

(No Model.)

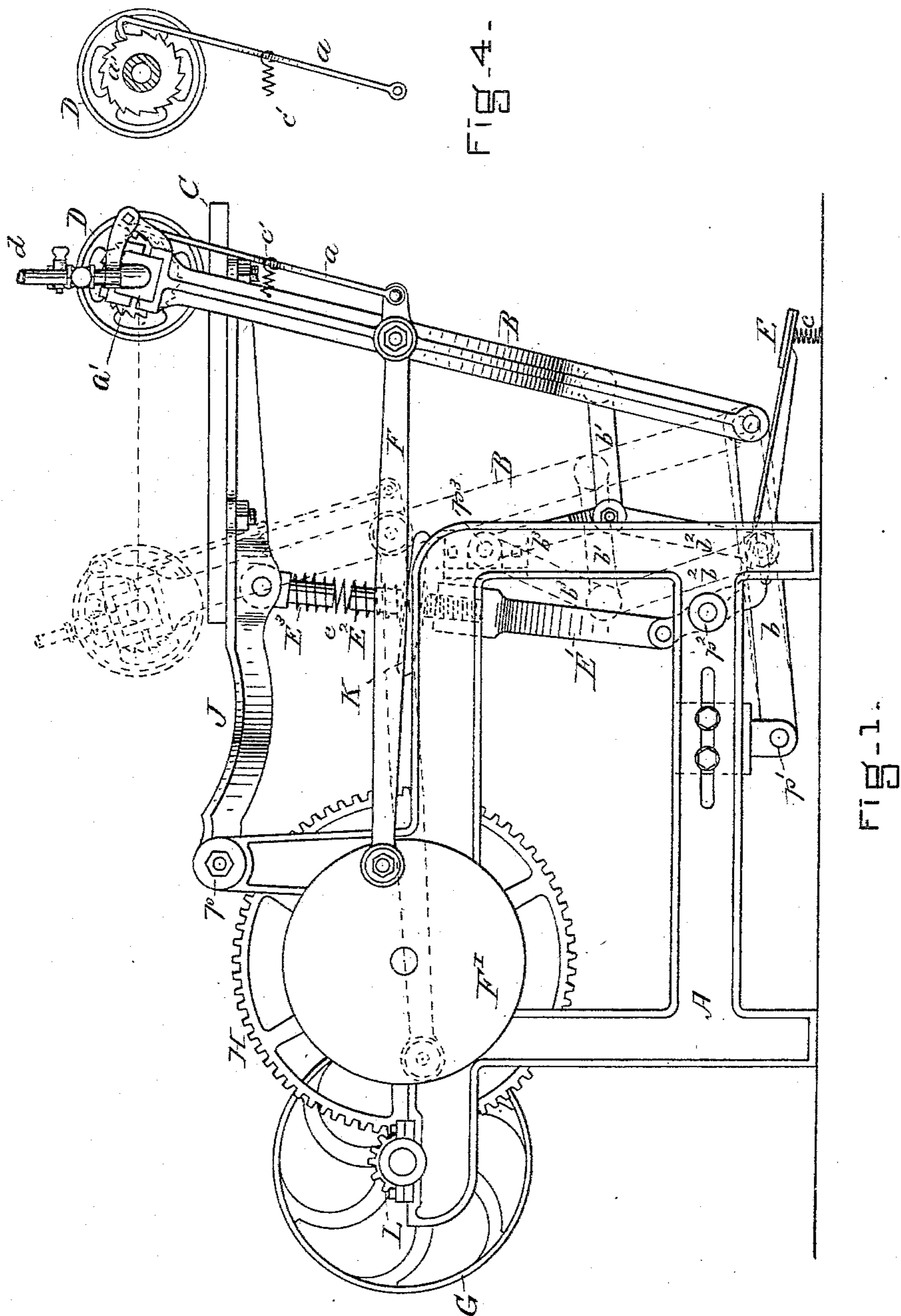
2 Sheets—Sheet 1.

G. L. SHOREY.

IRONING MACHINE.

No. 356,604.

Patented Jan. 25, 1887.



