Nov. 5, 1935. G. W. JOHNSON 2,020,030

PRESSING ELEMENT FOR PRESSING MACHINES

Original Filed Oct. 17, 1933

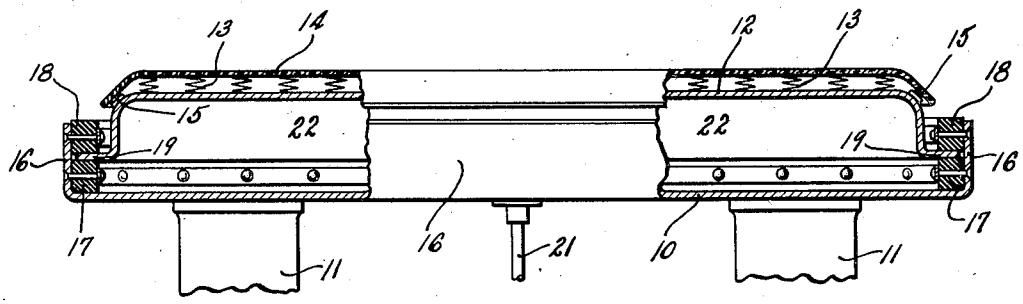


FIG. - 1

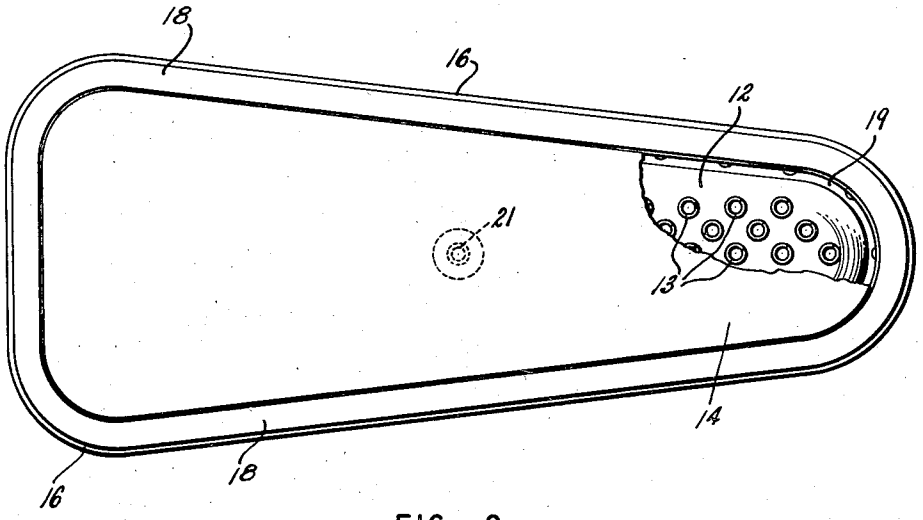


FIG. - 2

INVENTOR
GEORGE W. JOHNSON
BY
Brickett, Hyde, Higley + Meyer
ATTORNEYS

Patented Nov. 5, 1935 2,020,030

UNITED STATES PATENT OFFICE

2,020,030

PRESSING ELEMENT FOR PRESSING MACHINES

George W. Johnson, Cincinnati, Ohio, assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a corporation of Ohio

Original application October 17, 1933, Serial No. 693,958. Divided and this application September 19, 1934, Serial No. 744,626

4 Claims. (Cl. 68—9)

This invention relates to a pressing element for pressing machines, and particularly one which is expansible by fluid pressure to apply heavy pressure between two pressing elements which have been preliminarily moved to a position of light contact.

An object of the invention is to provide a pressing element which will substantially equalize the pressure exerted on various portions of an article being pressed or ironed.

Another object of the invention is to provide a pressing element of the above-mentioned type which does not require flexible sheet diaphragms.

Other objects and advantages will be apparent from the following specification, together with the drawing, and the essential features of my invention are summarized in the claims.

This application is a division of my pending application Serial No. 693,958 filed October 17, 1933.

In the drawing, Fig. 1 is an elevation partly in section, and Fig. 2 is a plan view of my invention as applied to a pressing bed.

While my improved pressing member is adapted for use in many types of presses, I have illustrated it as applied to presses of the type used in garment or laundry work. In such presses a pair of coacting pressing members is provided with means for moving them apart to permit work to be arranged upon a pressing bed and thereafter the members are moved into engagement and heavy pressure is applied to the work. I have not illustrated mechanism for so moving the pressing members as many such arrangements are well known in the art and form no part of the present invention.

