

June 19, 1956

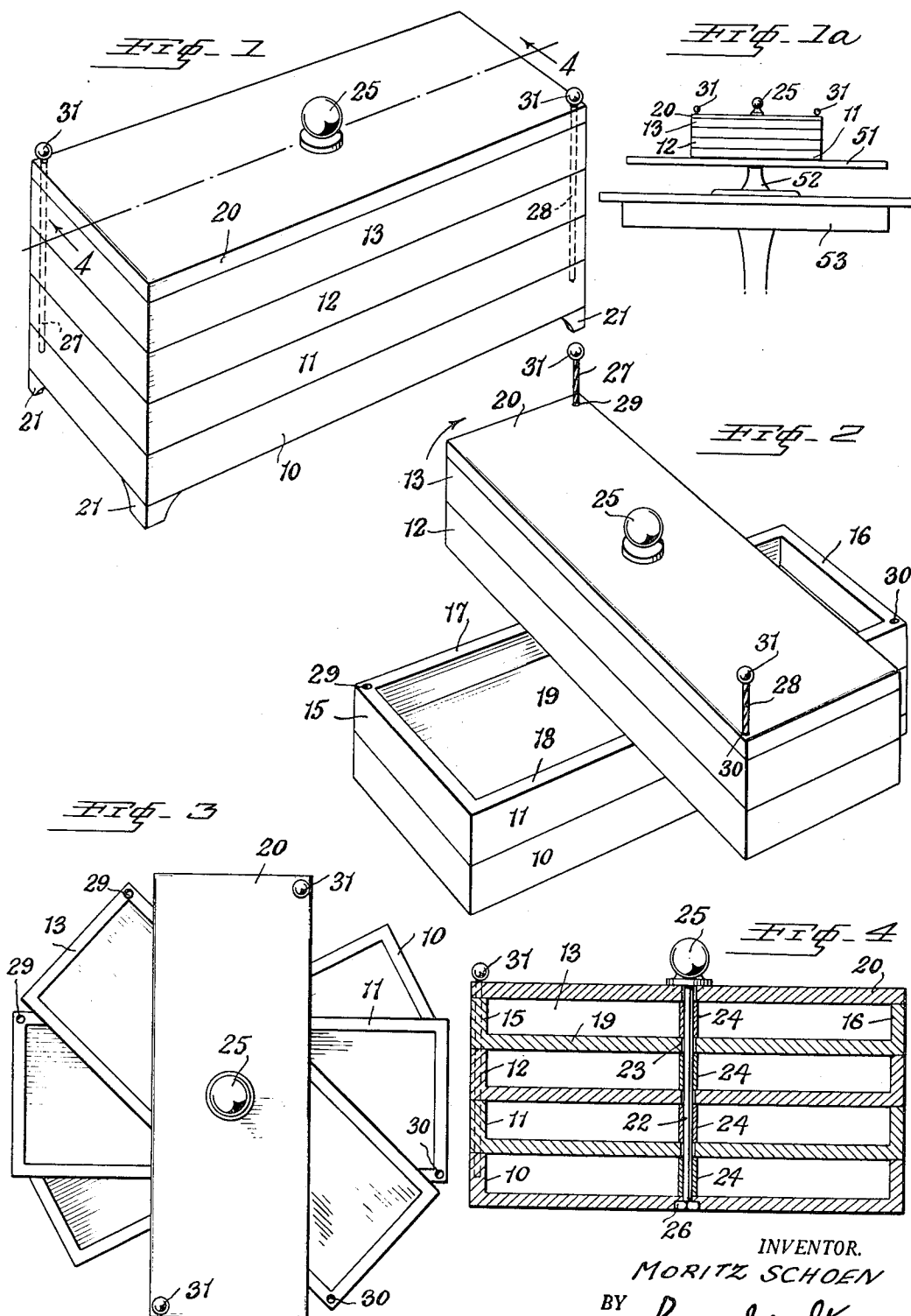
M. SCHOEN

2,751,270

CONTAINERS OR TRAY STRUCTURES

Filed Dec. 3, 1952

2 Sheets-Sheet 1



INVENTOR.
MORITZ SCHOEN
BY *Leon M. Strauss*
ATT.

