

When my application, in this regard, is not on record.

C. W. Clewley,

Making Watches and Lockets,

N^o 28,737.

Patented June 19, 1860

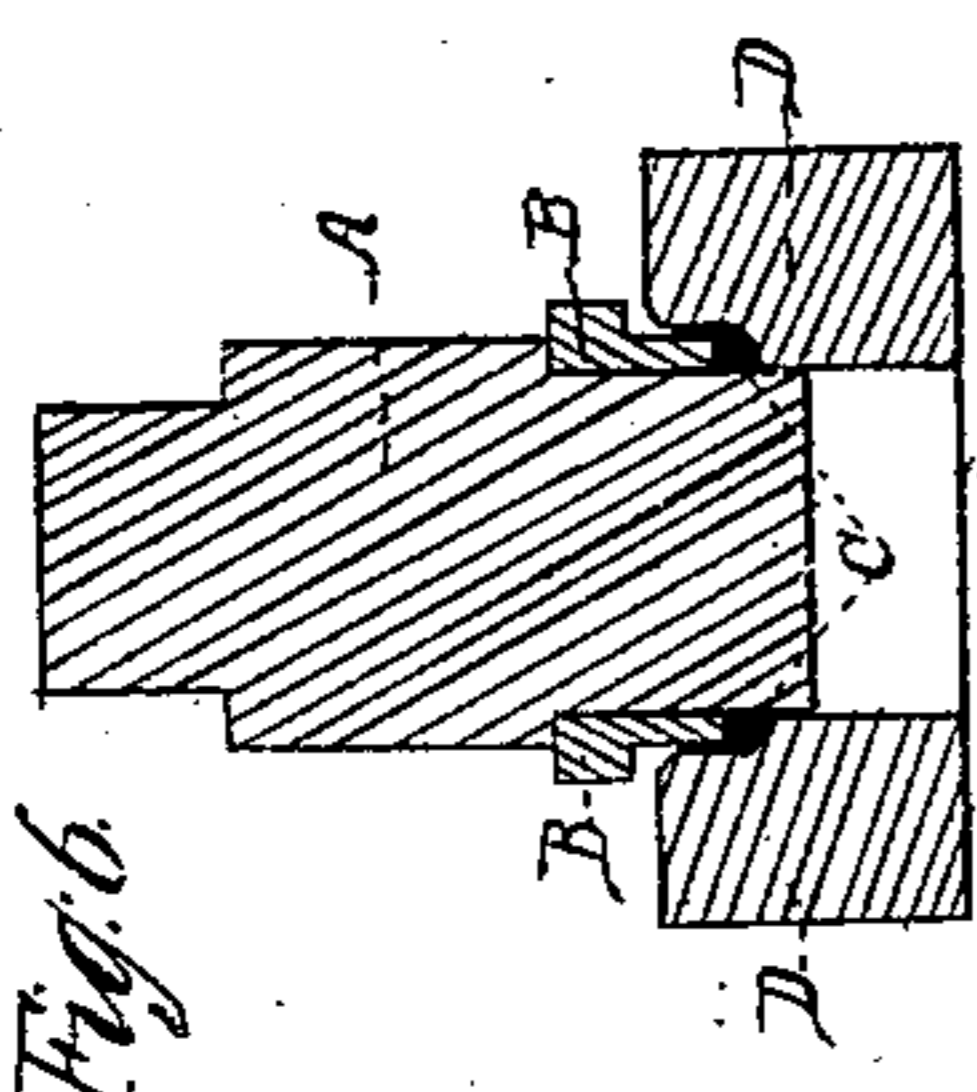


Fig. 6.