One or both of a pair of pressing members are usually provided with a yielding surface, such as spring padding or the like, to enable the pressing bed to better accommodate itself to seams, buttons and other slight unevenness in the work. However, there is sometimes a greater variation in thickness between the ends or sides of a garment than that for which the yielding padding will compensate. Also, when the heavy pressure is applied through rigid arms it is difficult to distribute the pressure evenly over the surface of the pressing members. My improved element applies final pressure by means of fluid introduced into an expansible member. The fluid permits the pressing member to accommodate itself to variations in work thickness and insures even distribution of pressure over the entire pressing surface.

Expansible pressing members involving large diaphragms or bag-like members are to be avoided as they are expensive to construct and maintain.

My invention comprises in general a pressing element having two rigid portions spaced apart and movable toward and away from each other. Fluid pressure is introduced into the intermediate space to expand the element and sealing means is provided about the peripheries of the rigid portions to prevent leakage of the fluid medium.

The drawing shows a pressing bed having a base portion 10 supported on members 11, and a movable portion 12 on which is arranged a yielding padding comprising springs 13 and a fabric covering 14 which is held taut by carding wire strips 15.

The base portion has upstanding edge flanges 16, about the periphery of which are suitably secured vertically spaced yielding strips or cushions 17 and 18. These strips are preferably made of rubber having soft and yielding qualities, although other suitable forms of resilient cushions will occur to those skilled in the art. A substantially horizontal flange 19 extends outwardly from the periphery of movable portion 12 in position to lie between cushions 17 and 18. Preferably the flange 19 is at all times in contact with cushions 17 and 18. A conduit 21 serves to conduct fluid pressure from a source not shown to the chamber 22 between the base and movable portions of the pressing element.

Upon introduction of sufficient fluid pressure to chamber 22 the portion 12 will move upwardly to apply ironing pressure between the pressing members. The cushioning and sealing strips 17 and 18 are made sufficiently deep and resilient to permit the relatively small vertical movement of portion 12 and flange 19 necessary to supply final pressure to the pressing members, while at all times sealing chamber 22 against leakage.

In operation, when chamber 22 has the pressure fluid exhausted therefrom the weight of movable portion 12 rests upon the resilient cushion or sealing strip 17, thus compressing it. Cushion 18 follows flange 19 downwardly, thus maintaining a seal for chamber 22. When chamber 22 is filled with pressure fluid so as to lift portion 12, cushion 18 is in turn compressed and cushion 17 follows flange 19 upwardly so as to maintain the sealing effect.

What I claim is:

1. A pressing element comprising a base portion and a movable portion carrying a pressing surface, said portions interfitting to form one

continuous chamber therebetween, said portions having continuous rigid members extending about their entire peripheries and positioned adjacent each other, sealing strips carried by one of said members in contact with while permitting relative movement of the other of said members, their contact being continuous throughout the peripheral extent of said members, and means for admitting pressure fluid to said chamber.

2. A pressing element comprising a base portion and a movable portion carrying a pressing surface, said portions interfitting to provide a chamber therebetween, means for admitting pressure fluid to said chamber, and means forming a continuous seal between the peripheral edges of said portions comprising a horizontally extending flange continuous about the entire periphery of one of said portions and resilient means contacting opposite faces of said flange throughout its entire peripheral extent and in sealing contact with the other of said portions.

3. A pressing element comprising a base portion having an upstanding edge flange about its entire periphery, a movable portion carrying a pressing surface and having a horizontally extending flange member about its entire periphery, said last-named flange extending to a point adjacent said first-named flange and having continuous resilient strips positioned on opposite faces thereof, means mounting said strips on one of said flanges in sealing contact with both flanges throughout their entire peripheral extent, and means for admitting pressure fluid to the space between said portions.

4. A pressing element comprising a base portion having an upstanding edge flange about its entire periphery, a movable portion carrying a pressing surface and having a horizontally extending flange member about its entire periphery, said last-named flange lying within and extending to a point adjacent said first-named flange, resilient sealing strips mounted on and contacting the inner face of said upstanding flange and contacting opposite faces of said horizontally extending flange throughout its entire peripheral extent, and means for admitting pressure fluid to the space between said portions.

GEORGE W. JOHNSON.