

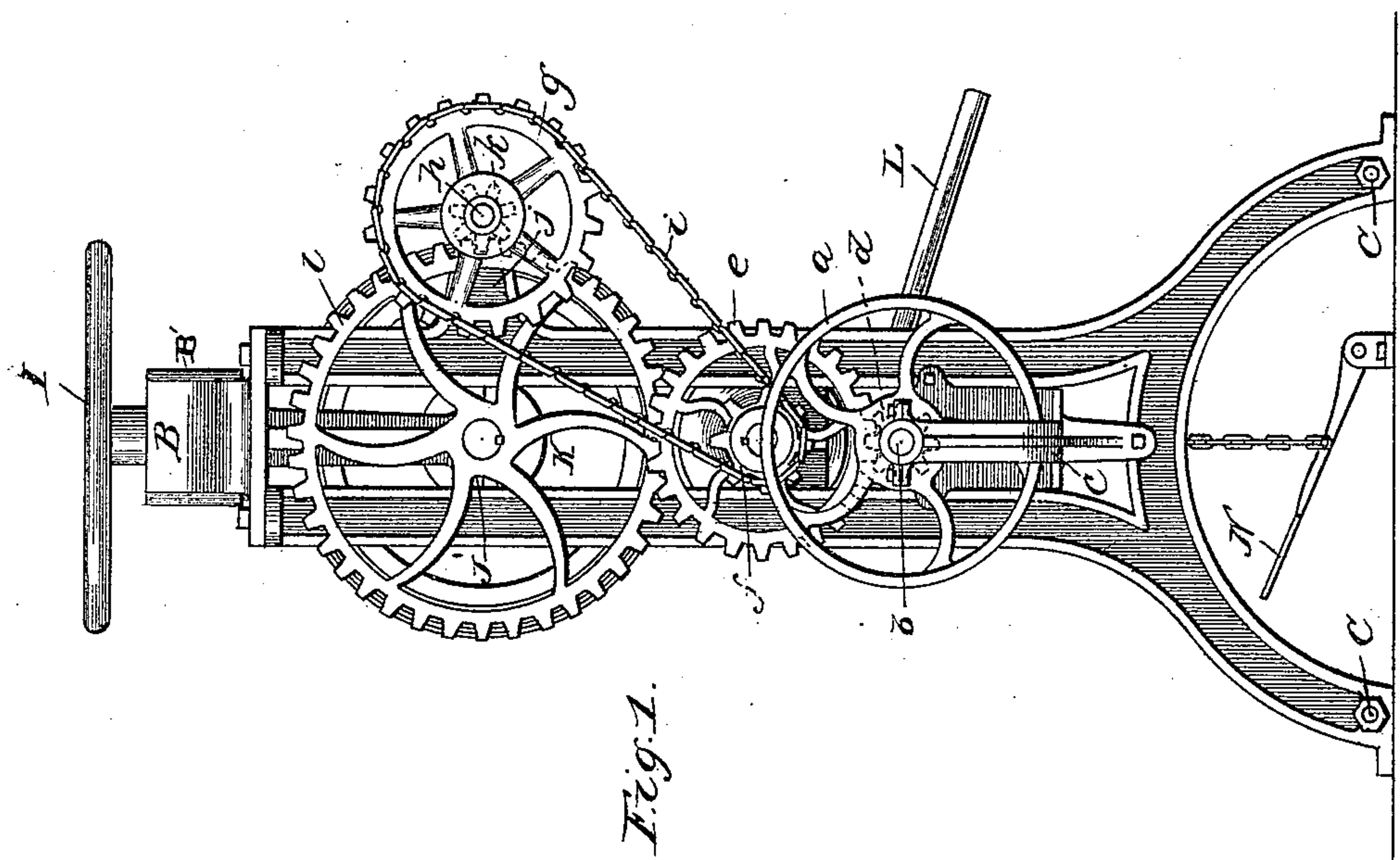
