

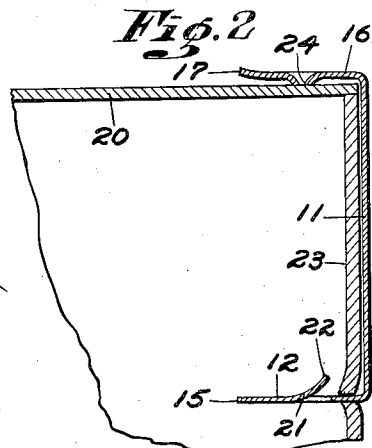
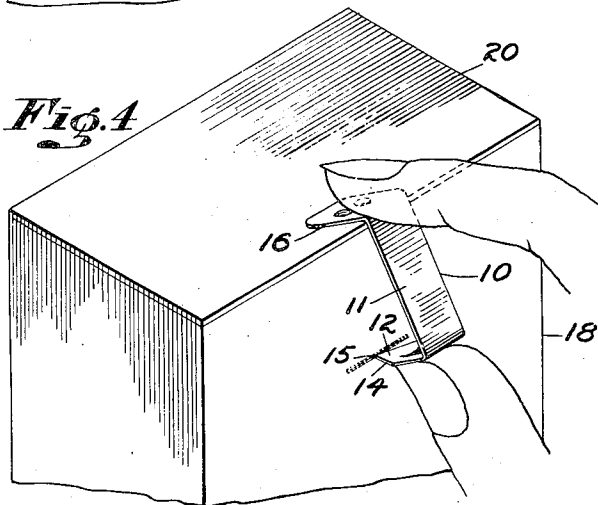
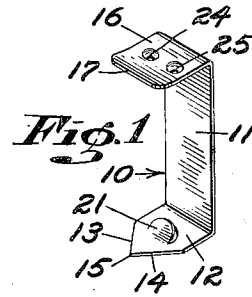
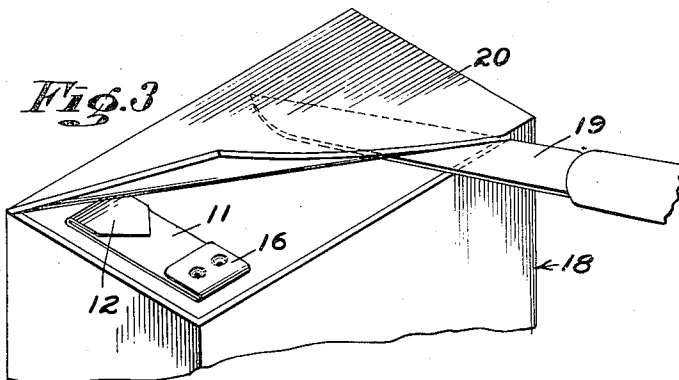
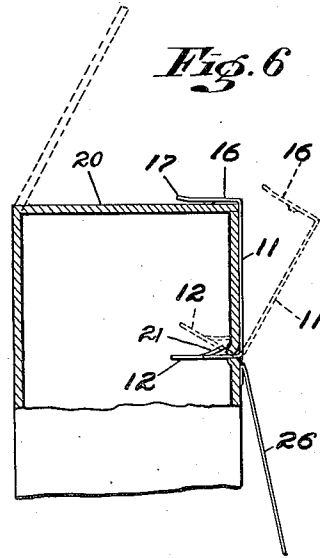
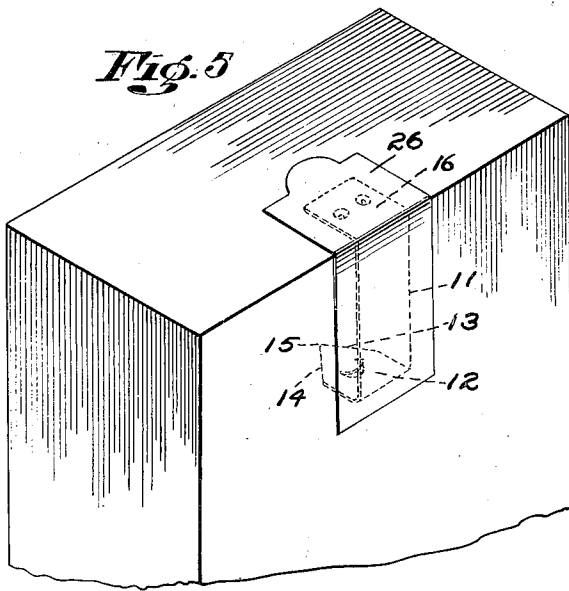
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RECEPTACLE CLOSURE

