Oct. 4, 1949. E. J. HOWLETT 2,483,461

PRESSURE HEAD FOR LAUNDRY AND OTHER MACHINES

Original Filed Nov. 15, 1944

2 Sheets-Sheet 1

FIG. 1.

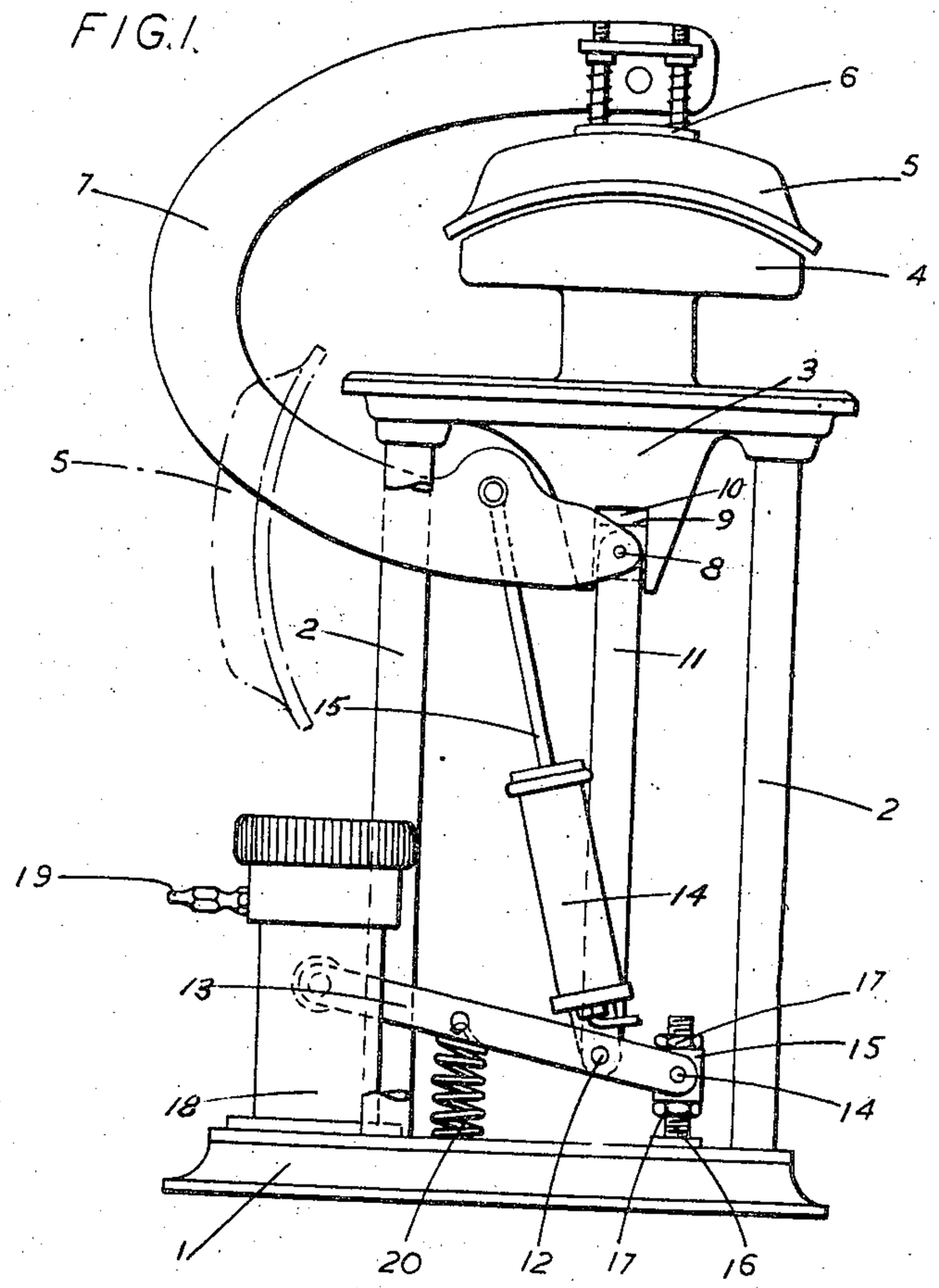
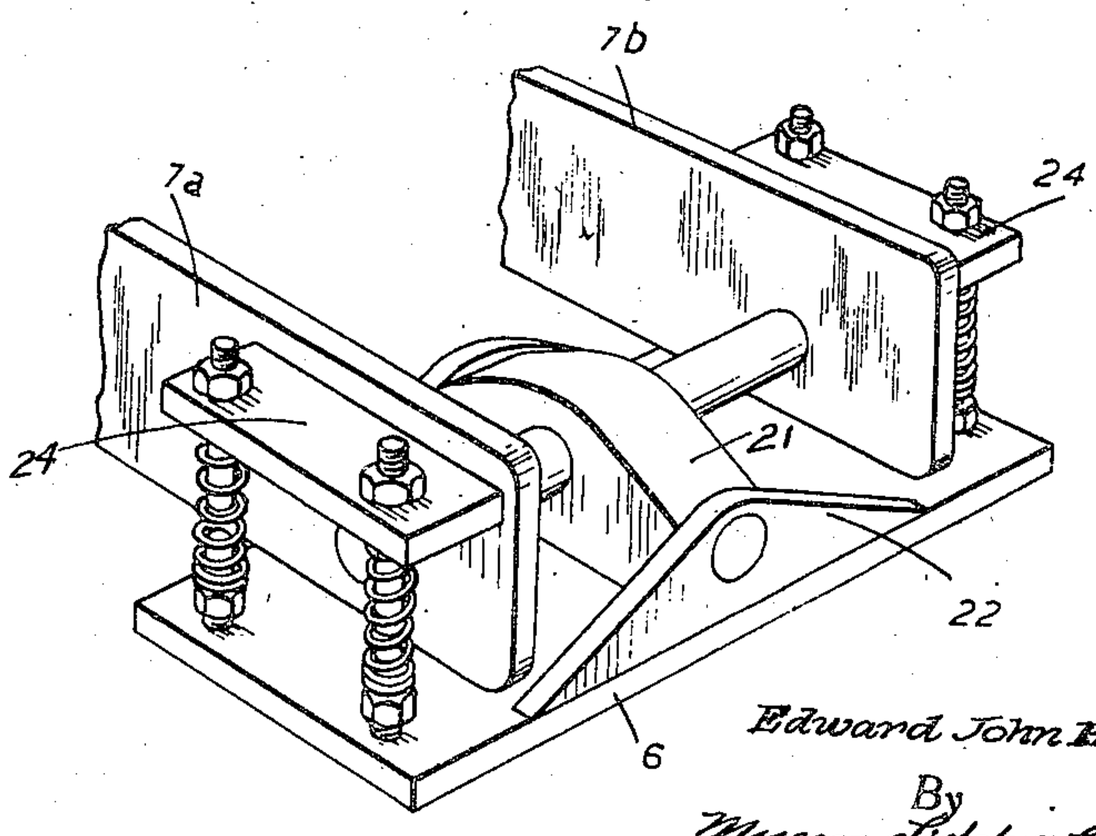


