Jan. 21, 1941. H. W. ALTORFER 2,229,270

TIMER MOUNTING FOR WASHING MACHINES

Filed April 6, 1939 2 Sheets-Sheet 1

Fig. 1.

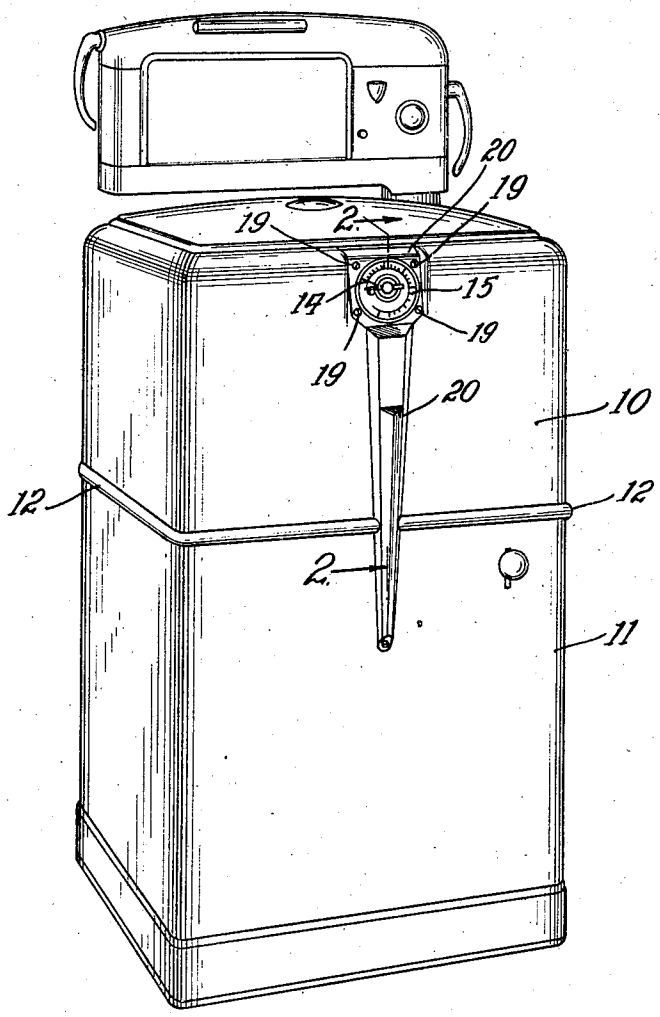
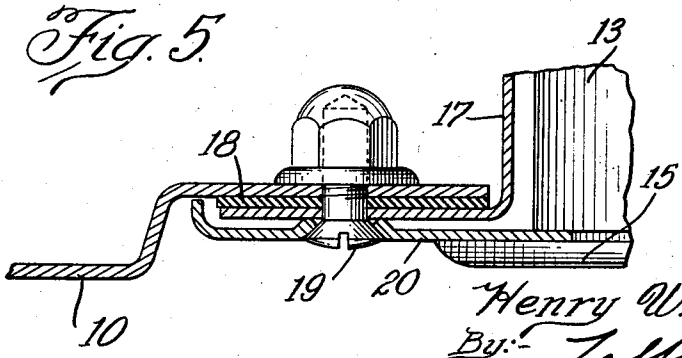


Fig. 5.



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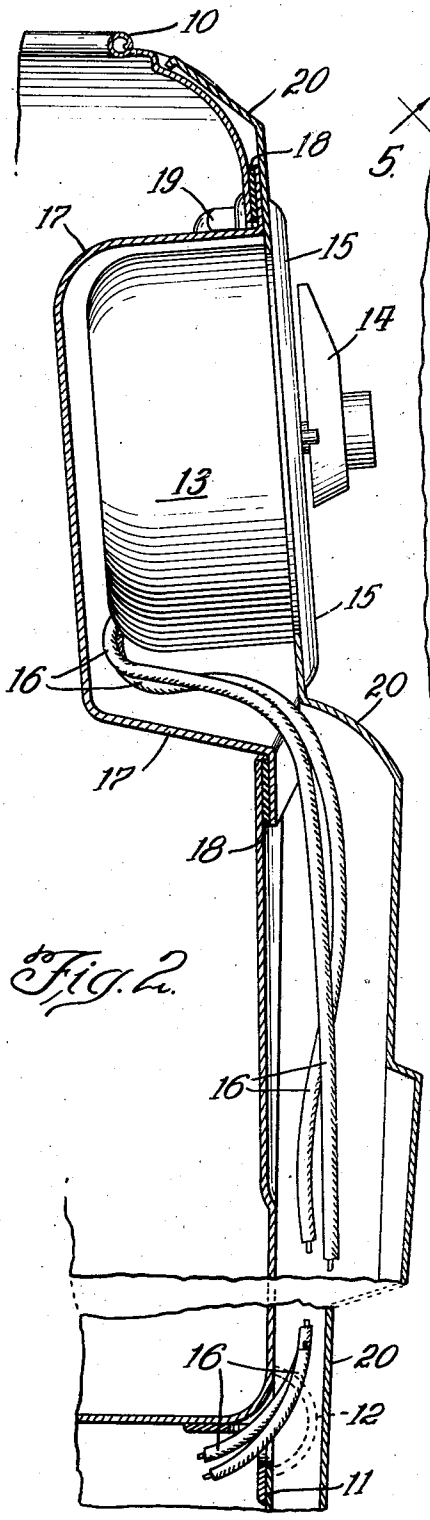

Fig. 2.

