

(No Model.)

A. B. CURTIS.
Machine for Folding Corset Parts.

No. 231,901.

Patented Sept. 7, 1880.

fig 1

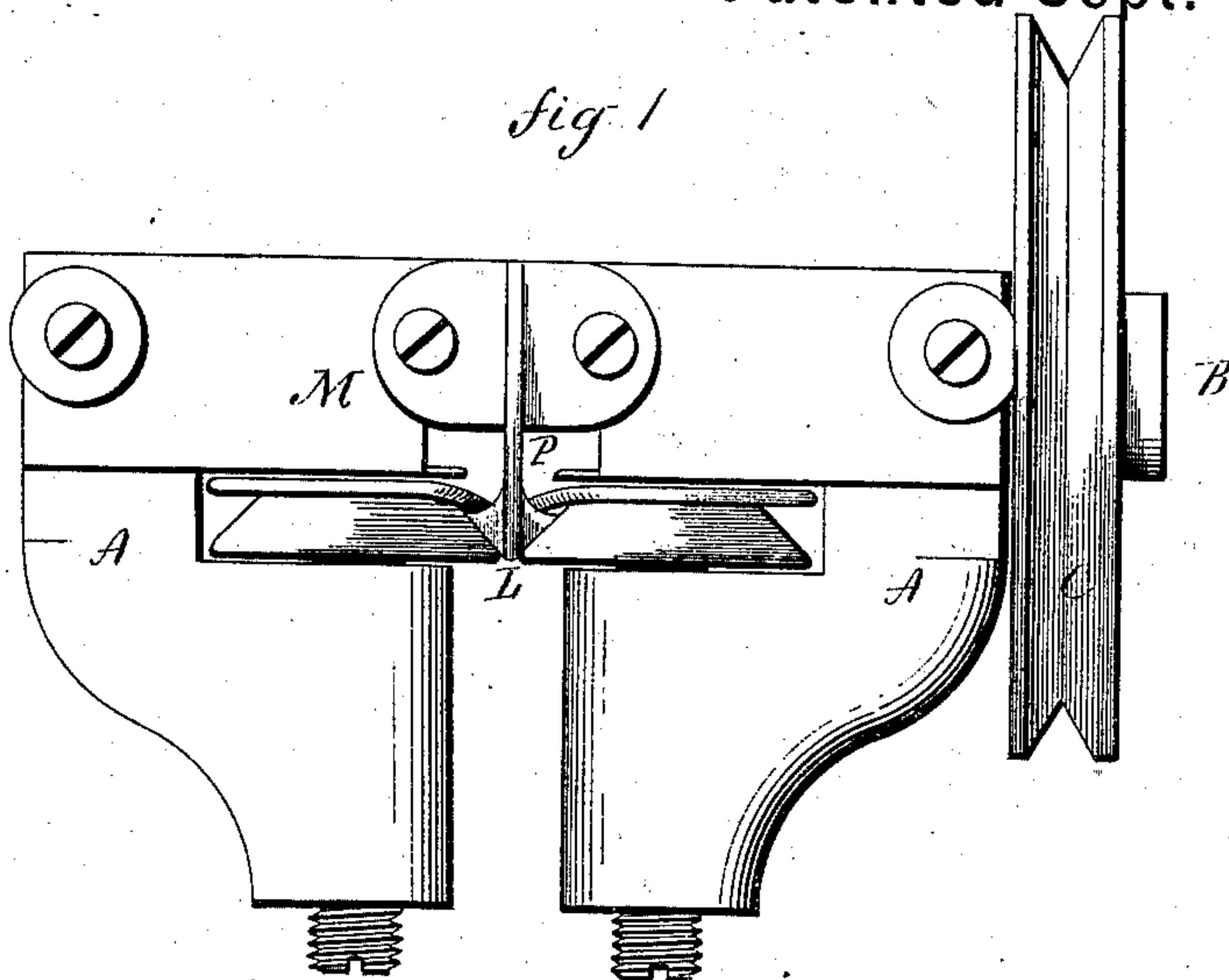


fig 2

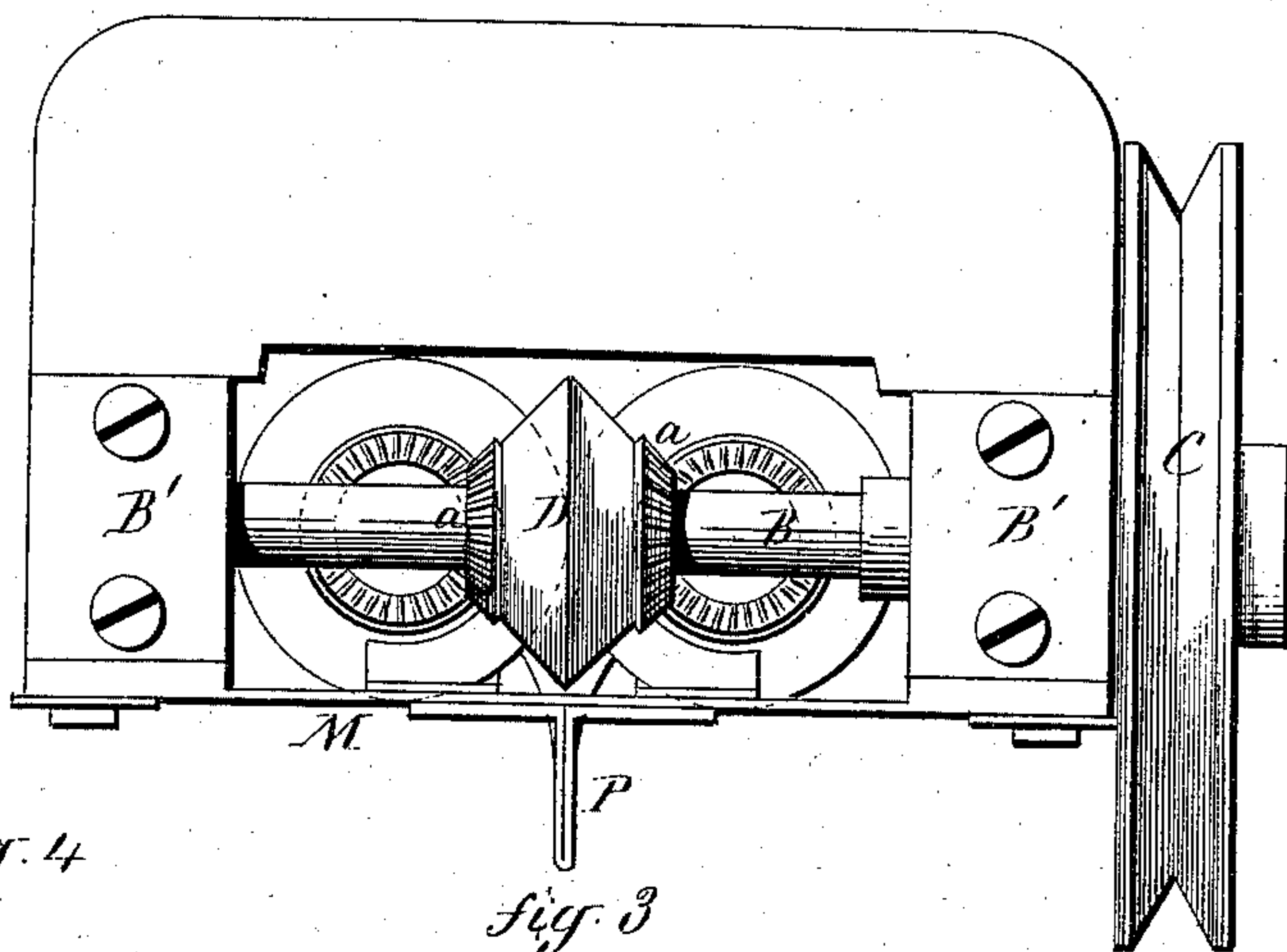


fig 4

fig 3

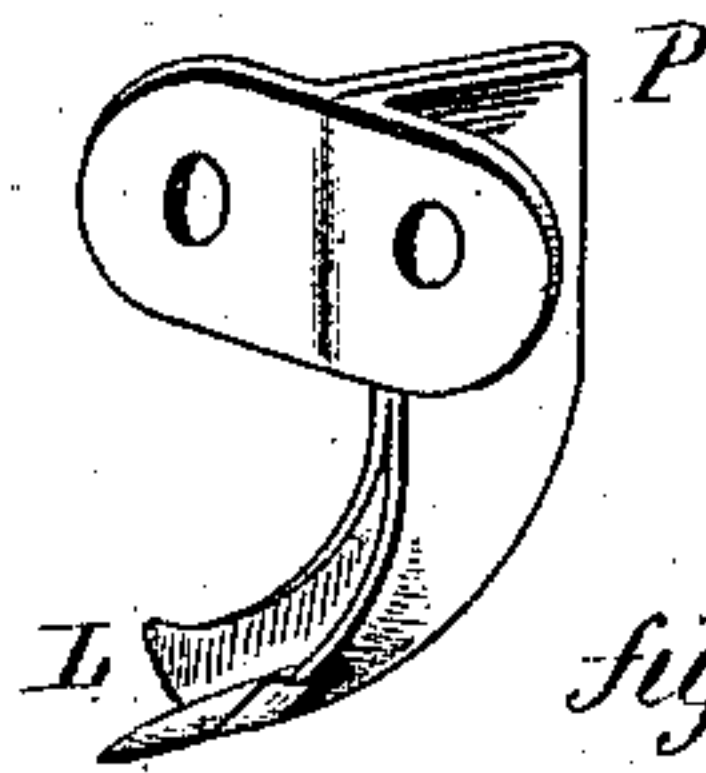


fig 6

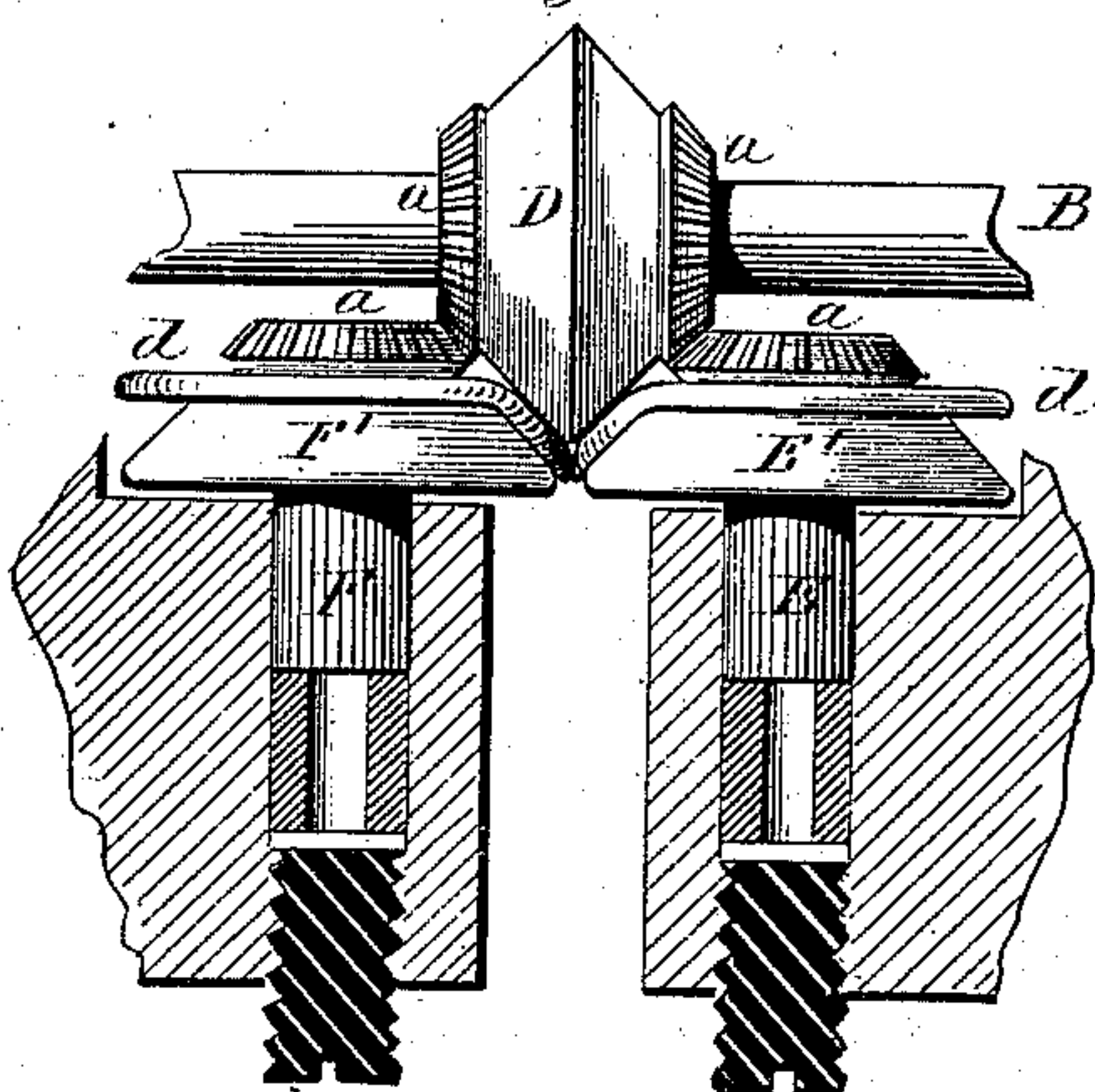


fig 5



fig 7



Witnesses

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UNITED STATES PATENT OFFICE.

AUGUSTINE B. CURTIS, OF DERBY, CONNECTICUT, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO ABIJAH H. GILBERT, OF SAME PLACE.

MACHINE FOR FOLDING CORSET PARTS.

SPECIFICATION forming part of Letters Patent No. 231,901, dated September 7, 1880.