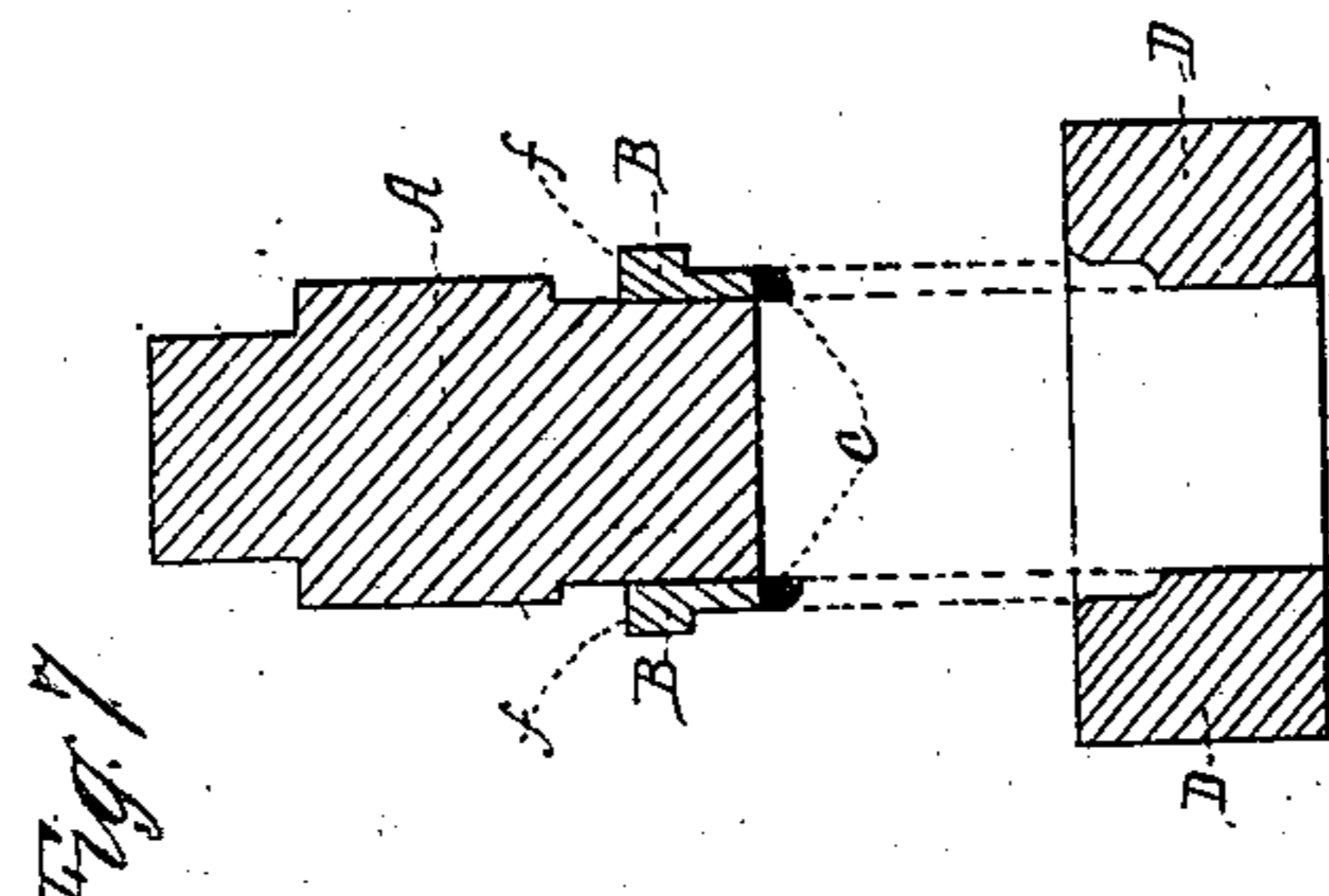


Fig. 7.

