

Aug. 18, 1964

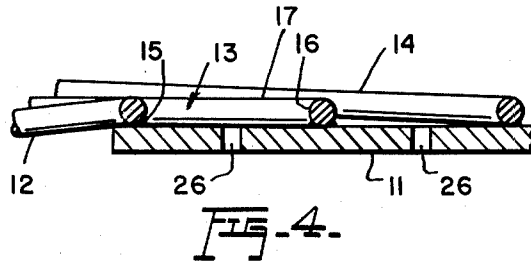
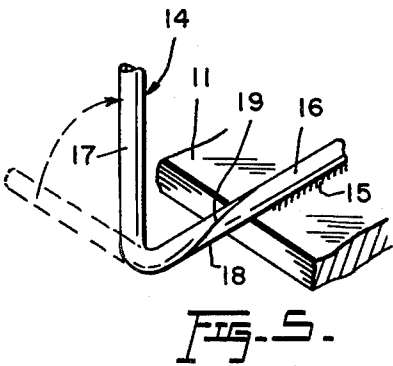
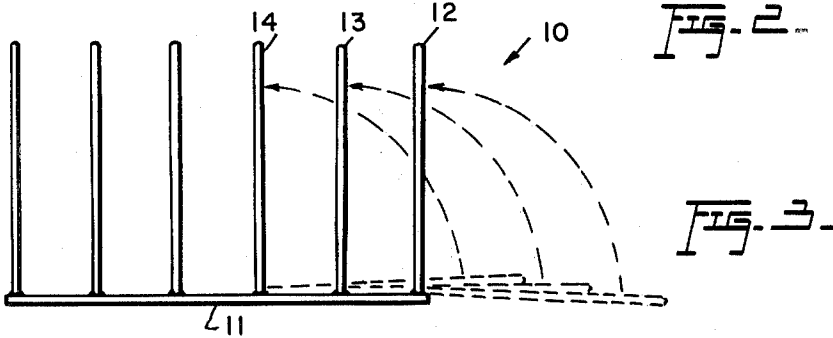
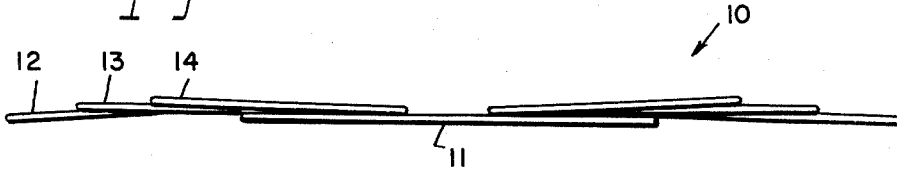
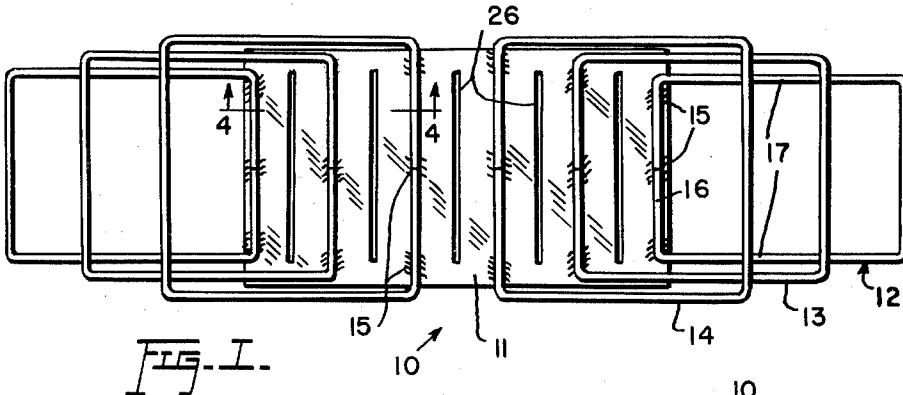
D. M. PEEBLES

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4 Sheets-Sheet 1



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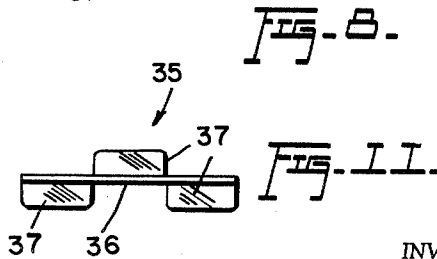
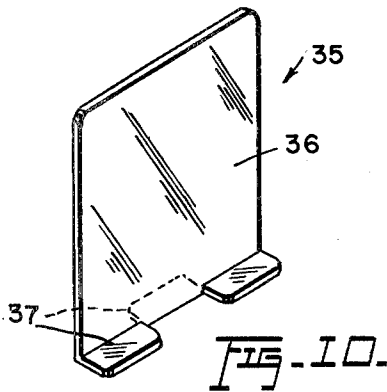
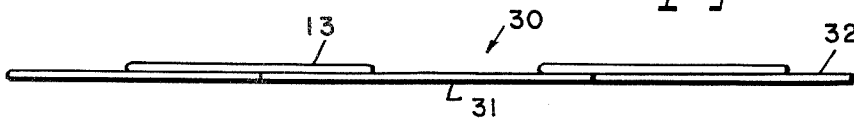
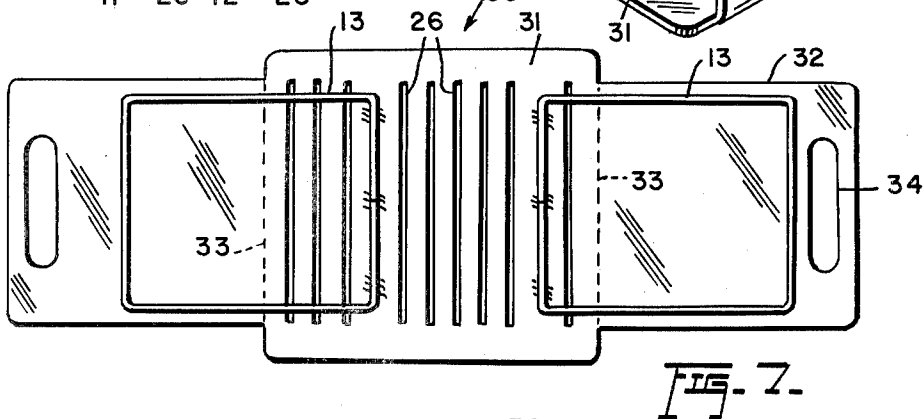
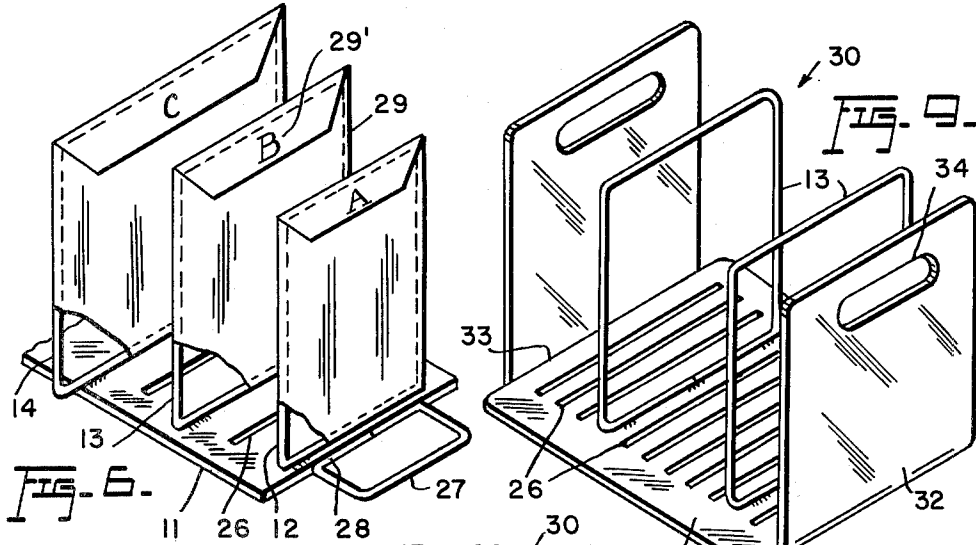
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FIG-14-

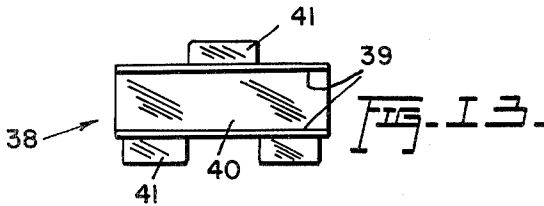
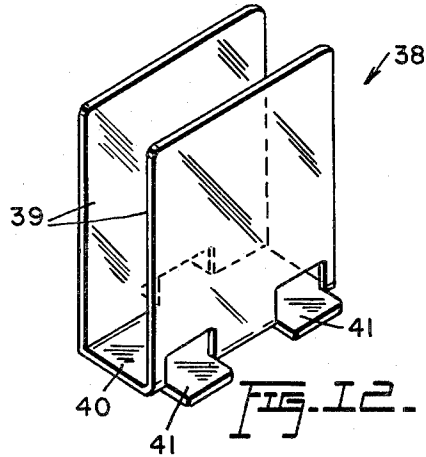
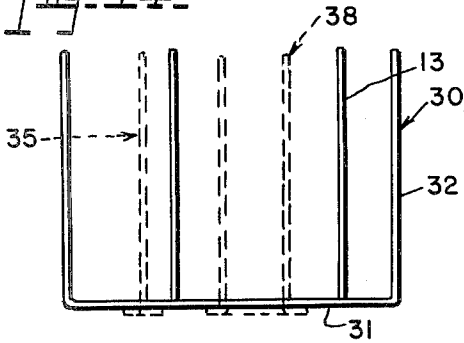
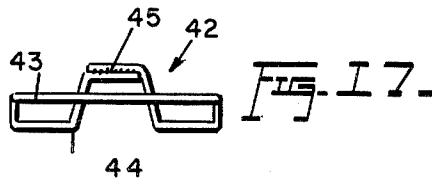
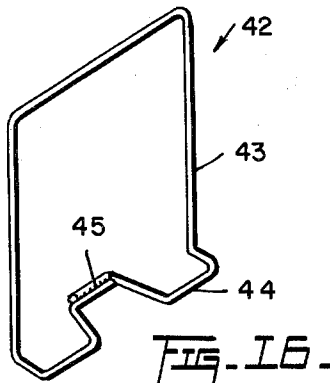
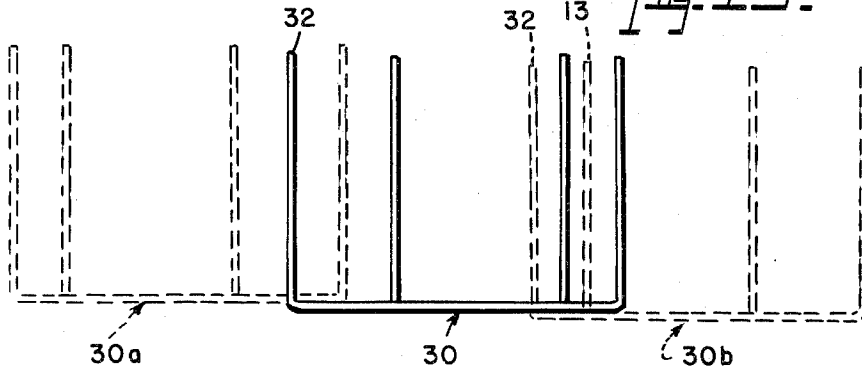


FIG-15-



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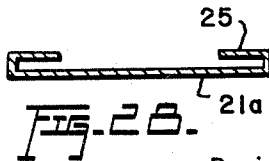
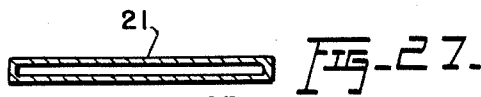
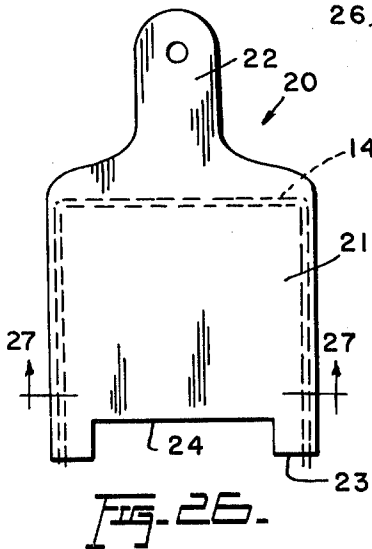
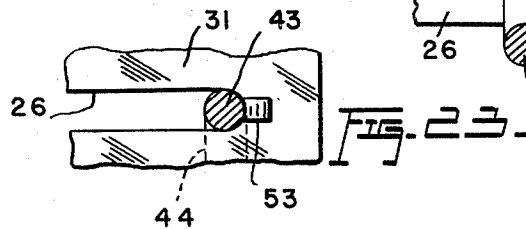
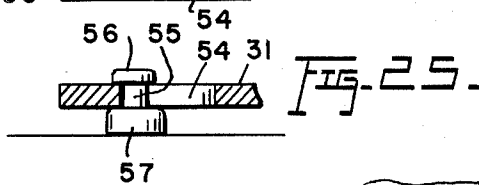
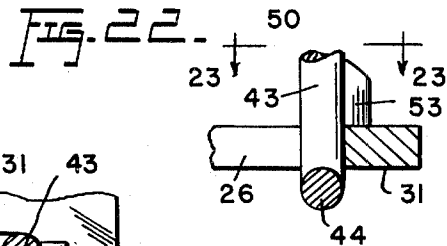
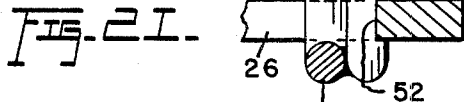
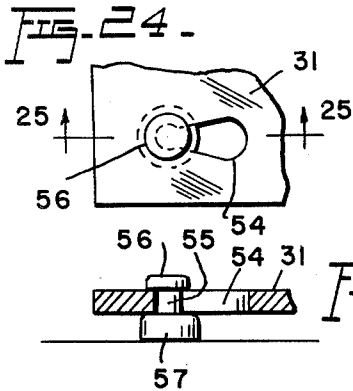
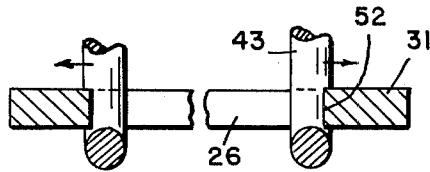
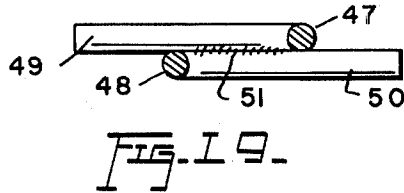
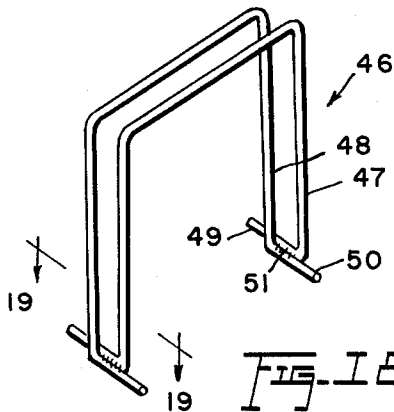
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4 Sheets-Sheet 4



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7 Claims. (Cl. 211-11)

This invention relates to new and useful improvements in what may be generally referred to as filing apparatus, and more specifically, the invention concerns itself with the provision of selectively usable components such as may be conveniently and effectively employed for receiving, holding or storing papers, letters, documents, et cetera, in an orderly arranged and readily accessible manner. As such, the filing apparatus in accordance with the invention may be used either by itself, as for example, on top of a desk, or inside of boxes, trays, or drawers of filing cabinets.

The principal object of the invention is to provide filing apparatus of the character above outlined which is simple in construction, inexpensive to manufacture, and which may be used in a highly versatile manner for the purpose for which it is intended. Another important feature of the invention resides in a structural arrangement of the apparatus which enables it to be packed and shipped in a relatively flat, compact form, and easily erected by a seller, purchaser or user when so desired.

Other objects and features of the invention will become apparent from the following description taken in conjunction with the accompanying drawings, wherein like characters of reference are used to designate like parts, and wherein:

FIGURE 1 is a top plan view showing one embodiment of the filing apparatus in its relatively flat condition;

FIGURE 2 is a side elevational view thereof;

FIGURE 3 is a side elevational view showing the apparatus erected;

FIGURE 4 is an enlarged fragmentary sectional detail, taken substantially in the plane of the line 4-4 in FIGURE 1;

FIGURE 5 is a fragmentary perspective view showing twisting of one of the wickets during its erection;

FIGURE 6 is a fragmentary perspective view of the erected apparatus of FIGURE 3 wherein the base thereof is equipped with a handle and the wickets are provided with jackets;

FIGURE 7 is a top plan view showing a modified embodiment of the apparatus in a flat condition;

FIGURE 8 is a side elevational view of the apparatus shown in FIGURE 7;

FIGURE 9 is a perspective view of the apparatus of FIGURES 7 and 8 in its erected condition;

FIGURE 10 is a perspective view of a separator such as may be used with the embodiments of FIGURES 1-9;

FIGURE 11 is a top plan view of the separator of FIGURE 10;

FIGURE 12 is a perspective view of another type of separator;

FIGURE 13 is a top plan view of the separator of FIGURE 12;

FIGURE 14 is a side elevational view of the apparatus of FIGURE 9 shown by full lines, with dotted lines showing the separators of FIGURES 10 and 12 applied thereto;

FIGURE 15 is a side elevational view illustrating how several of the devices of FIGURE 9 may be assembled together;

FIGURE 16 is a perspective view showing another type of separator;

FIGURE 17 is a top plan view of the separator of FIGURE 16;

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FIGURE 18 is a perspective view of another type of separator;

FIGURE 19 is an enlarged fragmentary sectional view, taken substantially in the plane of the line 19-19 in FIGURE 18;

FIGURE 20 is a fragmentary, enlarged sectional view showing a separator provided with means for locking the same to the base;

FIGURE 21 is a fragmentary sectional view further showing the separator locking means of FIGURE 20;

FIGURE 22 is a fragmentary sectional view showing a modified form of the separator locking means;

FIGURE 23 is a fragmentary sectional view, taken substantially in the plane of the line 23-23 in FIGURE 22;

FIGURE 24 is a fragmentary top plan view showing the provision of a supporting foot or pad on the base;

FIGURE 25 is a fragmentary sectional view, taken substantially in the plane of the line 25-25 in FIGURE 24;

FIGURE 26 is an elevational view of a tool such as may be used for erecting the wickets;

FIGURE 27 is a sectional view, taken substantially in the plane of the line 27-27 in FIGURE 26; and

FIGURE 28 is a sectional view, similar to that in FIGURE 27, but illustrating a modified form of the tool.

Referring now to the accompanying drawings in detail, reference is first drawn to FIGURES 1-5 which illustrate filing apparatus in the form of a filing unit designated generally by the numeral 10. The unit 10 comprises an elongated rectangular base plate 11, having sets of wickets 12, 13, 14 secured thereto as hereinafter explained. The wickets 12, 13, 14 are formed from wire rod which is angulated so that each wicket is in the form of an open, rectangular frame, one side of which is welded or otherwise similarly secured to the base plate 11, a substantial distance from the bend in the wire, as indicated at 15. The ends of the rod forming the wicket are preferably brought into abutment intermediate that side of the wicket which is secured to the base plate, whereby the abutting ends of the wire may be held together by the welding 15, as will be readily understood.

For illustrative purposes, the side of each wicket which is secured to the base plate 11 may be designated by the numeral 16, while the two sides adjacent the side 16 are designated by the numeral 17. It will be noted that the side 16 is disposed transversely of the base plate, and in all instances the welds 15 which secure the side 16 to the base plate are spaced substantially inwardly from the sides 17 so that end portions 18 of the side 16 between the welds 15 and the sides 17 remain unsecured and may be axially twisted, as hereinafter explained.

For compact packing and shipment, the unit 10 is manufactured so that the wickets 12, 13, 14 lie substantially flat on one another and on the base plate, as shown in FIGURE 2. However, when the unit is to be placed in use, the wickets are erected by turning the same upwardly from their flat lying position to a perpendicular position on the base plate as shown in FIGURE 3. During this upward turning of the wickets, the unsecured end portions 18 of the base side 16 of each wicket will be axially twisted as indicated at 19 in FIGURE 5, and will so remain after the wickets have been erected to their perpendicular position. Upon erection of the wickets, the unit 10 may be used either by itself on a desk top, or the like, or in a tray, box or drawer of a filing cabinet, for receiving and holding various papers in the spaces between the erected wickets, thus retaining such papers in a neatly arranged and readily accessible manner. Thus, the unit 10 assumes the nature of a paper holder, divider, or organizer, of a simple and inexpensive construction.

As will be apparent, when the wickets 12, 13, 14 are

in their flat lying form, they overlap one another and project longitudinally outwardly beyond the ends of the base plate 11. In order to enable the wickets to lie as flatly as possible, they preferably are of different widths, so that their sides 17 are laterally staggered. In such an arrangement, the wickets 12, 13, 14 may be progressively wider as shown, or they may be progressively narrower. Alternatively, the wickets may be of the same width, although in the last-mentioned instance they will not lie as flatly and the overall height or thickness of the unit prior to erection will be somewhat greater than when wickets of different widths are utilized. The outermost wickets 12 are preferably secured close to the ends of the base plate 11 so that in their flat lying form they are depressed to within the thickness of the base plate as indicated in FIGURES 3 and 4 for optimum compactness. The sides 17 of some of the wickets may be disposed inwardly of the side edges of the base plate while the sides of others are disposed outwardly of the base plate side edges, but in either event the welds 15 are spaced inwardly on the sides 16 from the sides 17, to provide the aforementioned twistable portions 18.

The wickets may be turned by hand from their flat lying to their erected positions, or a special tool or implement shown in FIGURES 26, 27 may be used for that purpose. The implement designated generally by the numeral 20 comprises a relatively thin, hollow body 21 of a substantially rectangular form, which is equipped with a suitable handle 22 and is provided with an open side 23 so that it may be slipped over a wicket and conveniently manipulated to bend the wicket from its flat lying to its erected position. It will be apparent that by the use of the tool, the wicket erecting operation will be performed more easily and uniformly than when done by hand. The open side 23 of the body 21 may be recessed as at 24 to provide clearance for the base plate 11. In the modified embodiment of the tool shown in FIGURE 28, the tool body 21a is simply in the form of a flat plate provided at its opposite side edges with inturned flanges 25 which are spaced away from the plate 21a to receive the wicket therebetween.

Referring again to FIGURES 1-5, it will be noted that the base plate 11 is provided with a plurality of transverse slots 26 which are disposed between the wickets 12, 13, 14, the purpose of which will be hereinafter described.

FIGURE 6 illustrates a portion of the erected unit 10 which is the same as disclosed in FIGURES 1-5 but has the ends of its base plate 11 equipped with wire handles 27 for convenient lifting and carrying of the unit. The handles 27 are coplanar with the base plate 11 and are secured thereto by welding, or the like, 28. In addition, suitable jackets or paper envelopes 29 may be placed in an inverted position over the wickets as shown. Such jackets or envelopes serve to cover the open wicket frames to more physically separate the paper holding spaces between the wickets from one another. In addition, suitable indicia, exemplified at 29', may be provided on the jackets 29 to identify the contents or papers in the various spaces of the file unit.

FIGURES 7-9 illustrate a modified embodiment of the file unit which is designated generally by the numeral 30 and, like the file unit 10, consists of a base plate 31 provided with erectable wickets 13 and transverse slots 26. In this instance the base plate 31 is provided at its ends with coplanar extensions 32 which may be turned upwardly along the bend lines 33 so as to constitute the end walls of the file unit, in substitution for the wickets 12 of the unit 10. The plate extensions 32 are formed with openings 34, providing hand holds for lifting and carrying the unit.

Attention is now directed to FIGURE 15 which illustrates how two or more of the units 30 may be assembled together to gain a larger capacity than is afforded by a single unit. Here, one upturned extension 32 of one

unit 30 is passed upwardly through one of the slots 26 in the base plate of another unit 30a, and the extension 32 and one of the wickets 13 of still another unit 30b are passed upwardly through the slots of the unit 30, so that the units 30a, 30, 30b are in alignment and have their base plates overlapped, as shown. Additional units (not shown) may of course be attached to the units 30a and 30b, if so desired, and it may be also noted that the units 10 may be connected together in series, in the same manner as described in connection with the units 30.

FIGURES 10 and 11 illustrate a separator 35 consisting of a vertical plate 36 which is provided at its lower edge with flanges 37 angulated to opposite sides of the plate. FIGURES 12 and 13 show a modified separator 38 consisting of a U-shaped plate having a pair of spaced upright plate members 39 and a connecting base portion 40. Feet or pads 41, corresponding to the flanges 37 of the separator 35, are struck out from the plate members 39 and disposed in coplanar relation with the base portion 40 to assist in supporting the separator in an upright position. The separator 35 may be looked upon as a single separator and the separator 38 as a double separator, and such separators may be used selectively in conjunction with the file units 10 or 30 when it is desired to divide the file units into narrower spaces than are provided between the wickets 12, 13, 14, 32. This is exemplified in FIGURE 14 which shows the separators 35 and 38 applied to the unit 30 by passing the plates 36 and 39 upwardly through selected slots 26 in the base plate of the unit, with the flanges 37, 41 and the base portion 40 underlying the base plate, as shown.

FIGURES 16 and 17 show a modified form of the single separator 35, the modified form being designated 42 and formed from wire rod which is angulated to provide an open frame 43 with a base portion 44 reversely bent in a zig-zag manner to opposite sides of the frame, whereby to support the same in an upright position. The ends of the wire rod are overlapped and welded together, as at 45.

FIGURES 18 and 19 illustrate a double separator 46 which is a modification of the separator 38 and comprises a pair of spaced, inverted U-shaped frames 47, 48 which are provided at their lower ends with horizontally angulated base portions 49, 50, respectively. The base portions 49, 50 extend in relatively opposite directions and have intermediate portions thereof juxtaposed and secured together by welding 51. When the frame 43 of the separator 42 or the frames 47, 48 of the separator 46 are passed upwardly through the slots 26 of the file unit 10 or 30, the base portions 44 and 49, 50 underlie the base plate of the file unit, as already explained in connection with the separators 35 and 38.

The side portions of the separator frame 43 adjacent the base portion 44 may be provided in their outer surfaces with grooves or notches 52 to lockingly engage the base plate 31 at the ends of the slot 26 in which the separator is inserted, as shown in FIGURE 20. The zig-zag configuration of the base portion 44 permits the lower end portions of the sides of the frame 43 to be pressed toward each other for insertion through the slot 26, whereupon these lower end portions of the frame sides snap resiliently outwardly to lockingly engage the plate 31 at the ends of the slot 26 in the notches 52 and thereby hold the separator assembled to the file unit even when the latter is lifted off its supporting surface. FIGURE 21 shows a similar locking arrangement wherein the notches 52 are provided in outside surfaces of the frame 47 of the double separator 46, while FIGURES 22 and 23 show a modified locking arrangement which is applicable to the separator 42 as well as to the separator 46.

In the modified locking arrangement the notches 52 are not present, but keeper lugs 53 are secured to the outer surfaces of the separator frames, for example, the frame 43. The lugs 53 rest on top of the base plate 31 after the sides of the frame have been drawn together and

then permitted to snap outwardly, and with the base portion 44 of the separator frame underlying the base plate 31, the separator is positively locked in place. As already noted, the locking lugs 53 may be used on the frame 43 of the single separator 42 or on the frame 47 of the double separator 46, and both the locking means 52 and the means 53 may be used in conjunction with the base plate 11 of the unit 10 or the base plate 31 of the unit 30.

As illustrated in FIGURES 24 and 25, the corner portions of the base plate 31 (as well as the plate 11) may be provided with keyhole slots 54 to receive reduced neck portions 55 of rubber grommets 56, with the base portions 57 of the grommets being disposed below the base plate to provide cushioned supporting feet or pads therefor.

While in the foregoing there have been described and shown the preferred embodiments of the invention, various modifications may become apparent to those skilled in the art to which the invention relates. Accordingly, it is not desired to limit the invention to this disclosure and various modifications and equivalents may be resorted to, falling within the spirit and scope of the invention as claimed.

What is claimed as new is:

1. In a filing unit, the combination of a base plate, a divider comprising an open wire frame including a base and a pair of sides, and means rigidly securing the base of said frame to said base plate, said frame initially lying in a substantially flat position on the base plate, said securing means of the base of said frame being spaced from the sides of the frame whereby portions of the frame base between the frame sides and the securing means are unsecured and twistable to permit movement of the frame from a lying position to an upstanding position on said base plate.

2. The device as defined in claim 1 wherein said base plate is provided adjacent said divider with a slot, and an upstanding separator removably inserted in said slot and disposed in spaced parallel relation to said divider.

3. The device as defined in claim 2 wherein said separator includes a base portion underlying said base plate.

4. The device as defined in claim 2 together with means provided on sides of said separator for releasably locking said separator in said slot.

5. In filing unit, the combination of a plurality of units each including a base plate provided with slots and upstanding dividers on said base plate, the base plates of said units being overlapped and the divider of one unit projecting upwardly through a slot in the base plate of another unit whereby to separably connect the units together.

6. A filing unit comprising a base plate, and a plurality of dividers provided on said base plate, said dividers comprising open wire frames each including a base and a pair of sides, the bases of said frames being rigidly secured in spaced parallel relation with one another to said base plate, said frames and the base plate initially lying in a substantially flat position with the frames superposed in overlapping relation but the frames being twistably deformable whereby they may be moved into spaced upstanding positions perpendicular to the base plate.

7. A filing unit comprising a base plate, a plurality of dividers rigidly fixed to said base plate, said dividers and said base plate initially lying in a substantially flat position but the dividers having twistably deformable portions whereby they are movable into spaced upstanding positions perpendicular to the base plate, said base plate being provided with slots between said dividers, and separators removably positioned through said slots between the dividers.

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