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RECEPTACLE CLOSURE

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9 Claims. (Cl. 229—47)

This invention relates to a receptacle closure and more especially to a device for releasably holding the top of a carton or the like in closed position after having been partially severed to form a hinged lid. Usually it is impossible to maintain such hinged lids in closed position after the carton has been opened, with the result that moisture and dirt find their way into the cartons. The contents, if food products, are often spoiled or accidentally spilled especially if the carton is dropped or handled carelessly. Accordingly it is desirable to provide an easily applied and inexpensive device for releasably holding the hinged lids of containers of the kind referred to in closed position during the periods between uses of the carton for dispensing its contents.

One object of the invention is to provide a simple form of closure device which may be applied before the package is sold or may be applied by the housewife at the time she opens each carton and which, during use, will not distort the walls of the carton or otherwise prevent the device from functioning to hold the lid closed until the carton has been emptied.

A further object of the invention is to provide a form of lid closing device that is useful with any standard form of carton and which requires no special construction of the latter in order that it may be assembled in operative position thereon.

A further object of the invention is to provide a form of closure device provided with a part adapted to overlap the lid which may be hingedly supported on one of the walls of the carton so that it may be swung about its hinged connection to slip the overlying part outward off the lid to free it for lifting and then inward onto the lid to hold it closed.

To the accomplishment of these objects and such others as may hereinafter appear, as will readily be understood by those skilled in the art, the invention comprises the features and combinations of parts hereinafter described and then particularly pointed out in the appended claims.

The nature and scope of the invention will best be understood from a description of the preferred embodiment thereof and the manner of its use illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of a closure device ready for application to a carton, according to this invention;

Fig. 2 is a sectional view, on an enlarged scale, of a portion of a carton with the improved closure device applied thereto in position for holding the lid closed;

Fig. 3 is a perspective view of the upper part of a carton showing one way the closure device may be delivered to the housewife for her application to the carton;

Fig. 4 is a perspective view showing the method of applying the closure device to a carton.

Fig. 5 is a perspective view of the upper part of a carton showing another way in which the closure device may be supplied to the housewife; and

Fig. 6 is a sectional view of a portion of a carton, according to Fig. 5, showing the method of exposing the closure device for use, the dotted lines showing a displacement of the device on its hinge to permit a lifting of the lid on its hinge.

In the embodiment of the invention illustrated in the drawing, 10 indicates, in general, the complete closure device which, in this instance, is made of a relatively stiff but bendable strip material, preferably metal. The lower end of the strip is bent from the body portion 11 to form a flange or leg 12, the side edges 13 and 14 of which may taper towards one another to form a relatively sharp point 15 at its free or toe end. The other end of the strip is likewise bent from the body portion to form a flange 16, the free end 17 of which may curve upward slightly to form a finger hold. For all cartons with right angular corners the upper flange will be right angular and conveniently, but not necessarily, the lower flange may be right angular.

The closure device is designed so that it may be sold for assembly on standard forms of cartons by the user in the home, or may be assembled on the carton by the manufacturer. When obtained as a separate unit, the device may be applied to the carton as follows. The carton 18 is opened in usual manner as by cutting the top wall 20 free from three walls of the carton, as with a knife 19 (Fig. 3), leaving said wall attached along its rear edge to form a hinged lid. The closure device in its form as shown in Fig. 1 may then be grasped between the forefinger and thumb (Fig. 4), its flange 16 applied to the upper surface of the lid 20 at the front edge thereof and, with the point 15 brought to bear against the front wall of the carton, pressure is applied to the flange 12 to cut a slit and force it through the material forming said wall. As a result of this operation, in its final position the body portion 11 bears against the front wall 18 and holds the flanged end 16 overlying the lid 20 as shown by Fig. 2. Obviously the closure device may be applied to a side wall if desired but a position at the front of the carton is more convenient.