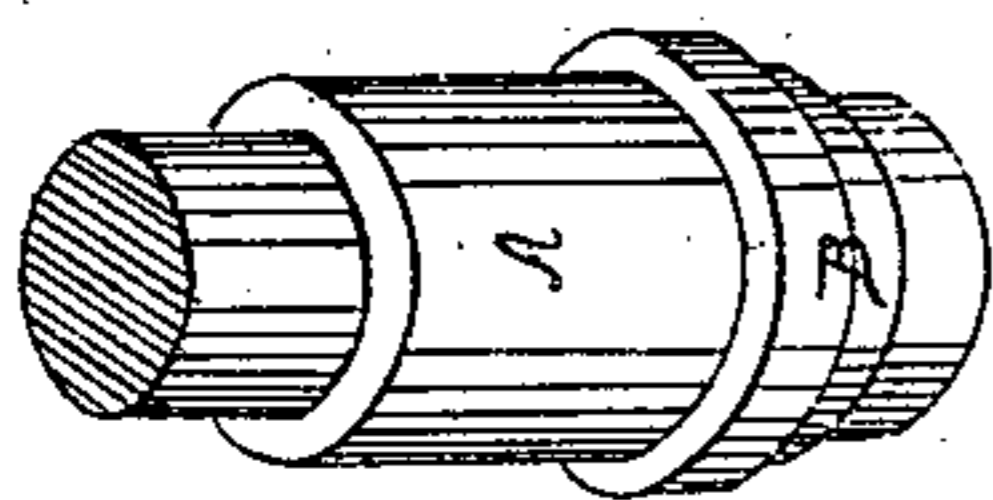


Fig. 4.

