

(No Model.)

S. H. RANDALL.
CRUPPER FORMER.

No. 440,722.

Patented Nov. 18, 1890.

FIG. 1.

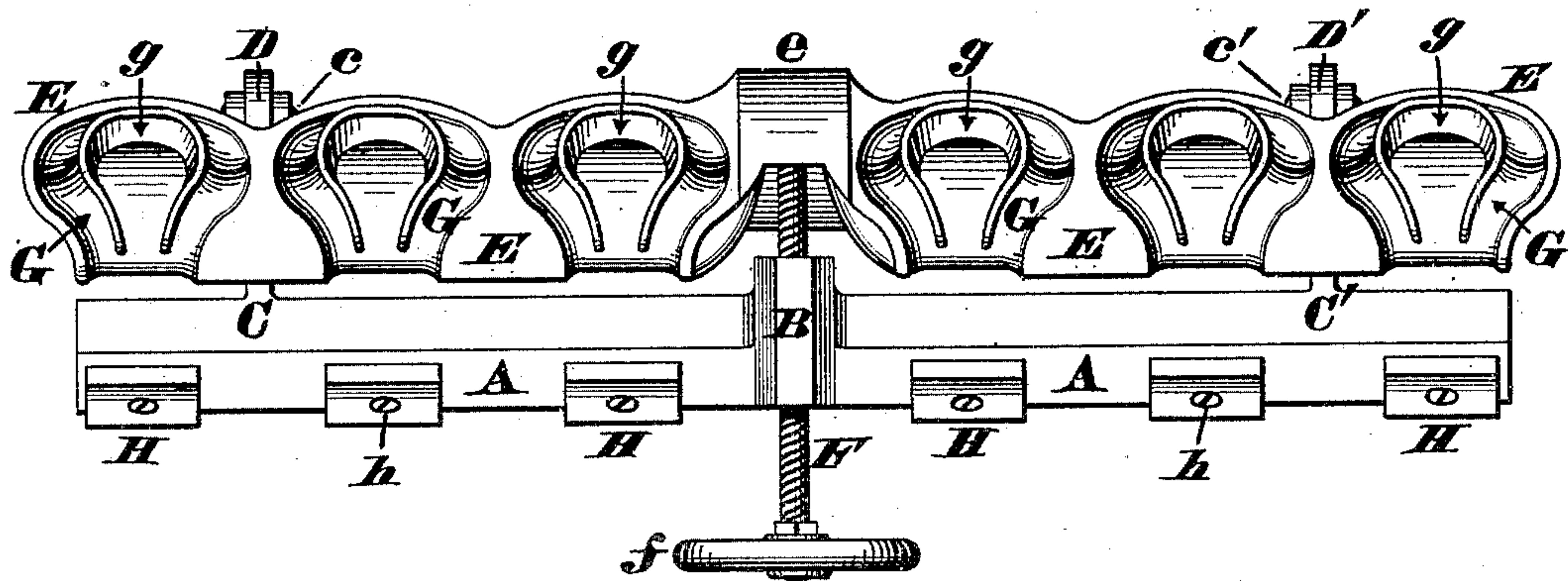


FIG. 2.

