

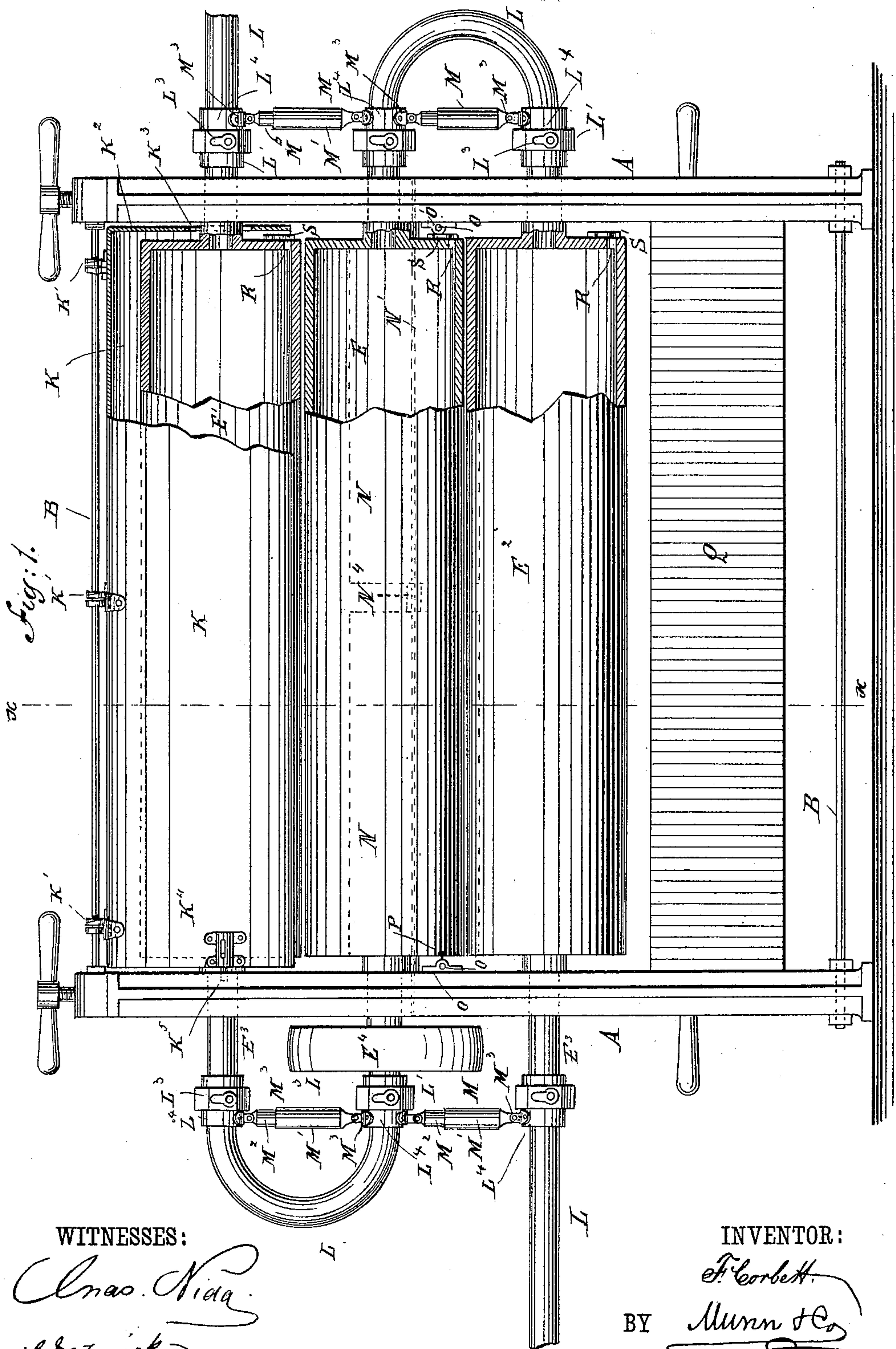
(No Model.)

3 Sheets—Sheet 1.

F. CORBETT.  
IRONING MACHINE.

No. 390,756.

Patented Oct. 9, 1888.



WITNESSES:

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Enos. Nida.  
C. Sedgwick.

