July 15, 1941. A. T. SWIMMER 2,249,548

DIVIDER MEANS FOR FILING TRAYS OR DRAWERS

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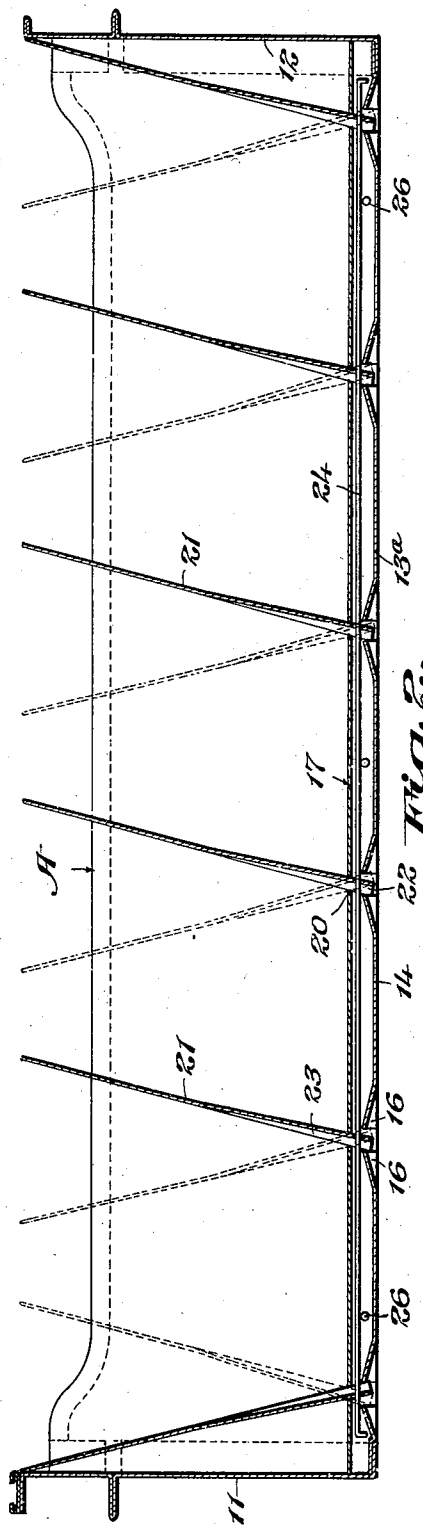


Fig. 1.

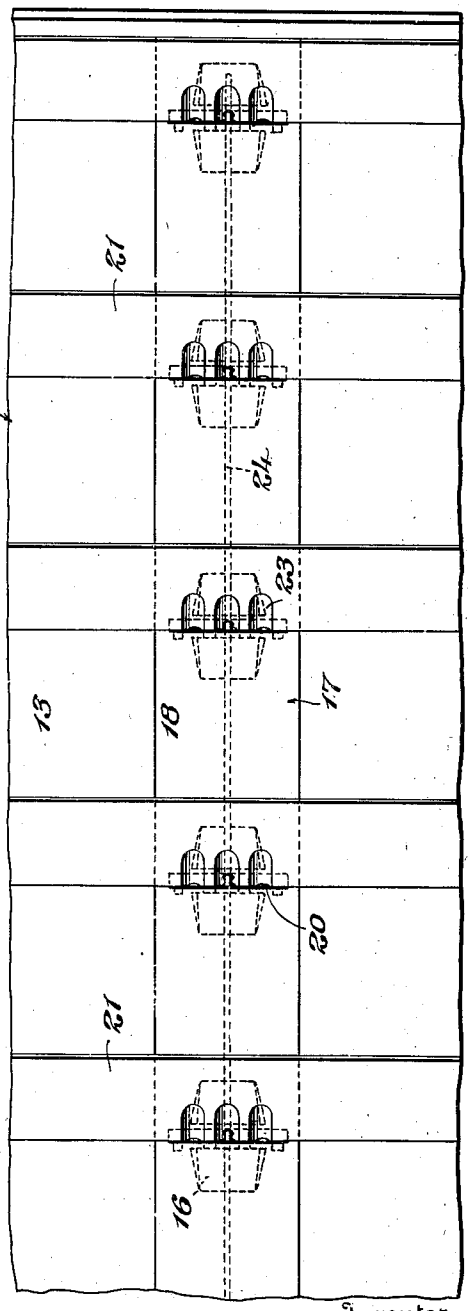


Fig. 2.