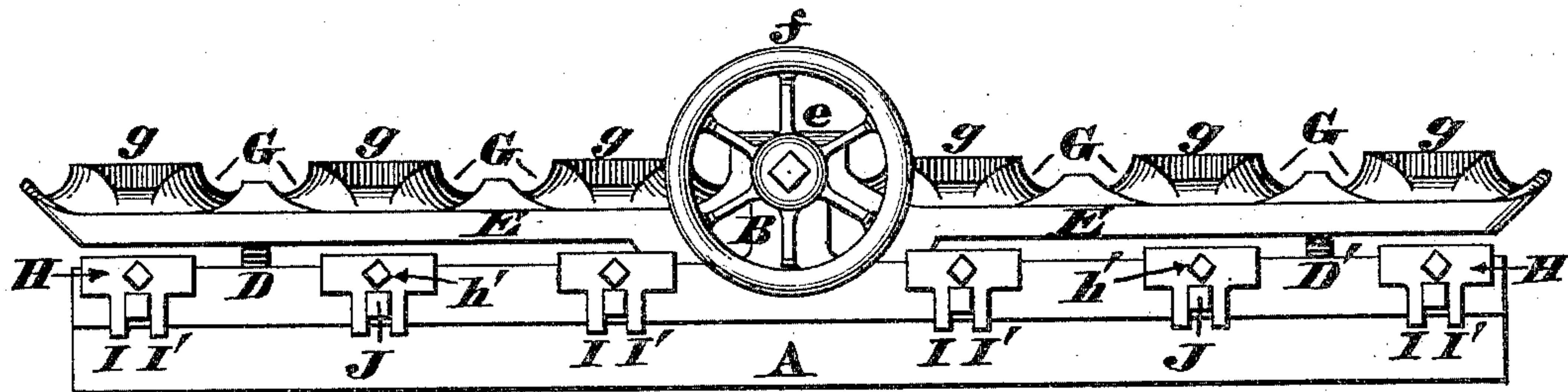


FIG. 3.