INVENTOR:

BY *F. Corbett.*  
*Munn & Co.*  
ATTORNEYS.

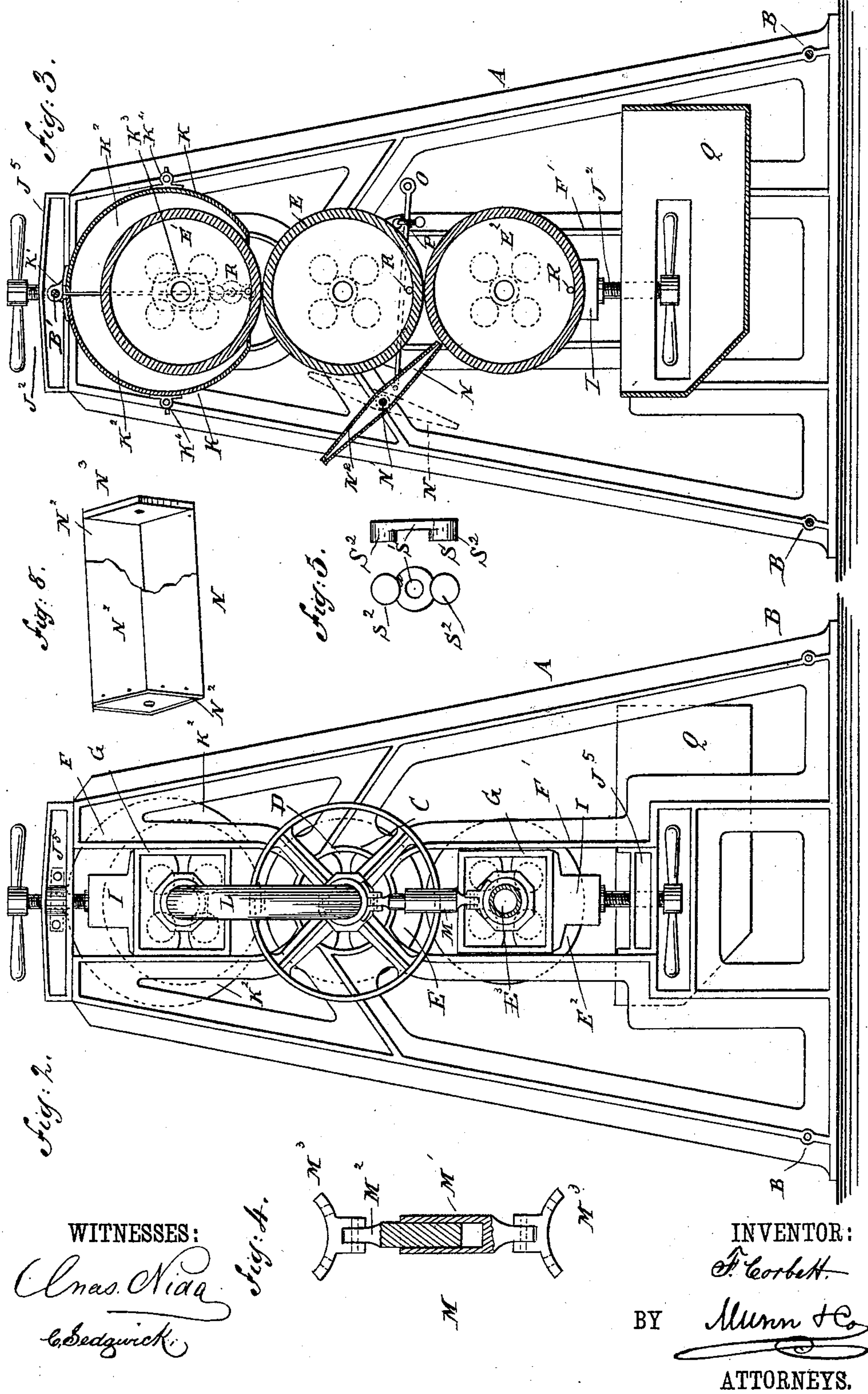
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3 Sheets—Sheet 2.

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WITNESSES:

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INVENTOR:

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(No Model.)

