

(No Model.)

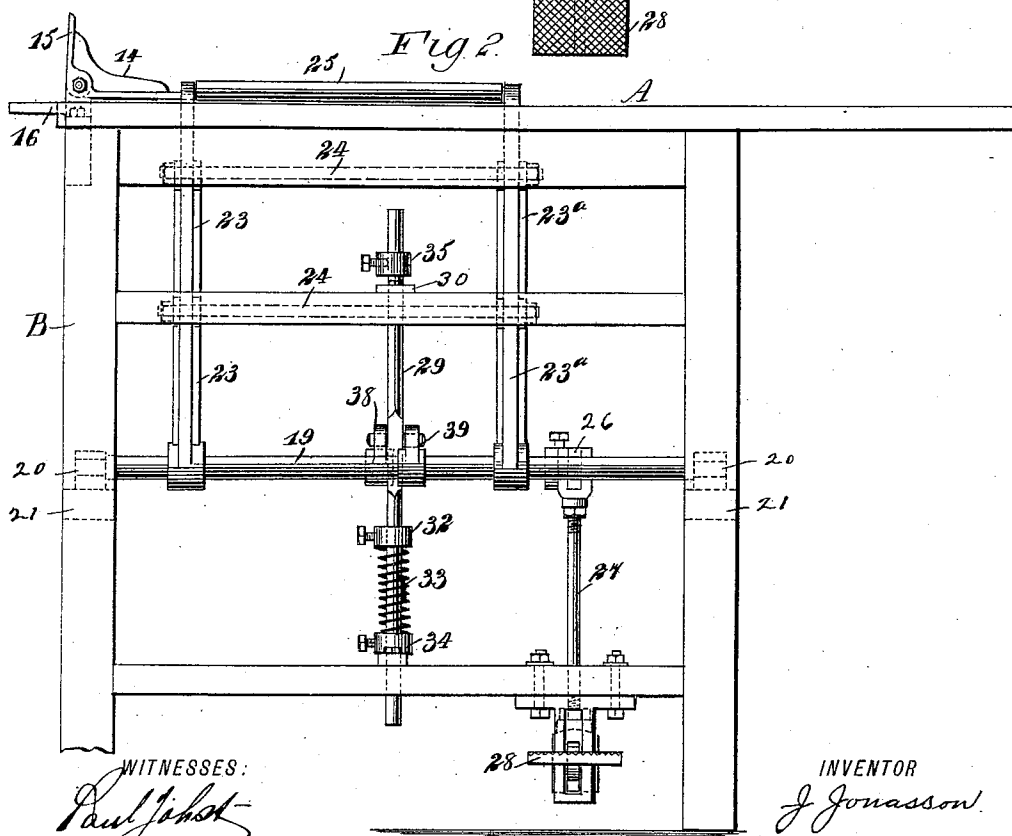
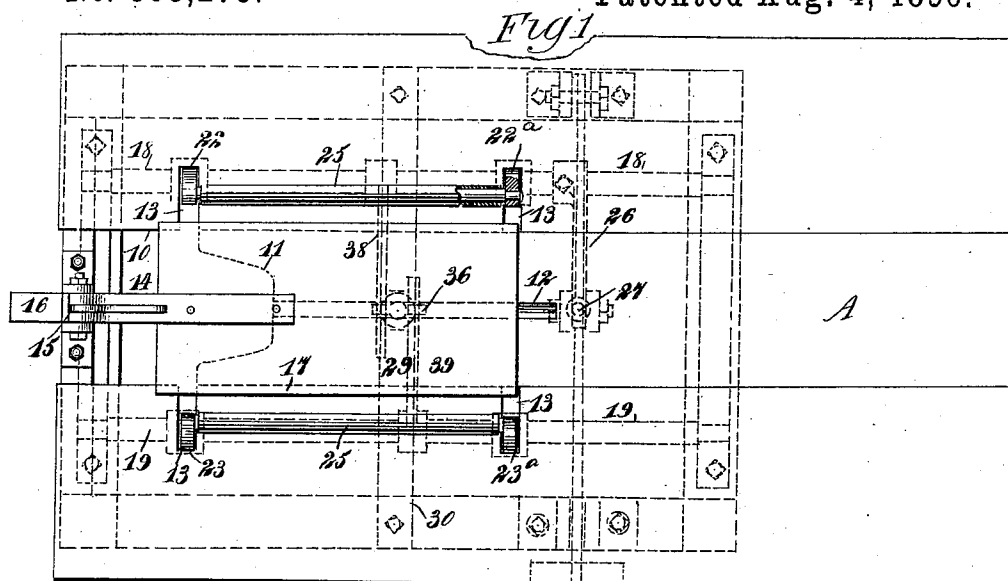
3 Sheets—Sheet 1.

