June 5, 1934. W. D. EGLINTON 1,962,058

DRAWER AND SHELL BOX

Filed May 3, 1933 2 Sheets-Sheet 1

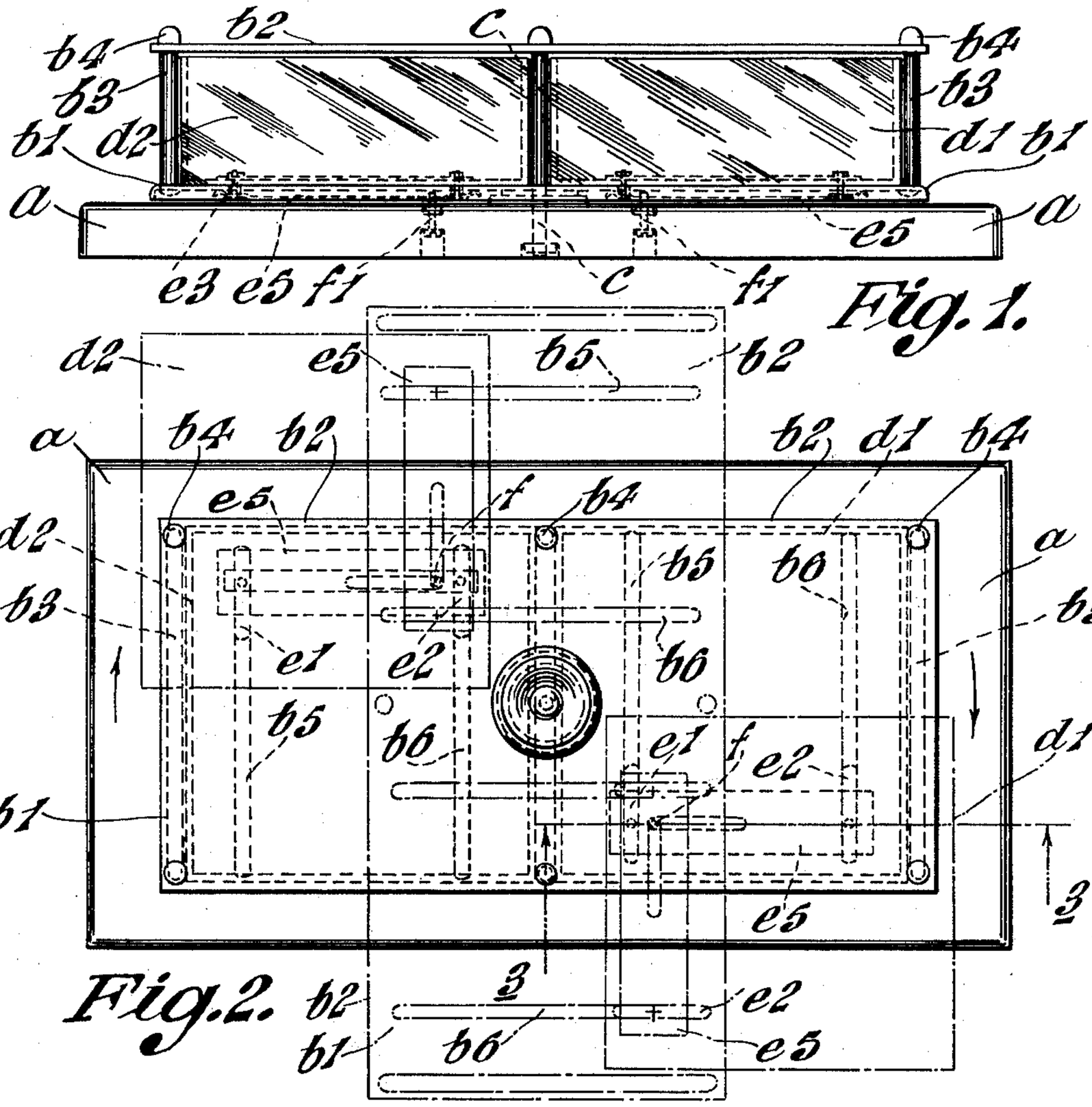

Fig. 1.

