May 29, 1934.

T. MARTIN

1,960,823

LAUNDRY MACHINE

Filed May 23, 1932

2 Sheets-Sheet 1

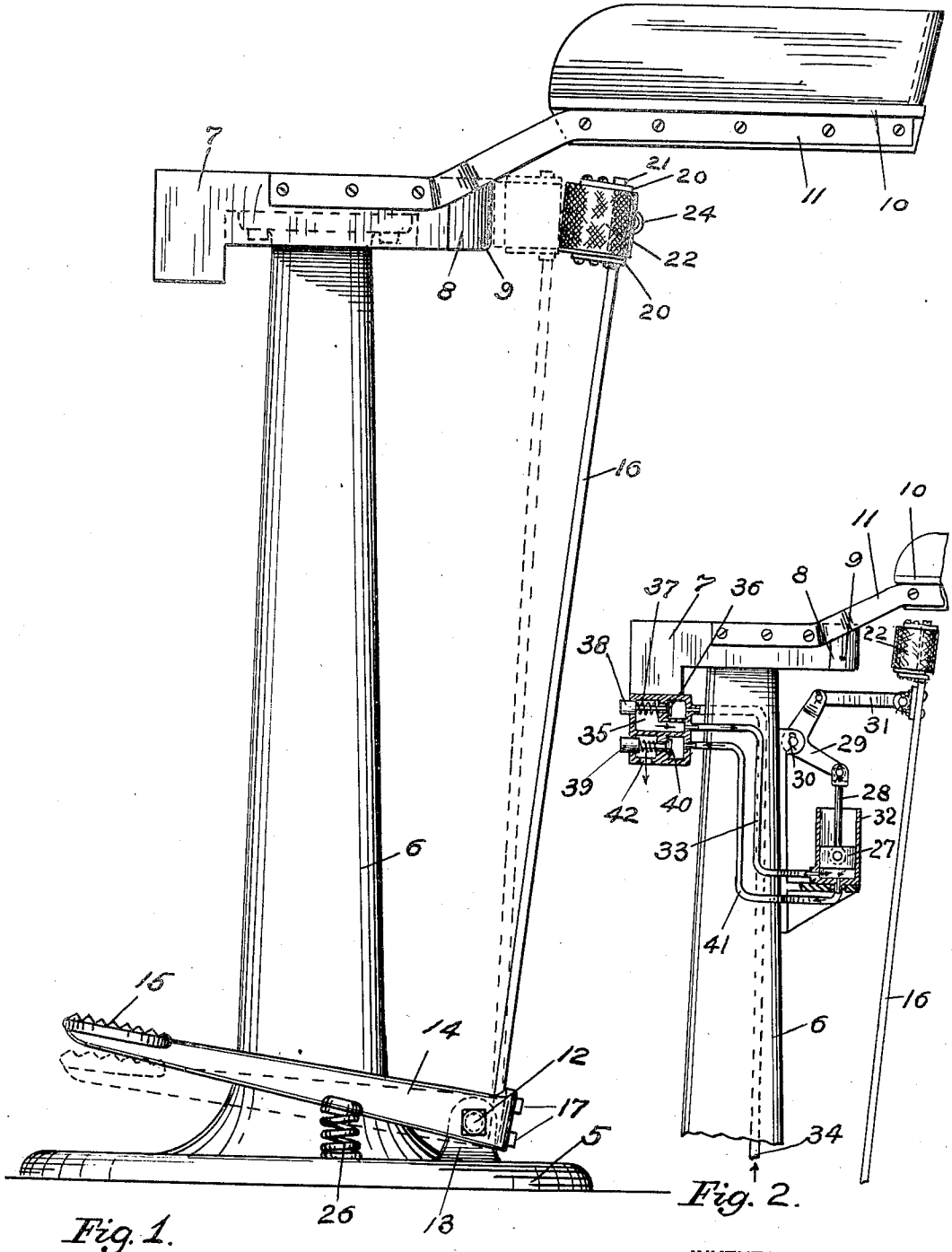


Fig. 1.

