Dec. 27, 1927. 1,653,967

A. PAULSON

MECHANICAL BOX

Filed April 16, 1926

Fig. 1.

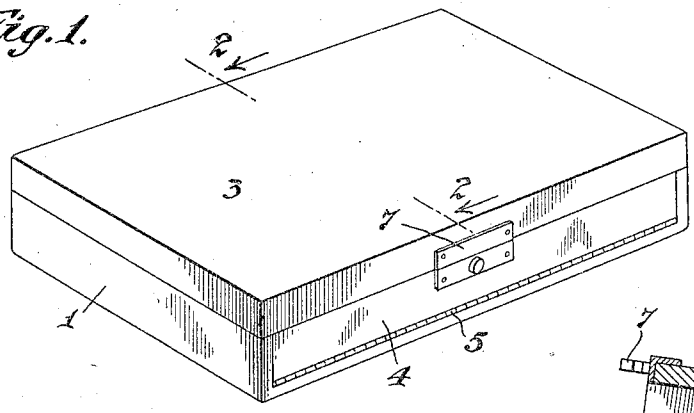


Fig. 2.

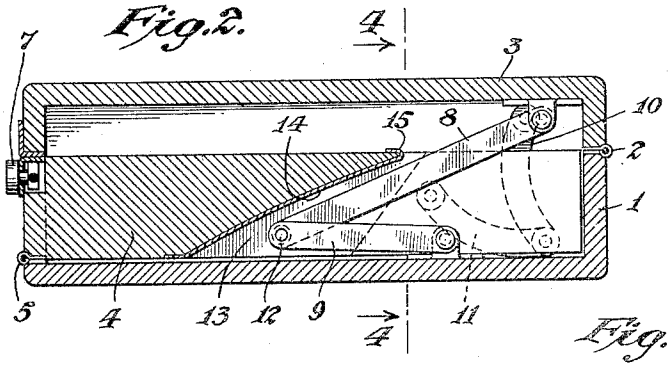


Fig. 3.

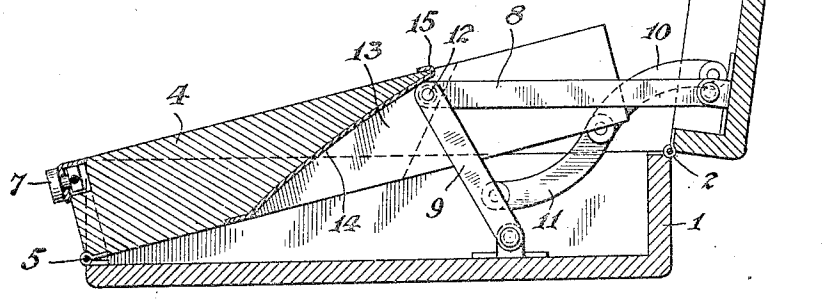
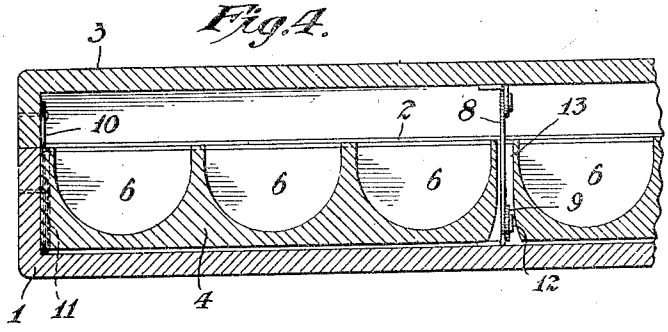


Fig. 4.



Inventor

Arthur Paulson

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UNITED STATES PATENT OFFICE.

ARTHUR PAULSON, OF NEW YORK, N. Y.

MECHANICAL BOX.

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My invention relates to improvements in boxes within which a tray is hinged having operative connection with the cover of the box so that when the cover is swung open on its hinge the tray will also swing upon its hinge; and the object of my improvement is to provide in a box a movable tray adapted to contain articles to be dispensed or otherwise removed from said tray so that when the hinged cover of the box is opened the tray will also be moved into a tilted position to thereby render more easily accessible as well as more conspicuous, the contents of the tray.

In the embodiment of the invention illustrated in the drawings the tray is adapted to hold chips such as are used in card playing, although this form of tray is equally useful in dispensing cigars for example, the tilting of the tray facilitating the easy removal of its contents when the box is opened.

In the drawings—

Fig. 1 is a perspective view of my improved box.