Fig. 2.

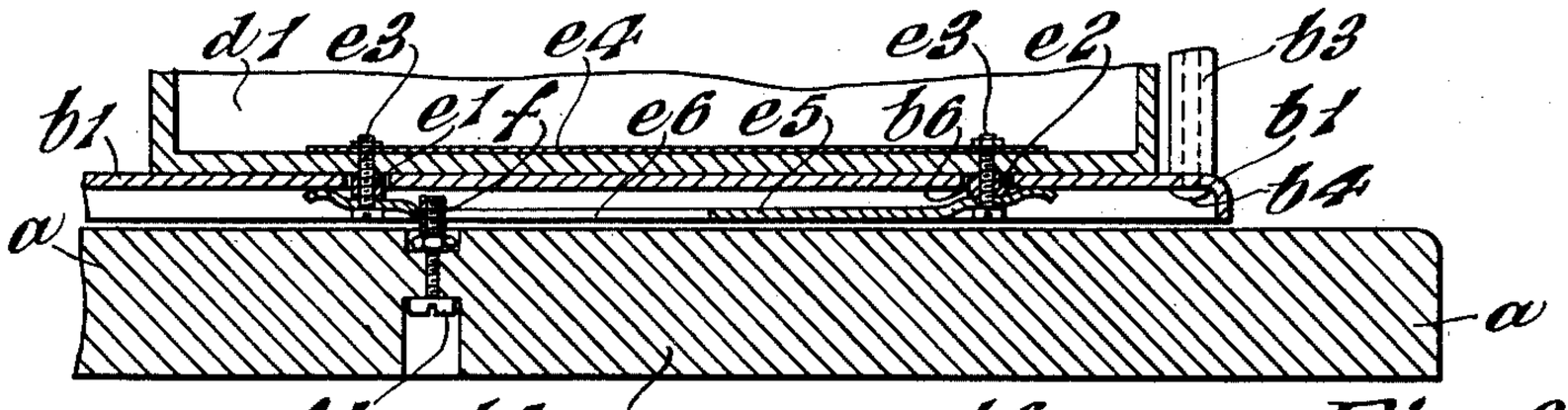

Fig. 3.

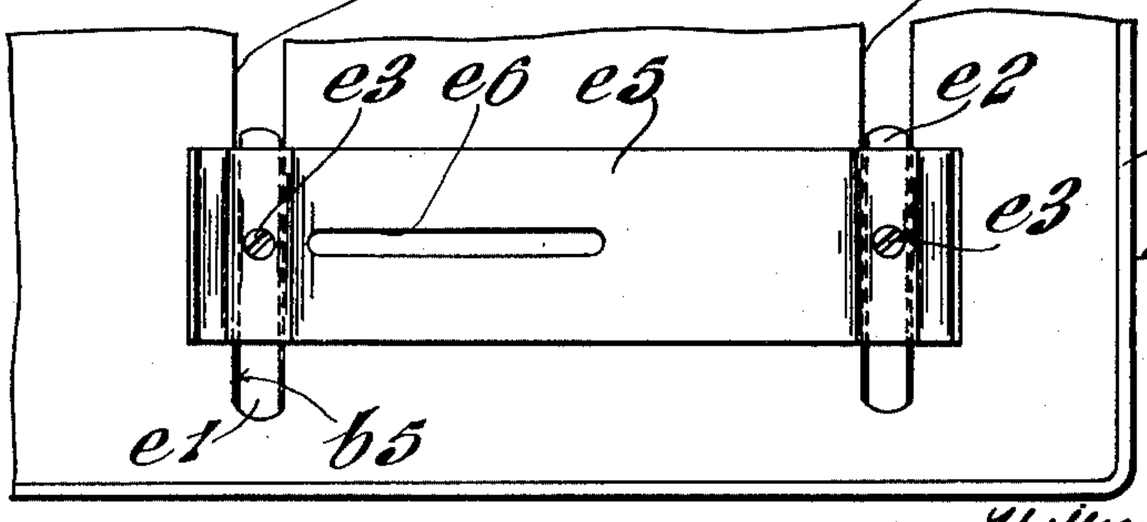

Fig. 4.