June 19, 1956

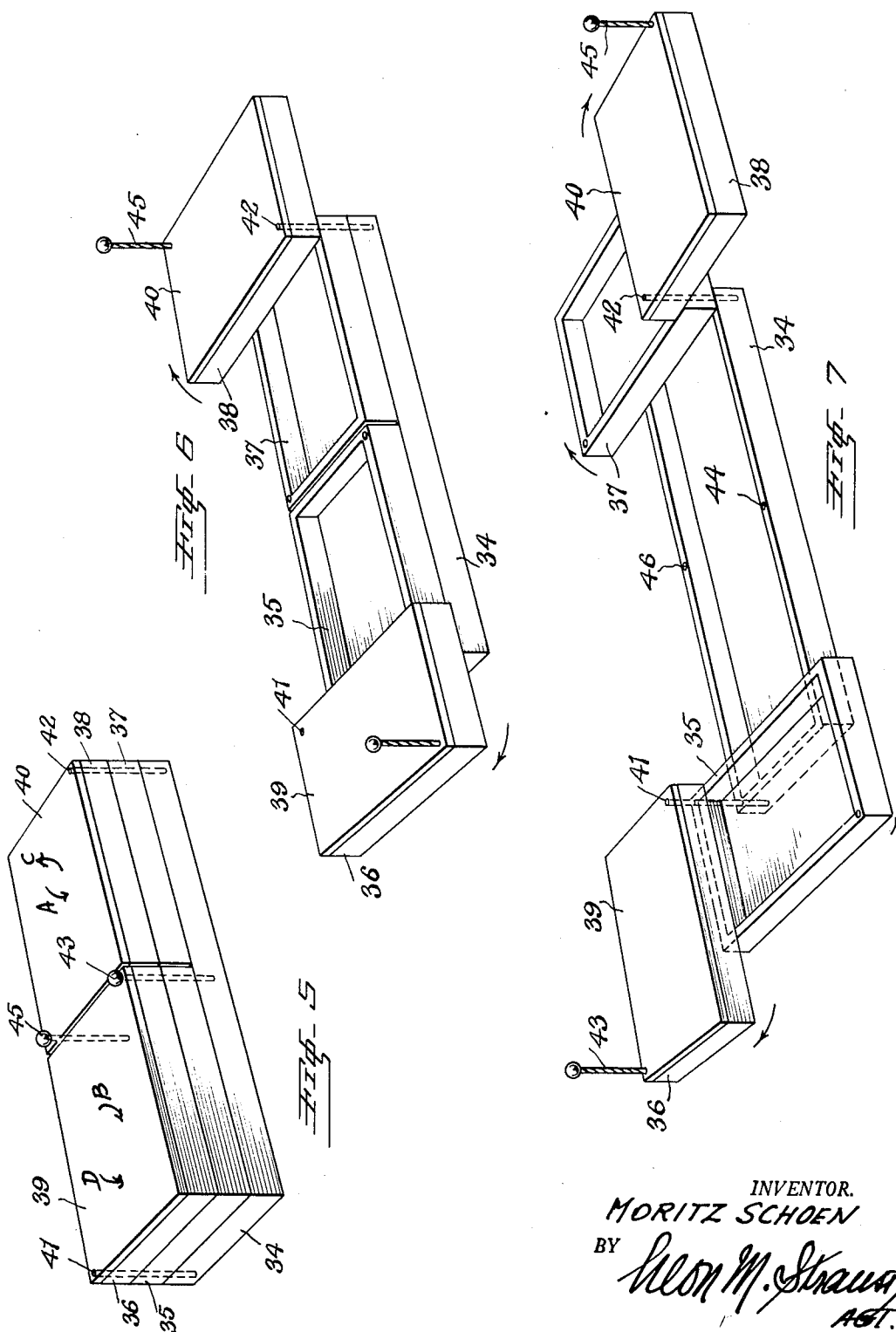
M. SCHOEN

2,751,270

CONTAINERS OR TRAY STRUCTURES

Filed Dec. 3, 1952

2 Sheets-Sheet 2



INVENTOR.
MORITZ SCHOEN
BY *Neon M. Strauss*
AGT.