J. JONASSON.

MACHINE FOR FOLDING SHIRT WAISTS.

No. 565,275.

Patented Aug. 4, 1896.



WITNESSES:

Paul J. H. S.

J. H. Aker.

INVENTOR

J Jonasson.

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ATTORNEYS.

(No Model.)

3 Sheets—Sheet 2.

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Fig 3.

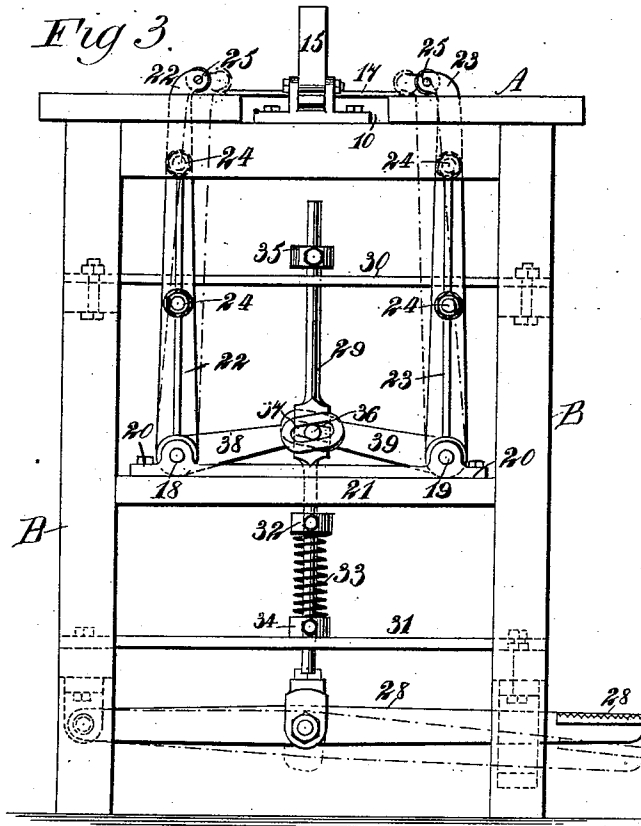
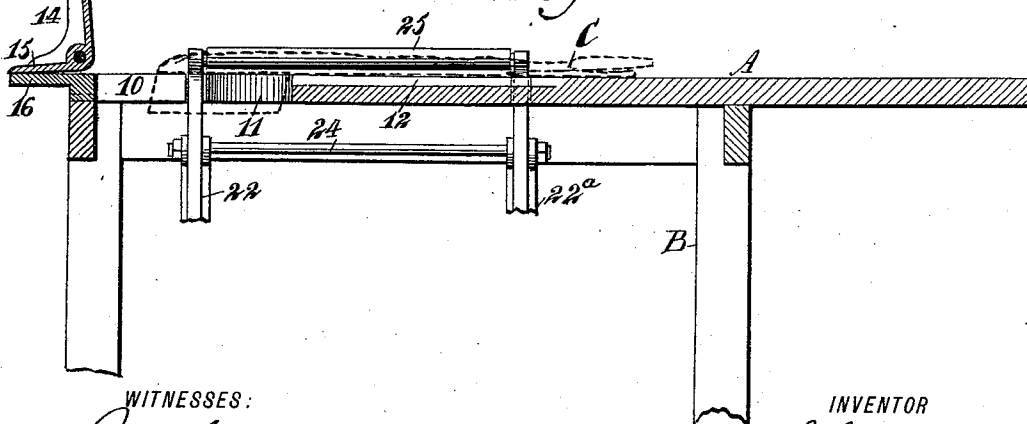


Fig 4.



WITNESSES:

Paul J. Hot-
John A. Ker.