Inventor:
William David Eglinton
by Bacon & Thomas Attorneys

June 5, 1934. W. D. EGLINTON 1,962,058

DRAWER AND SHELL BOX

Filed May 3, 1933 2 Sheets-Sheet 2

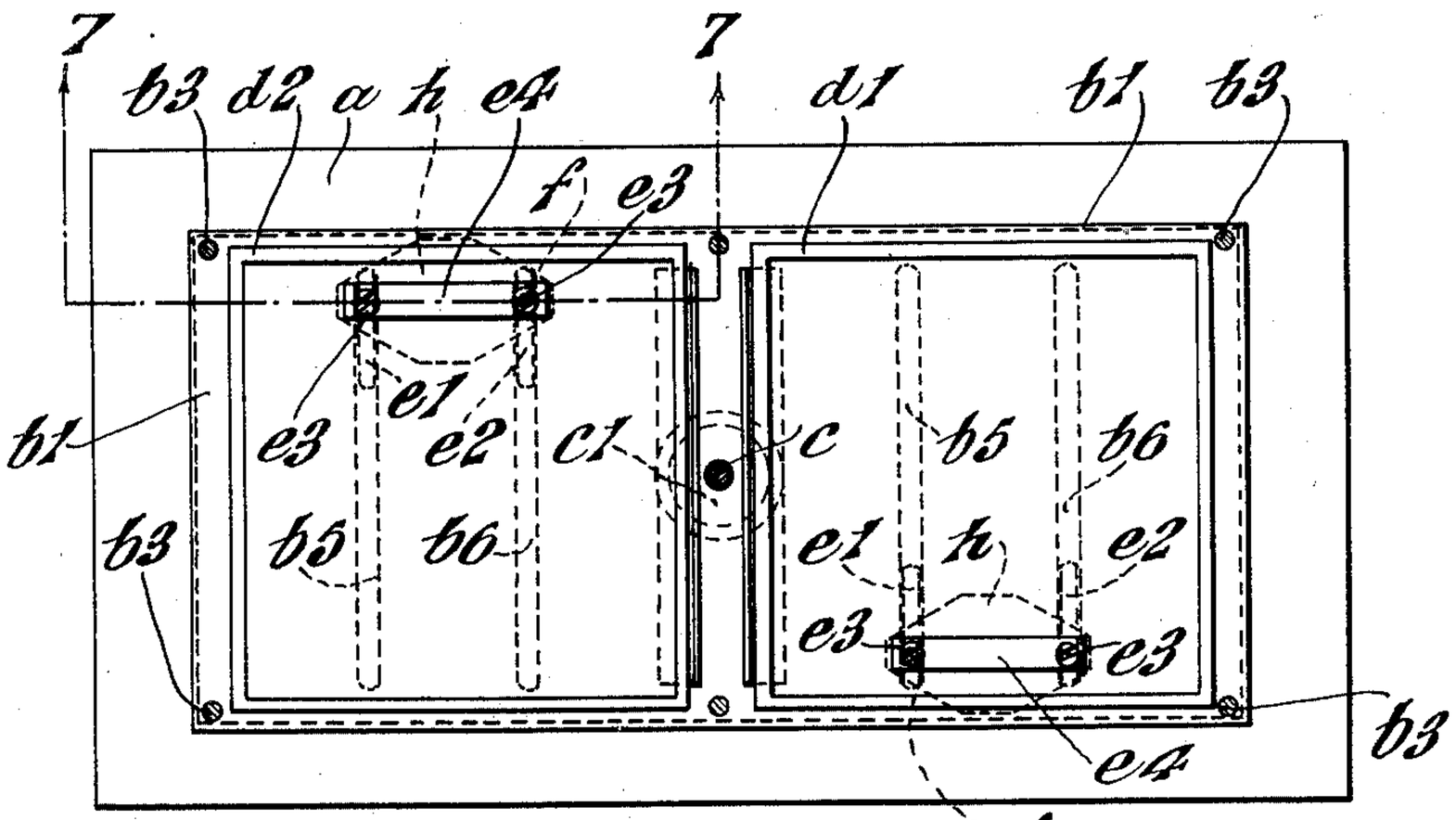

Fig. 5.

