

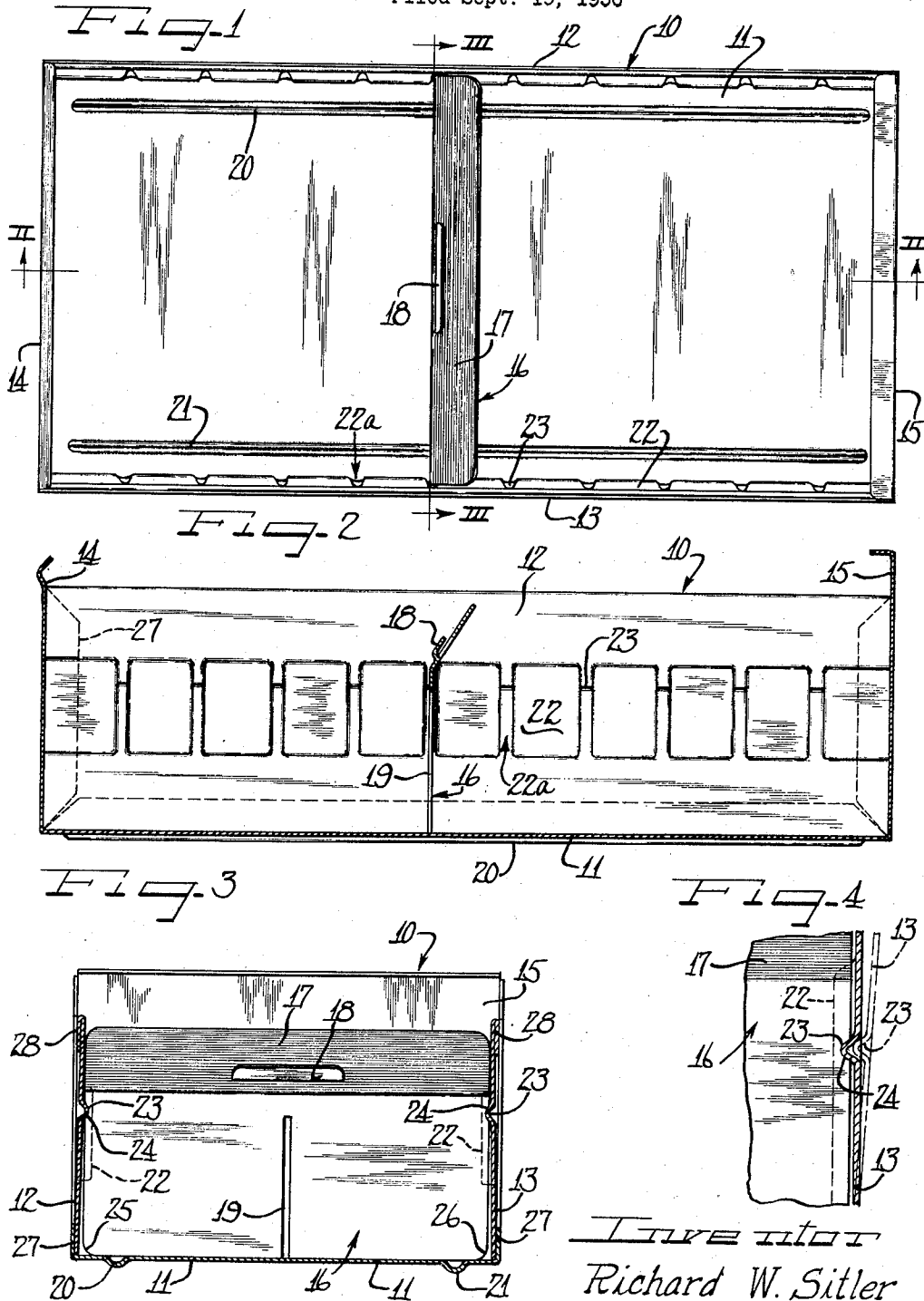
Aug. 4, 1959

R. W. SITLER

2,897,997

DRAWER CONSTRUCTION AND METHOD OF MAKING SAME

Filed Sept. 19, 1956



Inventor
Richard W. Sitler

By *Shelton, Sherman, Merriam, Caw, & Singer* Attorneys

1

2,897,997

**DRAWER CONSTRUCTION AND METHOD
OF MAKING SAME**

Richard W. Sitler, St. Charles, Ill., assignor to Aurora
Equipment Company, Aurora, Ill., a corporation of
Illinois

Application January 19, 1956, Serial No. 560,178

5 Claims. (Cl. 220—22)

This invention relates generally to a new and improved drawer construction and method of making and assembling same.

