Jan. 2, 1945. C. ROSENTHAL 2,366,677

SHELF STRUCTURE

Filed Jan. 18, 1944 3 Sheets-Sheet 1

Fig. 1.

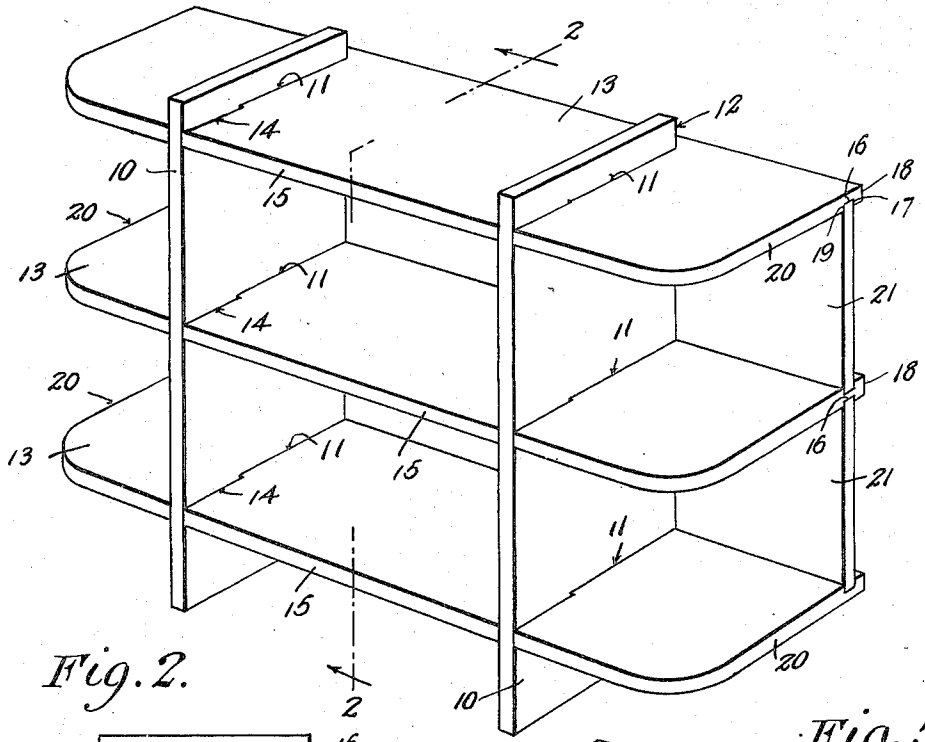


Fig. 2.

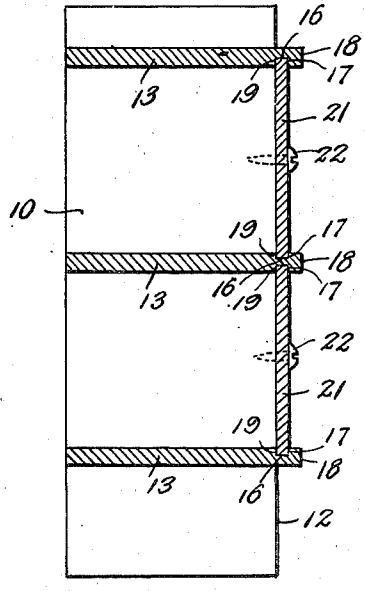
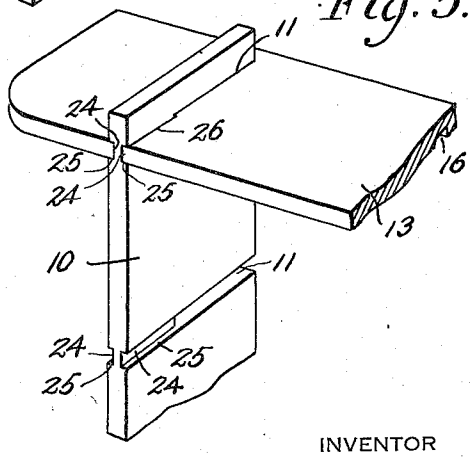


Fig. 5.