Fig. 2.

INVENTOR
THOMAS MARTIN
BY
Andrew Eberlein
ATTORNEY

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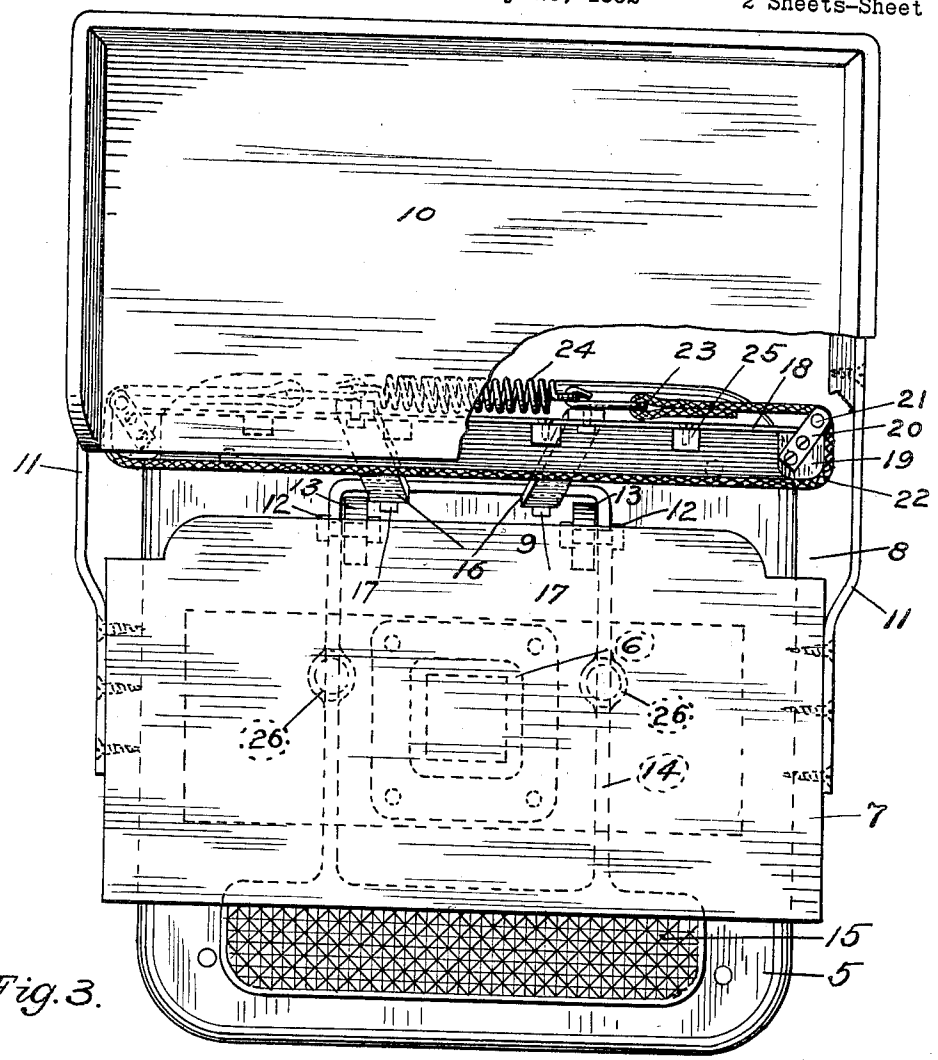


Fig. 3.