INVENTOR

J. Jonasson

BY

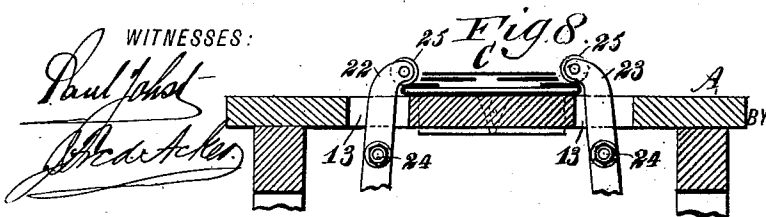
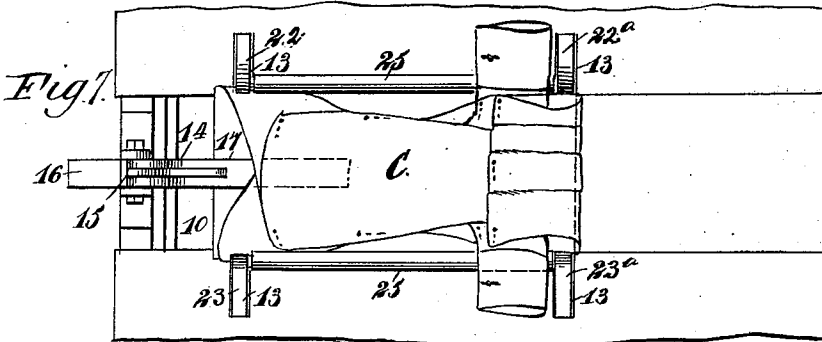
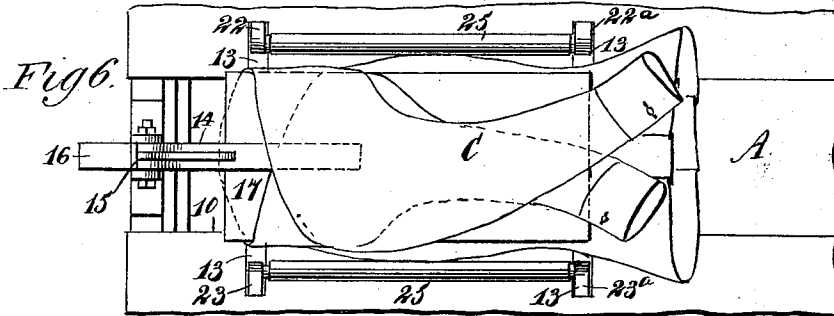
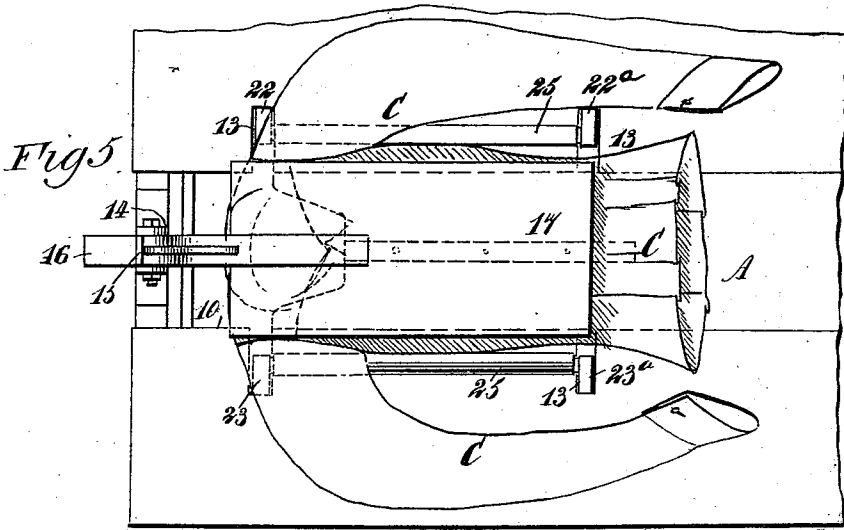
Wm. H. ...
ATTORNEYS.

J. JONASSON.

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WITNESSES:

Paul J. ...
...

INVENTOR

J. Jonasson
...
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH JONASSON, OF NEW YORK, N. Y.

MACHINE FOR FOLDING SHIRT-WAISTS.

SPECIFICATION forming part of Letters Patent No. 565,275, dated August 4, 1896.

Application filed March 19, 1896. Serial No. 583,959. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH JONASSON, of New York city, in the county and State of New York, have invented a new and Improved Machine for Folding Shirt-Waists, of which the following is a full, clear, and exact description.

