

J. Lyle,
Spring Punch,
No 53,537, Patented Mar. 27, 1866.

Fig. 1.

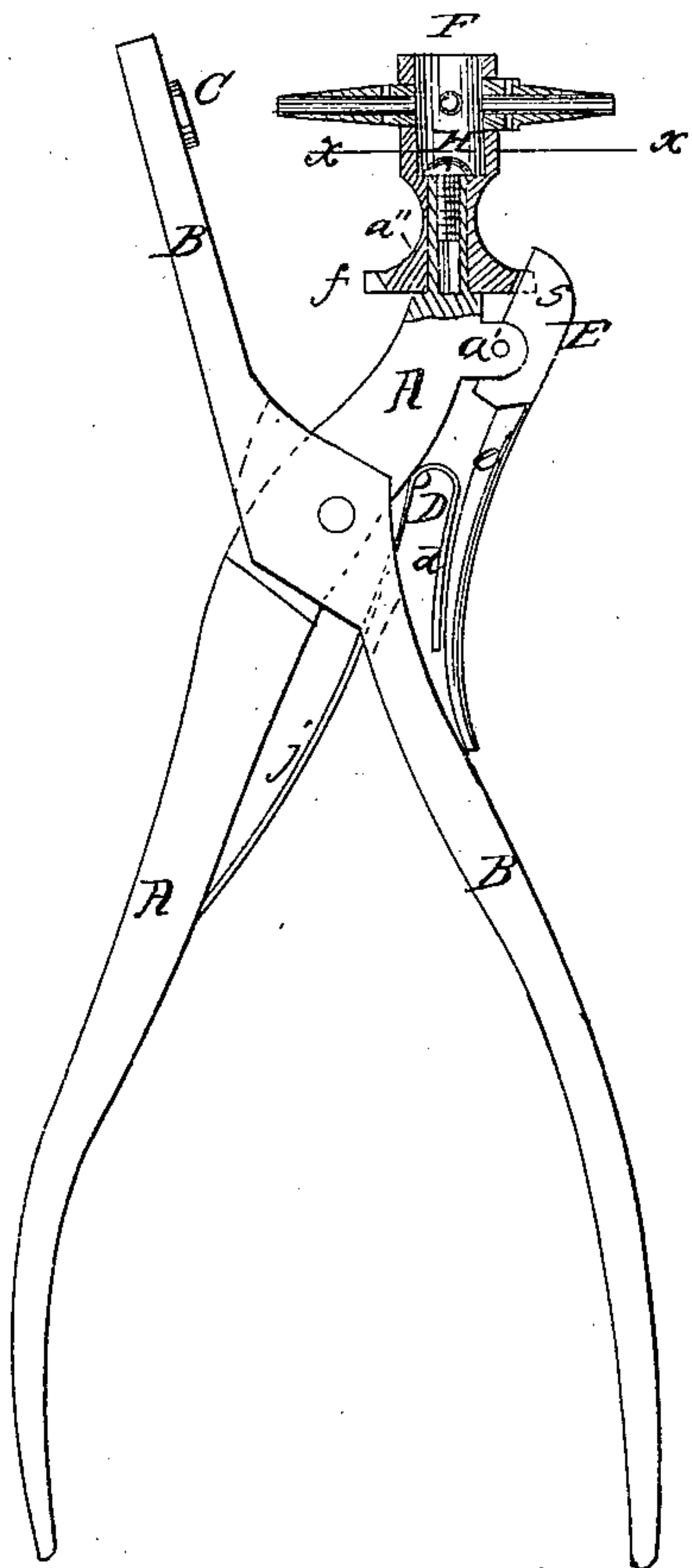
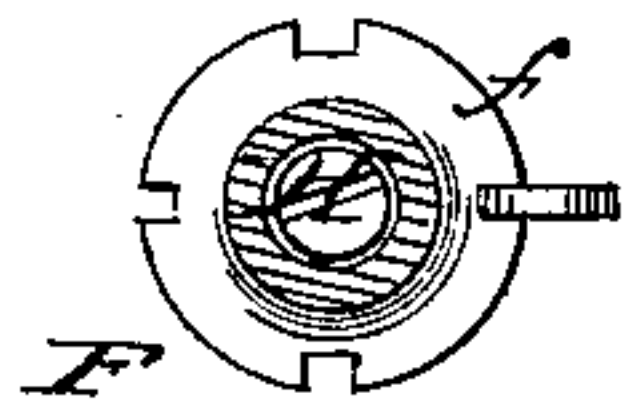


Fig. 2.



