

J. S. ADAMS.
Cartridge Loading.

No. 48,010.

Patented May 30, 1865.

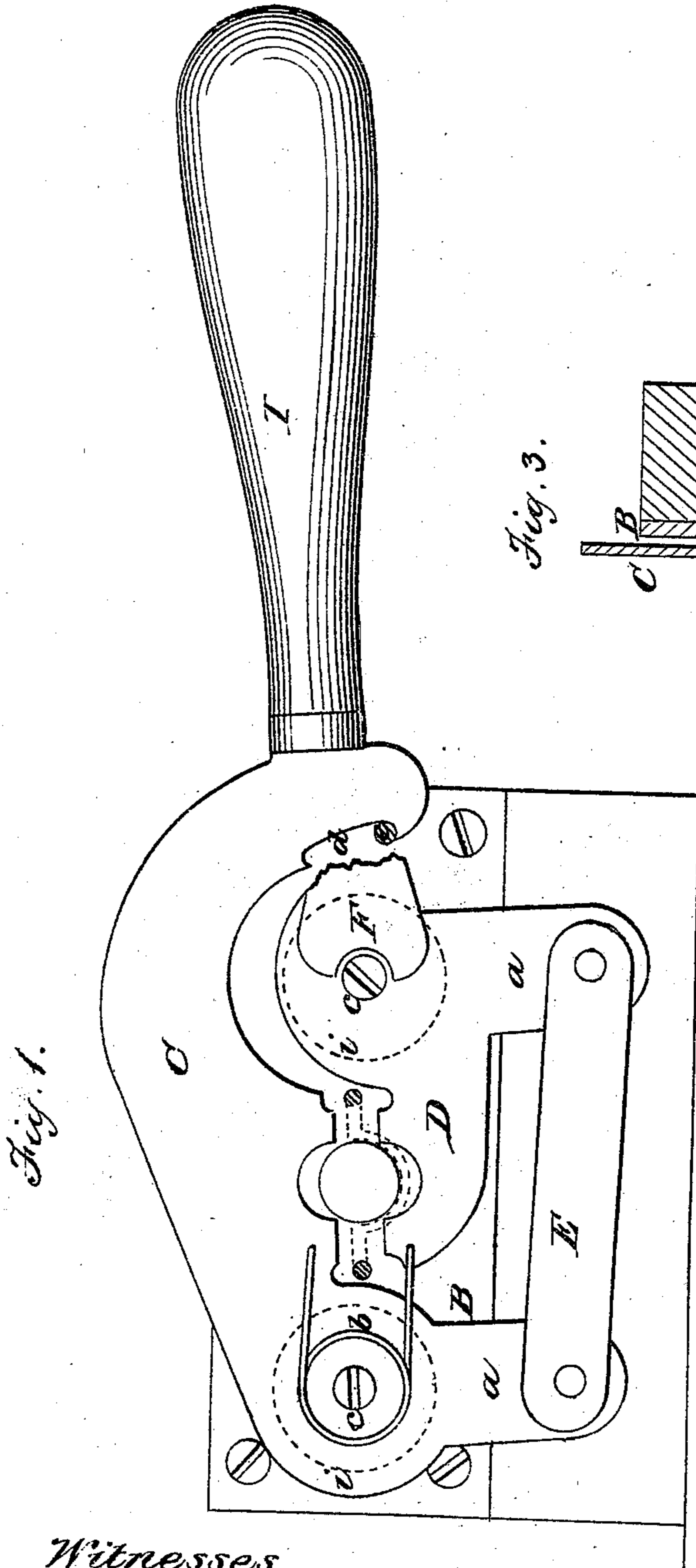
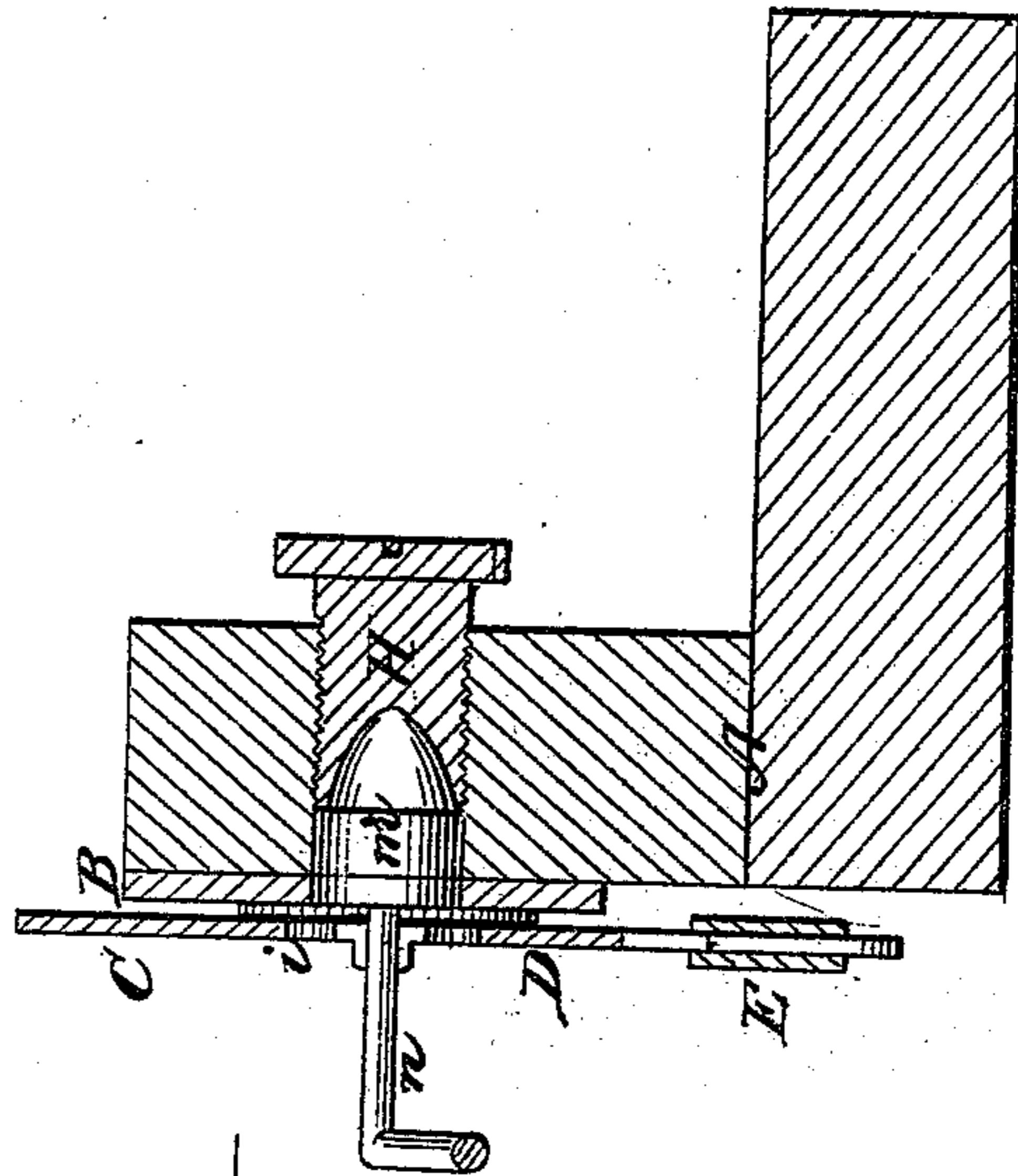


