

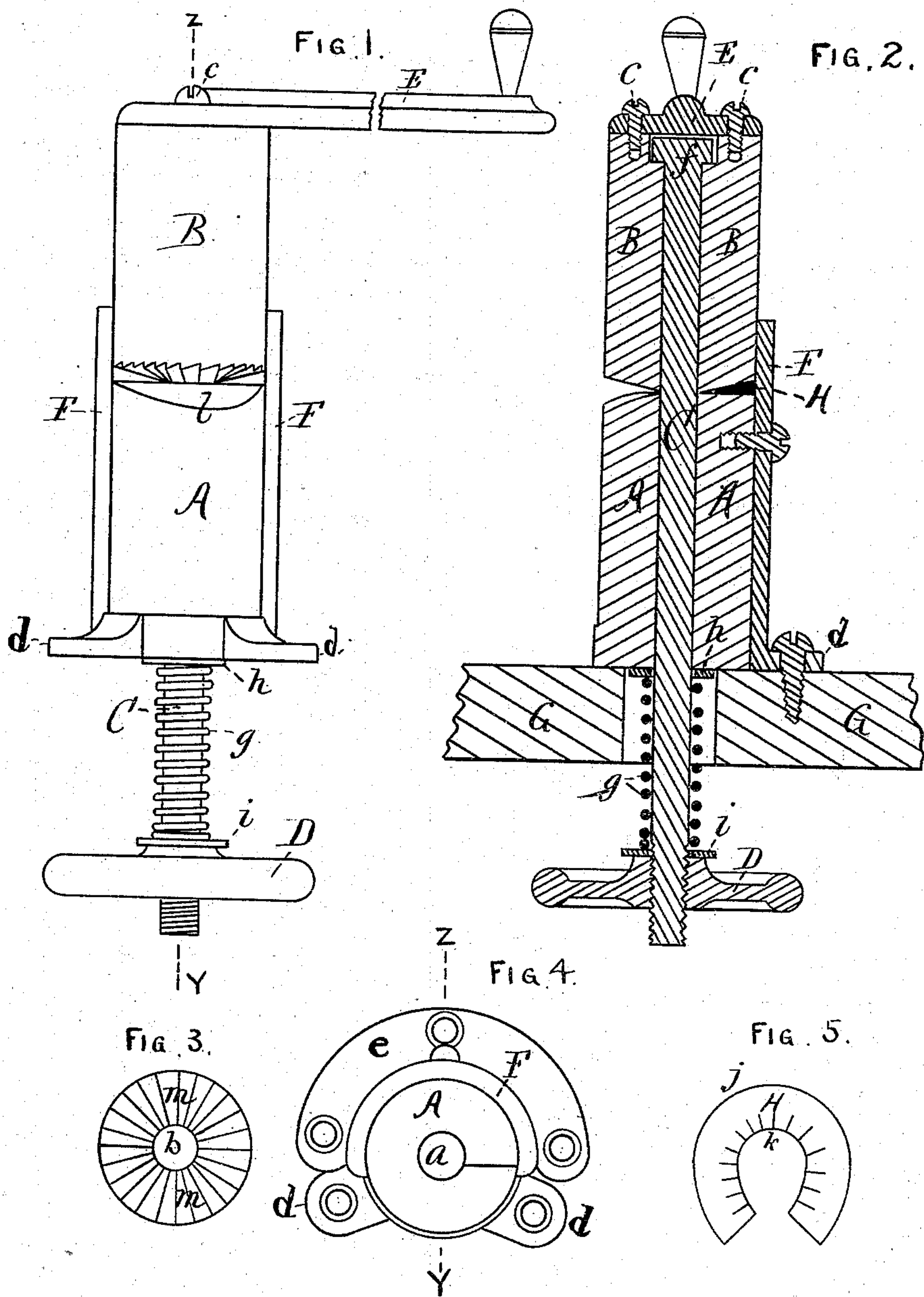
(Model.)

M. C. FLINT.

RAND AND WELT CRIMPING MACHINE.

No. 252,366.

Patented Jan. 17, 1882.



WITNESSES.

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INVENTOR.

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# UNITED STATES PATENT OFFICE.

MOSES C. FLINT, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO LUCIUS R. GOLDSMITH, OF SAME PLACE.

## RAND AND WELT CRIMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 252,366, dated January 17, 1882.

Application filed September 11, 1879. Renewed September 12, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, MOSES C. FLINT, of Haverhill, State of Massachusetts, have invented a Rand and Welt Crimping Machine, of which the following is a specification.