3 Sheets—Sheet 3.

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*Fig: 6.*

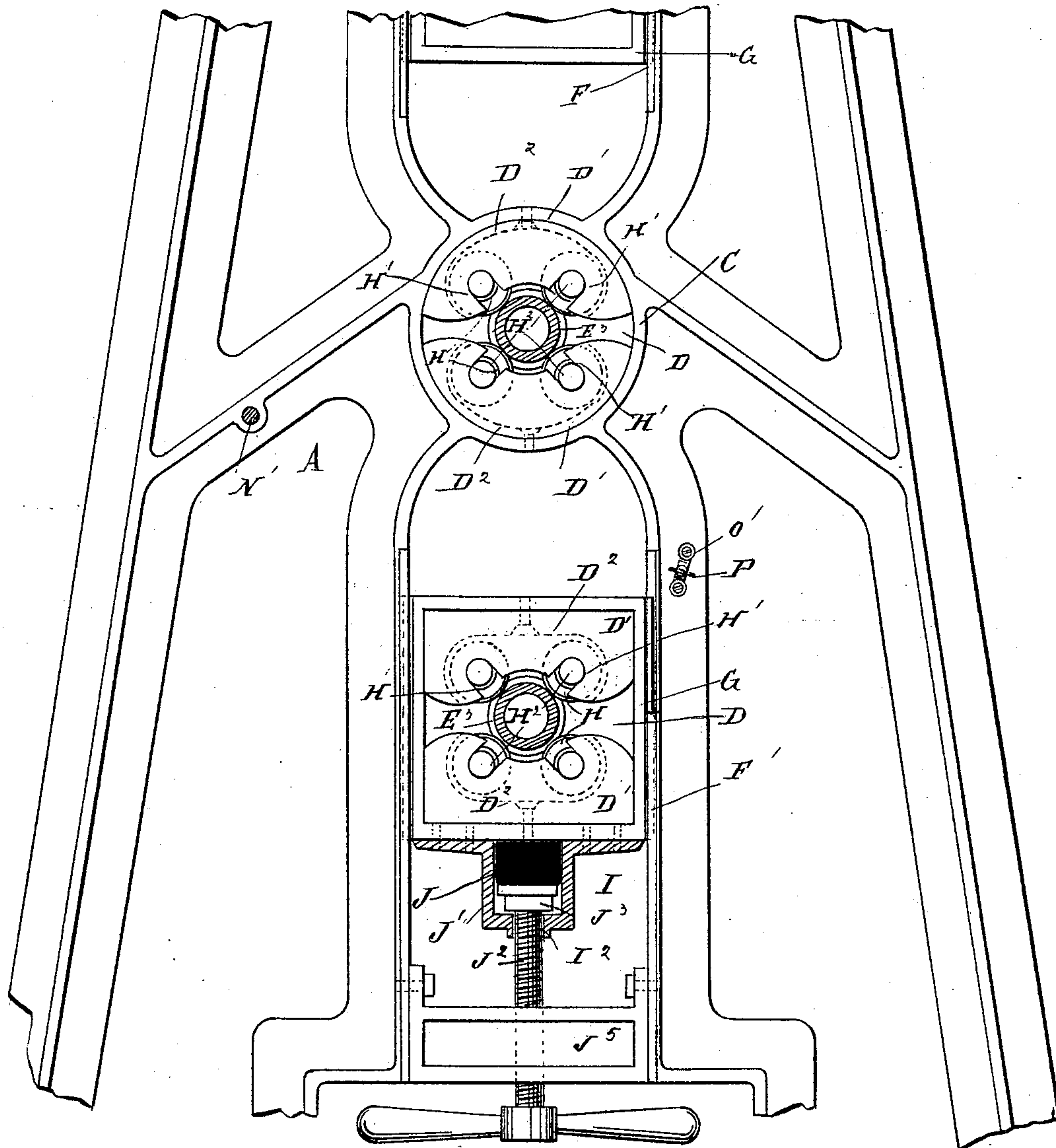
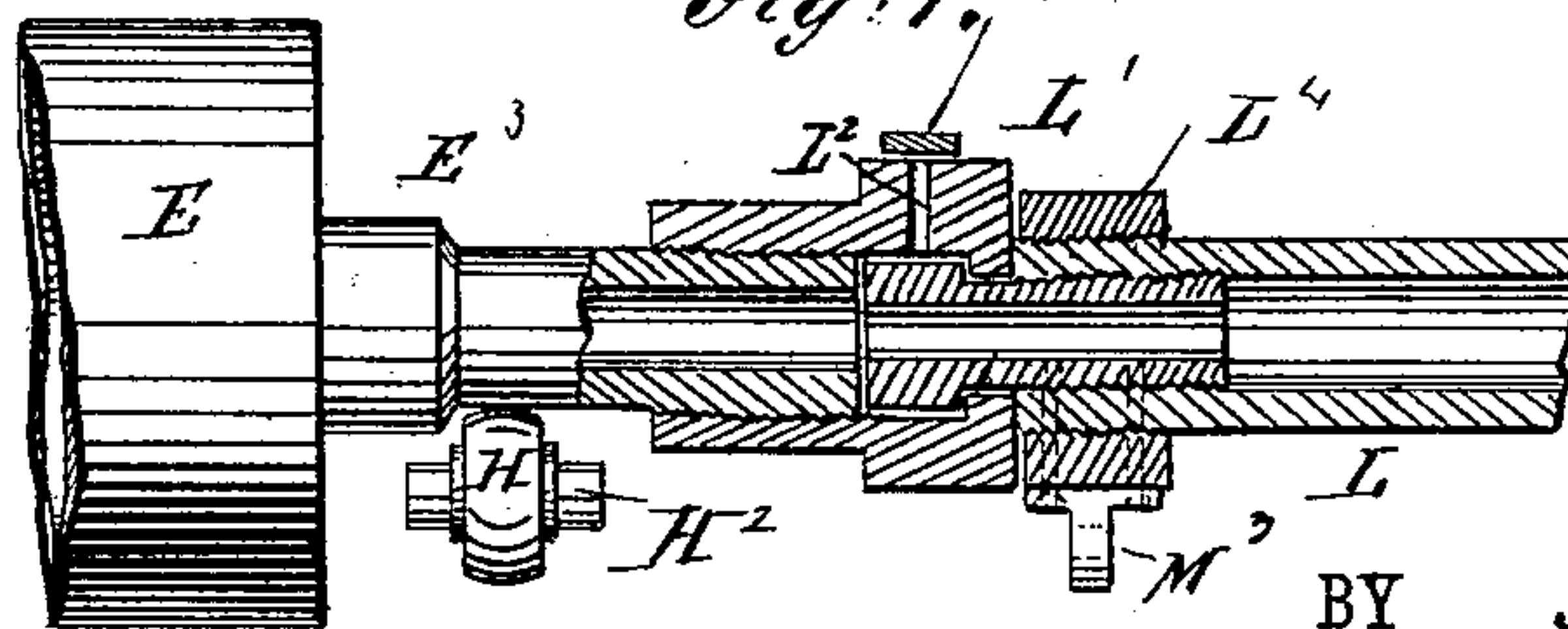