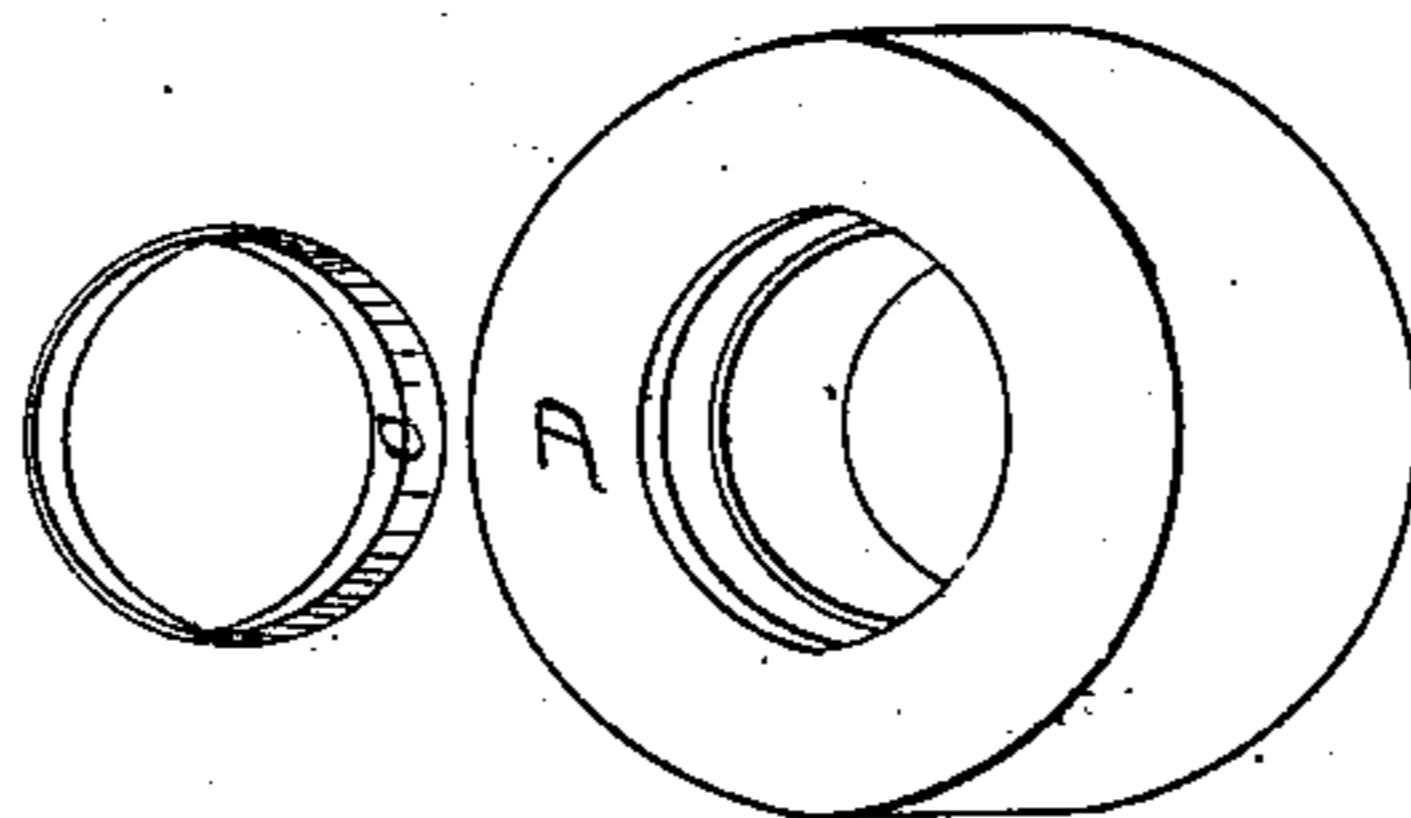


Fig. 5.