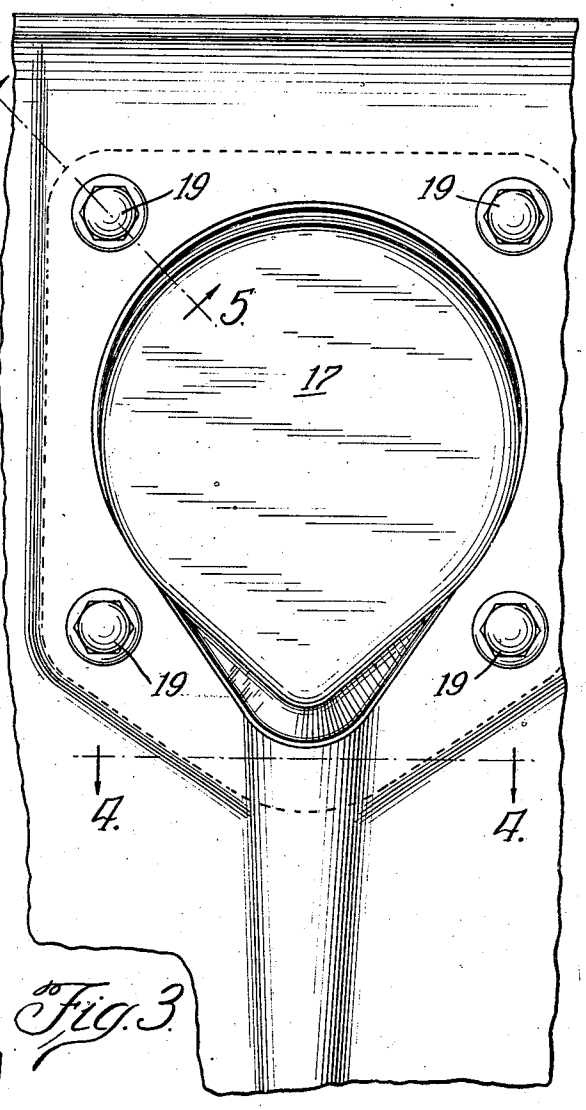

Fig. 3

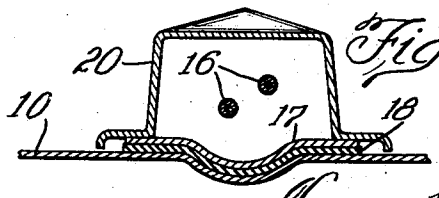

Fig. 4

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UNITED STATES PATENT OFFICE

2,229,270

TIMER MOUNTING FOR WASHING MACHINES

Henry W. Altorfer, Peoria, Ill.

Application April 6, 1939, Serial No. 266,283

5 Claims. (Cl. 68—13)

This invention relates to a novel method of mounting a timer on a domestic washing machine.

The timers referred to are clock-like time switches which can be set by the operator to interrupt the electric circuit to the motor and thus stop operation of the washer. Such timers serve a useful purpose in permitting the operator to go about other duties without requiring special attention to the time of the washing cycle.

Heretofore such timers have been mounted on the base of the washer below the tub. In this position no special arrangements are necessary for mounting the timer because no problem outside of simple mechanics is involved. However, this low position of the timer is rather awkward for the operator as it requires her to stoop or squat in order to manipulate and see the timer setting.

This objection is obvious but designers were seemingly limited to the below the tub location because of the difficulties of mounting the timer higher on the tub. The timer being contained in a rather thick clock-like case, would protrude awkwardly outward if mounted on the tub; the timer case not being tight must be protected from wash water and dampness; and the electrical wire leads coming from the timer must be protected from shorts by both mechanical and water damage. Although timers have been rather attractive and good-looking,—naturally having definite display and sales appeal, these difficulties as outlined have had the effect of limiting the location of timers to any other location than on the washer tub where they could be displayed and used to the best advantage.

The particular object of this invention is to provide a mounting for a clock timer wherein the timer could be set on the upper section of the tub with its face approximately flush with the outside of the tub and the timer proper extending inward within the normal outline of the tub.

