No. 735,047. PATENTED AUG. 4, 1903.

W. T. ALSOP.

RE-CAPPING DEVICE.

APPLICATION FILED NOV. 19, 1900.

NO MODEL.

Fig. 1.

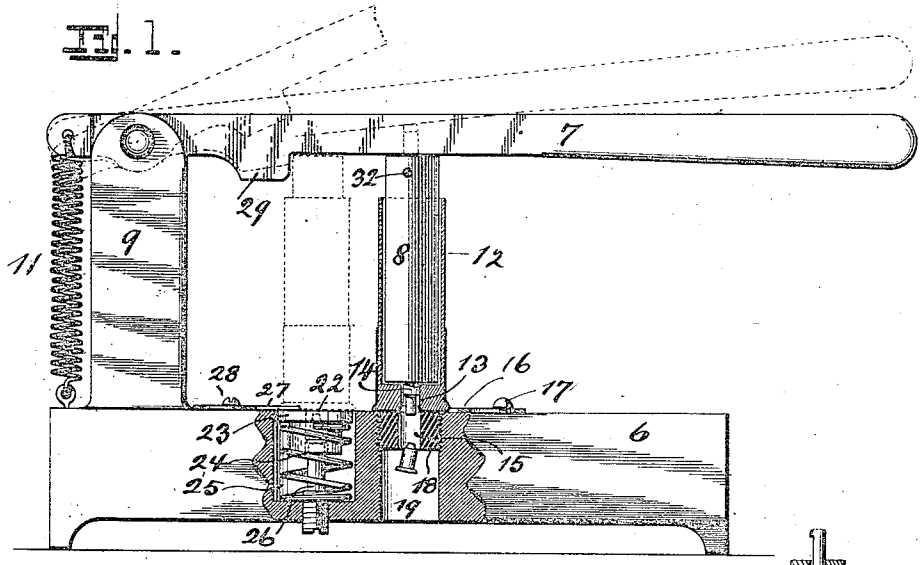


Fig. 2.

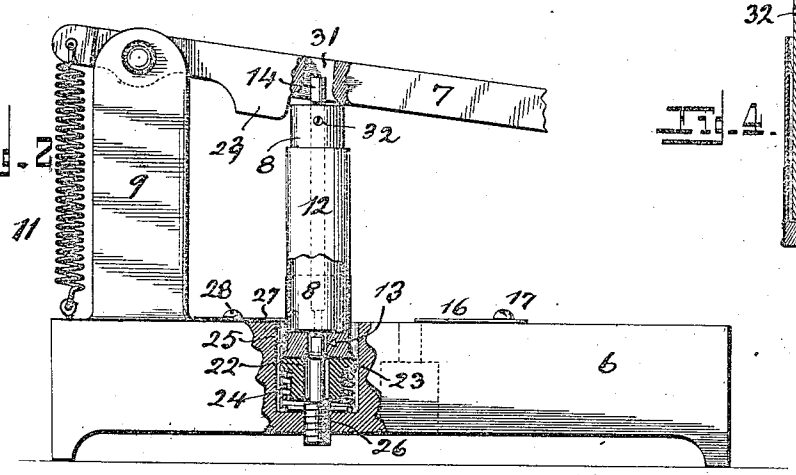


Fig. 4.

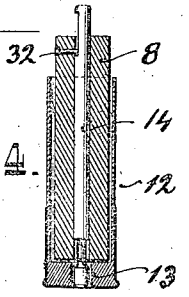
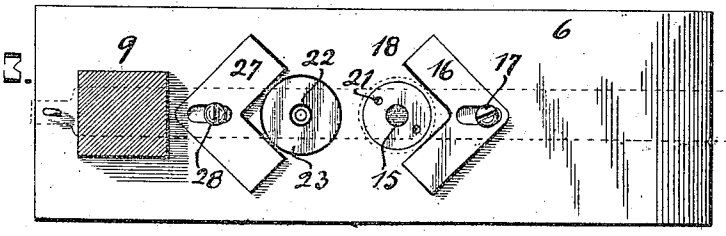


Fig. 3.



Witnesses

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No. 735,047. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM T. ALSOP, OF OWENSBORO, KENTUCKY.

RECAPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 735,047, dated August 4, 1903.

Application filed November 19, 1900. Serial No. 36,987. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. ALSOP, a citizen of the United States, and a resident of Owensboro, Daviess county, State of Kentucky, have invented a certain new and useful Recapping Device; and I do declare that the following is a description thereof sufficiently clear, full, and exact as to enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form also a part of this specification.

The object of this invention is to provide a device whereby in ammunition-shells which have been used and are otherwise in condition fit for reuse the exploded cap (or primer) may be removed and replaced by a new one. My invention provides for such purpose a certain implement constructed as hereinafter shown and described and whereby the old cap rendered useless by the firing of the shell is removed from the latter and replaced by a new one.

In the following specification, and particularly pointed out in the claim, is found a full description of the invention, together with its manner of use, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1, in a side elevation with parts broken away, shows the implement as being used for the purpose of removing an exploded cap (the same having just been expelled) and with parts in a corresponding position. Fig. 2, in a similar view, shows the device as used for the purpose of replacing in a subsequent manipulation a new cap for the one removed, the new cap having just been placed, and the parts are in a corresponding position. Fig. 3 is a top view of the device with the operating-lever removed. Fig. 4 shows a sectional view of a shell with an auxiliary part of my device in position.

