Nov. 18, 1930. E. DAVIS 1,782,137

PRESSING ELEMENT FOR PRESSING MACHINES

Filed Jan. 18, 1929

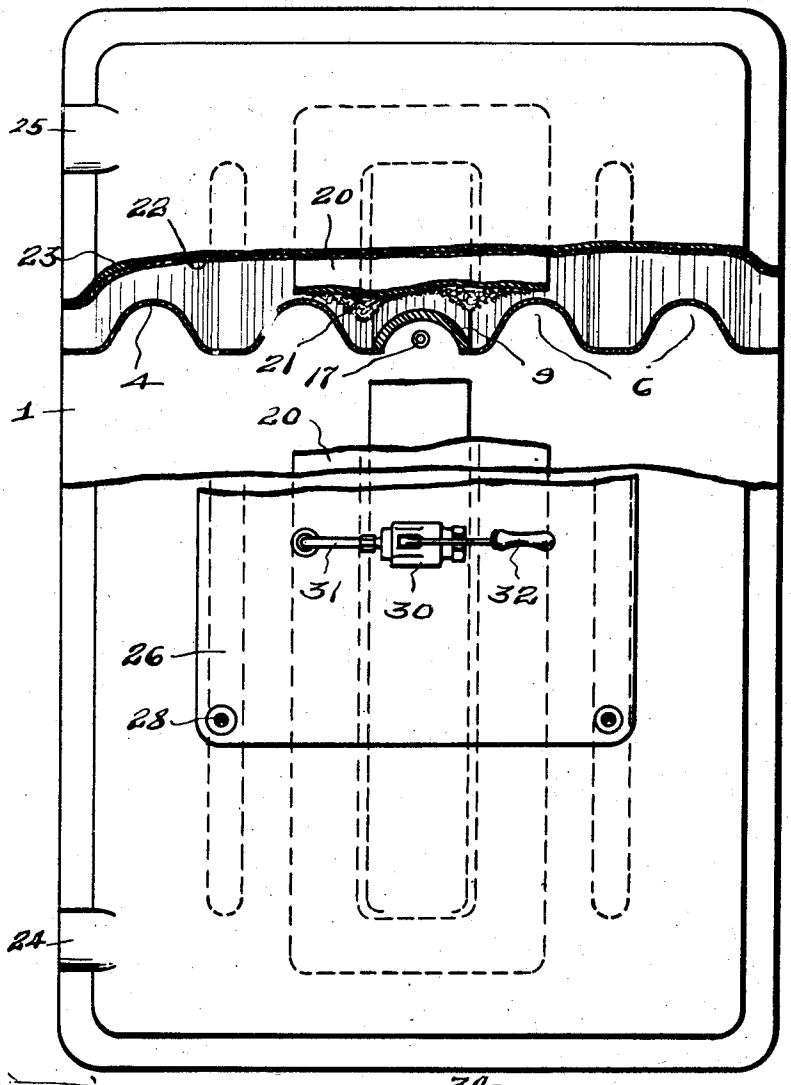


Fig. 1.

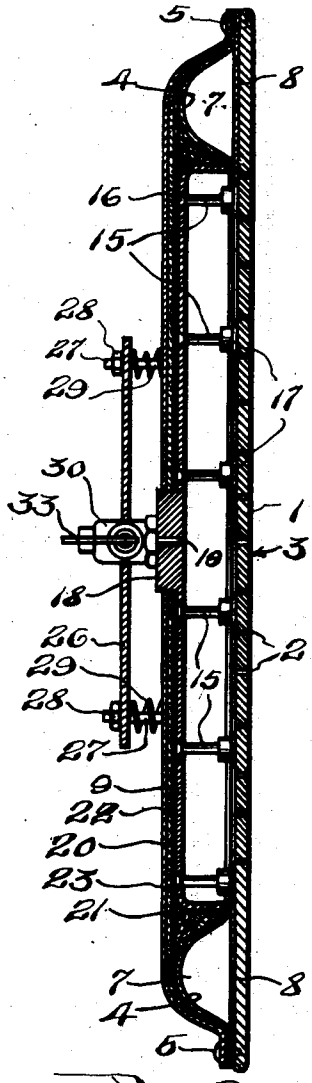


Fig. 2.

