June 28, 1960 H. CLOUGH ET AL 2,942,755

VACUUM TIN KEY GUARD

Filed Feb. 9, 1959

FIG. 1

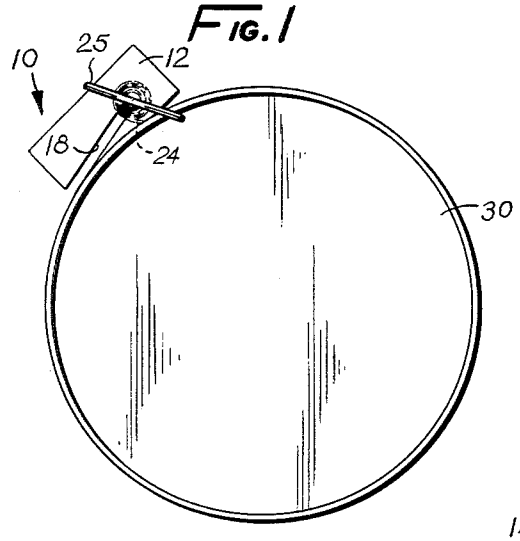


FIG. 3

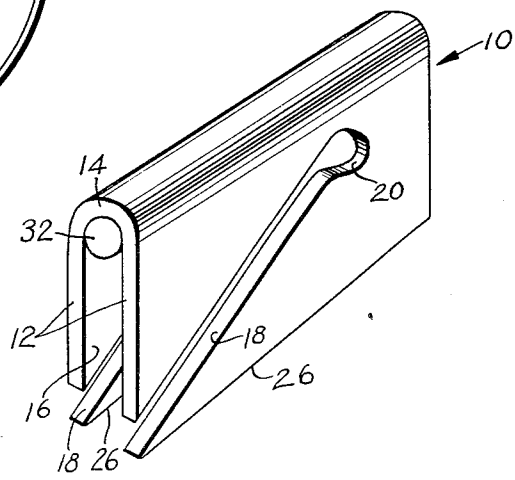


FIG. 2

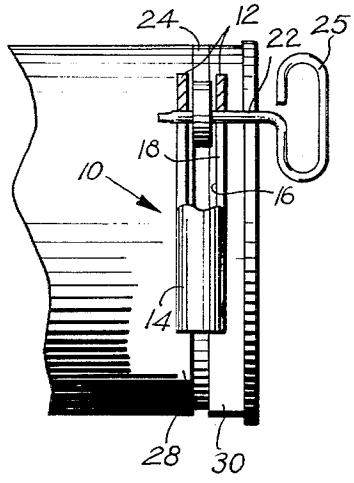
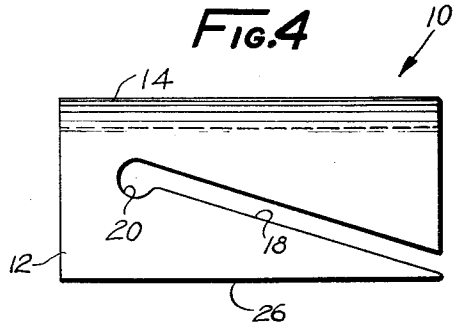


FIG. 4



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VACUUM TIN KEY GUARD

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3 Claims. (Cl. 220—52)

This invention relates to can openers and more particularly to a safety device for tear strip type container openers.

It is an object of the present invention to provide a guard for use with key type openers of the type ordinarily used for removing the tear strip from hermetically sealed canisters.

Another object of the present invention is to provide a vacuum tin key guard of the above type that may be conveniently re-used, retains the removed tear strip within the interior thereof until selectively discharged, and which will assure the proper opening of all types of vacuum canisters.

Other objects of the invention are to provide a vacuum tin key guard bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

Figure 1 is a top plan view of a vacuum tin key guard made in accordance with the present invention in operative use;

Figure 2 is an enlarged fragmentary side elevational view, partly in section, of the device shown in Figure 1;

Figure 3 is an enlarged perspective view of the key guard made in accordance with the present invention; and

Figure 4 is a side elevational view of the device shown in Figure 3.

Referring now more in detail to the drawing, a vacuum tin key guard **10** made in accordance with the present invention is shown to include a main housing having a pair of spaced apart parallel side walls **12** connected together along one edge by means of a bight portion **14** so as to define a central longitudinal space **16** therebetween. Each side wall **12** is provided with a diagonally extending slot **18** opening at one outer corner thereof and extending inwardly toward the bight portion **14** in substantially parallel relationship with each other. The innermost end of each such slot **18** terminates in an enlarged bearing opening **20** that rotatably supports longitudinally spaced apart portions of the shaft **22** of a vacuum tin key **25**, as is clearly shown in Figure 2.

