Aug. 12, 1930. W. F. RICHARDSON 1,772,497

TRAY STRUCTURE FOR WALL SHELVING

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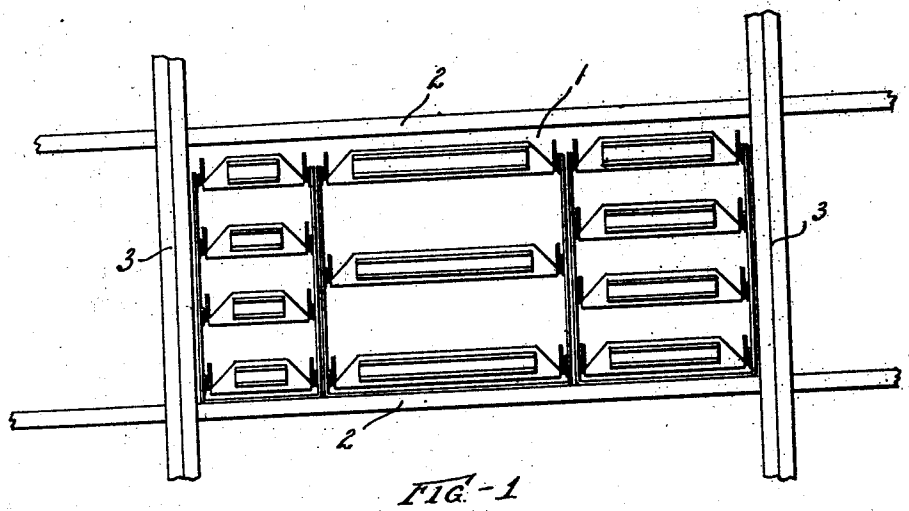


FIG. 1

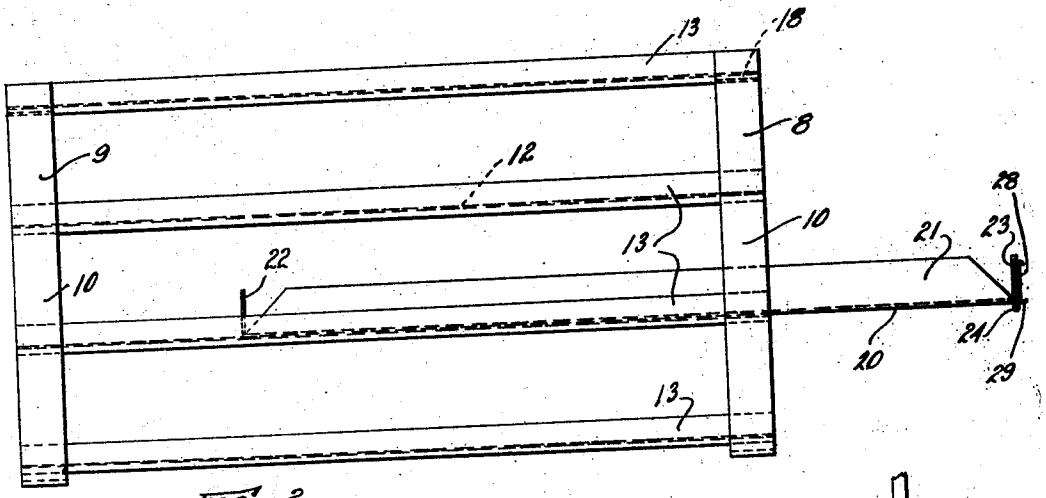


FIG. 2

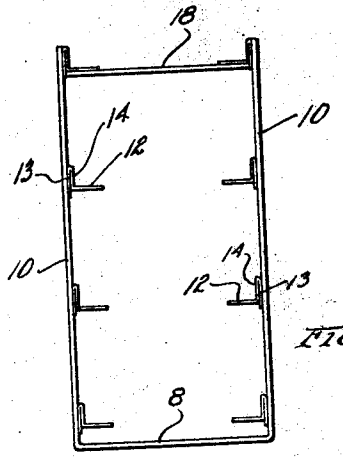


FIG. 3

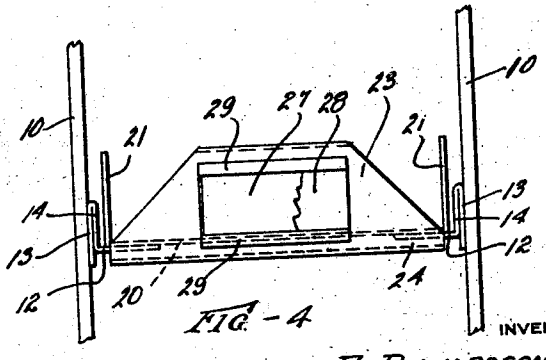


FIG. 4

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UNITED STATES PATENT OFFICE

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TRAY STRUCTURE FOR WALL SHELVING

Application filed December 31, 1928. Serial No. 329,480.

This invention relates to improvements in removable tray structures for metal shelving and more particularly, for shelving suitable for use in store rooms, such as the store rooms of railway shops where storage space is required for large quantities of both large and small articles.