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Jan. 2, 1945. C. ROSENTHAL 2,366,677

SHELF STRUCTURE

Filed Jan. 18, 1944 3 Sheets-Sheet 2

Fig. 3.

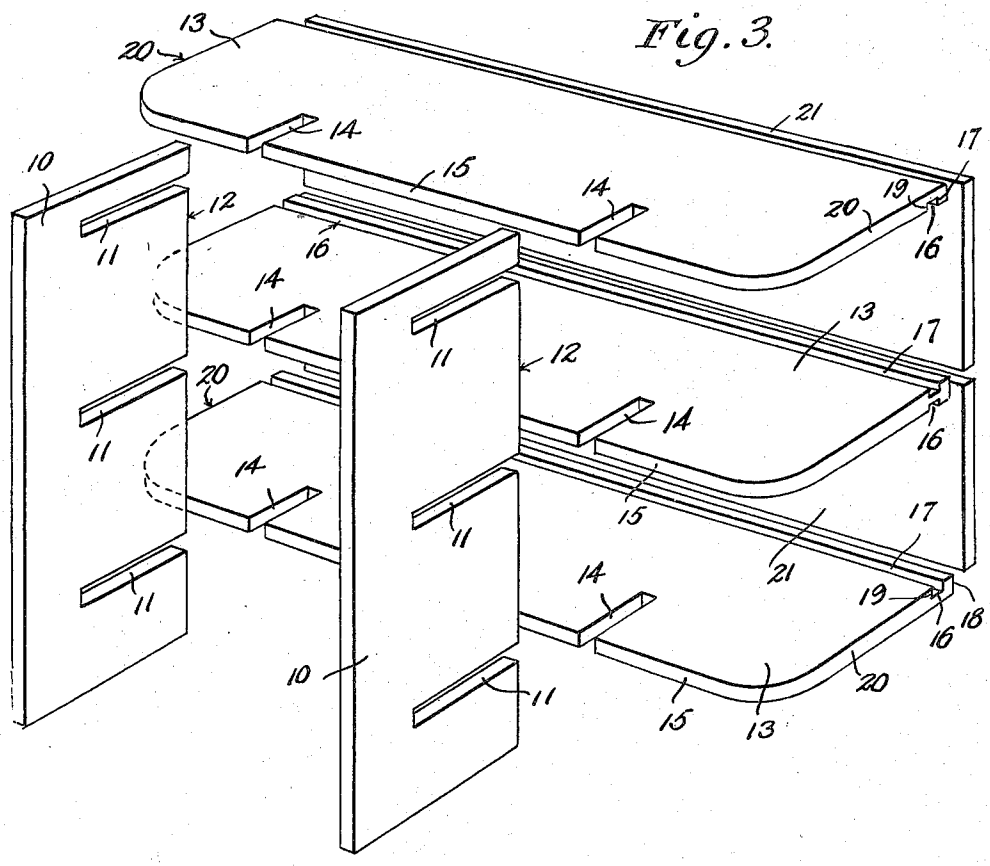
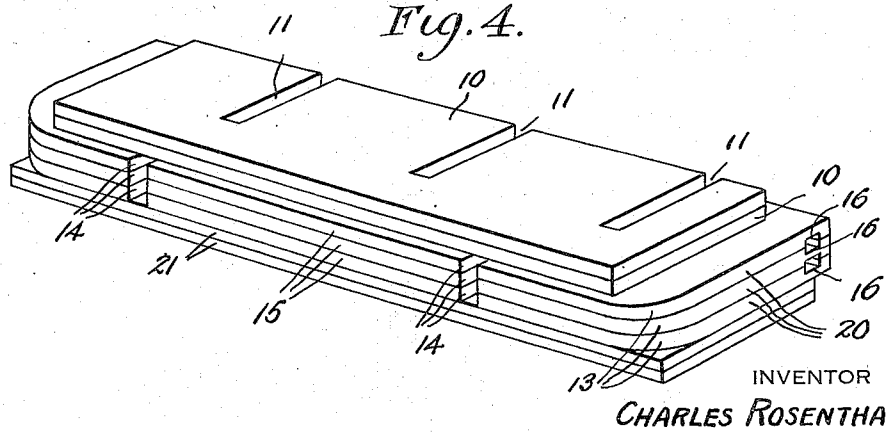


