

(No Model.)

T. G. BENNETT.

RESIZING IMPLEMENT FOR CARTRIDGES.

No. 355,122.

Patented Dec. 28, 1886.

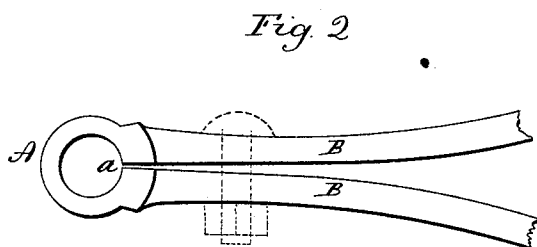
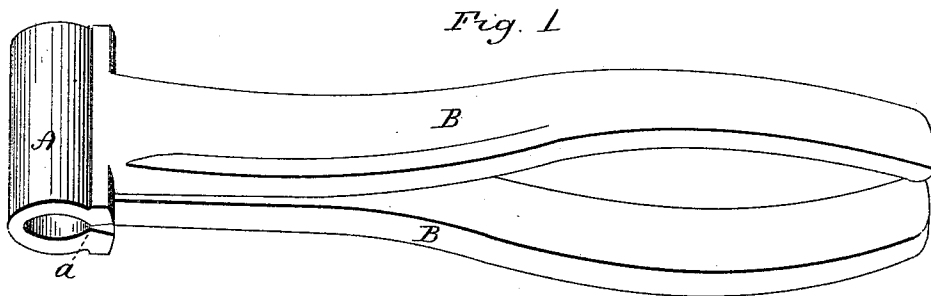


Fig. 3

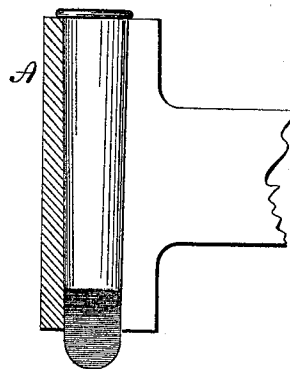
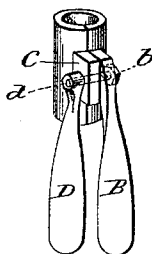


Fig. 4



Witnesses:
J. A. Thurnway
Fred C. Earle

Thomas G. Bennett
By atty. Inventor
J. M. Earle.

UNITED STATES PATENT OFFICE.

THOMAS G. BENNETT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

RESIZING IMPLEMENT FOR CARTRIDGES.

SPECIFICATION forming part of Letters Patent No. 355,122, dated December 28, 1836.

Application filed September 13, 1836. Serial No. 213,406. (No model.)

To all whom it may concern:

Be it known that I, THOMAS G. BENNETT, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Cartridge-Resizing Instruments; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the instrument complete; Fig. 2, a top view of the same; Fig. 3, a vertical central section cutting through the slit; Fig. 4, a perspective view showing modification on a reduced scale.

This invention relates to a device for resizing cartridge-shells, to bring them to a shape and diameter corresponding to the cartridge-chamber of the barrel in the arm in which they are to be used.

Metal cartridge-shells necessarily expand to a greater or less extent under explosion, and in loading or reloading the shells their outline is frequently changed under the force applied in charging. Again, the introduction of the bullet frequently changes the outline of the shell at its mouth, if the bullet be large. Forcing such a large bullet into the mouth naturally causes the mouth of the shell to expand. When the shells are reloaded, or even in many cases in the original charging of the shells, it is found that cartridges do not readily enter the cartridge-chamber, and it is not infrequently the case that the cartridge cannot be forced into the chamber owing to the change in the outline of the shell subsequently to its completion as a shell. Again, in the original manufacture of cartridges, such slight differences may exist between different manufacturers that the same standard size shell of one manufacturer will not freely enter the same chamber as a like standard size of another manufacturer.