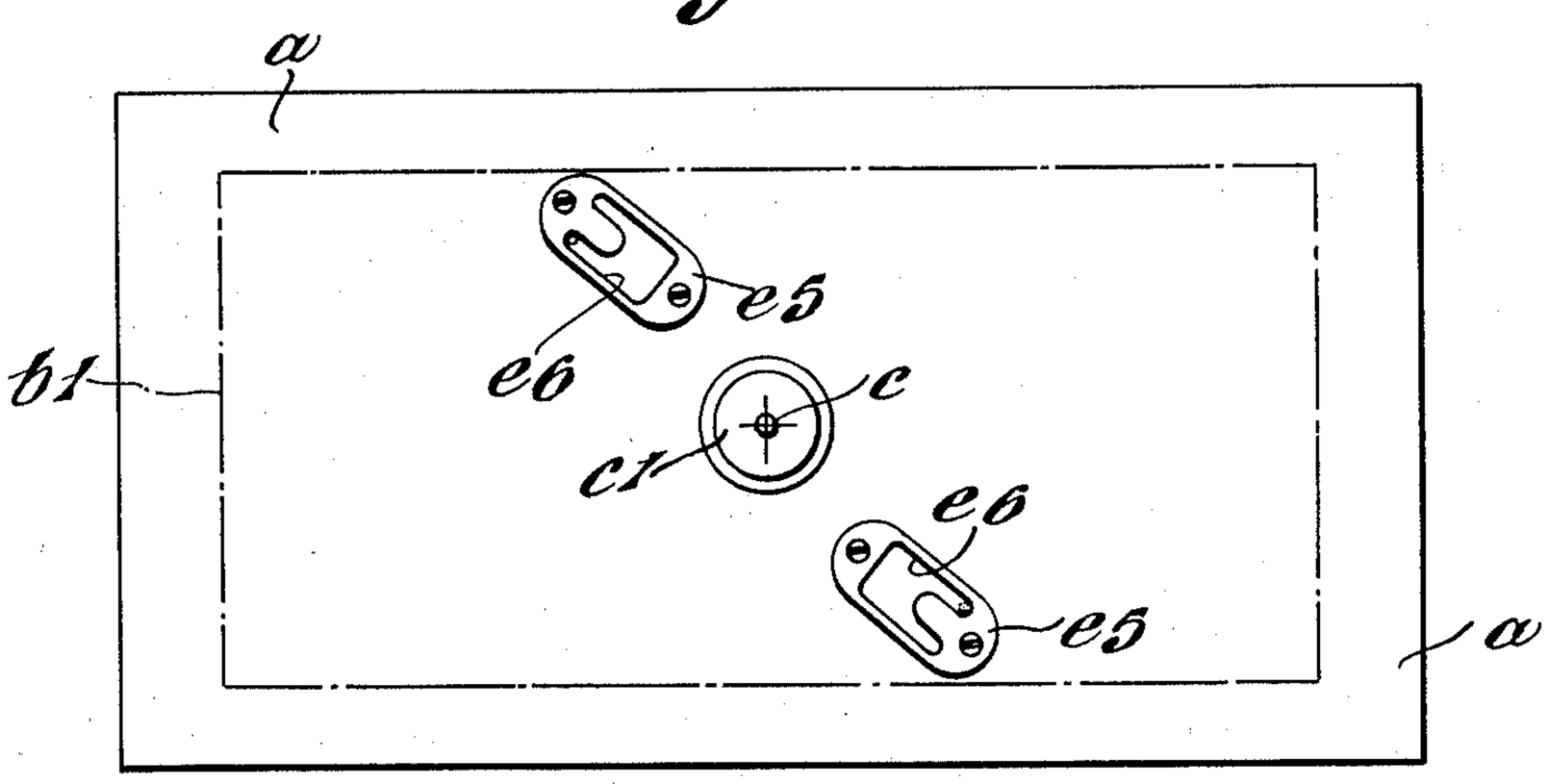

Fig. 6.