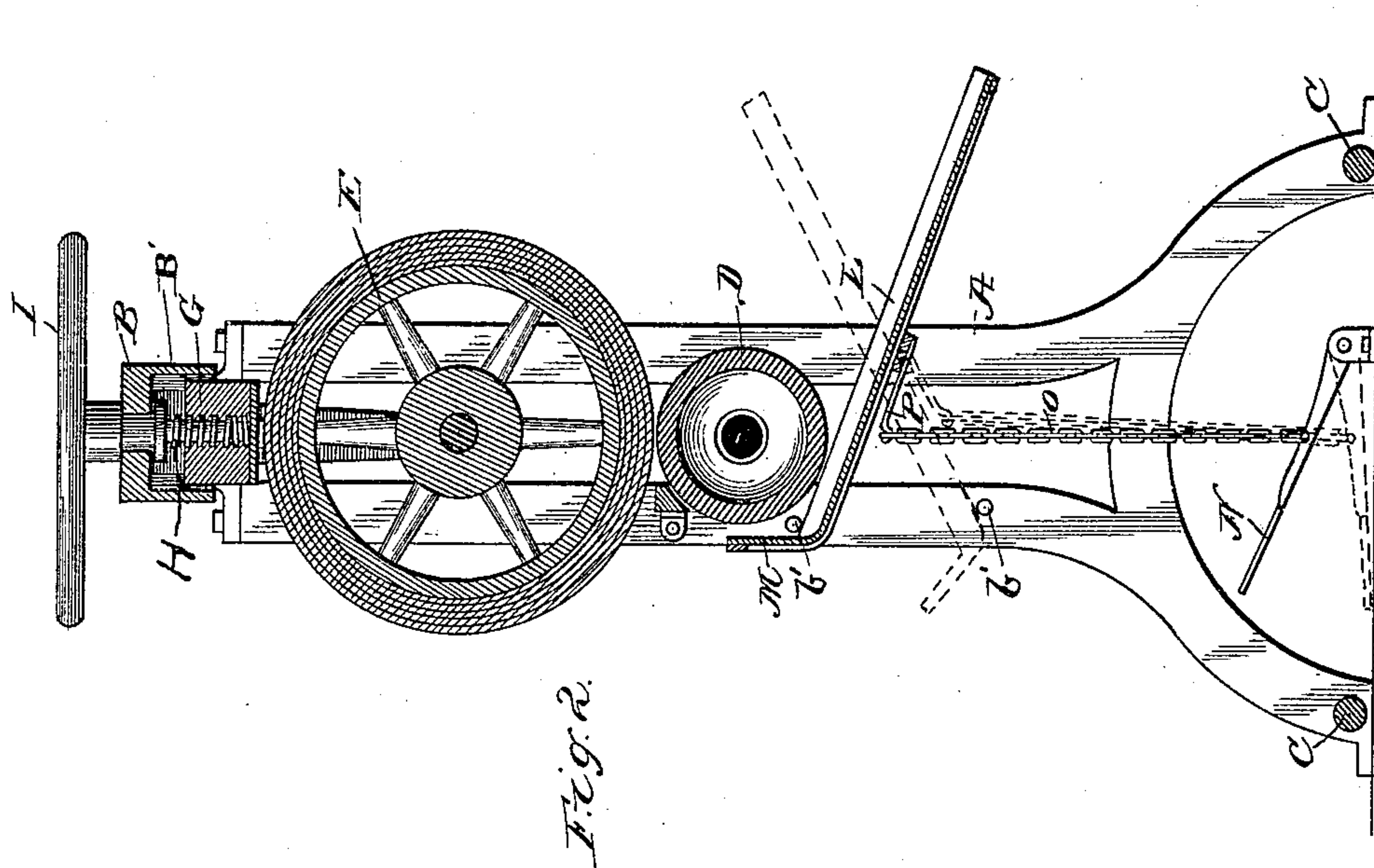
(No Model.)