Fig. 7, L<sup>3</sup>



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

FRANK CORBETT, OF NEW YORK, N. Y.

## IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 390,756, dated October 9, 1888.

Application filed October 14, 1887. Serial No. 252,305. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK CORBETT, of the city, county, and State of New York, have invented a new and useful Improvement in Ironing-Machines, of which the following is a full, clear, and exact description.

This invention relates to ironing-machines wherein the revoluble ironing-rollers are hollow to receive the steam or other agent by which they are heated; and the object of the invention is to so improve the construction and arrangement of such machines that they will be more durable, efficient, and convenient in use.

The invention consists of certain novel details and features of construction and combination of parts, substantially as hereinafter described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side partly-sectional elevation of an ironing-machine embodying my invention. Fig. 2 is an end elevation of the said ironing-machine. Fig. 3 is a cross-sectional view of the same on the line *xx*, Fig. 1. Figs. 4 and 5 are detail views of parts hereinafter described. Fig. 6 is an enlarged end view of the ironing-machine, certain parts being broken out and others in section. Fig. 7 is a sectional side view of the coupling connecting each of the ironing-rollers with the pipe for the heating agent. Fig. 8 is a detail view of a part hereinafter described.

The frame of the machine is constructed of end standards, A, connected and braced by the longitudinal round bars B at the bottom and centrally by the round bar B' at the top.