Fig. 1.

Fig. 3.



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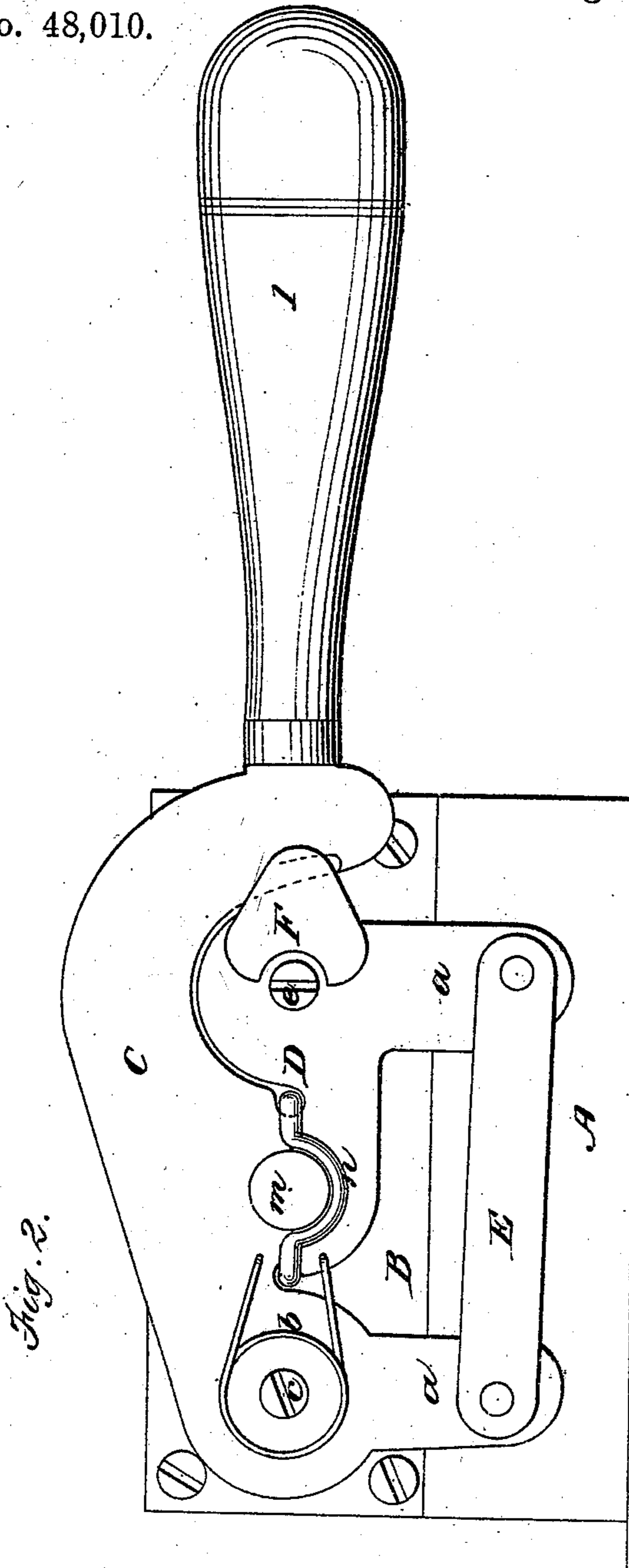


Fig. 2.