If desired, the front wall of the carton may be slit by a suitable instrument at the appropriate distance from the lid for forming an opening through which the flange 12 may be passed. In such case the pointed end of the flange 12 may be dispensed with. It may also be convenient to previously score or otherwise mark the wall of the carton where the flange 12 is to be introduced. However, in order that the device may be self serving and in order that it may be used as a gauge in finding a proper position for entry of the flange 12 such that the flange 16 may bear with sufficient pressure on the lid 20, it is preferred to form a pointed end 15 on the flange 12.

It is desirable to provide the flange 12 with a spur 21 directed toward the body strip 11 to prevent its withdrawal from the slit in the wall. This is conveniently accomplished by stamping up a tongue from the material of the flange 12 forming an oblique spur the free end 22 of which stands above the plane of the inner face of the flange. The spur 21 permits the passage of the flange 12 through the material of the carton wall but its free end 22, by abutting against the inner face 23 of this wall above the slit, will prevent withdrawal of the flange, except forcibly. When assembled on a carton, as shown in Figs. 2 and 6, the flange 16 of the device bears against the lid 20 to hold it closed but may be slid off the lid at the will of the user, swinging on its lower flange as a pivot, into the position shown in dotted lines in Fig. 6, to free the lid and permit its opening to dispense the contents of the carton. The upper edge of the slit in the carton wall by bearing on the heel of the flange, i. e. in the angle between the flange and body portion, forms the pivot line about which the device may be hinged on to and off of the lid.

The upper flange 16 is preferably provided with a roughened inner face as by protuberances which will bite into the lid 20 to a certain extent and increase the frictional contact of the flange with the lid. The protuberances 24 and 25 shown herein may be conveniently formed by the application of a prick punch to the outer face of the flange 16, the punch breaking through the material of the flange to form rough teats at its inner faces. The form of the closure device permits the use of a relatively long upper flange so that the protuberances engage the face of the lid at a point relatively remote from its edge.

The closure device may, if desired by the manufacturer of the goods, be applied to or packed in a carton before shipment to the consumer. It may not be desirable to have the contents of the carton in prolonged contact with the closure device if made of metal, as between filling the carton and the time it reaches the consumer. Under these circumstances the flanges 12 and 16 may be folded against the body portion 11, so that the device is relatively flat, in which condition it may be packed in the carton between the lid and any envelope containing the contents (Fig. 3) or it may be wrapped itself and laid on the contents. After the carton has been opened, the two flanges of the closure device are returned to their normal positions and the device is ready for assembly on the carton as hereinbefore described.

If the carton contents are of such a nature that they will not be affected by the material of the closure device, it may be assembled on the carton prior to shipment. In such case the device may be held in position during shipment by a gummed-edge protector 26 applied over the de-

vice as shown in Fig. 5. When it is desired to open the carton the protector, conveniently of paper, may be torn off (see Fig. 6) from between its secured margins whereupon the closure device may be swung into the position shown in dotted lines and the front and side edges of the carton top cut to produce the lid as already described.

The cartons with which the closure device of this invention is particularly adapted for use are those made from paper board or a similar material having as a characteristic an inherent resilience that tends to lift the top wall from the side walls once it has been severed to form a hinged lid, but it is within the scope of the invention to apply the device to any receptacle where a locked lid is desirable. In this connection it is obvious that the device is not limited to a use with receptacles of the parallelepipedal form illustrated, since the angle of the lid holding flange to the body strip may be set to suit any angle used in commerce between the planes of the lid and a side wall, and it is obvious also that the device may be applied to a receptacle having a curved side wall. In this specification "carton" is inclusive of any receptacle or container with which the novel closure device is useful.