The object of the invention is to provide a simple, durable, and economic machine through the medium of which a shirt-waist or a like article of apparel may be expeditiously, conveniently, and uniformly folded after the waist has been laundered, and also being particularly adapted for the folding of ladies' and children's shirt-waists in such manner that the waist may be displayed and packed to the best advantage, occupying but a minimum of space.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the machine. Fig. 2 is a side elevation of the same. Fig. 3 is an end view of the machine. Fig. 4 is a longitudinal central section through the table portion of the machine. Figs. 5, 6, and 7 are partial plan views of the machine, illustrating the waist in different stages of preparation on the machine; and Fig. 8 is a transverse section through a portion of the machine and through a finished folded waist on the machine.

In carrying out the invention a table A is supported upon a suitable frame B, the latter being preferably of open construction. At the central portion of one end of the table a longitudinal opening 10 is made, as shown in Figs. 1 and 4, and in the rear wall of the said opening a recess 11 is produced of tapering shape, the recess 11 being adapted to receive the collar of the shirt-waist C, that is to be folded upon the machine, the waist being placed face down on the table, and the said table where the waist is to lie is also usually provided with a longitudinal groove 12 to receive the buttons usually placed in the front of a laundered waist.

Two openings 13 are made at each side of the center of the table, corresponding openings at opposite sides being in transverse alinement, and the openings 13 nearest the end of the table are connected with the slot 10, as shown in Fig. 1. A bracket 14 is hinged to a support on the frame, which is placed at the outer end of the table-opening 10, and the said bracket, which centers the said opening, is provided with a foot 15, which when the bracket is in an upright position will engage with an extension 16 of the frame, as shown in Fig. 4, enabling the bracket to stand substantially upright, and the bracket is attached in any suitable or approved manner to a forming board or plate 17, the said forming board or plate being ordinarily made of smooth or polished metal, and is of such length and of such width that when the board is placed upon the table it will extend across the inner ends of the transverse openings 13 in the table.

A shaft 18 is located beneath the table, at one side of the machine, and a parallel shaft 19 is similarly located at the opposite end of the machine, the ends of the shafts being journaled in suitable boxes 20, supported upon the cross-bars 21 at the ends of the frame of the machine, as shown in Fig. 2.

Arms are carried upward from beneath the table through the openings 13 therein. The arms passing through the said openings at the rear side of the machine are designated as 22 and 22^a, while the arms at the front side of the machine are designated as 23 and 23^a and are shown best in Fig. 1. The upper ends of these arms are curved inwardly or in direction of the portion of the table over which the forming-plate is to lie. Each pair of arms is connected and braced by horizontal rods 24, and in the upper end portions of each pair of arms the ends of a roller 25 are journaled. The rollers 25 are preferably rubber rollers, and are ordinarily constructed by covering a core of a hard material with a layer or layers of yielding rubber. The normal position of the rollers is such that when the forming-plate is passed between them the rollers will be removed a predetermined distance from the side edges of the plate.

A crank-arm 26 is secured to the shaft 18, as shown in dotted lines, Fig. 1, the crank-

arm being attached through the medium of a rod 27 and a treadle 28, the latter being pivoted, ordinarily, at the rear side of the machine-frame and extending forwardly beyond the front side, at which point the foot-piece is located. A plunger-rod 29 is vertically placed beneath the table at a point between the roller-carrying arms, and the said plunger-rod has guided movement in an upper cross-bar 30 and in a lower cross-bar 31, as shown in Fig. 3. Above the lower cross-bar 31 a collar 32 is secured upon the plunger-rod, and a spring is coiled around the rod, having bearing against a collar 34, located upon and fixed to the lower cross-bar 31, while at the upper end of the said rod, above the upper cross-bar 30, an adjustable collar 35 is secured, which limits the downward movement of the rod, and as the rod is pressed downward the spring 33 is placed under tension, and when pressure is removed from the rod the spring will return it to its upper or normal position. A pin 36 is passed through the rod at a point near its center, and where the pin is located the rod is preferably flattened. The pin passes through elongated eyes 37, made in the inner ends of two crank-arms 38 and 39, one being located at each side of the plunger-rod, and the crank-arm 39 is secured to the rock-shaft 19, while the arm 38 is attached to the opposing rock-shaft 18. It is evident that when the treadle 28 is pressed downward a rocking motion will be communicated to the shaft 18 through the attached crank-arm 26, the shaft being turned in an inward direction, and through the medium of the crank-arm 38, the plunger-rod 29, and the opposing crank-arm 39 the shaft 19 will be turned in an inward direction, the same as the shaft 18, and the roller-carrying arms will be carried in direction of one another at their upper ends, causing the rollers to move in direction of the center of the table. The rollers 25 are placed quite close to the table, there being but sufficient room between the rollers and the table to accommodate the thickness of the forming-plate 17.