Inventor

Albert T. Swimmer,

By Wolchaupter & Groff

Attorneys

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Fig. 3.

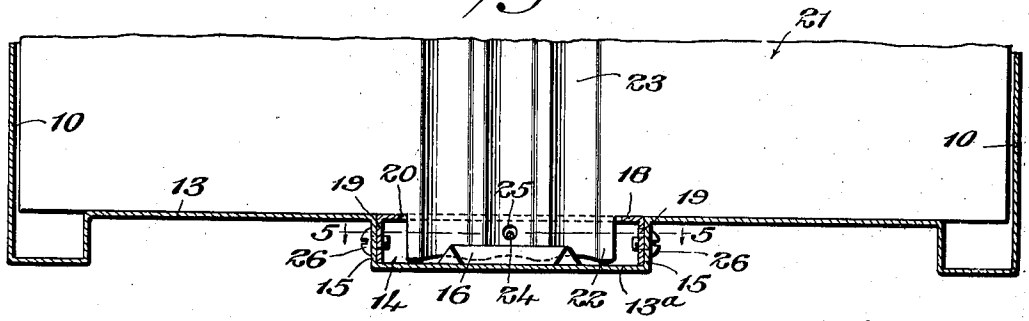


Fig. 4.

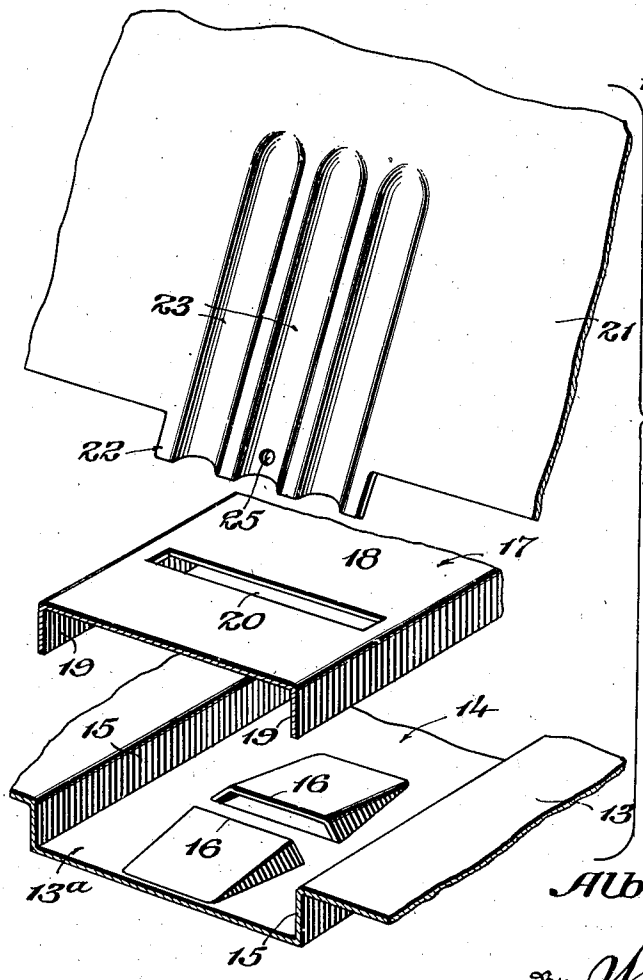


Fig. 5.

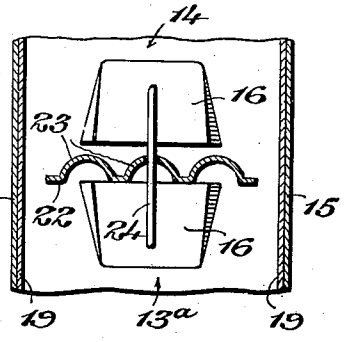


Fig. 6.

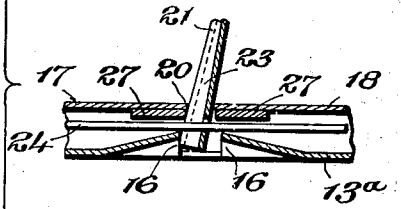
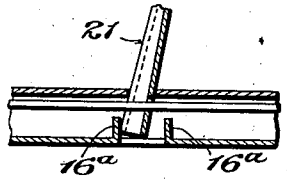


Fig. 7.