1

2,751,270

CONTAINERS OR TRAY STRUCTURES

Moritz Schoen, New York, N. Y.

Application December 3, 1952, Serial No. 323,860

2 Claims. (Cl. 312-202)

This invention relates to a container structure and more particularly to a chest of drawers or trays of the rotatable type.

It is one of the objects of the invention to provide means affording a compact and very effective drawer, tray or container structure, which may be easily operated and employed for various purposes, such as for the display of various articles, for containing food or other articles in the household, for jewelry and various other purposes.

It is another object of the invention to provide means facilitating opening and closing of containers in superposed position either singly or severally.

It is a further object of the invention to provide means conducive to an improved movable drawer or container structure, whereby all or only a few of the containers may be opened for display or left closed and whereby these containers may assume various angular positions relative to each other or remain in registering positions.

A still further object of the present invention is to provide means permitting the possibility of swinging all opened containers substantially simultaneously to closed position and locking the same in such closed position.

Still another object of the present invention is to provide means permitting the combination of the container structure with a piece of furniture as a "Lazy Susan" or rotatable tray whereby the axis of rotation of the latter coincides with the axis of rotation of the container structure.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described in the following specification and the claims appended thereto.

In the accompanying drawings, wherein illustrative embodiments of the invention are shown,

Fig. 1 is a perspective view of a container structure embodying the invention;

Fig. 1a is a front elevation of the device combined with a rotatable tray or so-called "Lazy Susan."

Fig. 2 is a perspective view showing the device in one of its open positions;

Fig. 3 is a top plan view of the device, showing the several trays or drawers swung about a central axis to an open position;

Fig. 4 is a sectional view taken substantially on the line 4-4 of Fig. 1, looking in the direction of the arrows;

Fig. 5 is a perspective view of a modified construction in closed position;

Fig. 6 is a perspective view of the structure of Fig. 5, showing the upper trays or drawers swung to open position, and

Fig. 7 is a perspective view showing the device in another open position.

Referring to the drawings, and particularly to Figs. 1 to 4 thereof, the container is shown as being composed of a plurality of similarly-shaped rectangular receptacles or drawers of relatively shallow, tray-like formation and designated respectively at 10, 11, 12 and 13. In the embodiment shown, four of the trays in superposed rela-

2

tion are shown, although this number may be increased or decreased according to special needs or requirements. Each of the trays or drawers includes end walls 15 and 16, side walls 17 and 18, and a bottom 19 so that each tray or drawer is an independent container. The uppermost tray in the stack, or that indicated at 13, is closed at the top by means of a cover plate 20, so that when the several trays in the stack are in the aligned, superposed relation shown in Fig. 1 and the cover plate 20 is properly fitted over the top of the uppermost tray or drawer 13, the aspect of a completely closed container is the result. Feet 21 or other ornamental supporting elements may be provided on the lowermost tray or drawer to enhance the appearance of the container, or the bottom of the lower tray 10 might be covered with felt or some other protective material.

The several trays or drawers in the stack are centrally pivoted on a single pivot by means of a spindle 22 which freely passes through an opening 23 in the center of each of the trays or drawers. Spacing bushings 24 surround the spindle 22 between the several trays or drawers and between the uppermost tray 13 and its cover plate 20 and facilitate the easy swinging or pivotal movement of the trays and cover. At the top, the spindle 22 is provided with gripping means, such as a ball 25 or other suitable ornamental enlargement, and a nut 26 or other retaining or securing element may be provided at its lower end as shown in Fig. 4. This pivotal arrangement is such as to permit of easy, independent swinging movement of the several trays or drawers in the stack about the spindle 22 as the pivotal axis. Moreover, the trays may be secured in predetermined open position through interengagement of the spindle 22 and securing means 26 by actuation of the gripping means 25 (Figs. 2 and 3).

Located at diagonally opposite corners of the several drawers or trays and in the cover plate as well, are removable locking pins indicated respectively at 27 and 28. These pins may be provided, if desired, with a coarse thread for threadable reception in holes positioned at the corners of the several trays or drawers and in the cover plate 20. Thus the pin 27 enters the hole 29 in the several trays, while the pin 28 enters the hole 30 provided at the diagonally opposite corners of the trays. The cover plate 20 is provided with holes aligning with those shown at 29 and 30 in the trays to permit of the passage of the pins 27 and 28. Each of the locking pins 27 and 28 is provided at the top with a ball or other enlargement 31 to permit of its ready manipulation.

In Fig. 1 of the drawing, the container is shown in its closed position, wherein all of the drawers or trays are in vertically aligned superposed relation so that the container presents the appearance of a single rectangular box or chest. The locking pins 27 and 28, extending through the holes in the cover plate and trays or drawers, prevent rotative movement of the several trays or drawers and thus hold the parts in their closed position.

When it is desired to expose the contents of any one or more of the trays or drawers, the locking pins 27 and 28 are unthreaded or drawn upwardly to the extent required to permit the required drawer or drawers to be swung about the pivot 22. For example, in Fig. 2, the pins 27 and 28 have been withdrawn to an extent necessary to draw the same out of the holes 29 and 30 in the two lower drawers or trays 10 and 11 and as a result the upper drawers 12 and 13 as well as the cover plate 20 can be moved to extend transversely of the two lower drawers and thus the contents of the drawer 11 will be exposed and rendered accessible.

In similar manner it is possible to rotate all or any of the drawers or trays as well as the cover member 20 to position the several trays angularly in respect to one another as seen in Fig. 3, in which position of the device,

3

at least parts of the exposed trays will be visible for access to their contents.

In Fig. 1a of the drawing is shown the manner in which the improved container can be used in combination with the rotative type of tray commonly known as a "Lazy Susan." In this arrangement the rotative turntable of the device is shown at 51 and the same is rotatively supported on a standard or base 52 which may be rested upon a table 53 or upon any other suitable supporting surface. The improved container rests upon the turntable 51 and has its pivot 22 coinciding with the pivot of the turntable 51. When the trays or drawers or any of them are swung to open position the same will render available their contents, while other articles, such as articles of food might be supported marginally on the turntable 51 around the open drawers 10 to 13, inclusive, of the device. When the device is in its closed position, as shown in Fig. 1, it presents the appearance of a rectangular container which can be easily handled and carried without the drawers or trays being likely to swing to open position, since the locking pins 27 and 28 serve to prevent pivotal movement of the several trays as well as the cover member 20 therefor relative to each other.

In the embodiment of the invention disclosed in Figs. 5 to 7 inclusive, the device is provided with a lower drawer or tray 34 of elongated form, and stacked upon this lower tray are two groups of trays, those in each group being of a size equal to one-half the size of the lower tray 34. The two trays 35 and 36 constitute the trays in one of the groups, while the trays or drawers at 37 and 38 constitute the trays or drawers of the second group. When the trays 35 and 36 are placed alongside of the trays 37 and 38 in position on top of the longer lower tray or drawer 34, a rectangular container in closed position is the result, as clearly seen in Fig. 5. A cover member 39 closes the top of the tray 38. The trays or drawers 35 and 36, and the cover member 39 are pivotally connected to the lower tray or drawer 34 by means of a pivot pin 41 extending through holes located in one corner of each of the trays 34, 35, 36 and in the cover 39. The trays 35, 36 and the cover 39 or either of them may be swung outwardly on this pin, as indicated in Fig. 7, or if desired, merely the upper tray 36 may be swung outwardly as seen in Fig. 6.

In a diagonally opposite corner of the lower tray or drawer 34 is located a pivot pin 42 which extends through holes provided at one of the corners of the trays 37 and 38 and in the cover member 40. This pivotal arrangement permits swinging action of the trays 37 and 38 as clearly seen in either Fig. 6 or Fig. 7 of the drawings. A locking pin 43 similar to those shown at 27 and 28 is provided through a corner of the cover 39, tray 36 and tray 35, which pin is entered into an aperture 44 provided in one of the walls of the lower tray or drawer 34. A similar locking pin, shown at 45 enters through holes in the trays 37 and 38 and cover 40 to engage in the aperture 46 provided in a second side wall of the lower tray or drawer 34.

