

J. C. MACKEY & G. M. MUNGER.
IRONING-MACHINE.

No. 177,341.

Patented May 16, 1876.

Fig. 1

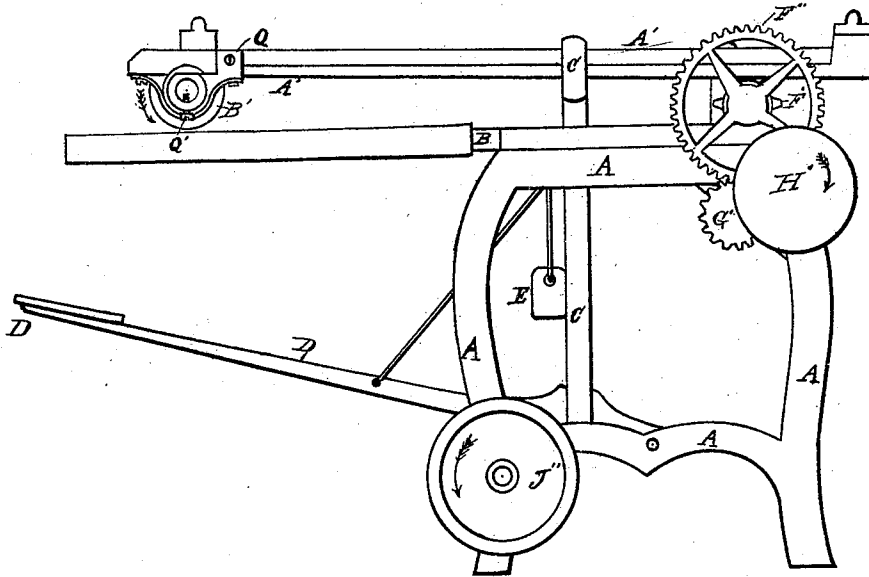
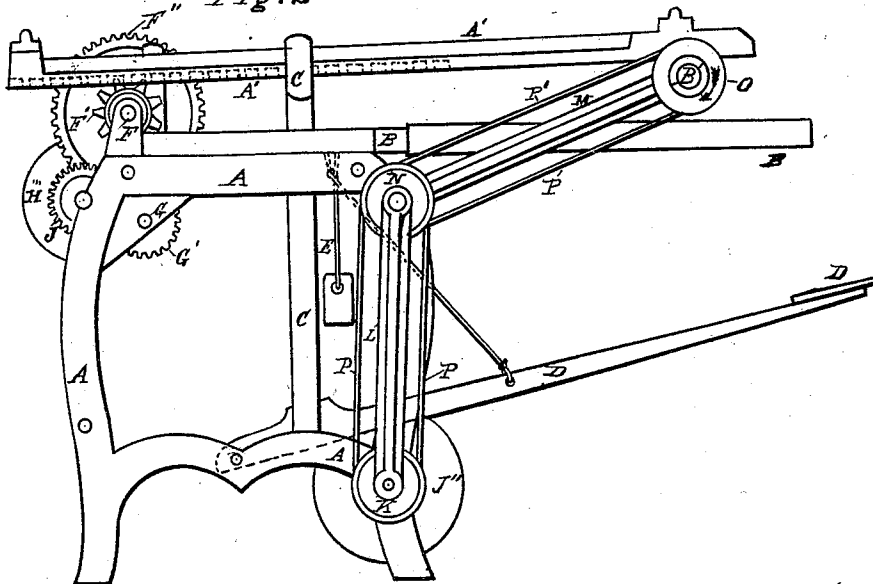


Fig. 2



WITNESSES.