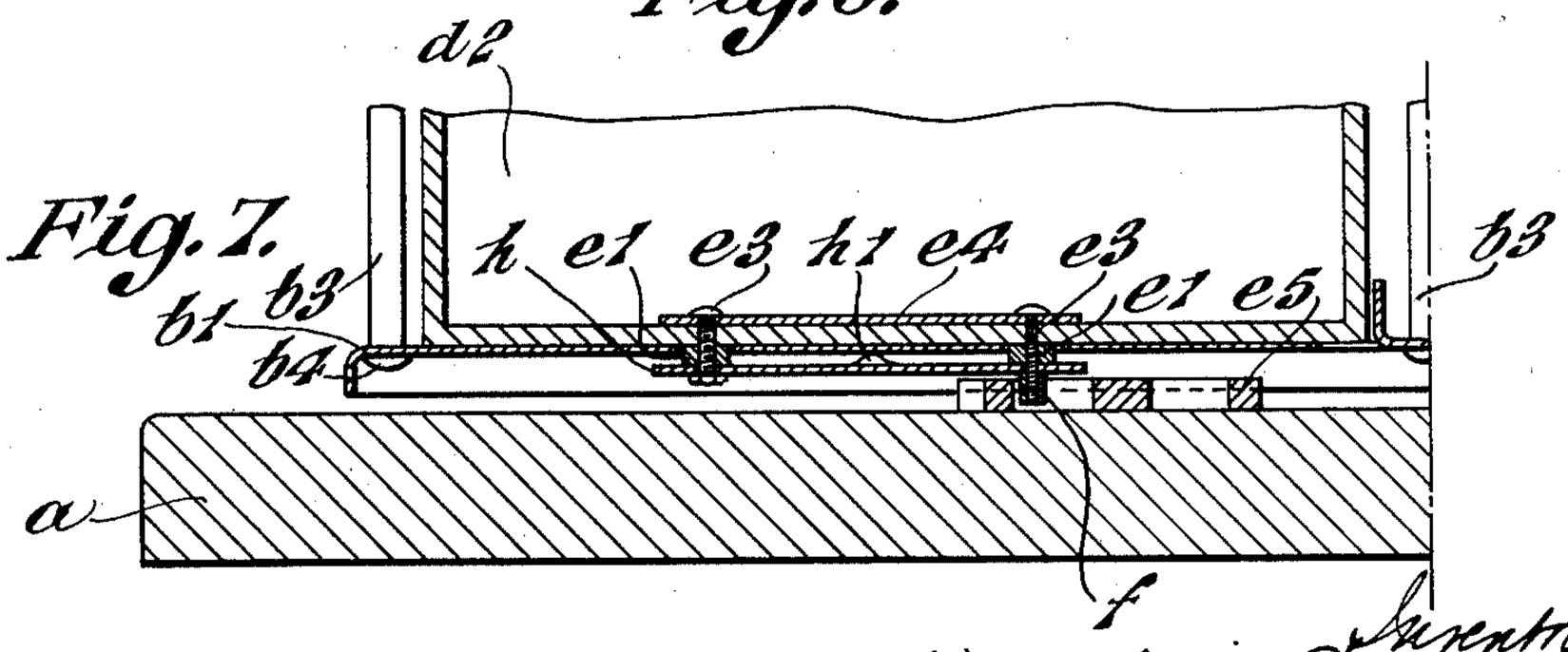

Fig. 7.

Inventor:
William David Eglinton
by Theodore Ackerman Atty.

Patented June 5, 1934

1,962,058

UNITED STATES PATENT OFFICE

1,962,058

DRAWER AND SHELL BOX

William David Eglinton, Croydon, England

Application May 3, 1933, Serial No. 669,230
In Great Britain May 10, 1932

7 Claims. (Cl. 312—152)

This invention relates to drawer and shell boxes and has reference to that form of box where the shell is pivoted at the centre upon a base and rotation of this shell causes the drawers to be opened or closed.

