

J. G. CRAWFORD.
Ironing Apparatus.

No. 219,346.

Patented Sept. 9, 1879.

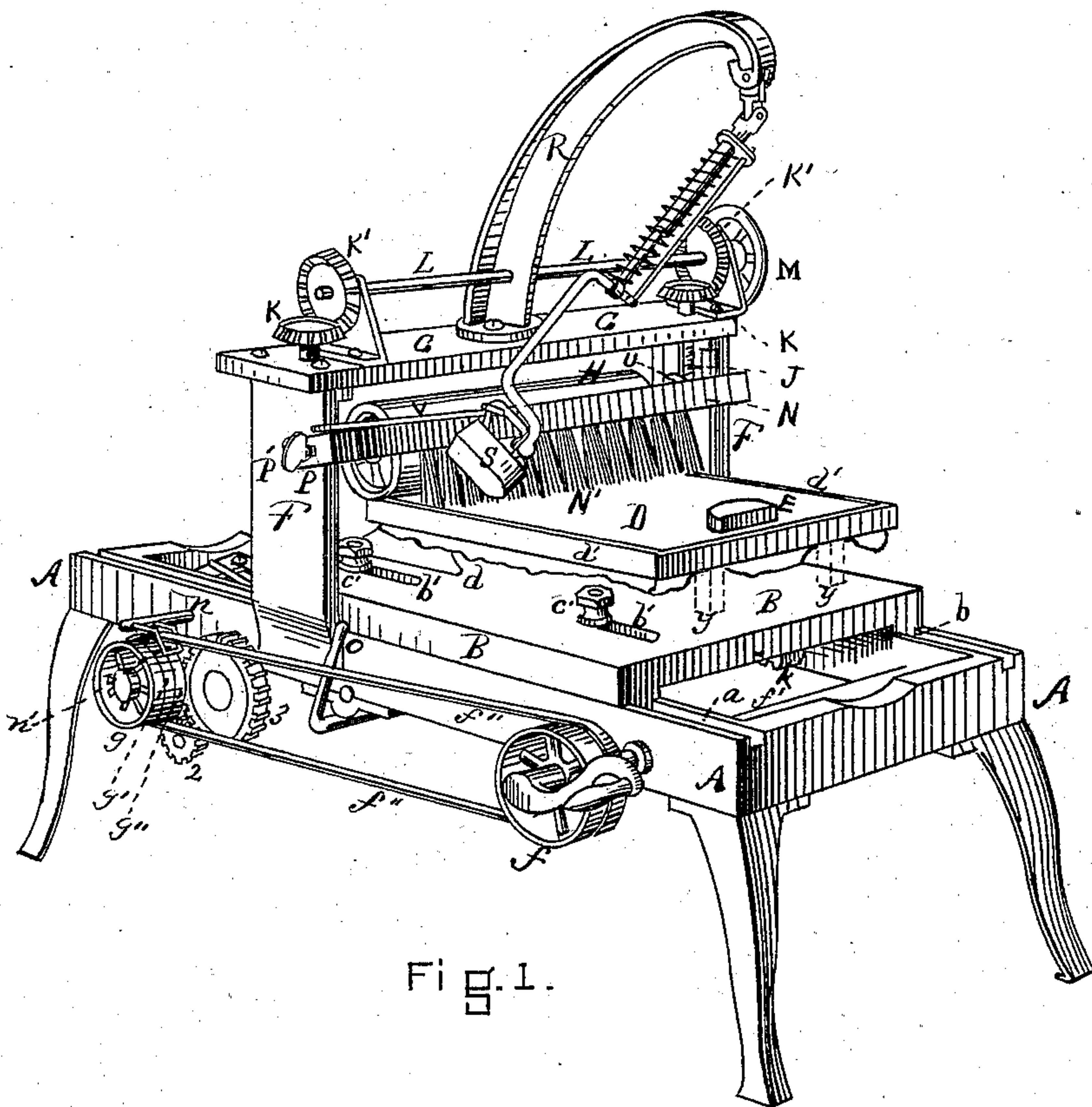


Fig. 1.

