Dec. 19, 1944. A. P. GEIMER 2,365,186

CONTAINER AND COVERING MEANS

Filed May 12, 1941 2 Sheets-Sheet 1

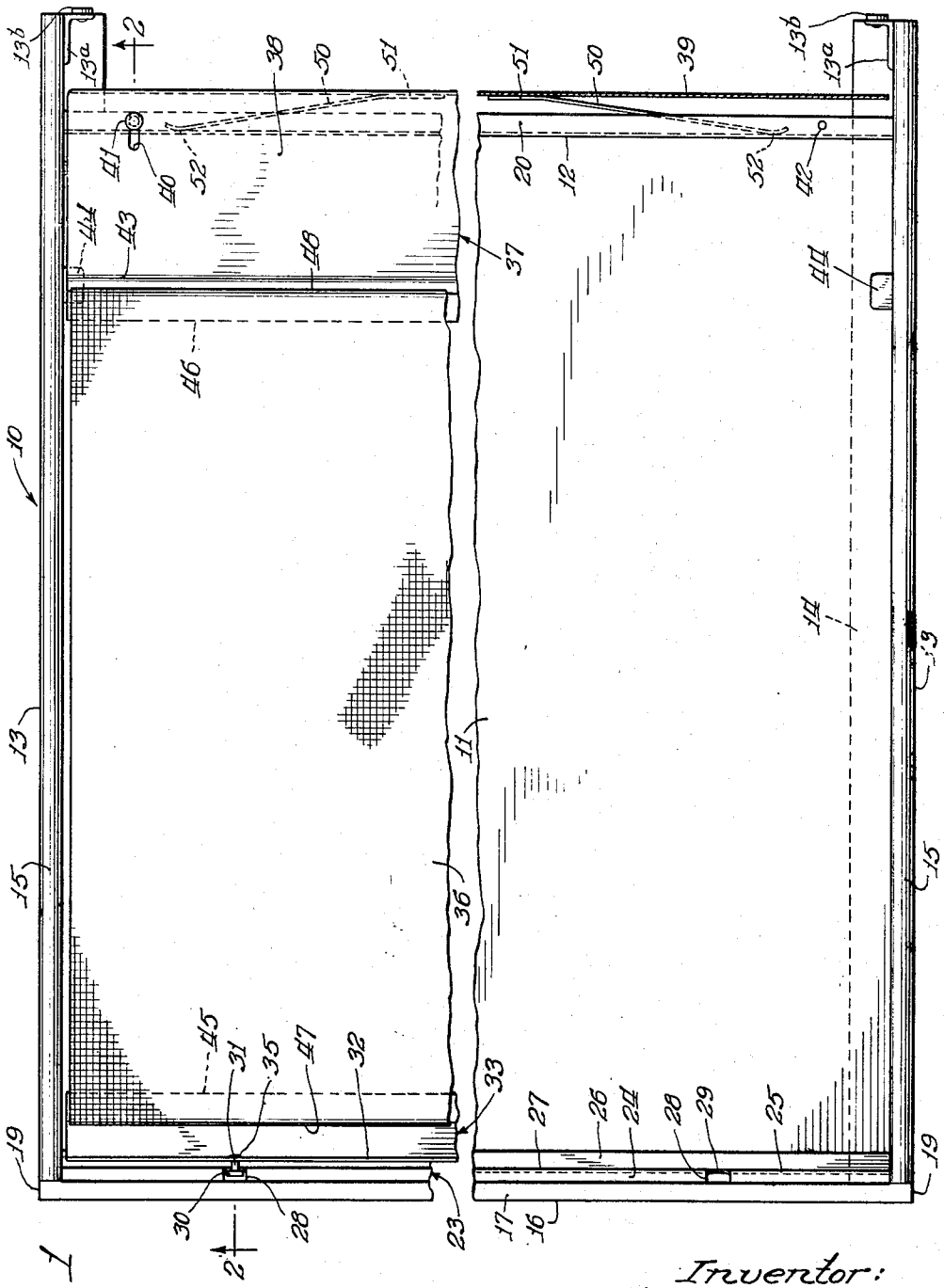


Fig. 1

Inventor:
Anthony P. Geimer
By: A. Trevor Jones
Atty.