More specifically, this invention relates to a drawer construction including opposed resilient side walls having spaced sets of centering guides along the length thereof separated by pressed out extensions and a divider element which may be moved longitudinally along the length of the drawer upon springing of the resilient side walls into detachable locking assembly therewith and more particularly with the extensions. By virtue of this construction, materials stored in the drawer are precluded from slipping under the divider member since the divider member is positively engaged against the bottom of the drawer and maintained in this position as a consequence of the inter-locking of the divider member with the side walls. Still further, by virtue of the inter-locking action, the divider is precluded from being worked upward to insure that the divider does not interfere with the opening and closing of the drawer.

Accordingly, an object of this invention is to provide a new and improved drawer construction.

Still another object of this invention is to provide a new and improved drawer construction which may be divided into a plurality of compartments as is desired by means of one or more divider members.

Another object of this invention is to provide a new and improved drawer construction which lends itself to being manufactured by large production techniques and is economical to manufacture.

According to the general features of this invention there is provided in a drawer construction capable of being divided into compartments including a bottom, opposed side walls in assembly with the bottom and at least one divider member, the improvement of at least two of the side walls having along their length a series of sets of vertical centering guides separated by a recessed portion, the centering guides on each of said side walls being in transverse alignment with one another, each end of the divider member being lodged between the guides in the recessed portion, the ends of the guides each having a recess provided with a shoulder, and the recessed portions each having an extension with the extensions each being detachably lodged in the recess against the shoulder in inter-locked assembly.

Another feature of this invention relates to the fact that the guides and extensions are all pressed out of the side walls of the tray thereby minimizing costs and providing a highly efficient drawer construction.

Still another feature of this invention relates to the resilient opposed side walls which are inter-lockingly cooperable with a divider element.

Other objects and features of the present invention will more fully become apparent from the following detailed description of the drawing illustrating a single embodiment in which:

Figure 1 is a plan view of my novel drawer;

Figure 2 is a longitudinal cross sectional view taken

2

substantially on the line II—II of Figure 1 looking in the direction indicated by the arrows;

Figure 3 is a transverse cross sectional view taken substantially on the lines III—III of Figure 1 looking in the direction indicated by the arrows; and

Figure 4 is an enlarged fragmentary view in full and dotted lines showing in detail the locking action between a divider member and one of the resilient drawer side walls.

As shown on the drawings:

The reference numeral 10 indicates generally my novel drawer construction which may be made out of any suitable material with excellent results being attainable through the use of spring steel and the like.

Basically, my tray 10 includes as components, a bottom panel 11, which is connected to opposed side walls 12, 13, 14 and 15; side walls 12 and 13 being elongated relative to front and rear side walls 14 and 15. The side walls 12 and 13 and the bottom panel 11 together comprise a channel-shaped strip.

In order to divide the tray 10 into one or more compartments as is desired, a divider element 16 has been provided which may be made out of any suitable material such as spring steel. The divider element 16 has at its vertically upper end an angled flange portion 17. On the flange portion 17 is a struck out tab 18 which may be utilized to carry an identifying card or an indicia thereunder.

It will be noted that the divider 16 has an intermediate slot 19 (Figures 2 and 3). This slot 19 may be utilized to divide the tray 10 into further compartments as is desired by receiving therethrough another divider element (not shown) which may be of any suitable construction.

Provided on the bottom member or panel 11 are two transversely spaced runners 20 and 21. These runners are for the purpose of easing the drawer 10 into a cabinet thereby keeping friction between the bottom member 11 and the cabinet to a minimum.

While the instant drawer 10 has been disclosed capable of being used in connection with a cabinet or the like, having a single compartment, it will be readily appreciated that the drawer 10 may also be utilized in a cabinet construction having a plurality of compartments each capable of receiving therein a drawer such as my novel drawer 10.

It will be noted that sets of the side walls, and particularly side walls 12 and 13 are provided along their length with a series of spaced pressed out guides, ribs, or a series of spaced bosses 22. Provided in spaces or grooves 22a between the bosses 22 are pressed out extensions or dimples 23. These dimples 23 lie between each of the guides 22 generally between the upper and lower vertical extent of the guides 22.

