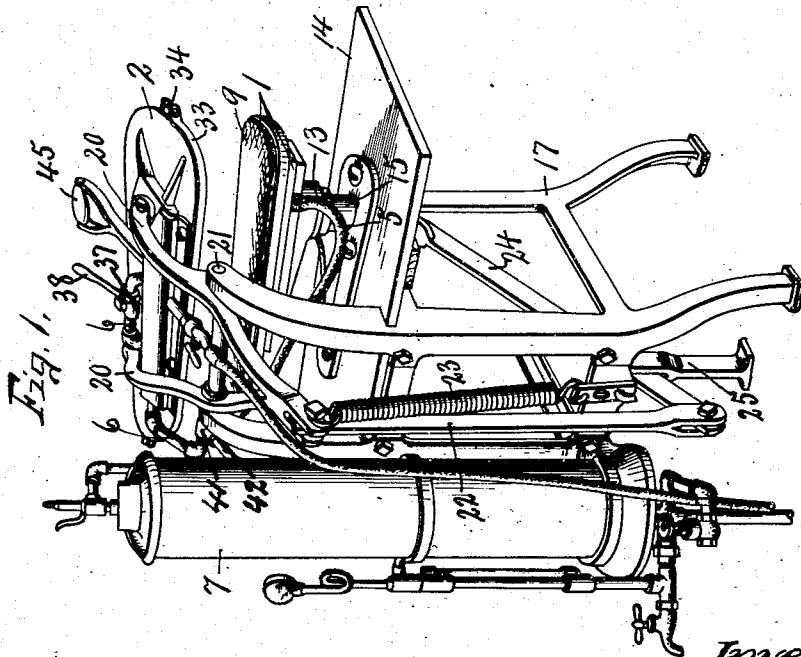
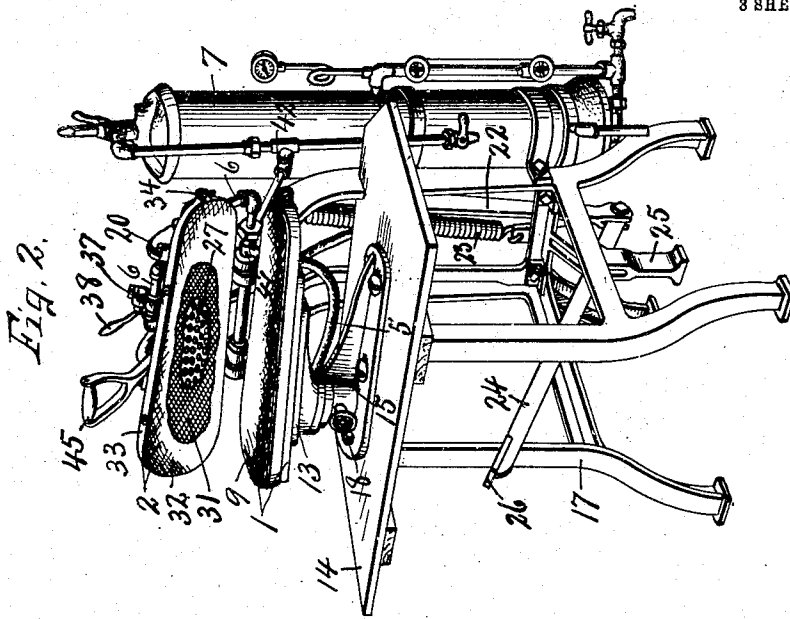


A. J. HOFFMAN.
STEAM CLOTHES PRESS.
APPLICATION FILED MAR. 28, 1908.

939,025.

Patented Nov. 2, 1909.

3 SHEETS—SHEET 1.



Witnesses.

A. C. Thomas
W. E. Chace

Inventor.

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By.

