J. H. PEARSON.

WASHING MACHINE.

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## UNITED STATES PATENT OFFICE.

JAMES H. PEARSON, OF WESTPLAINS, MISSOURI, ASSIGNOR TO MARCUS A. COOPER, SR., OF WESTPLAINS, MISSOURI.

## WASHING-MACHINE.

No. 924,578.

Specification of Letters Patent.

Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, JAMES H. PEARSON, a citizen of the United States, residing at Westplains, in the county of Howell and State of 5 Missouri, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to washing machines | of that type in which the clothes are beaten 10 by a pounder in a tub or other receptacle, and its object is to provide a machine of this kind with improved means for operating the pounder, and also to impart to the pounder an alternating rotary movement, 15 so that it will also rub the clothes.

Another object of the invention is to provide means whereby the contents of the tub are thoroughly agitated, and also to inject air thereinto, which, together with the rub-20 bing action of the pounder heretofore mentioned, serves to greatly facilitate the wash-

ing operation.

With the foregoing objects in view, the invention consists in a novel construction 25 and arrangement of parts, to be hereinafter described and claimed, reference being had to the drawing hereto annexed, in which:--

Figure 1 is an elevation of the apparatus, partly broken away, the clothes receptacle 30 being shown in section. Fig. 2 is a top plan view. Fig. 3 is a fragmentary elevation of a

modification. In the drawing, 5 denotes a wash-boiler, tub or other suitable receptacle, in which the 35 clothes to be washed are placed. Across the top of this receptacle is placed a bar 6, on which the operating mechanism is supported. The bar 6 extends at one end under one of the handles 7 of the receptacle, and at its op-40 posite end it carries a sliding latch 8, which is passed through the other handle 9 of the receptacle, whereby the bar is securely held in place, and, at the same time, is readily removable from the receptacle, so that the 45 clothes may be placed thereinto, and re- lever 12. moved. From the bar 6 rises a standard 10, lever 12, having at each end a grip or handle portion 13. This lever is operatively con-<sup>50</sup> nected to the pounders, of which two are employed, they being connected to the lever on opposite sides of the fulcrum, by reason of which one of the pounders will be ascending

when the other is descending, and vice versa,

55 The construction of the pounders is iden-

tical, so that a description of one will suffice for both.

The pounders are indicated by the reference numeral 14. They are dish-shaped, the dished surface being the working face, and 60 said surface is formed with a plurality of protuberances 15, which are for a purpose to be presently described. The pounder is carried by a stem 16, which is made hollow and provided with an air inlet 17. The stem works 65 in an opening in the bar 6 and extends through a central opening in the pounder, and its projecting end is screw-threaded, as indicated at 18, and also formed with a seat for a ball valve 19, which works in a cage 20, 70 screwed on said threaded end of the stem against the working face of the pounder. The back of the pounder is formed with a groove 21, in which fits a pin 22, which extends transversely through the stem 16.75 The cage and pin securely fasten the pounder on the stem, and the groove in which the pin fits prevents rotation of the pounder on the stem.

In the opposite end of the stem is fitted 80 and secured a shank 23, which projects from said end of the stem and has its projecting end formed with a head 24, which works in a socket 25, made in the lever 12, whereby a flexible connection with the lever is had, and 85 the stem is free to rotate. The head 24 is retained in the socket 25 by a plate 26, fitting over the outer end thereof and having an opening to receive the shank 23. The socket is formed with a reduced portion 27, which 90 extends through to the opposite side of the lever and receives a spring 28, which bears on the head 24, and is for the purpose of preventing lost motion. Over this reduced portion of the socket is placed a plate 29, which 95 closes the same, and against which one end of the spring bears, the other end thereof engaging the head 24, as already stated. The plate 29 is bolted or otherwise secured to the

The stem 16 carries a laterally projecting to which is fulcrumed, at 11, an operating | arm 30, to the outer end of which is connected one end of a link 31, the other end of which link is pivoted at 32 to the standard 10. The joint between the arm and the link is a flexi- 105 ble one, a ball and socket joint, 33, being shown. Inasmuch as the link is pivoted to a fixed support, it will be seen that when the lever 12 is operated to reciprocate the stem 16, the latter, by reason of the connection of 110

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pounders.

the link 31 with the arm 30, will receive an alternating rotary movement, thereby giving the pounders also a rubbing action, which greatly facilitates the washing operation. The protuberances 15 are for the purpose of increasing the rubbing action of the pounders. The rotation of the pounders also serves to agitate the water, which also increases the cleansing action. By making the stem hollow and providing the same with an air inlet, and also a valve, it will be seen that air is injected into the contents of the receptacle when the pounder is in operation, and there is no suction to oppose the uptstroke of the pounder.

On the bar 6 are mounted rods 34, which extend loosely through openings 35 in the lever 12, and around said rods, between the lever and the bar, are coiled springs 36, said rods and springs being located on opposite sides of the fulcrum 11 of the lever. These springs serve to prevent lost motion, and also assist to check and start the movement of the

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In the modified form of apparatus shown 25 in Fig. 3 of the drawing, a single pounder is employed, which operates, and is constructed in the same manner as the ones already described.

What is claimed is:-

In a washing machine, a pounder, a stem carrying the same, a lever operatively connecting the stem, the connection being such as to permit rotation of the stem, a laterally projecting arm on the stem, a fixed support, and a link pivoted at one end to said support, and connected at the other end to the arm, said connection being by means of a flexible joint.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature

in the presence of two witnesses.

JAMES II. PEARSON.

Witnesses:
FLORENCE MORRIS,
T. M. RENFROW.