Fig. 2 is a cross section on the line 2—2 of Fig. 1.

Fig. 3 is a similar view but showing the parts in another position, and

Fig. 4 is a detail section on the line 4—4 of Fig. 2.

Similar numerals refer to similar parts throughout the several views.

Referring to the drawings the body of the box is indicated by the numeral 1 to which is hinged at 2 a cover 3. A tray 4 is hinged at 5 to the bottom of the box along its front edge, the hinges being of the piano type. The tray is provided with a series of compartments 6, in this instance of semicircular configuration in cross section to conform to the shape of the articles to be contained therein. A catch 7 may also be provided to lock the cover in its closed position.

Pivoted to the cover of the box, inside and adjacent the hinge 2, is a lever 8 to the opposite end of which is pivoted another lever 9, the latter being pivoted at its other end to the bottom of the box, the two comprising a compound lever of the elbow type.

Levers 10 and 11 are pivoted together at their ends, their opposite ends being pivoted to the cover and body of the box respectively to form a buggy joint and positive means for holding the cover in an open position. Levers 8 and 9 at their pivotal point 12 are adapted to swing in a slot 13 formed in the tray 4 and centrally located longitudinally therein. The levers 8 and 9 are arranged and so proportioned that when the cover 3 is opened their ends adjacent the pivot 12 will contact with the inclined top 14 of the slot 13 and press upwardly thereon to effect the swinging movement of the tray.

As the tray in this instance is made of wood, the inclined surface of the slot 13 is lined with a strip of metal 15 to reduce consequent friction and wear during the movement of the parts. The box as shown herein may be covered with leather, if desired, to add to its appearance without interfering with its mechanical operation.

In use chips, for example, may be placed in stacks in the compartments 6, the lid 3 closed and latched and the contents made easily transportable. When access is desired the lid is raised and tray is automatically brought into an inclined position as shown, so that the chips may be quickly and easily removed from the different compartments in any number desired, the rear end of the tray being then uppermost and away from any interference of the rear wall of the body of the box so that there is a space between the ends of the compartments 6 and the cover 3 for the insertion of a finger to remove the contents of the compartments.

Changes in details of construction which are merely matters of form of design are to be considered within the scope of the invention.

I claim:

1. In a box having a body and a cover hinged thereon, a tray pivoted within said body, levers pivoted together at one of their ends and connected to the cover and body of the box at their other ends respectively, the pivoted ends of said levers being adapted to engage said tray when the cover is opened and thereby tilt the tray.

2. In a box having a body and a cover hinged thereon, a tray pivoted within said body, levers pivoted together at one of their ends and connected to the cover and body of the box at their other ends respectively, the pivoted ends of said levers being adapted to engage said tray when the cover is opened and thereby tilt the tray, and coacting levers to hold the cover and tray in such position.

3. In a box having a body and a cover hinged thereon, a tray pivoted within said body and provided with an inclined surface,

levers pivoted together at one of their ends and connected to the cover and body of the box at their other ends respectively, the pivoted ends of said levers being adapted to engage the said inclined surface when the cover is opened and thereby tilt the tray and coacting levers to hold the cover and tray in such position.

4. A box comprising a body having bottom, rear and side walls; a tray contained within the body and hinged to the forward edge of the bottom wall, said tray being shaped to provide a front wall for the body; a cover hinged to the rear wall of the body, and mechanism operatively connected to the cover and adapted to tilt the tray when the cover is opened.

5. A box comprising a body having bottom, rear and side walls; a tray contained within the body and hinged to the forward edge of the bottom wall, said tray being shaped to provide a front wall for the body; a cover hinged to the rear wall of the body, and mechanism operatively connected to the cover and adapted to tilt the tray when the cover is opened and cooperating means on the tray and the cover whereby the box may be locked when the cover is closed.

6. A box comprising a body having bottom, rear and side walls; a tray contained within the body and hinged to the forward edge of the bottom wall, said tray being shaped to provide a front wall for the body, a cover hinged to the rear wall of the body and mechanism housed within said body and operatively connected to the cover and adapted to tilt the tray when the cover is opened.

7. A box comprising a body having bottom, rear and side walls; a tray contained within the body and hinged to the forward edge of the bottom wall, said tray being shaped to provide a front wall for the body, a cover hinged to the rear wall of the body and mechanism housed within said body and operatively connected to the cover and adapted to tilt the tray when the cover is opened, and cooperating means on the tray and cover whereby the box may be locked when the cover is closed.

ARTHUR PAULSON.