Fig. 4.



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Jan. 2, 1945. C. ROSENTHAL 2,366,677

SHELF STRUCTURE

Filed Jan. 18, 1944 3 Sheets-Sheet 3

Fig. 6.

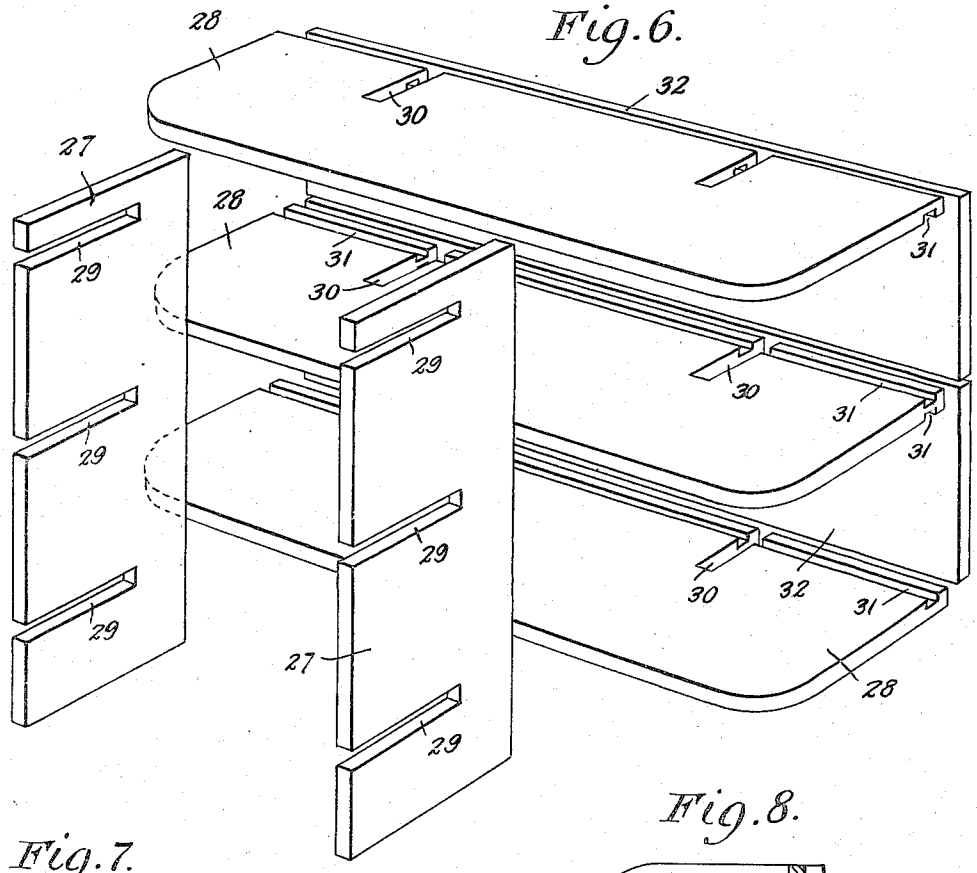


Fig. 7.

