a central longitudinal section of the tool. Fig. 4 is a cross section on the line 4—4 of Fig. 3. Fig. 5 is a perspective view of the device which I employ to adapt the reloading tool for short-range cartridges, the same being shown enlarged. Fig. 6 is a central longitudinal section of the device.

The reloading-tool illustrated comprises a die A, a frame B, and a lever C which is pivoted in the forked portion of said frame. The lever has at its opposite end a screw-threaded socket for receiving the threaded portion or tenon *a* of the die A. The die has a longitudinal bore or socket, which is of such size and length that it is primarily adapted for receiving a long range rifle cartridge; in other words, the tube shown is normally adapted to receive and reload, that is to say, compress and shape, a long range cartridge, and is therefore not adapted for a short, or short range, cartridge such as is shown at *x* inserted in the socket. In order to adapt the tool for shaping both lengths of cartridges, I provide a supplemental device D, which is peculiarly constructed and adapted to fill or occupy a certain portion of the space at the inner end of the bore or socket in the die A. The device may be termed a cup die, in view of the shape indicated in Figs. 5 and 6. It has in one end a cavity or socket *d* to receive the

conical end of the rifle bullet inserted in and ultimately forming part of a short cartridge *x*, as shown in Fig. 3. The opposite or inner end *d'* of the device D is solid and the extremity is flat and is made of greater width or diameter than the inner end of the passage *a'* formed at the end of the die A, and which communicates with the socket or bore which receives the cartridge.

The body portion of the device D is cut away, so that, as shown in Fig. 3, when said device is inserted in place it is in contact with the die proper A only at its ends; the portion immediately surrounding the edge of the cup or socket *d* is practically cylindrical and adapted to fit against the surrounding portion of the bore or socket in which the short cartridge *x* is received, the remaining or body portion *d'* of the device D is cut away so that it is never in contact with the bore or socket of the die A.

The cylindrical outer portion of the cup D and the flat end of the part *d'* suffice to "center" the device in the bore or socket of the die when inserted therein as shown in Fig. 3, while the friction of the device with the bore is reduced to a minimum so that it does not wedge in the bore and cannot stick therein.

In using the reloading tool, a shell with its charge and bullet being forced together, the cartridge thus formed is introduced into the die, as shown in Figs. 2 and 3, and then the die is screwed into the frame B so far as it will go readily. Then the lever C is operated to force the cartridge into the die and the latter is screwed further into the frame B. The repeated motion or oscillation of the lever C forces the cartridge *x* its full length into the die A, so that the bullet is inserted into the shell the right distance, and the shell is crimped around it and reduced to the proper or ordinary size required to adapt it to go freely into the rifle. The device D takes up the space which would be occupied by a long cartridge and thus enables a short range cartridge to be compressed, crimped, and shaped, with the same facility and perfection as could be done with a tool constructed with a shorter bore and made especially for the purpose. In other words, the bullet enters the socket *d* of the device D and is held therein, in the same manner as the bullet of a long-range cartridge would be held at the end of the bore if the device were removed. It is thus practicable to use the reloading-tool for long and short range car-

tridges, it being only necessary, in order to convert the same from long to short, to insert the device D; and it is obvious that the same may be easily forced out of the die A by
5 means of a nail or tool inserted through the passage or opening *a'* which is alined with the cartridge bore or socket of the die A. Since the flat end of the die cup D is of greater width than the inner end of said
10 opening, the nail or tool thus inserted is sure to contact therewith.

E indicates the pivoted extractor which automatically engages the flange or head of the cartridge so that the latter may be readily
15 withdrawn from the die by screwing the latter out of the frame B.

What I claim is:—

The combination with a reloading tool having a bore of a length adapted to receive a long cartridge which is continued as a reduced alined passage *a'*, a supplemental die 20 D whose inner flat end is wider than said passage *a'* so as to seat over the same, and having at its opposite end a cylindrical portion that fits the cylindrical cartridge bore 25 or socket closely, the intervening or body portion of said die being reduced in diameter so that it is out of contact with the side of the socket, as shown and described.

M. HARRY DOPPLMAIER.

Witnesses:

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