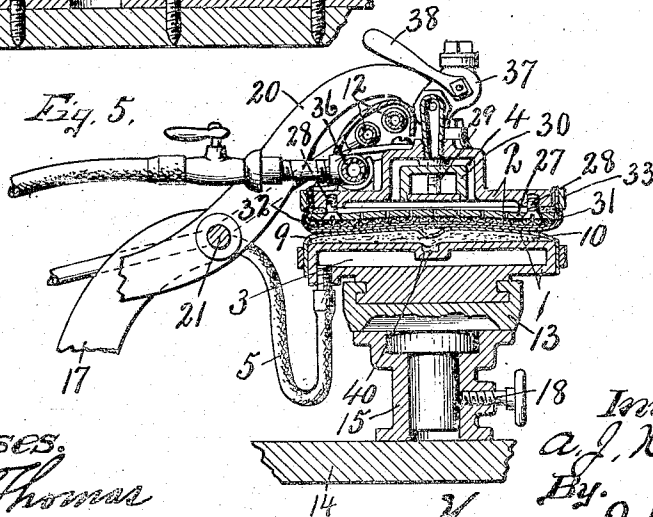
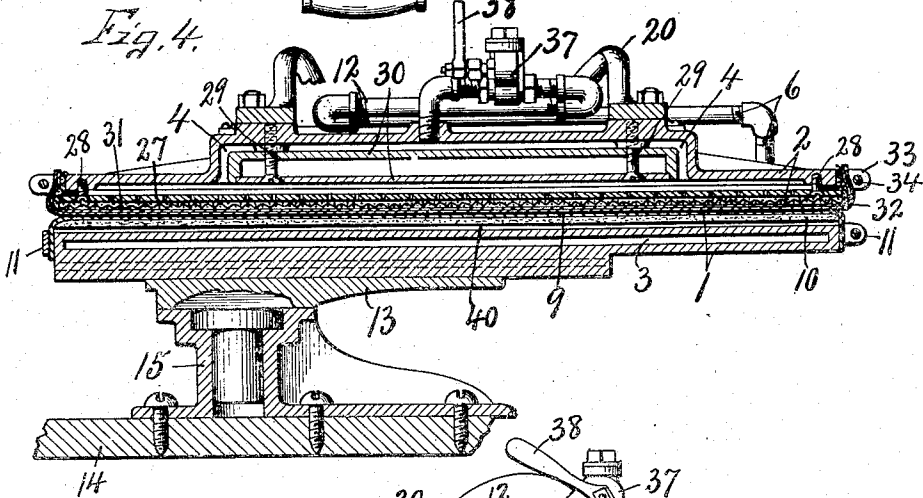
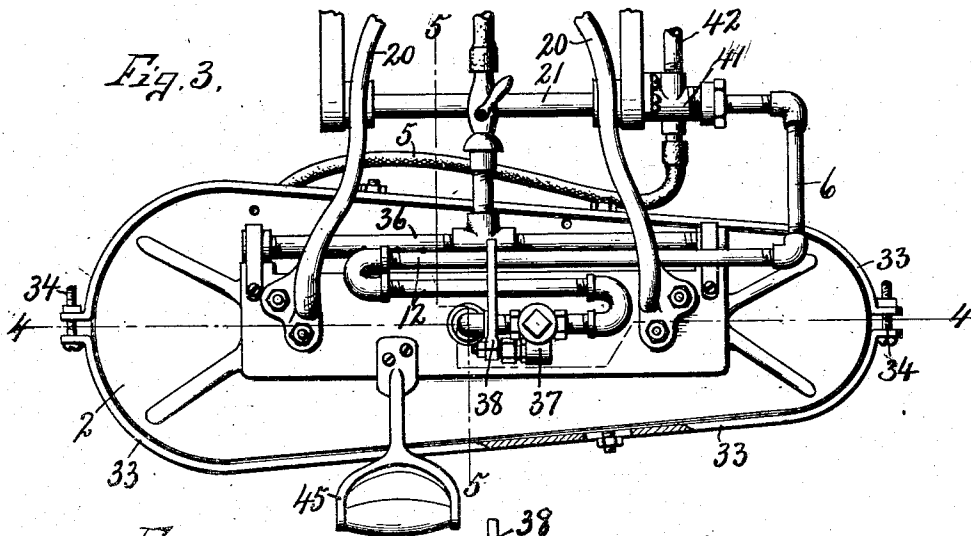
Howard P. Dunbar
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3 SHEETS—SHEET 2.



