May 1, 1934. S. SMILEY, JR 1,957,153

DESK TRAY

Filed April 8, 1931

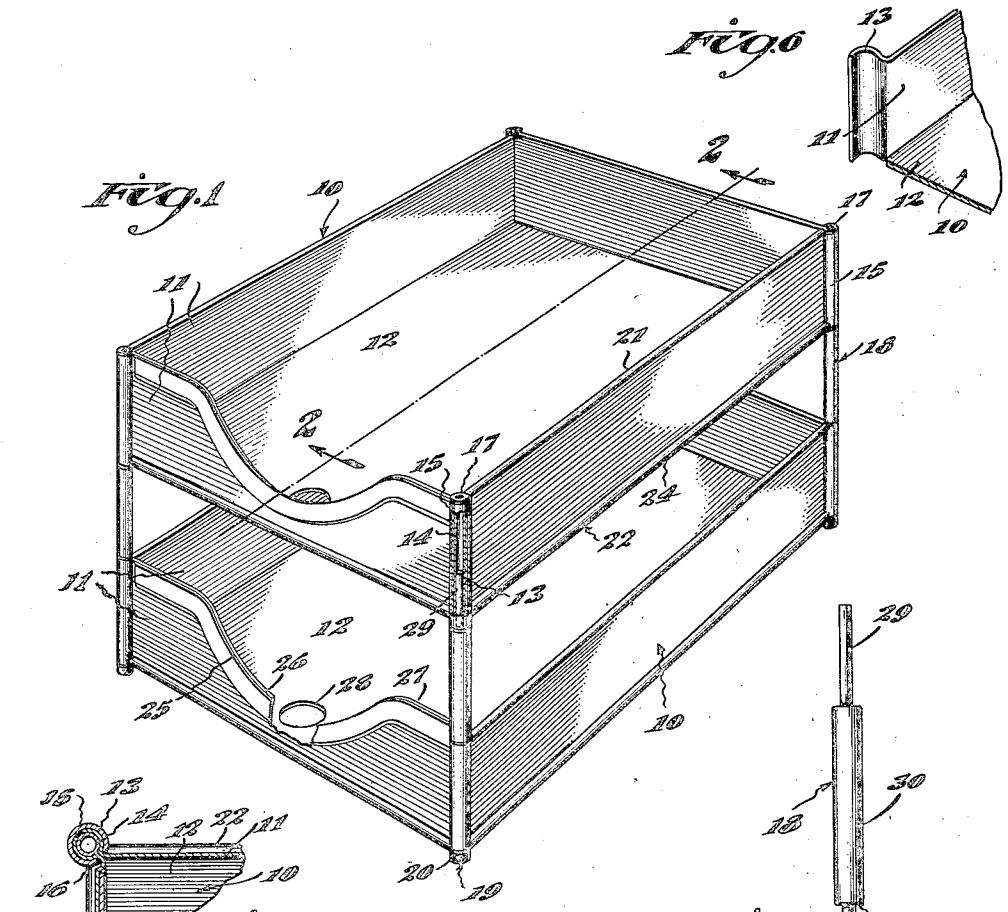

Fig. 1

Fig. 6

Fig. 3

Fig. 5

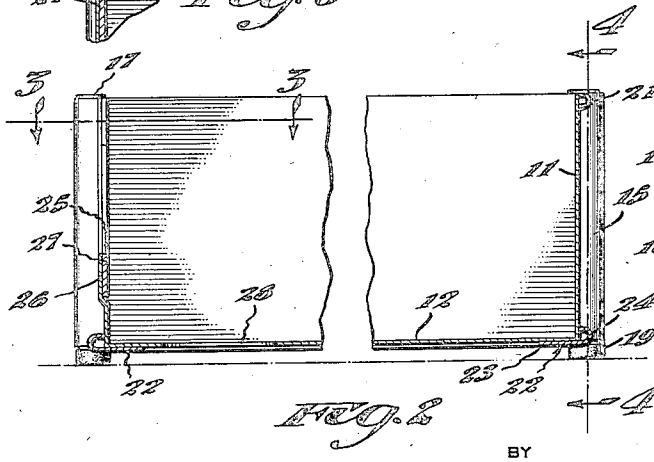

Fig. 2

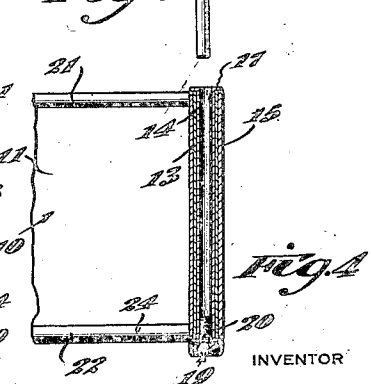

Fig. 4

INVENTOR

Samuel Smiley Jr.

BY

Wood & Wood ATTORNEYS

Patented May 1, 1934 1,957,153

UNITED STATES PATENT OFFICE

1,957,153

DESK TRAY

Samuel Smiley, Jr., Cincinnati, Ohio, assignor to The Globe-Wernicke Company, Norwood, Ohio, a corporation of Ohio

Application April 8, 1931, Serial No. 528,518

2 Claims. (Cl. 220—97)

This invention relates to improvements in filing trays and is particularly directed to trays adaptable for use on desks and arranged for convenient stacking.

It is an object of this invention to provide a desk tray of fabricated construction in which the structure is bound together at the corners by an improved joint means which considerably reenforces and embellishes the product and is highly efficient relative to the problem of assembly.