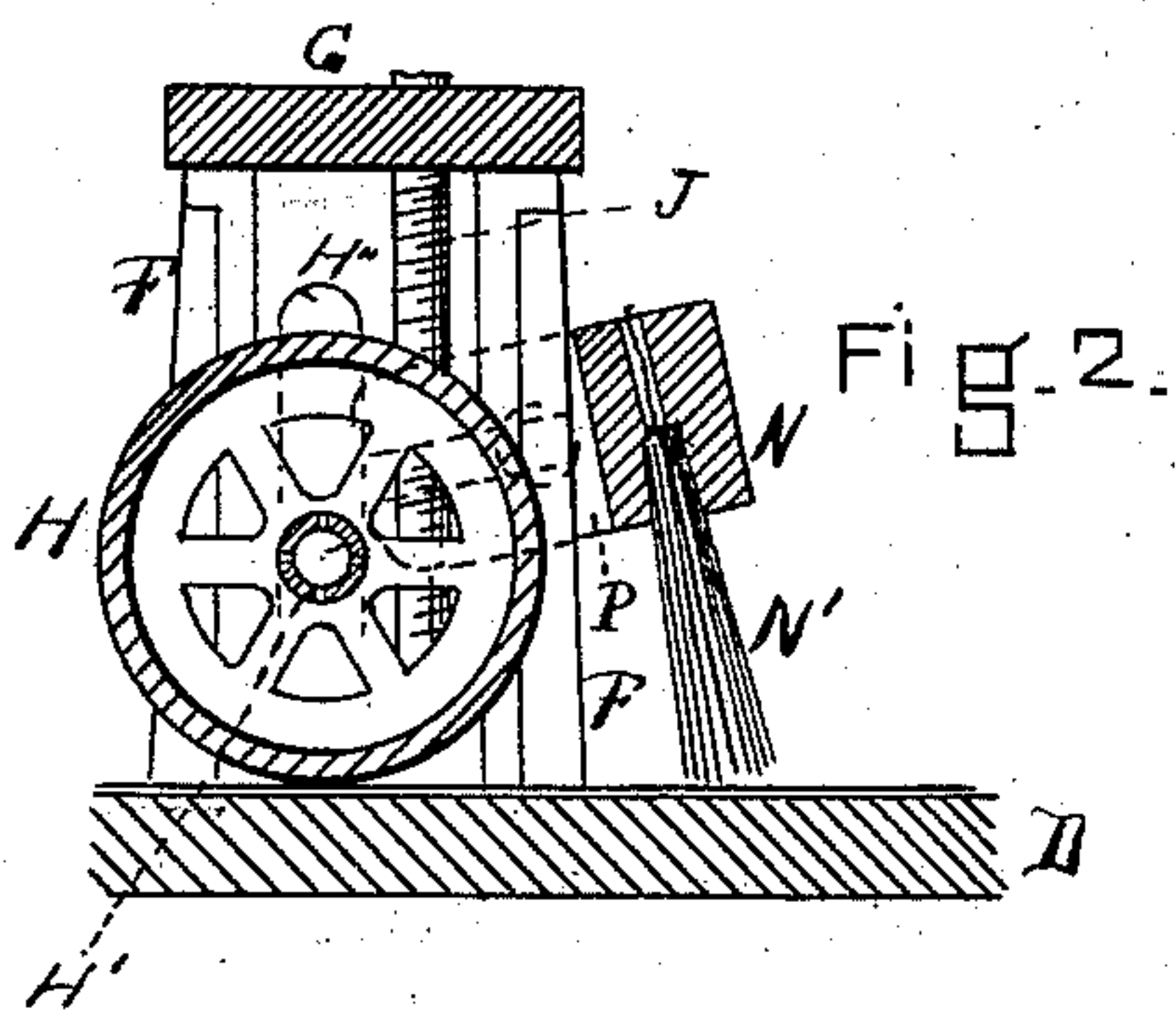


Fig. 2.

