A. HECHT.

Crimping-Machine.

No. 162,472. Patented April 27, 1875.

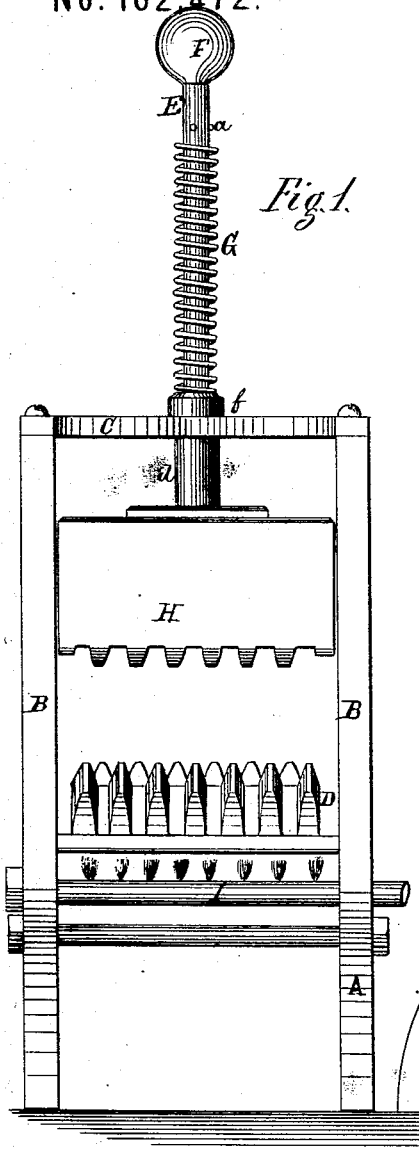

Fig. 1.

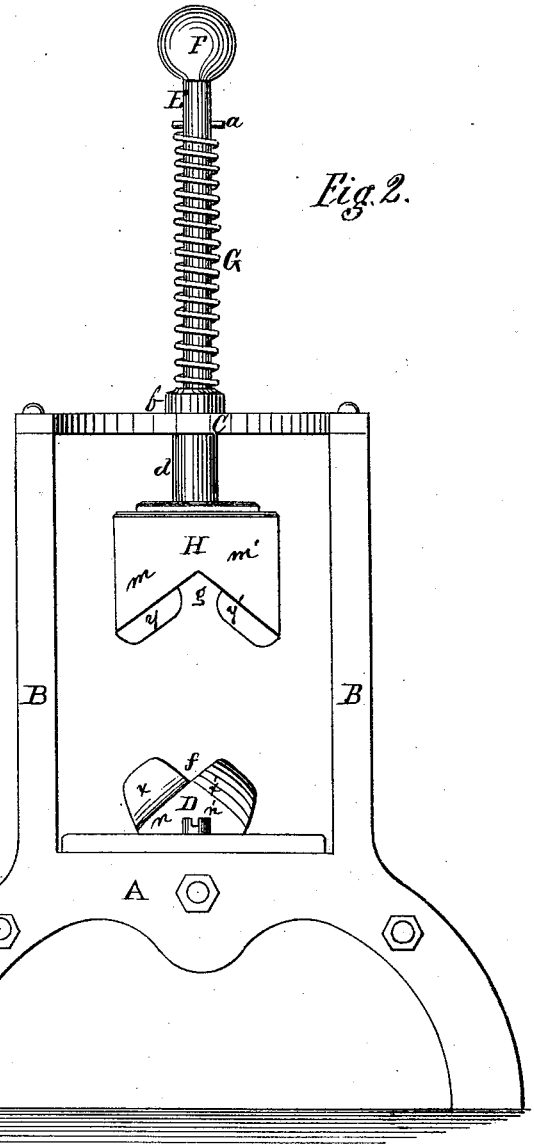

Fig. 2.

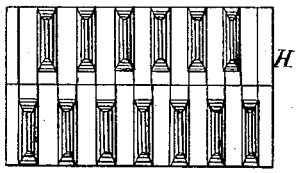

Fig. 3.

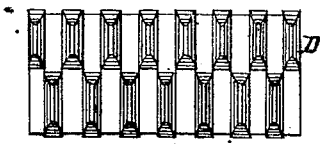

Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CRIMPING-MACHINES.

Specification forming part of Letters Patent No. **162,472**, dated April 27, 1875; application filed January 4, 1875.

To all whom it may concern:

Be it known that I, ANSEL HECHT, of the city, county, and State of New York, have invented an improved machine for crimping and finishing dress-trimmings which have been gathered or plaited and stitched on both edges, of which the following is a specification, reference being had to the accompanying drawings forming part hereof.