Provided on opposite ends of the divider 16 are indentations or notches 24 (Figures 3 and 4).

The opposed side walls 12 and 13 of my invention are of a special construction in that they are made of a relatively resilient material such as to enable them to be sprung transversely away from one another upon the assembly of the divider between same. In fact, the tray is preferably made so that in order to disengage the divider from between the opposed side walls 12 and 13, the side walls must be transversely sprung away from one another. This may be brought about by applying manual force or pressure.

In assembly the divider 16 with respect to the tray 10 and more particularly the side walls 12 and 13, the divider is initially aligned with respect to one set of transversely aligned centering guides. Thereafter, the divider is progressively engaged in the grooves 22a between the sets of transversely aligned centering guides 22.

3

To this end, the lower ends 25 and 26 are preferably rounded to provide lead-in surfaces. Hence as the divider is guided downwardly in between the ribs 22, the surfaces 25 and 26 respectively engage against the pressed out rounded dimples or extensions 23—23 causing the side walls 12 and 13 to be flexed outwardly away from one another. Then as the extensions 23 are brought into alignment with the notch edges 24, the divider is inter-locked with respect to the opposed side walls 12 and 13.

As is best seen in Figure 3 it will also be noted that portions of the vertically extending terminal ends of the divider are interlocked between the adjacent centering guides 22 to give a further locking action.

In view of the foregoing it will now be appreciated that the divider may at all times be maintained in interlocked assembly with the tray in order that the divider may firmly engage at all times with the bottom 11 to prohibit the bottom from being worked up out of position or allowing goods stored in the compartments to slide underneath the divider 16.

To disengage the divider 16 from the tray, it is necessary that the side walls 12 and 13 be slightly sprung outwardly relative to one another either manually or by the action of the lower most notch edge 24 (Figure 4) against the associated extension 23 in order for the extensions 23 to be disengaged from their respective notch edges 24 thereby enabling the divider to be pulled out of the tray.

The specific tray construction is significant in its simplicity in that the bottom 11, and side walls 14 and 15 are made from a single strip of metal as is seen in Figure 2. As will be noted in Figure 2 the wall 14, the bottom 11, and the wall 15 are provided at their opposed transverse edges with a slit or broken generally right angled turned out flange 27. In making the drawer 10, the side walls 12 and 13 are each inserted on the inside of one of the broken transversely spaced flanges 27 and thereafter welded thereto. In order to reinforce the side walls 12 and 13, the vertically upper edge of the side walls 12 and 13 are underturned or reverse bent at 28 (Figure 3). Accordingly, the flange 27 provides a point from which the side walls 12 and 13 when gripped at 28 may be sprung transversely away from one another.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A drawer for relative sliding disposition in a cabinet structure, a relatively thin flat divider having transversely aligned recessed areas on its thin transversely spaced edges, said drawer comprised of a bottom and wall structure including upstanding side walls, said side walls having longitudinally spaced transversely aligned rib areas of substantially greater longitudinal dimension than the thickness of the thin transversely spaced divider edges depending out of the vertical planes of the side walls and lying internally of the drawer between the side walls, means sustaining the bottom edge of the divider in bottomed engagement against the bottom including transversely aligned vertical grooved areas disposed between the rib areas, said means also including longitudinally aligned protuberances lying within the confines of the grooved areas and disposed internally of the drawer, said divider being movable vertically between said rib areas in said grooved areas locking said divider against longitudinal movement and with said protuberances lodged within said recessed areas locking said divider against vertical movement.

2. A drawer for relative sliding disposition in a cabinet structure, a relatively thin flat divider having transversely aligned recessed areas on its thin transversely spaced edges, said drawer comprised of a bottom and wall structure including upstanding side walls having top edges, said side walls having longitudinally spaced trans-

4

versely aligned rib areas of substantially greater longitudinal dimension than the thickness of the thin transversely spaced divider edges depending out of the vertical planes of the side walls and lying internally of the drawer between the side walls, means sustaining the bottom edge of the divider in bottomed engagement against the bottom including transversely aligned vertical grooved areas disposed between the rib areas, said means also including longitudinally aligned protuberances lying within the confines of the grooved areas and disposed internally of the drawer, said divider being movable vertically between said rib areas in said grooved areas locking said divider against longitudinal movement and with said protuberances lodged within said recessed areas locking said divider against vertical movement, said rib areas and said protuberances comprising embossings in said side walls lying internally of the confines defined by the wall structure vertically spaced from the bottom and from the top edges of the side walls leaving the external surface area thereby free of such projections enabling the drawer to be more readily guided into and out of a cabinet.