FIG. 2.



Inventor
Edward John Howlett

By
Munn, Liddy & Glascum

Attorneys

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2 Sheets-Sheet 2

FIG. 3.

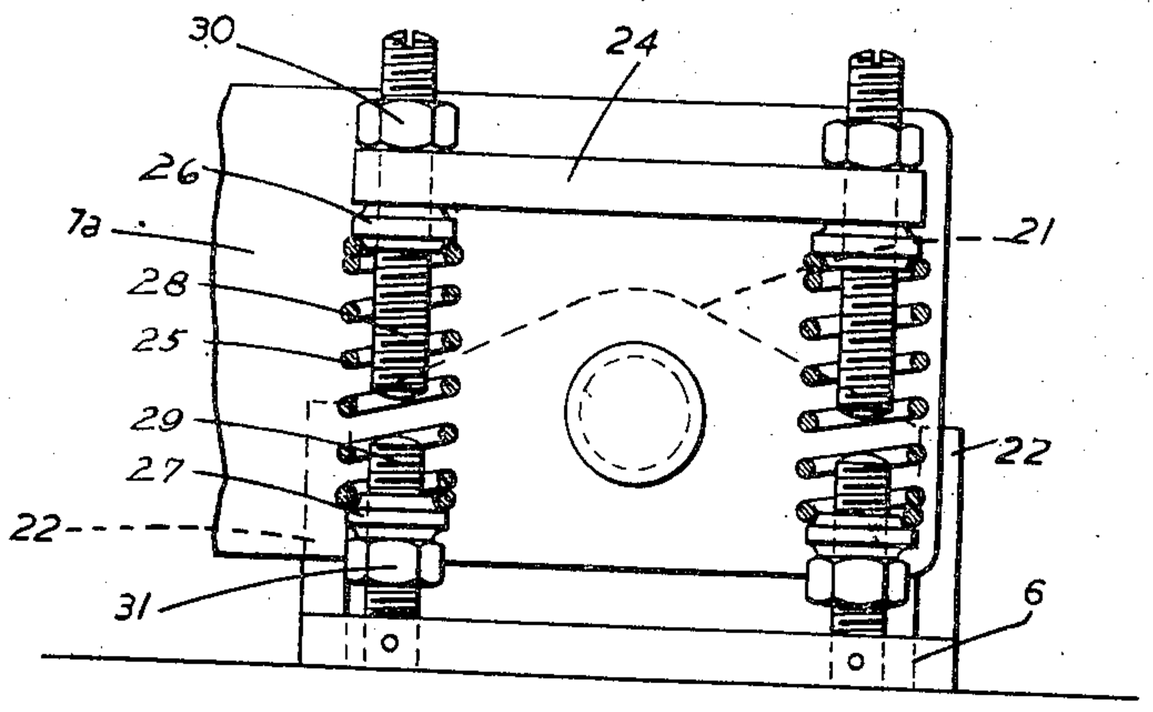
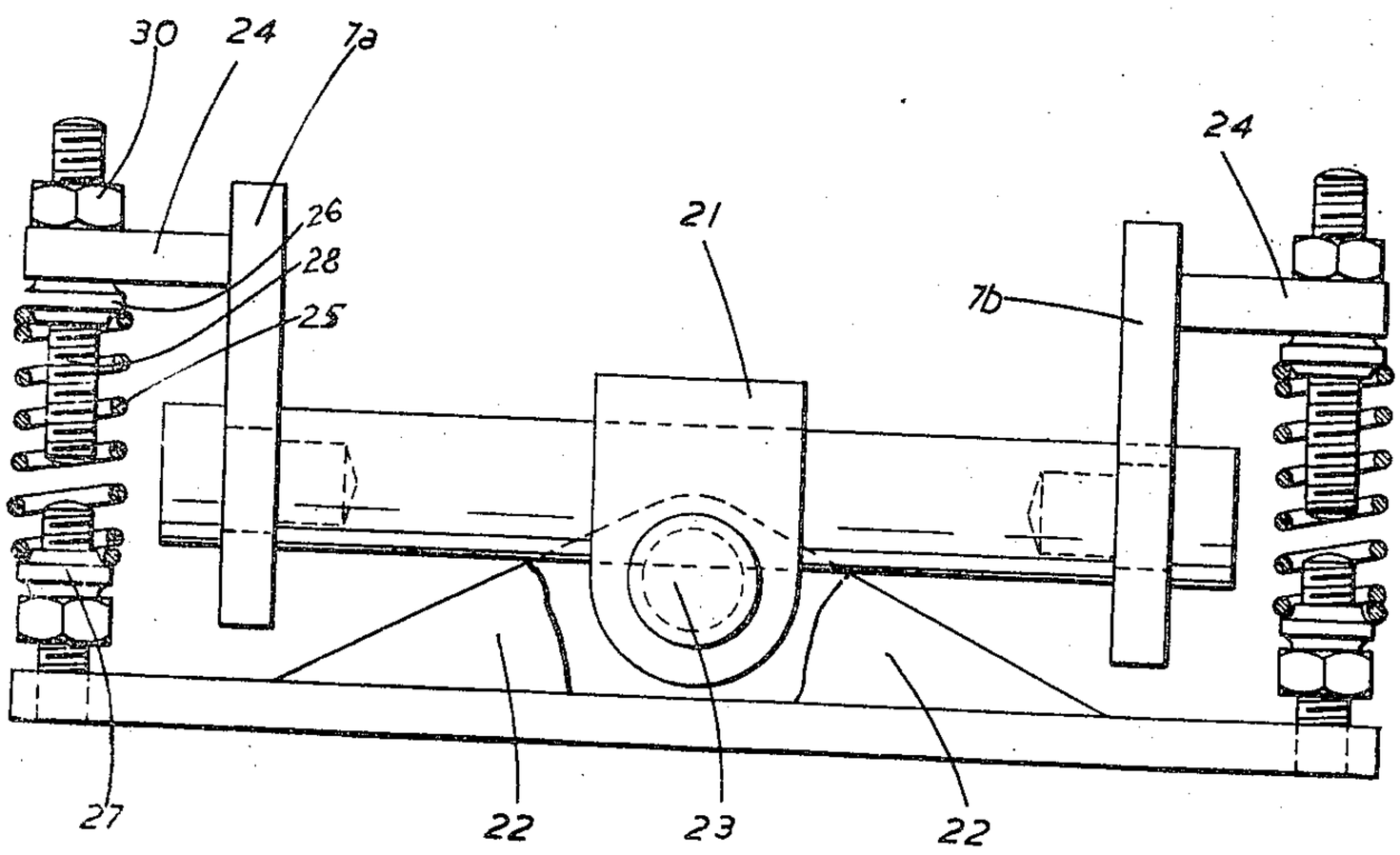