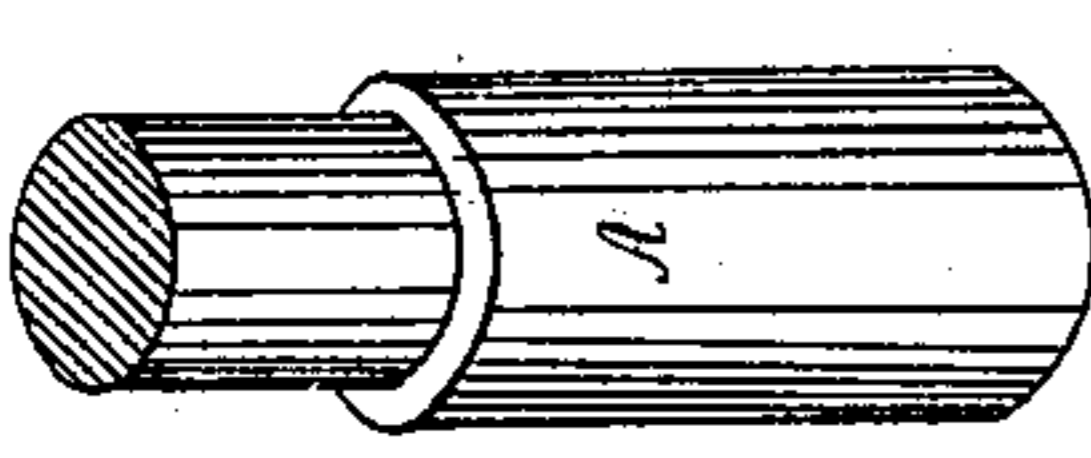
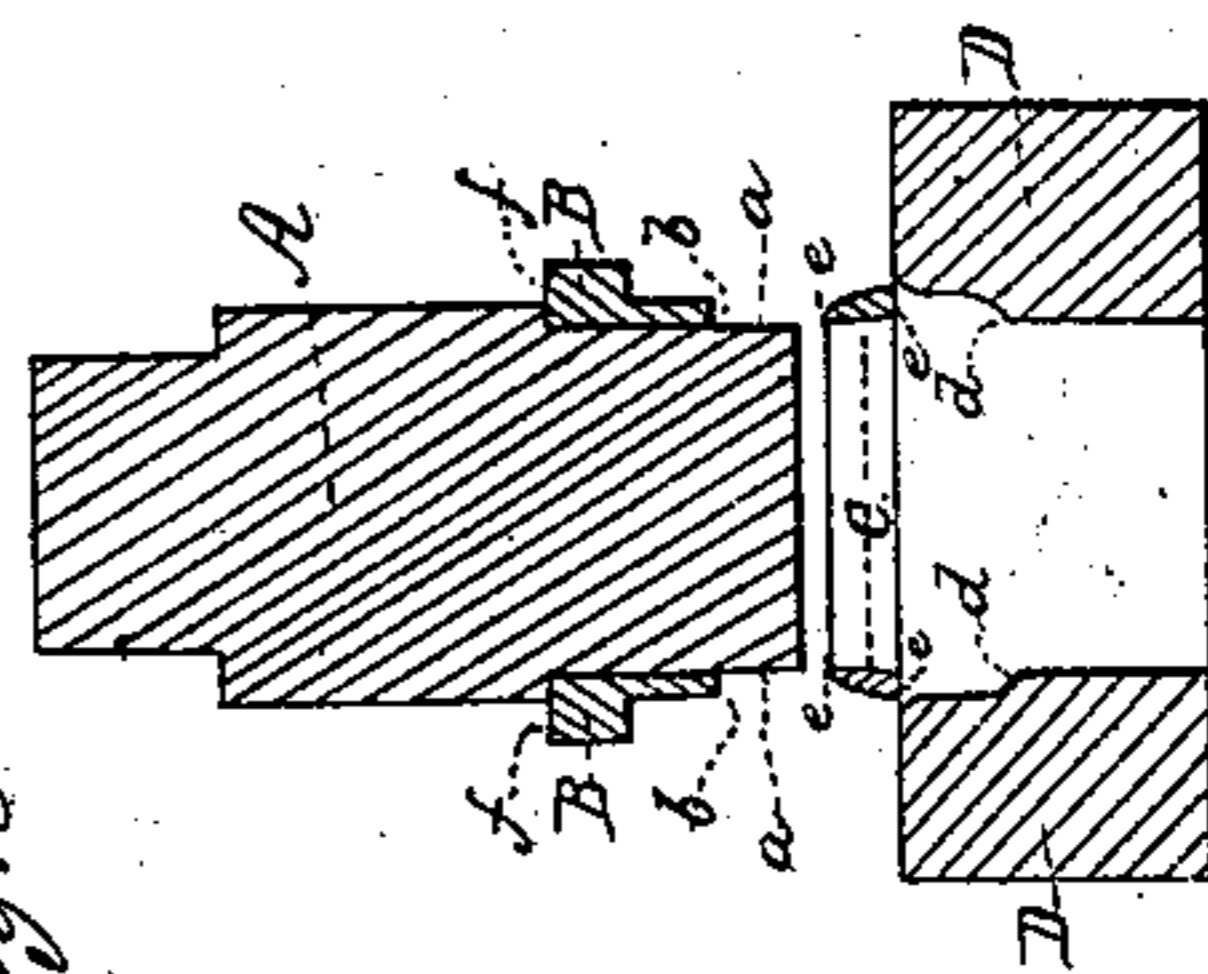