In actual use, the end of the tear strip **24** is engaged with an opening in the shaft of the key **25**, and the key is placed in rotatable engagement with the bearing portions **20** of the housing through the guide slots **18** in such a way that the free edges **26** of the sides **12** slidably engage the adjacent portions of the canister **28** and lid **30** in straddling engagement with the tear strip **24**, with the bearing portion **20** of the device leading the open ends of the guide slots **18** around the periphery of the canister, in the manner shown in Figure 1. Thus, as the key **25** is rotated, the winding of the tear strip **24** upon the shaft **22** will cause the guard **10** to follow around

the periphery of the can with the free edges **26** of the sides **12** in sliding engagement with the adjacent canister and lid portions **28**, **30**, respectively. After the strip **24** has been completely removed from the can, a bar magnet **32** extending longitudinally within the bight portion **14** of the housing magnetically retains the key and rolled strip **24** within the interior of the housing until such is manually removed therefrom. This protects the hands, preventing injury, and maintaining control of the assembly at all times. Since the space **16** between the side walls **12** is substantially the same width as the tear strip **24**, the inside surfaces of the sides **12** will serve as guides to assure the proper rolling of the tear strip upon the key shaft **22**.

It will thus be recognized that the device may be conveniently used on all types of tear strip type vacuum canisters in a simple and efficient manner. Since the roll strip **24** and key **22** are readily removed from the device after each use, this device can be conveniently used time and again, thus avoiding any unnecessary expense.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What we claim as new and desire to protect by Letters Patent of the United States is:

1. A tear-strip-sealed can key guard comprising, in combination, a housing having a forward end and a rear end and including an integral element substantially U-shaped in end elevation and substantially rectangular in side elevation having a pair of spaced-apart parallel substantially rectangular sides and a central connecting bight portion integral with one edge of both of said sides and having spaced-apart parallel can-engageable slidable guide edges carried by said spaced-apart parallel sides opposite said bight portion adapted to slidably engage the side wall of a can which is to be opened, with each of said slidable guide edges straddling a sealing tear strip which is to be forcibly removed from the can, a transverse bearing integral with said housing and spaced from said guide edges for rotatably supporting a tear-strip-unwinding key shaft transversely therewithin, said bearing comprising a substantially circular opening in each one of said sides of said housing between said spaced guide edges and said bight portion, with both of said circular bearing openings being in substantial transverse alignment with each other for rotatably supporting a tear-strip-removing-and-winding key shaft in substantially perpendicular relationship with a central plane bisecting said housing between said spaced-apart parallel sides thereof, access means for guidingly and transversely receiving the tear-strip-removing key shaft for selective movement into and out of transverse engagement with said bearing, said access means comprising a diagonal slot in each of said sides of said housing beginning in each of said slidable guide edges adjacent the rear end of the housing and diagonally and outwardly extending toward the forward end of the housing and toward the bight portion and away from the guide edges into offset communication with each of said circular bearing openings, with both of said diagonal slots being in substantial transverse alignment with each other for slidably receiving the tear-strip-removing key shaft transversely therewithin for angularly outwardly and forwardly guided movement into rotatable engagement within said offset bearing openings, and key shaft retaining means for controllably disengageably retaining the tear-strip-removing key shaft in transversely directed rotatable engagement within said bearing openings.

2. The combination according to claim 1, wherein said key shaft retaining means comprises projection means between the forward outer end of each of said diagonal

slots and the circular bearing opening connected thereto projecting outwardly therebetween toward said bight portion whereby to normally retain the key shaft within the transversely aligned bearing openings whenever tension is applied thereto by a tear strip during a tear-strip-removing operation consisting of spirally winding the tear strip around the key shaft.

3. The combination according to claim 2 including magnetic means comprising a bar magnet secured within said bight portion of said housing for releasably magnetically retaining a removed tear strip spirally wound around a key shaft after completion of a can-opening operation.

References Cited in the file of this patent

UNITED STATES PATENTS

2,144,199	Press	Jan. 17, 1939
2,600,589	Swanson	June 17, 1952
2,612,287	Snook	Sept. 30, 1952
2,660,331	Inman	Nov. 24, 1953
2,667,394	Goetz et al.	Jan. 26, 1954
2,741,395	Brown	Apr. 10, 1956

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,942,755 June 28, 1960

Harry Clough et al.

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the grant, lines 2 and 3, for "assignors to Gadget-Of-The-Month Club, Inc., of North Hollywood, California, a corporation of California," read -- assignors of one-tenth to Gadget-Of-The-Month Club, Inc., of North Hollywood, California, a corporation of California, --; line 12, for "Gadget-Of-The-Month Club, Inc., its successors" read -- Harry Clough and Lora E. Clough, their heirs or assigns, and Gadget-Of-The-Month Club, Inc., its successors --; in the heading to the printed specification, lines 3, 4, and 5, for "assignors to Gadget-Of-The-Month Club, Inc., North Hollywood, Calif., a corporation of California" read -- assignors of one-tenth to Gadget-Of-The-Month Club, Inc., North Hollywood, Calif., a corporation of California --.

Signed and sealed this 20th day of December 1960.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents