(No Model.)

A. R. SELDEN.

IRONING MACHINE.

No. 577,401. Patented Feb. 16, 1897.

Fig. 1.

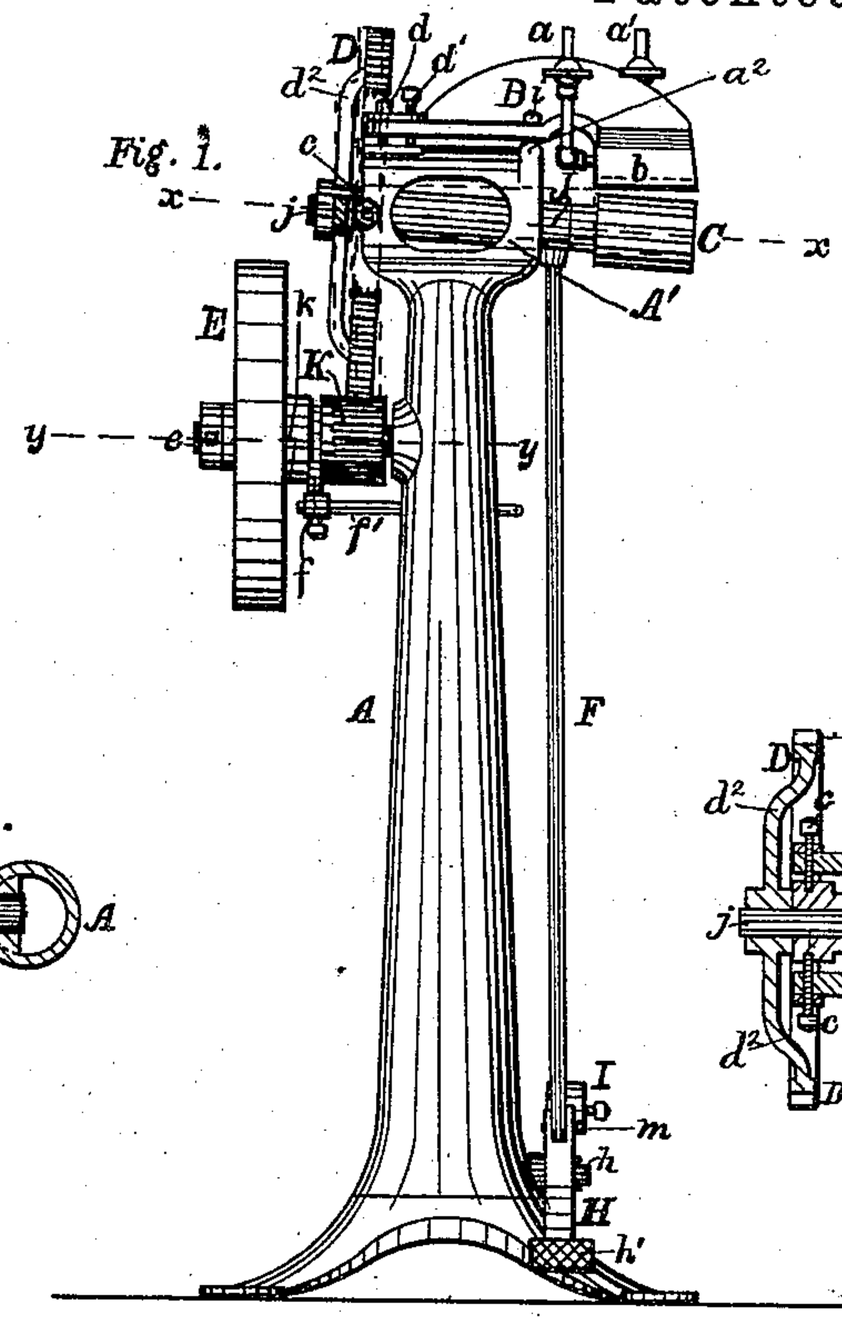


Fig. 4.

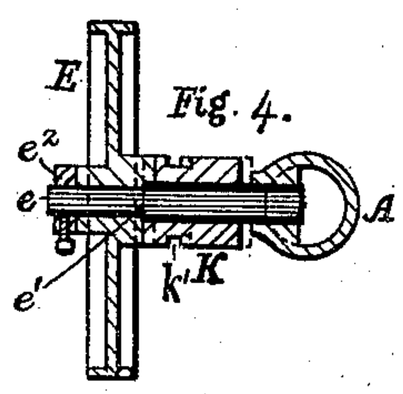


Fig. 5.

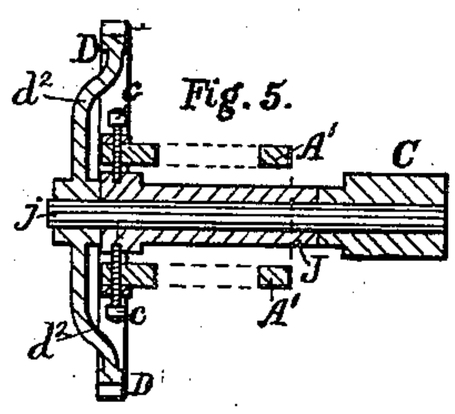


Fig. 2.