Dec. 19, 1944. A. P. GEIMER 2,365,186

CONTAINER AND COVERING MEANS

Filed May 12, 1941 2 Sheets-Sheet 2

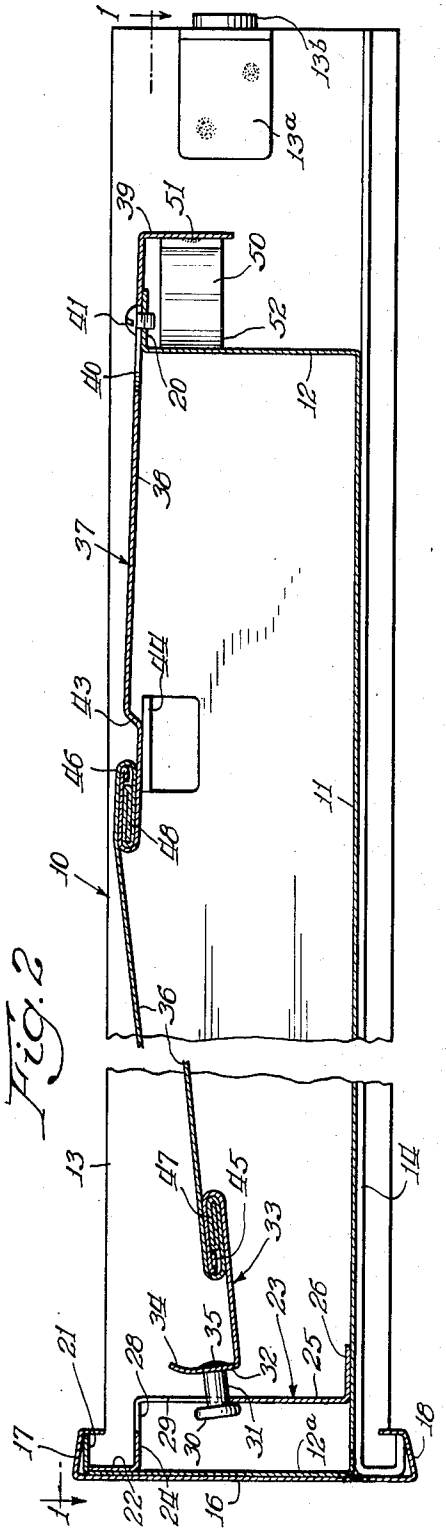


Fig. 2

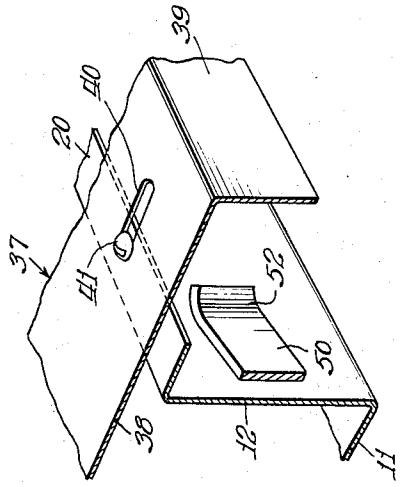


Fig. 4

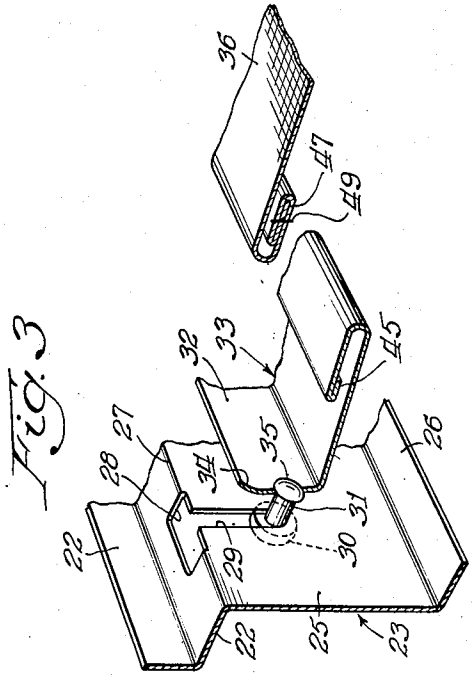


Fig. 3

Inventor:
Anthony P. Geimer
By: A. Trevor Jones
Atty.

Patented Dec. 19, 1944 2,365,186

UNITED STATES PATENT OFFICE

2,365,186

CONTAINER AND COVERING MEANS

Anthony P. Geimer, Two Rivers, Wis., assignor to Hamilton Manufacturing Company, Two Rivers, Wis., a corporation of Wisconsin

Application May 12, 1941, Serial No. 393,001

8 Claims. (Cl. 312—190)

This invention relates to improvements in container and covering means more particularly for drawers of cabinets used by engineers, draftsmen, and the like, for filing or storing relatively large sheets such as drawings, blue prints, tracings or maps, in flat, generally horizontal position.

