Jan. 2, 1923. 1,440,855

R. V. WELLER.
IRONING MACHINE.
FILED MAY 6, 1919.

2 SHEETS-SHEET 1

Fig. 2

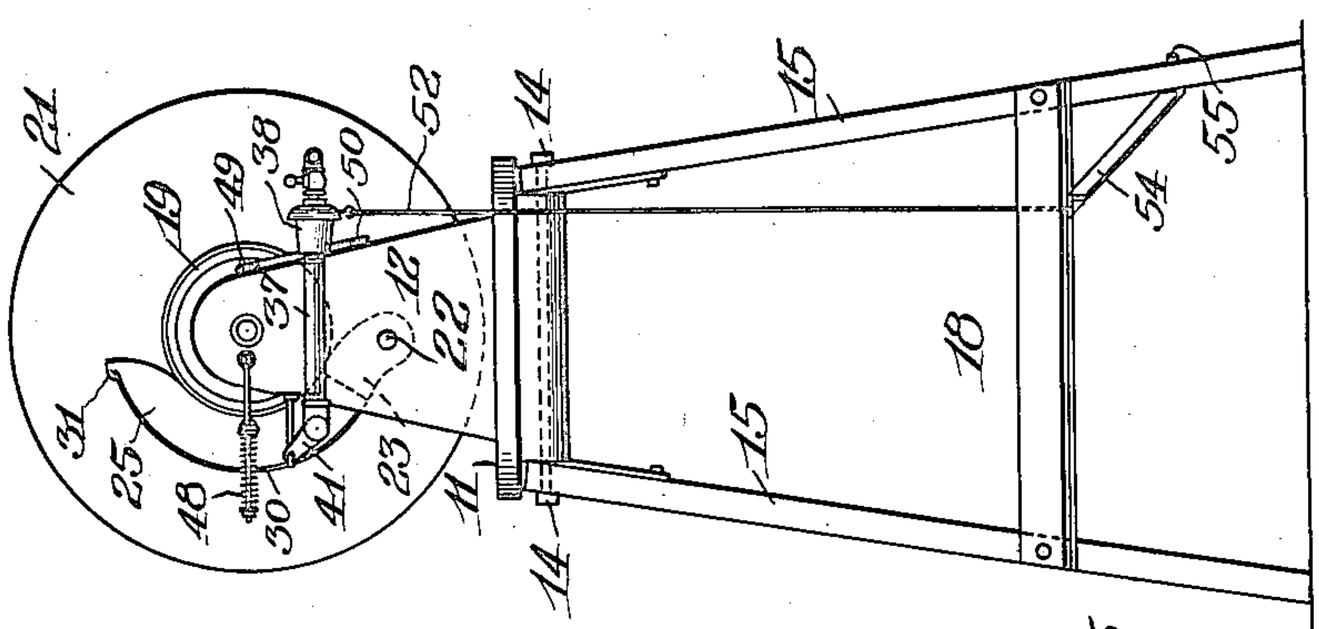
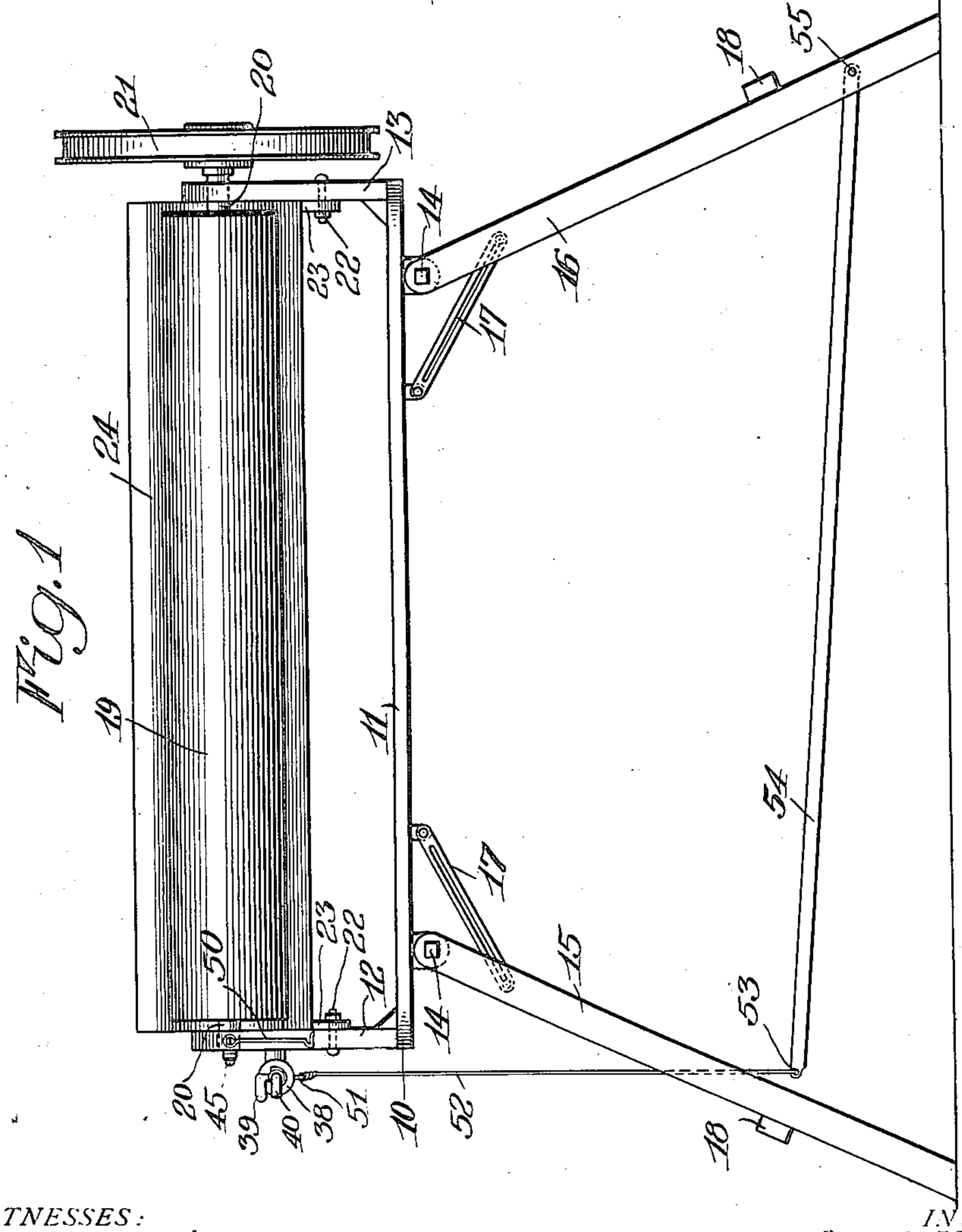


