

(No Model.)

2 Sheets—Sheet 1.

W. P. WHITCOMB.
SHIRT DAMPENING MACHINE.

No. 552,457.

Patented Dec. 31, 1895.

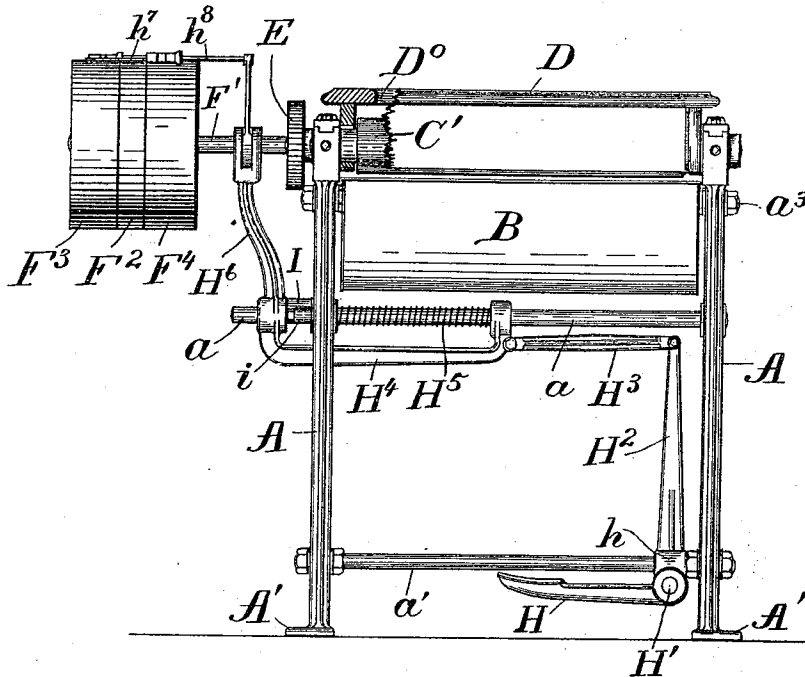


FIG. I.

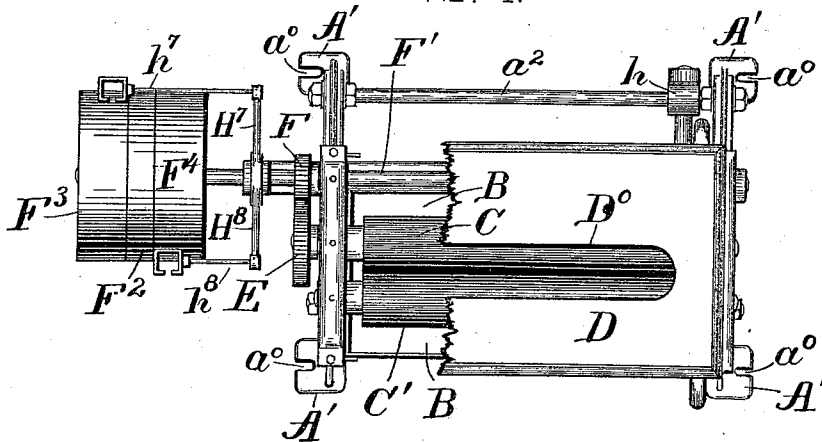


FIG. II.

WITNESSES:

Fred L. Wakefield
Arthur A. Whitcomb

INVENTOR

Willard P. Whitcomb,

BY

Whitman & Wilkinson,

ATTORNEYS.

(No Model.)