2 Sheets—Sheet 1.

L. H. WATSON.
IRONING MACHINE.

No. 448,898.

Patented Mar. 24, 1891.



Witnesses.
Wm. Rheem.
H. B. Crookenden

Inventor.
Lewis H. Watson
By Jno. G. Elliott.
att'y.

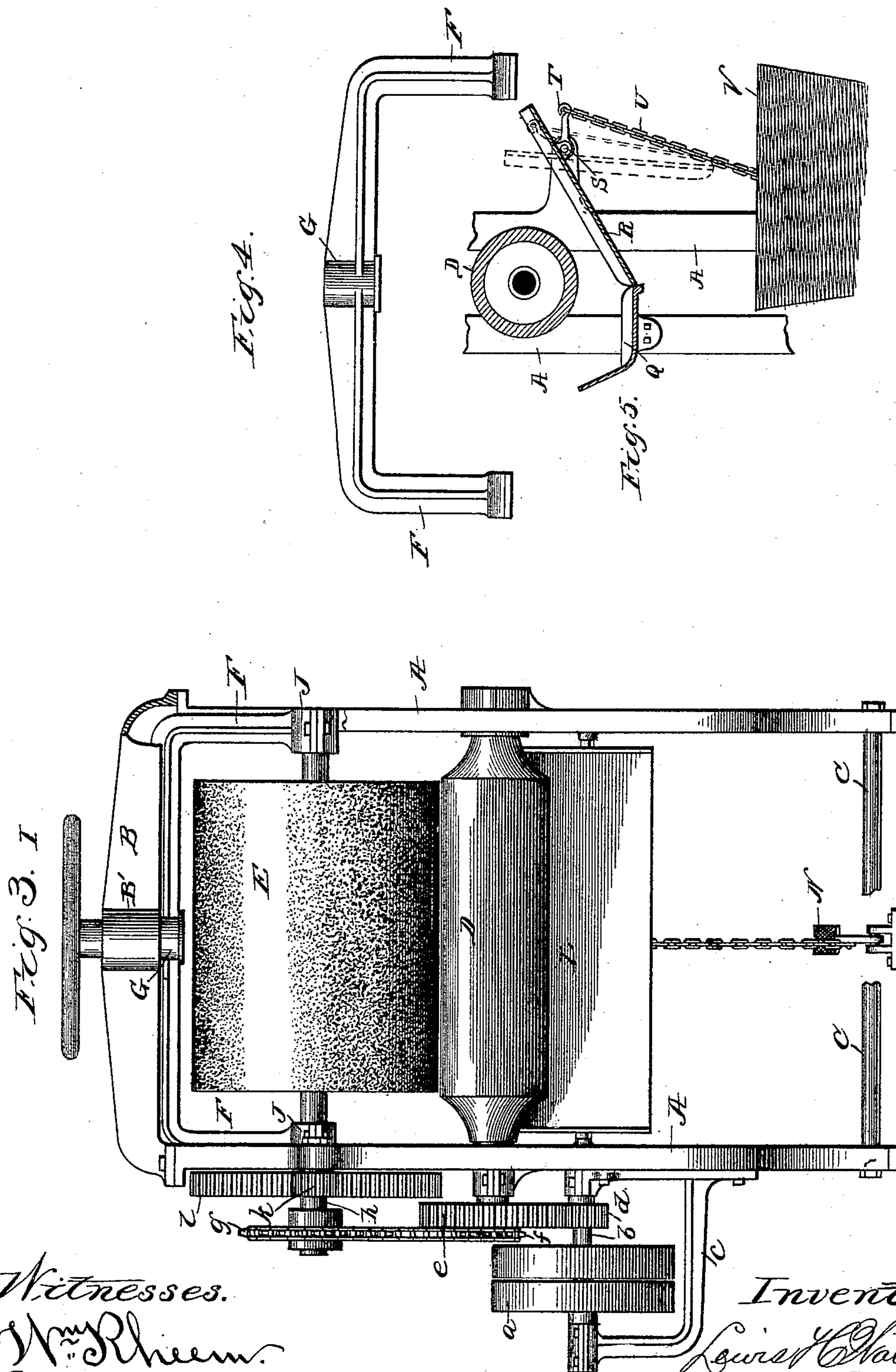
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Wm. R. Rhine.
H. B. Quokhndro

Inventor.
Lewis Watson.
By Geo. G. Elliott
att'y.

UNITED STATES PATENT OFFICE.

LEWIS H. WATSON, OF CHICAGO, ILLINOIS.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 448,898, dated March 24, 1891.

Application filed August 13, 1888. Serial No. 282,550. (No model.)

To all whom it may concern:

Be it known that I, LEWIS H. WATSON, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Ironing-Machines, of which the following is a specification.

This invention relates to improvements in ironing-machines especially designed for ironing collars and cuffs; and it consists in the construction and arrangement of parts, which will be fully described hereinafter.

The object of my invention is to construct an ironing-machine, as hereinafter shown and described, for the purpose of accomplishing the results hereinafter set forth. I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents an end elevation of an ironing-machine embodying my invention; Fig. 2, a central vertical section thereof; Fig. 3, a rear elevation of the machine; Fig. 4, a detail view of the adjustable yoke or equalizer supporting the upper padded roller; Fig. 5, a detail view showing a modified form of tipping chute.

Similar letters of reference indicate the same parts in the several figures of the drawings.

Referring by letter to the accompanying drawings, A indicates the end frames or standards of my machine, and B the cap or cross-bar thereof, preferably composed of cast metal, and bolted to the tops of the frames spanning the space therebetween, the said frames being also connected near the bottom thereof by tie-rods C, or in any other suitable manner. In these frames is journaled upon fixed bearings the usual hollow metallic roller D, to which heat may be applied in any well-known and convenient manner, while above this roller is located the padded roller E, which is made adjustable vertically toward and away from the ironing-roller D by journaling in a movable frame or yoke F, which extends across the machine parallel with the bar B, and is provided at the center of its length with a screw-threaded socket G, with which engages a screw H, working loosely through the bar B and operated by a hand-wheel I, secured to the upper end