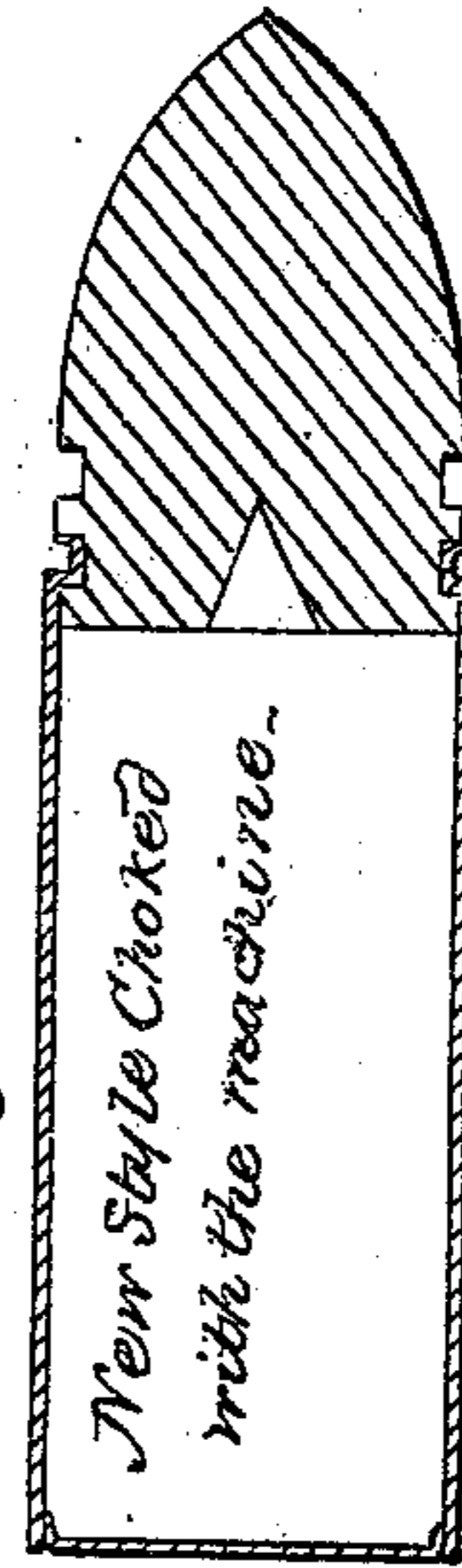


Fig. 5.

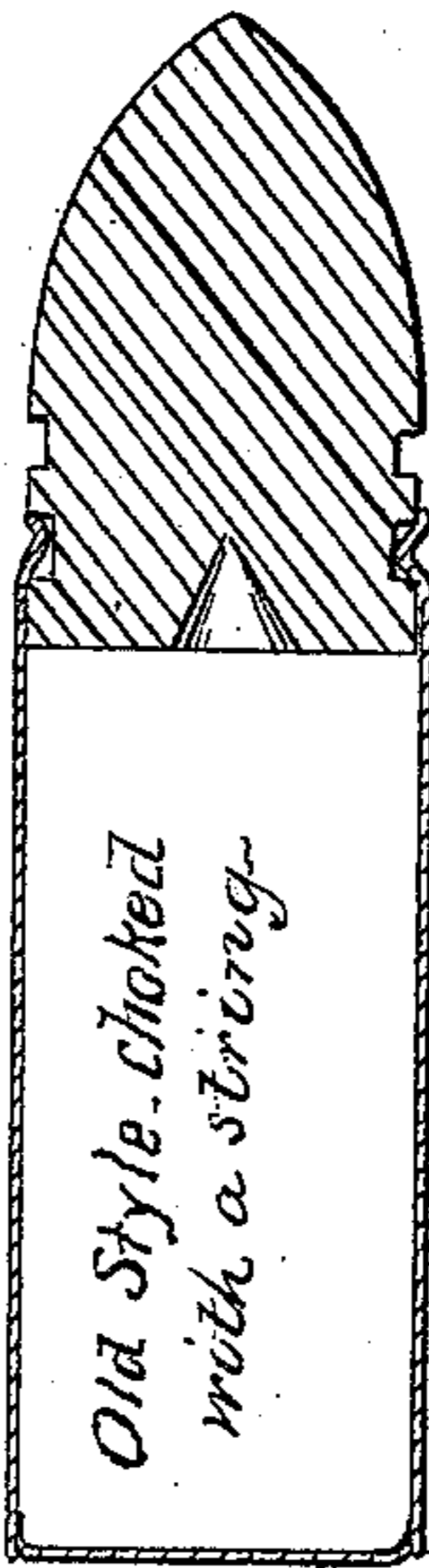


Fig. 4.