While it is preferred to employ the specific construction and arrangement of parts shown and described it will be understood that this construction is not essential except so far as specified in the claims, and may be changed or modified without departing from the broader features of the invention.

What is claimed as new, is:—

1. A device for releasably retaining the partially severed and thereby hinged lid of a carton closed upon its side walls comprising a strip of material consisting of a body portion having a relatively rigid flange formed at its upper end for overlying and engaging the depressed free portion of the lid to hold it in closed position, and a relatively rigid flange at its lower end adapted to extend inward through a slit in a side wall of the carton said slit being made at such a distance from the lid that when said lower flange is within the slit and said body portion lies against said carton wall the upper flange will then extend over said lid, the upper edge of the slit in the carton wall which bears on the heel of said lower flange then serving as a fulcrum about which said device may be bodily swung outward thereby releasing the lid.

2. A device of the kind described by claim 1 in which said lower flange has a pointed toe end to facilitate forcing it through and making a slit in a side wall of the carton.

3. A device of the kind described by claim 1 in which said lid engaging upper flange has a roughened inner face to resist withdrawal from said lid.

4. A device of the kind described by claim 1 having a spur on the inner face of said lower flange, said spur presenting an abutment opposite the inner face of said body portion of such a character that said device may be swung outward but hindering its detachment from the carton.

5. A device of the kind described by claim 1 having a tongue stamped out of said lower flange, said tongue extending obliquely upward from the inner face of said lower flange with its free end directed toward the inner face of said body portion, thereby retaining said lower flange at the

inner face of the carton wall when said device is swung outward.

5 6. A device for releasably retaining the partially severed and thereby hinged lid of a carton closed upon its side walls comprising a strip of material presenting a body portion adapted to lie against a side wall of the carton and bent at its upper end to form a relatively rigid flange adapted to overlie the lid to hold it in closed position, 10 the lower end of the strip being bent to form a flange adapted to be passed through a slit in a side wall of the carton forming a connection between the device and the carton about which connection said device may be bodily hinged outward, and means on said lower flange adapted to permit a limited but not complete withdrawal thereof from said slit.

7. The combination with a carton of the type adapted to be opened for dispensing its contents by partially severing an end wall thus providing a hinged lid, of a closure device for releasably holding the lid in closed position, said device comprising a strip of material applied to a side wall of the carton opposite a free edge of the lid, 25 said strip being bent in the same direction at each end forming a body portion having a pair of end flanges, one of the flanges normally overlying the lid to hold it closed and the other flange extending through a slit in a side wall of the carton forming a hinged connection between the lower end of said body portion and said side wall permitting said first named flange to be slipped at will off of and on to said lid, and means on said last named flange for retaining said device on 30 the carton while the upper flange is free of the lid.

8. The combination with a carton of the type adapted to be opened for dispensing its contents by partially severing an end wall thus providing a hinged lid, of a closure device for releasably holding the lid in closed position, said device comprising a strip of material applied to a side wall of the carton opposite a free edge of the lid, a flange on said strip overlying and normally engaging the lid to hold it closed, and means on said strip extended through said side wall to the interior of the carton of such a nature as to retain the device loosely on the carton, thereby providing a hinged connection between the device and said side wall about which the device may be bodily swung outward to move said flange off the lid for dispensing the contents of the carton and inward to again engage the lid. 15

9. The combination with a carton of the type adapted to be opened for dispensing its contents by partially severing an end wall thus providing a hinged lid, of a closure device for releasably holding the lid in closed position, said device comprising a flat strip of material applied to a side wall of the carton below a free edge of the lid, said strip being bent at each end to form a pair of inwardly turned flanges, one of said flanges normally overlying the lid to hold it closed and said other flange extending loosely through the side wall to the interior of the carton forming a hinged connection between the device and said side wall by virtue of which the device may be swung outward and inward to remove its other flange from and to reseat it on the lid. 25 30

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