thereof above the bar, by means of which the said yoke may be raised and lowered at the will of the operator, whereby any desired amount of pressure may be obtained between the rollers. This yoke or equalizer is guided in its movements by the journal-boxes J thereof, in which the shaft of the roller E is journaled, projecting into elongated slots K, formed in the standards. By the employment of this yoke or equalizer made vertically adjustable by means of the centrally-connected pressure-regulating devices, in which to suspend the yielding roller, not only may the power be varied and readily adjusted at will and at the expense of little strength on the part of the operator, but the pressure of the roller E upon the ironing-roller D will be evenly distributed throughout the length thereof, rendering the machine simple and effective in its operation and capable of equally good work at any part of the roller.

By means of the U-shaped yoke, which is provided with a screw-threaded socket, a most effective and simple means is provided for quickly applying the pressure to any desired degree. The socket G of this yoke moves in a socket B', formed in the top cross-bar of the frame, and which prevents the yoke from having any lateral movement at its upper end, and thus relieves the screw of lateral pressure, which it otherwise would have.

Below the ironing-roller and pivoted between the standards is a chute or slide L, by which the articles are returned to the operator after being passed through the machine, or discharged at the rear of the machine, as may be desired, preferably upturned at the forward end thereof, as shown at M, in order to catch and hold the articles when the front end of the chute is depressed, the operator being located upon and feeding from that side of the machine. This tipping chute, as shown, is pivoted off the center, so that the rear discharge end thereof will normally tip downwardly. The tipping movement of the chute is limited by means of the stops b', which project laterally from the frame A, the tipping, however, being controlled by means of a foot-lever N, pivoted to a projection from either the floor or machine and connected by a chain O or any other desired device with the chute, by

means of which device the operator may depress the front edge of the chute whenever it is desired that the chute shall incline or tip toward the front, and thus return to the operator the articles after they have passed through the machine, as shown by dotted lines in Fig. 2. Thus the articles will be caught thereby and returned to the front of the machine as many times as desired, and when ready to be disposed of it is only necessary to release the foot-lever, when the chute will tip to the rear and discharge the articles into a basket or other suitable receptacle provided for that purpose, and the operator in the meantime may feed a fresh lot of articles to the rollers while the finished ones are being discharged.

In Fig. 5 I show a chute comprising a fixed or stationary portion Q at the front of the machine and a movable hinged or pivoted portion R at the rear of the machine, supported on a cross-shaft S, to which a crank-arm T is attached, and operated by a foot-lever through the medium of the chain U or in any other convenient manner. With this form of chute the articles may be returned to the front of the machine as many times as may be desired, but may be discharged at any time by releasing the foot-lever, when the hinged portion R of the chute will swing down and back to the position shown by the dotted line, and the finished articles will be dropped into the basket V, or some other suitable receptacle provided for that purpose. The power for operating these rollers is applied through the medium of pulleys *a*, mounted upon a shaft *b*, journaled in a suitable bracket *c*, rigidly secured to and projecting from one of the standards, this shaft having mounted thereon a small cog-wheel *d*, with which meshes a larger cog-wheel *e*, mounted upon the journal of the ironing-roller D, upon which journal is also mounted a sprocket-wheel *f*, connected with a larger sprocket-wheel *g*, mounted upon a stud-shaft *h*, by means of a sprocket chain.

This stud-shaft is journaled in an arm or extension *j* of the standards, and has also mounted thereon a small cog-wheel *k*, with which meshes a large cog-wheel *l*, mounted on the shaft of the upper adjustable roller, by means of which gearing both of the rollers are caused to operate in unison, but the ironing-roller at a much higher rate of speed in order to have the polishing effect, as is required in this class of devices.

The location of the stud-shaft in substantially the same horizontal plane as the shaft of the adjustable roller permits a vertical adjustment of said roller sufficient for all the purposes of this machine, without in the least interfering with the transmission of power from said shaft to the roller, the movement at best, however, being but slight and the teeth of the meshing gear-wheels being sufficiently long to permit of such adjustment.

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

1. The combination, with an ironing-machine, of a freely-tipping chute, placed immediately below the lower roll and normally held at an inclination toward the rear of the machine, a foot-lever, and a connection having one end connected to the chute and its opposite end to the lever, whereby a pressure upon the foot-lever will cause the article ironed to be returned to the front of the machine, substantially as specified.

2. The combination, with an ironing-machine, of a freely-tipping chute placed immediately below the lower roll and provided with a vertical portion at one end, the said chute normally held at an inclination, a foot-lever, and connection between the lever and chute for tipping it out of its normal position, substantially as described.

LEWIS H. WATSON.

Witnesses:

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