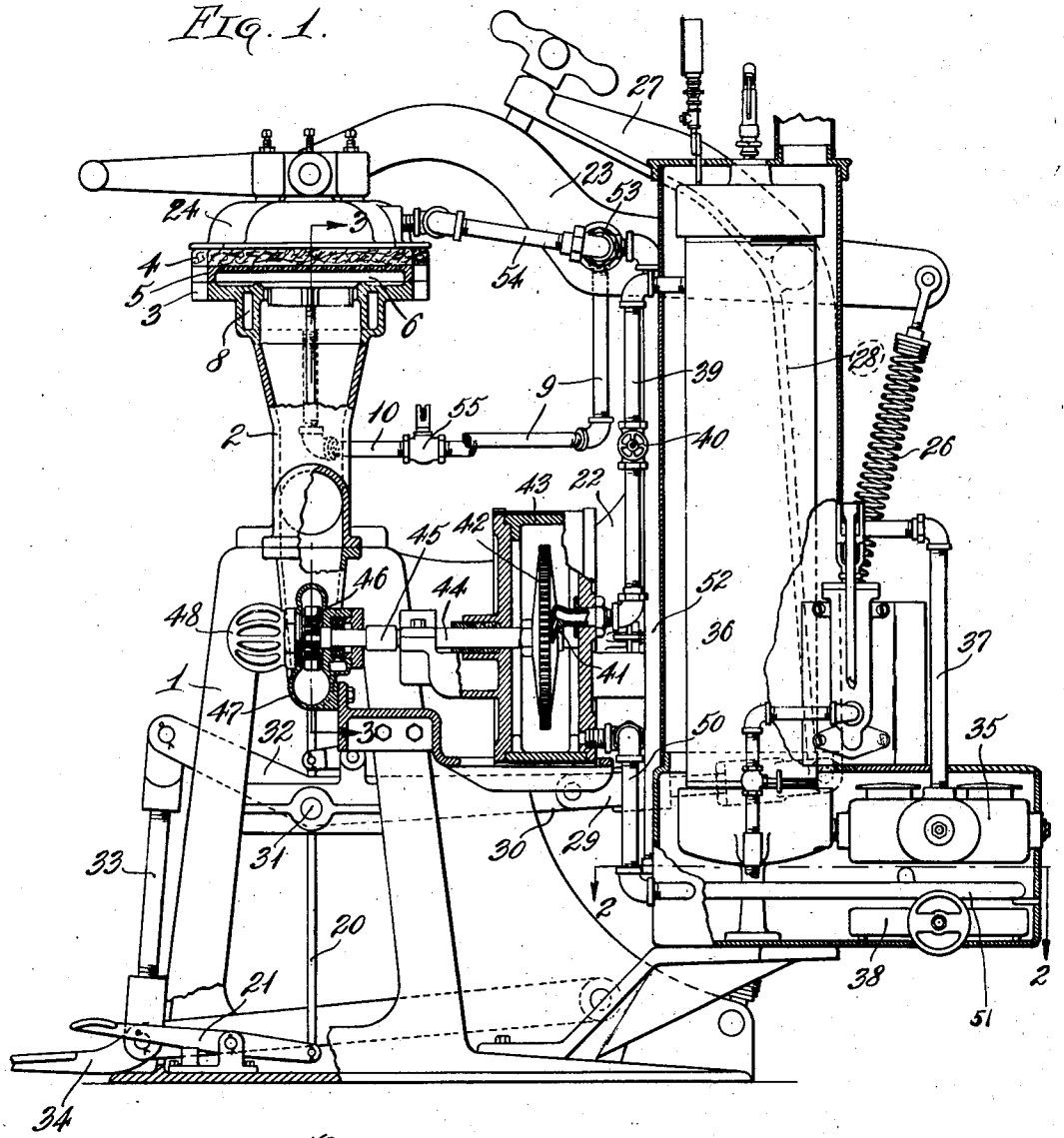
July 6, 1926. 1,591,236

J. B. SANDO

GARMENT PRESS

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FIG. 1.



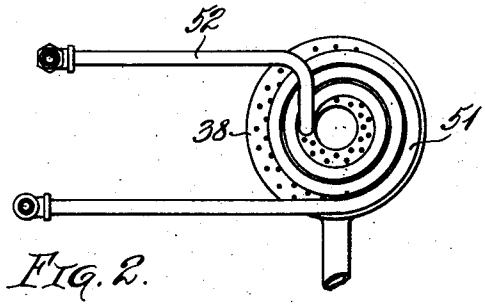


FIG. 2.