The object of my invention is to provide a compact inexpensive machine, by means of which rands and welts, when properly tempered with water, may be rapidly crimped, either by hand or by other power, and curved to the configuration which they are to occupy when incorporated in the boot or shoe, so that after being thus crimped they may be at once incorporated in the boot or shoe, or may, if desired, be dried, secured in packages, and sold to the trade as a ready-made article of shoe-stock; and the invention consists of two cylindrical bodies of suitable size, which are arranged axially coincident, and have each a central passage or bore through which a securing-rod passes, and which is provided with yielding elastic pressure to compensate for variation in the thickness of the blanks, a crank or other suitable device being secured to one of such cylindrical bodies, by which to rotate it relatively to the stationary cylinder, the meeting faces or area of cross-section of such rotative cylinder being formed around its central bore with radial teeth, and is formed slightly oblique to its longitudinal line, to adapt it to the oblique lines of the blank, the meeting face of the stationary cylinder being formed smooth and depressed or cut away in front to form a throat to facilitate the introduction of the blank in the process of molding, such stationary cylinder being provided with a guard or guide, which, as the blank is carried by the rotating cylinder, serves to keep such blank within the circumferential line of such cylinders, and such lower cylinder being, either alone or in conjunction with such shield, provided with a base flange or ears, by which to secure the machine to a bench or table, all as will, by the aid of the annexed drawings, be hereinafter fully described.

In said drawings, Figure 1 is a front elevation of the machine complete for use as a hand-machine. Fig. 2 is a longitudinal vertical section of the machine, taken as on line *y z*, Figs. 1 and 4, and showing, in section, the support-

ing-bench G. Fig. 3 is an inverted plan view of the meeting face or lower end of the rotating cylinder. Fig. 4 is a plan view of the meeting face or upper end of the lower or stationary cylinder, and Fig. 5 is a plan view of a rand as crimped on my machine.

In said views, A is the lower and stationary cylinder.

B is the upper and rotating cylinder.

C is the connecting bolt, which fits accurately, but not bindingly, in the axial holes *a b* in the respective cylinders. The head *f* of this bolt is seated in a circular recess in cylinder B, as shown in Fig. 2, and on its lower threaded end is fitted the hand-wheel nut D, by rotating which the spiral spring *g* may be compressed or allowed to expand, washers *h i* being arranged on rod C to serve as seats to spring *g*, and to obviate friction when the machine is rotated.

E is the crank, secured to cylinder B by the screws *c c*, and by which said cylinder is rotated.

F is the guard or guide, which may be formed as an integral part of cylinder B, or separately and secured thereto, as shown.

*d d* are ears formed on cylinder B, and *e* is a flange formed on guard F, by which the machine is secured to the bench G.

In Figs. 1 and 3, *m m* represent the radial ratchet-like teeth, which are cut on the upper cylinder, and *l* is the throat, which is formed by depressing a section of the face or area of cross-section of cylinder B to facilitate the introduction of the blank in molding.

In the practical use of my machine, the blanks being first prepared of the requisite length and with a wedge-shaped area of cross-section, as shown in Fig. 2, and being properly moistened or tempered with water for manipulation, they are fed endwise between the meeting faces of the cylinders, and at the left hand as viewed in Fig. 1, and with the back or thick edge next to guard F, and being caught by the teeth *m*, they are carried therewith with the back pressed closely against the guard, and are delivered at the opposite edge of the guard, or at the right, as viewed in said Fig. 1, the action of the teeth *m* not only carrying the blank around, but also serving to crimp and



fix the blank in the curved form which it assumes in passing through the machine.

The molded rand H (shown in Fig. 5) is molded by the machine to almost the exact form required, and when molding welts to be inserted between the soles in the forward part of the shoe the operator slightly straightens the ends of the welt as they emerge from the machine, leaving the required curve in the middle for the toe of the shoe.

It will be apparent that instead of rod C various other means and devices may be employed to secure cylinders A B in proper relative positions without departing from the spirit of my invention, as both or either may be supported in place by exterior bearings, and that instead of crank E gears, pulleys, or other devices may be employed to produce the required rotation.

I claim as my invention—

1. In a crimping-machine, the combination of the fixed smooth-faced bottom cylinder, A, having the throat or depression *l* formed in its face, the hollow cylinder B, having the radial teeth *m* formed in its face, and with crank E or other means of rotation, axial rod C, with compressing-nut D and spring *g*, and the stationary guide F, all substantially as specified.

2. In a crimping-machine, the hollow non-rotative smooth-faced cylinder A, the hollow rotative tooth-faced cylinder B, the coiled spring *g*, and the compressing-nut D, all arranged axially coincident and upon the central rod, C, substantially as specified.

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Witnesses:

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