It is still another object of this invention to provide an improved tray which includes corner constructions adapted to receive and firmly mount tray stacking means whereby a plurality of trays may be stacked.

It is another object of this invention to provide devices for the trays for securely mounting the trays in spaced stacked relation from which position they are incapable of easy dislodgement and whereby the stack may be extended to include a great many trays without sacrifice to the rigidity of the stack.

Another object is to provide desk trays in which the reenforcement is of a character making the trays absolutely level and rigid and in which all sharp edges and corners are entirely eliminated.

Other objects and certain advantages will be more fully set forth in the description of the accompanying drawing, forming a part hereof, in which:

Figure 1 is a perspective view of a plurality of trays showing the same in stacked position, a portion of one of the corners of the tray broken away to fully illustrate the construction and association of the mounting device relative to the stacked trays.

Figure 2 is a sectional view taken on line 2—2, Figure 1, detailing the top and bottom edge construction of a particular tray.

Figure 3 is a sectional view taken on line 3—3, Figure 2, on a slightly enlarged scale, for detailing the construction of a corner.

Figure 4 is a sectional view taken on line 4—4, Figure 2, showing a corner in longitudinal section.

Figure 5 is a side view of one of the stacking and spacer means utilized at each corner of the trays.

Figure 6 is a fragmentary perspective view partly in section for further illustrating the corner construction and the body of the tray.

The trays herein concerned are of the general conventional form for including four sides and a bottom. In disposing the trays in stacked relation, spacer means are included with the stack supporting means and the corners of the trays are especially designed for convenient reception of the stacking and spacing devices whereby the stacked trays are sturdily supported, and are incapable of easy dislodgement from stacked position.

Referring to the drawing, the trays are generally indicated at 10 and include four sides 11 and a bottom 12. The body of the tray is formed of a single piece of sheet metal which is stamped out and formed to bring the side walls into their proper relation and to include specially formed abutting edges at the corners. These abutting edges include flanges 13 which are of semi-cylindrical form and which when placed together are adapted to encircle a sleeve or tube 14 of slightly greater length than the full height of the sides.

An external sleeve or cylinder 15 is provided at each corner and is adapted to slip over the cylindrical flanges of the sides for clamping the same about the interior tube or sleeve. This internal sleeve includes a single longitudinal slot 16 and is readily slid over the flanges of the side walls, thereby securely interlocking the parts. The slot of the external sleeve is designed to clear the abutting attaching portions of the respective semi-cylindrical flanges of the side walls.

After the external sleeve 15 has been slipped into position the upper and lower ends of the internal sleeve 14 are spread or peened to form upper and lower flanges 17 overhanging the semi-cylindrical flanges and the respective ends of the external tube, thereby securing the external tube against longitudinal or axial displacement. Thus an extremely rigid joint is provided which is incapable of disassembly during use and which is conveniently formed without the use of any other fastening means besides the formed flanges of the internal tube.

These corner joints provide a strong and embellished appearance to the tray, appearing in the nature of posts or corner moldings. Since they are tubular, they readily receive stacking devices 18 of a form illustrated in Figure 5 and also may receive rubber studs 19 providing downwardly disposed heads or contact buttons 20, whereby the metal tray may rest on a highly finished surface without damage thereto.

The upper edges of the tray sides, excepting the front side, are rolled outwardly to provide beads 21 of tubular form for strengthening the tray structure. Each lower edge of the tray is provided with a finishing strip 22 for reenforcing and embellishing the same. Each reenforcing

strip consists of a plain portion 23 secured by rivets, spot-welding, etc. to the underside of the tray and a rounded outer edge or bead 24 formed upwardly and having its free edge lying against the side of the tray.

The front wall of the tray is contoured as at 25 to provide for finger clearance for convenient removal of papers from the tray. This forward wall is also reenforced along its upper edge by embossing the same outwardly as at 26 and including a heavy reenforcing strip 27 countersunk within the embossing on the inner side of the wall, the strip being of substantial width. An aperture 28 is provided in the bottom of the tray toward and medially of the forward end to permit the elevation of papers by the insertion of a finger upwardly therethrough.

For the purpose of mounting the trays one upon the other in a convenient stacking arrangement, a number of accessories as the devices 18 are provided. These devices in the nature of posts are counterturned to provide upper and lower studs 29 on a main body portion 30. In use, these posts are inserted in the tubular corners of the adjacent trays and the shoulders 31 constituted by the counterturning, provide for definite spacing of the trays, by abutment with the upper and lower trays respectively. The said portions are of substantial length, extending approximately half way into the tubular corners and the trays are thereby rigidly mounted. The trays are firmly anchored against lateral displacement and a great number may be stacked without detracting from the sturdiness of the mounting.

Having described my invention, I claim:

1. A filing tray including a bottom and four sides, semi-cylindrical flanges formed along the adjoining edges of the respective sides, internal tubes encircled by the semi-cylindrical flanges, external sleeves encircling said flanges and clamping the same about said internal tubes and outwardly formed flanges at the upper and lower ends of the assembled tubes, said flanges overlying the ends of the tubes for preventing longitudinal displacement thereof.

2. A filing tray including a bottom and sides, semi-cylindrical flanges formed along the adjoining edges of the respective sides and disposed in abutment to provide tubes, an internal tube encircled by the respective semi-cylindrical flanges at each corner, and an external split sleeve telescopically assembled over said flanges and encircling the same in fully assembled position for clamping the flanges about said internal tube, whereby the flanges are locked together and the plurality of tubes accomplished extremes rigidity at the corners of the tray.

SAMUEL SMILEY, JR.