W. H. VOSS.

WASHING MACHINE.

APPLICATION FILED JAN. 24, 1914.

1,229,686.

Patented June 12, 1917.

Fig. 1

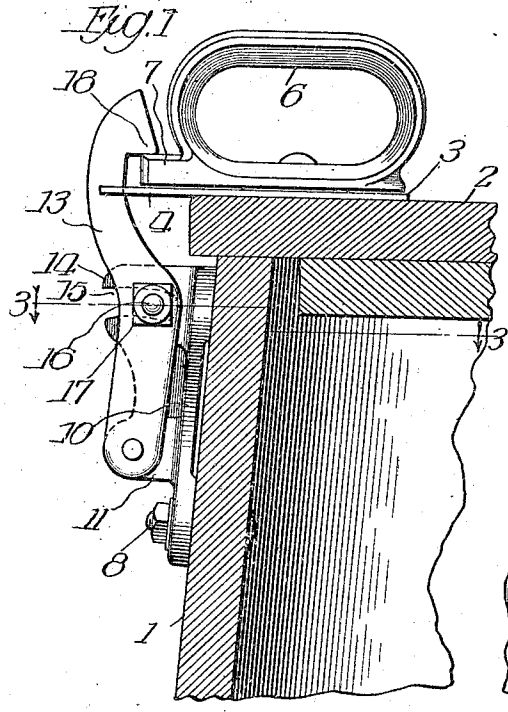


Fig. 2

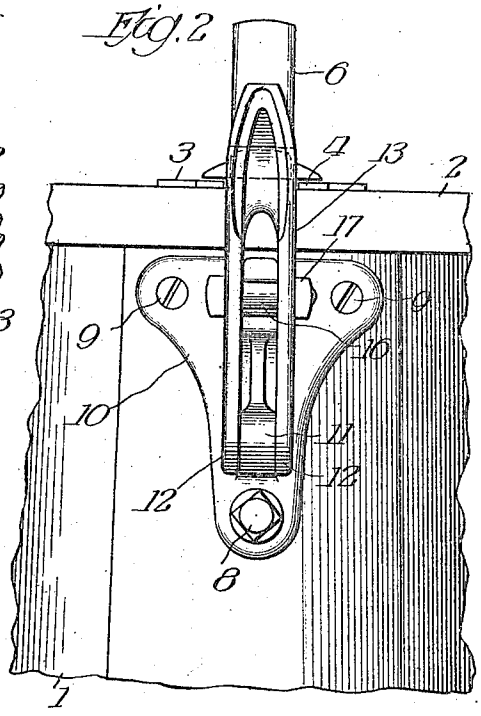


Fig. 3

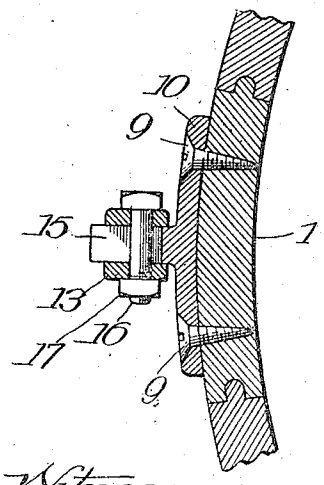
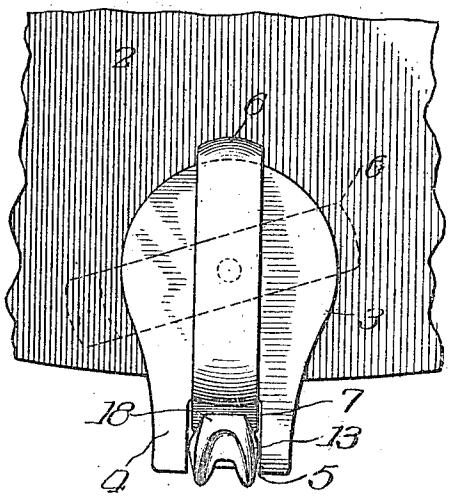


Fig. 4



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. VOSS, OF DAVENPORT, IOWA.

WASHING-MACHINE.

1,229,686. Specification of Letters Patent. Patented June 12, 1917.

Application filed January 24, 1914. Serial No. 814,072.

To all whom it may concern:

Be it known that I, WILLIAM H. VOSS, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented new and useful Improvements in Washing-Machines, (Case B,) of which the following is a specification.

This invention relates to an adjustable clamp designed primarily for firmly holding the lid of the washing machine in correct position upon the washing machine. Considerable difficulty has been experienced in connection with washing machines because of the peculiar conditions arising from the nature of the machine in the manner in which it must be operated. In the first place, the dolly mechanism is customarily mounted upon the lid and this mechanism reciprocates with some degree of violence during the operation of the machine. For this reason the lid must be very firmly held to the machine in order to avoid objectionable jarring and vibration, which would soon rack and damage the machine.

Again the lid must be capable, although being in operation, very firmly bound or clamped to the machine, of being easily and instantaneously removed or raised to allow inspection of the washing, addition of clothes to be washed, change of water, etc., one or other of which operations occurring very frequently during the normal operation of the washing machine.

The greatest difficulty, however, inherent in providing a satisfactory clamp for washing machines has been the fact that inasmuch as the tub and lid are made of wood, these parts swell considerably when soaked in hot water and a satisfactory clamp must therefore possess the capacity to accommodate the swell or expansion of the lid with relation to the tub, or vice versa, while at the same time perform its clamping function in a firm and unyielding manner. In so far as I am aware and prior to my invention, there existed no clamp capable of obtaining the results above enumerated.

It is an object of my invention therefore to provide a clamp which is simple and easy of application, inexpensive to make and capable of instantaneous release.

It is another object of my invention to provide a clamp which will firmly bind and grip the lid of the washing machine to the machine, thus preventing all vibration of the said lid, otherwise necessarily caused by the machinery mounted in the lid.

It is a further object of my invention to provide a clamp readily adjustable to accommodate the expansion or swelling of the washing machine lid or tub, each with relation to the other, whereby although these parts may swell or expand in use, the same clamp will hold them at all times in a firm and uncompromising manner.

In the drawings,

Figure 1 is a detail sectional view of a portion of a washing machine.

Fig. 2 is an elevation of the same.

Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a top plan view of the same.

1 represents a side of a tub. 2 represents the lid thereon. Firmly secured to the lid is a plate 3 having a radial projection 4 thereon in which is a guide slot 5 for a purpose hereinafter to be described. Pivoted on the lid in a radial line with the center of the slot 5 is a handle 6 carrying at its lower outside corner the projecting lug 7, the upper edge of which lug is slightly rounded at its corners, as shown in Figs. 1 and 2.

Firmly secured to the side of the tub by means of the bolt 8 and screws 9, is a substantially tri-angular plate 10 having thereon the projecting lugs 11 upon which are pivoted the lower forked extremities 12 of the hook member 13. In vertical alinement with the extremity 12 is another lug 14 having an arcuate slot 15 therein. The hook member 13 is forked as shown in Fig. 2 to embrace the lug 14 and carries in position to engage the arcuate slot 15 a bolt 16 having a nut 17. The upper end of the hooked member 13 is goose-necked and provided with a shouldered member 18. In operation the lid is placed upon the tub in such a fashion that the slot 15 will accommodate the hook 18. If more than one of these clamping members is used upon the tub, this will properly position the lid with respect to the other hooks. The handle 6 is then turned from the position shown in dotted lines in Fig. 4 to the position shown in full lines therein, the rounded upper edges of the projection 7 engaging the hook 18 and tightly binding the lid to the tub.

By means of the bolt 16 and the nut 17

the forks 12 of the hooked member 13 can be clamped upon the lug 14 thereby firmly maintaining the hooked member in readily adjusted position. By adjusting the member 17 radially, any change in the relative size of the lid and tub can be readily accommodated. If necessary, the nut 17 can be loosened enough to afford only a slight resistance to the radial swinging movement of the hook 13, whereby the latter can be moved by tapping it with a hammer or by hand or sometimes it may be possible to lift the hook 18 loose allowing the hook member to adjust itself as the needs of the situation require. In order to make a more firm and rigid structure, however, I prefer to firmly clamp the hook member 13 in adjusted position and to change the position whenever the change in the lid or tub becomes sufficient to warrant it.

I claim:—

1. A clamp for washing machines or the like comprising a bracket mounted on one part thereof, a hooked device pivoted on said bracket and adjustable with relation thereto, a plate pivoted upon another part substantially at right angles to the hook and having a portion adapted to engage with said hook whereby said parts may be firmly clamped together.

2. In a washing machine, a tub, a removable lid thereon, a bracket secured to the side of the tub and including a guide, a forked hooked member pivoted to the bracket and embracing said guide, means for adjusting said hook member with relation to said guide, a second guide on the lid, a plate pivotally mounted at right angles to the hook above said second guide and having a cam portion adapted to engage with the hook upon the hooked member, all for the purpose described.

In witness whereof, I hereunto subscribe my name to this specification in the presence of two witnesses.

WILLIAM H. VOSS.

Witnesses:
WILLIAM E. PULS,
GEORGE W. CARDINOL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."