C. D. STRATTON & W. A. PETRIE.

STEAMING AND PRESSING MACHINE.

APPLICATION FILED FEB. 17, 1909.

953,805. Patented Apr. 5, 1910.

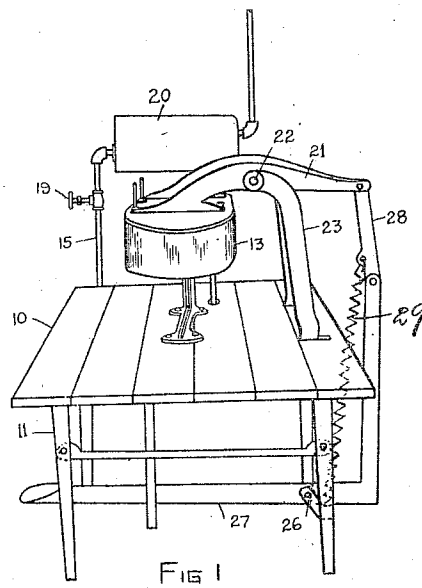

FIG 1

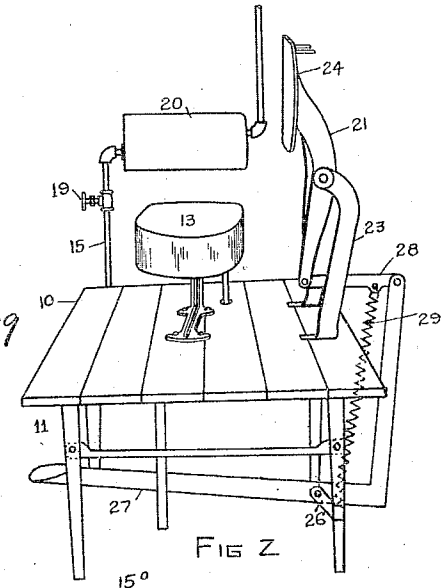

FIG 2

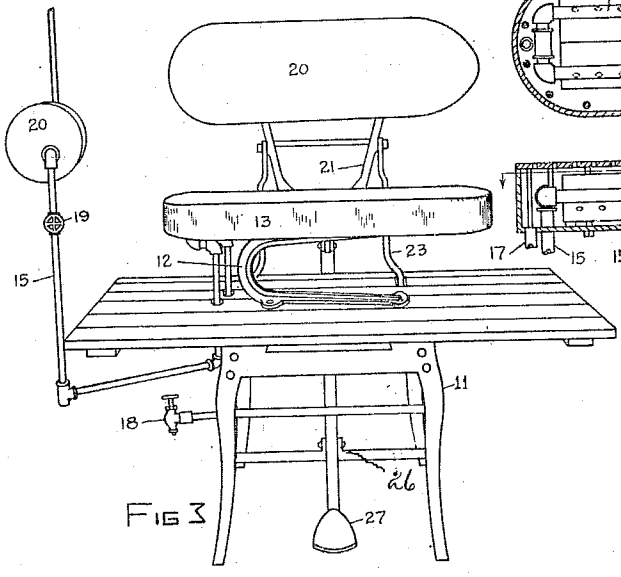

FIG 3

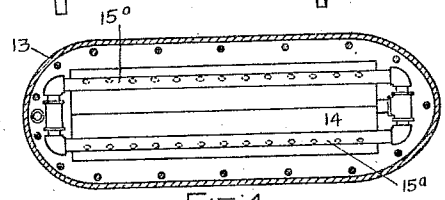

FIG 4

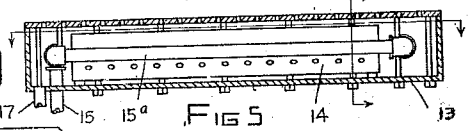

FIG 5

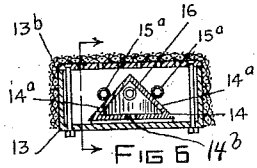

FIG 6

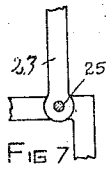

FIG 7

WITNESSES:

S. C. Booth

S. E. Clark.

INVENTORS

Charles D. Stratton

Walter A. Petrie

BY Robinson, Martin & Jones

ATTORNEYS

NORRIS PETERS, INC., LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES D. STRATTON AND WALTER A. PETRIE, OF CLINTON, NEW YORK.

STEAMING AND PRESSING MACHINE.

953,805. Specification of Letters Patent. **Patented Apr. 5, 1910.**

Application filed February 17, 1909. Serial No. 478,491.

To all whom it may concern:

Be it known that we, CHARLES D. STRATTON and WALTER A. PETRIE, of Clinton, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Steaming and Pressing Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form part of this specification.

The object of our invention is to provide a steaming, cleaning and pressing machine for use on clothing, which is simple and efficient and well adapted to meet the requirements of such a device.

Figure 1 is a perspective end view with the presser plate in closed position. Fig. 2 is a similar end view with the presser plate in open position. Fig. 3 is a front perspective view with the presser plate in open position. Fig. 4 is a longitudinal sectional view of the steaming and pressing bed taken on the section line shown in Fig. 5. Fig. 5 is a longitudinal vertical sectional view of the steaming and pressing bed taken on section line shown in Fig. 6. Fig. 6 is a vertical cross sectional view taken on the section line shown in Fig. 5. Fig. 7 is a detail of a joint employed in the construction.