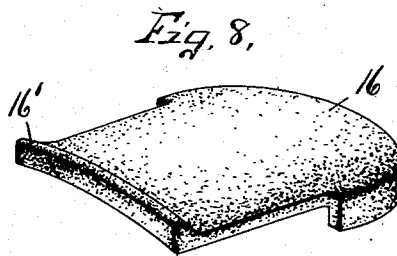
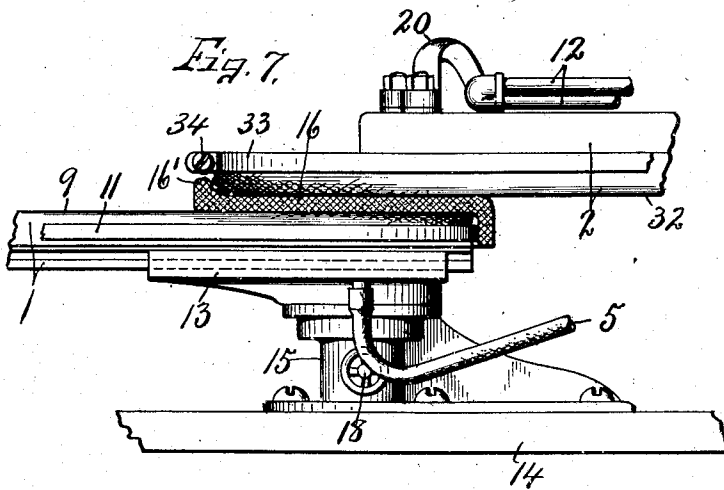
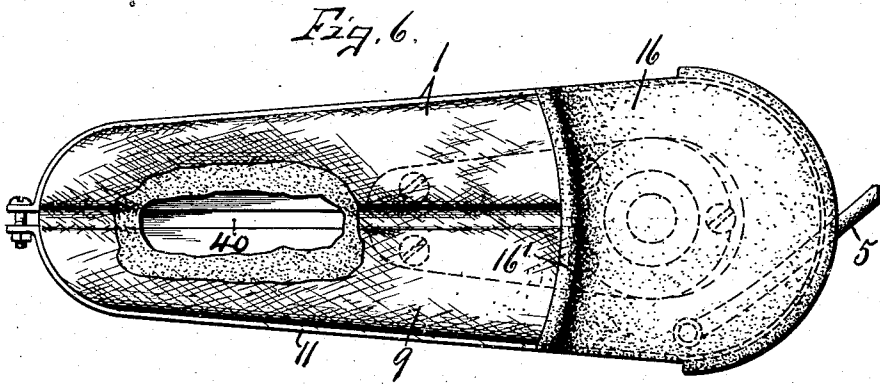
Witnesses,
A. B. Thomas
W. C. Chace

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Patented Nov. 2, 1909.
3 SHEETS—SHEET 3.



Witnesses.
A. C. Thomas
W. E. Chase

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UNITED STATES PATENT OFFICE.

ADON J. HOFFMAN, OF SYRACUSE, NEW YORK.

STEAM CLOTHES-PRESS.

939,025.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed March 23, 1908. Serial No. 423,931.

To all whom it may concern:

Be it known that I, ADON J. HOFFMAN, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Steam Clothes-Presses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in steam clothes presses of the class set forth in my pending application No. 235,188, filed December 1, 1904, in which a presser head is permanently associated with and movable toward and from a "buck" or garment support and is provided with a foraminous presser face and press cloth through which steam is adapted to be discharged against the upper surface of the garment while the latter is under pressure so that the upper surface of said garment is subjected to the simultaneous application of steam and mechanical pressure under the control of the operator.

In my pending application referred to as well as in my present application the broad object is to distribute the steam evenly over the upper surface of the garment while the latter is under mechanical pressure whereby a dense but thin cloud of steam will be temporarily embedded in the nap of the garment for the purpose of softening the same and immediately raising the nap by the natural escape of the steam upward when the mechanical pressure is removed, the rapidity of evaporation of the steam serving to accelerate the drying of the garment so that such garment may be immediately put on and worn as soon as taken from the press. In other words, the important result obtained by applying the steam in the manner just described to the upper surface of the garment is to expedite the drying of the garment almost instantly upon the release of the mechanical pressure.

One of the specific objects of my present invention is to interpose a wire screen of comparatively fine mesh between a foraminous presser face and press cloth for the purpose of more evenly distributing the steam over the upper surface of the garment while under mechanical pressure.

Another object is to heat the buck or garment support (preferably by steam) for the purpose of further accelerating the drying of the garment thus permitting the use of

comparatively low pressure steam in the presser head.

