

D. H. GLOVER.
BOX.

APPLICATION FILED MAY 27, 1909.

941,140.

Patented Nov. 23, 1909.
2 SHEETS—SHEET 1.

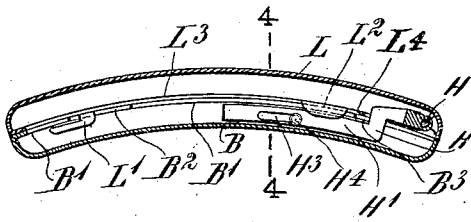


Fig. 1.

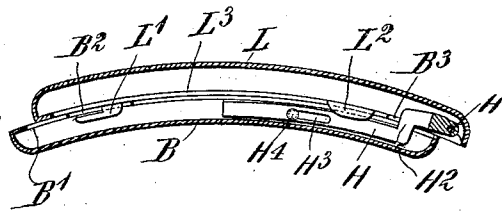


Fig. 2.

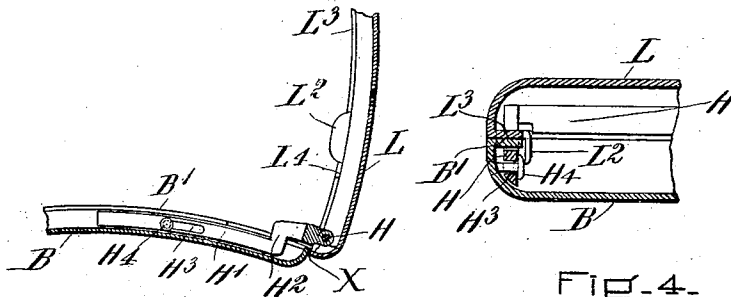


Fig. 3.

Fig. 4.

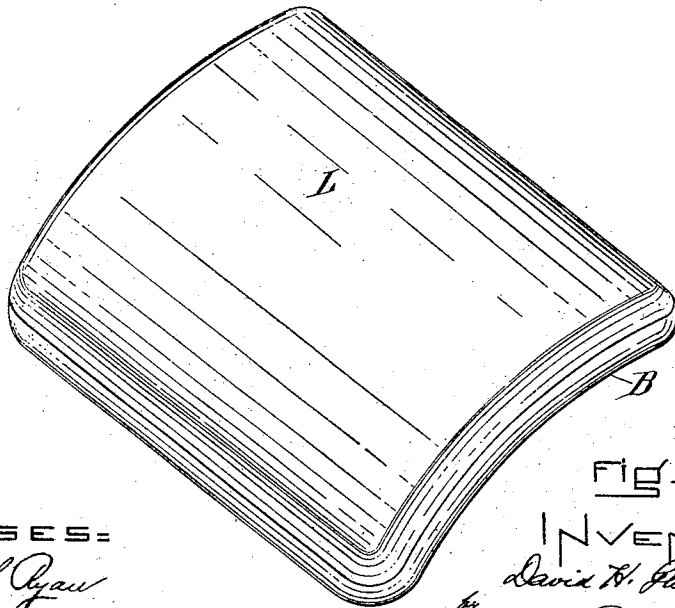


Fig. 6.

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2 SHEETS—SHEET 2.

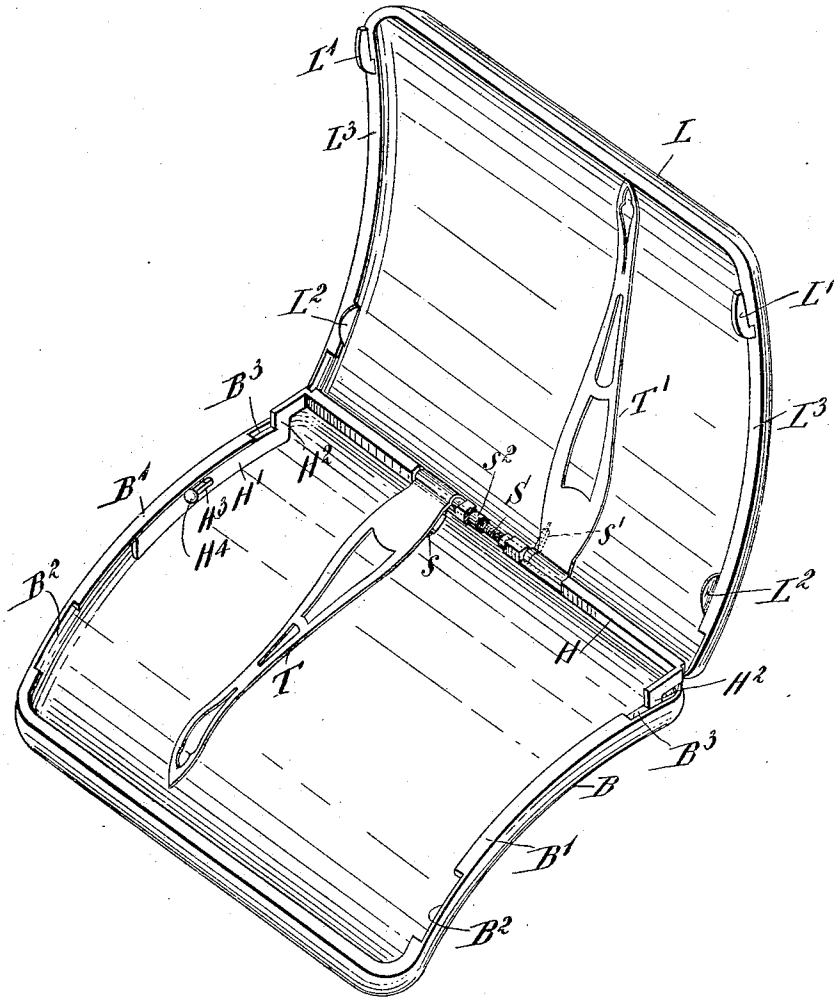


FIG. 5.

