H. G. WOLCOTT.

IMPLEMENT FOR REMOVING CARTRIDGE-PRIMERS.

No. 180,693. Patented Aug. 1, 1876.

Fig. 1.

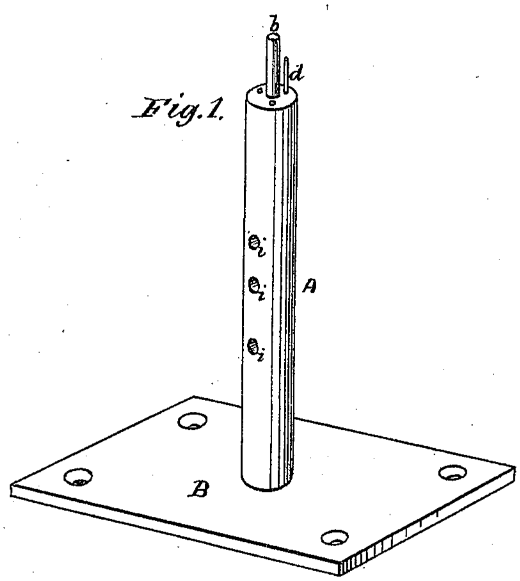


Fig. 2.

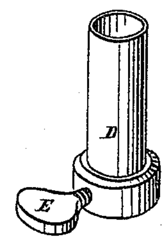


Fig. 3.

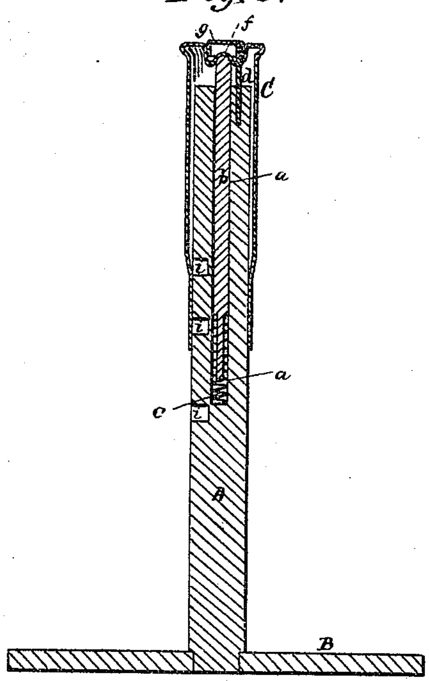
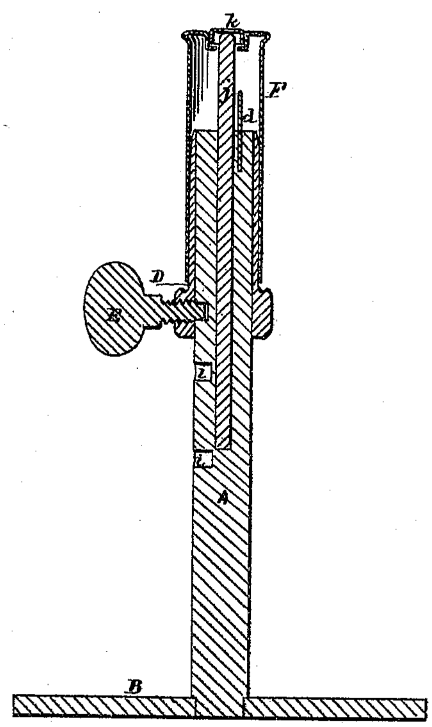


Fig. 4.



Witnesses:

Ewell A. Dick

A. H. Eatman

Inventor:

Henry Goodrich Wolcott

by atty. Brooks Bailey

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY GOODRICH WOLCOTT, OF FISHKILL-ON-THE-HUDSON, NEW YORK.

IMPROVEMENT IN IMPLEMENTS FOR REMOVING CARTRIDGE-PRIMERS.

Specification forming part of Letters Patent No. **180,693**, dated August 1, 1876; application filed July 13, 1876.

To all whom it may concern:

Be it known that I, HENRY GOODRICH WOLCOTT, of Fishkill-on-the-Hudson, Dutchess county, New York, have invented certain new and useful Improvements in Implements for Removing Primers from Cartridge-Shells, of which the following is a specification:

In making my invention I have had principally in view that class of cartridges made with a central outwardly-projecting nipple, around which are formed small holes, usually three in number, equidistant from the center, through which the fire is transmitted. The nipple is covered, as is well known, by a cap or primer, which is firmly seated in the base of the cartridge-shell. In reloading an empty shell it becomes necessary to remove the old exploded primer in order to replace it by a new one. To this end I make use of a standard which is of a size to about fit the cartridge case or shell, and carries a central yielding pin, which enters the nipple and centers the case. To one side of this central guide-pin I fix in the standard one or more pins, (one will answer,) whose distance from the center is the same as that at which the above-referred-to holes or perforations in the base of the cartridge case or shell are placed from the center. The yielding guide-pin normally extends up higher than the rigid eccentric pin. The latter, when the cartridge-shell is forced down on the implement, finds its way through one of the perforations and readily forces off the primer. In some cartridges, however, the fire is transmitted through a central hole. To adapt the implement to such cartridges I make the yielding central guide-pin removable, so that it may be taken out and replaced by a rigid pin, which extends up far enough to protect the smaller eccentric pin, used as an extractor for the cartridges of the kind first above mentioned. Inasmuch, also, as cartridges are of varying caliber, I provide the implement with one or more sleeves of proper thickness or thicknesses, which can be fitted and attached to the standard, so as to increase its diameter to the extent desired.

In the accompanying drawing I have represented an apparatus or implement embodying my invention in its preferred form.

Figure 1 is a perspective view of the implement. Fig. 2 is a like view of a sleeve for increasing the diameter of the standard. Fig. 3 is a vertical central section of the implement provided with a yielding central guide-pin. Fig. 4 is a like view of the implement provided with an unyielding center-pin.

A is the cylindrical standard hereinbefore mentioned; it is fixed to a base-plate, B, which is fastened to a table or other suitable support. In the standard is formed an axial socket, *a*, in which is placed a central pin, *b*, which has a yielding bearing against the bottom of the socket, formed, in this instance, by a spiral spring, *c*, attached to and extending below the lower end of the pin, as shown in Fig. 3. To one side of the central pin an unyielding or rigid ejector-pin, *d*, is fixed in the standard. The yielding guide-pin, in its normal position, projects some little distance above the ejector-pin, as shown in Fig. 1.

The apparatus is used as follows: A cartridge-shell, C, of caliber 44, for instance, for which caliber the cylindrical standard A is adapted, is placed on the apparatus, as indicated in Fig. 3, and is pressed down thereon. In its descent it is guided by the main standard, so that the central yielding pin *b* at once finds its way into the central depression in the under side of the nipple *f* in the base of the shell. The pin thus centers the shell, which is still further depressed until it is in contact with the small ejector-pin *d*. By slightly rotating the shell the pin then readily finds and enters one of the eccentric holes around the nipple and abuts against the primer *g*, as indicated in Fig. 3. By a few taps on the shell the primer is then knocked out by the pin.

For cartridges of large caliber the diameter of the standard may be increased by fitting thereon a shouldered sleeve, D, Fig. 2, of proper thickness, which is held in place, as indicated in Fig. 4, by a set-screw, E, which enters the socket *i* in the standard.

The apparatus thus far described, while adapted for removing primers from shells of the kind shown in Fig. 3, manifestly is not fitted to be used with cartridges in which the fire is transmitted through a central hole. To adapt the implement to this use, also, I make the yielding pin *b* removable, so that it and the spring attached to it may be taken out of

the socket *a*, leaving the latter free to receive a pin, *j*, Fig. 4, whose lower end rests on the bottom of the socket, and whose upper end, formed of the proper size and shape to enter the central hole in the base of the cartridge, projects far enough above the eccentric ejector-pin *d* to prevent the latter from coming in contact with the shell. The cartridge F in this arrangement is placed on the apparatus, as indicated in Fig. 4. When it is pressed down the rigid central ejecting-pin *j* enters the central hole in the base of the cartridge and abuts against the primer *k*, which can thus be readily knocked out. I have represented the implement as designed to be fixed to a table; but it may have a handle or handles and be used like a punch.

Having now described my invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. In an implement for removing primers from cartridge-shells, the combination of a central yielding or depressible guide-pin and an eccentric ejecting-pin, for joint operation, substantially as set forth.

2. The combination of the guide-standard, the yielding or depressible central guide-pin, and the eccentric ejector-pin, the combination being and acting as set forth.

3. The removable central depressible guide-pin, in combination with the socketed supporting-standard, substantially as set forth.

4. The combination, with the guide-standard, of a removable sleeve or sleeves, by which the diameter of the standard may be varied to conform to the caliber of the cartridge-shell operated on.

5. An implement for removing primers from cartridge-shells, in which the standard or stud around which the shell fits is provided with an eccentric ejector-pin, and with removable and interchangeable center-pins, which are depressible or not, according as they act as guides or as ejectors, substantially as set forth.

In testimony whereof I have hereunto signed my name this 11th day of July, A. D. 1876.

H. G. WOLCOTT.

Witnesses:

HOWARD THORNTON,

WM. C. CHAMBERS.