3. A drawer for relative sliding disposition in a cabinet structure, a relatively thin flat divider having transversely aligned recessed areas on its thin transversely spaced divider edges, said drawer comprised of a bottom and upstanding end walls and upstanding resiliently deflectable side walls, said side walls having longitudinally spaced transversely aligned rib areas of substantially greater longitudinal dimension than the thickness of the thin transversely spaced divider edges depending out of the vertical planes of the side walls and lying internally of the drawer between the side walls, means sustaining the bottom edge of the divider in bottomed engagement against the bottom including transversely aligned vertical grooved areas disposed between the rib areas, said means also including longitudinally aligned protuberances lying within the confines of the grooved areas and disposed internally of the drawer, said divider being movable vertically in the transversely aligned areas between the rib areas and with the divider edges upon engagement with the protuberances causing the resiliently deflectable side walls to be deflected and with the protuberances caused to be moved into and out of retained tensioned assembly in said recessed areas on said divider.

4. A drawer for relative sliding disposition in a cabinet structure, a relatively thin flat divider having thin transversely spaced divider edges, said drawer comprised of a bottom and a wall structure including upstanding parallel resiliently deflectable side walls disposed generally at right angles to said bottom, said side walls having top edges and including longitudinally spaced transversely aligned embossings of substantially greater longitudinal dimension than the thickness of the thin transversely spaced divider edges depending out of the vertical planes of the side walls and lying internally of the drawer between the bottom and the top edges of the side walls and with transversely aligned vertical grooved areas disposed between the embossings, said divider having its thin edges lodged in said grooved areas on said side walls to prevent longitudinal displacement of said divider, and means maintaining a bottom edge of the divider bottomed against the bottom comprising interlocking structure between said thin divider edges and said grooved areas to resist vertical disassembly of the divider, said interlocking structure including protuberances and recessed areas between said divider and said side walls with said side walls being resiliently deflected out of the right angle relation with the bottom upon vertical movement of said divider and with said protuberances engageable in said recessed areas to sustain said divider in snug engagement with said bottom to prevent stored parts from moving from one side of the divider to an opposite side thereof.

5. A drawer for relative sliding disposition in a cabinet structure, a relatively thin flat divider having thin trans-

versely spaced divided edges, said drawer comprised of a bottom and a wall structure including upstanding parallel resiliently deflectable side walls disposed generally at right angles to said bottom, the bottom and the resiliently deflectable side walls comprising a channel-shaped strip, said resiliently deflectable side walls having top edges and including longitudinally spaced transversely aligned embossings of substantially greater longitudinal dimension than the thickness of the thin transversely spaced divider edges depending out of the vertical planes of the side walls and lying internally of the drawer between the bottom and the top edges of the side walls and with transversely aligned vertical grooved areas disposed between the embossings, said divider having its thin edges lodged in said grooved areas on said side walls to prevent longitudinal displacement of said divider, and means maintaining a bottom edge of the divider bottomed against the bottom which comprises interlocking structure between said thin divider edges and said grooved areas to resist vertical disassembly of the divider, said interlocking structure including protuberances and recessed areas between said divider and said side walls with said side walls being resiliently de-

flected out of the right angle relation with the bottom upon vertical movement of said divider and with said protuberances engageable in said recessed areas to sustain said divider in snug engagement with said bottom to prevent stored parts from moving from one side of the divider to an opposite side thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

10	1,486,607	Reissig	Mar. 11, 1924
	1,523,136	O'Connor	Jan. 13, 1925
	1,655,793	McCrery	Jan. 10, 1928
	1,832,158	Vance	Nov. 17, 1931
15	1,939,651	Bales	Dec. 19, 1933
	1,954,224	Piker	Apr. 10, 1934
	1,954,646	Pratt	Apr. 10, 1934
	2,020,373	Petzold	Nov. 12, 1935
	2,025,509	Knell	Jan. 21, 1936
20	2,081,078	Watson	May 18, 1937
	2,125,856	DeWitt	Aug. 2, 1938
	2,145,106	Anderson	Jan. 24, 1939
	2,185,770	Larson	Jan. 2, 1940