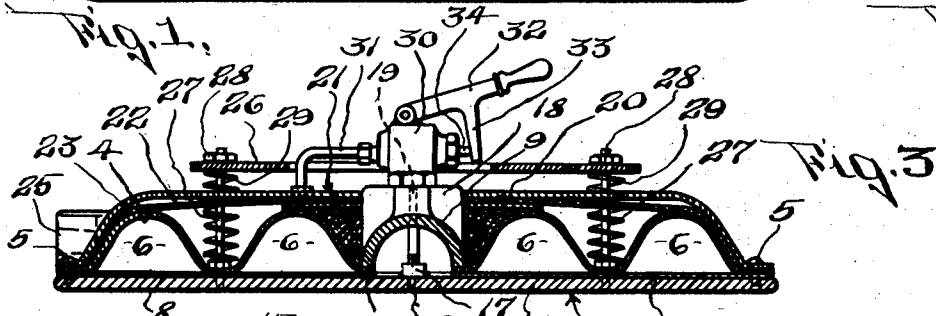


Fig. 3.

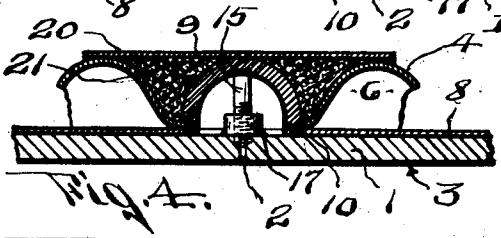


Fig. 4.

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UNITED STATES PATENT OFFICE

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PRESSING ELEMENT FOR PRESSING MACHINES

Application filed January 18, 1929. Serial No. 333,444.

This invention has for its object, a particularly simple and economical built up as distinguished from a block or cast construction of the pressing element of a garment and laundry pressing machine as the head or the buck or both, by which the element is formed largely of sheet metal stampings.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawing, in which like characters designate corresponding parts in all the views.

Figure 1 is a plan view, partly broken away, of a pressing element embodying my invention.

Figure 2 is a central longitudinal sectional view taken of Figure 1.

Figure 3 is a transverse sectional view of parts seen in Figure 1.

Figure 4 is an enlarged fragmentary transverse sectional view.

This pressing machine element comprises a substantially rigid base or main plate having a pressing face, sheet metal plates overlying the main plate and forming a heating chamber and a conduit mounted on the main plate and extending lengthwise thereof and communicating with perforations in the main plate which open through the pressing face, the conduit being secured to the main plate and also serving to secure parts of the sheet metal plates in position.

1 designates the main plate which may be of rigid sheet metal or a casting, but is preferably, sheet metal. The plate 1 is formed with a line of perforations 2 extending along the median line thereof and opening through the pressing face 3 of the plate 1.

4 is a plate of light sheet metal having its outer margins secured as by screws 5 to the plate 1 and intermediate portions offset to form a heating chamber 6, that is, a chamber for a heating medium as steam. The chamber 6 is formed by providing the plate 4 by offsetting the intermediate part from the margins and forming the offset or crowned portion with a plurality of corrugations terminating short of the ends of the crown portion so that the corrugations communicate with each other at their ends as at 7. Preferably, a flat sheet metal plate 8 overlies the upper face of the main plate 1 and the corrugated plate 4 overlies the plate 8. The plates are secured where they touch with each other and to the plate 1 in any suitable manner as by spot welding.

9 is a conduit secured to the plate 1 and communicating with the perforations 2, this conduit being in the form of a half round channel closed at its ends and arranged with its open side toward the plate 1. It is preferably mounted over alined slots formed in the plates 4 and 8 and the margins 10 of the plate 4 around the slot and also the margins of the plate 8 around its slot extend under the edges of the channel, and means is provided for clamping the channel toward the plate 1 and against said margins.

This means as here shown comprises, studs 15 threading into the plate 1 and extending through the channel 9 and having heads 16 countersunk in the upper side of the channel. Preferably, the plate is provided with bosses 17 in which the screws or studs thread. The channel is provided also with a block portion 18 intermediate of its ends and formed with an inlet 19 for a fluid as steam. The channel 9 is thus located between two corrugations of the plate 4 and the space between the conduit and the walls of the corrugation is preferably covered by a plate 20 secured to the crowns of the corrugations in any suitable manner as by spot welding and the space around the conduit is preferably filled with a heat conducting medium as copper wool 21.