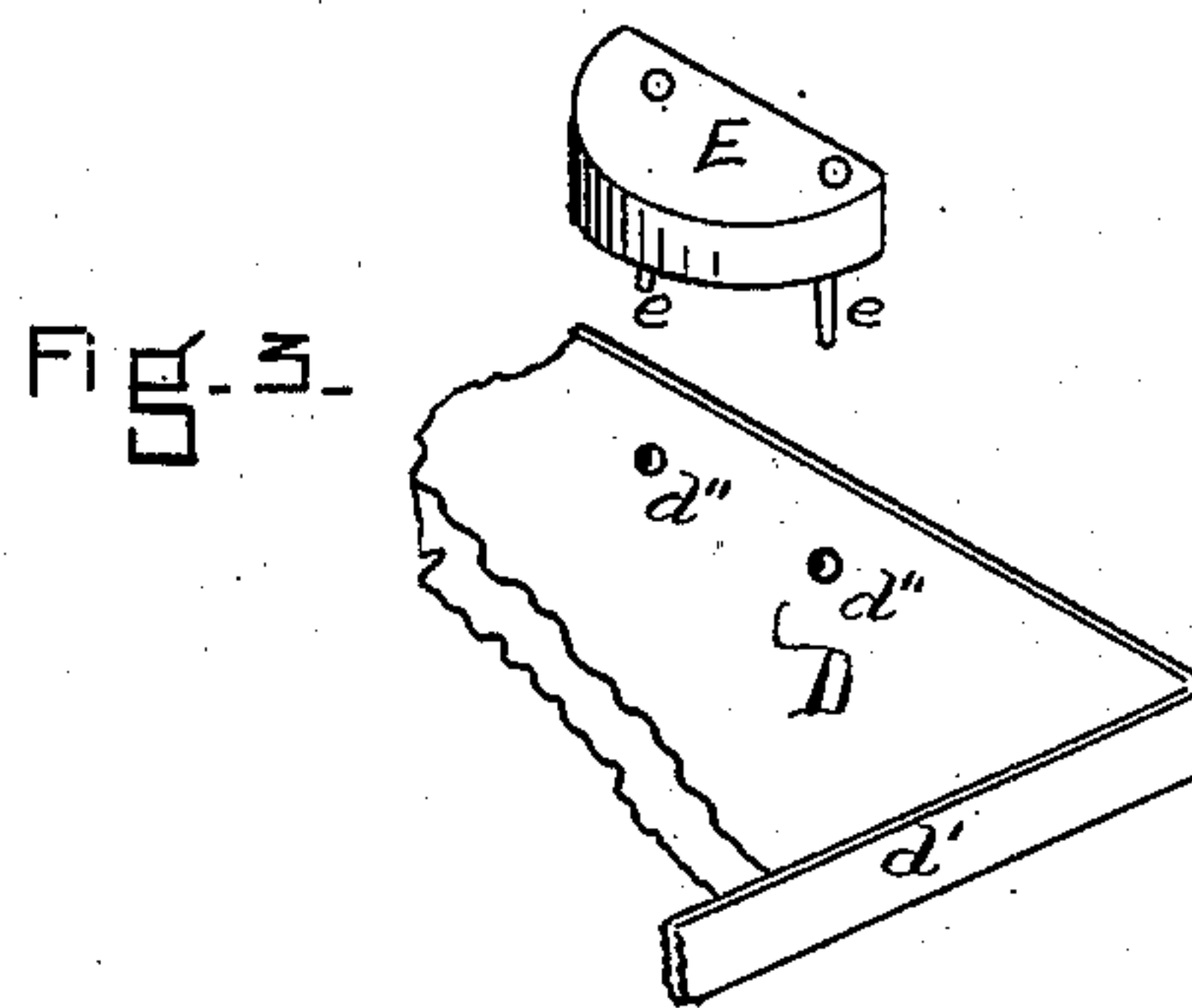


Fig. 3.

WITNESSES

E. R. Williams
John E. Manning

James G. Crawford INVENTOR
By his Attys.

Henry W. Williams

J. G. CRAWFORD.
Ironing Apparatus.

No. 219,346.

Patented Sept. 9, 1879.