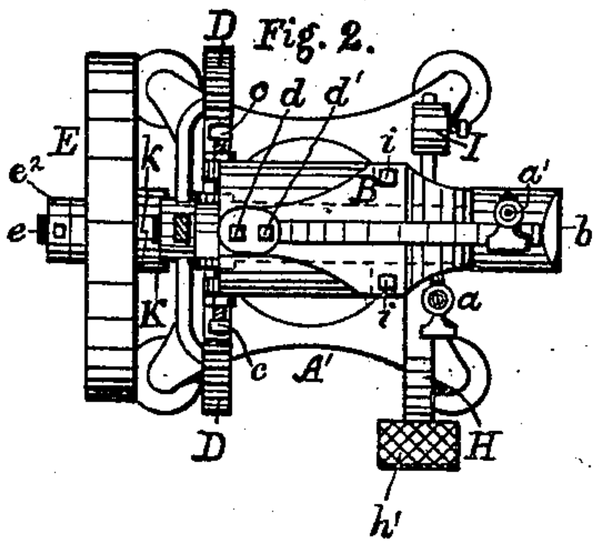
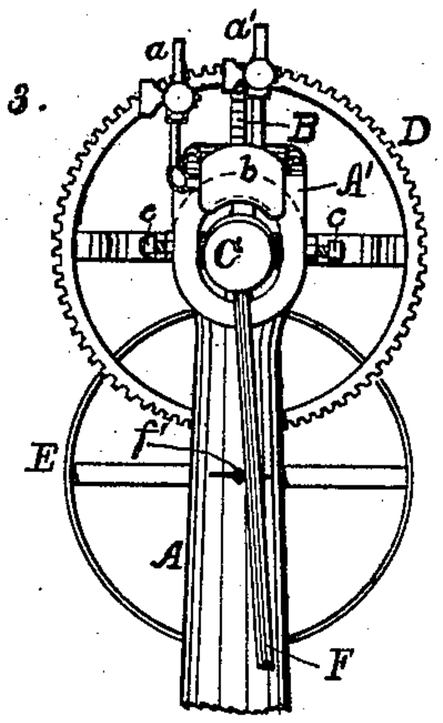


Fig. 3.



WITNESSES—
S. P. Moore
G. W. Rich.

INVENTOR—
Arthur R. Selden
by Howard L. Osgood
his Atty.

UNITED STATES PATENT OFFICE.

ARTHUR R. SELDEN, OF ROCHESTER, NEW YORK.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 577,401, dated February 16, 1897.

Application filed September 11, 1894. Serial No. 522,768. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR R. SELDEN, a citizen of the United States, and a resident of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Ironing-Machine, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of one of my machines. Fig. 2 is a top plan view thereof. Fig. 3 is an end elevation thereof, the foot of the standard and the connected parts being removed. Fig. 4 is a horizontal section on the line *y y* of Fig. 1. Fig. 5 is a horizontal section on the line *x x* of Fig. 1.

A part of the gear-wheel D is shown broken away in Figs. 1 and 2 in order to exhibit the construction of other parts.

The object of my invention is to produce an ironing-machine formed of few parts, strong and durable in construction, cheap and easy to manufacture, set up, adjust, and operate; and my invention consists in the combination of parts hereinafter described and claimed.

In the drawings, A represents the standard of the machine, which is of any suitable form, on the upper part of which is a suitable hollow frame A′, upon the top of which is fastened the arm B, which overhangs the frame A′ on one side, as shown. I prefer to make this arm in the arched form shown in Fig. 1. It is fastened to the frame A′ by the bolts *i i* at the front and by the bolt *d* at the rear, all of which pass loosely through holes or slots in the arm B and screw into said frame A′. A set-screw *d′* passes through a tapped hole in the rear end of the arm B and rests against the frame A′, and by adjusting the bolt *d* and the set-screw *d′* the angle of the arm B may be varied within suitable limits, since the arm B can rock slightly on the transverse rib a^2 on the frame A′ as a fulcrum, and thus the face of the iron *b* can be adjusted exactly with reference to the face of the roller C by the operator and without requiring the services of a machinist. Upon the overhanging end of the arm B is fixed the iron *b*, the lower surface of which is smooth and concave, with rounded side edges, as shown in Fig. 3. The iron *b* is hollow, and into the interior thereof pass the gas-inlet *a* and the air-inlet *a′*. The burner for heating the iron *b* is of any usual or suitable form.

Within the hollow frame A′ and in a substantially horizontal plane is fixed the hollow roller-shaft bearing J. It is horizontally pivoted at its rear end to the frame A′ by means of the screws *c c*, which screws are in line with each other and substantially in a horizontal plane.