Inventor

Albert T. Swimmer,

By Wolhaupter & Groff

Attorneys

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2,249,548

DIVIDER MEANS FOR FILING TRAYS OR DRAWERS

Albert Theodore Swimmer, Youngstown, Ohio, assignor to The General Fireproofing Co., Youngstown, Ohio, a corporation of Ohio

Application October 21, 1940, Serial No. 362,160

2 Claims. (Cl. 129—16)

This invention relates to trays or drawers for the vertical filing of index cards, letters and the like, and has particular reference to improvements in divider means for such trays or drawers.

One special object of the invention is to provide a tray or drawer divider means which is thoroughly practical, strong, durable and generally satisfactory in use and which, at the same time, is of low production cost and easy to assemble.

According to the invention the divider means comprises upright plates which extend transversely of a tray or drawer and which are mounted for limited forward and rearward tilting movements to facilitate access to the cards, letters or the like which they divide, and in this connection another special object of the invention is to provide simple means for mounting the plates for tilting movements and for limiting tilting movements thereof.

Another special object of the invention is to provide a divider means which may readily and easily be produced as a unit separate from a tray or drawer with which it is to be used and which, as an assembled unit, may readily and easily be mounted operatively in a tray or drawer and which may equally as readily and easily be removed therefrom.

With the foregoing and other objects in view, which will become more fully apparent as the nature of the invention is better understood, the same consists in the novel features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and defined in the appended claims.

In the drawings, wherein like characters of reference denote corresponding parts in the different views:

Figure 1 is a longitudinal section through a tray or drawer illustrating divider means constructed in accordance with one practical embodiment of the invention operatively mounted therein.

Figure 2 is a fragmentary top plan view of the structure shown in Fig. 1.

Figure 3 is a fragmentary transverse section through the structure shown in Fig. 1.

Figure 4 is a perspective view showing in separated relationship a portion of one of the divider plates, a portion of the channel strip and a portion of the bottom of the tray or drawer.

Figure 5 is a horizontal section on the line 5—5 of Fig. 3.

Figure 6 is a fragmentary section similar to Fig. 1 illustrating a slightly alternative embodiment of the invention; and

Figure 7 is another fragmentary section similar to Fig. 1 illustrating another slightly alternative embodiment of the invention.

Referring to the drawings in detail, A designates, generally, a tray or drawer which may be of any desired construction and which includes, as usual, side walls 10, 10, front and rear end walls 11 and 12, respectively, and a bottom wall 13.

In accordance with the practical embodiment of the invention illustrated in the drawings, the tray or drawer A is formed from sheet metal and its bottom wall 13, midway between its side walls 10, 10, is downwardly offset to provide an open-top, trough-like depression 14 of suitable width and depth which extends preferably from end to end of the tray or drawer and which itself is defined by a bottom wall 13a and side walls 15, 15.

The wall 13a, at points suitably spaced along the length thereof and midway between the side walls 15, 15, has rising therefrom pairs of stop elements 16, 16 which are of lesser width than said wall 13a and which may be provided in any suitable manner. For example, portions of the wall 13a may be pressed upwardly as illustrated in Figs. 1 to 6 so that the adjacent ends of said upwardly pressed portions constitute said stop elements or, as illustrated in Fig. 7 of the drawings, portions of said wall may be bent upwardly in the form of flanges 16a, 16a the adjacent side faces of which constitute said stop elements. Alternatively, said stop elements may be separate from the wall 13a and may be fastened thereto in any suitable manner. In any event, the stop elements of each pair are spaced a short distance apart longitudinally of the wall 13a.

Designed to fit into the depression 14 is an open-bottom, sheet metal channel member 17 which corresponds in length and width and preferably in depth to said depression and which comprises a top wall 18 and depending side walls 19, 19. When this member is fitted into said depression, as illustrated in Figs. 1 to 3, the outer faces of its side walls engage the inner faces of the depression side walls 15, 15 and the bottom edges of its side walls rest upon the upper face of the depression bottom wall 13a, thereby supporting the top wall 18 preferably flush with the bottom wall 13 of the tray or drawer A. The top wall 18 then constitutes in effect and to all

intents and purposes part of the bottom wall of the tray or drawer.

In the top wall 18 of the channel member 17 are narrow slots 20 which extend transversely of said top wall and which are located in said wall so as each to overlie the space between a related pair of the stop elements 16, 16 or 16a, 16a, as the case may be, when said channel member is operatively fitted in the depression 14.

