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F. L. HANLE

2,145,689

CLOSURE DEVICE

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Fig. 1.

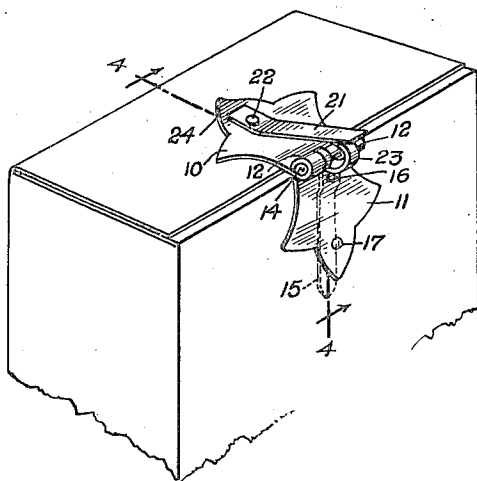


Fig. 2.

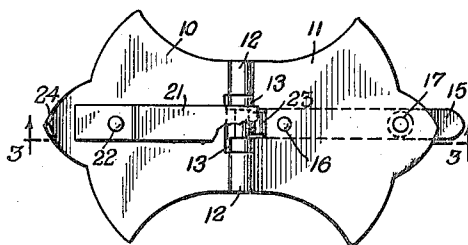


Fig. 3.

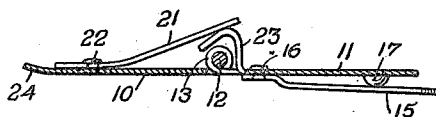
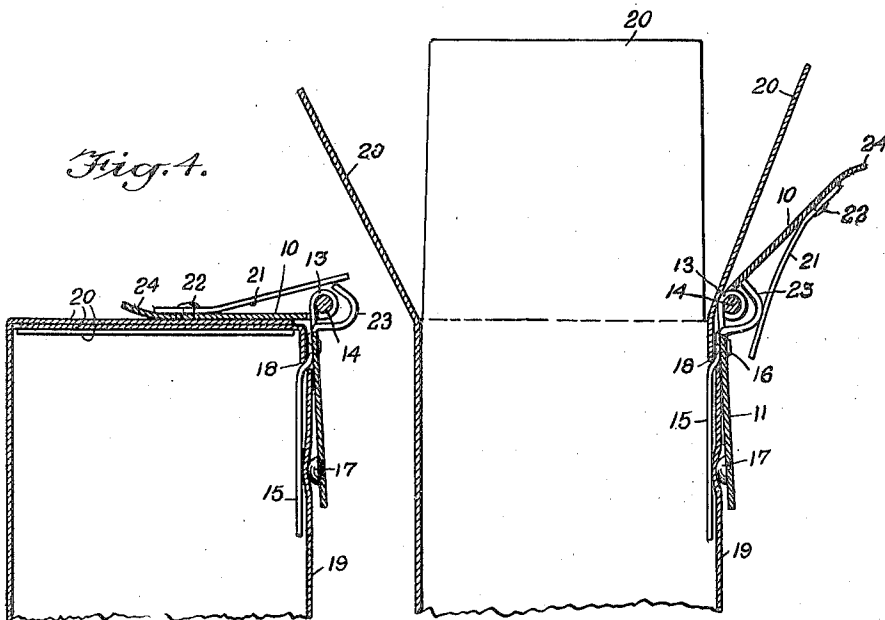


Fig. 4.



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CLOSURE DEVICE

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2 Claims. (Cl. 292—288)

This invention relates to closure devices, and more particularly to a device adapted to be removably secured to a box, carton or similar container and hold the covering flaps tightly in closed position or permit the covering flaps to be opened to dispense the contents of the box or carton.

A great deal of merchandise, particularly food-stuffs, is sold in paper boxes or cartons with the covering flaps sealed or secured in some manner so as to protect the contents of the box or carton during storage and shipment. When this container reaches the home the housewife breaks the seal or otherwise releases the covering flaps so that the contents of the box or carton may be removed easily. Particularly in the case of cereals and the like, only a portion of the contents is removed and the package is placed on a shelf out of the way for future use. In such case the closing flaps never tightly close the box or carton, so that the contents thereof are exposed to the action of the air and also to dust and other foreign matter.

It is the particular purpose of my invention to provide a small, inexpensive and efficient closure device which can be easily and quickly secured to a box or carton and which will effectually hold the covering flaps tightly closed or permit them to be opened from time to time to dispense the contents of the box or carton.