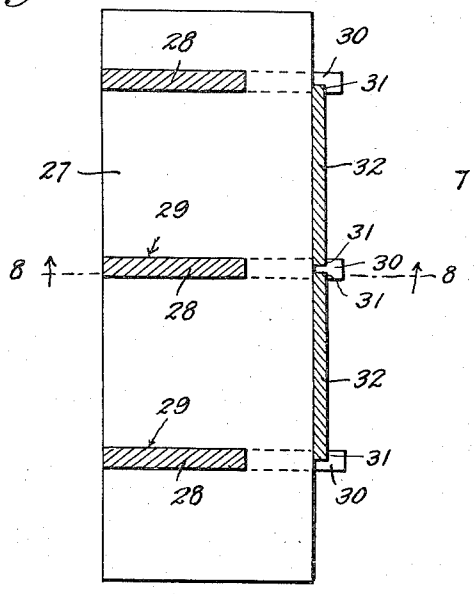
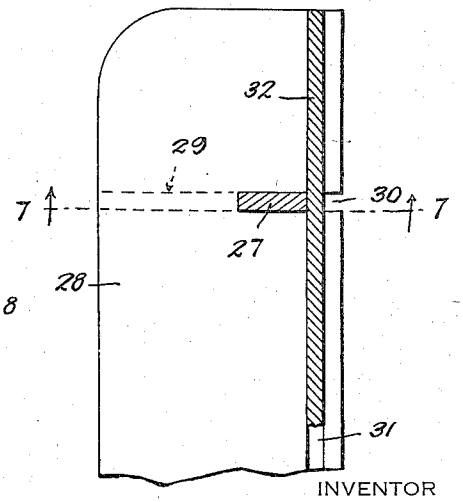


Fig. 8.



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UNITED STATES PATENT OFFICE

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SHELF STRUCTURE

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Application January 18, 1944, Serial No. 518,677

4 Claims. (Cl. 211—148)

This invention relates to shelf structures of the type known in the trade as credenzas and which include a plurality of shelves supported by and extending laterally outward beyond spaced vertically disposed side members.

The invention primarily comprehends an improved shelf structure of the indicated character which may be sold and delivered to the purchaser in a knockdown condition and which is so constructed that the same may be readily and conveniently assembled into set up condition by the purchaser.

The invention further embodies an improved shelf structure of said character in which the shelves and side members are constructed for interfitting relation and which includes rear panels having interfitting engagement with the shelves when the same are assembled with the side members so as to permit of the convenient and expeditious assembly of the shelf structure by the purchaser from a knockdown condition to a set up condition ready for use and which may be disassembled and arranged in a compact bundle for convenience in storage or shipment.

With the foregoing and other objects in view, reference is now made to the following specification and accompanying drawings in which the preferred embodiments of the invention are illustrated.

In the drawings:

Fig. 1 is a perspective view of a shelf structure constructed in accordance with the invention.

Fig. 2 is a vertical sectional view taken approximately on line 2—2 of Figure 1.

Fig. 3 is a perspective view of the shelf structure with the parts shown in separated juxtaposition.

Fig. 4 is a perspective view of the parts of the shelf structure disposed in compact stacked arrangement for storage and shipment.

Fig. 5 is a fragmentary perspective view of a modified form of the invention.

Fig. 6 is a perspective view of another modified form of the invention with the parts shown in separated juxtaposition.

Fig. 7 is a vertical sectional view taken approximately on line 7—7 of Figure 8.

Fig. 8 is a horizontal sectional view taken approximately on line 8—8 of Figure 7.

Referring to the drawings by characters of reference, the shelf structure includes a pair of similar side members 10 which are fashioned from plain wooden boards and arranged when in set up condition with their widths disposed parallel and in laterally spaced vertical relation. The said members are formed with equally spaced parallel slots or notches 11 which open through the rear edges 12 thereof and extend inwardly to a depth of approximately two thirds of the width of said members.

The shelf structure also includes a plurality of shelves 13, three being shown in the embodiments illustrated although two or more may be employed and which shelves are fashioned from plain wooden boards and formed with equally spaced parallel slots or notches 14 opening through the forward edges 15 thereof and extending inwardly to a depth of approximately one-third of the width of said shelves and being spaced an appreciable distance from the opposite ends thereof respectively.

The shelves 13 are slightly wider than the side members 10 and when in set up condition therewith project rearwardly thereof and are formed with longitudinally extending grooves 16 in the confronting faces of adjacent shelves. The rear wall 17 of each groove 16 is located adjacent the rearward edge 18 of the shelves while the forward wall 19 of each groove is disposed slightly forward of the rear edge 12 of the side members 10.

The shelves 13 are interfitted with the side members 10 by disposing the portions of the shelves directly rearward of the slots 14 thereof in the slots 11 of the side members and the portions of the side members directly forward of the slots 11 thereof in the slots 14 of the shelves and with the inner end walls of the slots 11 and 14 in abutting relation, thereby disposing the shelves in vertically spaced horizontal relation with the intermediate portions thereof located between the slots 14 disposed in bridging relation between the side members and the opposite end portions of the shelves beyond the slots 14 projecting laterally outward of the side members.

The grooves 16 open through the opposite end edges 20 of the shelves and are adapted to slidably receive therein between adjacent shelves, panels 21 constructed of plain wooden boards which panels form a closure between the shelves at the rear thereof and provide a backing for the shelf structure so as to brace the same and secure the shelves and side members in horizontal and vertical relation respectively. The grooves 16 are slightly wider than the thickness of the panels 21 and since the forward walls 19 of the grooves respectively are located somewhat forwardly of the rear edges 12 of the side members 10, a clearance is provided between the forward walls 19 of the grooves and the longitudi-

nal edge portions of the panels which permits the panels to snugly fit against the rear edges of the side members 10 and the rear walls 17 of the grooves.

The shelves are rounded at the juncture of their forward and end edges and have their forward edges disposed flush with the forward edges of the side members. In order to secure the shelf structure in set up relation, fastening means such as screws 22 engage through the panels 21 with their ends anchored in the side members 10 to thereby prevent disengagement of the shelves and side members. Constructed in this manner, a shelf structure is provided which is open at the front between the side members and laterally thereof the same is open at the front and ends.

The side members 10, the shelves 13 and the panels 21 are adapted to be arranged in compact stacked formation so that they may be tied together into a bundle for transportation, thus obviating the necessity of packing or encasing the shelf structure for shipment.

If desired, the side members 10 may be provided in opposite faces thereof with mating grooves 24 which extend laterally from the notches or grooves 11 to and open through the forward edges of said members as illustrated in Figure 5 of the drawings. The side walls 25 of the grooves 24 form shoulders which support the edge portions of the shelves 13 bordering the notches 26 which latter notches correspond to the notches 14 in the previously described form of the invention but are somewhat narrower than the notches 14 in order to closely receive therein the web between the grooves 24. By this construction the forward portions of the shelves between the side members and laterally thereof have bearing engagement in the grooves 24 and are supported by the walls 25 thereof.

In the form of the invention illustrated in Figures 6 to 8 inclusive of the drawings, the side members 27 and shelves 28 are notched for interfitting engagement but in this embodiment of the invention the notches 29 in the side members 27 extend inwardly from the forward edges thereof while the notches 30 in the shelves 28 extend inwardly from the rear edges thereof. The shelves project rearwardly of the side members are formed with longitudinally extending grooves 31 in the confronting faces of adjacent shelves in which are received panels 32 which in addition to providing a backing for the shelf structure also serve to retain the shelves and side members in assembled relation.