Fig. 1



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2 SHEETS-SHEET 2

Fig. 3

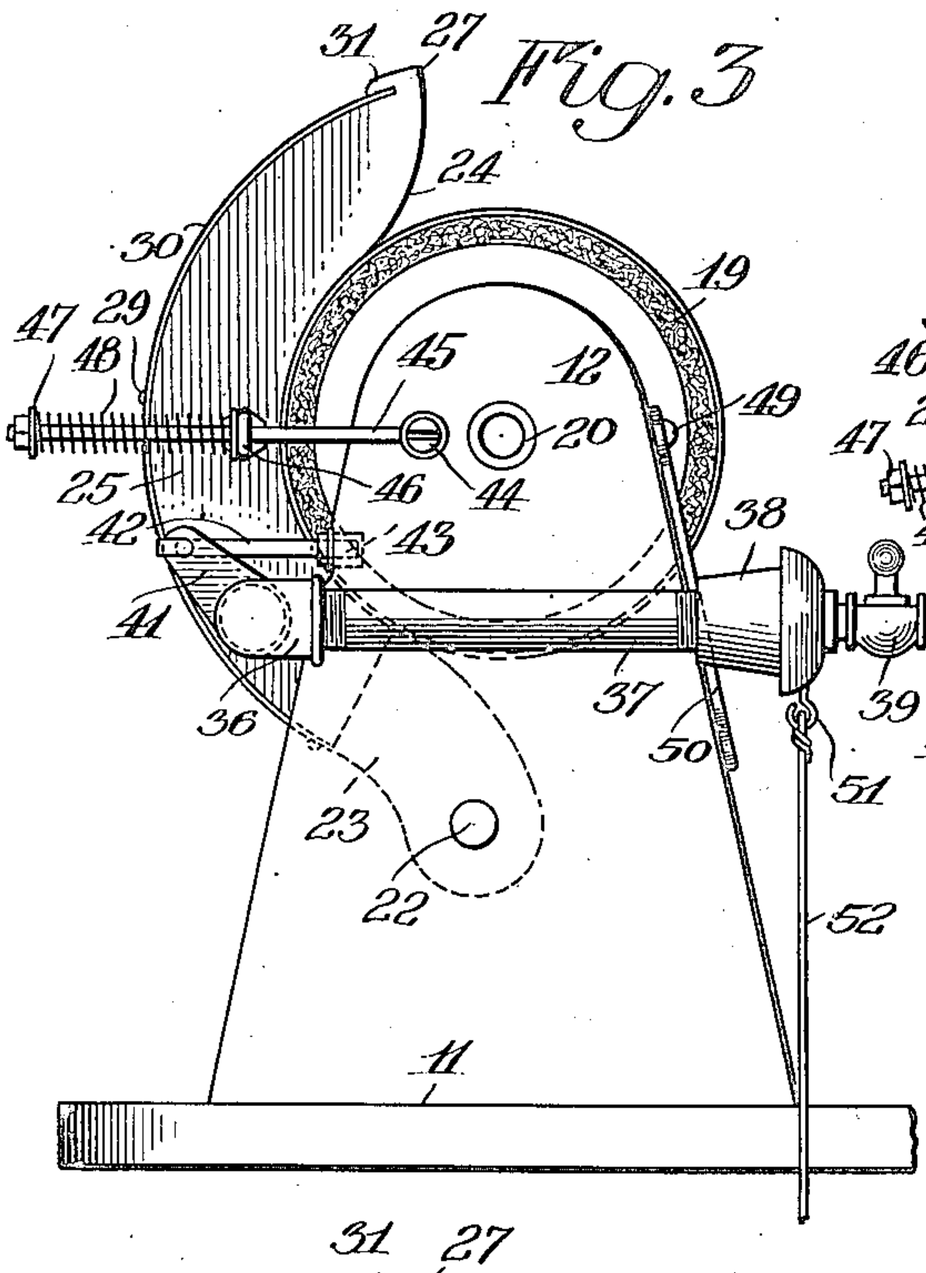


Fig. 4

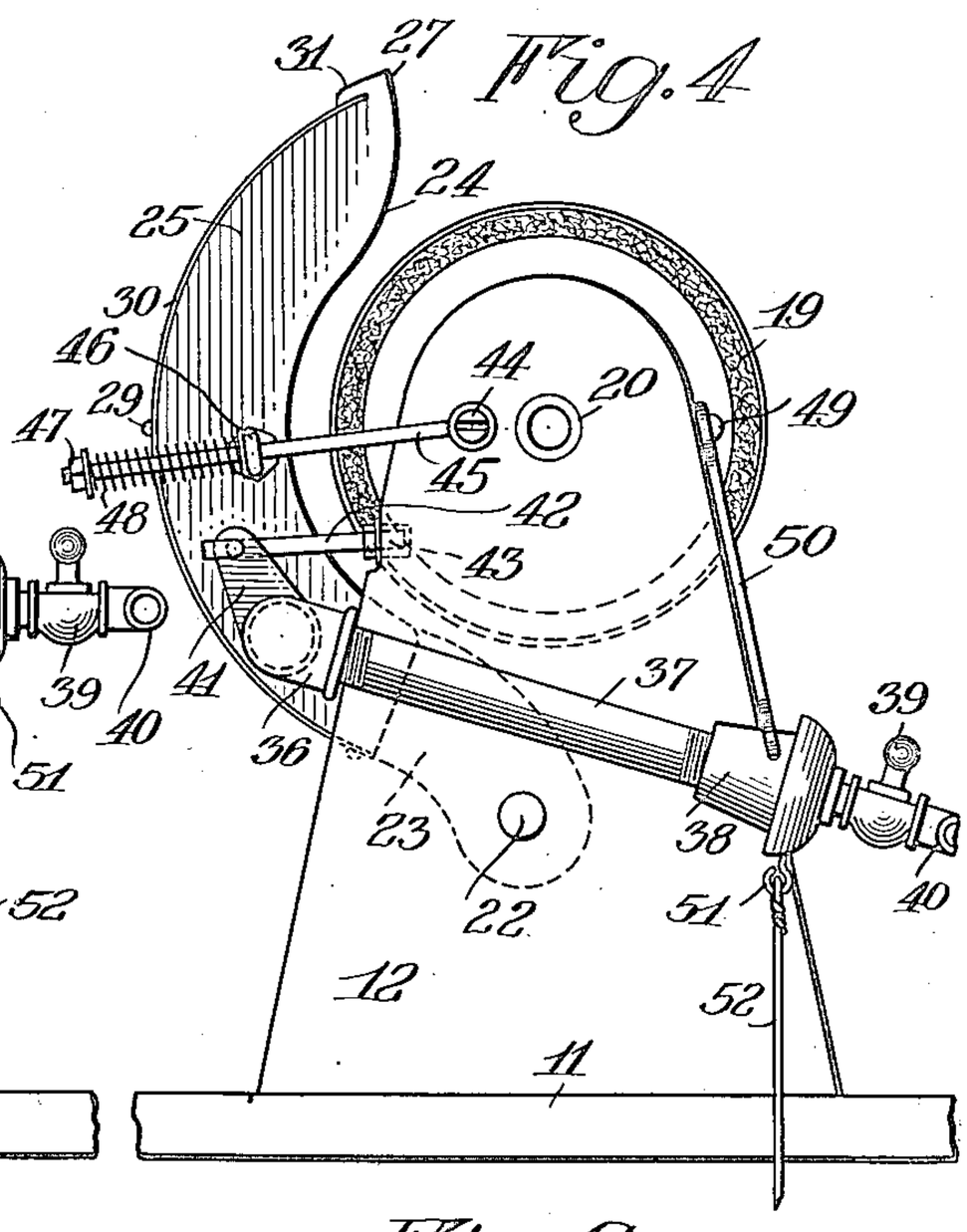