My improved device embodies many novel features of construction and combinations and arrangements of parts, all of which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawing—

Fig. 1 is a perspective view showing my improved device in operative position on the box or carton;

Fig. 2 is a plan view of the device removed with the leaves of the device located in alignment;

Fig. 3 is a view in longitudinal section on the line 3—3 of Fig. 2;

Fig. 4 is a view in sectional elevation showing my improved device in operative position on a box or carton with the device holding the covering flaps in closed position;

Fig. 5 is a view similar to Fig. 4 showing the device in what may be termed its open position allowing the covering flaps to be opened to enable the contents of the carton to be dispensed.

My improved device comprises two leaves 10 and 11 and for convenience of description I shall hereinafter refer to the leaf 10 as the closure leaf and the leaf 11 as the securing leaf. These leaves 10 and 11 may of course be of any shape

desired, and they are hingedly connected, that is to say, the leaf 10 is provided with spaced sleeves 12 and the leaf 11 with smaller spaced leaves 13 between and in alignment with the sleeves 12 to receive a hinge pintle 14 therein to allow for hinged movement of one leaf relative to the other.

Securing leaf 11 is provided on its inner face with a spring tongue 15 which may be secured at its upper end to the leaf 11 by means of a rivet 16 or any other suitable means, and this tongue 15 preferably extends beyond the end of the leaf 11. A knob or button 17 is formed on the inner face of the leaf 11 which cooperates with the tongue 15 to form a secure clamp.

In operation when the box or carton is opened, or before it is opened, a slot or slit 18 is formed in the body 19 of the carton at a point slightly removed from the end of the carton, and the tongue 15 is projected through the slot or slit 18 and down inside of the box or carton so that with the cooperation of the knob or button 17 the spring tongue will exert a relatively strong bite on a wall of the box or carton, as clearly shown in Figs. 4 and 5 of the drawing, to maintain the device in proper operative position.

The box or carton indicated by the reference character 19 is of the ordinary or standard type having closure flaps 20 at its sides and ends which are adapted either to be moved to closed or open position, and it is of course to be understood that the closure leaf 10 is adapted to be swung down to the position shown in Figs. 1 and 4 of the drawing to hold the closure flaps 20 in their closed position or be swung to the position shown in Fig. 5 to permit said flaps to be opened.

The closure leaf 10 is provided on its outer face with a flat spring 21 secured at one end by means of a rivet 22 or other suitable securing means. The leaf 11 is provided with an arched finger or tongue 23 which preferably constitutes an integral part of the leaf between the bearing sleeves 13 and which is arched outwardly over the pintle 14.

The spring 21 above referred to engages the outer surface of this tongue 23 and rides over the same so that the finger operates as a cam or riser to cause the desired tension on the spring 21 to hold the flap 10 in any position to which it is moved. Furthermore, the tongue 23 is engaged by the leaf 10 when it is in fully opened position, as shown in Fig. 5, so that the finger acts as a stop to prevent a further movement of the leaf 10.

It is perfectly obvious that when the device is

in operative position on the box or carton, the latter may be opened and closed at will, and when the box or carton is empty and is to be discarded, the device may be easily removed and placed upon another box or carton.

For convenience of manipulation, the extreme end of the closure leaf 10 is preferably curved or flared upwardly or outwardly as shown at 24.

While I have illustrated and described what I believe to be a preferred embodiment of my invention, it is obvious that various changes might be made in the general form and arrangement of parts without departing from the invention, hence I do not limit myself to the specific details set forth but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A closure device of the character described, comprising a supporting leaf and a closure leaf hingedly connected, a spring tongue on the supporting leaf adapted to enter a slot in a con-

tainer and secure the leaf against the container, a spring on the closure leaf engaging the supporting leaf and adapted to hold the closure leaf in position either to close or permit the opening of the container, and a tongue on the supporting leaf engaged by the spring on the closure leaf to insure tension on the spring, said tongue adapted to be engaged by the closure leaf and constitute a stop to limit the opening movement of the same.

2. The combination with a container having a slotted wall, of a closure device comprising a supporting leaf and a closure leaf hingedly connected thereto, a compression tongue on the supporting leaf below said hinged connection, said compression leaf being adapted to enter the slot in said container and secure the leaf against the wall thereof, and a spring on the closure leaf engaging the supporting leaf and adapted to hold the closure leaf in position either to close or permit the opening of the container.

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