FIG. 4.



Inventor
Edward John Howlett
By
Munn, Liddy & Glascum
Attorneys

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2,483,461

PRESSURE HEAD FOR LAUNDRY AND OTHER MACHINES

Edward John Howlett, North Finchley, London, England, assignor to Harry Gledhill, Norman R. Gledhill, and Malcolm Gledhill, all of Halifax, England (trading as Thomas's)

Original application November 15, 1944, Serial No. 563,489. Divided and this application June 28, 1945, Serial No. 601,992. In Great Britain June 14, 1944

4 Claims. (Cl. 38—35)

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This invention is designed to provide in a convenient manner for a pressure head to adjust itself somewhat relatively to a buck. This may be desirable, in particular, when the thickness of the work varies somewhat.

In a press according to the present invention a head is universally mounted about a point fixed without resilience when pressure is applied relatively to the said head and similarly fixed relatively to the part or parts applying the pressure; and movement of the head about the said point is controlled and pressure tends to be equalised by springs (or other suitable resilient means included in the term springs where the context permits).

The invention is illustrated by the accompanying drawings in a typical form as applied to the laundry or like press, and is a division of my co-pending application Serial No. 563,489, filed November 15, 1944, now matured into Letters Patent of the United States No. 2,432,017 granted to me December 2, 1947.

In the drawings:

Fig. 1 is a side elevation of the press,

Fig. 2 is a perspective view of the head mounting to a larger scale,

Fig. 3 is a side elevation and

Fig. 4 a front elevation of the same.