WITNESSES

Frank G. Parker.
Chas. Spaulding

INVENTOR

Geo. L. Shorey
by W. B. A. Downer
his atty

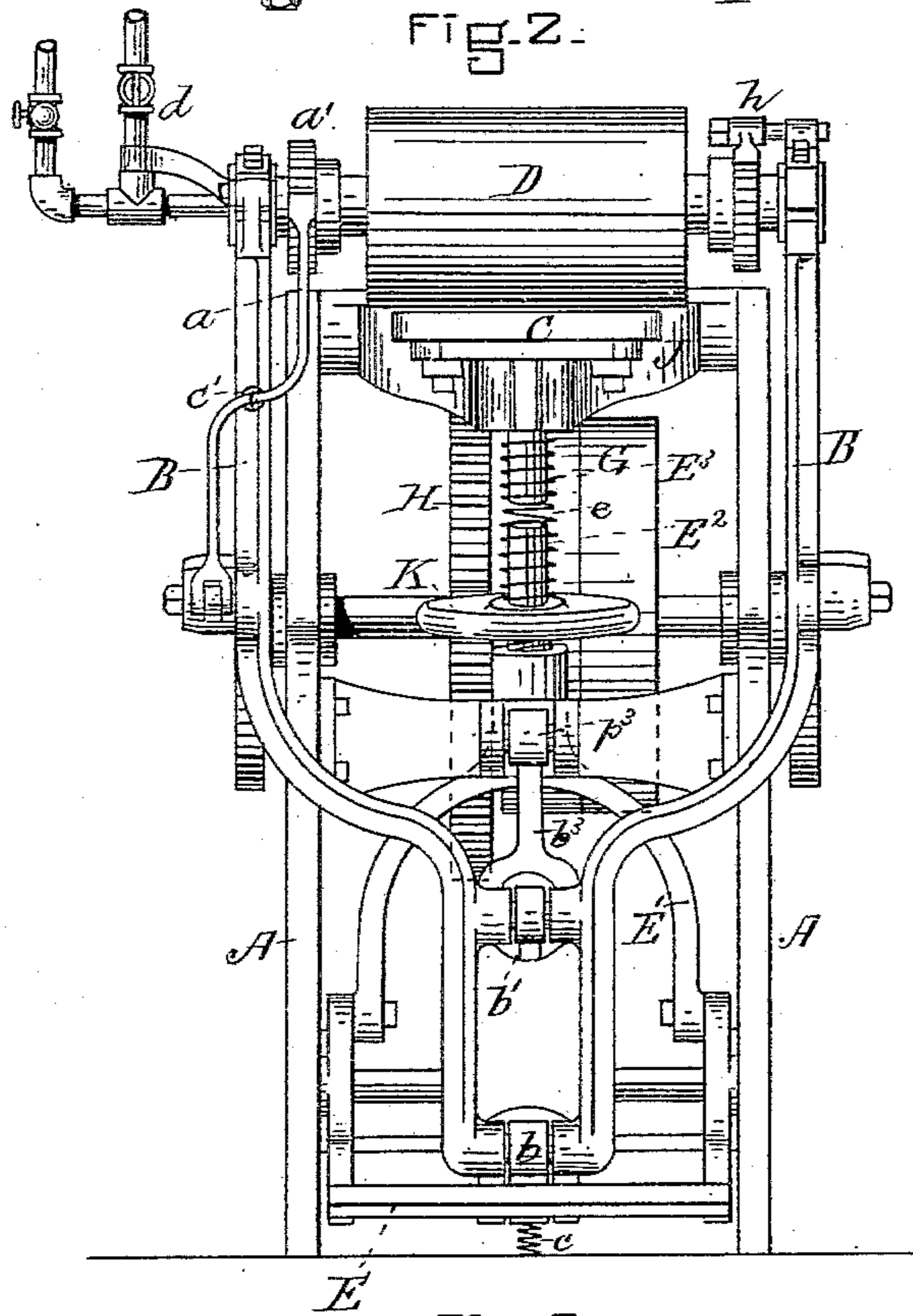