Fig. 5

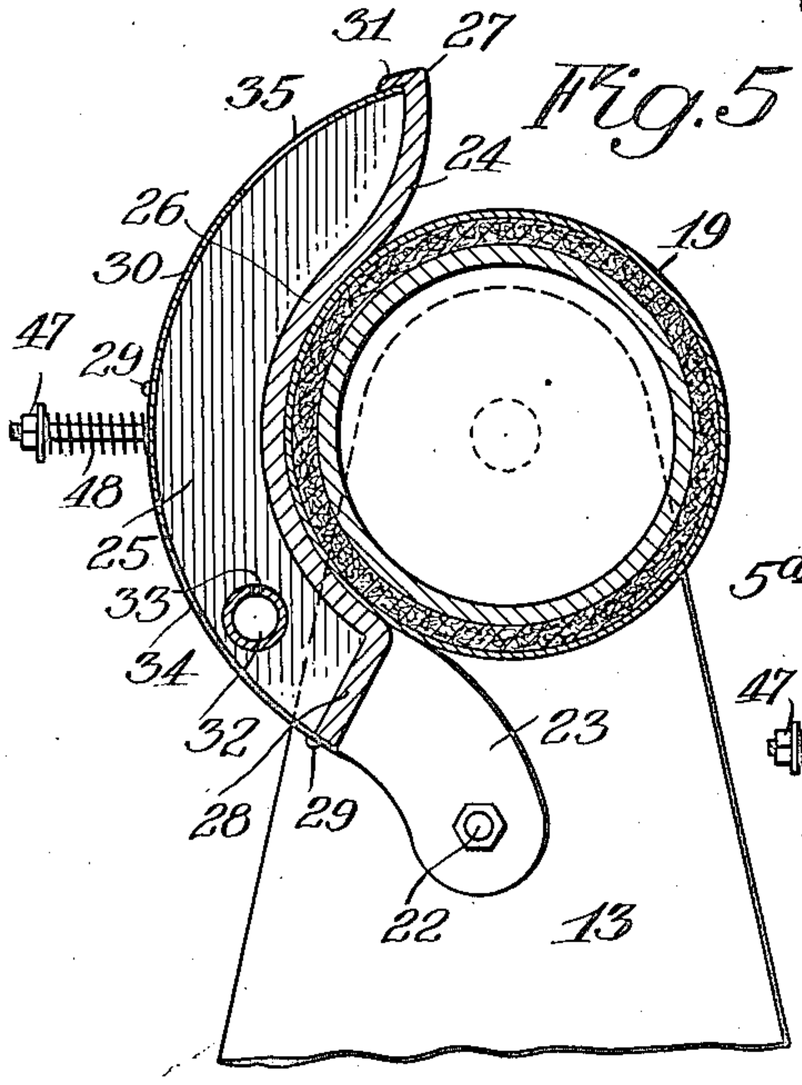
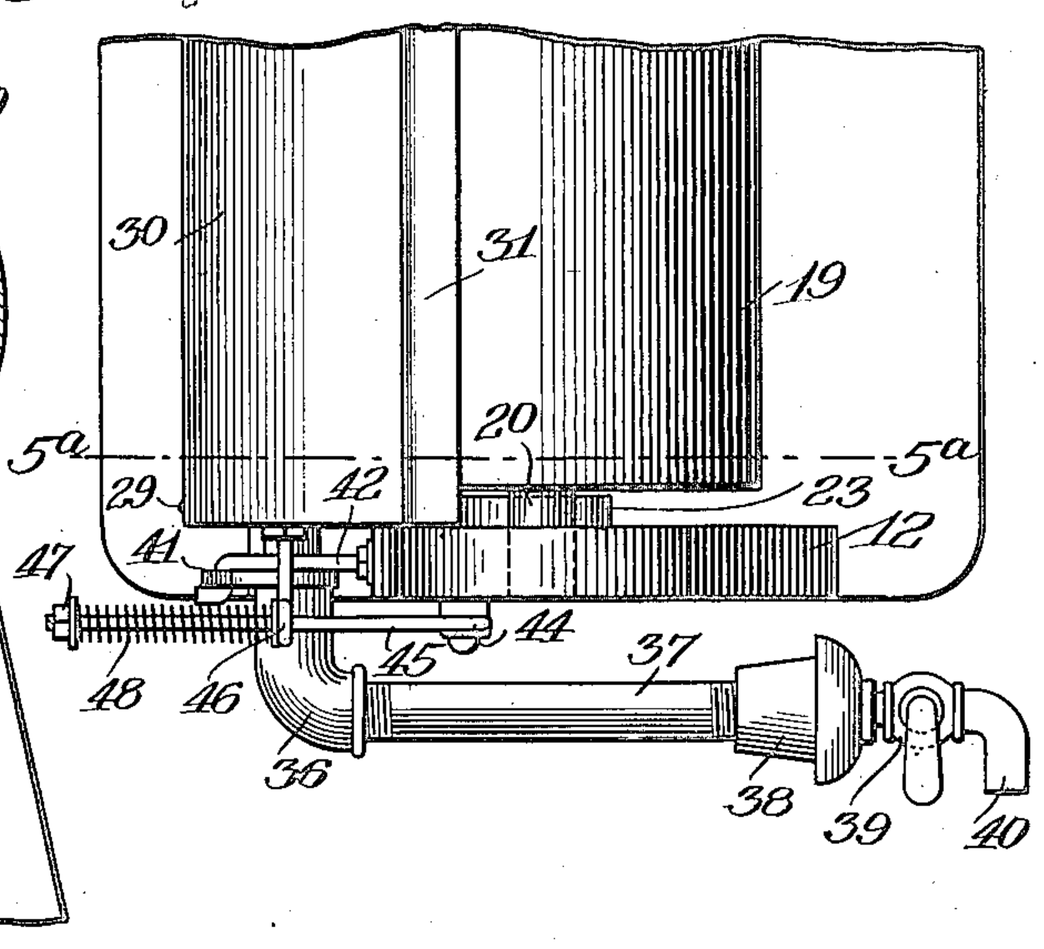