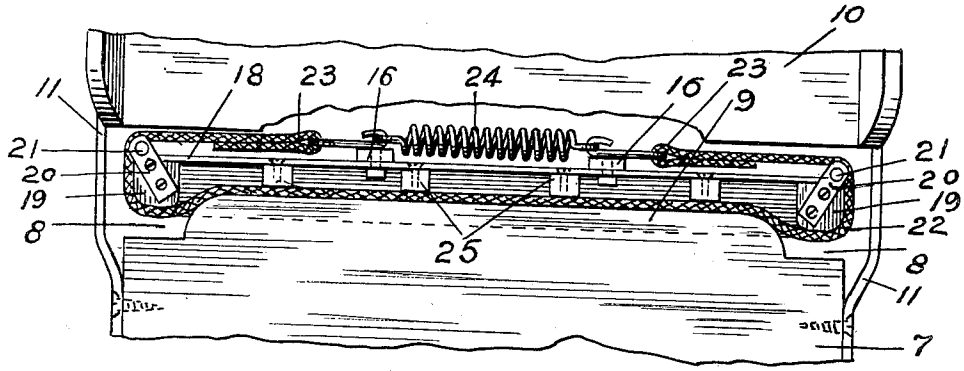


Fig. 4.

INVENTOR
THOMAS MARTIN
BY Andrew & Parker
ATTORNEY

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LAUNDRY MACHINE

Thomas Martin, Minneapolis, Minn., assignor to Laundries Service Company, Minneapolis, Minn., a corporation of South Dakota

Application May 23, 1932, Serial No. 612,976

2 Claims. (Cl. 68—11)

This invention relates to commercial laundry equipment and the primary object is to provide an efficient, practical, and comparatively simple and sturdy design of machine for use in connection with the handling of flat work after it is taken from the washer but before passing to the ironing or pressing machinery.

With conventional laundering methods as now employed such washed materials are left in a very wrinkled or crumpled up condition, and must of course be straightened out, at least to a substantial extent before they can be ironed. This straightening or smoothing is ordinarily done entirely by hand, the operator usually seeking certain parts of the articles, such as two corners, and then shaking the article out while holding such parts in both hands. In straightening out small pieces such as handkerchiefs the operator may also lay them on a work bench or table and then smooth or stretch them out by hand manipulation. In any event the time and effort employed in the average commercial laundry for this purpose of straightening or stretching out washed articles reaches substantial proportions, and it is the purpose of the present invention to materially assist the operator in performing the operation in question so that the work can be done in a more efficient and expeditious manner.

In the accompanying drawings, which illustrate preferred embodiments of the invention—

Fig. 1 is a side elevation of a foot operated machine, with the presser frame in an open position.

Fig. 2 is a side elevation, partly in section, of a pneumatically operated machine.

Fig. 3 is a plan view of the machine as seen in Fig. 1, with a portion of the shelf broken out for purpose of illustration.

Fig. 4 is a plan view similar to a portion of Fig. 3, but showing the presser frame in its closed position.

Referring to the drawings more particularly and by reference characters, 5 designates a base member having an integral standard 6 upon which is rigidly secured and supported a table 7. The back end of the table 7 is laterally reduced or notched out, as at 8, and the ends of the extension 9, thus formed, are rounded off to provide curved end surfaces for the rear edge or vertical face of the extension. A work supporting shelf 10 is mounted rearwardly of and at a higher level than the table 7 and is preferably secured thereto by a pair of bracket arms 11.

A presser frame is pivotally mounted, as at 12, to a pair of lugs 13 of the base 5, and comprises a treadle 14 having a foot engaging pedal 15, and a pair of upright arms or bars 16 that are secured as at 17 to the treadle frame and at their upper ends support a cross bar 18.

At its ends the bar 18 is provided, on its front surfaces, with a pair of blocks 19 having rounded forward corners, and these blocks carry arms 20, supporting vertical pins or rollers 21. A flexible belt or strap 22 extends about the blocks 19 and members 21, and has its ends 23 connected by a spring 24 which tends at all times to keep the belt taut.

In addition to the blocks 19 the bar 18 is provided with a series of intermediate spaced blocks 25, which may be of rubber or other resilient material, to engage the front run of the belt 22, as shown in Fig. 4, to more equally distribute the pressure thereof against the back edge face of the table extension 9.