Fig. 1.

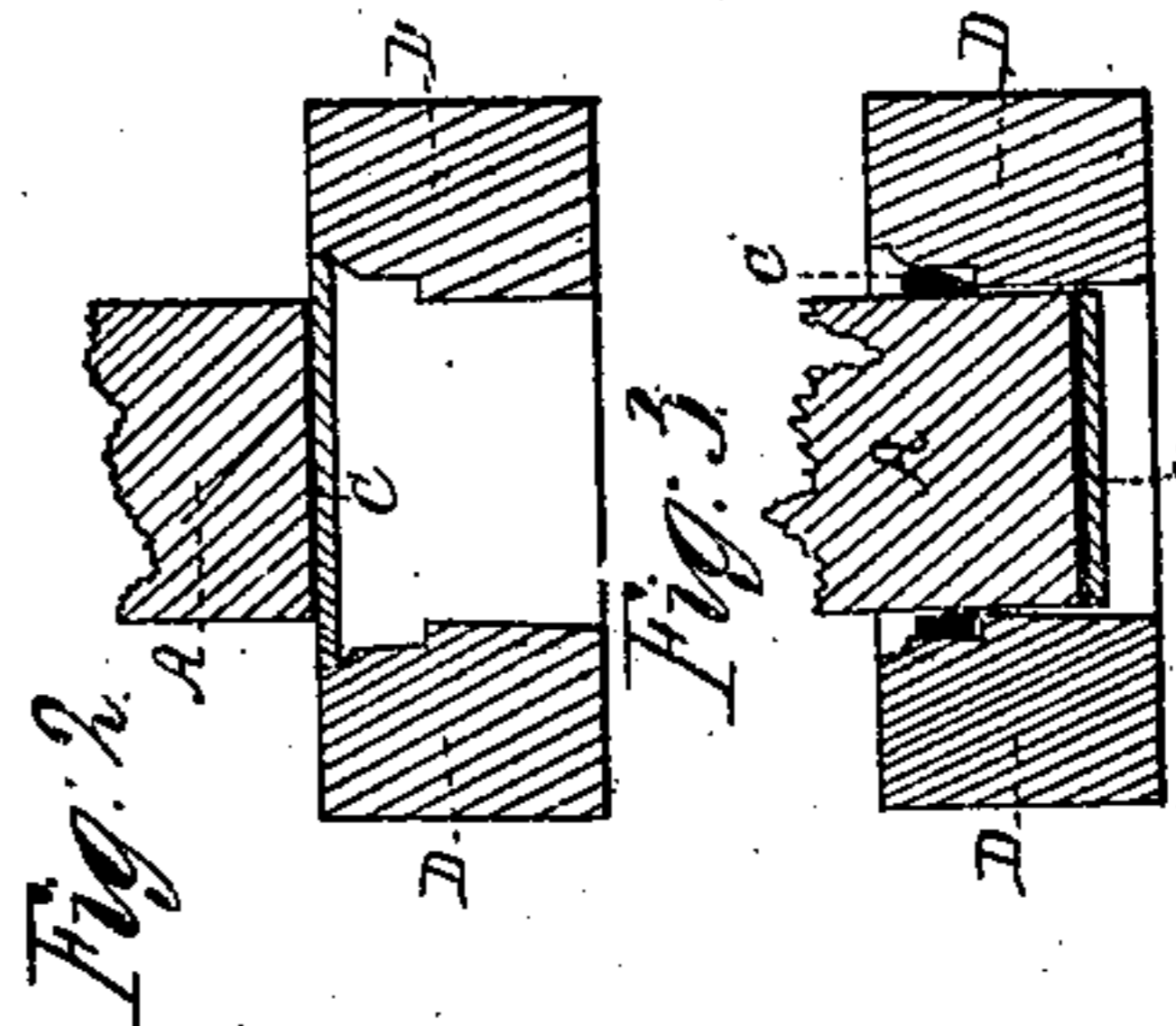
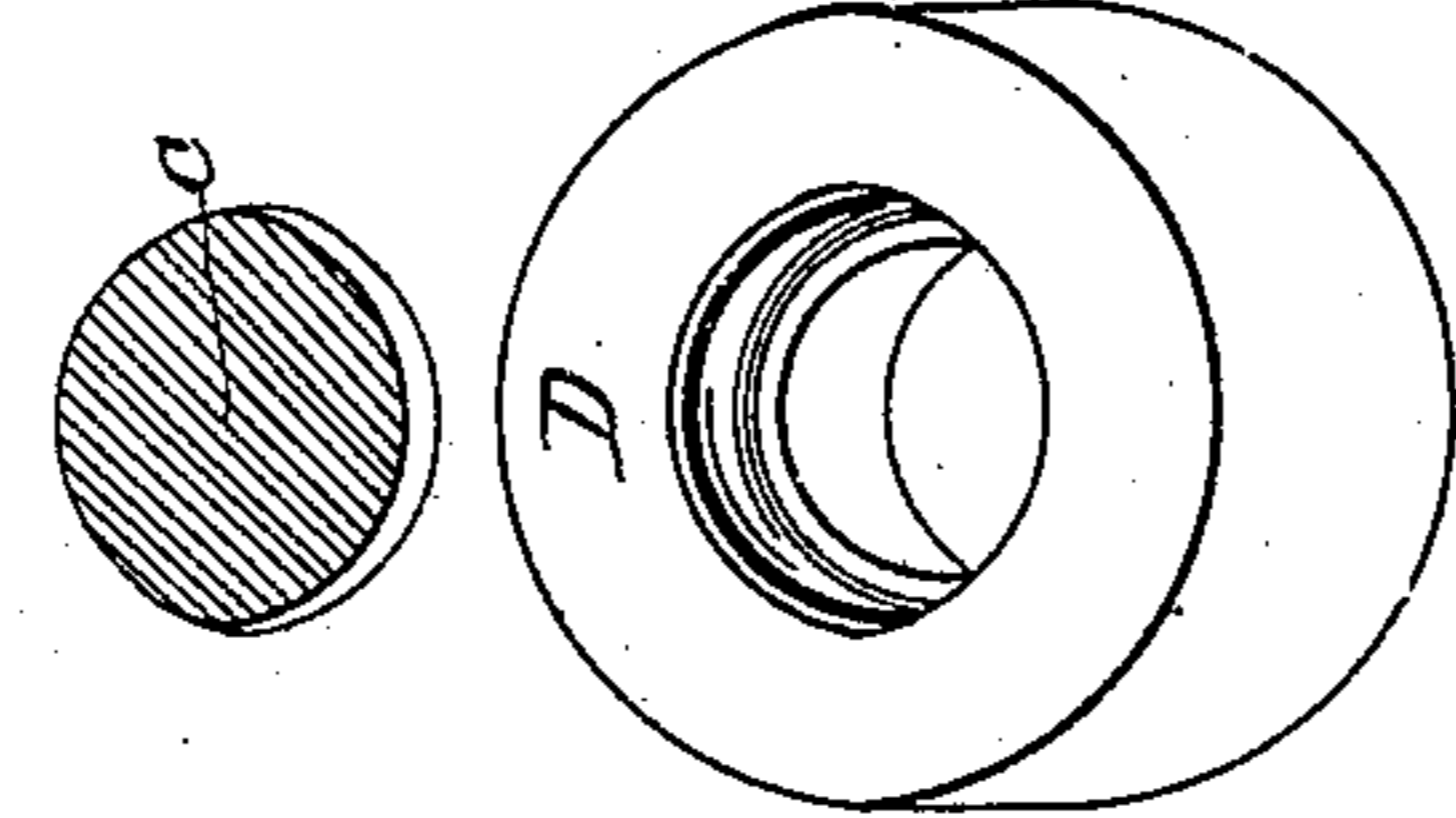