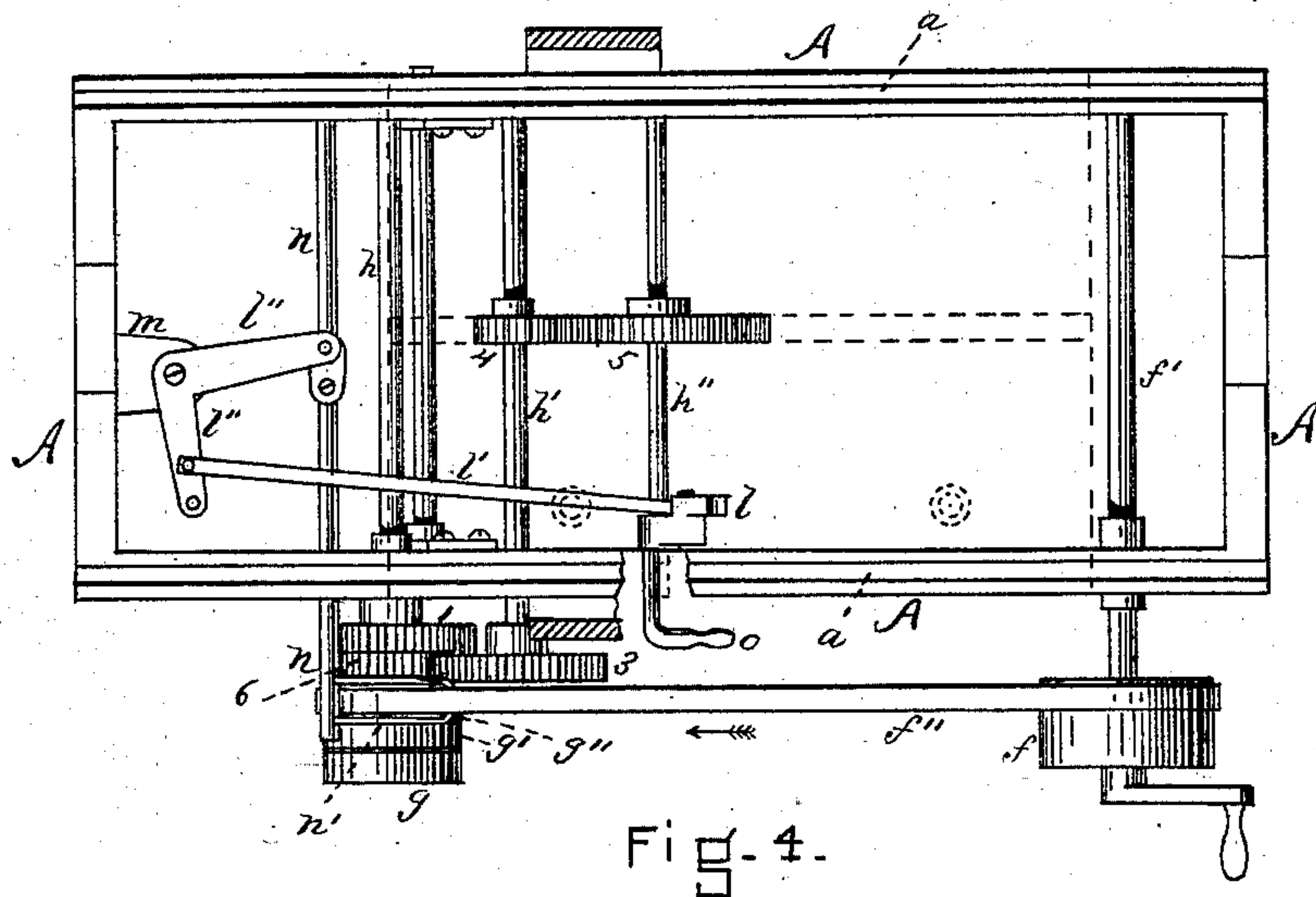


Fig. 4.

