No. 674,963. Patented May 28, 1901.

J. DEWES.

CUTTING DIE.

(Application filed Aug. 27, 1900.)

(No Model.)

Fig. 1.

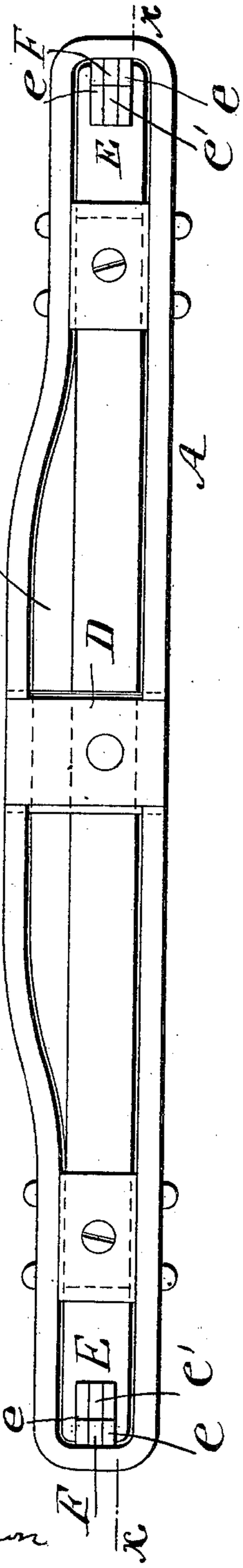
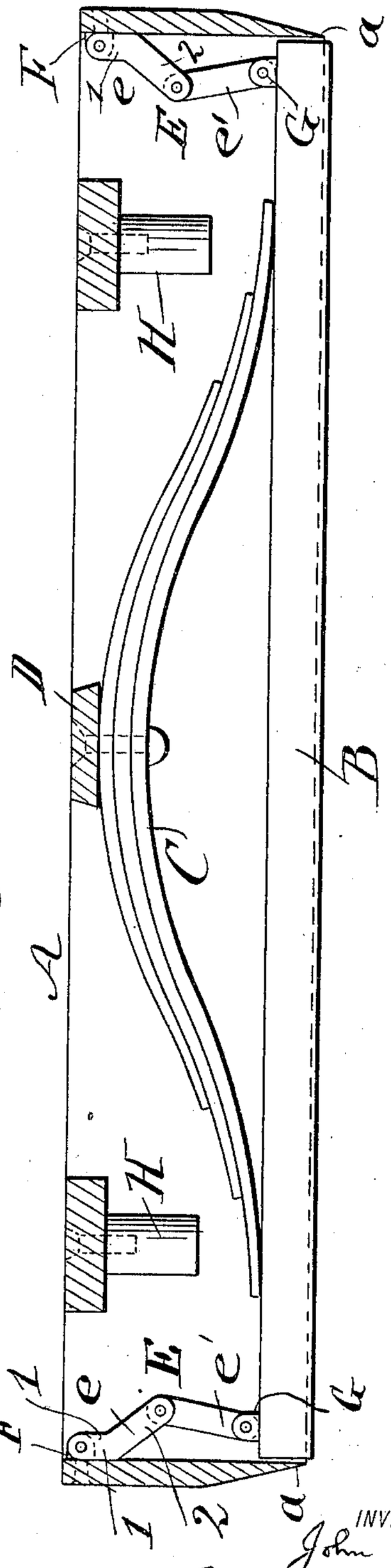


Fig. 2.



WITNESSES
Bella Paterson
Nellie Geary

INVENTOR
John Dewes
By Card Deemer & Co.
ATTY'S

UNITED STATES PATENT OFFICE.

JOHN DEWES, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO HENRY HUNT, OF SAME PLACE.

CUTTING-DIE.

SPECIFICATION forming part of Letters Patent No. 674,963, dated May 28, 1901.

Application filed August 27, 1900. Serial No. 28,122. (No model.)

To all whom it may concern:

Be it known that I, JOHN DEWES, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Cutting-Dies, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar characters of reference indicate corresponding parts.

This invention relates to improvements in dies for cutting the several parts of a shirt—such as collars, cuffs, neckbands, &c.—the object thereof being to provide an efficient device of this character which is simple in construction, durable, and effective in general operation.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of my improved dies, and Fig. 2 is a longitudinal sectional elevation taken on a line *x x* of Fig. 1.

In the practice of my invention I employ, primarily, an endless die A, which is preferably composed of steel and which has its lower edge beveled to form the knife *a*. This die can be of any desired plan contour, and for purposes of illustration I have shown in the drawings a die of a shape adapted to cut neckbands for shirts.

Located within the cutter or die A is a plunger B, adapted for discharging the cut product. This plunger moves freely in a vertical direction within the cutter A, and it is maintained normally in an extended position, as shown by Fig. 2 of the drawings, by means of a spring C, which is secured to a plate D, extended centrally across the upper part of the die A.

As a means for hanging the plunger B, I employ the novel flexible hangers E, which respectively embody the upper and lower links *e* and *e'*, which are composed of non-resilient metal. The upper links each embody a vertical part 1 and a downwardly and inwardly extended part 2, and the lower links are pivotally attached to the lower ends of the upper links. These hangers are pivotally attached at their upper ends to the lugs F, which are extended inwardly from the end walls of the die A, and the lower ends of the hangers are pivoted to lugs G, extended upwardly from the plunger B.

It will be noted that each hanger bows toward the center of the die, which permits of readily and automatically bending the hanger by the upward movement of the plunger B.

The vertical parts 1 of the upper links *e* form shoulders, which abut against the walls of the die to limit the downward motion of the plunger, and the rigidity of the two parts of the hanger causes the plunger to be maintained constantly in one normal position and prevents an uneven vertical movement thereof.

In the drawings the hangers each embody two upper links and one lower link; but I may employ any suitable number of links in the construction of each hanger or any number of hangers.

I do not confine myself to the contour of the die, nor to the shape of the links comprising the hangers, as it is obvious that the links may be curved instead of straight; but each upper link must have a portion to abut against the wall of the die and limit the downward movement of the plunger.

In the operation and use of the device a pile or plurality of fabric sheets is placed beneath the die. A hydraulic or other press is then applied over the die and pressure is exerted until the die moves downwardly and cuts through the pile, carrying the product within the die. Then pressure being released the spring C moves the plunger B back to its normal position and discharges the cut product, and owing to the construction of my improved hangers the movement is perfectly vertical and true and buckling or stretching common to ordinary die-hangers is obviated.

In the drawings I have shown rubber cushions H, so placed as to assist the spring C; but I do not claim the idea, broadly, of moving the plunger by means of springs, and therefore do not confine myself to any specific actuating means for operating the plunger.

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

1. The combination with a cutting-die com-

prising an endless knife and a spring-actuated plunger of hangers which each embody an upper and lower link, the upper link having a part which abuts against the wall of the knife, substantially as shown and described.

2. The combination with a cutting-die which comprises an endless knife, a plunger and springs for moving the plunger, of hangers for limiting the outward movement of the plunger, each hanger embodying a lower link portion and an upper link portion hinged together, the part of each upper link having a bearing-surface to abut against the wall of the die, and means connecting the hangers, substantially as shown and described.

3. As a hanger for plungers in cutting-dies, the combination of an upper link portion having a shoulder for contact with the wall of the die, with a lower link portion pivoted to the upper link portion, whereby the hanger may be readily folded, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of August, 1900.

JOHN DEWES.

Witnesses:
NELLIE GEARY,
BELLA PATERSON.