

March 20, 1934.

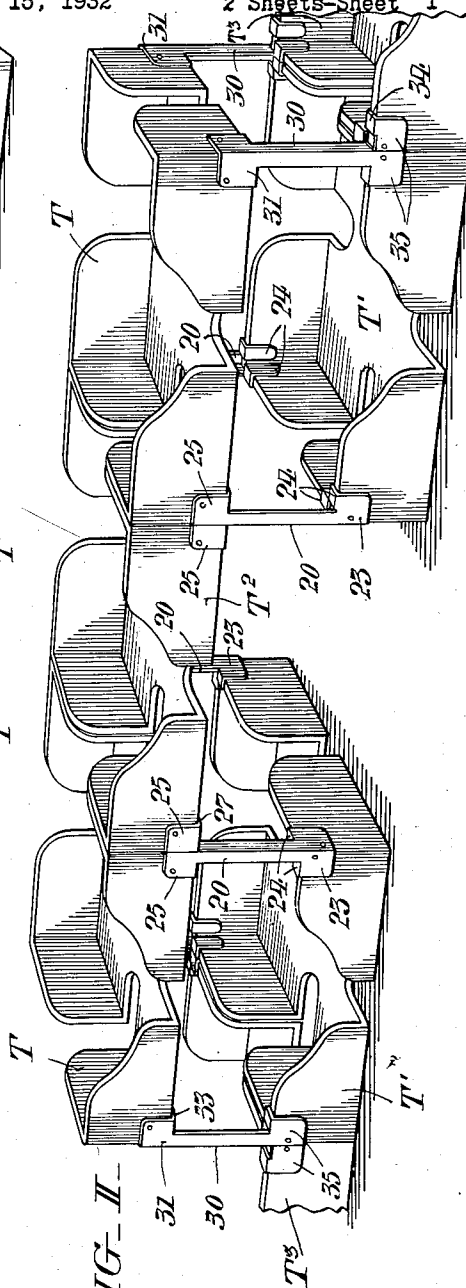
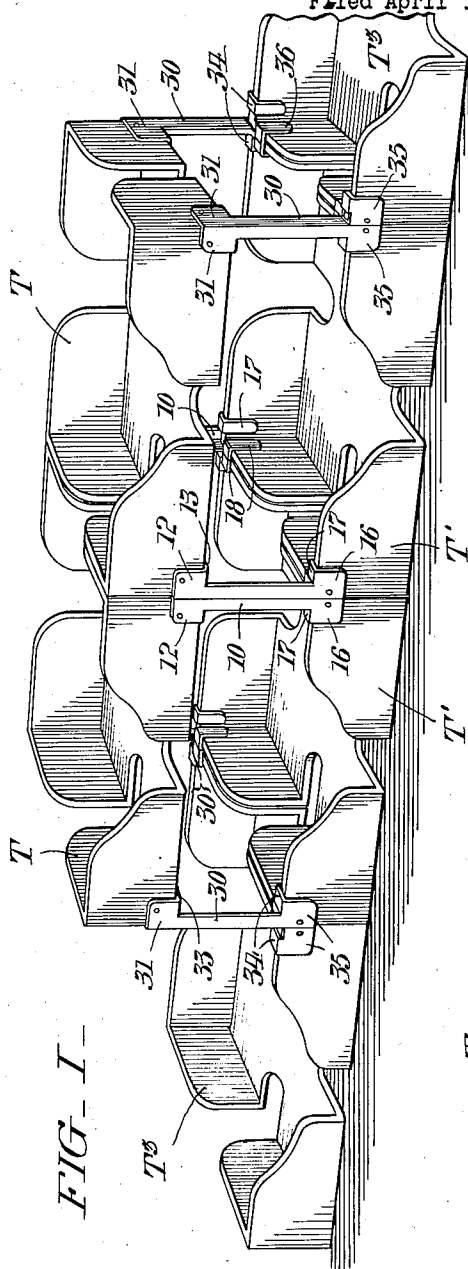
A. FRASER