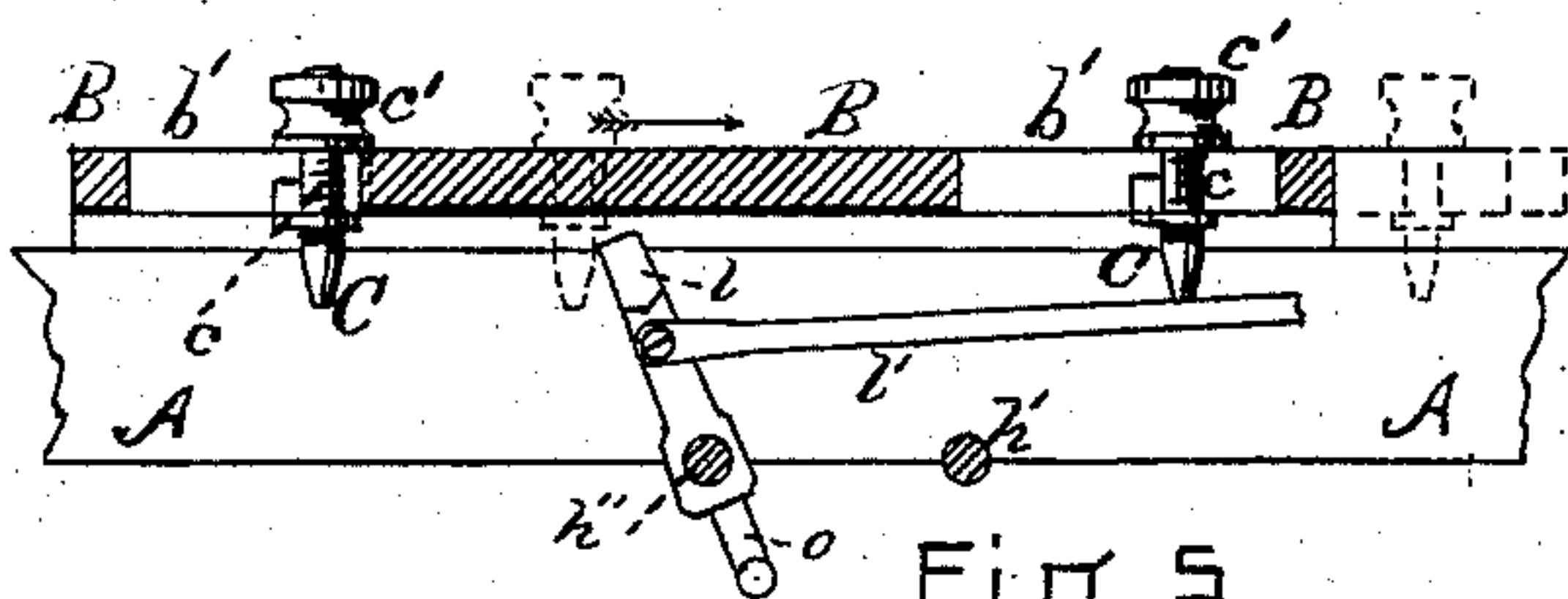


Fig. 5.