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UNITED STATES PATENT OFFICE.

DAVID H. GLOVER, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO REED & BARTON CORPORATION, OF TAUNTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

BOX.

941,140.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed May 27, 1909. Serial No. 498,608.

To all whom it may concern:

Be it known that I, DAVID H. GLOVER, a citizen of the United States, and resident of Taunton, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Boxes, of which the following is a specification.

My invention relates to the construction of boxes and particularly to boxes for containing cigarettes or other small articles to be carried in the pocket.

By my improvements presently to be described the following advantages are secured: The box has a smooth exterior without any projecting parts or dust-collecting crevices; the operation of opening or closing is very simple and may be accomplished with one hand; no latches or push buttons of any kind are required so that even when wearing a heavy glove, the user of the box can open or close it readily. The absence of all projections gives the box a novel as well as neat appearance, and as its mode of operation is concealed except to the initiated, it stimulates curiosity and is attractive on this account.

The principle of operation of a box embodying my invention and securing the foregoing advantages, is, that one of the two main components of the box, *i. e.* body or lid, is pivotally secured to a hinge, and the hinge secured to the other member in sliding relation, so that the body and lid may be relatively shifted out of normal register, the hinge piece moving with one component and sliding on the other. Catches or bolts on one component, working against suitable lips or ledges on the other, serve to hold the box closed while its component parts are in normal register, but are released by the sliding movement aforesaid, and then the box may be opened, either by hand, or preferably by the action of a spring.

In the drawings hereto annexed which illustrate an example of my improvements,—Figure 1 shows a box in cross section with the lid thereof closed; Fig. 2 is a cross section similar to Fig. 1 which shows the lid and body in their relation when the box is to be opened; Fig. 3 is a cross sectional view of the body and lid of the box in open position; Fig. 4 is a cross section taken at the line 4—4 of Fig. 1; Fig. 5 is a perspective

view showing the interior of the box when open; and Fig. 6 is a perspective view showing the box when closed.

The box shown in the drawings is a curved box of the shape usually employed for carrying cigarettes. In such structures the two parts, body and lid, are very nearly of the same proportions, so that the designations "body" and "lid" are arbitrary; custom has, however, applied the designation "body" to the member which is externally concave, and the designation "lid" to the externally convex member, and these arbitrarily selected terms will be herein so applied.

The body B and lid L are each in a single piece of metal or may be made by stamping out a shell and soldering thereto the flange or rim portions. The body and lid are curved in such an arc that the two fit closely together. The external contours of both lid and body are identical so that when the box is closed the edges of the two portions are flush all the way around. A hinge is provided as at H, and from this hinge extend arms H' which have sliding play between the bottom of the body B and the flange B', and an offset at H². Each of the arms H' is slotted at H³ and a pin H⁴ secured to the body B plays in said slot. On the inner lip L³ of the lid L there are formed the locking tongues L' and holding lugs L², the latter being so proportioned and arranged as to fit just within the edge of the lip B' when the box is closed. The lip B' is cut away at B² and B³ so as to allow for the sliding movement of the lid L upon the body B. The result of this sliding movement is illustrated in Fig. 2 where the lid L has been slid to the right a sufficient distance to allow the lug L' to pass outwardly through the aperture B².

In order to make the opening of the lid of the box automatic when the body and lid have been brought into the relation shown in Fig. 2, an opening spring is provided wherewith to force the two members apart. A specific arrangement of such opening spring is shown in Fig. 5; there are provided two tongues of thin metal, T and T', pivoted on an axis coincident with that of the hinge H. These two tongues are connected by a spring S which is housed in sleeves s² whereof one only is shown in Fig.

5, the other being omitted for the purpose of showing the spring itself. The ends of the spring S are secured to the tongues T and T' at s and s'. These tongues serve not only
5 to force the lid open when disengaged but also are useful to retain cigarettes in the box in the usual manner.

When the box is open, the edge of the lid L bears against the outer edge of the body
10 B, as at X, enabling the opening spring to hold the hinge arms H' drawn against the stop pins H⁴, in the position appropriate to opening or closing the box, so that the simple act of shutting the lid will cause the
15 catches L' to pass through the recesses at B².

It will be obvious from the foregoing description that the lid and body of the box can be slid into and out of interlocking relation by the thumb and fingers of one hand,
20 and that when they are in disengaged position as shown in Fig. 2 the opening spring automatically throws the box wide open. When closed and slid into locking position the two members, body and lid, being of the
25 same contour, coincide perfectly and form a

smooth flush surface without projections of any kind.

What I claim and desire to secure by Letters Patent is:

1. In a box, the combination of a lid, a 30 hinge pivoted to the lid, arms on said hinge, a box body having pin-and-slot connection with said arms, and a catch to hold the lid to the body, releasable by a sliding movement of the body relatively to the hinge- 35 arms.

2. In a box, the combination of a lid, a hinge pivoted to the lid, arms on said hinge, a box body having pin-and-slot connection with said arms, a spring to force open the 40 lid, and a catch to hold the lid to the body, releasable by a sliding movement of the body relatively to the hinge-arms.

Signed by me at Taunton Massachusetts this twenty-second day of May, 1909.

DAVID H. GLOVER.

Witnesses:

GEORGE E. BALL,
HERBERT O. WOOLLEY.