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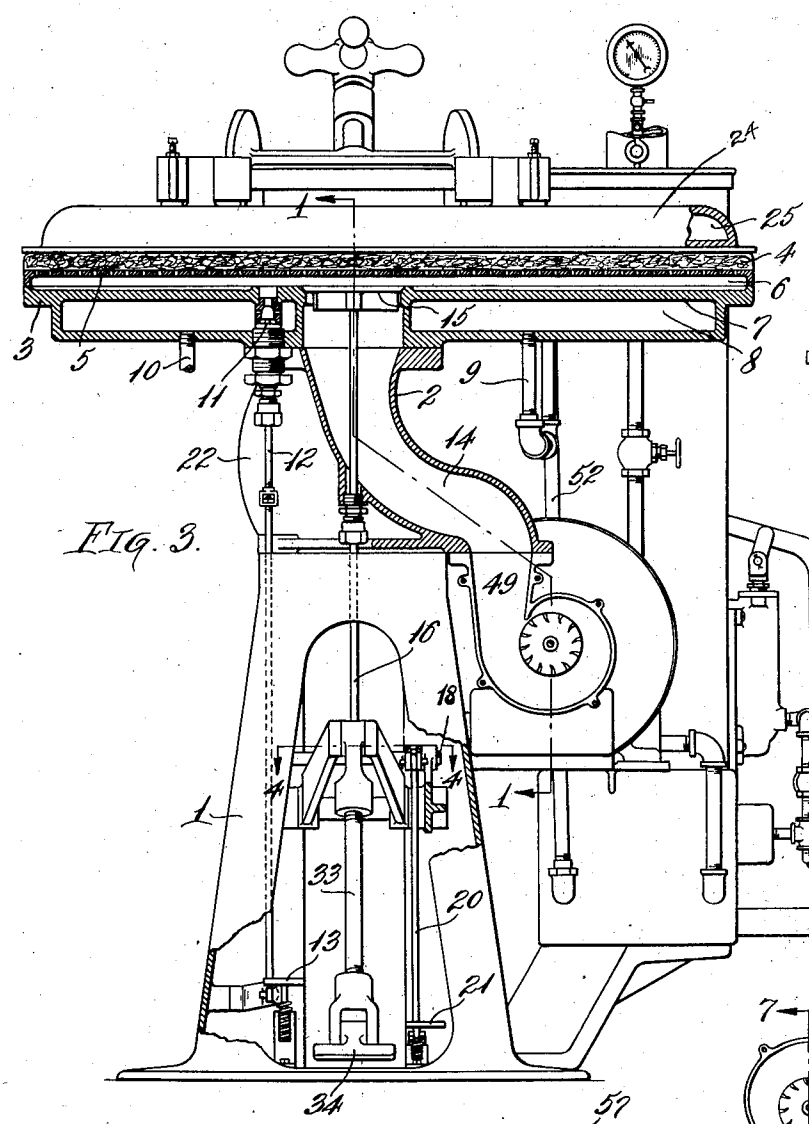


FIG. 3.

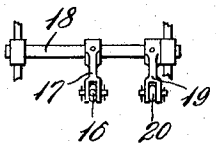


FIG. 4.

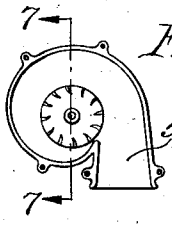


FIG. 6.

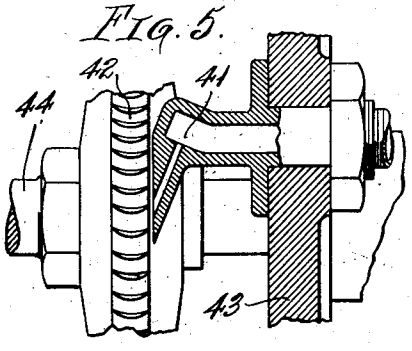


FIG. 5.

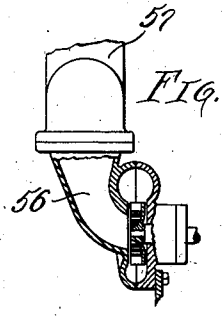


FIG. 7.