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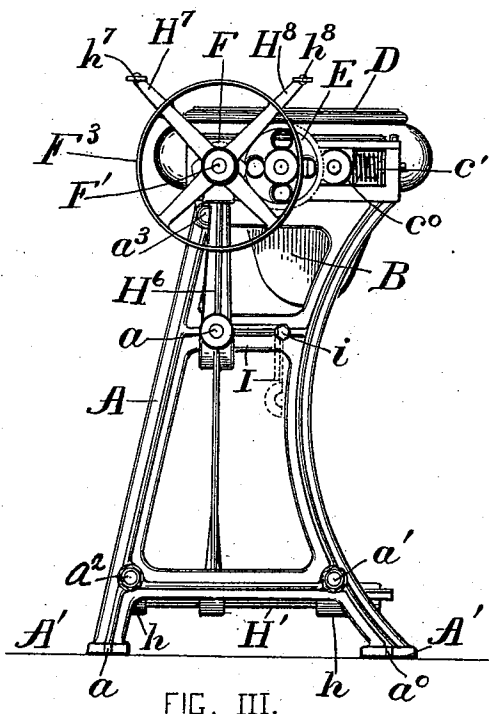


FIG. III.

WITNESSES:

Fred L. Wakefield
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UNITED STATES PATENT OFFICE.

WILLARD P. WHITCOMB, OF MONTPELIER, VERMONT.

SHIRT-DAMPENING MACHINE.

SPECIFICATION forming part of Letters Patent No. 552,457, dated December 31, 1895.

Application filed April 29, 1895. Serial No. 547,497. (No model.)

To all whom it may concern:

Be it known that I, WILLARD P. WHITCOMB, a citizen of the United States, residing at Montpelier, in the county of Washington and State of Vermont, have invented certain new and useful Improvements in Shirt-Dampening Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in laundry-machines, and more especially to improvements in machines for dampening shirts after they have been starched and before ironing.

The object of my invention is to provide a machine by means of which the flaps of the shirt may be dampened without running the bosom and cuffs of the shirt through the machine. I accomplish this object by means of the hereinafter-described apparatus, which will be understood by reference to the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure I is a front elevation of my machine, parts of the table or platform being broken away. Fig. II is a top plan view of the machine, one end of the table or platform being broken away to show the rollers and water-tank; and Fig. III is a side elevation of the machine as seen from the left in Fig. I.

A represents the frame of the machine, made preferably of cast-iron on account of cheapness, but may be of any suitable material or construction. This frame is held firmly together by means of rods, such as a' a^2 a^3 , secured by suitable nuts. The feet A' of this frame are provided with open-ended slots a^0 for the insertion of bolts or screws for securing the frame to the floor, to prevent its moving about, due to the strain exerted thereon by the driving mechanism.

B represents the water tank or trough into which the shirts are to be dipped, which is mounted in the upper part of the frame, as shown, and directly beneath the rollers C and C'.

C represents the fixed roller, which is journaled in the frame A, and has one end of its shaft provided with the cogged wheel E rigidly fixed thereon. This cogged wheel meshes with the pinion F on the driving-shaft F', as will be seen most clearly in Fig. II.

The roller C' is mounted in a pair of sliding journal-blocks c^0 , each of which is borne against by a coil-spring c' . By means of these springs and sliding blocks the roller is constantly pressed toward the fixed roller C, but it will recede or advance according to the thickness of the material being passed between the said rollers.

D represents a table or platform mounted above the rollers C and C'. This table or platform is made large enough to form a convenient support for the garments, and is provided with a longitudinal slot D⁰, which is situated immediately above and in line with the line of contact of the rollers as they revolve. Through this slot the shirt-flaps are fed to the rollers by the operator, who holds onto the bosom of the shirt. The motion of the rollers, when the machine is driven forward, will carry the said flaps downward, immersing them in the water in the tank B, which should be kept sufficiently full to allow the flaps to become well immersed. As soon as the bosom of the shirt reaches the rollers, in the downward movement of the shirt, the operator reverses the machine, by means of the reversing-gear hereinafter to be described, causing the rollers to turn backward, and thus carry the shirt-flaps upward out of the tank. As the flaps pass upward between the rollers, the pressure of the said rollers will wring out the excess of water, leaving the proper amount of dampness in the flaps. The shirt may then be taken by an attendant and folded with the flaps over upon the bosom, and laid upon the pile being formed, ready for ironing. The dampness in the flaps when folded in this manner will impart the proper amount of moisture to the bosom of the shirt.