Referring to the reference letters and figures in a more particular description, 10 indicates a table mounted on a suitable frame 11 and supporting, by means of a goose-neck 12, the steaming and heating bed 13. The bed 13 is a hollow elongated receptacle having a numerously perforated top 13^a and containing longitudinally arranged therein a triangular inner distributing chamber 14. Steam is supplied under pressure for steaming and heating purposes through the pipe 15, which branches and extends along the upper inclined sides of the closed chamber 14 in parts 15^a—15^a, and enters the chamber 14 at 16. Adjacent to the foot of the inclined sides, the chamber 14 is provided with rows of perforations or holes 14^a—14^a adapted to direct the jets of steam therefrom against the inner side walls of the hollow bed from which it is deflected upwardly and escapes more or less through the perforations in the top of the bed. The chamber 14 will be supported a little above the bottom of the steaming and heating bed, the bottom of said chamber 14 being preferably provided with one or more perforations 14^b for the escape of condensed steam into the chamber of the bed. The chamber of the bed will be provided with a drainage pipe 17 preferably located adjacent to the pipe 15 and supplied with a stop cock 18 by means of which it may be controlled.

The steam pipe 15 at a suitable point for convenient manipulation will be provided with a valve 19, and the steam will preferably be supplied through a re-heater 20, whereby dry steam may be furnished as free as possible from dampness. Mounted upon a pair of levers 21 which are pivoted intermediate of their length at 22 in the upper ends of the swinging arms 23, is the pressing plate 24. The arms 23 are secured at their lower ends on a rock shaft 25 mounted in bearings in the frame, whereby the two arms are caused to swing together. The plate 24 preferably substantially corresponds in size and shape to that of the top of the pressing and heating bed 13. Mounted on a pivot in the frame at 26 is a preferably angular treadle lever 27, the forward end of which is in a suitable position under the table to be conveniently reached by the foot of the operator, while the rear end is provided with a rigid upwardly projecting arm, the upper end of which is pivotally connected with the toggle link 28. The other end of this link 28 is pivotally connected with the rear end of the arms 21. A spring 29 is provided connected at one end with the lower end of the link 28, while the other end is connected to a fixed point on the frame.

The steaming and heating bed 13 will preferably in practice be covered with several thicknesses of cloth or fabric, as 13^b.

In use the clothing to be operated on will be laid upon the top of the bed 13 and upon steam being admitted to the bed through the pipe 15 the bed will become quickly heated and the steam will escape through the perforated top and through the fabric thereon and pass through the material of the clothing laid on the top of the bed. It is preferable that steam under considerable pressure be used in order to have it as hot and dry as possible. The internal construction of the bed facilitates the escape of the steam through the perforated top in a dry condition. The branch pipes 15^a, as well as the exterior surface of the internal distributing

chamber 14, serve as a radiator to heat up the bed, as well as the internal distributing chamber serving to distribute the steam through the numerous perforations 14ª throughout the interior of the bed and throw it in upwardly deflecting jets around the top of the bed. The steam passing outwardly through the clothing held on top of the bed serves to clean the garments by blowing the dirt out of the fabric. When the steaming and cleaning operation has been carried to the extent desired, the operator draws down the pressing plate 24 onto the top of the bed, which throws the toggle link 28 into its working position. Then by forcing down the treadle 27 the toggle action of the link 28, in connection with the rear arm of the lever 27, takes place and the pressing plate is forced down onto the bed with great power. The pressing plate 24 may be shifted forwardly or backwardly with reference to the pressing bed by the operator before applying the pressure, such movement being permitted by the swinging arms 23. This is often useful to escape a line of buttons on the garment, or to have the pressing take place only on a portion of the garment. When the pressure on the treadle is relieved, the spring 29 serves to break down the toggle joint and the pressure plate 24 is, by the action of the spring 29, assisted in the preliminary movement by the operator, moved back into the position shown in Fig. 2, where it is well out of the way of the work on the pressing board.

What we claim as new and desire to secure by Letters Patent is:

1. The combination, in a cloth pressing machine, of a hollow bed having a perforate top, a closed, elongated distributing chamber within said bed and above the bottom thereof and having a substantially flat bottom and downwardly and outwardly inclined sides, said chamber being provided with a line of perforations at the foot of each inclined side and with one or more drainage openings in its bottom, and steam pipes extending through said hollow bed exterior to said distributing chamber and along the inclined sides thereof, and communicating with the interior of said distributing chamber, substantially as set forth.

2. The combination, in a cloth pressing machine, of a hollow heated bed, a pressing plate, the arms 21 carrying the pressing plate, whereby it may be moved from a substantially vertical out of use position into a horizontal position on the plane of the bed, the swinging arms 23 to which said arms 21 are pivoted whereby said pressing plate may be adjusted forwardly and rearwardly with reference to the bed, and lever mechanism for forcing the plate onto the bed with pressure, substantially as set forth.

3. The combination, in a cloth pressing machine, of a frame, a bed, a pressing plate, an arm movably mounted on said frame, a second arm fulcrumed on said first-named arm and by which said plate is carried, a treadle lever, and a link connecting said lever with the arm carrying said pressing plate, substantially as set forth.

4. The combination, in a cloth pressing machine, of a frame, a bed, a pressing plate, an arm movably mounted on said frame, a second arm pivoted on said first-named arm and by which said plate is carried, an angular treadle lever having an upwardly projecting arm, and a toggle link connecting the upper end of the arm of said treadle lever with the arm carrying said pressing plate, substantially as set forth.

In witness whereof, we have affixed our signatures, in presence of two witnesses, this 9th day of February, 1909.

CHARLES D. STRATTON.
WALTER A. PETRIE.

Witnesses:
FRANCIS T. WATSON,
FRED. E. SCHENCK.