Witnesses:
Jm Lyon

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UNITED STATES PATENT OFFICE.

JOHN LYLE, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND C. H. ALLEN, OF SAME PLACE.

IMPROVED SPRING-PUNCH.

Specification forming part of Letters Patent No. 53,537, dated March 27, 1866.

To all whom it may concern:

Be it known that I, JOHN LYLE, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Revolving Spring-Punch; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, partly in section, of my improved punch. Fig. 2 is a section through the line *x x*, Fig. 1, looking downward.

Similar letters of reference indicate like parts.

My invention has for its object the furnishing a neat, serviceable, and convenient revolving spring-punch; and it consists, first, in combining a double spring with the arms of the punch and with the thumb-catch; second, in the combination of the thumb-catch with the spring, with the arm of the punch, and with the revolving cylinder; third, the combination of the revolving cylinder with the arm of the punch and with the thumb-catch; and, fourth, the construction and combination of the arms of the punch, as hereinafter more fully described.

A and B are the arms of the punch, and C is the plate against which the punches act in punching.

The arm B is made in the usual manner and slotted in the usual way for receiving the other arm, A.

The lower or longer part of the arm A is made in the usual form, but the upper or shorter part of said arm is made without the usual shoulder upon it—that is to say, the shorter part of said arm when free from its attachments may be passed through the slot in the arm B, so that all the parts of the punch may be made and finished before the arms A and B are connected or joined.

Upon the lower edge of the shorter part of the arm A is attached a double spring, D, as shown in Fig. 1. One arm, *d'*, of this spring extends down, the arm A passing through the slot in the arm B.

When the lower or longer parts of the arms A and B are pressed together for operating the punch the arm *d'* of the spring D is compressed by the lower side of the said slot being pressed against it; but when the pressure upon said lower parts of said arms is removed the elasticity of the spring opens the punch by pressing against the said lower edge of said slot.

Upon the lower edge of the upper part of the arm A is formed a projection, *a'*, to which is pivoted the thumb-catch E. The lower part, *e'*, of said catch extends down the arm of the punch into a convenient position to be operated by the thumb of the hand that holds and operates the punch. The upper part, *e''*, of the catch E is so formed as to fit into notches made in the flange of the revolving cylinder F, which carries the punches. The lower end, *e'*, is held up, pressing the upper end, *e''*, into one or the other of said notches, by the action of the arm *d''* of the spring D, which presses upward against the under side of said parts *e'*.

Upon the upper end of the arm A is formed a projecting arm, *a''*, upon which revolves the cylinder F, which carries the punches.

The cylinder F is held in place by a screw, H, which screws into a screw-hole in the end of said arm *a''*, as shown in Fig. 1.

Upon the lower part of the cylinder F is formed a flange, *f*, which is notched, as shown in Figs. 1 and 2. One of these notches is opposite each of the punches, so that when the upper part, *e''*, of the catch E shall be in any notch the opposite punch shall be in position to be used.

The upper part of the cylinder F is chambered, as shown in Fig. 1, to allow the disks cut from the article punched to escape from the instrument.

The punches I are made and attached to the cylinder F in the usual manner.

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

1. The combination of the double spring D with the arms A and B of the punch and with the thumb-catch E, substantially as described, and for the purpose set forth.

2. The combination of the thumb-catch E

with the spring D, the arm A, and the revolving cylinder F, substantially as described, and for the purpose set forth.

3. The combination of the revolving cylinder F with the arm A and the thumb-catch E, substantially as described, and for the purpose set forth.

4. The construction of the arm A and its combination with the arm B, substantially as described, and for the purpose set forth.

JOHN LYLE.

Witnesses:

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JNO. M. GWINNELL.