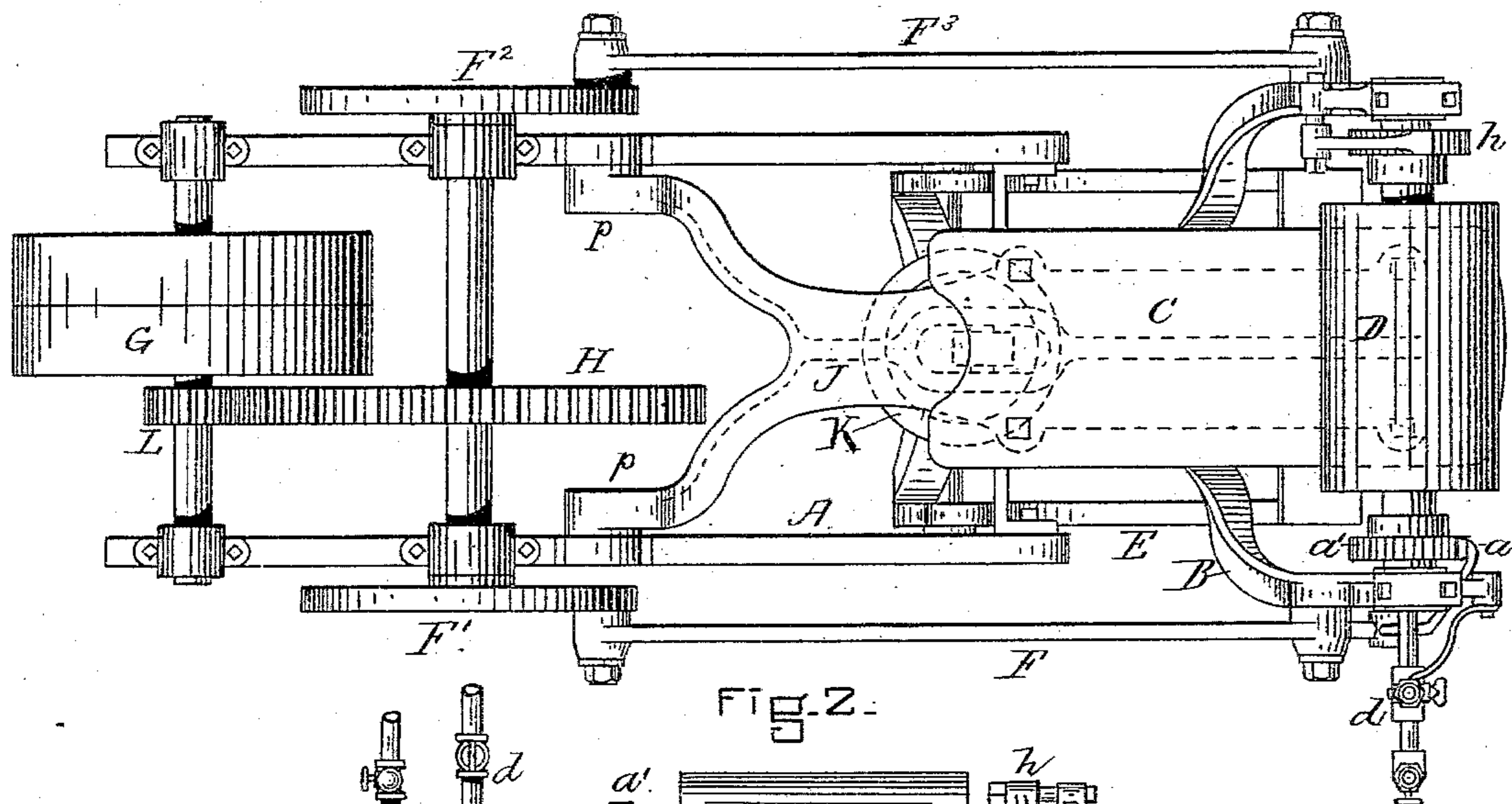
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Frank G. Parker
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INVENTOR