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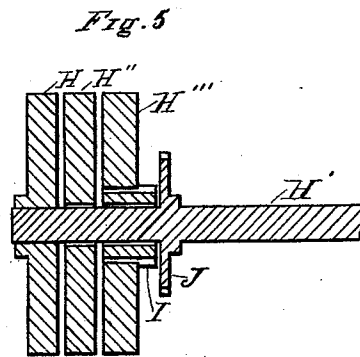
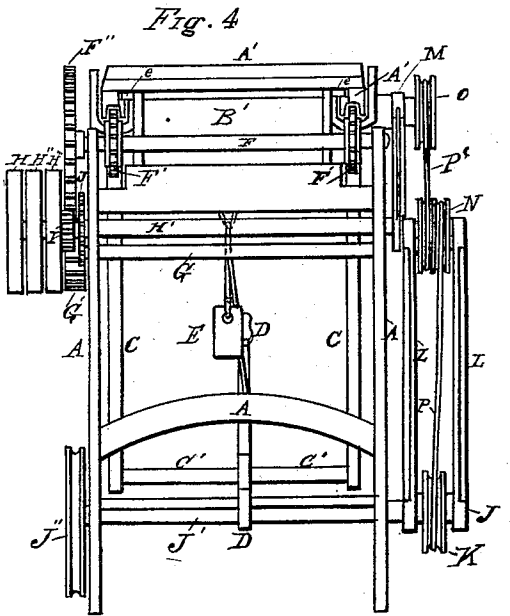
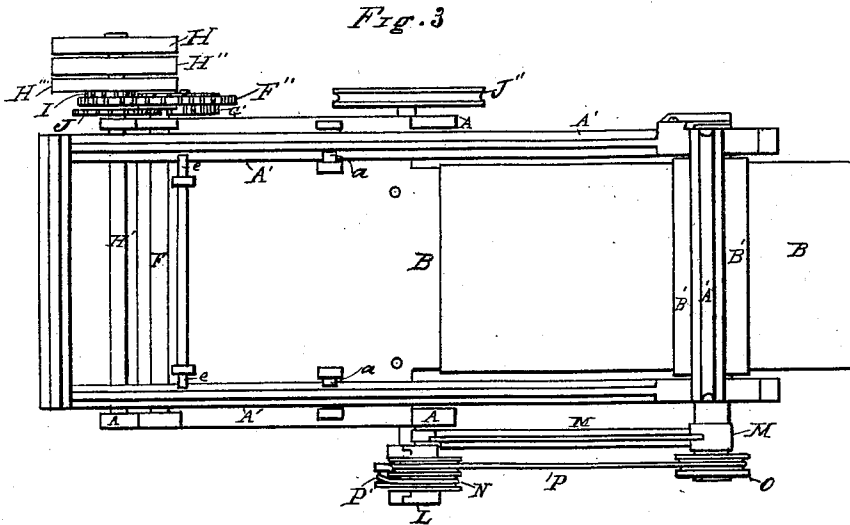
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UNITED STATES PATENT OFFICE.

JOHN C. MACKEY AND GEORGE M. MUNGER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN IRONING-MACHINES.

Specification forming part of Letters Patent No. **177,341**, dated May 16, 1876; application filed September 20, 1875.

To all whom it may concern:

Be it known that we, JOHN C. MACKEY and GEORGE M. MUNGER, both of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Ironing-Machines, of which improvement the following is a full, clear, and exact description, which will enable others skilled in the art to which our invention appertains to make and use the said improvement, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a side-elevation of one side of an ironing-machine embodying our invention; Fig. 2, a side-elevation of the opposite side thereof; Fig. 3, a top or plan view of the said machine; Fig. 4, a rear view thereof; and Fig. 5 a vertical central section through one end of the driving-shaft and the parts mounted thereon.

Like letters of reference indicate like parts.

Our object is to make a machine whereby the operation of ironing various goods may be performed with facility; and to that end our invention consists in the several novel features relating to the construction of various parts of the machine, substantially as hereinafter described, and particularly set forth.

In the drawing, A represents the frame of the machine, and B an extension thereof, constituting the ironing-board. A' is a sliding frame, in the forward end of which is mounted the hollow ironing-roller B'. The frame A' rests freely in the vertically-adjustable bearings C C, connected at their lower ends with a connecting-rod, C'. D is a treadle, pivoted at its rear end, and extending to, or nearly to, a point below the forward end of the board B, as shown. The connecting-rod C' passes freely through the treadle D at a point a little forward of the rear end of the latter. This treadle is counterbalanced or weighted, as shown at E. *a a* are friction wheels or rollers on the bearings C C, and are arranged to ride on the upper faces or sides of the longitudinal bars of the frame A', or on ribs or rails extending laterally therefrom. F is a shaft, extending across the rear end of the machine, and F' F' are pinions on the said shaft. The frame A' also rests upon these pinions, the under side of the rails resting thereon being provided

