(No Model.)

D. M. SOMERS.

Metal Box.

No. 241,083. Patented May 3, 1881.

Fig 1.

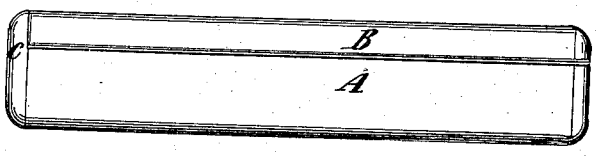


Fig 2.

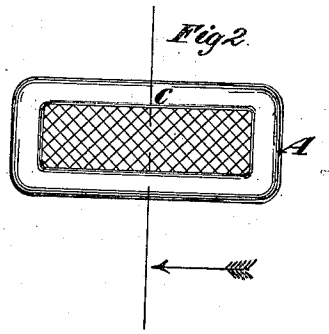


Fig 3.

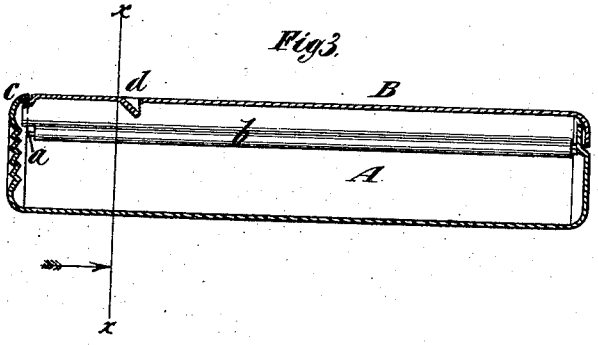
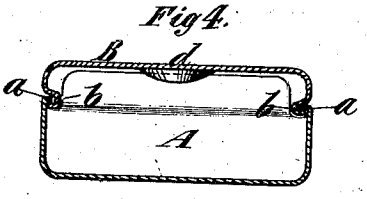


Fig 4.



Witnesses
John Becker
Chandler Hall

Inventor:
Daniel M. Somers
by his Attys
Brown & Brown

UNITED STATES PATENT OFFICE.

DANIEL M. SOMERS, OF BROOKLYN, NEW YORK.

METAL BOX.

SPECIFICATION forming part of Letters Patent No. 241,083, dated May 3, 1881.

Application filed September 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, DANIEL M. SOMERS, of Brooklyn, in Kings county, and State of New York, have invented a certain new and useful Improvement in Metal Boxes, of which the following is a specification.

My invention relates to sheet-metal boxes which are provided with sliding covers or lids, and which may be used for matches, for packages for stationers' or druggists' use, or for other purposes.

The invention consists in the combination, in a metal box, of a body comprising a bottom and sides, made of a single piece of sheet metal, and a sliding lid or cover, the said sides being turned in at the edges to form inwardly-projecting lips or flanges, and the lid having, in its exterior, grooves receiving said lips or flanges, whereby pressure applied by the thumb and fingers to the bottom and lid or cover in opening will spring the sides outward sufficiently to loosen the lid or cover and permit of its sliding freely on said lips or flanges.

In the accompanying drawings, Figure 1 represents a side view of a box embodying my invention. Fig. 2 represents an end view thereof. Fig. 3 represents a longitudinal section through the box, and Fig. 4 represents a transverse section upon the dotted line *x x*, Fig. 3. Similar letters of reference designate corresponding parts in all the figures.

A designates the body of the box having the bottom and sides formed of a single piece, and B designates the sliding cover or lid therefor.

In order to hold the cover or lid upon the box and still afford provision for its sliding, I construct the box with turned-in edges on its opposite sides, which form inwardly-projecting flanges or lips, *a*, and I construct the cover or lid B with grooves *b* in the exterior at the opposite sides. The manner in which the flanges or lips *a* engage with the grooves *b* is clearly shown in Fig. 4, and from Figs. 2 and 4 it will be clearly seen that when the box and cover or lid are constructed according to my invention, the exterior of the box is smooth—that is, that it presents no ridges or ribs, as would be present were the grooves formed upon the interior of one part and the edges of the other part turned outward instead of inward.

Boxes of this form are particularly adapted to be carried in the pocket, as there are no sharp ridges or projecting ribs to tear and wear the pocket.

The boxes are commonly made from tin plate, which is enameled and printed before it is cut up into blanks for boxes; and one great advantage of making the boxes as here shown is that there is less liability of the enameling or printing being defaced in the course of manufacture, and the boxes present no sharp ridges or projecting ribs from which the enamel or printing is easily worn off.

The box A may be made in any convenient form of a single blank cut at the corners and having its margins bent up to form the sides and ends of the box.

The metal may be stiff enough so that the corners need not be fastened, and one end, *c*, may form a stop to the inward movement of the cover or lid.

The end *c* may be roughened, as shown, to afford provision for striking matches.

In the cover or lid B is a thumb-notch or depression, *d*, which affords provision for moving the cover or lid to open the box, and this depression produces a protuberance upon the under side which forms a stop to prevent the lid or cover from being pulled entirely off the box.

Metal boxes of this character, and particularly those used by smokers, are intended to be and are opened by applying the thumb and fingers to the lid or cover and the bottom, thus producing a pressure sufficient to overcome the friction of the lips or flanges in the grooves, and cause the sliding of the cover to open the box. Where the bottom and sides of the box are composed of a single piece of thin flexible metal, and the grooves are formed in the exterior of such sides, a pressure upon the lid or cover and bottom will cause the sides to spring outward at the edges farthest from the bottom, where are the grooves, and will cause said grooves to bind so tightly upon the lips or flanges of the cover as to impede the free sliding of the lid or cover, and the greater the pressure applied to the lid or cover and the bottom of the box the greater will be the frictional resistance to the sliding of the lid or cover. On the contrary, where the sides and bottom are formed of a single piece, and the inwardly-turned lips or flanges are on the sides, as in my

improved box, the pressure of the thumb and finger applied to the lid or cover and the bottom of the box will cause the sides of the box to swing outward and loosen the lid or cover, so that it may be readily slid off.

I am aware that it is old to provide one part of a box, either the body or lid, with outwardly-turned lips or flanges, and the other part with internal grooves; and I am also aware that it is old to form the sides and bottom of a box in one piece and provide the sides with external grooves engaging with inwardly-extending lips or flanges upon the cover; but for the reasons above stated the pressure exerted upon the lid or cover and the bottom of such a box would tighten the lid or cover and prevent its free sliding movement.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a metal box, of a body comprising a bottom and sides made from a single piece of sheet metal, and a sliding lid or cover, when the said sides are turned in at the edges to form inwardly-projecting lips or flanges, and the lid or cover is provided in its exterior with grooves receiving said lips or flanges, substantially as and for the purpose herein described.

DANIEL M. SOMERS.

Witnesses:
CHANDLER HALL,
T. J. KEANE.