Geo. L. Shorey
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UNITED STATES PATENT OFFICE.

GEORGE L. SHOREY, OF LYNN, MASSACHUSETTS.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 356,604, dated January 25, 1887.

Application filed January 11, 1884. Serial No. 117,095. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. SHOREY, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Ironing-Machines, of which the following is a specification.

My invention relates to improvements in machines adapted to perform all classes of ironing, especially, however, finishing and polishing shirt-bosoms, collars, and cuffs in laundries, where it is necessary to iron great quantities of goods with dispatch and in the best manner; and it consists in an ironing-machine having an ironing and polishing roller, heated by gas or its equivalent, supported and carried in a horizontal plane independently of the ironing-board by a swinging frame, preferably pivoted without the limits of the supporting frame-work, having a parallel motion and operated by a pitman-rod and other mechanism, as will be more fully herein-after explained.

The invention also consists in the arrangement of the ironing-board in relation to the other parts of the machine, and in the arrangement of devices for regulating and controlling the vertical movement of the ironing-board, so as to produce an automatic drop of the table when not in use, and an even pressure of any desired amount, greater or less, of the roller on the table; and it also consists in devices to continue the rotation of the ironing-roller when the ironing-board is lowered, the object of my invention being to produce an ironing-machine which will execute all classes of work efficiently, rapidly, and in an artistic manner.

In the accompanying drawings, Figure 1 is a side elevation of an ironing-machine embodying my improvements. Fig. 2 is a plan view of the same. Fig. 3 is a front elevation of the same. Fig. 4 is a view in detail of a ratchet and pawl to continue the rotation of the ironing-roller when the ironing-board is lowered.

To carry out my invention I provide a suitable frame-work, A, for supporting the operative parts of the machine mounted thereon.

B represents a swinging frame, which carries the polishing or ironing roller D, which is hollow and heated by gas, as shown by the device *d*.

C is the ironing-board, supported by the straddling yoke-frame J, the whole forming a hinged ironing-bed, which I preferably make of two parts, C and J, as shown, for the purpose of adjustment. The same, however, could be formed in one piece, and I therefore designate the ironing-board as C J. The ironing-board C J is pivoted at *p p* and raised by an elbowed foot-lever, E, pivoted at *p*², its straddling yoke E', together with rods E² and E³, provided and connected with a suitable spring, *e*, which is adjusted by the hand-wheel K.

The swinging frame B is actuated by the pitman-rods F F³, connected to the crank-wheels F' F², to which motion is imparted through the shaft upon which they are mounted by the mechanism of the gear and pinion H and L and the driving-pulley G, around which passes a belt transmitting power from the prime mover.

The ironing-roller D is governed in its movement by a pawl and ratchet, *h*, so that the ironing-roller either rolls over the ironing-board or is held in place and acts as a polishing-iron to give a satin finish, as is desired. It is necessary, when the ironing-board is lowered, that the ironing-roller D should continue its rotation to prevent the heat from accumulating at a single point in the periphery of the ironing-roller, as would be the consequence if the ironing-roller stopped. This rotation I effect with ratchet-wheel *a'* and the pawl *a*, which works from the pitman-rod F, preferably near its connection with the upright frame B.

The swinging frame B, actuated by the pitmen F F³, has a reciprocating motion, while the ironing-roller D is maintained in a horizontal plane parallel to the ironing-table, when the latter is elevated for work, by means of the lever *b*, toggle-levers *b*² *b*³, and link *b'*, connected to swinging frame B. The lever or arm *b* is connected to the lower extremity of the frame B by a pin or shaft, and is pivoted at its other end to a fixed point on the frame of the machine at *p'*. The lever or arm *b*³, pivoted at the point *p*³, is connected by the links or toggle-levers *b'* *b*² to the frame B and the arm or lever *b*. All these last-named parts are preferably made with adjustable slots. The reciprocating parallel motion of the ironing-roller D is entirely independent of the ironing-board. *c* is a spring to facilitate the reaction of the

foot-lever E when the foot is removed, that the bed may lower quickly.

The ironing-board C J is of the usual construction, so far as the ironing-bed is concerned.