Each standard A is formed with a circular box, C, to receive one of the anti-friction bearings D of a middle non-adjustable ironing-roller, E, and provided above and below the said seat with vertical grooved guides F F', in which are mounted to slide tongued boxes G, carrying the anti-friction bearings D of upper and lower ironing-rollers, E' E<sup>2</sup>.

Each anti-friction bearing D (shown in detail in Fig. 6) consists of a pair of blocks, D', fitted and rigidly secured to the top and bottom of its box, C or G, and they are formed on their inner adjacent sides with recesses D<sup>2</sup>, to accom-

modate anti-friction wheels H, two in each block and all having convex peripheries, the side walls of said recesses being formed with slots H', radiating from a common center and opening inward to receive the journals H<sup>2</sup> of the clustered anti-friction wheels. The shouldered trunnions E<sup>3</sup> of the several ironing-rollers E E' E<sup>2</sup>, when mounted to revolve in these bearings, hold the anti-friction wheels in place, and when removed permit the said wheels to be readily unseated for repair or otherwise.

A pulley, E<sup>4</sup>, is fixed on one of the trunnions of the middle non-adjustable ironing-roller E for revolving the same, the upper and lower rollers, E' E<sup>2</sup>, being adapted by their anti-friction mountings to be revolved by contact with said middle roller or with the articles passed therebetween in ironing.

To the top and bottom of the upper and lower adjustable boxes G, respectively, is riveted or bolted a T-shaped casting, I, the body of which is chambered internally from the side adjacent to the box G to receive an elastic rubber block, J, capped by a movable bearing-plate, J', and has a hole, I<sup>2</sup>, leading outward from said chamber, through which is passed loosely an adjusting-screw, J<sup>2</sup>, having a collar, J<sup>3</sup>, fixed on its inner end.

Each screw J<sup>2</sup> works lengthwise in an internally-threaded boss formed on a detachable bridge-piece, J<sup>5</sup>, riveted or bolted across the outer open end of the guide F or F', and has a handle fixed to its outer end.

By properly turning the adjusting screws J<sup>2</sup> the ironing-rollers E E<sup>2</sup> may be brought to bear with any desired pressure upon the middle roller, E, though held yieldingly thereagainst, to permit a movement to and from the same when goods are being ironed by the interposition of the elastic blocks J and their plates J' between the bearing-boxes G and the bearing-collars J<sup>3</sup> on the inner ends of the adjusting-screws. By turning the screws J<sup>2</sup> in an opposite direction the rollers E' E<sup>2</sup> may be withdrawn from the middle roller, E.

The detachable bridge-pieces J<sup>5</sup> allow the ready removal of the bearing-boxes from their guides for inspection or repair.

To the top longitudinal round bar, B', of the frame of the machine are hinged by ears K', loosely encircling said bar, a pair of semi-cy-



lindrical guards, K, having semicircular end pieces, K<sup>2</sup>, arranged for covering either half of the upper ironing-roller when the goods are introduced beneath the same from the opposite side, so as to prevent the goods from being carried up by the roller.

The semicircular end pieces, K<sup>2</sup>, on corresponding ends of the guards are recessed from their adjacent edges, as best shown in dotted lines at K<sup>3</sup> in Fig. 3, to permit the trunnions of the roller E' to play therein, and to either end of each guard are applied bolts K<sup>4</sup>, which can be engaged with sockets K<sup>5</sup>, formed in the standards A, for holding the guards in working position. The guard not in use can be swung upward and backward out of the way.

The rollers and their trunnions E<sup>3</sup> are hollow, the latter projecting through and beyond their bearings and connected with and by flexible pipes L, so as to form a continuous passage for the heating agent through the induction and eduction pipes and the several rollers in succession.

The swivel-couplings L', connecting the trunnions E<sup>3</sup> and pipes L, may be of the usual pattern (shown in detail in Fig. 7) to permit the free revolution of the trunnions.

An oil-passage, L<sup>2</sup>, is drilled through the side of the outer squared coupling-head to the swivel-joint, and a button, L<sup>3</sup>, is pivoted to the squared side of the head for covering the passage after the oil has been introduced therein.

