

G. E. KRAUSE.

BOX.

APPLICATION FILED NOV. 12, 1920,

1,369,819.

Patented Mar. 1, 1921.

Fig 1

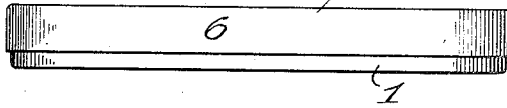


Fig 2

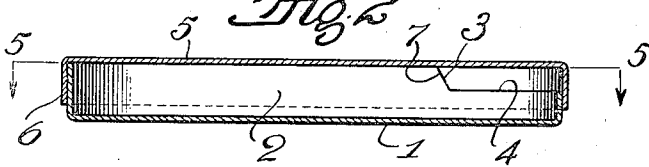


Fig 3

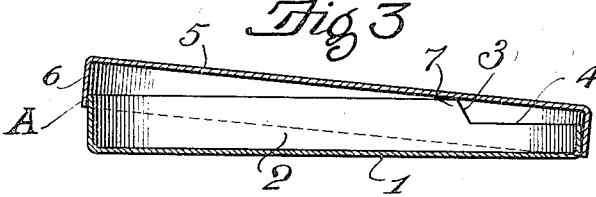


Fig 4

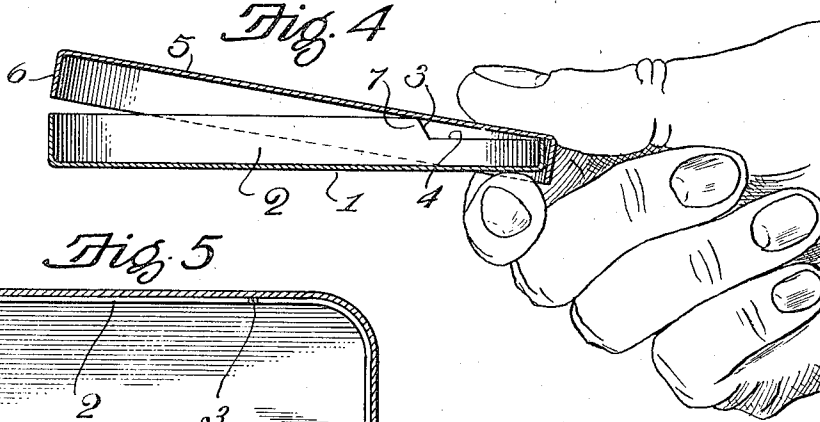
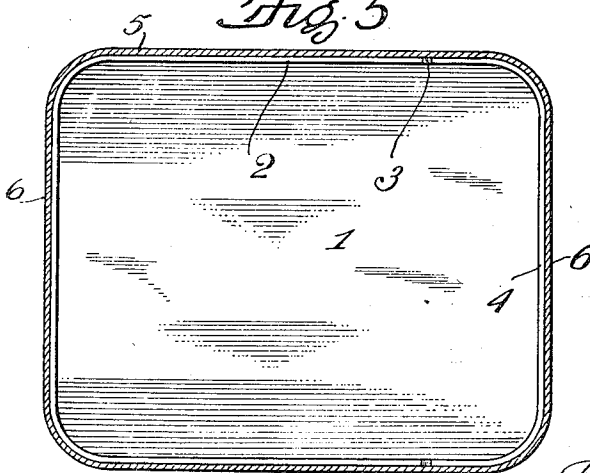


Fig 5



INVENTOR

George E. Krause

BY: *Freese, Merkel, Saywell and Bond*
ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE E. KRAUSE, OF CANTON, OHIO.

BOX.

1,369,819.

Specification of Letters Patent.

Patented Mar. 1, 1921.

Application filed November 12, 1920. Serial No. 423,763.

To all whom it may concern:

Be it known that I, GEORGE E. KRAUSE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Box, of which the following is a specification.

This invention relates to boxes, especially to boxes formed of sheet metal and designed to contain small articles such as medicinal tablets or the like, and more particularly to boxes of this character provided with means whereby the lid may be easily and readily removed from or placed upon the box.

The usual type of small sheet metal boxes such as are ordinarily used for dispensing medicinal tablets and similar small articles, cause considerable trouble to the user in removing the lid from the box or replacing the same thereon and the effort required on the part of the user, to remove the lid from the box, very frequently causes the contents of the box to be spilled.

The objects of the present invention are the provision of a sheet metal box provided with a removable lid, the box and lid being so constructed that the lid may be easily removed from or placed upon the box by the user, while at the same time there will be practically no danger of accidentally opening the box through contact with other objects.

It is common practice for druggists and other tradesmen engaged in the sale of medicinal tablets and similar small articles which are sold in a box of the type above mentioned, to place a number of the boxes in a glass jar or similar container, from which they may be easily removed for sale, and as these boxes are dumped indiscriminately into the common container, it will be evident that the lids would be quite likely to be accidentally loosened and detached from a considerable number of the boxes unless some means is provided for preventing the same.