The operation of the machine is as follows: The ironing-table being properly adjusted so as to obtain the desired pressure from the roller D, if collars and cuffs are to be ironed, the operator steps upon the treadle or foot-lever E, places the collars and cuffs upon the board, where they are ironed in the usual manner of such machines. In the ironing of shirts—for which my machine is especially adapted—the operator first puts the shirt upon the board so that the bosom comes in position for ironing, then places his foot upon the treadle, bringing the board in contact with the roller until the operation is completed. The operator then removes his foot from the treadle, the board drops, and the shirt is removed from it, the hands being carried between the arms of the frame B and the board in order to facilitate removing the shirt, if necessary. The roll D continues its motion all the time during the above operations, even while the operator reaches for a second shirt, which he puts on in the same manner. The board may be hollowed for the reception of the neckband; or the latter may be ironed down flat, redamped, and set up. The body of the shirt takes care of itself, as none of the working parts of the machine requiring oil is near enough to come in contact with it.

The advantage of the machine consists in the facility it offers for rapid work, which is secured by the ease in handling and by the absence of friction in the moving parts, so that the iron can be reciprocated with great rapidity where desired, it being possible to run the frame B at any desired speed.

The spring which I use between the treadle and the board is necessary where the board is hinged.

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

1. In an ironing-machine, an ironing device mounted upon the upper extremity of a frame, which at its lower end swings upon a pivot automatically raised and lowered by links and arms working from fixed points, whereby the ironing device has a reciprocating motion in a fixed horizontal plane, substantially as described.

2. In an ironing-machine, the arm b , pivoted at one end to a fixed point, p' , on the frame of the machine, and connected at the other end to the frame B, carrying an ironing device, and the toggle-joint $b^2 b^3$, working from a fixed point, p^3 , connected to the frame B by the link b' , in combination with pitman-rods F F³, whereby the ironing device has a reciprocating motion in a fixed horizontal plane, substantially as described.

3. In an ironing-machine, an ironing de-

vice mounted upon the upper extremity of a frame, which at the lower end swings upon a pivot which is automatically raised and lowered by links and arms working from fixed points, in combination with a yielding hinged ironing-board, substantially as described.

4. In an ironing-machine, an ironing-board, C J, pivoted to the frame-work of the machine, provided with a foot-lever, E, having a spring, e , interposed between the lever and the board, in combination with the frame B, provided with an ironing device, and operated so as to have a reciprocating motion in a fixed horizontal plane by means of the arm b , pivoted at one end to a fixed point, p' , on the frame of the machine, and connected at the other end to the frame B, the toggle-levers $b^2 b^3$, working from a fixed point, p^3 , and connected to the frame B by the link b' , and the pitman-rods F F³, substantially as described.

5. An ironing-roller mounted in a swinging frame and having a reciprocating motion in a fixed horizontal plane, in combination with a ratchet, pawl, and spring, and pitman-rods, the said pawl being pivoted at the projecting end of one of said pitman-rods, whereby the said ironing-roller has an intermittent rotary motion independent of the ironing-board when not in contact therewith, substantially as described.

6. In an ironing-machine, the vertical frame B, pivoted to its lower extremity on movable arms working from fixed points p' and p^3 , actuated by the pitman-rods F F³, and provided with an ironing-roller, in combination with the ironing-board J C, provided with the lever E, its connection E' E² E³, and the spring e , all arranged and operated substantially as hereinbefore described.

7. In an ironing-machine, the ironing-board C J, the foot-lever E, the arm E', rods E² E³, and spring e , in combination with the vertical frame B, the pitman-rods F F³, the arms and links $b b^2 b^3$, the cylinder D and its shaft, provided with the ratchet and pawl h , and the ratchet a' , pawl a , and spring c' , all arranged and operated substantially as described.

8. In an ironing-machine, an ironing device adapted to move in a fixed horizontal plane by being mounted upon the upper extremity of a frame, which at the lower end swings upon a pivot which is automatically raised and lowered by links and arms working from fixed points, in combination with a yielding ironing-board having a support independent of said frame, and provided with springs, whereby the ironing-board imparts a pressure upon the ironing device, substantially as described.

In witness whereof I have hereunto set my hand.

GEO. L. SHOREY.

Witnesses:

WM. B. H. DOWSE,

WM. T. GILBERT.