1,951,972

ADAPTER FOR TRAYS AND THE LIKE

Filed April 15, 1932

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

FIG. III

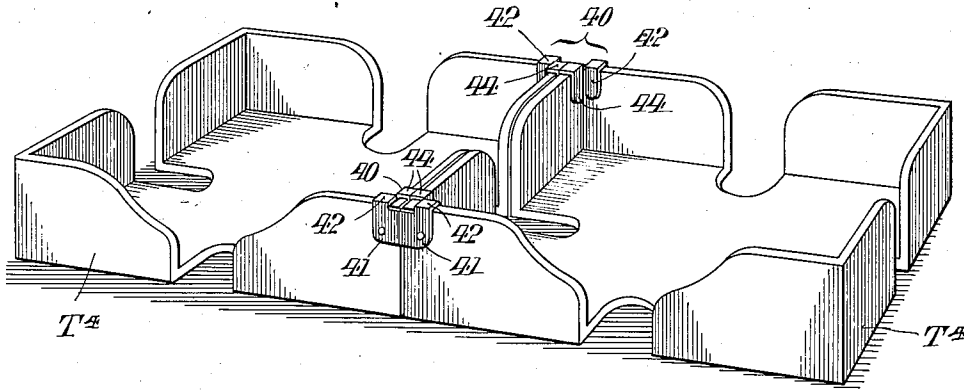


FIG. IV

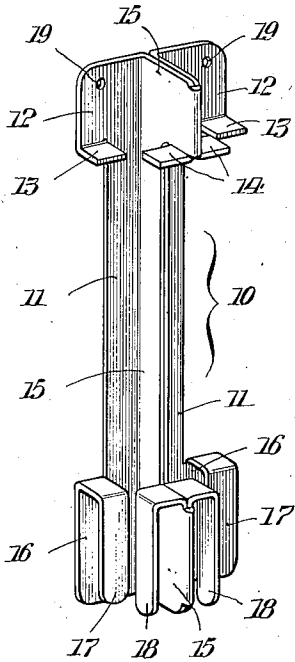


FIG. V

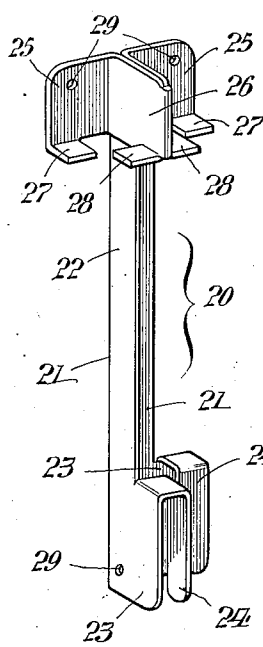


FIG. VI

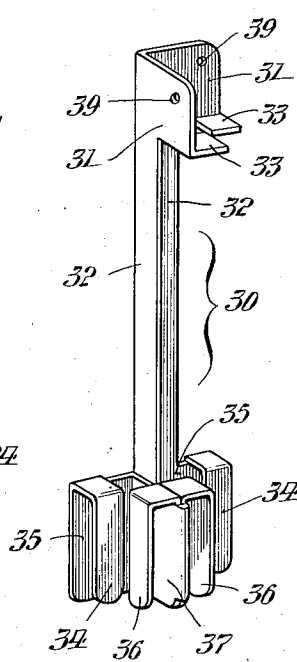
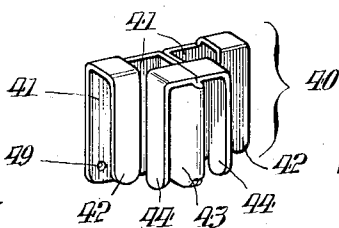


FIG. VII



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1,951,972

ADAPTER FOR TRAYS AND THE LIKE

Allan Fraser, Philadelphia, Pa.

Application April 15, 1932, Serial No. 605,479

15 Claims. (Cl. 220-97)

This invention relates to means which for convenience I term "adapters" useful more particularly in connection with letter trays; and it is directed toward enabling variant grouping of such trays in combinations of superposed and horizontal serial relations, to suit different requirements of office practice for convenience in classifying letters, pamphlets, record sheets, etc.

The foregoing desideratum I secure as herein after fully explained, through provision of corner-engaging adapters which can be very economically fabricated from metal or other suitably stiff materials, and which are easy of application to and removal from the trays incident to combining them in the various relations mentioned. As hereinafter shown, these adapters have clip means and angle pockets conformed and arranged to engage the walls and corners of the associated trays in various arrangements of the latter.

In the drawings, Figs. I, II and III show letter trays differently arranged by means of the adapters of my invention; while

Figs. IV, V, VI and VII, show the different types of adapters whereby I am enabled to interconnect and arrange a multiplicity of trays as shown in Figs. I, II and III.