The implement consists, substantially, of a suitable base 6, a suitable device, preferably in shape of a lever 7, for exerting pressure, and an intermediate auxiliary device 8, not connected to any part of the implement, whereby the action of this pressure-exerting device is caused to be transmitted to the parts to be acted upon. The lever is pivotally supported on an upright or post 9 and normally held in a raised position by a spring 11 to facilitate placing of the shell under it. This latter is indicated by 12 and is provided in its base with a customary perforation 13, forming a socket, which is occupied by the cap in the usual way.

In order to remove the exploded cap from a fired shell, the auxiliary device is inserted thereinto, as shown in Fig. 4, such device consisting, substantially, of a guide-piece 8, occupied in its central bore by a drift-pin 14. The diameter of this guide-piece is such as to fit freely into the shell, and it serves to bring the lower end of the drift-pin immediately above the inner end of the exploded cap, on which latter the drift-pin then rests. The length of this latter is such that it projects at this time above its guide-piece 8, as shown in Fig. 4. The two as so shown in Fig. 4 are now placed under the elevated pressure device, (lever 7 in this case,) the position being, further, such as to bring the outer (now lower) end of the cap immediately above a perforation 15 in the base. The finding of this position is facilitated by a gage 16, held in position on base 6, the connection being adjustable by means of a set-screw 17 if shells of various caliber are worked upon. The pressure-exerting device or lever 7 is now caused to act against the projecting upper end of drift-pin 14, as shown in Fig. 1, whereupon its lower end enters the socket occupied by the exploded cap and displaces the same. When the device is used on shells of various sizes and where the size of the caps may be different, it is preferable to have perforation 15 contained in a plug 18, of which there are a desired number, all of equal outer diameter and fitted to and tapped into the upper end of a larger perforation 19 in base 6. Socket-holes 21 are provided to permit use of a suitable tool or wrench when exchange becomes necessary.

Immediately after expulsion of the exploded cap or while such is done with one hand a new cap, as shown in dotted lines in Fig. 1, is placed with the other hand into a socket 22, formed by and contained within a plug 23, which is yieldingly supported by a spring 24 within a recess 25 of base 6. The lower end of this socket is closed by a pin 26,

upon which the new cap rests, as shown in Fig. 1, and the diameter of which is such as to fit into socket 22. If caps of various sizes are used, plug 23 and pin 26 are made each exchangeable, for which purpose this latter is held in base 6 by means of a screw connection, the insertion being in this case from below. This permits also adjustment of the upper end of this pin to adjust the depth of the socket to suit the height of the cap and to permit this latter to fully enter said socket without projecting above plug 23. The shell, with auxiliary device 8 still within, is now slid over onto plug 23, so as to be centrally above socket 22 therein, which position is determined by another gage or stop 27, held adjustably to base 6 by a set-screw 28 above. The finding of this position is facilitated by a projection 29 on the under side of lever 7, against which the upper end of device 8 contacts while moved over. The pressure-exerting device or lever 7 is now again caused to operate, acting in this case against the upper end of part 8, the drift-pin remaining in its depressed position, in which it was left by the previous manipulation. This action on lever 7 causes the lower end of part 8 to bear against the inside or bottom of the shell, thereby carrying this latter down and depressing thereby also plug 23 against the action of spring 24. Since pin 26 with the cap on its upper end cannot yield, it is clear that this latter is caused to enter the perforation intended for and forming its socket in the bottom of the shell. While so passing in drift-pin 14 yields freely upwardly, its upper end passing into a groove or slot 31, cut into the lever 7. On release of lever 7 spring 24 carries plug 23, with the shell thereon, up again, after which the latter, recapped now, may be removed. It is preferable to limit in a positive way the depressing of plug 23, which need not be any more than equal to the height of the cap. Such may be done by a stop or shoulder, which may be obtained by increasing in thickness the lower or screw-threaded part of pin 26, as shown, and against which the lower end of plug 23 becomes seated when depressed.

It is preferable to hold drift-pin 14 within part 8 in a manner to prevent it from dropping out when the device is handled. This may be done by a set-screw 32, as shown, which holds the pin without interfering with its movement and use.

It will be observed that in all manipulations the bottom of the shell is firmly and fully held and supported in the first manipulation on plug 18 and in the second between the lower end of part 8 and plug 23, so as to prevent injury to it or loss of shape. During the second or recapping manipulation part 8 is doing the work, while during the first it merely serves as a guide for the drift-pin, while this latter expels the exploded cap. It is evident that if it were found expedient for certain reasons the cap-expelling part of this device and the recapping part thereof might be separated, so as to form independent implements, each having its own pressure-exerting device.

Having described my invention, I claim as new—

A combined device for expelling used caps from ammunition-shells and inserting new ones, consisting of a base, a pressure-exerting lever supported above it in a manner to have a movement to or from the same, an independent auxiliary device 8 whereby the pressure exerted by the lever is transmitted, the same fitted to be received by a shell, but projecting above the same, a drift-pin loosely carried by this auxiliary device, but longer than it and having a limited movement therein, a perforation 15 in the base and a perforated plug 23 yieldingly supported also in this base, both centrally alined below the pressure-exerting lever, a fixedly-supported pin 26 closing the lower part of the perforation in plug 23 and forming the bottom of a recess above it adapted to receive a cap, a groove 31 in the under side of the lever and in that part of it which is above plug 23, to clear the upper end of the drift-pin, a gage or stop 27 adjustably attached to the top of the base to define the position of the shell below and a projection 29 on the lever to define the position of the auxiliary device 8 above when coming laterally in contact with the same.

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

WILLIAM T. ALSOP.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.