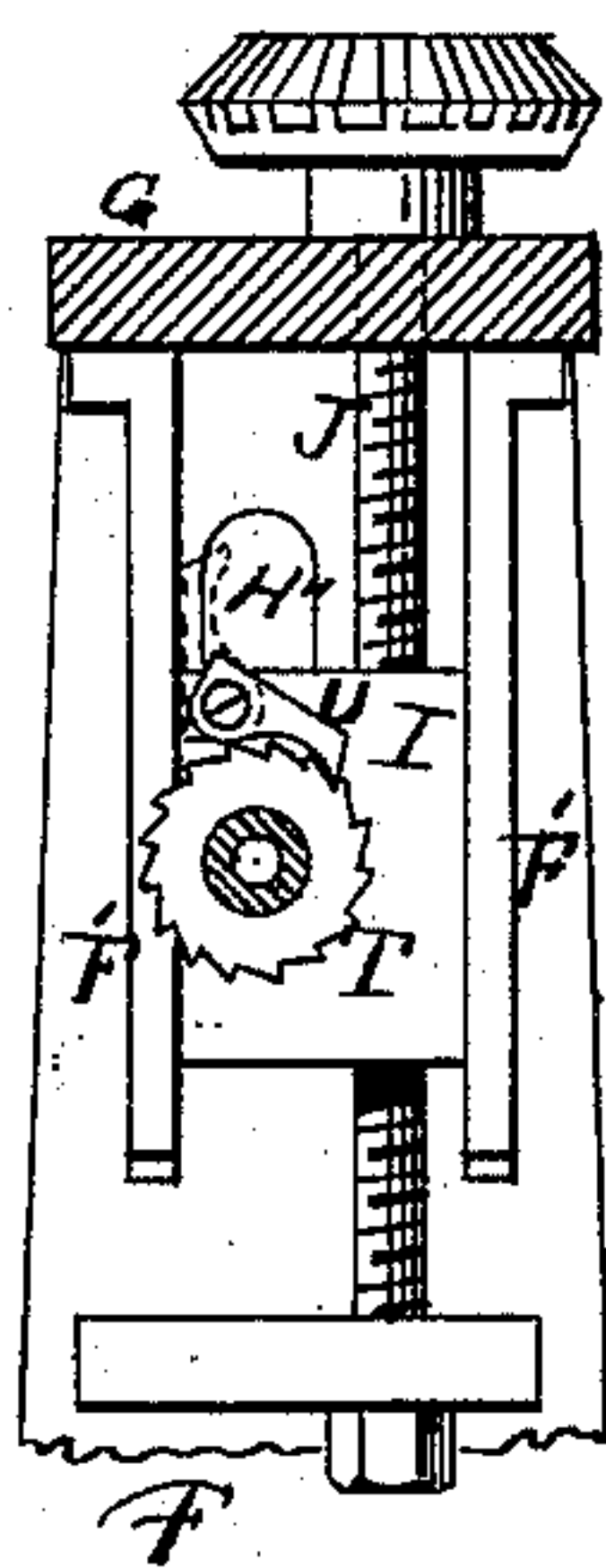


Fig. 6.