The object of my invention is the construction of an instrument by which the irregularities in the size or shape of a cartridge-shell may be removed, and the shell brought to the size and shape corresponding to the chamber of the barrel in which it is to be used; and it

consists in a tube the interior of which corresponds in shape and size to the chamber of the arm for the resizing of cartridges for which it is adapted, the tube longitudinally slit upon one side, and the tube elastic to some extent, so that it may be contracted by drawing the edges at the slit toward each other, the said tube provided with a clamping device at the slit, whereby power may be applied to so contract the tube, and as more fully hereinafter described.

A represents the tube, which is best made from steel, so as to possess a certain degree of circumferential elasticity. The interior of the tube corresponds to the chamber in the barrel of the arm to which it is adapted, and so that a cartridge fitting closely in said tube, as seen in Fig. 3, will correspond to the shape of the chamber in the barrel, and a cartridge so fitting in the said tube will properly enter the chamber in the barrel. Longitudinally upon one side the tube is slit, as at *a*, Fig. 2, and, preferably, from each side the slit a handle, B, extends, made as an integral part of the tube, and in form similar to the form of pinchers, as seen in Fig. 1. The slit *a* is narrow.

To size a cartridge or shell, as the case may be, it is introduced at the larger end of the tube, the handles separated slightly to cause the tube to expand, so that the cartridge will drop into the tube to some extent, if not so as to bring the head upon the end of the tube, as seen in Fig. 3; then by a strong pressure upon the two handles B B, tending to bring them together, the tube will be contracted to a slight extent, sufficient to compress the cartridge or shell in the tube and remove from it such irregularities in shape as shall have existed therein, or to contract it should it have been too large. If upon the first introduction of the cartridge or shell the irregularities are so great that it will not possibly fully enter the tube, then it is inserted as far as it conveniently may be and compressed as before. Then the tube may be again expanded, the cartridge may be forced farther into the tube, and again compressed, and so on, until finally the entire surface of the cartridge will have been operated upon by contraction of the tube, and so as to compress it and bring it to the required shape and size, and so that it will read-

ily enter the chamber in the barrel for which it is intended. It will be seen that the expansion or contraction of the tube is almost infinitesimal, but yet is sufficient to produce the compressing and shaping operation without changing the cylindrical character of the interior of the tube, and performs the work in the most effective manner. After the cartridge has been thus resized, it is easily removed from the tube, either by pressure applied at its bullet end, or by opening the handle, or by any extracting device which may be applied to the flange.

The contraction of the tube may be performed otherwise than by two handles, as I have described—say as by a clamping action, as seen in Fig. 4. In this case the one handle, B, extends from one side of the slit, and on the opposite side is a corresponding ear, C, with a bolt, *b*, through the ear and shank of the handle, with a second handle, D, having its shank in the form of a nut, *d*, corresponding to the screw-thread on the bolt *b*, and so that the operator holding the handle B in one hand may turn the other handle, D, upon the bolt to contract the tube; or a bolt may be introduced through the handles near the tube, as indicated in broken lines, Fig. 2, the head taking a bearing upon one side, and with a nut upon the opposite side, which may be turned by a common wrench. I therefore do not wish to be

understood as limiting the invention to making the two handles as an integral part of the tube, it only being essential that the elastic tube shall be provided with a clamping device by which it may be contracted to compress the cartridge or shell therein, as the case may be.

I claim—

1. The herein-described instrument for resizing cartridges, consisting of the tube A, its interior corresponding, substantially, to the chamber in the barrel for which the instrument is adapted, the said tube slit only upon one side longitudinally to permit the circumferential expansion or contraction of the said tube, and a clamping device, substantially such as described, whereby the said tube may be contracted or its expansion permitted, substantially as specified.

2. The tube A, its internal diameter corresponding, substantially, to the chamber in the barrel for which the instrument is adapted, the said tube slit longitudinally upon one side only to permit the circumferential expansion or contraction of said tube, and having a handle extending therefrom each side the slit, substantially as and for the purpose described.

THOMAS G. BENNETT.

Witnesses:

JOHN E. EARLE,
FRED. C. EARLE.