Fig. 6



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Patented Jan. 2, 1923. 1,440,855

UNITED STATES PATENT OFFICE.

RANDOLPH V. WELLER, OF ROCHESTER, NEW YORK.

IRONING MACHINE.

Application filed May 6, 1919. Serial No. 295,074.

To all whom it may concern:

Be it known that I, RANDOLPH V. WELLER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Ironing Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

This invention relates to laundry apparatus, and more particularly to ironing machines, or mangles, one object of the invention being to provide a simple and inexpensive, yet efficient, device of this character suitable for domestic as well as factory use.

Another object is to improve the construction of such devices by reducing the number of parts and effecting a more compact arrangement thereof.

Still a further object is to provide an ironing machine with a convenient arrangement of the operating parts requiring the minimum of effort and attention on the part of the operator.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a front elevation of the mangle;

Figure 2 is an end elevation of the same;

Figure 3 is an enlarged end elevation of a portion of the machine showing the parts in operating position;

Figure 4 is a similar view showing the roll and shoe locked in separated relation;

Figure 5 is a section on the line 5^a—5^a of Figure 6 showing the construction of the roll and shoe;

Figure 6 is a top plan view showing a portion of the operating mechanism;

Similar reference numerals throughout the several views indicate the same parts.

This invention, in the embodiment at present preferred as best illustrating its principles, comprises, preferably, a frame or support indicated generally at 10 having a substantially rectangular base 11 fixed to the ends of which are uprights 12 and 13, the base having pivoted on its under side as at 14, adjacent its corners, four standards indicated in pairs at 15 and 16, each pair having a cross brace 18. A bar 17 for each standard pivoted to the base 11 and having a pin and slot connection with the standard, supports the latter in extended position and permits the standards to be folded upwardly against the base when the machine is not in use.

An ironing bed or roll, of the usual or any suitable construction, is indicated at 19 having at its ends trunnions 20 journaled in the uprights 12 and 13, one of these trunnions being extended and having fixed thereon a pulley 21 adapted to receive the driving belt of a motor.

Pivoted on the standards 12 and 13 at 22 below roll 19, are arms 23 supporting a shoe or iron comprising, preferably, a cast metal plate 24 having end flanges 25 and a face portion 26 suitably curved for ironing coaction with roll 19, the latter portion having backwardly turned flanges 27 and 28, to the latter of which, and to the end flanges 25, by means of screws 29, is attached a sheet metal cover plate 30, the upper end of which is snapped under a projecting ledge 31 of the flange 27.

Rotatably supported in the end flanges 25 of the shoe is a conductor 32 for supplying a suitable heating medium for the shoe, preferably fuel gas, the upper side of the conductor being provided with burner openings 33. The cover plate is provided at 34 with air inlet openings and with an escape opening at 35. One end of conductor 32 extends without the shoe and has connected therewith an elbow 36 turning forwardly transversely of the roll and having connected therewith an extension 37 compactly disposed transversely of the roll, at the end of which is preferably attached a mixing chamber 38 for the gas which is admitted to the latter through a valve 39 provided with a nipple 40 for a flexible gas supply connection. Fixed on the conductor 32 adjacent the shoe is an arm 41 having pivotally connected therewith a rod 42 movably connected at 43 at its other end with the upright 12. It is evident from this construction that downward actuation of the conductor extension 37, rotating portion 32 of the conductor in its bearings in the shoe, causes arm 41 to thrust against rod 42 and the standard 12 as a fulcrum, thus moving the shoe away from the roll, as required at times in adjusting the clothes or to prevent

over heating of the roll when there are no clothes passing between the parts.