A further specific object is to provide the "buck" or garment support with one or more channels or grooves (preferably through its longitudinal center) for the purpose of receiving the seams of trousers and other garments and thereby preventing these parts of the garment from being pressed shiny or glossy as is most always the case where the seams are impinged between two more or less rigid faces.

Another object is to provide the buck with a removable collar pad shaped so as to nearly conform to the collar and adjacent portion of the shoulder of such garment.

Another object is to enable the buck to be rotated horizontally and moved longitudinally relatively to the presser head and particularly when it is desired to use the collar pad.

Other objects and uses relating to different parts of the press will be brought out in the following description.

In the drawings—Figures 1 and 2 are respectively rear and front perspective views of the complete clothes press showing the steam heater and its connections therewith and also showing portions of the press cloth and screen partially broken away in Fig. 2 to show the foraminous presser face. Fig. 3 is a top plan of the presser head showing the gas heater and steam pipe connections therewith. Figs. 4 and 5 are sectional views taken respectively on lines 4—4 and 5—5, Fig. 3. Fig. 6 is a top plan of the "buck" showing the collar pad in operative position and also showing the lengthwise channel therein, a portion of the pad surface of the buck being broken away to show the underlying channel. Fig. 7 is a detail elevation of one end of the buck and adjacent end of the presser head showing the collar pad in operative position and in section. Fig. 8 is a perspective view of the detached collar pad.

This machine comprises essentially a "buck" or garment support —1— and a presser head —2— permanently associated with and movable to and from the "buck" or garment support, said "buck" and presser head being provided with steam chambers —3— and —4— respectively for the admission of steam which is supplied through conduits —5— and —6— from any available source as, for instance, from a steam gen-

erator —7— shown in Figs. 1 and 2 thereby heating both the "buck" and head to a sufficient temperature to materially accelerate the drying of the garment when the mechanical pressure is released and at the same time keeping the temperature sufficiently low to prevent burning or charring of the garment, it being understood that both steam chambers are practically coextensive with the coacting faces of the "buck" and presser head.

The presser face of the "buck" —1— is covered with a suitable press cloth —9— and interposed yielding body —10— of felt or other pliable absorbent, the press cloth being held in position by a suitable split band or clamp —11— passing around the marginal edges of the "buck". This "buck" is usually made of cast iron and is movable longitudinally in a support —13— which in turn is revoluble and journaled in a suitable bracket —15— as best seen in Fig. 4 so that the "buck" may be rotated horizontally, and adjusted longitudinally relatively to the presser head for any purpose as, for instance, to permit the use of a collar pad —16— which is removably attached to one end of the "buck", that is to bring a raised portion —16'— of the pad corresponding to the collar of the coat or similar garment into operative relation to one end of the presser head so as to press the shoulder and portion of the collar at the same time allowing the collar to stand in its natural position.

The bracket —15— is supported upon a suitable table or shelf —14— which together with other parts of the press exclusive of the heater —7— and its adjuncts are mounted upon a supporting frame —17— to retain the buck and presser head at a convenient height.

The revoluble support —13— and lower side of the buck —1— are provided with interlocking ways which permit longitudinal movement but prevents vertical displacement of the buck upon the support, the pipe connection —5— being sufficiently long and flexible to allow for the longitudinal and rotary movement of the buck which latter may be clamped in its adjusted position against rotation by a clamping screw —18— as best seen in Fig. 5.

The presser head —2— is rigidly secured to the front end of a rocking frame —20— which is fulcrumed intermediate its ends at —21— to upwardly extending arms of the rear portion of the frame —17— and its rear end connected to a link —22— and spring —23—, the lower end of the spring being attached to a portion of the frame —17— for the purpose of returning and normally holding the presser head in its elevated position while the lower end of the link —22— is connected to a pedal lever —24—, the latter being fulcrumed upon a

bracket —25— and has its front end provided with a suitable foot piece —26— at the front of the machine below the table —14— where it is readily accessible to the operator.

The presser head —2— is provided with a perforated or foraminous presser face —27— which is secured by suitable fastening means as screws —28— to the main body of the head and forms the lower side of the steam chamber —4— within which is located a baffle or deflector plate —30— held in place by screws —29—.

