

March 24, 1931.

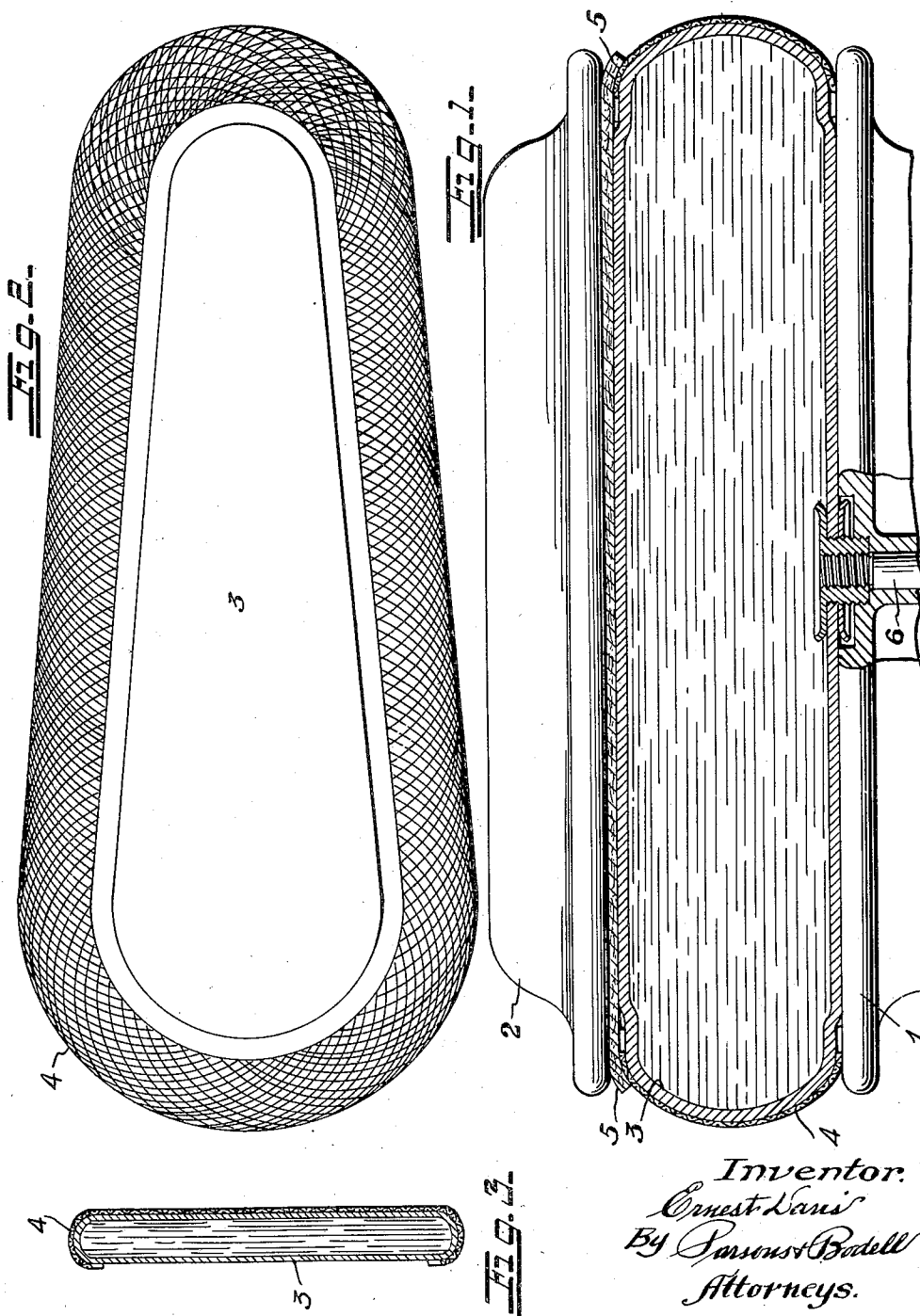
E. DAVIS

1,797,758

PRESSURE MEMBER FOR PRESSING MACHINES

Original Filed June 23, 1927

2 Sheets-Sheet 1



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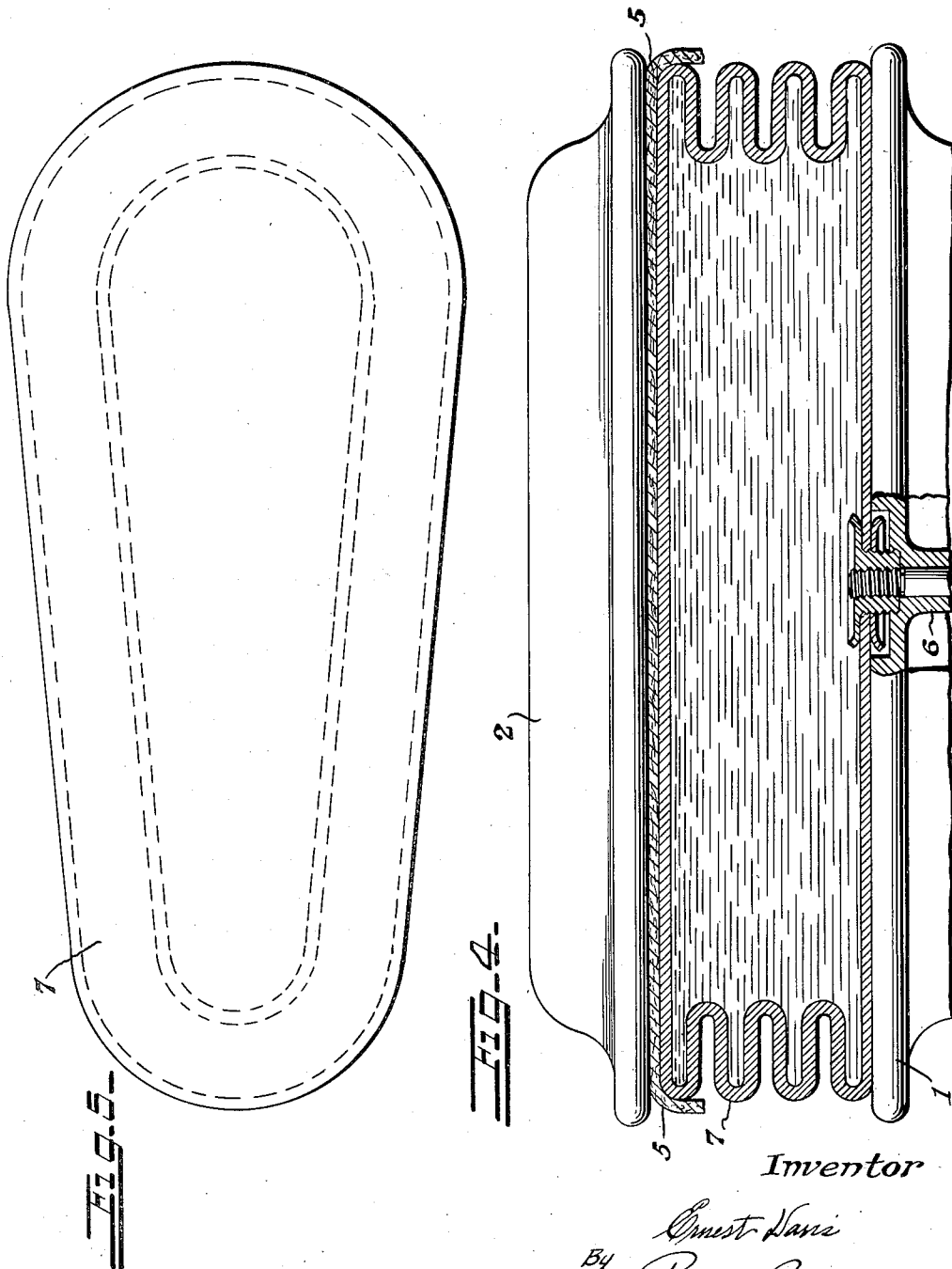
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UNITED STATES PATENT OFFICE

ERNEST DAVIS, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE PROSPERITY COMPANY
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PRESSURE MEMBER FOR PRESSING MACHINES

Application filed June 23, 1927, Serial No. 200,982. Renewed June 19, 1929.

This invention relates to pressing machines and particularly to a pressure member or what for convenience may be termed a hydraulic pad for such machines, which is particularly simple in construction and highly efficient and extremely durable in use.

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

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

15 Figure 1 is a cross sectional view of a pressure member or hydraulic pad embodying my invention, the contiguous portions of the head and buck of a pressing machine being shown.

20 Figure 2 is a plan view of said pressure element.

Figure 3 is a cross sectional view of the pad shown in Figure 2.

25 Figures 4 and 5 are views similar to Figures 1 and 2 of another form of pad embodying this invention.

30 This pressing machine is of the type shown in my pending application Sr. No. 199,857, filed June 18, 1927, in which the heavy pressure is applied through a pressure member in the form of a pad on the lower pressing element or buck of the machine instead of by pressure applied through mechanism to the head of the pressing machine. The pad therefore must deliver and stand a pressure of
35 approximately 250 lbs. per square inch and hence, the pad is not a pad in the sense of the pads heretofore used on pressing machines although in addition to applying the heavy pressure, it also acts as a pad of an
40 ordinary pressing machine to compensate for unevennesses as buttons, seams etc., in the garment or other article being pressed.