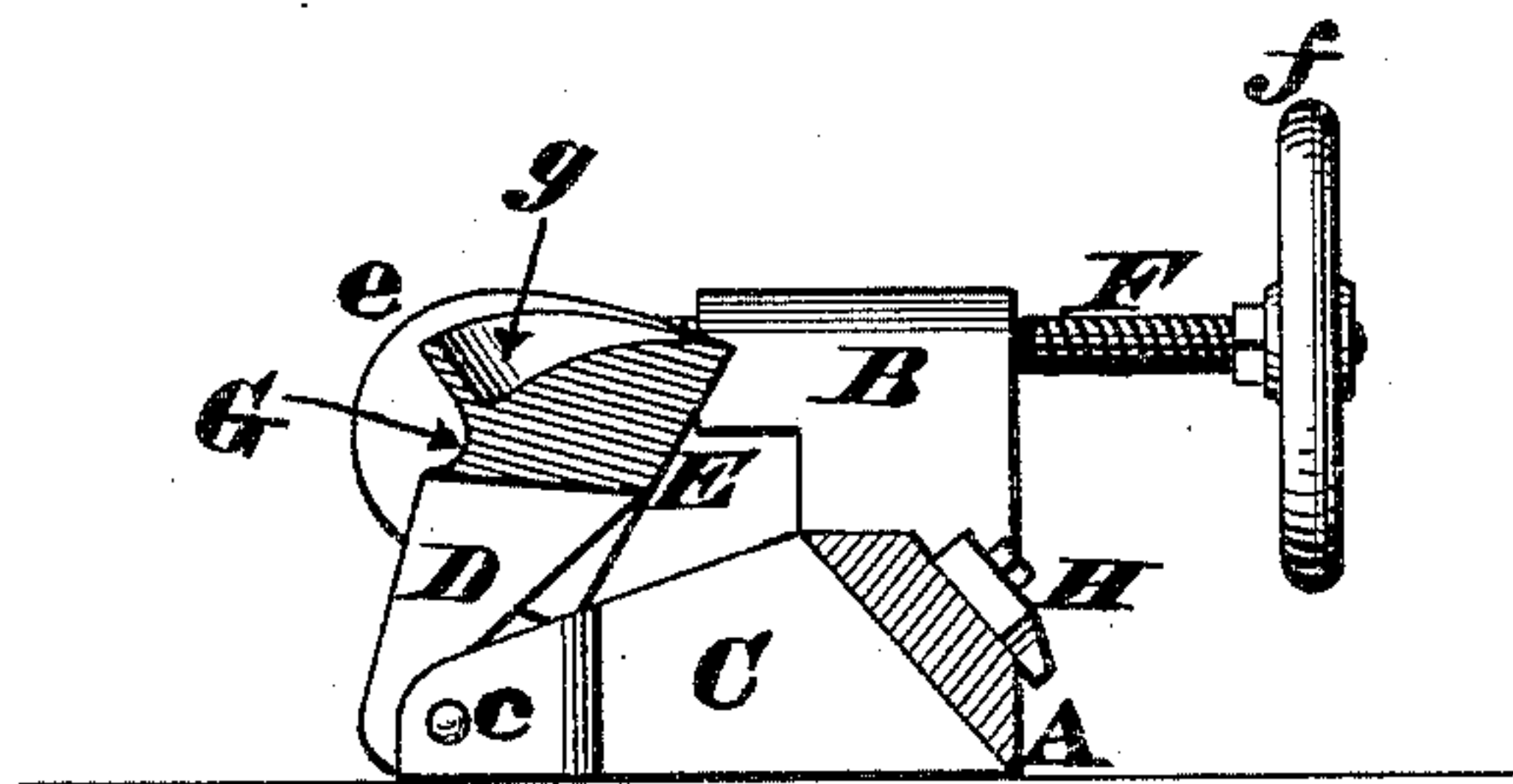
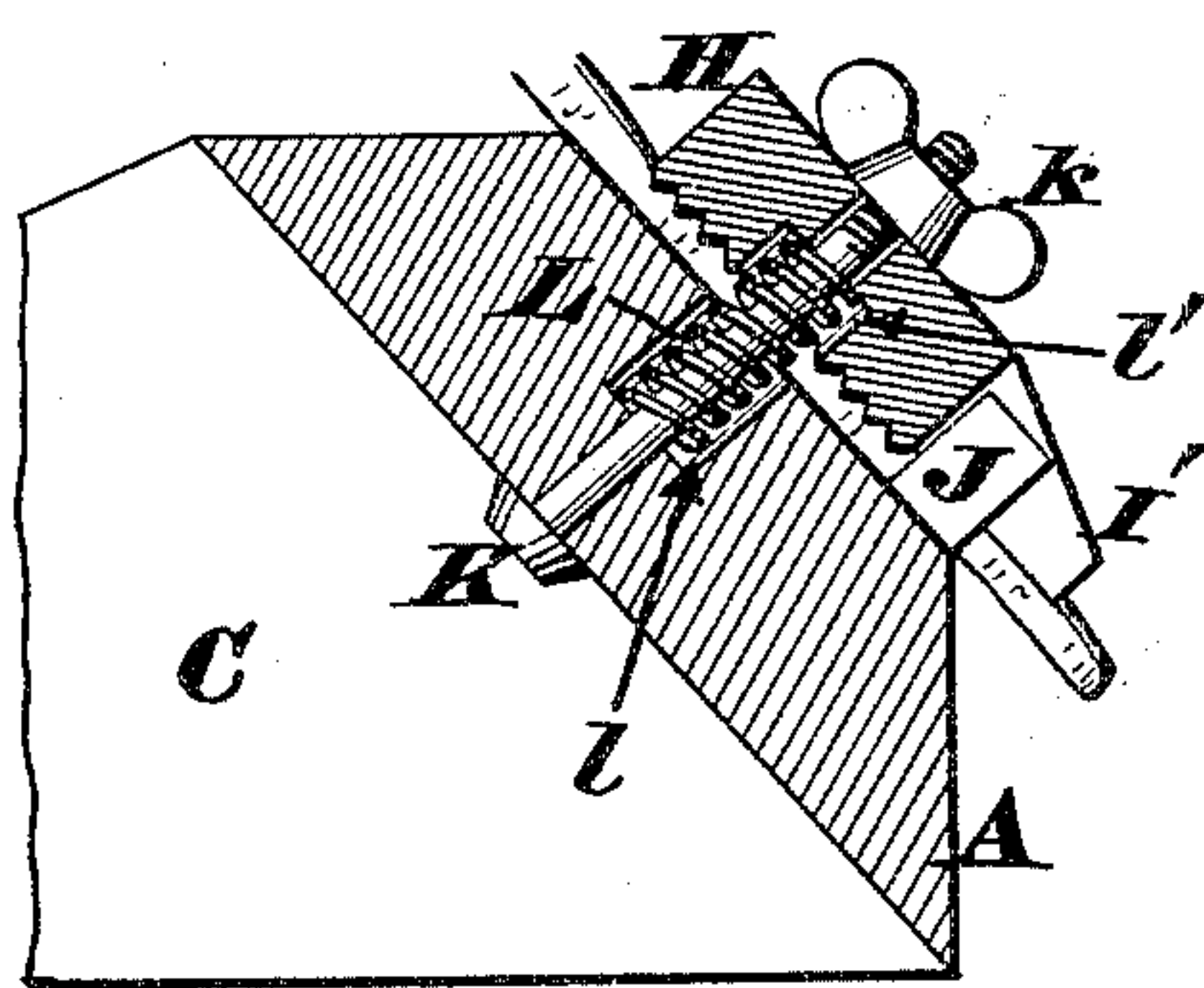


FIG. 4.