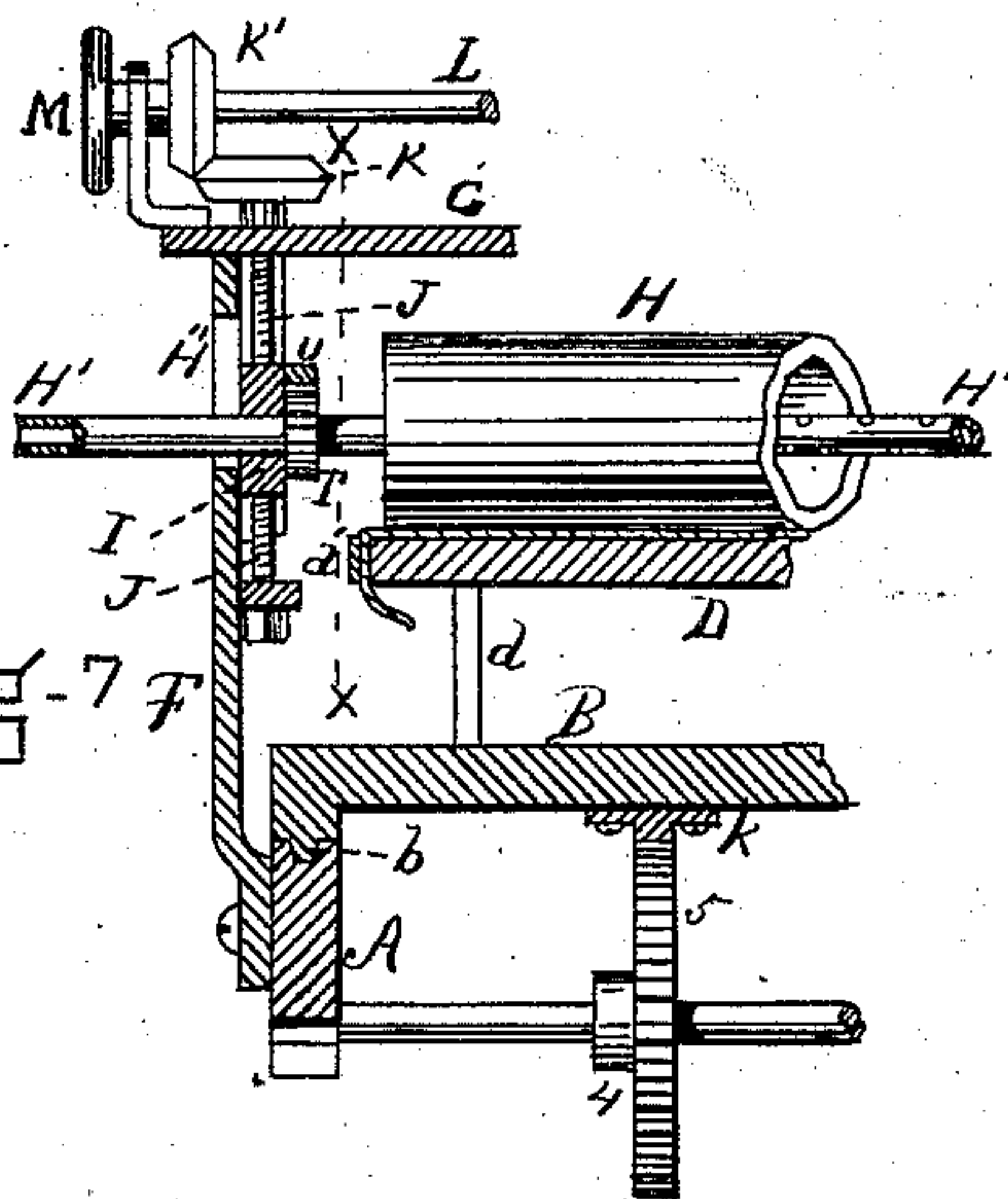


Fig. 7.

WITNESSES.

E. R. Williams
John E. Freeman

INVENTOR:

James G. Crawford
By his Attys.
Henry W. Williams & Co.

UNITED STATES PATENT OFFICE.

JAMES G. CRAWFORD, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN IRONING APPARATUS.

Specification forming part of Letters Patent No. **219,346**, dated September 9, 1879; application filed February 8, 1879.

To all whom it may concern:

Be it known that I, JAMES G. CRAWFORD, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Ironing Apparatus, of which the following is a specification.

This invention relates to machines for laundry use for ironing shirts, collars, cuffs, curtains, and other articles.

By means of the improvements contained in this machine, the nature of which is fully described below, a great degree of excellence is obtained in the finish of the articles ironed, particularly the curtains.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a view, in perspective, of my improved machine. Fig. 2 is a vertical section of the ironing-table or platen, cylindrical iron, brush, &c., the section being taken longitudinally with the machine. Fig. 3 is a perspective view of a portion of the platen with the neck-band shaper detached therefrom. Fig. 4 is a plan view of the frame and the gear, pulleys, &c., connected therewith, all above said frame having been removed. Fig. 5 is a longitudinal vertical section of the sliding or reciprocating table, taken through the slots *b'* therein. Fig. 6 is a vertical section taken through the cross-bar *G*, showing in elevation the screw and other devices upon the inside of the upright *F*, the section being taken on line *x x*, Fig. 7. Fig. 7 is a vertical cross-section of a portion of the machine.

A is the frame, supported by suitable legs, and *B* is a reciprocating table sliding in the frame *A*, being provided with tongues or cleats *b*, which fit into the corresponding grooves *a* in said frame. *C C* are two stops (see Fig. 5) placed in slots *b' b'* in the table *B*, extending below said table, and having their upper portions, *c*, provided with screw-threads, upon which are placed nuts *c' c'*, which hold the stops in any desired part of the said slots. The object of these stops *C C* is to ship the belt from one pulley to another for the purpose of causing the table *B* to slide back and forth, as below described.

D is the ironing-table or platen attached to and supported by the table *B* by means of

supports *d*. *d'* is the binder, (an old device,) the object of which is to hold the shirt or other article to be ironed upon the platen *D* while it is being carried back and forth under the cylindrical iron. *E* is a neck-band shaper (see Fig. 3) provided with legs or pins *e e*, which fit into corresponding holes *d'' d''* in the platen, thus allowing the shaper to be removed for ironing articles other than shirts. This shaper *E* allows of the easy passage of the iron *s* around it, and gives shape and smoothness to the neck-band of the shirt.