It is obvious that trunnions or other pivoting devices may be used instead of the screws *c c*, whereby the pivots permit the shaft to oscillate in a substantially vertical plane. Through the axis of the roller-shaft bearing J passes the roller-shaft *j*. On the end of the shaft next to the iron *b* and directly under it is rigidly fixed the roller C, which is usually padded with flannel or other material.

Of course these horizontal and vertical planes are not essential, but are only relative to each other, as the roller may move to and from the iron in a plane inclined with reference to a horizontal plane, and this specification is to be thus construed wherever horizontal and vertical planes are mentioned in this connection.

On the opposite end of the roller-shaft *j*, just outside the rear end of the frame A′, is rigidly fixed a large gear-wheel D, and by revolving this large gear-wheel the shaft *j* will revolve in its bearing J and will cause revolution of the roller C. The wheel D is dished or has bent spokes d^2, so that its hub may be outside the frame A′, while the toothed periphery may be in the same plane as the pivots *c c*, the purpose of this arrangement being to have the minimum movement of the periphery when the wheel oscillates about the pivots.

To the stand A, at a suitable point beneath the gear-wheel D, there is fixed a horizontal stationary stud *e*. (See Fig. 4.) Upon this stud is a loose pulley E, held thereon by a collar e^2. The pulley E abuts against a shoulder *e′* upon the stud *e*, so that the pulley cannot move longitudinally upon the stud. On the same stud *e* is a loose pinion K, which is capable of longitudinal motion upon the stud *e*, as shown in dotted and solid lines in Fig. 4. The pinion K and the hub of the pulley E are provided with clutch-teeth *k* on their

adjacent faces, so that when the pulley is revolved the pinion will also revolve, if the clutch-teeth are in mesh. A groove k' is cut around the pinion K, in which rests a yoke f, attached to a rod or handle f', sliding in bearings in the standard, by means of which the pinion K may be shifted in and out of mesh with the pulley E. The gear-teeth of the pinion K are arranged to mesh with the teeth of the wheel D and are longer longitudinally than the teeth of said wheel.

To the roller-shaft bearing J is fastened a rod F, which extends downward to a treadle H, pivoted to the foot of the standard A. The pivot h of the treadle H is between the foot-piece h' and the connection m with the rod F, and at the end of the treadle opposite to the foot-piece h' is fixed the counterweight I. On depressing the foot-piece h' the counterweight I is raised, the rod F lifts the roller-shaft bearing J, which oscillates about the pivots c c, lifts the roller C into contact with the iron b, and causes the gear-wheel D to oscillate about the pivots c c, thereby causing its teeth to move longitudinally in the teeth of the pinion K, and as long as the clutch-teeth of the pinion are in mesh with the clutch-teeth of the pulley E the wheel D and the roller C will continue their revolutions, but the motion of the teeth of the gear-wheel D longitudinally in the teeth of the pinion K, when the roller C is moved to and from the iron b, in no way interferes with the continued revolution of the parts. In other words, the roller C revolves constantly and the machine is not stopped in the intervals when the operator is removing or inserting the work; but if the operator should be called away from the machine, or if for any other reason it is desired to reduce the wear consequent upon continuous running of the machine, the pinion K may be shifted out of mesh with the pulley E, and the wheel, pinion, and roller will stop their revolutions, while at the same time the teeth of the gear-wheel D remain in mesh with the teeth of the pinion K.

When the roller C is dropped away from the iron b, the article to be ironed is inserted between the roller and the iron. Then the foot-piece h' is depressed, which raises the roller C and presses the article against the smooth hot surface of the iron b. As the roller revolves, the article is smoothed by friction against the surface of the iron.

This machine is composed of few parts, all of which are easy and cheap to produce. It is strong and durable and is easy to set up and adjust and operate.

What I claim is—

In an ironing-machine, a supporting-frame, an adjustable arm B resting on said frame and having a fulcrum against the same between its ends, an iron b upon one end of said arm, adjusting-screws d d' for setting the other end of said arm, a roller-shaft bearing J pivoted between its ends to said supporting-frame to oscillate in a substantially vertical plane, a roller-shaft j set in said bearing, a roller C on one end of said roller-shaft, a gear-wheel D fixed on the other end of said roller-shaft, a stud e fixed to said supporting-frame, an elongated pinion K revoluble upon said stud e and meshing with said gear-wheel D and capable of longitudinal movement upon said stud, a driving-pulley E revoluble on said stud e and incapable of longitudinal movement thereon, corresponding clutch-teeth upon said pulley E and said pinion K, a rod f' movable in bearings in said supporting-frame and having a yoke f engaging in a groove k' around the pinion K, whereby the roller C is movable to and from the iron b and the gear-wheel D remains at all times in mesh with the pinion K when the latter is in or out of operative connection with the driving-pulley E, and a treadle mechanism H and treadle-rod F for moving said roller C toward said iron b.

ARTHUR R. SELDEN.

Witnesses:
JAMES P. HENRY,
H. L. OSGOOD.