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UNITED STATES PATENT OFFICE.

SILAS H. RANDALL, OF WYOMING, OHIO, ASSIGNOR OF ONE-HALF TO JAMES D. RANDALL, OF SAME PLACE.

CRUPPER-FORMER.

SPECIFICATION forming part of Letters Patent No. 440,722, dated November 18, 1890.

Application filed July 22, 1890. Serial No. 359,484. (No model.)

To all whom it may concern:

Be it known that I, SILAS H. RANDALL, a citizen of the United States, residing at Wyoming, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Crupper-Formers; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form a part of this specification.

My invention comprises a simple and efficient machine wherewith the usual shape can be simultaneously imparted to a number of stuffed cruppers, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a plan of the preferred construction of my crupper-former. Fig. 2 is a front elevation of the same. Fig. 3 is a transverse section of the machine. Fig. 4 is an enlarged vertical section of one of the clamps and its accessories.

The base or bed-plate A of the machine is inclined, as seen in Figs. 3 and 4, and has at its center an upwardly-projecting lug B, and near each end lateral extensions C C', to which are pivoted at c c' arms D D', projecting from the under side of a mold-bar E, which bar is parallel with the base A, but somewhat higher than said base. The center of this mold-bar has a stout bearing e for the end of screw F to act against, said screw being engaged with the lug B of base A, and having a hand-wheel f, wherewith it is turned by the workman. Furthermore, the upper surface of this bar has a series of concavities or molds G, the inner sides of which are provided with projecting guards g.

Attached to the front of base A are a number of clamps H, preferably one for each mold, which clamps may be held in place by any convenient form of fastening, screws h being seen in Fig. 1 and bolts h' in Fig. 2. It is preferred, however, to furnish each clamp with a pair of parallel lugs I I', that fits snugly against short studs J, projecting rigidly from the base A, as more clearly seen in Fig. 4, where the clamp is held in place by a thumb-nut k, engaged with the upper end of a bolt K passing transversely through said base. The upper side of this base is chambered out at l, and the lower side of the clamp is similarly chambered at l' to admit a spring L, which is coiled around the bolt or screw K and tends to force said clamp away from said base, so as to facilitate the insertion of the

ends of the crupper, while the lugs I I' and stud J prevent the clamp swinging around on said bolt.

To use this machine the screw F is first retracted to allow the mold-bar E to swing forward or toward the base A, which act is effected on account of the jointed connections c c'. The stuffed cruppers are then placed in the respective molds G in such a manner as to cause the bends or loops of the work to rest against the curved flanges g, the two ends of each crupper being inserted under a single clamp. The various clamps are now tightly compressed against the crupper ends, thereby holding them down firmly upon the base A, which secure grip is increased by serrating the undersurfaces of said clamps. (See Fig. 4.) Screw F is then advanced, so as to cause the mold-bar E to swing away from the base A, the result being a simultaneous stretching of all the cruppers, the upper surface of said bar imparting the proper form to them. The machine with its full complement of bent and stretched cruppers is then put aside until the cruppers have become set to the desired shape, at the expiration of which time the screw is retracted, the clamps unscrewed, and the cruppers removed from the mold-bar.

O is one of a pair of springs that automatically retract this bar as soon as it is relieved from the pressure of cam M.

I claim as my invention—

1. The combination, in a crupper-former, of a bar E, provided with a series of crupper-molds G g, a base-plate A, furnished with a series of clamps H, couplings C C' c c' D D' for uniting said bar and plate, and a screw F, engaged with a nut B of the latter and bearing against said bar E, as herein described.

2. The combination, in a crupper-former, of chambered base A l, chambered clamp H l', bolt K, thumb-nut k, and spring L, which spring is housed within said chambers and coiled around said bolt, for the purpose described.

3. The combination, in a crupper-former, of the base-plate A, having studs J, and the clamps H, having each a pair of lugs I I', for the purpose herein described.

In testimony whereof I affix my signature in presence of two witnesses.

SILAS H. RANDALL.

Witnesses:

JAMES H. LAYMAN,
FRANCIS M. BIDDLE.