45 Also, it differs from other pressure applying means in that it being hydraulic, the pressure is equal throughout the area and is not affected by unevennesses in the article being pressed and must necessarily be equal throughout the entire area of the press head or the garment on the buck or pressing element or pad regardless of unevennesses in

the garment and inaccuracies in the press head.

1 designates the buck of a pressing machine, and 2 the head movable toward and from the buck. Heretofore, as will be understood by those skilled in the art, the pressure has been applied solely through mechanism connected to the head and in the machine embodying my pressure member or pad, the head is merely brought down close to the garment thereon and then the internal hydraulic pressure applied to the pad to deliver the heavy pressure which presses the garment or other article.

50 The pad comprises a closed or confined flat, flexible and closed tube or bag 3, the walls of which may not be necessarily flat, but may be convex. Also, they need not be parallel, but the pad is of relatively narrow thickness or flattened. The pad also is preferably reinforced at its exposed edges by a sheet of fabric 4 and this may be wire mesh cloth and preferably of a non-rustable material as Monel metal, built or embedded in the bag. Also, the upper surface is overlaid with a padding 5 of felt or any suitable material. The bag is filled with a hydraulic fluid as oil or water connected through an inlet or nipple 6 to a suitable source of supply which is controlled in any suitable manner. In Figures 1 and 2, the edge walls of the pad are flexible and bulge outwardly as the pad is compressed so that the top wall of the pad is not retarded at its edges during the compressing operation to any different extent than the remainder of the top wall.

55 By this pressure member or pad, the pressure is substantially equal throughout the pressure face of the head and also any part of the surface of the pad or member can be depressed as when the operator's hand becomes caught between the head and the pad, but without injury to the hand by the pressure as the hand can be readily pulled out and is not gripped owing to the yielding of the pad and the distribution of the pressure.

60 In Figures 4 and 5, a similar pad is shown with corrugated side walls 7 or side walls in the form of bellows. In these figures, the

bag is shown as of rubber with no reinforcement.

What I claim is:

1. A hydraulic pressure member for pressing machines comprising a flat, flexible, closed bag having an edge wall flexible so as to flatten under pressure and a non-compressible fluid in said bag.

2. A hydraulic pressure member for pressing machines comprising a flat, flexible, closed bag having an edge wall flexible so as to flatten under pressure, said bag being formed of reinforced rubber and a hydraulic fluid filling said bag.

3. A hydraulic pressure member for pressing machines comprising a flat, flexible, closed bag having an edge wall flexible so as to flatten under pressure, said bag comprising an inner sack of rubber and an outer reinforcement of metal cloth embodied in the outer surface of the rubber and a hydraulic fluid filling said bag.

4. A pressing member for platen pressing machines comprising a flat, flexible, closed bag having top and bottom walls and an edge wall flexible and bowed outwardly between the top and the bottom walls so as to flatten under pressure applied to the top of the bag, and a fluid filling said bag.

5. A pressing member for platen pressing machines comprising a flat, flexible, closed bag having top and bottom walls and an edge wall flexible and bowed outwardly between the top and bottom walls so as to flatten under pressure applied to the top wall, said edge wall being formed of reinforced rubber, the reinforcement extending around the entire margin of the bag and terminating at the top and bottom walls thereof, and a fluid filling the bag.

6. A pressing member for platen pressing machines comprising a flat, flexible, closed bag having an edge wall flexible so as to flatten under pressure applied to the top of the bag, said bag comprising an inner complete sack of rubber having top and bottom walls and an edge wall and an outer reinforcement of wire mesh cloth embodied in the outer surface of the rubber and extending around the entire margin of the bag and a fluid filling the bag.

7. In a pressing machine, the combination of a buck, a pressing member mounted on the face of the buck comprising a complete flat, flexible, closed bag composed of top and bottom walls and an edge wall and having its bottom resting on the face of the buck and having its edge wall flexible so as to flatten under pressure and a fluid filling the bag.

8. In a pressing machine, the combination with upper and lower pressing elements, of a flat, flexible closed bag arranged upon the bottom pressing element and composed of top and bottom walls and an edge wall, the top and bottom walls being of a size to lie within

the contour of the upper and lower pressing elements and the edge wall being collapsible, an outer reinforcement covering the edge wall and extending around the entire margin of the bag and extending substantially to the upper and lower pressing element so as to protect the exposed portion of the bag, and a fluid filling the bag.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and in the State of New York, this 14th day of June, 1927.

ERNEST DAVIS.

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