Application filed April 12, 1880. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTINE B. CURTIS, of Derby, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machines for Folding Corset Parts; 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 front view; Fig. 2, a top view; Fig. 3, a vertical central section through the wheels; Fig. 4, a perspective view of the guide detached; Fig. 5, a transverse section through the guide at its delivery end; Fig. 6, edges of the fabric to be folded; Fig. 7, the fabric folded.

This invention relates to a device for turning in the raw edge of corset parts.

In the manufacture of corsets the edges of the parts are generally in irregular or curved lines. These parts are cut from the fabric broader than they are to be in the corset, and the edges are turned over so as to present a finished edge, and so as to avoid what would be otherwise a raw edge. Hitherto these edges have been turned by hand.

The object of this invention is the construction of a machine to do the work more rapidly as well as more perfectly; and the invention consists in the construction, hereinafter described, and more particularly recited in the claims, and is an improvement on the machine for which Letters Patent were granted to me dated February 24, 1880, No. 224,885.

A is the frame or bed of the machine; B, the driving-shaft, arranged so as to revolve in suitable bearings B', and caused to revolve by the application of power thereto through a pulley, C, or otherwise. On this shaft is a smooth-faced wheel, D, its periphery inverted-V shape in longitudinal section, coming to substantially a sharp edge, and forming the frustum of a cone to the right and left.

Below the shaft B are two vertical shafts, E F, the one to the right and the other to the left of the wheel D, and on each of these shafts there is, respectively, a wheel, E' F', in the shape of the frustum of a cone, and corre-

sponding to the faces of the wheel D, the angle of the surface of said wheels being about forty-five degrees to their axis, all of corresponding diameter, and running so as to leave a small space between the faces of the wheel D and the face of the wheels E' F'. The shafts E F are driven from the shaft B by means of bevel-gears *a*, so that a rotation in the same direction is given to all the wheels.