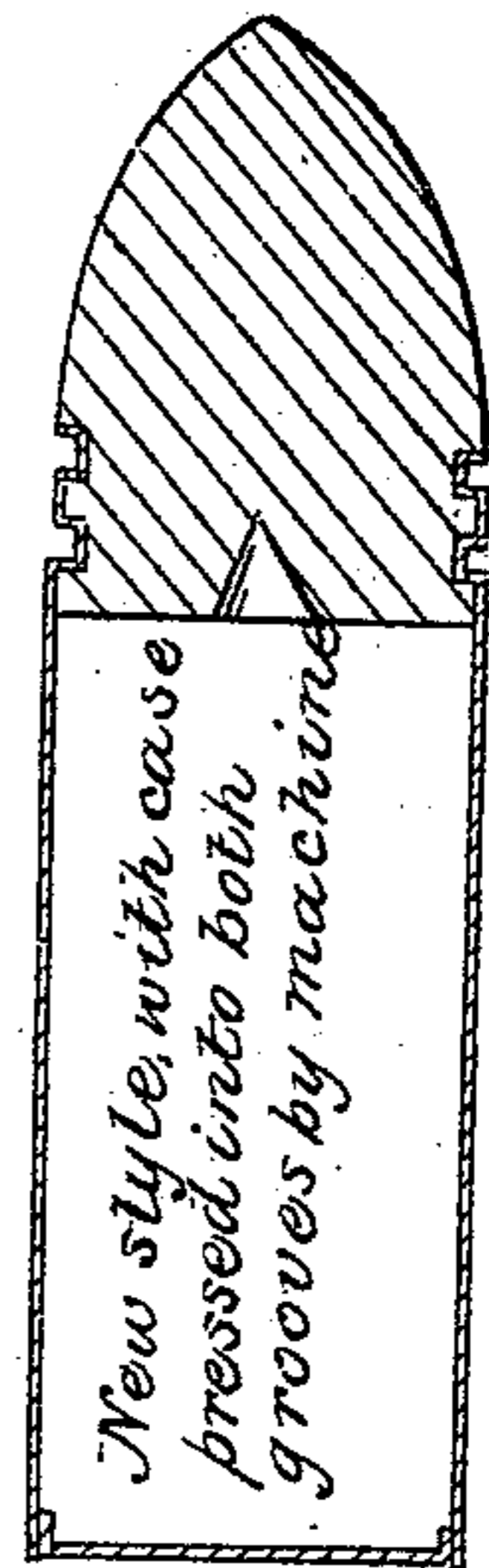


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN S. ADAMS, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF,
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IMPLEMENT FOR COMPRESSING CARTRIDGES AROUND BULLETS.

Specification forming part of Letters Patent No. 48,010, dated May 30, 1865.

To all whom it may concern:

Be it known that I, JOHN S. ADAMS, of Taunton, in the county of Bristol, State of Massachusetts, have invented a certain new and useful Improvement in Machines for Choking Cartridges; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon—

Figure 1 being a front elevation of the machine, with the jaws open ready to receive a cartridge. Fig. 2 is a similar view, with the jaws closed as in the act of choking the cartridge. Fig. 3 is a transverse vertical section taken on the line *x x*, Fig. 1. Fig. 4 is a longitudinal section of a cartridge choked with a string, on the old plan; and Figs. 5 and 6 are similar views of cartridges choked with my improved machine.

My invention relates to machines for making cartridges to be used in breech-loading fire-arms, (though the same may be used in muzzle-loaders, if desired,) and which cartridges have their cases composed of cloth and paper or other flexible material.

It consists in so arranging two oscillating choking-jaws that both shall be operated simultaneously and uniformly by a single movement of one handle only; also, in providing means for insuring the uniting of the case and ball in a straight line; and in a means of adjustment by which it can be adapted to balls of different lengths.

To enable others to construct and use my invention I will proceed to describe it.

A represents a block of wood to which the working parts are united.

B represents a smooth metallic face-plate securely fastened to the front of A. Upon this face-plate B are pivoted the two jaws C and D, the form of which is clearly shown in the drawings. An arm, *a*, projects downward from each of the levers or jaws, which arms are united by the bar or strip E, pivoted to each, as shown, the lever C being provided with a handle, I, for operating the machine. Midway between the points *c*, at which the levers or jaws C and D are pivoted, a semi-circular notch is cut in the inner edge of each, as shown, of the proper size to inclose the ball when said jaws are closed, as shown in