Fig. 2.

Fig. 3.

Witnesses:

*J. A. Brastford
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Inventor:

Charles W. Clewley

UNITED STATES PATENT OFFICE.

CHARLES W. CLEWLEY, OF PROVIDENCE, RHODE ISLAND.

RIM FOR WATCHES.

Specification of Letters Patent No. 28,737, dated June 19, 1860.

To all whom it may concern:

Be it known that I, CHARLES W. CLEWLEY, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Devices for Making the Rims of Watch and Locket Cases; and I do hereby declare that the following specification, taken in connection with the drawings, making a part of the same, is a full, clear, and exact description thereof.

In Figure 1, A represents a plunger; D, a forming and cutting die. Fig. 2 exhibits a longitudinal section of the same parts in a plane through the axis.

My improvement consists in the use of a combined forming and cutting die D and plunger A, Figs. 1 and 2, by which the rim is formed out of sheet metal at a single operation.

The die D is so formed that its interior surface shall be the reverse of the intended exterior surface of the rim. At the bottom of the die is a projecting shelf *a* of the width required for the thickness of the rim. The edge of this shelf is a cutting edge in consequence of the perforation E through the die. The plunger A is made to fit the perforation so that the action of the two will be similar to that of the ordinary punching machine.

The plunger being now set in a screw press or other machine of sufficient power and the die being so arranged with reference to it that the axis of the hole E in the die and the

axis of the plunger shall correspond, a circular disk or blank of metal is placed in position to be acted upon. The punch or plunger A being forced downward cuts out a circular disk of the same size as the face of the plunger, leaving in the die an annular ring of metal which by the force of the plunger in cutting out the center is at the same time fashioned into a rim. The "punching" or disk of metal which is cut out by the plunger is now presented to the action of a smaller die and plunger and another rim is produced in the same manner the same operation being repeated and in each case producing a rim until the punching is too small for further use.

The advantage of my improvement consists in the economy of time and labor which is the result—the rim being formed and the back cut out at a single operation.

What I claim as my invention and desire to secure by Letters Patent is—

The use of a combined die and cutter D and a plunger A in combination with the same—or their equivalents, the two so combined operating in the manner substantially as described for the purposes specified.

In testimony whereof I have hereunto subscribed my name this eighteenth day of April A. D. eighteen hundred and sixty.

CHARLES W. CLEWLEY.

Witnesses:

BENJ. F. MUNSTON,
BENJ. N. LAPHAM.