By the use of my present invention the sheets, which have a tendency to curl, are kept flatter by providing a hood which may be tensioned thereover, thus enhancing the safeguards against displacement of the sheets while at the same time protecting them against dust, exposure and mutilation.

The invention may be understood by reference to the following description, taken together with the accompanying drawings, in which—

Figure 1 is a plan view of a drawer with my invention applied thereto, the figure being divided into two parts for clearness of description and the lower part being a section taken on the line 1—1 of Fig. 2 with the parts not shown;

Figure 2 is a section on a larger scale taken on the line 2—2 of Fig. 1, intermediately broken away to conserve space;

Figure 3 is a fragmentary perspective sectional view on the scale of Fig. 2, of parts at the front edge of the drawer shown in Figs. 1 and 2; and

Figure 4 is a similar fragmentary perspective sectional view, also on the scale of Fig. 2, in an alternative position, of parts shown in Figs. 1 and 2 at the rear edge of the drawer.

Referring in detail to the illustrative embodiment shown in the drawings, the drawer or other normally horizontal open top container 10 is preferably of sheet metal and is in part conventional, being made up of the bottom panel 11, which, at the rear edge of the drawer, is turned up to form the rear wall 12, and at the front of the drawer is turned up to form the front wall part 12*a*, both conveniently integral with the bottom panel 11. At its sides, the bottom panel 11 may have the walls 13—13 welded thereto, the side walls being integrally flanged for this purpose as at 14 and the upper edges of the side walls 13 being turned over as at 15 to form an outboard inverted channel cooperating with cabinet parts, not here shown, for sliding of the drawer in the cabinet.

The front wall member 16 is conventionally a separate plate secured over the front wall portion 12*a* and bent upon itself, at its top as at 17, its bottom as at 18, and its ends as at 19—19, to form channels enclosing other drawer parts already described to which it may suitably be welded. The drawer customarily has two handles, not here shown, carried in the usual way by the front wall plate 16.

The side walls 13 are desirably carried rearwardly beyond the bottom wall 11 and rear wall 12 so as to provide a protection for operative parts presently to be described, and at the rear ends of the side walls they may carry brackets 13*a* faced with rubber bumpers 13*b*.

In accordance with the present invention, the material forming the rear and front wall parts 12 and 12*a* is continued integrally in planes horizontal with the bottom panel 11 to form the rear shelf 20 and front shelf 21 respectively. The shelf 21 as already alluded to, is desirably received within the channel forming part 17 of the front wall plate 16 into which also extends, under the shelf 21, as here shown, the upper end 22 of an inner front wall plate 23.

This inner front wall 23 is advantageously Z-shape throughout the front of the drawer, having a horizontal part 24 which spaces from the wall part 12*a* the upright part 25 of the inner front wall 23, the material forming the part 25 being again bent conveniently as at 26 to lap the drawer bottom 11, the parts 22 and 26 providing welding flanges.

In the knee 27 of the inner front wall 23 is a slot having a laterally enlarged part 28 in the inner front wall upper part 22 and a reduced slot part 29 in the upright wall part 25. There are desirably at least two of these slots spaced well apart along the drawer front, as best shown in Fig. 1, to receive the enlarged heads 30, respectively, of buttons 31, carried, as here shown, on the front face of the upstanding flange 32 of a front stiffening element 33. The stiffening element 33 is preferably of sheet metal, zinc plated. The flange 32 is desirably inturned slightly as at 34 to be readily grasped, anywhere along the front of the drawer, by the fingers of the draftsman or other user, as presently further described. The buttons 31 may be riveted as at 35 on the rear face of the flange 32, through which they pass in suitable holes provided therein.