with racks to operate in connection with the said pinions, as represented by broken lines in Fig. 2. *ee* are lugs to hold this frame to its engagement with the said pinions. F'' is a wheel on the shaft F. G is a shaft also arranged across the rear end of the machine; and G' is a pinion thereon. H is a driving-wheel, rigidly attached to the shaft H'. H'' is a loose wheel on the said shaft; and H''' is also a wheel loosely mounted on the said shaft, and carrying the spur-wheel or pinion I. J is a spur-wheel, attached rigidly to the shaft H' and arranged for engagement with the wheel G'. The wheel or pinion I is arranged for engagement with the wheel F''. The wheel G' also engages the wheel F''. J' is a shaft, on which the belt-wheel J'' is mounted. K is a pulley also mounted on said shaft. L is an arm, through which the shaft J' passes freely; and M is an arm freely mounted at its forward end on the hub of the ironing-roller. The arms M and L are jointed to each other, as shown, and N is a pulley, mounted on the pin, by means of which the arms M and L are jointed to each other. O is a pulley, rigidly attached to the hub of the ironing-roller. P is a belt or chain, arranged over the pulleys N and K. P' is also a belt or chain arranged over the pulleys N and O. Q is a lug attached to the forward part of one arm or end of the frame A'; and Q is a set-screw, entering the said lug, as shown.

In using the machine it is to be understood that a driving-belt is arranged over the wheel J'', and also over the wheel H. The rotation of the wheel J'' causes the ironing-roller to be rapidly rotated, and at the same time, by depressing the treadle, the roller may be held with greater or less force or pressure upon the goods being ironed, and which are arranged for that purpose upon the extension B. The rotation of the wheel H in the direction indicated by the arrow, there shown, carries the roller-frame A' rearward, thus drawing the roller over the clothes in one direction during the rotation of the roller, caused in the manner before mentioned. In order to carry the roller forward over the clothes it is only necessary to shift the belt from the wheel H to the wheel H'''. In order to allow the roller-frame to remain at rest, the belt should be

shifted to the wheel H". By this means the ironing-roller is moved backward and forward during its rotation without changing the direction of motion of the driving-belt, it being only necessary to shift the belt in the manner described. The jointed arms L L and M admit of the continued rotation of the ironing-roller in the direction indicated by the arrow, while the roller is thus being moved back and forth, and the pressure exerted upon the goods may also be controlled by means of a treadle, without interfering either with the rotary or the backward and forward movement of the ironing-roller. By counterbalancing the treadle, in the manner described, the ironing-roller will be lifted slightly above the goods when the treadle is released.

The ironing-roller, in the example shown, is hollow, in order that it may be kept continually heated, with convenience, by means of a perforated gas tube or pipe passing through the center of the roller, the gas being supplied to this tube by means of a flexible tube connected thereto and to a gas-supply pipe. This flexible tube is supported by the lug Q, through which it passes, and it is held firmly in place by means of the set-screw Q'.

Any plain goods, whether starched or not, may be nicely and quickly ironed, without injury to them, by means of the machine now described. The machine is simple in its construction and operation, is easily managed, and performs an amount of work heretofore requiring several operatives.

The extension B, which constitutes the ironing board or table, by projecting from the frame or main part of the machine in the manner shown and described, is capable of receiving shirts and similar garments in such a manner that only one thickness or part of the garment may be presented to the ironing-iron at the same time. For example, in ironing a shirt it may be drawn upon the extension in such a manner that the bosom will lie on the top of the board, while the back will be under-

neath the table, and when the front of the shirt is ironed the back may be turned so as to be presented to the iron without removing the garment from the board.

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

1. In an ironing-machine, the horizontally-projecting table B, adapted for insertion between the parts of the garment, in combination with a reciprocating frame or carrier carrying an ironing-iron, substantially as and for the purposes specified.

2. The combination of the reciprocating frame, provided with an ironing-roller and with racks, the shaft F, carrying the pinions F' F' and spur-wheel F'', the shaft G, carrying pinion G', and driving-wheel H, loose wheel H'', loose wheel H''', the pinion I, and spur-wheel J, all arranged substantially as described for operation together, for the purposes set forth.

3. The combination of the reciprocating and rotary ironer, shaft J', carrying belt-wheel J'' and pulley K, loose arm I, loose arm M jointed to the arm L, pulleys K, N, and O, and belts P and P', all substantially as and for the purposes specified.

4. The combination of the reciprocating frame A', bearings C C, and treadle D, all arranged and operating together substantially as and for the purposes set forth, in connection with an ironing-machine.

5. The reciprocating frame A', provided with the annular lug Q and pin Q', in combination with the hollow roller B', arranged substantially as described, with relation to the said lug, for the purposes set forth.

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