My invention consists in the combination, in a crimping-machine, of the crimping-dies, having a reciprocating motion, and formed, respectively, with two faces about at right angles with each other, each face being provided with prominences, which are in line with spaces on the other face of the same die, the upper ends of the said prominences being at right angles with their bases, thus leaving triangular spaces between the rows of prominences on each die, and all the prominences on one die fitting into the spaces on the other die, and vice versa; whereby trimmings which have been gathered or plaited and stitched on both edges, whether detached from or sewed upon garments, may be crimped and finished.

Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a plan or face view of the upper crimping-iron. Fig. 4 is a plan or face view of the lower crimping-iron.

A is the base or standard of the machine. B B are posts supporting the frame C. D is the lower crimping-iron secured upon the base A. E is the plunger working through an opening in the frame C, and having about it the coil-spring G, which serves to raise the plunger after it has been depressed. The said coil-spring G has its bearings against the pin *a*, fixed in the plunger, and the shoulder *b* on the frame C. *d* is a collar, which serves to limit the upward movement of the plunger E. H is the upper crimping-iron, secured upon the lower end of the plunger E, as shown. I is a gas-pipe, provided with jets, and arranged to heat the lower crimping-iron D. The lower crimping iron or die D is formed with two faces, *n n'*, placed nearly at right angles with each other, as shown, said faces being provided, respectively, with prominences *x* and *x'*, the prominences *x* upon the face *n* being in a line with spaces between the prominences *x'* on the face *n'*, and vice versa, as shown, and the upper ends of the said prominences being at right angles to their bases, thus forming the triangular space *f* between the rows of prominences, as shown. The upper crimping-iron or die H is formed with two faces, *m m'* placed nearly at right angles with each other, and arranged so that the upper die will fit over and upon the lower die when the upper die is depressed, the said faces being provided, respectively, with prominences *y* and *y'*, the prominences *y* upon the face *m* being in a line with spaces between the prominences *y'* on the face *m'*, and vice versa, as shown, and the upper ends of the said prominences being at right angles to their bases, thus forming the triangular space *g* between the rows of prominences, as shown.

The operation of my machine is as follows: The fabric which is to be crimped, and which is gathered or plaited and stitched on both edges, should be properly starched and dampened, and should be of the same width between the stitches upon the edges as the breadth of the crimping-irons measured from one side over the prominences to the other side, laterally. The lower iron D having been properly heated, the cloth, prepared as above stated, should be placed upon the iron D, and the upper iron H be brought forcibly down upon the cloth by means of the plunger E. The plunger E, being then released from pressure, will be carried up into its former position by the action of the coil-spring G. The cloth is then moved along until the newly-crimped portion is passed beyond the crimping-irons, and another section of the fabric rests upon the iron D. The operation is then repeated until the entire fabric forming the trimming has been subjected to the action of the machine.

The crimping formed upon trimming thus prepared is of a form and kind very much desired and used in many garments. A variation in the configuration produced upon the fabric may be effected by a suitable change in the arrangement and form of the prominences, and corresponding depressions or spaces upon the crimping-irons D and H.

The crimping-irons D and H should always be made to conform to the width of the cloth forming the trimmings between the stitches on both edges.

The upper crimping-iron H may be fixed upon the end of a lever similar to that employed in some sewing-machines, and by the employment of suitable mechanism may be operated by a treadle.

It is evident that trimmings which have been sewed upon garments, and which are gathered and stitched upon both edges, as aforesaid, may be refinished without removing them from the garment by means of my machine, as described.

I am aware that a machine has been made in which dies having a reciprocating motion are formed, respectively, with a concave and convex surface, having prominences or flutes extending across said surfaces their whole width, and fitting into depressions on the opposite surfaces, which depressions also extend continuously across said surfaces. I do not claim these devices. A machine thus constructed is not adapted to crimp or finish trimmings which have been gathered or plaited and stitched on both edges. I intend to limit my claim to the specific invention herein shown and described, that is, to the combination, in a crimping-machine, of the crimping dies having a reciprocating motion, formed, respectively, with two faces placed about at right angles with each other, each face being provided with prominences which are in line with spaces between the prominences on the other face of the same die, the upper ends of the said prominences being about at right angles with the bases, thus leaving triangular spaces between the rows of prominences on each die, the faces on one die being arranged to close down and over the faces on the other die, all the prominences on one die fitting into the spaces between the prominences on the other die, and vice versa. A machine thus constructed is specially adapted to crimp and finish trimmings which have been gathered or plaited and stitched on both edges, either detached from or sewed upon garments.

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

The combination, in a machine for crimping or finishing trimmings which have been gathered or plaited and stitched on both edges, of the crimping irons or dies D and H, formed, respectively, with the two faces n and n' and m and m', arranged about at right angles with each other, respectively, and provided, respectively, with the prominences x x' and y y', which are in a line with spaces between the prominences on the other face of the same die, and constructed to form the triangular spaces f and g, arranged to operate as specified.

ANSEL HECHT.

Witnesses:

A. S. FITCH,

B. S. CLARK.