In operation the forming-plate is carried to the vertical position shown in Fig. 4. The waist is then placed face down on the table, the collar of the said waist being contained in the recess 11. The forming-board is then dropped downward to an engagement with the back of the waist, as shown in Fig. 5, and the sleeves of the garment are next folded over on the forming-board, as shown in Fig. 6. The treadle is then pressed downward, and the rollers moving inward under the influence of the treadle will roll over upon the upper side portion of the forming board or plate, carrying the surplus side-body material of the waist over upon the forming board or plate, and as long as the foot is kept on the treadle the material of the waist will thus be bound tightly to the board. The parts of the waist are then properly pinned, and the complete folds are given to it, as shown in Fig.

7, namely, the sleeves are adjusted so that the cuffs will stand out at each side of the forming-board over the rollers. The skirt is then folded over upon the sleeves and the sleeves and skirt pinned properly to the waist or otherwise secured. The foot is then removed from the treadle, permitting the rollers to return to their first position, and the folded waist is slipped off from the forming-board, the latter being in either a partially or an entirely elevated position. After the waist is removed from the forming-board the cuffs are carried over upon the front or bosom of the waist and secured.

The machine is exceedingly simple. It is durable and economic, as heretofore stated, and it may be operated with perfect safety by any person of ordinary intelligence.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a machine for folding shirt-waists and the like, the combination with a slotted table, and a forming-board adapted to be placed upon the garment when on the table, of arms pivoted below the table and projecting through the slots thereof, rollers mounted in the upper ends of the arms, and means for swinging the arms toward and from each other, substantially as described.

2. In a machine for folding shirt-waists and the like, the combination with a table provided with an opening at the central portion of one end and with openings at each side of the center and a forming-board adapted to be placed upon the garment when on the board, of arms pivoted below the table and projecting through the side openings thereof, rollers mounted in the upper ends of the arms, and means for swinging the arms toward and from each other, substantially as described.

3. In a machine for folding shirt-waists and like garments, the combination, with a table having an opening therein to receive the collar of the garment, of a hinged forming-board arranged for engagement with the table, and rollers located above the table at each side of the space to be covered by the forming-board, and devices substantially as described, for moving the rollers in direction of each other and over the space to be occupied by the said forming-board, as and for the purpose specified.

4. In a machine for folding shirt-waists and like garments, the combination, with a table having a portion of the same arranged to receive a garment, and a forming-board having a pivotal engagement with the table, the said board being so located that it may be carried downward over the garment-receiving surface of the table, of arms arranged in pairs at each side of the garment-receiving surface of the table, the table having openings therein, permitting the opposing pairs of arms to move to and from each other, rollers journaled in each pair of arms above the

surface of the table and adjacent thereto, a spring-controlled treadle, and a connection, substantially as described, between the said treadle and the roller-carrying arms, as and
5 for the purpose set forth.

5. In a machine for folding shirt-waists and like garments, the combination, with a table having a surface prepared to receive a garment, a forming-board arranged to engage
10 with the garment-receiving surface of the table, and rock-shafts journaled beneath the table, of arms attached to the said rock-shafts and passed upward through openings in the table at each side of its garment-receiving
15 surface, rollers carried by the said arms, the said rollers being located above the table and near thereto, and a mechanism, substantially as described, for simultaneously operating both rock-shafts and imparting movement to
20 the roller-carrying arms, the said arms having sufficient travel to carry the said rollers over the garment-receiving surface of the table, as and for the purpose specified.

6. In a machine for folding garments, a table having a portion of its surface prepared
25 for the reception of a garment, a forming-board hinged upon the said table and arranged to drop over the garment-receiving surface of said table, arms extending through the table at each side of the forming-board, 30 having movement to and from the same, and rollers journaled in the said arms, being carried by said arms on their inward throw over the forming-board, of rock-shafts journaled beneath the table, crank-arms projected from 35 the rock-shafts and having elongated openings therein, a spring-controlled plunger-rod provided with a pin, extending through the openings of both crank-arms, a treadle, and a connection, substantially as described, be- 40 tween the said treadle and one of the rock-shafts, as and for the purpose specified.

JOSEPH JONASSON.

Witnesses:

ARTHUR NASSÉ,
CHARLES SALAMON.