G. E. BROWNE.

CLAMP.

APPLICATION FILED SEPT. 13, 1909.

969,771. Patented Sept. 13, 1910.

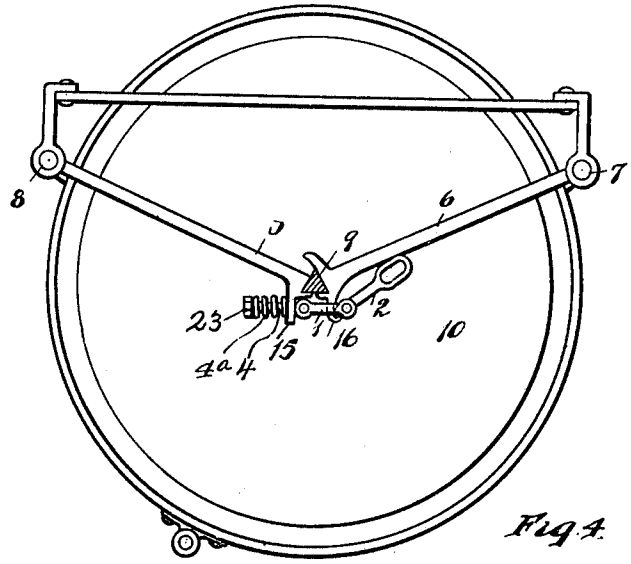

Fig. 4.

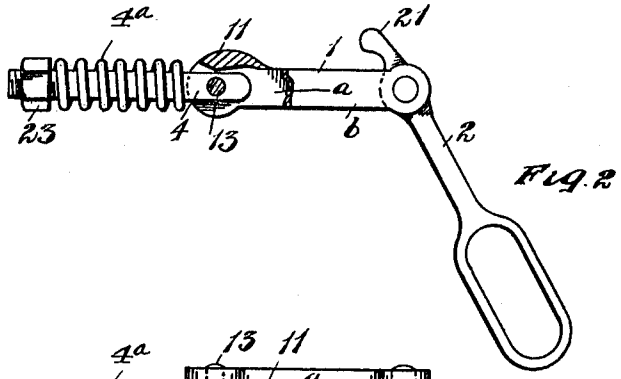

Fig. 2.

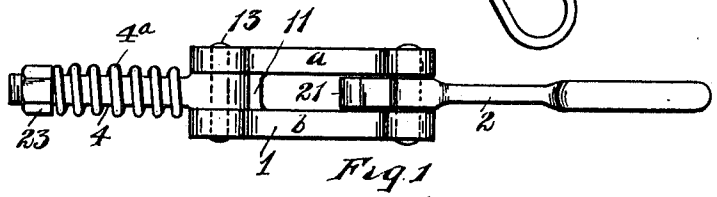

Fig. 1.

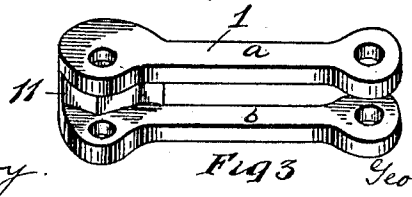

Fig 3

Witnesses

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CLAMP.

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To all whom it may concern:

Be it known that I, GEORGE E. BROWNE, a citizen of the United States, residing at Greenfield, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Clamps, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to clamps for that class of washing machines in which the tub is carried on an oscillating table with which it oscillates and in which the rubber consists of a disk suspended in the tub from arms that extend radially inward from the side of the tub. The rubber disk is provided with a prismatic post that rises from its center and is engaged between the ends of the inwardly extending arms. The arms with the post rising from the rubber are clamped together by means of a clamp that serves to bind the three parts quite securely. The class of washers herein referred to is well known and in common use, and the clamp heretofore used in connection with this washer for the purpose of securing together the arms and the post has been found subject to breakage, and it is the object of this invention to produce a clamp so constructed and containing such parts that it yields slightly at the close of the oscillating movement of the tub and thereby reduces the liability of breakage. The breakage referred to is induced largely because of the strain on the heavy rubber with respect to the tub and its supporting posts incident to the reversing movement of the table and the tub when they have reached the limit of their oscillatory movement and are either in a state of rest preparatory to a return movement or even after beginning their return oscillatory movement; this tendency produces a strain of the post in its bearings between the arms and strongly strains the clamp, and causes frequent breakage.

In the drawing:—Figure 1, is a plan view of the clamp. Fig. 2, is a side elevation, partly in section. Fig. 3, is a perspective of the central part of the clamp. Fig. 4, is a projection showing the location and use of the clamp.

The clamp consists of a central or main part 1, to which is pivoted a lever 2 at one end and a rod or bolt 4 at the other end on which is a spring 4^a. Arms 5 and 6 extend from posts 7 and 8 radially inward, and bear at their inner ends against a post 9 that rises from a disk 10. Each of the arms 5 and 6 is provided at its inner end with a horn-like turn or projection adapted to be engaged by a clamp and the end pieces of the arms are shaped to engage against the sides of the prismatic post 9.

The body part 1 of the clamp consists of two parallel members held together rigidly at one end by a cross bar 11, and pivotally connected at their ends to a lever 2, one end of which, 21, swings between the bars *a* and *b* of the main part of the clamp. At the end having the cross bar 11 a threaded bolt or arm 4 is pivotally connected by a pin 13 that passes from one side member *a* to the other side member *b* of the body part of the clamp closely adjacent to the cross bar 11, which holds the side bars of the body part together. The cross bar 11 maintains the arm 4 in a position with its axis generally in line with the axis of the body member 1. It is, however, allowed some freedom of swinging movement with respect thereto, and to that end the cross bar 11 is spaced from the sides of the arm and is slightly angled on the side toward the arm with its surface opening away from the arm on that side of the pin which is toward the free end of the arm 4. The bolt 4 is provided with a running nut 23 on its outer or free end, and with a spring 4^a, which is in use interposed between the nut and the eye 15 of the arm 5 through which the bolt 4 passes. The arm 6 is provided with a horn 16 that projects between the members *a* and *b*, and is caught by the end 21 of the lever 2, and clamped by swinging the free end of the lever 2 toward the arm; this brings a considerable tension against the spring 4^a; as the tub changes its direction of movement in its rapid oscillation, there is a twisting strain given to the clamp, under which the clamps heretofore made have frequently broken, but with the slight yielding allowed by the construction herein described, the frequent breakage is obviated.

What I claim is:—

1. A clamp for wash tubs having in combination a body member, a lever provided with a locking terminal pivoted to said body member, an arm pivotally connected to said

body member at a distance from the lever, a spring carried on said arm between the pivot and the terminal thereof, substantially as described.

2. In a clamp for securing together two bodies, a body member provided with an arm pivotally secured to one end thereof, a spring on said arm interposed between the pivot and the terminal of said arm, means adapted to prevent the free oscillation of said arm on its pivot but adapted to allow a limited oscillation thereof, a lever pivoted to the opposite end of said body member and provided with a locking terminal, substantially as described.

In testimony whereof, I sign this specification in the presence of two witnesses.

GEORGE E. BROWNE.

Witnesses:
CHARLES F. BURTON,
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