Fig. 2, the edges of said jaws fitting into the groove in the ball when thus closed. A spring, *b*, having one end attached to each of the jaws, serves to hold them apart when the handle is not pressed down. A recess, *d*, is cut in the lever C, and a pin, *e*, is so located as to limit the movement of the jaws to a distance equal to the length of said recess, though it is obvious that the pin *e* may be located at other points and made to produce the same result. A plate, F, is secured to the jaw D in such a position as to project over the recess *d* and pin *e*, and beyond them over the edge of jaw C, for the double purpose of preventing dirt from getting into the recess and interfering with the proper movement of the jaws, and also to prevent the upper jaw from being bent or drawn forward in operating the machine. The same results may be accomplished, though not so well, by making a slot in the jaw C and inserting therein a screw having a head that shall hold the jaw back against the plate B. A thin metallic washer, *i*, is placed between the jaws and plate B, on each of the pivots *c*, for the purpose of keeping the jaws separated slightly from plate B, and thus prevent them from becoming smeared with the gum used on the cartridge-cases, which would interfere with the free and easy working of the parts. Directly opposite the semicircular recess in the edge of the jaws a hole, *m*, is bored horizontally through the plate B and into the block A. This hole should be of a proper size to admit the bullet freely, and should be carefully bored at right angles to the face of plate B and block A. Into this hole, from the rear of block A, is inserted a plug, H, which should fit snugly therein, and which may have a screw-thread cut upon it for the purpose of enabling it to be adjusted with accuracy to adapt the depth of the hole or cavity to the length of the bullet used, so as to bring the groove into which the case is to be pressed exactly between the jaws. Protruding from the front of the machine is a rest, *n*, its front portion being curved, as shown, to correspond with the hole *m*, and form a support for the outer end of the cartridge when the bullet and front end of the case are inserted in the hole. This rest *m* should be arranged with great care, so as to insure the perfect coincidence of the axial line of the case and the bullet, as it is only when they are thus united that the bullet can

be accurately entered in the chamber of the gun and made to operate satisfactorily when the arm is discharged.

It is obvious that if it be desired to press the casing into more than one groove on the ball it is only necessary to provide the face or biting edges of the jaws at the semicircular recesses with annular projections corresponding in size and number to the grooves on the bullet. In that case the jaws will be made of thicker material, or they may have attached to them at that point projections of proper form and size in which said annular grooves may be formed.

It is necessary that the case and bullet shall be very firmly united for two reasons: first, to prevent their becoming detached in handling and transporting; second, so as to insure the passage of the case through the barrel, with the ball, and thus leave the chamber unobstructed for the ready insertion of another cartridge. When the cartridges were choked by means of a string, (as was formerly done,) the case was not pressed fully down into the corners of the groove in the ball, but was left in the manner shown in Fig. 4, in which case the ball and case were easily separated and the cartridge destroyed.

By the use of my machine the linen of the case is pressed firmly and snugly into the groove, being pressed close down into the corners thereof and brought into close contact with the sides and bottom of the groove all around, and thus a most perfect union is insured, as shown in Figs. 5 and 6.

The operation is as follows: After the case has been filled with powder the forward end of the case is gummed on the inside and the base of the bullet inserted therein. The cartridge, being held in the left hand, is then laid on the rest *n*, the front end being inserted in the hole *m* until the point of the bullet comes in contact with the plug, which, being prop-

erly adjusted, brings the groove in the bullet directly in line with the edges of the jaws C D, which are instantly brought together by pressing down the handle I, by which means the case is pressed into the groove all around at once and in a most perfect manner.

To insure perfection in the operation it is usual to operate the handle two or three times in quick succession, the cartridge being turned or rolled over by the left hand at the same time. In this manner the work is most rapidly and accurately performed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The jaws or levers C and D, constructed and operating substantially as and for the purpose herein set forth.
2. Connecting the jaws C and D by the arms *a a* and strip E, or their equivalents, for the purpose of securing a positive uniformity of motion in the two by means of one handle.
3. The shield or plate F, or its equivalent, for the purpose of preventing any lateral movement of the jaw C and prevent it from being bent laterally by operating the handle.
4. The cartridge-case rest *n*, to insure the union of the ball and case on the same axial line.
5. The adjustable plug H, arranged as described, for the purpose of adapting the machine to bullets of different lengths.
6. The stop-pin *e*, in combination with the recess or slot, for limiting the movements of the jaws C and D.
7. The washers *i*, in combination with the jaws and face-plate B, as and for the purpose set forth.

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