The divider plates, each designated generally as 21, are duplicates of one another and preferably are formed from sheet metal, each being preferably rectangular in shape and preferably of a width and height corresponding substantially to the width and height of the tray or drawer A.

Formed as a bottom extension of each divider plate 21, centrally thereof, is a tongue 22, while pressed in each tongue and extending upwardly therefrom any suitable distance into each divider plate are a suitable number of vertical ribs 23 which serve to stiffen said tongues and plates and to insure against bending of said tongues relative to said plates. Preferably said ribs are pressed rearwardly relative to the tongues and plates so as not to interfere with the laying of cards, letters or the like flatly against the front faces of said plates, but this is not essential and said ribs may be pressed either entirely or in part forwardly from the tongues and plates if desired.

The tongues 22 are of widths substantially equal to the length of the slots 20 and each divider plate has its tongue extending downwardly through a related slot 20, the several divider plates being maintained in assembly with the channel member 17 by means of a length of wire or rod 24 disposed below the top wall 18 of said channel member and extending through small holes 25 in the tongues 22.

When the channel member 17 with the divider plates 21 assembled therewith is disposed in the depression 14 the lower edge of each divider plate, to either side of its tongue 22, rests upon the top wall of the channel member 17 beyond the ends of the related slot 20 and also upon the bottom wall 13 of the tray or drawer. Each divider plate therefore is tiltable forwardly and rearwardly about the line of contact of its lower edge with the top wall of said channel member and the bottom wall of the tray or drawer.

The tongue 22 of each divider plate is of such length or depth as to clear the bottom wall 13a of the depression 14 and to extend between the related pair of stop elements 16, 16 or 16a, 16a, as the case may be. Consequently, each divider plate is tiltable forwardly and rearwardly within limits as determined by the spaced apart relationship of the related pair of said stop elements. In other words, the slots 20 are of such narrow width as to hold the divider plates against being shifted bodily forwardly or rearwardly relative to the drawer. Therefore, any given divider plate cannot be tilted forwardly or rearwardly beyond a position in which its tongue 22 engages one or the other of the related pair of stop elements 16, 16 or 16a, 16a, as the case may be.

Any suitable means may be provided to removably retain the channel member 17 in the depression 14. For example, screws 26 may be passed through openings in the side walls 15, 15 of the depression and may be threaded into openings provided in the side walls 19, 19 of the channel member 17, as illustrated in the present instance. Thus, provision is made whereby the entire divider attachment, as an assembled unit, may readily and easily be mounted operatively in a tray or drawer and which may equally as readily and easily be removed therefrom.

Manifestly, in the case of a tray or drawer and divider elements of considerable width, two or more of the mounting means for the divider elements located at points spaced apart transversely of the tray or drawer, may be provided in lieu of the single mounting means located midway between the sides of the tray or drawer as illustrated in the present instance.

Figure 6 of the drawings illustrates that plates 27 may be fastened against the under side of the top wall 18 of the channel member 17 adjacent to the slots 20 to reinforce said top wall in the vicinity of said slots.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:

1. A filing tray or drawer including a bottom wall having an open-top depression extending longitudinally thereof, a channel member of inverted U-shape in cross section disposed in said depression, said depression including side walls and a bottom wall and said channel member including side walls and a top wall which is spaced above said depression bottom wall and disposed substantially flush with the bottom wall of the tray or drawer, the top wall of said channel member having narrow slots therein extending transversely thereof at points spaced apart along its length, a plurality of divider plates each having a depending tongue extending downwardly through a related slot, each divider plate resting at its lower edge upon the bottom wall of the tray or drawer whereby each plate is supported for forward and rearward tilting movements, means maintaining the divider plates assembled with said channel member, and stop elements constituted by portions of the bottom wall of said depression upstruck therefrom for cooperation with the tongues of said divider plates to limit tilting movements of said divider plates.

2. A filing tray or drawer including a bottom wall, a channel member of inverted U-shape in cross section seated upon the bottom wall of said drawer and including a top wall spaced above the bottom wall of said drawer and having narrow slots therein extending transversely thereof at points spaced along its length, a plurality of divider plates tiltably supported at their lower edges on the top wall of said channel member and each having a tongue extending downwardly through a related slot in the top wall of said channel member, and stop elements constituted by portions of the bottom wall of said tray or drawer upstruck from said bottom wall for cooperation with said tongues to limit tilting movements of said divider plates.

ALBERT THEODORE SWIMMER.