In its closed position, the container of Figs. 5 to 7 inclusive appears as seen in Fig. 5. The locking pins 43 and 45 hold the trays or drawers locked against pivotal movement and the container appears as a unitary, closed receptacle while it remains in this condition. To swing one or more of the trays or drawers to open position requires merely the withdrawal of one or both of the locking pins to an extent necessary to enable the selected trays to be swung in the desired direction to expose its contents and the contents of such other trays or drawers as may be exposed by pivotal movement of the one or more trays which have been swingably shifted. Since the improved containers herein described may have their trays or drawers moved to various positions, the container can be used as an attractive display receptacle for various purposes. When the device is closed and locked against

4

pivotal movement by the locking pins, inadvertent swing or pivotal movement of the trays is prevented and the contents are fully covered and protected.

It is well understood that instead of the locking pins, suitable ball-joint and socket means may be employed in order to retain the drawers or trays in closed and/or open positions.

It is further to be noted that the container hereinabove disclosed may be made of wood, plastic or plastic composition, metal, and like materials.

It is further to be emphasized that in the case of the container of Figs. 5-7, for instance, opening of the swingable tray sections having cover 40 in the direction of arrow A and about pivot pin 42 may not be had, before the tray sections having the cover 39 are first swung in the direction of arrow B about pivot 41. The container of Figs. 5-7 will always thus be held in closed position unless the sections having cover 39 are first swung in the direction of arrow B.

It is further well understood that pivots 41 and 42 may be removable, and locking pins 43 and 45 may be dispensed with, so that the pivot pins 41 and 42 may be interchangeably arranged, for instance, to extend in place and instead of locking pins 43 and 45, which are entirely removed. Pivot pins 41 and 42 may replace locking pins 43 and 45. Thus, the container sections may be made to swing in other directions, namely, in the direction of arrows C and D.

Although several embodiments of the invention been described and shown in the drawings, it should be noted that the invention may be realized in modified form and adaptations of the arrangements herein disclosed may be made, as may readily occur to persons skilled in the art without constituting a departure from the spirit and scope of the invention as defined in the objects and in the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent, is:

1. A container comprising a plurality of multi-cornered, similarly shaped trays for placement in stacked relation, each of said trays being provided in at least one corner with a hole, said holes being positioned in corresponding corners of said trays for alignment with each other when the trays are disposed in aligned stacked relation, a central pivot post having a lower end and an upper end, said post extending through all of said trays and beyond the upper edge of the uppermost of said trays, gripping means operatively connected to said upper end of said central pivot post, a vertically displaceable locking pin extending through said holes upon alignment of the latter with each other, whereby upon upward vertical displacement of said locking pin at least some of said trays are freed for pivotal displacement about said central post, cover means for closing said uppermost tray, said cover means being pivotally supported by said post intermediate said uppermost tray and said gripping means and contacting said gripping means adjacent said upper end of said central pivot post, securing means positioned adjacent said lower end of said central pivot post, and a pair of interengageable formations disposed, respectively, on said securing means and on said lower end of said central pivot post, whereby said gripping means may be rotated to secure said trays in predetermined open and closed positions, respectively, through engagement of said interengageable formations.

2. A container according to claim 1, each of said trays being provided in at least one other corner with a second hole, said second holes being positioned in corresponding ones of said other corners of said trays for alignment with each other when said trays are disposed in said aligned stacked relation, and a second vertically displaceable locking pin extending through said second holes upon alignment of the latter with each other, whereby upon upward vertical displacement of both said locking

5

pins at least some of said trays are freed for pivotal displacement about said central post.

References Cited in the file of this patent

UNITED STATES PATENTS

619,928	Bigelow	Feb. 21, 1899
1,090,592	Betham	Mar. 17, 1914

5

1,256,306
1,831,401
2,136,843
2,563,718
2,628,752

874,904

6

Glanton	Feb. 12, 1918
Weidlich	Nov. 10, 1931
Dinkel	Nov. 15, 1938
Gifford	Aug. 7, 1951
Corkish	Feb. 17, 1953

FOREIGN PATENTS

France	Aug. 31, 1942
--------	---------------