In the operation and use of the device as shown in Figs. 1, 3, and 4, the treadle frame 14 is normally held in an upper position, and the frame structure which supports the belt 22 is normally held in a rearwardly spaced position with respect to the bench 7 by some suitable means such as the spring 26. The washed pieces of flat work that are to be straightened out or stretched are conveniently placed on the shelf 10 where they are readily accessible to the operator. The operator takes one piece of work at a time from the shelf 10, and if it is a rectangular piece such as a handkerchief or a towel she grasps two adjacent corners thereof in both hands and after pulling the intermediate edge portion into a substantially straight line, places it against the rear face or edge of the table extension 9, and as she releases it from her grasp she steps on the pedal 15 which brings the belt or strap 22 over against the said edge portion of the article and presses it firmly against the extension 9. While the article is thus held in this position the operator then smoothens it out over the table surface, and if necessary takes hold of the two exposed corners nearest her and thus stretches the article over the top face of the bench or table 7. The pedal 15 can then be released to permit the clamping strap 22 to move rearwardly, and without removing the article from the bench the operator then proceeds to apply a second article in the same manner, and this is continued until there is a substantial thickness or number of similar articles on the table, at which time they are all rolled or folded, or merely removed in their flattened condition ready for the ironing or pressing process.

In the modification shown in Fig. 2, the treadle

mechanism 14—15 is substituted by a manually controlled pneumatic mechanism for actuating the presser head carried at the upper end of the frame members 16. In this instance the frame 16 is moved into and out of engagement with the bench extension 9 by a piston 27 operating through a connecting rod 28, a bell crank lever 29, fulcrumed as at 30, and a link 31.

The piston 27 is slidable in a cylinder 32 which is rigidly mounted on the standard 6, and this cylinder is adapted to receive air under pressure through a tube or pipe 33. This pipe 33 communicates with a main pressure supply pipe 34 through a chambered housing 35 having a valve 36. This valve is normally held closed by a spring 37, and also by the air pressure from the line 34, and is adapted to be opened by depressing a push button 38 which will allow the pressure in the pipe 34 to be transmitted to the cylinder 32, thus raising the piston 37 and effecting the necessary pressure between the clamping strap 22 and the bench extension 9.

When it is desired to release the presser head the operator depresses a second push button 39 which opens a valve 40 to permit the previously compressed air in the cylinder 32 to escape through a pipe 41 to an exhaust port 42, whereupon the presser head 22, under the gravitational weight of the parts 27, 28, 29, and 31 moves backwardly from the table extension 9.

It is intended that the structure shown in Fig. 2 is purely illustrative of a convenient method for applying air pressure in lieu of manual pressure such as would be required in the construction of Fig. 1, and it is not my intention to limit myself to either of these structures more than is required by the appended claims.

It is further understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit and scope of the appended claims. Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. A machine of the character described comprising a stationary standard having a work supporting table rigidly mounted on the upper end thereof, a treadle lever pivoted at a point rearwardly of the standard and having a foot pedal disposed forwardly of the standard, a frame rigidly secured to and extending upwardly from the treadle lever and with a cross bar at its upper end disposed directly rearwardly of the table so as to be movable toward the rear edge thereof when the foot pedal is depressed, a yieldable member carried by the cross bar for contact with the table edge, and spring means tending to move the cross bar rearwardly from the table.

2. A machine of the character described comprising a stationary standard having a work supporting table rigidly mounted on the upper end thereof, a work support shelf disposed in spaced relationship rearwardly and above the rear edge of the table, lateral bracket members rigidly connecting the shelf and table, an L-shaped presser frame having its lower arm pivoted rearwardly of and adjacent the lower end of the standard and having a transversely disposed treadle at its front end, a transverse presser head carried by the upper end of the upright arm of the frame horizontally movable under the shelf and for clamping engagement with said rear edge of the table when said treadle is depressed, and spring means tending to move the presser head rearwardly from said table edge.

THOMAS MARTIN.