The object of the present invention is to provide an improved device of this character and the invention is concerned primarily with the mechanism by means of which the opening and closing movement of the drawers is effected.

The invention further comprises a particular method of construction by means of which the articles can be readily assembled from standard parts.

The present invention comprises an improvement which consists of drawer operating mechanism of the kind specified comprising a mechanical movement consisting of a horizontal carrier mounted on a vertical pivot secured to the base of the apparatus, the carrier having parallel slots or guide ways in which slides a transverse plate fixed to a drawer, the said transverse plate having a longitudinal cam slot which engages a pin fixed vertically in the base of the apparatus so that by turning the carrier about its pivot the transverse plate carrying the drawer will move along the slots or guide ways of the carrier and so open, the reverse movement closing it.

The carrier is preferably provided with two drawers arranged diametrically opposite each other as a set about the vertical pivot and each provided with an identical mechanical movement arranged to open both drawers simultaneously in opposite direction upon rotation of the carrier about its pivot.

Two methods of carrying out the invention are illustrated by the accompanying drawings wherein Figure 1 is a general elevation of one form of the complete device, Figure 2 a plan of Figure 1, showing in chain lines the position of the drawers or shells, when open. Figure 3 is a sectional elevation on 3—3 Figure 2, and Figure 4 is an inverted plan of part of the device showing the plate to which the drawer is fixed. Figure 5 is a plan of the second method of carrying out the invention, Figure 6 is a plan of the base removed and Figure 7 a sectional elevation on line 7—7 of Figure 5.

In these drawings *a* is the base of the device, *b*1 the base plate of the carrier, *b*2 the top plate of the carrier, these two plates being held the desired distance apart to form a shell element by pillars *b*3 held between the plates *b*1 and *b*2 by rivets *b*4. The carrier *b*1 is arranged to rotate on a pivot *c* having a shoulder or flange *c*1 and fixed in the base plate *a*, and *d*1 and *d*2 are two drawers. Under the bases of the drawers are fixed two sliders *e*1 *e*2 adapted to slide in parallel guide ways or slots *b*5, *b*6 formed in the carrier plate *b*1 and are held by the screws *e*3 and a washer strip *e*4 inside and drawer *d*1, to a transverse plate *e*5, under the carrier plate *b*1. The transverse plate *e*5, is provided with a longitudinal cam slot *e*6 which slides over a fixed pin *f* held in the base *a* by a nut and bolt *f*1.

The elements *e*6 and *f* comprise a mechanical movement which is brought into operation upon the rotation of the carrier about its pivot to open or close the drawer.

Assuming the drawers *d*1 and *d*2 in the closed position as indicated in Figure 2, when the carrier *b*4 is turned about the central pivot *c* in the direction of the arrows the cam slot *e*6 of the transverse plate *e*5 slides on the pin *f* and this causes the sliders *e*1 *e*2 to move along the slots or guide ways *b*5 in the plate *b*1 and so push the drawer *d*1 from under the top plate *b*2 of the carrier, until it is fully open as indicated by the chain line in Figure 2, that is when the carrier has moved through an angle of about 90°. The two drawers *d*1 and *d*2 being at diametrically opposite positions on the carrier *b*1 operate in opposite directions simultaneously.

In the modification shown in Figures 5 to 7 the guides *b*5 having cam slots *e*6 are fixed on the base *a* and the pin *f* is fixed by the plate *h*, strip washer *e*4 and screws or bolts *e*3 to the base of the drawer *d*1 holding as in the previous example the sliders *e*1 and *e*2 to the base of the drawer *d*1, the plate *h* being provided with a distance piece *h*1. The operation is the same as described with reference to Figures 1 to 4.

The tops of these posts or pillars *b*3 may be provided with ornamental knobs screwed or otherwise applied, the corner ones of which can be used for operating the device. The ends of the shell element *b*1 *b*2 may be left open or may be closed by panels which will be secured in position between the two plates *b*1 and *b*2 by means of the posts and knobs aforesaid.

By the foregoing arrangement it will be possible to keep in stock component parts of differing colour or style and make up the articles in any colour scheme that may be desired.

