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H. T. HIPWELL ET AL
SAFETY CLOSURE FOR RECEPTACLES

Filed Dec. 5, 1925

FIG. 1

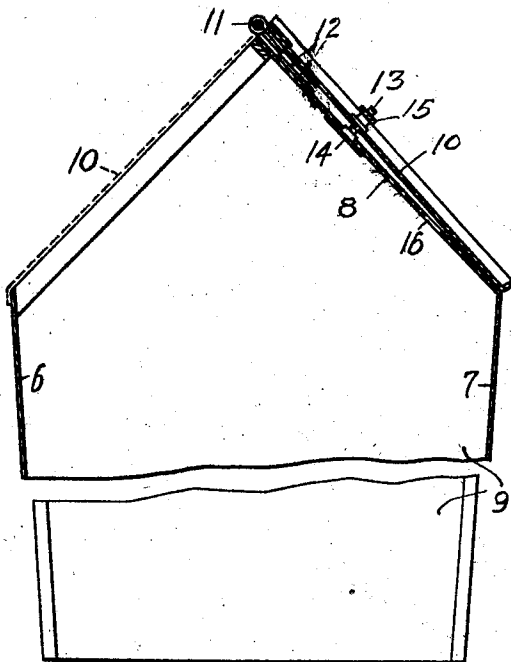


FIG. 3

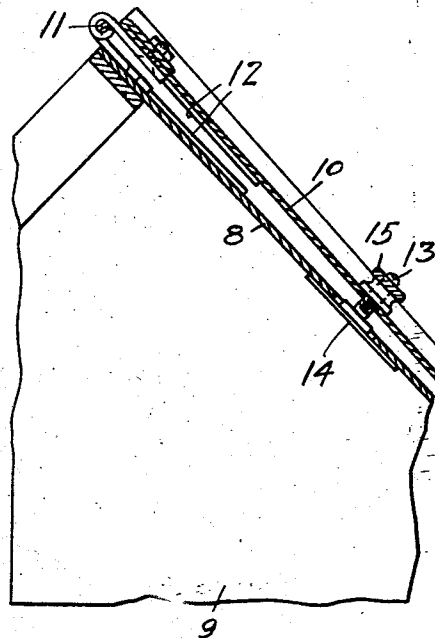


FIG. 2

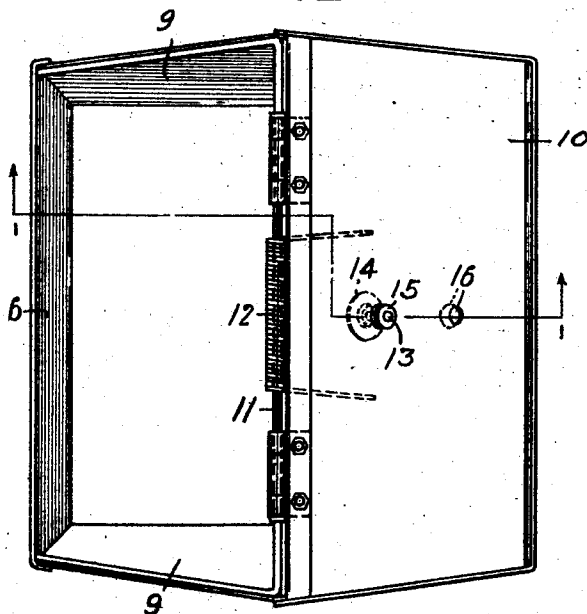


FIG. 4

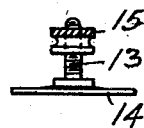
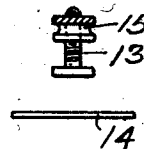


FIG. 5



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SAFETY CLOSURE FOR RECEPTACLES.

Application filed December 5, 1925. Serial No. 73,414.

To all whom it may concern:

Be it known that we, HARRY T. HIPWELL and HARRY H. HIPWELL, citizens of the United States, and residents of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Safety Closures for Receptacles; and we do hereby declare the following to be a full, clear, and exact description thereof.

Our invention relates to closures for receptacles such as are employed for receiving waste materials of inflammable character, or other inflammable materials such as oils and greases.

Furthermore, our receptacle may be employed for protecting various articles, whether inflammable or not, from heat.

One object of our invention is to provide a waste receptacle which will reduce fire hazards, by automatically closing when the temperature within or surrounding the receptacle exceeds a predetermined degree.

Another object of our invention is to provide a fusible fastener that may be readily applied to receptacles and which may be placed at such point that it will be quickly affected by heat from within the container.

One of the forms which our invention may take is shown in the accompanying drawing, wherein Fig. 1 is an end elevational sectional view of a portion of a receptacle embodying our invention; Fig. 2 is a plan view thereof; Fig. 3 is a view, on an enlarged scale, of a portion of the apparatus of Fig. 1; Fig. 4 is a view of the lid-holding device which we employ, with the parts in assembled relation, and Fig. 5 is a view of such device showing the retaining disc separated from the screw threaded holding member.