Pivotally connected with standard 12 at 44 is a rod 45 extending loosely through a yoke 46, fixed on the end of the shoe, and carrying at its outer end a nut and washer 47 between which and yoke 46 is placed a compression spring 48 serving to normally urge the shoe toward the roll. The compression of the spring may be varied by adjustment of the nut. In order to lock the roll and shoe in separated relation, there is pivoted at 49 on the standard 12 a retaining device 50, the lower end of which is adapted to be swung above the mixing chamber 38 of the conductor to retain the latter in lowered position.

A convenient device is provided for operating the shoe comprising a hook 51 attached to the mixing chamber 38, a rod 52 being connected at one end with hook 51 and at the other end 53 with a treadle 54 extending longitudinally of the machine and substantially coextensive with the roll, the other end of the treadle being pivoted at 55 to the standard 16.

The operation of the device requires but a brief explanation in connection with the above description of the construction. The shoe having been heated to the desired degree of temperature, with the roll driven by the motor, the clothes are fed between the shoe and roll at the top of the latter and the rotation of the roll carries the clothes between the roll and shoe, thereby accomplishing the ironing operation under pressure of spring 48 and discharging the clothes at the bottom of the roll. When the machine is to be allowed to stand idle for any time while the heat is applied, or if the clothes being ironed require adjustment between the parts, treadle 54 is pressed down with the foot and through the actuating connections described, carries the shoe away from the roll, in which position it may be locked by means of the retaining device 50.

The machine is very simple in construction, comprising but a few parts. The employment of the conductor for the heating medium as one of the operating parts and the arrangement of the same transversely of the machine adjacent standard 12 provides an efficient and very compact construction. The provision of the treadle extending longitudinally of the machine permits the convenient operation of the same from any position of the operator while handling the clothes. These various features afford an ironing machine which is light in weight, inexpensive and convenient to operate and therefore especially suitable for domestic use, although, of course, it may be employed to advantage in laundry establishments.

I claim as my invention:

1. An ironing machine comprising a bed, an iron, said bed and iron being relatively movable one toward and from the other, a movable conducting means for conducting a heating medium to one of said parts, and connection between said conducting means and said parts for effecting said relative movement of the parts upon movement of said conducting means.

2. In an ironing machine, the combination with a frame, a rotary bed mounted to turn thereon, and an iron mounted to move on the frame toward and from the bed, of a heat conducting member mounted to swing on the iron about an axis extending parallel to the axis of rotation of the bed, and having a connection with the frame supporting said rotary bed to move the iron when the member is swung on the iron.

3. An ironing machine comprising a rotatable roll, a shoe, said roll and shoe being relatively movable one toward and from the other, a conducting means for conducting a heating medium to one of said parts said conducting means being movable for moving said parts one away from the other, means for urging said parts toward each other, and retaining means for retaining said conductor in adjusted position.

4. An ironing machine comprising a support, a rotatable roll on said support, a shoe on said support movable toward and from said roll, a conductor connected with said shoe for conducting a heating medium thereto and connecting means between said support and conductor for effecting said movement of the shoe by actuation of said conductor.

5. An ironing machine comprising a support, a rotatable roll on said support, a shoe on said support movable toward and from said roll, a conductor movably connected with said shoe for conducting a heating medium to the latter, means for urging said shoe toward said roll, connecting means between said support and conductor, and an operating device substantially coextensive with said roll for actuating said conductor and moving said shoe away from said roll.

6. An ironing machine comprising a support, a rotatable roll on said support, a shoe on said support movable toward and from said roll, a conductor for conducting a heating medium to said shoe connected with the shoe and having a portion extending transversely of the shoe and said roller, said conductor being connected with the support and an operating device arranged parallel with said roll and connected with said conductor for actuating the latter and moving said shoe away from said roll.

RANDOLPH V. WELLER.