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Patented July 6, 1926. 1,591,236

UNITED STATES PATENT OFFICE.

JOSEPH B. SANDO, OF CINCINNATI, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO THE AMERICAN LAUNDRY MACHINERY COMPANY, OF NORWOOD, OHIO, A CORPORATION OF OHIO, AND ONE-HALF TO METROPOLITAN TRUST COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK, TRUSTEE.

GARMENT PRESS.

Application filed December 16, 1920. Serial No. 431,200.

This invention relates to garment presses and more particularly to the devices for heating the pressing members, supplying steam to the garment or work to be pressed therebetween and for circulating air through the garment and padding for drying purposes. The object of the invention is to provide an improved garment press of the class described in which the air for drying is circulated through the garment and padding by means of a centrifugal fan or blower actuated by a steam turbine, the steam for driving which, instead of being permitted to waste away, is super-heated and subsequently used not only for heating the pressing members but also for moistening purposes.

Further objects of the invention are in part obvious and in part will appear more in detail hereinafter.

The invention comprises the construction and arrangement of parts hereinafter described and claimed.

In the drawings, Fig. 1 is a side elevation of one form of press embodying the invention, parts being broken away and in section on the line 1—1, Fig. 3 to expose interior parts; Fig. 2 is a detail sectional plan view of the burner and superheating coil on the line 2—2, Fig. 1; Fig. 3 is a front elevation of the press with parts broken away and in section on the line 3—3, Fig. 1; Fig. 4 is a detail sectional plan view on the line 4—4, Fig. 3, showing the levers and shaft for operating the air valve; Fig. 5 illustrates a portion of the turbine in section; Fig. 6 is a detail sectional elevation of a modified form of suction fan usable in place of the blower shown in Figs. 1 and 3; and Fig. 7 is an elevation thereof partly in section on the line 7—7, Fig. 6.

The garment press shown in the drawings comprises a suitable frame 1 on which is a standard or pedestal 2 supporting the lower pressing member or bed 3, which is provided with padding 4 lying above a perforated plate 5 which forms the upper wall of a combined steaming and air circulating chamber 6, beneath the lower wall 7 of which the casting is provided with a heating chamber 8 to which steam is supplied by a pipe 9 and from which it is discharged by a pipe 10. 11 indicates a valve actuated by a downwardly extending rod 12 connected to the steaming treadle 13, said valve being constructed and arranged so that when the treadle is depressed the valve is opened and steam flows from the heating chamber 8 to the steaming chamber 6 and is discharged through the perforations in the plate 5 and distributed through the padding to the garment thereon. The pedestal is also provided with a channel 14 at the upper end of which is a valve 15 seating downwardly and the lower end of which channel comunicates with the air circulating device. Valve 15 is connected to the upper end of a valve rod 16 connected to a lever 17 on a shaft 18 having a second lever 19 connected by a link 20 to the rear arm of an operating treadle 21, depression of which raises the valve and establishes communication between the chamber 6 and the air circulating channel 14.

The frame is also provided with a rear standard 22 on which is pivoted lever 23 carrying the upper pressing member or head 24. Said head is of the usual hollow form, the chamber 25 therein being supplied with, steam for heating the head, as will later more fully appear.

The actuating means for producing relative movement between the pressing members may be of any suitable description. As illustrated, the head is moved by oscillating the lever 23, the rear arm of which is connected by a tension spring 26 to a fixed point on the base. On the rear arm of said lever is also pivoted a lever 27, the depending portion 28 of which is connected by an adjustable toggle link 29 to the rear arm 30 of a lever pivoted at 31 in the main frame, the front arm 32 of said lever being connected by a link 33 to the treadle 34. This mechanism is of ordinary form and requires no further description.

On the rear of the frame or adjacent thereto is located a steam generator which may be of any suitable form. Briefly speaking, said generator comprises a boiler including a steam generating member 35 connected to the main reservoir 36, said generator and reservoir being connected by the return circulating pipe 37. Beneath the generator 35 is a suitable gas or other burner 38. The steam generated in member

35 and collected in the upper portion of reservoir 36 flows by way of the pipe 39 and controlling valve 40 to the nozzle 41 of a steam turbine, the turbine wheel 42 of which is located in the hollow casing 43 and is mounted upon a shaft 44 journaled in suitable bearings. Said shaft is connected by a coupling 45 to the rotatable member 46 of a fan or blower having the usual volute 47, the air inlet for which is indicated at 48 and the outlet channel 49 of which communicates with the channel 14 before referred to.