The retaining device is shown as applied to a waste receptacle having front and rear sides 6 and 7 and a fixed cover portion 8 that is secured to or formed integrally with the side wall 7 and end walls 9. A lid 10 is hinged at one edge to the inner edge of the cover portion 8, upon a hinge pin or shaft 11. A spring 12 surrounds the shaft 11 and has its opposite ends abutting against the cover portions 10 and 8, respectively, as shown more clearly in Fig. 3, the spring being so arranged as to force the cover 10 to closed position as indicated by dotted lines in Fig. 1.

Our invention resides in providing means

for retaining the lid 10 in open position, by means of a fusible member which will be released when the temperature either within the receptacle or exteriorly thereof is above normal.

The holding device consists of a bolt 13 having a head portion to which a metallic disc 14 is secured by fusible solder that will melt when the surrounding temperature exceeds a predetermined degree. The holding device is applied by inserting the shank of the screw 13 through holes provided in the cover members 8 and 10, so that the upper face of the disc 14 will seat against the undersurface of the cover member 8, as shown in Fig. 3. The nut 15 is then screwed on the bolt to hold the lid 10 in open position against tension of the spring 12. Upon release of the washer 14 through fusing of the solder the lid 10 will be swung to closed position by the spring 12, thus either smothering fire within the receptacle or preventing fire exteriorly of the receptacle from igniting articles contained therein.

The holding device is of such form that it may be sold separately from the receptacle and readily applied by the user, thus enabling the user to reset the lid without employing a mechanic to fuse a disc to the bolts, since the holding devices may be carried in stock in hardware stores and conveniently applied by an unskilled person.

In Fig. 2 we have shown the holding device as applied at a point near the peak of the receptacle, so that it will be more nearly in the path of flames radiating within the receptacle, and therefore more quickly released. If desired, the perforations in the cover members may be adjacent to the rear wall, as indicated at 16.

A cotter pin may be substituted for the nut 15 and, if it is desired to protect contents of the receptacle from heat exteriorly thereof, the position of the bolt 13 and the parts carried thereby may be reversed.

We claim as our invention:

1. The combination with a receptacle provided with a cover member forming a portion of one side thereof, of a closure therefor comprising a lid hinged to the inner edge of said cover member, a tension device for moving said lid to closed position, and a fusible device for holding said lid in its extreme open position, in substantial parallelism with the said cover member.

2. The combination with a receptacle pro-

vided with a cover member forming a portion of one side thereof, of a closure therefor comprising a lid hinged to the inner edge of said cover member, a tension device for
5 moving said lid to closed position, and a fusible device for holding said lid in its extreme open position, in substantial parallelism with the said cover member, the said fusible member being disposed adjacent to
10 the point of juncture of said lid and cover member.

3. The combination with a receptacle provided with a cover member forming a portion of one side thereof, of a closure therefor
15 for comprising a lid hinged to the inner edge of said cover member, a tension device for moving said lid to closed position, and a fusible device for holding said lid in its extreme open position in substantial parallelism with the said cover member, the said
20 fusible device comprising a bolt loosely extending through aligned holes in said cover member and lid, respectively, and provided with a retaining member on one end and a
25 fusibly held enlargement on its other end.

4. Safety closure structure comprising a lid, means for maintaining said lid under tension to move it in one direction, a fixed member, a bolt, a nut on one end of said bolt,
30 and a head member fusibly secured to the other end of said bolt, the said nut and head member serving to engage the said lid and fixed member to hold the lid in one extreme position of movement until said head
35 has been released.

5. Safety closure structure comprising a lid, means for maintaining said lid under tension to move it in one direction, a fixed member, a bar, a detachable retaining member on one end of said bar, and a head member fusibly secured to the other end of said
40 bar, the said retaining member and head member serving to engage the said lid and fixed member to hold the lid in one extreme position of movement until said head has
45 been released.

6. The combination with a receptacle having a fixed cover portion extending across substantially the half of the upper side, of a lid hingedly connected to the inner edge
50 of said cover portion and yieldably movable to cover the remaining half of said upper side, and a temperature controlled device for holding the lid in open position against the
55 upper side of said cover portion.

7. Safety closure structure comprising a lid, means for maintaining said lid under tension to move it in one direction, a fixed member, a bar, a retaining member on one end of said bar, and a head member fusibly
60 secured to the other end of said bar, the said retaining member and head member serving to engage the said lid and fixed member to hold the lid in one extreme position of movement until said head has been released.
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In testimony whereof we, the said HARRY T. HIPWELL and HARRY H. HIPWELL, have hereunto set our hands.

HARRY T. HIPWELL.
HARRY H. HIPWELL.