The adapters illustrated in Figs. IV-VII are all preferably fashioned by die stamping and bending operations from sheet metal, although they may be forged or cast, or fabricated from material other than metal if desired or found more convenient. The adapter designated by the numeral 10 in Fig. IV is in the form of a post fashioned to T cross section by doubling and bending of an appropriately configured pre-shaped blank. At the top, the side flanges 11, 11 of the adapter 10 are widened as at 12, 12 and formed with inwardly projecting lugs 13, 13, which, in conjunction with outwardly directed lugs 14, 14 of the doubled center web 15, constitute pockets for the support of the contiguous corners of a pair of serially-arranged or adjacent upper trays T, as shown in Fig. II. The center web 15 and the widened portions 16, 16 of the side flanges 11, 11 at the bottom end of the adapter 10 provide tongues 17, 17 to lap over the aligned or abutting sides of a pair of serially-arranged or adjacent lower trays T' as shown in Fig. I; while outwardly and downwardly bent tongues 18, 18 are provided by or on the double center web 15 at the lower end to engage over the adjacent or parallel sides of the two lower trays T', with the center web 15 engaged between the said adjacent tray sides.

The adapter 20 of Fig. V is for the most part of right angle cross section, and has its side flanges 21, 21 broadened at the lower end of a narrow angle section post portion 22 as at 23, 23 and provided with inwardly and downwardly bent tongues 24, 24. The upper portion of the adapter 20 is formed similar to the upper portion of the adapter 10, that is to say, it is of T section with lateral flanges 25, 25 to opposite sides of a doubled center web 26, and with lugs 27, 27 and 28, 28 projecting inwardly and outwardly and respectively from the lateral flanges 25, 25 and the center web 26 to constitute corner sockets for supporting a pair of contiguous upper trays. Adapters of the type 20 of Fig. V are made as rights and lefts, and are intended to be used as shown in Fig. II to support an upper bridging tray T² between two pairs of superposed trays T, T'. With the organization shown in Fig. II resting on a desk, for example, the space under the bridging tray T² may be utilized for an ink stand and other desk accessories.

The adapter 30 of Fig. VI has its upper part constructed with the widened portions 31, 31 of its side flanges 32, 32 affording inwardly directed tongues 33, 33 to constitute a single socket for the support of a corner of an upper tray. The lower portion of the adapter 30 is constructed like the lower portion of the adapter 10 of Fig. IV, that is to say: it is formed with tongues 34, 34 inwardly and downwardly bent from the widened portions 35, 35 of the side flanges 32, 32, and with like tongues 36, 36 inwardly and downwardly bent from the doubled center web portion 37. Adapters of the type 30 of Fig. VI are made, like the adapters 20 of Fig. V, as rights and lefts, and are intended for use, as shown in Figs. I and II, to connect additional lower trays T³, T³ in serial relation with or adjacent to the lower trays T', and to support the outer corners of the upper trays T.

The adapter 40 of Fig. VII is in the form of a clip which resembles the lower portions of the adapters 10 and 30, it being made to T cross section by doubling and bending of a pre-shaped metal blank, and formed on its side flanges 41, 41 with inwardly and downwardly projecting tongues 42, 42 and on its doubled medial flange 43 with similar outwardly and downwardly bent tongues 44, 44. Adapters of the type 40 of Fig. VII are intended to serve as connecting means for a pair of trays T⁴, arranged adjacent one another or in horizontal serial relation as shown in Fig. III, with the tongues 42, 42 engaging the aligned or abutting sides of the trays T⁴, and the

tongues 44, 44 engaging over the adjacent side walls of said trays.

By proper selection amongst the various types of my improved adapters, it is obviously possible to combine a multiplicity of trays in many other ways than herein shown by way of example, in accordance with the space available for their accommodation and to suit any particular requirements of indexing, filing or systematizing in connection with office procedure and management. The facility with which the adapters can be applied and removed is highly advantageous in that it renders assembling and re-arranging of the trays a very simple and easy matter.

In order that the combinations may be made permanent, if desired, the several adapters 10, 20, 30 and 40 are respectively provided with apertures 19, 29, 39 and 49 as shown in Figs. IV-VII for passage of nails or screws into the trays.

It is to be understood that the adapters of my invention may be ornamentally configured in various ways without departing from the spirit of my invention as defined in the appended claims.

Having thus described my invention, I claim:

1. The combination of a pair of adjacent letter trays, and corner-engaging adapters having inward and downward extending tongues engaged over and embracing both the abutting and the adjacent side walls at their contiguous corners.

2. The combination of two pairs of superposed trays with adapters engaging corresponding corners of the various trays and supporting the upper ones from the lower, and a tray bridged between the upper trays of said pairs and supported by the corresponding adapters.

3. A tray adapter in the form of a post with clip means at its lower end conformed and arranged to engage over and embrace the adjacent side walls at contiguous corners of a pair of adjacent lower trays, and with upward open angle pockets at its upper end conformed and arranged to receive separately contiguous corners of a pair of adjacent upper trays.