Another object is to provide a timer mounting on the tub of a washing machine wherein the electrical lead wires from the timer would be completely enclosed and protected from damage.

A still further object is to provide in a timer mounting a mounting bracket that would be mechanically effective to accomplish the above objects and would also enhance the appearance and decorative value of the timer.

Other objects and benefits will be disclosed in the following descriptions and drawings in which:

Fig. 1 is a general front isometric view showing the timer mounted on the tub of a domestic washing machine;

Fig. 2 is an enlarged cross-sectional view of the timer and mounting as it would appear on the section lines 2—2 of Fig. 1;

Fig. 3 is a rear elevation view of the timer and mounting as shown in Fig. 2;

Fig. 4 is a cross-sectional view of the timer, mounting bracket and control wires as they would appear on the section lines 4—4 of Fig. 3;

Fig. 5 is a cross-sectional view of the corner of the timer and mounting bracket as it would appear on the section lines 5—5 of Fig. 3.

Now referring to Fig. 1, it will be instantly apparent that my timer is mounted at the most convenient and logical location with the timer face approximately flush with the outer surface of the tub 10. Located as it is near the top of the tub, the timer is easy to manipulate by the operator and the general appearance of the machine is enhanced by the timer mounted as it is in the supporting bracket. This is accomplished by insetting the timer within the tub, as will hereinafter be disclosed.

The tub 10 is mounted on a base 11 with the joint between the tub and base covered by a hollow trim bead 12.

Now referring particularly to Figs. 2, 3 and 4, the timer 13 is mounted within a timer case and consists of a more or less conventional structure involving clock mechanism and a throw-out switch. The face of the timer 15 with the control button 14 is constructed in a manner whereby the timer 13 is clamped securely to the supporting bracket 20, as shown. This is accomplished in various ways and will not be described in further detail. Extending outward from the timer are lead wires 16 which connect to the service cord and drive motor of the washer, not shown. With the timer clamped in the mounting bracket 20, as described, a seal shell 17 with a gasket 18 is inserted within the opening in the tub being clamped and sealed securely in place by means of the bolts 19 and the interposed gasket 18. It will be obvious that by this structure wash water is effectively sealed from contact with either the timer or the control wires and although the timer is inset within the tub, it is completely sealed from all contact with wash water.

Leaving the timer 13, the control wires 16 are led downward through the hollow extension of

the bracket 20, as clearly shown in Fig. 4. When the wires come to the juncture of the tub 10 and base 11 they are led inward within the base and thence to the service cord and motor, as before described. By this structure the wires are completely encased and protected against damage or shorts. Further, it will be appreciated that by this structure I provide some ventilation to the interior and a ready drain for any condensation which sometimes occurs in such closures.

By the above structure both the timer and the control wires are completely protected although the timer is inset within the tub and located near to the top of the tub at the most convenient and decorative location. Although I have described the timer as being mounted approximately flush, it will be appreciated that any partial insetting will be proportionately helpful. The operator may quickly and easily set the timer for any desired washing cycle and thereafter the time of washing is controlled automatically.

Having thus described my invention,

I claim:

1. In combination with a domestic washing machine having an exposed tub, a clock timer, motor control wires attached to said timer, an opening in the tub to accommodate approximately flush insertion of said timer within the tub, means to enclose and seal said timer against wash water in the tub, and bracket trim means supporting said timer from the outside of the tub, said bracket enclosing the lead wires from the timer.

2. In combination with a domestic washing machine having an exposed tub, a base supporting said tub, a clock timer, motor control wires attached to said timer, an opening in the tub to accommodate approximately flush insertion of said timer within the tub, means to enclose and seal said timer against wash water in the tub, and bracket trim means supporting said timer and extending downward outside the tub over the joint of the tub and base, said bracket concealing the motor control wires from the timer as they extend from the timer to within the base.

3. In combination with a domestic washing machine having an exposed tub, a clock timer, motor control wires attached to said timer, means to inset said timer within the tub to permit approximately flush mounting with the outside of the tub, means to seal said timer from wash water in the tub, and bracket trim means on the outside of the tub mounting said timer, said bracket concealing the lead wires from the timer.

4. In combination with a domestic washing machine having an exposed tub, a base supporting said tub, a clock timer, motor control wires attached to said timer, means to inset said timer within the tub to permit approximately flush mounting with the outside of the tub, means to seal said timer from wash water in the tub, and bracket trim means mounting said timer and extending downward outside the tub over the joint of the tub and base, said bracket concealing the motor control wires from the timer to within the base.

5. In combination with a domestic washing machine having an exposed tub, a clock timer, motor control wires attached to said timer, means to inset said timer within the tub, means to seal said timer from wash water in the tub, and bracket trim means on the outside of the tub mounting said timer, said bracket concealing the lead wires from the timer and providing ventilation and drainage to the timer closure.

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