The general object of the present invention is the provision of improved removable tray structures for metal shelving, the trays of some structures being of greater width than the trays of other structures, with greater or less space between trays, said structures being of simple and inexpensive construction so that they can be made and sold at low cost, and comprising a minimum number of easily assembled parts.

Further objects of the invention are in part obvious and in part will appear more in detail hereinafter.

In the drawing, Fig. 1 is a front elevation of a storage compartment containing three of the present improved tray structures; Fig. 2 is a side elevation of a removed tray structure, with one of the trays thereof partially withdrawn; Fig. 3 is a front elevation of the frame of a tray structure, the trays having been removed; and Fig. 4 is an enlarged front elevation of a portion of a tray structure showing one tray.

Referring to the drawing, 1 represents a storage compartment formed by the spaced horizontal shelf members 2 and the spaced vertical partition members 3, said compartment being of generally rectangular shape in both its transverse and longitudinal dimensions. In many places, such as in the store rooms of railway shops, storage space is required for large quantities of many small articles and obviously it is impractical, to keep them in assorted and properly spaced condition, to assign one of these comparatively large compartments to each lot of articles.

The present applicant has therefore provided tray structures for such storage compartments, each such structure including a suitable frame and a series of vertically aligned trays, in which may be placed, in assorted condition, quantities of many small articles. The trays of some structures are wider than those of other structures, with greater or less spacing between trays, so that different sized articles may be stored therein. Except for varying widths and spacing of trays these tray structures are alike, so that a description of one will suffice in most respects for a description for all.

Each tray structure includes a suitable frame having a U-shaped front member 8, a U-shaped rear member 9 identical therewith and a plurality of longitudinally extending tray-supporting members arranged in pairs and secured at various heights to the upright arms 10 of said front and rear frame members. Each such member includes a horizontally disposed tray-supporting portion 12, a vertically disposed portion 13 adapted to be welded or otherwise suitably secured to the inner surface of one of the frame arms 10 and a vertically disposed portion 14 connecting the upper end of the securing portion 13 to the outer end of the tray-supporting portion 12, the vertically disposed portions 13 and 14 lying in longitudinal abutting engagement. In order to insure the maintenance of the upper ends of the arms 10 of the front and rear frame members 8 and 9 in proper spaced relation, the front and rear ends of the tray-supporting portions 12 of the top pair of tray-supporting members are connected by cross members 18, as clearly indicated in Fig. 3, said cross members being secured to the lower surfaces of said portions. In the embodiment of the invention illustrated in Figs. 2 and 3, four pairs of tray-supporting members are provided, and in the middle tray structure shown in Fig. 1, there are only three pairs, so that there is more space between the trays

of this structure than between the two end structures shown in Fig. 1.

The trays are all alike except that some are of greater width than others. Each is in one piece and includes a bottom portion 20, upwardly extending side portions 21, an upwardly extending rear end portion 22, and an upwardly extending front end portion 23, said side and end portions having beveled ends in the present illustration, though such is, of course, not necessary. The bottom part of the front end portion 23 terminates below the bottom portion 20, to which it is connected by the upwardly extending portion 24, said portion 24 forming a stop or abutment to limit rearward movement of the trays along the tray-supporting portions 12. This feature is especially desirable where the frames of the tray structures are of less length than the depth of the storage compartments in which they are used. Preferably, and as shown, the front end portion 23 of each tray is provided on its front surface with suitable means to receive a card 27 identifying the contents of the tray. The means here shown is a member 28 having top and bottom card confining flanges 29.

The three tray structures shown in Fig. 1 are of different widths but of the same height and length. The middle structure, containing three trays is the widest, say 8″; the structure at the left, containing four trays, is the narrowest, say 4″; and the structure at the right, containing four trays, is of intermediate width, say 6″. With these three tray structures, separate storage space is provided in compartment 1 for eleven lots of articles. Due to the fact that the middle tray structure of Fig. 1 contains only three trays, there is more space above the lower two trays of this structure than above the trays of the other structure shown in Fig. 1. As a consequence, the lower two trays of the middle structure can receive larger or higher articles.

The two end portions of the tray structure frame are absolutely alike so that either end can be used as the front end. No special care need therefore be given to the manner of inserting the frame structure within a storage compartment.

Other advantages and features of the invention will be apparent to those skilled in the art.

What I claim is:

A removable tray structure for a storage compartment of wall shelving, comprising a frame and a series of trays slidably mounted therein, said frame comprising front and rear U-shaped members, the vertically disposed portions of said front member being connected to the corresponding portions of said rear member by vertically spaced pairs of tray supporting members of generally right angle form, each of said trays being a one piece member having a bottom portion, upright side portions, an upright rear end portion and an upright front end portion, said front end portion having a depending extension extending from the top of said front end portion to a point below said bottom portion whereby an abutment is formed at the front of said tray and rearward sliding movement thereof is limited.

In testimony whereof I hereby affix my signature.

WILLIAM F. RICHARDSON.