The chamber in the casing 43 communicates by way of a pipe 50 with a superheating coil 51 located between the burner 38 and the steam generator 35. Said coil at its far end communicates with a pipe 52 leading upwardly to the pivot for the swinging arm 23, where the pipe 52 communicates by way of a swivel joint 53 with a pipe 54 which serves as the inlet for steam to the chamber 25 of the head. The outlet pipe from the head communicates by suitable swivel joints with the pipe 9 for supplying steam to the heating chamber 8 of the bed, and the outlet pipe 10 from the chamber 8 is provided with a suitable pressure controlling valve 55 which can be set to maintain any desired amount of pressure in the hollow chambers suitable for heating the same and for supplying steam at the proper pressure for moistening the garment.

Assuming that the burner 38 has been lighted and that sufficient steam has been generated and stored in reservoir 36, valve 40 may be opened to supply steam to the turbine nozzle thereby producing rotation of shaft 44 and actuation of the fan or blower, which fan or blower establishes pressure greater than atmospheric in channel 14. The steam issuing from the discharge pipe 50 of the turbine has been reduced in pressure to the pressure to which the valve 55 has been adjusted and has also lost approximately 100° of its temperature. Said steam is superheated in the coil 51 and is then circulated through the chambers of the head and bed, being finally discharged past the valve 55. The work is applied to the bed and at any time may be moistened by depressing the treadle 13 for allowing steam to be supplied to the garment. The head is depressed and the garment maintained under pressure for a sufficient length of time when the head is raised and the drying valve treadle 21 depressed, which establishes communication between air pressure channel 14 and the chamber 6, the effect of which is to drive from said chamber all of the remaining traces of steam or moisture and to blow air through the padding and garment for drying the same.

If a suction effect is desired the blower shown in Figs. 1 and 3 may be removed and the suction fan shown in Figs. 6 and 7 substituted therefor. This fan is like the one shown in the other views excepting only that its inlet channel 56 communicates with the channel 14 while its outlet channel 57 is connected to the atmosphere. This fan draws air downwardly through the garment and padding of the buck instead of discharging it upwardly therethrough, as in the form before described. In either case both the garment and the padding are effectively dried by the circulating air.

What I claim is:

1. A garment press, comprising relatively movable pressing members, means for supplying drying air to a garment in the space between said members, a steam actuated motor device for actuating said means, and means for conducting the exhaust steam from said device to the pressing members.

2. A garment press, comprising relatively movable pressing members, a rotary fan for supplying drying air to a garment in the space between said members, a steam turbine for actuating said fan, and means for conducting the exhaust steam from said turbine to the pressing members for heating the same.

3. A garment press, comprising relatively movable pressing members, a rotary fan for supplying drying air to a garment in the space between said members, a steam turbine for actuating said fan, and means for conducting the exhaust steam from said turbine to the garment between said pressing members for moistening said garment.

4. A garment press, comprising relatively movable pressing members, means for supplying drying air to a garment in the space between said members, a steam actuated motor for operating said means, means for superheating the exhaust steam from said motor, and means for conducting said steam to the pressing members.

5. A garment press, comprising relatively movable pressing members, means for supplying air to a garment in the space between said members for drying purposes, a steam actuated motor for operating said means, steam generating means therefor including a boiler and heater, means for conducting the exhaust steam from said motor to said heater for superheating the steam, and means for conducting the superheated steam to the pressing members for heating the same.

6. The combination of a garment press, comprising relatively movably pressing members, steam actuated power means for effecting one press function, additional means requiring steam for effecting another press function, connections between said steam actuated power means and a source of steam supply, and connections between

the exhaust of said steam actuated power means and said additional means.

7. The combination of a garment press, comprising relatively movable pressing members, steam actuated power means for effecting one press function, connections between said steam actuated power means and a source of steam supply, and means for conducting the exhaust steam from said steam actuated power means to one of the pressing members for heating the same.

8. The combination of a garment press, comprising relatively movable pressing members, steam actuated power means for effecting one press function, connections between said steam actuated power means and a source of steam supply, and means for conducting the exhaust steam from said steam actuated power means to a garment between the pressing members for moistening said garment.

In testimony whereof I hereby affix my signature.

JOSEPH B. SANDO.