The press shown has a bed **1** with pillars **2** supporting a head casting **3** which carries the buck **4**. The head **5** is attached by headplate **6** to a lever **7** pivoted at **8** and the operation is by parts numbered **9** to **20** so as to apply the pressure by lever **13** from the position shown in full lines and to allow the head to swing down to the dotted line position to enable work to be arranged on the buck, all as described in the co-pending application already referred to. The head mounting with which the present invention is more particularly concerned is clearly shown at Figs. 2 to 4. The pressure lever **7** is in the form of a yoke with two parts or branches, *7a* and *7b*, one part or branch being near each end of the headplate **6**. Pivotally carried between the branches is a short link **21** and the headplate is formed with suitable lugs **22** pivoted to the link on a perpendicular axis **23**, forming a universal joint between about the centre of the headplate and the branches of the yoke. Near the upper part of each branch is a bracket or extension **24** and between these and points near the corners of the headplate are vertical compression springs and abutments. In this way the head will have a limited movement relatively to the yoke and will

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adjust itself to the buck in accordance with the resistance to the resilient pressure of the springs.

The spring loading and extent of pivotal movement are independently adjustable. For instance, the springs **25** may be mounted between ferrules **26**, **27** on studs **28**, **29** carried in the yoke extension and headplate respectively. The clearance between the ends of the studs limits the movement and one stud (say that **29** in the head plate) may be fixed and the other **28** adjustable and provided with a lock nut **30**. To adjust the spring **25**, the ferrule **27** on the fixed stud **29** may be screwed up or down and locked in position by a lock nut **31** or other suitable means, the second ferrule **26** being loose on the adjustable stud **28**.

I claim:

1. In a press having a buck and a head, a pressure yoke having a part near each end of the head, a link arranged between said yoke parts and pivotally connected therewith, said link having a pivot perpendicular to the axis of its pivotal connection with the yoke parts, a headplate pivotally mounted on said perpendicular pivot, pairs of spaced abutments between each yoke part and the headplate limiting the universal movement, pairs of spaced compression springs between each yoke part and the headplate tending to equalize the pressure over the area of contact between the head and the buck, and means to adjust the compression springs.

2. In a press having a buck and a head, a pressure yoke having a part near each end of the head, a link arranged between said yoke parts and pivotally connected therewith, said link having a pivot perpendicular to the axis of its pivotal connection with the yoke parts, a headplate pivotally mounted on said perpendicular pivot, pairs of spaced abutments between each yoke part and the headplate limiting the universal movement, pairs of spaced compression springs between each yoke part and the headplate tending to equalize the pressure over the area of contact between the head and the buck, means to adjust the abutments to allow predetermined maximum movements, and means to adjust the compression springs independently of the adjustment of the abutments.

3. In a press having a buck and a head, a pressure yoke having a part near each end of the head, a link arranged between said yoke parts and pivotally connected therewith, said link having a pivot perpendicular to the axis of its pivotal connection with the yoke parts, a headplate pivotally mounted on said perpendicular pivot, a plurality of pairs of spaced abutments

between each yoke part and the headplate limiting the movement between them, one of each such pair of abutments being adjustable to vary the clearance between them, spring mountings surrounding the abutments, compression springs carried by the said mountings, the mounting surrounding said adjustable abutment being fixed irrespective of the adjustment of the said abutment and the mounting surrounding the second abutment being adjustable thereon, whereby the adjustment of the clearance leaves the spring loading unaffected and the adjustment of the spring loading leaves the clearance unaffected.

4. In a press having a buck and a head, movement and pressure transmitting means, means coupling the head to the said transmitting means, said coupling means including a link having two pivots arranged transversely with respect to each other, one of said pivots connected with said transmitting means and the other pivot connected with means on said head permitting pivotal movement in two planes of the said head about axes having their centres positively fixed relatively to the transmitting means without resilience, resilient means between the transmitting means and the head and spaced so as to control the pivotal movement of the head about the said axes and tend to equalize the pressure throughout the area of contact between the head and the buck, and spaced abutments on the transmitting means and the head so as to limit the pivotal movement between them about the said axes.

EDWARD JOHN HOWLETT.

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