Attached to the front stiffening element 33 is a cover member for the drawer such as the flexible cover 36 preferably made of an imitation rubberized leather or the like, and of a size to substantially cover the entire open top of the drawer. At its rear edge the cover 36 is secured to a rear stiffening element 37 here shown in the form of a metallic plate having a flat part 38 and a downturned integral flange 39 lapping but

spaced rearwardly of the upright rear wall 12. The flat part 38 lies across and is supported by the shelf 20 of the rear wall 12, upon which it slides, for purposes of the present invention, slots 40 in the part 38 receiving slidingly therein the shanks of headed studs 41, which are threaded to screw into tapped apertures 42 in the shelf 20. The heads of the studs 41 are of course larger than the width of the slots 40, so that the rear stiffening element 37 may slide back and forth on the shelf 20 within the limits of the slots 40. these slots being elongated in the direction from front to rear of the drawer. The stiffening element may be readily detached by removing the screws 41. At its forward edge, the horizontal part 38 of the rear stiffening element 37 is offset slightly downwardly as at 43 and is slidingly supported at each side of the drawer by lugs 44 conveniently struck inwardly form the material of the drawer side walls 13.

For secure and yet readily removable and replaceable attachment of the flexible cover 36 to the front and rear stiffening elements 33 and 37, these elements at their opposed edges are bent upon themselves in a plurality of bends as at 45 and 46 respectively, and the adjacent edges of the flexible cover 36 are folded upon themselves in a plurality of folds as at 47 and 48 respectively. These folds may be advantageously stitched as at 49 and may then be slid into the bends 45 and 46 of the stiffening elements by sliding them telescopically in a direction parallel with the stiffening elements, that is, from one side of the drawer toward the other, as best shown in Fig. 3, the bends 45 and 46 of the stiffening elements thus interlocking with the folds 47 and 48 of the flexible cover, as best shown in Fig. 2, providing a firm gripping action therebetween.

Interposed between the downturned flange 39 of the rear stiffening element 37 and the rear wall 12 of the drawer are, as here shown, spring means such as a pair of leaf springs 50 welded in this instance as at 51 to the inner face of the flange 39, and bearing, at their outer free ends as at 52, against the rear face of the rear wall 12 just under the shelf 20, pressing rearwardly thereon.

It will be understood that when the stiffening elements 33 and 37 are first attached to the flexible cover 36, the buttons 31 may be removed from the slots 29 and that the length of the flexible cover 36 from front to rear of the drawer is such that when so attached the headed studs 41 are at the forward ends of the slots 40, moved to that position under the influence of the springs 50, as indicated in Fig. 4, the rear stiffening element having slid rearwardly upon the support or shelf 20, while the buttons 31 just fall short of engaging the slots 29 at the front of the drawer.

Thereupon, the rear stiffening element having thus a resilient or yielding connection between it and its support, the upstanding flange 32 of the front stiffening element 33 may be grasped and pulled upon to place the springs 50 under tension so that the heads 30 of the buttons 31 may be placed first in the slots 28 and then moved downwardly in the slots 29 to provide an anchorage for the front stiffening element, the rear stiffening element moving forwardly, i. e., in a direction normal to the stiffening element, against the force of the springs 50 as permitted by play of the headed studs 41 in the elongated slots 40, and to some such position as indicated in Fig. 2.

Thus, the flexible member 36 is positively kept taut, while at the same time it may be grasped for manipulation anywhere along the front of the drawer and may be readily replaced when worn. If there are only a few sheets of drawings or the like in the drawer 10, the buttons 31 may be pushed down to the lower ends of the slots 29 bringing the front stiffening element 33 into closer proximity with the sheets, and, while still maintaining the tension as described, as the drawer is more and more filled, the buttons may move upwardly in the slots 29 to accommodate the greater number of sheets while still maintaining proximity with the front edges of the drawings and enhancing the safeguard against curing of the front edges, at which point objectionable curling is most likely to take place. Curling of the rear edges of the sheets is safeguarded against by the fact that the rear edges of the sheets generally lie under the rear stiffening element 37 and at least under the rear portion of the flexible cover 36.

It will be understood that the tension of the springs 50 is not so strong but what the flange 32 may be readily pulled forward by slight pressure of the fingers to lift the buttons 31 from the slots 28—29 and raise the front stiffening element 33 together with the flexible cover 36 when access to the interior of the drawer is desired for removal or insertion of a drawing, blue print or other sheet, and that in the meantime enhanced protection for the sheets is provided. The springs 50 in yielding when the flange 32 is pulled forwardly to raise the buttons 31 out of the slots 28—29 permit the rear stiffening element 37 to slide forwardly to place the studs 41, say, at the extreme rear ends of the slots 40, for this purpose.