To prevent the outer coupling-sections, to which the flexible pipes are clamped, from rotating and twisting said pipes, the coupling-clamps L<sup>4</sup> of adjacent trunnions are connected by an extensible bar, M, formed of a tubular guide, M', and plunger M<sup>2</sup>, as shown in detail in Fig. 4, the guide and plunger being respectively pivoted to ears M<sup>3</sup>, fastened to the clamps L<sup>4</sup> by screws passing through the same, the flexible pipe, and the outer coupling-section, so that all movements of the ironing-rollers are easily accommodated.

For automatically carrying the goods issuing from between the upper and middle rollers back between the middle and lower rollers, two independently-adjustable guides, N, are centrally pivoted upon a common rod, N', passing lengthwise therethrough parallel to the axes of the ironing-rollers and secured at its ends to the standards A.

The guides N are flat diamond-shaped in cross-section, and are by preference formed of two rectangular plates, N<sup>2</sup>, of sheet metal, as common tin, fastened at their ends to opposite sides of diamond-shaped pieces or castings N<sup>3</sup>, as clearly shown in Fig. 8, through holes in the centers of which pieces N<sup>3</sup> the pivot-rod N' is passed loosely.

The guides N are separated by a collar, N<sup>4</sup>, held loosely on the rod N', so that they will not interfere with each other, and are each pivotally connected to a handle-rod, O, mounted to slide lengthwise in a keeper, O', attached to the corresponding standard A, so that either guide N can be swung at will to carry the

goods back through the two lower rollers, as shown in full lines in Fig. 3, or as shown in dotted lines therein, to take them from between the two upper rollers and discharge them on the opposite side of the machine.

Set-screws P are inserted in the keepers O', for locking the handle-rods O in any desired position.

A box, Q, is fixed to and between the standards to receive the goods as they issue from between the lower and middle rollers.

In one head of each ironing-roller, near its periphery, is formed a hole, R, leading from the interior, for discharging the water of condensation collecting when steam is used, and a button, S, is pivoted to the outside of the head for covering said hole.

The button S (shown in detail in Fig. 5) is peculiarly constructed to resist the pressure within the roller, being formed with a central eye, S', for the pivot-screw, and two similar heads, S<sup>2</sup>, on opposite sides thereof and equally distant therefrom, raised from its inner face, one head, when closing the outlet, being held firmly to its seat by the other head bearing against the roller-head.

I hereby disclaim in this application all matter claimed in the application for a similar machine filed by me herewith.

I do not claim the anti-friction bearing in this application, as it forms the subject-matter of my application, Serial No. 262,248, filed January 28, 1888.

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

1. The combination, with the frame, the three vertically-aligned rollers, and a rod connecting the ends of the frame in rear and below the axis of the middle roller, of vertically-swinging guides pivoted centrally upon said rod and resting at their upper edges against the rear side of the middle roller when swung in one direction and resting at their lower edges against the top surface of the lowest roller in rear of its axis when swung in the opposite direction to direct the articles between the middle and lowest rollers, substantially as set forth.

2. In an ironing-machine, the combination of end standards, longitudinal ironing-rollers journaled therein, a rod, B', connecting the standards above the upper roller, and hinged semi-cylindrical guards K, having end pieces, K<sup>2</sup>, arranged to cover either half of the upper roller, substantially as shown and described.

3. In an ironing-machine, the combination of end standards, A, having sockets K<sup>5</sup>, a rod, B', connecting the end standards, semi-cylindrical guards K for the ironing-roller, ears K', hinging the guards to the rod B', and bolts K<sup>4</sup>, attached to the guards and adapted to engage the sockets K<sup>5</sup>, substantially as shown and described.

4. In an ironing-machine, the combination, with the hollow trunnions of two relatively-adjustable ironing-rollers, flexible pipes, and



couplings connecting them with said trunnions, of an extensible rod, M, connected at its ends to the parts of said coupling fixed to the flexible pipes, substantially as described.

pipe-clamps L<sup>1</sup>, ears M<sup>3</sup> on the pipe-clamps, and a plunger and guide-tube pivoted to the ears M<sup>3</sup>, substantially as shown and described.

FRANK CORBETT.

Witnesses:

CLARENCE L. BURGER,  
C. SEDGWICK.

5 5. In an ironing-machine, the combination of relatively-adjustable hollow roller-trunnions E<sup>3</sup>, flexible pipes L, couplings L', connecting the same to the trunnions and having