F² is a fixed pulley mounted upon the shaft F' for driving the same, and F³ and F⁴ are idle-pulleys upon each of which a driving-belt runs when the machine is out of gear. On one of these idlers the forward belt runs, and on the other the backward belt runs. When it is desired to drive the machine forward to turn the rollers so as to run the shirt down into the tank of water, the forward belt is shifted from its idler over onto the fast driv-

ing-pulley F². When it is desired to reverse the machine, to turn the rollers so as to run the shirt upward out of the tank, the forward belt is shifted from the driving-pulley over onto its idler and at the same time the backward belt is shifted from its idler over onto the fast pulley, thus instantaneously reversing the motion of the rollers C and C'.

I may use any suitable shifting-gear for reversing the motion of the machine, but I prefer to use that shown in the drawings and hereinafter described.

H represents a foot-lever or treadle, fixed on the forward end of the shaft H', which shaft is suitably journaled in blocks h mounted on the brace-rods a' and a² in the lower part of the frame A. The vertical arm H² is fixed on this shaft H' between the two journal-blocks, and at its upper end is pivoted to the horizontal arm H³, which is also pivoted to the sliding frame H⁴, which slides horizontally on the rod a. A coil-spring H⁵ encircles the rod a and is interposed between the inner end of the sliding frame H⁴ and the side of the frame of the machine, and tends to press the sliding frame inward and hold the shifting devices in the position for driving the machine forward, as will hereinafter appear. The outer end of this sliding frame is provided with a bent arm H⁶, the upper end of which carries a perforated block which incloses the driving-shaft F', and slides freely thereon. Two arms H⁷ and H⁸ are formed on this block, to which are connected the belt-shifting rods h⁷ and h⁸, as seen most clearly in Fig. II.

When the sliding frame H⁴ is in the extreme inward position, due to the action of the spring H⁵, the foot-lever H will be raised, and the forward belt will be running on the driving-pulley F², while the backward belt will be running on the idler F⁴.

When it is desired to reverse the machine, as hereinbefore stated, the operator presses the foot-lever down with his foot to its lowest position, when the sliding frame H⁴ and its connections will be shifted over against the action of the spring H⁵, thus shifting the forward belt over onto the idler F³, and at the same time shifting the backward belt over onto the driving-pulley F², which will cause the motion of the machine to be instantaneously reversed.

For holding the machine out of gear altogether I provide a pivoted latch I, (seen in Fig. III,) which is pivoted to the side of the

frame at i, and has its free end provided with a segmental block, which is adapted to fit over the rod a between the outer end of the sliding frame H⁴ and the side of the frame A. This segmental block is just wide enough to hold the sliding frame in the position midway between the adjustment for forward and backward motion, and thus holds the shifting-gear in such a position that the belts are each running on its respective idler, and the machine remains stationary.

My machine may be operated by hand if desired, but for the sake of speed I prefer to connect it with the power-shaft of the laundry by means of the driving mechanism hereinbefore described.

It will be seen that I provide a simple and very efficient machine for dampening shirts in a laundry, the advantages of which will be apparent to any practical mind.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

In a shirt dampening machine, the combination with an upright frame, of the water tank B mounted in said frame, the roller C mounted in fixed journal bearings above said water tank, and having a cogged wheel mounted upon one end of its central shaft, the said cogged wheel meshing with a pinion upon the driving shaft; the roller C' mounted in journal blocks adapted to slide horizontally in said frame, and constantly pressed toward the roller C by coil springs bearing against the rear of said sliding blocks, and driven by said fixed roller; the table D mounted upon said frame and provided with the longitudinal slot D⁰ situated immediately above the line of contact of said rollers, through which slot the flaps of the shirt may be fed between the said rollers from the table; means for revolving said driving shaft to cause the rollers to run the shirt flaps down into the tank of water, and means for instantaneously reversing the motion of said driving shaft at any moment, and thus causing the said rollers to run the shirt upward through the slot D⁰ back upon said table, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLARD P. WHITCOMB.

Witnesses:

FRED L. WAKEFIELD,
EDWARD BAKER.