The above, together with ancillary objects may be attained by providing a box of the general character referred to, one end portion of the side walls thereof being cut away, the lid being arranged to fit upon the box in the usual manner and adapted to be removed therefrom by a pressure upon the top of the lid and the bottom of the box at the cut-away end of the box, the lid being provided with a down turned flange arranged to engage the side walls of the box,

said flange being of slightly greater depth than the cut-away portion of the box walls, for the purpose of preventing accidental opening of the box.

The invention thus set forth in general terms is illustrated in the accompanying drawings forming part hereof, in which—

Figure 1 is a side elevation of a box embodying the invention,

Fig. 2, a longitudinal sectional view through the box in the closed position,

Fig. 3, a longitudinal sectional view through the box showing the maximum position the lid may assume when the box and lid are engaged between other boxes in a common container, illustrating the means whereby accidental opening of the box is prevented,

Fig. 4, a similar view showing the position assumed by the lid when pressure is exerted upon the lid and the box by the user for the purpose of removing the lid,

Fig. 5, a section on the line 5—5, Fig. 2.

A practical embodiment of the invention is disclosed in the accompanying drawings forming a part of this specification, in which similar numerals of reference indicate corresponding parts throughout the several views.

The box 1 is formed of sheet metal, preferably of oblong shape, and having rounded corners as shown in Fig. 5, the side walls 2 being provided adjacent one end, with the cut out portion comprising the straight, preferably slightly rearwardly disposed edge 3 and the horizontally disposed edge 4.

The remaining portions of each side wall 2 are of the same height, the upper edges thereof being parallel with the bottom wall 1, and of considerably greater height than the cutaway portion.

The lid 5 is provided around its edges with the depending flange, having a continuous unbroken lower edge parallel to the top wall of the lid.

The lid, in the closed position, normally rests upon the upper edge or run of the side walls 2, of the box, being parallel with the bottom wall of the box, as shown in Figs. 1, and 2. With the construction illustrated and above described, it will be impossible for the lid to become accidentally detached from the box by straight pressure between flat objects, such as other boxes, in a common container as above mentioned.

Attention is called to Fig. 3 in which is

illustrated the maximum movement of the lid which may be obtained by pressure upon the lid and the box between two other boxes. The depending flange 6 upon the lid being of greater depth than the cut-away portion of the walls of the box, and the fulcrum 7 upon the box being spaced sufficiently from the adjacent end of the box, it will be seen that when the lower edge of the flange 6, adjacent to the cut-away portion, is flush with the bottom wall of the box, as shown in said figure, the flange 6 at the opposite end of the lid will still be in engagement with the adjacent end wall of the box.

As this flange 6 moves in the arc of a circle, it will be seen that said flange binds against the adjacent end wall of the box at the point A, causing the flange of the lid and the end wall of the box to be sprung at this point; and as another box or similar flat object, engaging the bottom wall of the box, will also engage the lower edge of the lid flange and prevent the movement of the lid beyond the position shown in Fig. 3, there will be little danger of accidental displacement of the lid.

In order to open the box, pressure is exerted upon the top of the lid and the bottom of the box, at the cut-away end thereof, by the thumb and forefinger of the user, rocking the lid upon the fulcrum 7, to the maximum position shown in Fig. 4, the cut-away portion of the box being forced up beyond the lower edge of the adjacent end flange of the lid, while the opposite end flange of the lid is sprung out of engagement with the adjacent end wall of the box.

The lid may then be easily removed from the box without danger of spilling the contents thereof, as this operation will not suddenly displace the lid from the box, nor jar the box in any way, thus overcoming the objections common in boxes of this type.

As the lower edge of the flange 6 of the lid is straight and unbroken, it will be evident that the lid may be easily replaced upon the box, the usual half-round, cut out portions or notches in the flange of the lid, which often cause considerable difficulty in

replacing the lid upon the box, being dispensed with.

The corners of the box and lid being rounded, it is obvious that the greatest friction between the flange of the lid and the side walls of the box, is caused at these corners, and it will be evident that cutting away the corners as illustrated in the drawings will reduce this friction considerably and allow the box to be more easily opened.

It will thus be seen that a box and lid are provided in which the lid, although fitting snugly upon the box may be easily and readily opened and removed therefrom by applying a slight pressure upon the end portions of the box and lid, causing the lid to be raised from the other end of the box sufficiently to allow its easy removal from the box, preventing the lid from suddenly flying open and the contents of the box being easily spilled, while at the same time the box and lid are so constructed that danger of accidental removal of the lid, which might cause the spilling of the contents of the box, is practically obviated; the lid being also so constructed that it may be easily and readily replaced upon the box.

Although the box and lid are illustrated as being of oblong shape, it will, of course, be understood that the invention may be applied with equal success to a square box or to an oval box with the same result, no change in the invention being necessary to apply it to boxes of these shapes.

I claim:—

A sheet metal box provided with vertical walls having a portion cut away at one end, and a detachable lid provided with a depending flange of greater height than the cut away end of the box to prevent accidental opening of the box, said lid normally resting upon the upper edges of the walls of the box and arranged to be loosened by applying pressure upon the box and lid at the cut away end to press the end of the box within the flange of the lid.

In testimony that I claim the above, I have hereunto subscribed my name.

GEORGE E. KRAUSE.