4. As a new article of manufacture, a letter tray adapter in the form of a T section post fashioned from sheet metal with inwardly and downwardly bent clip tongues at its bottom integrally formed from the lateral and center flanges of the post and adapted to engage over the abutting and the adjacent side walls at contiguous corners of a pair of adjacent lower trays; and tongues bent inwardly from the lateral and center flanges of the post at the top to form, in conjunction with the side flanges, a pair of pockets to receive and support the contiguous corners of a pair of adjacent upper trays.

5. As a new article of manufacture, a letter tray adapter in the form of a narrow T section metallic post with its lateral flanges broadened at the bottom and affording inwardly and downwardly bent tongues, which, in conjunction with similar tongues on the central flange of the post, jointly constitute a clip means to engage over the abutting and the adjacent side walls at contiguous corners of a pair of adjacent lower trays; the lateral flanges of the post being also broadened at the top and formed with inwardly projecting lugs, which, in conjunction with similar lugs on the central web of the post, constitute a pair of pockets to receive and support the contiguous corners of a pair of adjacent upper trays.

6. A tray adapter in the form of a post with clip means at its lower end conformed and arranged to engage over and embrace the meeting side walls at a corner of a lower tray, and with

upward open angle pockets at its upper end conformed and arranged to receive separately contiguous corners of a superposed upper tray and of another, adjacent upper tray.

7. As a new article of manufacture, a letter tray adapter in the form of a post fashioned from sheet metal, the lower part of the post being of angle section with inwardly and downwardly bent clip tongues integrally formed from the side flanges at the bottom and adapted to engage over adjacent side walls at the corner of a lower tray; and the upper end of the post being of T cross section with lugs bent inwardly respectively from its lateral and center flanges with formation of a pair of pockets, one to receive and support a corner of a superposed upper tray, and the other to receive and support the contiguous corner of another tray adjacent the said superposed upper tray.

8. As a new article of manufacture, a letter tray adapter in the form of a post fashioned from sheet metal, the greater part of the post being of angle section with the side flanges broadened at the bottom end and affording inwardly and downwardly bent clip tongues to fit over adjacent side walls at a corner of a lower tray; and the top end of the post being of T cross section with lateral flanges corresponding in width to the broadened portions of the side flanges at the lower end and having inwardly bent lugs constituting, in conjunction with similar lugs of the center web of said top end, a pair of pockets, one to receive and support a corner of a superposed upper tray, and the other to receive and support the contiguous corner of another tray adjacent said superposed upper tray.

9. A tray adapter in the form of a post with clip means at its lower end conformed and arranged to engage over and embrace separately the aligned or abutting side walls at contiguous corners of a pair of adjacent lower trays, and with an upward open angle pocket at its upper end conformed and arranged to engage around an upright corner of a tray superposed over one of the aforesaid contiguous lower trays.

10. As a new article of manufacture, a letter tray adapter in the form of a post whereof the lower end is of T section with inwardly and downwardly projecting tongues respectively on its lateral and center flanges to engage over the abutting and the adjacent side walls at contiguous corners of a pair of adjacent lower trays, the remainder of the post being of angle section and having lugs projecting inwardly from its side flanges at the top, which in conjunction with said side flanges constitute a pocket to receive and support a corner of a tray in superposed relation to one of the trays aforesaid.

11. As a new article of manufacture, a letter tray adapter in the form of a post having its lower end formed to T section with comparatively broad lateral flanges and inward and downward tongues projecting from the said lateral flanges and the center web to engage over the abutting and the adjacent side walls of the contiguous corners of a pair of adjacent lower trays, the medial portion of the post being of narrower angle section, and the side flanges being broadened at the upper end of the post to correspond in width to the lateral flanges at the lower end and formed with inwardly projecting tongues which, in conjunction with said side flanges, constitute a pocket to receive and support a corner of a tray superposed above one of the two trays aforesaid.

12. As a new article of manufacture, a tray adapter in the form of a clip with inward and downward tongues adapted to engage over and embrace adjacent side walls at contiguous corners of a pair of adjacent trays.

with tongues extending inwardly and downwardly from its lateral flanges and also from opposite sides of its central flange to engage over the abutting and the adjacent side walls of a pair of adjacent trays.

13. As a new article of manufacture, a tray adapter in the form of a clip with inward and downward extending tongues adapted to engage over and embrace both the abutting and the adjacent side walls at contiguous corners of a pair of adjacent trays.

15. As a new article of manufacture, a tray adapted in the form of a clip fashioned to T cross section from sheet metal, with tongues extending inwardly and downwardly from its lateral flanges and also from the opposite sides of its central flange to engage over the abutting and the adjacent side walls of a pair of adjacent trays.

14. As a new article of manufacture, a tray adapter in the form of a clip of T cross section

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10	85
15	90
20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145