The block 18 extends through a complemental opening in the plate 20. Preferably,

the plate 4 is enclosed in a suitable sheet 22 of heat insulating material as asbestos and this is covered by a cover plate 23 having its margins overlying the margins of the plate 4 and secured in position by the screws 5. The plate 4 is also formed with suitable offset portions 24 and 25 to which inlet and outlet pipes for the steam may be coupled. The cover plate 23 is also shaped to conform to these inlets and outlets 24, 25.

26 is a carrier by means of which the element is secured to a support as the yoke lever of a pressing machine, this carrier being connected to the plate 1 by studs 27 projecting from the plate 1 between two of the corrugations of the plate 4 and through the asbestos plate 22 and the cover plate 23. The studs are slidably mounted in holes in the plate 26 and have heads 28. Springs 29 encircle the studs and are interposed between the carrier 26 and the plate 1. Preferably, steam is projected through the conduit 9 and the perforations 2 and the steam is supplied from the chamber 4 through a valve casing 30 mounted on the block 18 and communicating with the inlet 19 and a conduit 31 connecting the valve casing 30 and the chamber 4.

The movable member of the valve in the casing 30 is operated by a suitable handle 32 having an arm 33 coacting with the stem 34 of the valve. Obviously, operation of the handle 32 to open the valve, will permit the steam to flow from the chamber 6 through the valve casing 30, inlet 19 into the conduit and from the conduit out through the perforations 2.

This pressing element is particularly simple and economical in construction and the weight thereof carried by the rigid plate 1 and hence, the sheet metal parts other than the plate 1 relieved of the supporting strain and further, in that the conduit 9 for supplying steam is assembled in the sheet metal structure in an especially simple, efficient and economical manner and assists in giving rigidity to the structure and in relieving the sheet metal plates other than the plate 1 of supporting stresses.

What I claim is:

1. A platen pressing element for pressing machines comprising a pressing plate having perforations therethrough and opening through its pressing face, a conduit for a fluid to be projected through the perforations, the conduit being mounted on the plate and communicating with said perforations and means extending transversely through the conduit and into the plate to secure the conduit to the plate.

2. A platen pressing element for pressing machines comprising a pressing plate having perforations therethrough and opening through its pressing face, a conduit in the form of a channel closed at its ends and open on one side and mounted on the plate over the perforations with its open side toward the plate, whereby the channel communicates with the perforations and means for clamping the channel to the plate.

3. A platen pressing element for pressing machines comprising a pressing plate having perforations therethrough and opening through its pressing face, a conduit in the form of a channel closed at its ends and mounted on the plate over the perforations with its open side toward the plate, whereby the channel communicates with the perforations and means for securing the channel to the plate, said means comprising studs projecting from the plate and extending through the channel.

4. A platen pressing machine element for pressing machines comprising a pressing plate having perforations therethrough opening through its pressing face, a conduit for a fluid to be projected through the openings, the conduit being mounted on the plate and communicating with the perforations, a sheet metal plate mounted on the pressing plate and secured thereto and arranged to form a chamber for a heating medium and means for securing the conduit to the pressing plate.

5. A platen pressing machine element for pressing machines comprising a pressing plate having perforations therethrough opening through its pressing face, a conduit for a fluid to be projected through the openings, the conduit being mounted on the plate and communicating with the perforations, a sheet metal plate mounted on the pressing plate and secured thereto and arranged to form a chamber for a heating medium, margins of the sheet metal plate extending under the edges of the conduit and means for clamping the conduit to the rigid plate against said margins of the sheet metal plate.

6. A platen pressing machine element for pressing machines comprising a pressing plate having perforations therethrough opening through its pressing face, a conduit for a fluid to be projected through the openings, the conduit being mounted on the plate and communicating with the perforations, sheet metal plates mounted on the rigid plate and secured thereto and arranged to form a chamber for a heating medium, margins of the sheet metal plates extending under the edges of the conduit and means for clamping the conduit toward the pressing plate against said margins of the sheet metal plate, said clamping means extending transversely through the conduit into the pressing plate.

7. A pressing element for pressing machines comprising a pressing plate having perforations therethrough, a conduit in the form of a channel closed at its ends mounted on the plate over the perforations with its open side toward the plate, whereby the chan-

nel communicates with the perforations, a sheet metal plate mounted on the rigid plate and formed with a cut-out conforming to said channel, the sheet metal plate having its margins secured to the rigid plate and provided with off-set portions which provide a chamber for a heating medium and the margin of the sheet metal plate around said cut-out extending under the channel and means for clamping the channel to the rigid plate.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and in the State of New York, this 12th day of Jan., 1929.

ERNEST DAVIS.