The means used in causing reciprocating motion in the table *B*, and consequently in the platen *D*, is not new in itself considered, it having been used in connection with planing-machines, and will be understood by reference to Figs. 1, 4, 5, and 7. A belt, *f''*, passes from the pulley *f'* upon the shaft *f'* to the fast and loose pulleys *g g' g''*, (*g' g''* being the loose pulleys.) When the belt is upon the pulley *g*, which is fixed to the shaft *h*, the cog-wheel 1, which is fixed to the same shaft and meshes into the lower wheel, 2, actuates it, and the wheel 2 meshes into and actuates the wheel 3, fixed to shaft *h'*, and the cog-wheel 4, being also fixed to shaft *h'*, actuates wheel 5, and the pinion 5, meshing into the rack *k*, extending the length of the under side of the table *B*, actuates it in one direction. When the belt is upon the pulley *g''*, (as in the drawings,) which is loose upon the shaft *h*, the cog-wheel 6, which is brazed to the pulley *g''*, actuates the wheel 3, and hence the gear 4 and 5, in the opposite direction, thus carrying the table *B*, by means of its rack *k*, in the opposite direction from that in which it is actuated when the belt is upon the pulley *g*, provided, of course, that the direction of the movement of the belt is the same. The stops *C C*, which may be placed nearer to or farther from each other, as required, cause the reversing of the motion of the table *B* by shipping the belt from the pulley *g''* to the pulley *g*, and vice versa. The stops strike the lever *l*, placed loosely upon the shaft *h''*, which, by means of the rod *l'*, bell-crank lever *l''*, and sliding rod *n*, moves the shipper *n'* and shifts the belt. Of course the handle *o* will accomplish the same result, if desired, as may sometimes be

the case, when a particular part of the article being ironed needs attention. As stated above, this arrangement is not new in itself.

F F are standards, surmounted by a cross-bar, G, and H is a cylindrical iron, heated by means of the gas-pipe H', or in any suitable manner. The iron cylinder or roller H has its bearing in sliding blocks I I, held between ribs F' F' upon the insides of the standards F F. Vertical screws J J pass through these blocks I I, and are turned by means of the bevel-gear K K' K K', rod or shaft L, and wheel M. The object is to depress or raise the cylindrical iron at will, so as to regulate the pressure upon the articles being ironed. A stiff brush, N N', is also attached to the standards F F, the object of which is to even or level the raw starch, particularly in ironing curtains. It being attached by set-screws P' through the end pieces P, suitable slots being provided for the purpose, is easily removable.

The standard R supports the iron S, to which is applied a well-known pressure device, the iron being hung on a suitable hook, v, when not in use.

The ratchet and pawl T U are for the purpose of preventing the roller H from turning, if desired, when the ironing-table is moving in one direction, the roller being stationary, while the platen slips under it. This is done when a high finish is desired.

It will be noticed that the gear is so constructed and arranged that the table slides in one direction much more rapidly than in the other direction. Its return is rapid. This is for the purpose of increasing the fineness of the finish, especially when the ratchet is down.

To operate the machine, place the shirt or other article upon the ironing-table D; then place suitable props y y (dotted lines, Fig. 1) beneath to stiffen it, and start the machine, when the tables B D will move back and forth, as the stops actuate the shipper, under the ironing-roller H. In ironing curtains the brush is used once forward and back, and then raised or removed.

Having thus fully described my improvement, in addition to what I have above stated to be old, I will say that I do not claim as new an ironing-roll, nor a ratchet and pawl connected therewith; but

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

1. The combination, with the reciprocating ironing-table D, of the stationary brush N N', rendered adjustable and removable by means of the slotted end pieces P and set-screws P', arranged and constructed substantially as and for the purpose above described.

2. In an ironing-machine, the combination, with the stationary brush N N' and ironing-roller H, of the ironing-table D and reciprocating table B, said tables being arranged by means of the stops C, fast and loose pulleys g g' g'', and the gear and shipping apparatus held by the frame A, to slide back at a greater speed than they slide forward for the purpose of imparting a high finish to the articles ironed, as set forth.

JAMES G. CRAWFORD.

Witnesses:

E. R. WILLIAMS,
HENRY W. WILLIAMS.