On each of the wheels E' F', and below the gears *a*, is an india-rubber or flexible disk, *d*, and so that when the wheels are revolving the edge of the disk will turn down between the faces of their respective wheels E' F' and the corresponding faces of the wheel D, as seen in Fig. 3, and passing from between the wheels, will assume their flat or horizontal plane.

In front of the wheels is a V-shaped guide, L, seen detached, Fig. 4. This presents nearly a sharp edge to the space between the wheels, and is secured in position to a cross-bar, M. Its back P forms a blade extending outward, and which gradually opens into the V shape, as seen in Fig. 4. This completes the apparatus.

The two thicknesses of fabric the edge of which is to be folded are first stitched together back from the edge, as seen in Fig. 6, so as to hold the two parts in their proper relative position to each other. The two edges are presented, one each side of the blade P, and guided down outside the folder L. Their upper edges turned over into each side of the guide, as seen in Fig. 5, are then presented between the two disks *d* and their respective wheels E' F'. These disks, forced by the wheel D, compress the folded edges and draw the fabric through, the edges continuing to be turned until the parts have been drawn completely through the wheel, thus folding the edges in the most perfect manner irrespective of the curves. As the folded edges pass from the wheels the disk *d* will rise to a horizontal plane, leaving the edges hard and nicely folded, without the right-angular break back from the edge, which is unavoidable in my previous patent referred to.

The disks *d*, moving, as they must, directly with the surface of their respective wheels, and gradually leaving those surfaces, impart

a better and more prolonged pressure than would be done if the surfaces of the wheel D came directly upon the fabric, and also prevent the possibility of the edge of the fabric working upward onto the surface of the wheels, beyond the under surface of the disk. The disks, however, may be dispensed with and the surface of the wheel D operate direct.

Instead of the V-shaped guide L, a guide like that shown in my said previous patent may be employed.

The machine may be constructed so as to fold single parts only—that is to say, the wheel F' may be dispensed with and fold only between the wheel E' and the corresponding surface of the wheel D. In this case, if both edges are to be folded, one edge will be folded on a right-hand machine and the other on a left-hand machine. I therefore do not wish to be understood as limiting my invention to the use of a double machine.

The disks d are represented as arranged on the vertical shaft; but it will be readily seen that they may be arranged on the horizontal shaft and assume substantially the same position between the wheels; but the vertical arrangement is the best.

I claim—

1. In a machine for folding corset parts, the combination of the wheel D, having its periphery in the shape of a V, with two wheels, each arranged on an axis at right angles to the axis of the said wheel D, the surface of each of said wheels corresponding to the respective faces of the said wheel D, and a guide for turning the edge and conducting the fabric between the surfaces of the said wheels, substantially as described.

2. In a machine for folding corset parts, the

combination of two wheels the axes of which are arranged at right angles to each other, and the surfaces of the said wheels inclined to their respective axes, so as to present a working-surface to each other, and a guide to fold and conduct the material between said wheels, substantially as described.

3. In a machine for folding corset parts, the combination of the inverted-V-shaped wheel D with two wheels, each arranged on an axis at right angles to the axis of the said wheel D, the surface of each of said wheels corresponding to the respective faces of the said wheel D, a guide for turning the edge and conducting the fabric between the surfaces of the said wheels, and flexible disks working between said wheels, substantially as described.

4. In a machine for folding corset parts, the combination of two wheels the axes of which are arranged at right angles to each other, and the surfaces of the said wheels inclined to their respective axes, so as to present a working-surface to each other, a guide to fold and conduct the material between said wheels, and a flexible disk working between said wheels, substantially as described.

5. In a machine for folding corset parts, the combination of the inverted-V-shaped wheel D with two wheels, each arranged on an axis at right angles to the axis of the said wheel D, the surface of each of the said wheels corresponding to the respective faces of the said wheel D, and the V-shaped guide L, substantially as described.

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Witnesses:

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