Having described my invention, I claim:

1. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein there are stiffening elements attached to the front and rear edges respectively of the cover member, the front stiffening element being in the form of an angle member having an upstanding flange extending throughout the width of the cover member whereby it may be manually grasped substantially anywhere therealong, the rear stiffening element being in the form of a plate having limited sliding movement upon a rear wall of the container and having a downturned flange spaced rearwardly of said rear wall, a pair of leaf springs being carried by said downturned flange and having their free ends pressing against said rear wall, and wherein the front wall of the container has an inner front wall with slots therein enlarged at their top ends and reduced at their lower ends, the said upturned flange of the front stiffening element being provided with buttons projecting forwardly therefrom aligned with said front wall slots and receivable therein to place the cover member under tension of said springs.

2. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein there are stiffening elements attached to the front and rear edges respectively of the cover member and the cover member is removably attached to the container at said edges thereof respectively through the

intermediation of said stiffening elements, one of said stiffening elements having a yielding connection with the container and the other stiffening element having an upstanding finger-hold portion materially extended in a direction transversely of the cover member whereby it may be readily grasped to pull the cover member forward against the force of said yielding connection.

3. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein the cover member is attached to the container through the intermediation of angularly formed stiffening elements attached to the front and rear edges respectively of the cover member extending transversely thereof, the rear stiffening element having a spring connection with the container, and wherein the stiffening elements at their opposed edges are formed in a plurality of bent portions and the cover member is folded upon itself in a plurality of more than two folds secured together and interlocked with the bent portions of the stiffening elements against substantial relative movement except by slidably telescoping therewith in a direction parallel with the stiffening elements and from side to side of the cover member for ready removal or replacement of the cover member, the front stiffening element being provided with means for securing it to the container to place the cover member under tension, said connection and said securing means being arranged to cooperate with the angular formations of the stiffening elements respectively.

4. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein the container is provided with a shelf adjacent its rear edge and the cover member is attached at its rear edge to a metal plate received slidingly on said shelf and having a connection therewith whereby the plate has limited movement thereon in a direction from front to rear of the container, the plate having a right angular flange spaced rearwardly of said shelf, wherein spring means are interposed between said flange and the container urging the plate and cover member in a rearward direction, and wherein means are provided for releasably anchoring the forward edge of the cover member to the forward part of the container against the force of said spring means.

5. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein the container has an upstanding rear wall provided with a shelf and the cover member is attached at its rear edge to a metal plate lying slidingly on said shelf and having a stud and slot connection therewith whereby the plate has limited movement in a direction from front to rear of the container, the plate having a downturned flange spaced rearwardly of said shelf, wherein springs are interposed between said flange and the container rear wall urging the plate and cover member in a rearward direction, and wherein means are provided for releasably anchoring the forward edge of the cover member to the forward part of the container against the force of said springs.

6. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein there is a stiffening element attached to the rear edge of the cover member, wherein the container is provided adjacent its rear portion with a support for the said stiffening element and wherein the said stiffening element has elongated slots therein and said support carries headed studs passing through the slots whereby the said stiffening element may have limited movement on the support, wherein spring means are provided between the container and the stiffening element for urging the stiffening element rearwardly on said support, and wherein means are provided adjacent the forward portion of the container for releasably anchoring the front edge of the cover member.

7. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein the container is provided with a shelf adjacent its rear edge and the cover member is attached at its rear edge to a metal plate adapted to lie slidingly on said shelf and having a stud and slot connection therewith comprising an elongated slot in the plate and a screw passing through the slot and threadedly received in the shelf whereby the plate has limited movement on said shelf in a direction from front to rear of the container, the plate having a downturned flange spaced rearwardly of said shelf, wherein springs are interposed between said flange and the container urging the plate and cover member in a rearward direction, and wherein means are provided for releasably anchoring the forward edge of the cover member to the forward part of the container against the force of said springs.

8. In a normally horizontal open top container for relatively large sheets including a flexible cover member carried by the container, that improvement therein wherein there is a sheet metal stiffening element attached to the rear edge of the cover member, wherein the container is provided adjacent its rear portion with a support for the said stiffening element and wherein the said stiffening element is in the form of an angle member having a downturned flange lapping said support but spaced rearwardly thereof and a leaf spring is carried by said downturned flange pressing against the support to urge the cover member rearwardly, wherein means are provided adjacent the forward portion of the container for releasably anchoring the front edge of the cover member, and wherein lugs are mounted on the container intermedially thereof to slidingly carry the said stiffening element adjacent the place where the stiffening element is attached to the cover member.

ANTHONY P. GEIMER.