The foraminous presser plate —27— is preferably concavo-convex in cross section as best seen in Fig. 5 and its lower face is covered by a wire screen —31— of comparatively fine mesh and coextensive with the area of the presser plate, said wire screen being in turn covered by a press cloth —32—, the marginal edges of which are clamped to the perimeter of the presser head by a split band —33— and clamping screws —34— so that the press cloths may be easily removed and replaced when worn.

The object in concaving the lower face of the presser plate —27— is to cause the longitudinal edges thereof to first engage the garment and thereby stretch or straighten out such garment upon the yielding pad on the upper face of the buck and at the same time assure more perfect contact between the pressing faces of the pressing head and buck with the garment.

The steam pipe —6— which supplies steam to the chamber —4— is extended lengthwise along the top face of the presser head a considerable portion of its length and is returned forming a loop or return bend —12—, one side of which lies in close proximity to and above a gas burner —36— by which the adjacent side of the steam coil is heated thereby superheating the steam just before its entrance into the steam chamber —4—, the object of which is to partially dry the steam and to increase its expansive force to accelerate the drying of the garment while under mechanical pressure or immediately after the removal of such pressure.

The burner —36— is provided with additional apertures to deflect a portion of the flame against the upper side of the presser head for the purpose of additionally heating the same and further accelerating the drying of the garment while under mechanical pressure.

The steam supply pipe —6— is provided with a suitable valve —37— in proximity to its connection with the steam chamber —4—, said valve having a suitable operating member —38— by which the inlet of the steam into said chamber —4— may be controlled at the will of the operator and is usually opened for a short interval while the garment is under mechanical pressure so

as to produce a thin dense cloud of steam which is evenly distributed by the presser face —27—, screen —31— and press cloth —32— over the entire upper surface of the garment thereby matting and softening the nap while under pressure so that when the steam is shut off and the pressure removed, the natural tendency of the steam to escape upward causes the immediate raising of the softened nap and rapid drying of the garment due primarily to the rapidity of evaporation of the steam aided by the superheating of such steam and also the heating of the buck and presser head which enables the garment to be put on immediately after being taken from the press.

In pressing trousers between two presser faces in a press of this character, the seams at the inner and outer sides of the legs are necessarily thicker than the remaining portions of the trouser legs and unless some preventive provision is made these thickened portions or seams of the trousers appear glossy or shiny when taken from the press and in order to obviate this effect I provide the buck with a lengthwise channel —40— located near the longitudinal center and covered by the pad —10— and presser cloth —9— portions of which in registration with the channel —40— readily yield into said channel when the seams of the trouser legs are brought directly over said channel and subjected to mechanical pressure by the downward movement of the presser head —2—, as best seen in Fig. 5.

In order that the presser head and steam pipe —6— may be moved without straining any of the pipe joints the inlet end of the pipe —6— is loosely mounted in a tubular head or bushing —41— which is coaxial with the swinging axis of the head —2— or fulcrum —21— and to which is connected a steam pipe —42— leading from the generator —7—, the flexible steam pipe —5— leading to the chamber —3— of the buck —1— being also connected to this head —41—.

In operation, the garment is spread out smoothly across the presser face of the buck —1— and properly brushed or cleaned and the presser head —2— is then forced downwardly either by the pedal lever —44— or a hand lever —45— which is secured to the head and while the garment is under pressure the valve —37— is opened for a short interval by the operator through the medium of the hand piece —38—, and the steam entering the chamber —4— being spread out by the baffle plate —30— is evenly distributed by the foraminous presser plate —27—, screen —31— and press cloth in the form of a thin dense cloud upon the upper surface of the garment thereby softening the nap while the pressure mats said nap more or less so that when the mechan-

ical pressure is removed by the elevation of the presser head, the tendency of the steam to immediately escape upward restores or raises the nap and the rapidity of the escape of said steam accelerates the drying of the garment which is aided by the superheating of the steam and also by the heating of the buck and presser head, the garment being practically dry almost immediately after the mechanical pressure is removed.

When it is desired to press the shoulder and collar of a coat or similar garment the auxiliary pad —16— is slipped or placed over one end of the buck as shown in Figs. 6 and 7 and the buck is then turned upon its axis and adjusted longitudinally as previously described until the raised portion at the end of the auxiliary pad comes just outside of the adjacent end of the presser head as shown in Fig. 7, the collar being fitted around said raised portion while the shoulder is brought between the presser face of the pad and superposed presser head.