In order to facilitate the extraction of such articles as cigarettes from the drawers an upwardly inclined portion is provided on the bot-

tom of the drawer, and this is preferably arranged to cover the washer strip *e*4.

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

1. A drawer device of the character described comprising a slidable drawer, a carrier in which the drawer slides, a base plate carrying a pivot on which the carrier is rotatably mounted, and a mechanical movement operating to open and close the drawer upon the rotation of the carrier about the pivot and consisting of parallel guide ways provided on the carrier, a pair of sliders operating in the guide ways and fixed to the drawer, a transverse plate fixed to the sliders, a cam slot in transverse plate, a pin fixed vertically in the base plate and entering the cam slot.

2. A drawer device of the character described comprising two parallel slidable drawers, a carrier in which both drawers slide in opposite directions, a base plate carrying a pivot on which the carrier is rotatably mounted and a mechanical movement operating to open and close both drawers simultaneously in opposite directions and consisting of two pairs of parallel guide ways provided on the carrier one for each drawer, two pairs of sliders one for each drawer and operating in the guide ways and fixed to the associated drawer, two transverse plates each fixed to a pair of sliders, a cam slot in each transverse plate, two pins fixed vertically in the base plate and entering the cam slots respectively.

3. A drawer device of the character described comprising a slidable drawer, two plates fixed together a sufficient distance apart to form a carrier in which the drawer slides, a base plate carrying a pivot on which the carrier is rotatably mounted, and a mechanical movement operating to open and close the drawer upon the rotation of the carrier about the pivot and consisting of parallel guide ways provided on the carrier, a pair of sliders operating in the guide ways and fixed to the drawer, a transverse plate fixed to the sliders, a cam slot in the transverse plate, a pin fixed vertically in the base plate and entering the cam slot.

4. A drawer device of the character described comprising a slidable drawer, a carrier in which the drawer slides, a base plate carrying a pivot on which the carrier is rotatably mounted and a mechanical movement operating to open and close the drawer upon the rotation of the carrier about the pivot and consisting of parallel guide ways provided on the carrier, a pair of sliders operating in the guide ways and fixed to the drawer, a transverse plate fixed to the sliders, a cam slot provided on the base plate, a downwardly extending pin fixed to the drawer and projecting into the cam slot.

5. A drawer device of the character described comprising two parallel slidable drawers, a carrier in which both drawers slide in opposite directions, a base plate carrying a pivot on which the carrier is rotatably mounted and a mechanical movement operating to open and close both drawers simultaneously in opposite directions and consisting of two pairs of parallel guide ways provided on the carrier one for each drawer, two pairs of sliders one for each drawer and operating in the guide ways and fixed to the associated drawer, two transverse plates each fixed to a pair of sliders, two cam slots provided on the base plate one under each drawer, two downwardly extending pins each fixed vertically in the base of a drawer and entering the respective cam slots of the base.

6. A drawer device of the character described comprising a plurality of parallel slidable drawers, a carrier in which the drawers slide, a base plate carrying a pivot on which the carrier is rotatably mounted and a mechanical movement operating to open and close all the drawers simultaneously and consisting of two pairs of parallel guide ways provided on the carrier one for each drawer, two pairs of sliders one for each drawer and operating in the guide ways and fixed to the associated drawer, two transverse plates each fixed to a pair of sliders, a cam slot in each transverse plate, two pins fixed vertically in the base plate and entering the cam slots respectively.

7. A drawer device comprising a slidable drawer, a carrier in which the drawer slides, a pivot on which the carrier is rotatably mounted, a base plate on which the pivot is mounted, parallel guide ways on the carrier, a pair of sliders operating in the guide ways and fixed to the drawer, and two relatively movable elements, the one a horizontal slot plate and the other a vertically arranged pin entering the slot in the slot plate, one of these elements being fixed to the sliders of the drawer while the other is fixed to the base plate, the two elements thereby forming a mechanical movement operating to open and close the drawers upon the rotation of the carrier on its pivot.

WILLIAM DAVID EGLINTON.