What is claimed is:

1. In a shelf structure of the indicated character, a pair of spaced vertically disposed parallel side members each having a plurality of vertically spaced parallel notches extending inwardly from a longitudinal edge thereof to a depth substantially two-thirds of the width of said member, a plurality of vertically spaced horizontally disposed shelves each having a pair of parallel notches spaced from the opposite ends thereof respectively and extending inwardly from a longitudinal edge thereof to a depth of substantially one-third of the width of said shelf, said side members and said shelves interfitting in said notched portions for supporting said shelves with the intermediate portions thereof disposed between said side members and with the opposite ends thereof projecting laterally outward beyond said side members and with the lower end portions of said side members below the lowermost shelf supporting the shelf structure with the lowermost shelf spaced from a supporting surface, said shelves projecting rearwardly of said side members and being formed with longitudinally extending grooves in the confronting faces of adjacent shelves, said grooves having their forward walls disposed forwardly of the rear edges of the side members and panel members extending longitudinally of the shelves and slidably fitted in said grooves and against the rear edges of the side members for closing the back of the shelf structure between the shelves.

2. In a shelf structure of the indicated character, a pair of spaced vertically disposed parallel side members each having a plurality of vertically spaced parallel notches extending inwardly from the rear longitudinal edge thereof to a depth of approximately two-thirds of the width of said member, a plurality of vertically spaced horizontally disposed shelves each having a pair of parallel notches spaced from the opposite ends thereof respectively and extending inwardly from the forward longitudinal edge thereof to a depth of approximately one-third of the width of said shelf, said side members and said shelves interfitting in said notched portions for supporting said shelves with the intermediate portions thereof disposed between said side members and with the opposite ends thereof projecting laterally outward beyond said side members and with the lower end portions of said side members below the lowermost shelf supporting the same in spaced relation to a supporting surface, said side members each having grooves in the opposite faces thereof extending from the inner ends of the notches therein to the forward longitudinal edges thereof in which grooves the portions of the shelves bordering the notches therein are received for supporting the forward edge portions of the shelves, said shelves projecting rearwardly of said side members and being formed with longitudinally extending grooves in the confronting faces of adjacent shelves, said grooves having their forward walls disposed forwardly of the rear edges of the side members and panels extending longitudinally of the shelves and slidably fitted in said last mentioned grooves and against the rear edges of the side members for closing the back of the shelf structure between the shelves.

3. In a shelf structure of the indicated character, a pair of spaced vertically disposed parallel side members each having a plurality of vertically spaced parallel notches extending inwardly from the forward longitudinal edge thereof to a depth of approximately two-thirds of the width of said member, a plurality of vertically spaced horizontally disposed shelves each having a pair of parallel notches spaced from the opposite ends thereof respectively and extending inwardly from the rear longitudinal edge thereof to a depth of approximately one-third of the width of said shelf, said side members and said shelves interfitting in said notched portions for supporting said shelves with the intermediate portions thereof disposed between said side members and with the opposite ends thereof projecting laterally outward from said side members and with the lower end portions of said side members below the lowermost shelf supporting the same in spaced relation to a supporting surface, said shelves projecting rearwardly of said side members and being formed with longitudinally extending grooves in the confronting faces of ad-

jacent shelves, and panel members slidably fitted in said grooves and contacting with the rear edges of the side members for closing the back of the shelf structure between the shelves.

4. In a shelf structure of the indicated character, a pair of spaced vertically disposed parallel side members, a plurality of vertically spaced horizontally disposed shelves, said side members and shelves having interfitting slots extending inwardly from opposite longitudinal edges thereof respectively with the outermost slots spaced from the ends of the side members and shelves respectively for supporting the shelves by said intertfiting engagement with the side members to dispose the opposite end portions of the shelves in laterally projecting relation beyond the side members and the lower end portions of the side members below the lowermost shelf to support the same in spaced relation to a supporting surface, said shelves projecting rearwardly of the side members and being formed with longitudinally extending grooves in their confronting faces adjacent their rear edges and panel members extending longitudinally of said shelves and fitted in the grooves of adjacent shelves and against the rear edges of the side members for closing the back of the shelf structure between the shelves and means for securing the panel members to the side members to retain the shelf structure in set up condition.

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