What is claimed is:

1. In a clothes press, a main supporting frame, a hollow buck mounted on said frame and having an imperforate top, a cloth secured to the buck and extending across its top face, means for introducing steam into the interior of the buck for heating the same, a press head hinged to the frame and provided with a steam chamber having a perforated bottom, a press cloth secured to the head and extending across the perforated bottom, and means for introducing steam into the press head and through said perforated bottom and press cloth against the upper surface of the garment, the imperforate top of the buck serving to prevent the passage of the steam through the garment.

2. In a clothes press, a main supporting frame, a buck journaled near one end upon the supporting frame to swing horizontally and provided with an imperforate top, a cloth covering the top of the buck and secured thereto, a superposed press head hinged to the frame and provided with a steam chamber having a perforated bottom, a press cloth covering the perforated bottom of the press head, means for introducing steam into the press head and through its foraminous bottom and press cloth against the upper surface of the garment, and means other than the weight of the press head for forcing the latter toward the buck.

3. In a clothes press, a main supporting frame, a horizontally movable buck mounted on the frame and provided with a steam chamber having an imperforate top, means for introducing steam into the steam chamber of the buck, a cloth covering the imperforate top of the buck and secured thereto, a superposed press head hinged to the frame and provided with a steam chamber having a

perforated bottom, a press cloth secured to the press head and extending across and under the perforated bottom, means for introducing steam into the press head and through said perforated bottom and press cloth against the upper surface of the garment, and mechanism for forcing the press head toward the buck, the imperforate top of said buck serving to prevent the passage of steam through the garment while under pressure.

4. In a clothes press, a main supporting frame, a hollow buck mounted on the frame having an imperforate top and provided with a lengthwise channel in its upper face, a cloth covering the top and channel of the buck and secured thereto, means for introducing steam into the buck, a superposed press head hinged to the frame and provided with a perforated bottom, a press cloth secured to the head and extending across the under side of the perforated bottom, means for projecting steam through the perforated bottom and press cloth against the upper surface of the garment, and additional means other than the weight of the head for pressing said head toward the buck.

5. In a clothes press, a main supporting frame, a buck mounted on the frame, a pad detachably mounted upon one end of the buck and resting upon a portion of the top face thereof, a superposed press head hinged to the frame and provided with a perforated bottom, a press cloth extending across the perforated bottom of the head and secured thereto, and means for forcibly pressing the head toward the buck, said buck with the pad thereon being movable horizontally relatively to the head.

6. In a clothes press, a main supporting frame, a buck mounted on the frame and provided with an imperforate top, a superposed press head mounted on the frame and provided with a perforated bottom, a wire screen fabric of fine mesh extending across the under side of the perforated bottom, a press cloth extending across the under side

of the screen, said screen and press cloth being secured to the press head, and means for projecting steam through the perforated bottom screen and press cloth of the press head and against the upper surface of the garment, the imperforate top of the buck serving to prevent the passage of the steam through the garment.

7. In a clothes press, a hollow buck having an imperforate top, means to heat the buck, a superposed presser head having a foraminous presser face, and means for forcing steam through said foraminous presser face and against the upper surface of the garment while the latter is under pressure.

8. In a clothes press, a buck having an imperforate top and a superposed presser head permanently associated therewith, and both having steam chambers, the presser head being movable toward and from the buck and provided with a foraminous presser face, and a press cloth covering said face.

9. In a steam clothes press, a support for the garment, a superposed presser head having a steam chamber and a foraminous bottom, a steam pipe entering said head and having a return bend therein above the head, and means for heating one of the sides of the return bend of the steam pipe for superheating the steam passing therethrough.

10. In a steam clothes press, a buck having a steam chamber provided with an imperforate top, a presser head having a steam chamber and a foraminous bottom, a steam pipe entering said head and having a return bend therein above the head, and means for heating one of the sides of the return bend of the steam pipe for superheating the steam passing therethrough, said means also heating the head.

In witness whereof I have hereunto set my hand this 25th day of March 1908.

ADON J. HOFFMAN.

Witnesses:

H. E. CHASE,
CAROLINE McCORMACK.