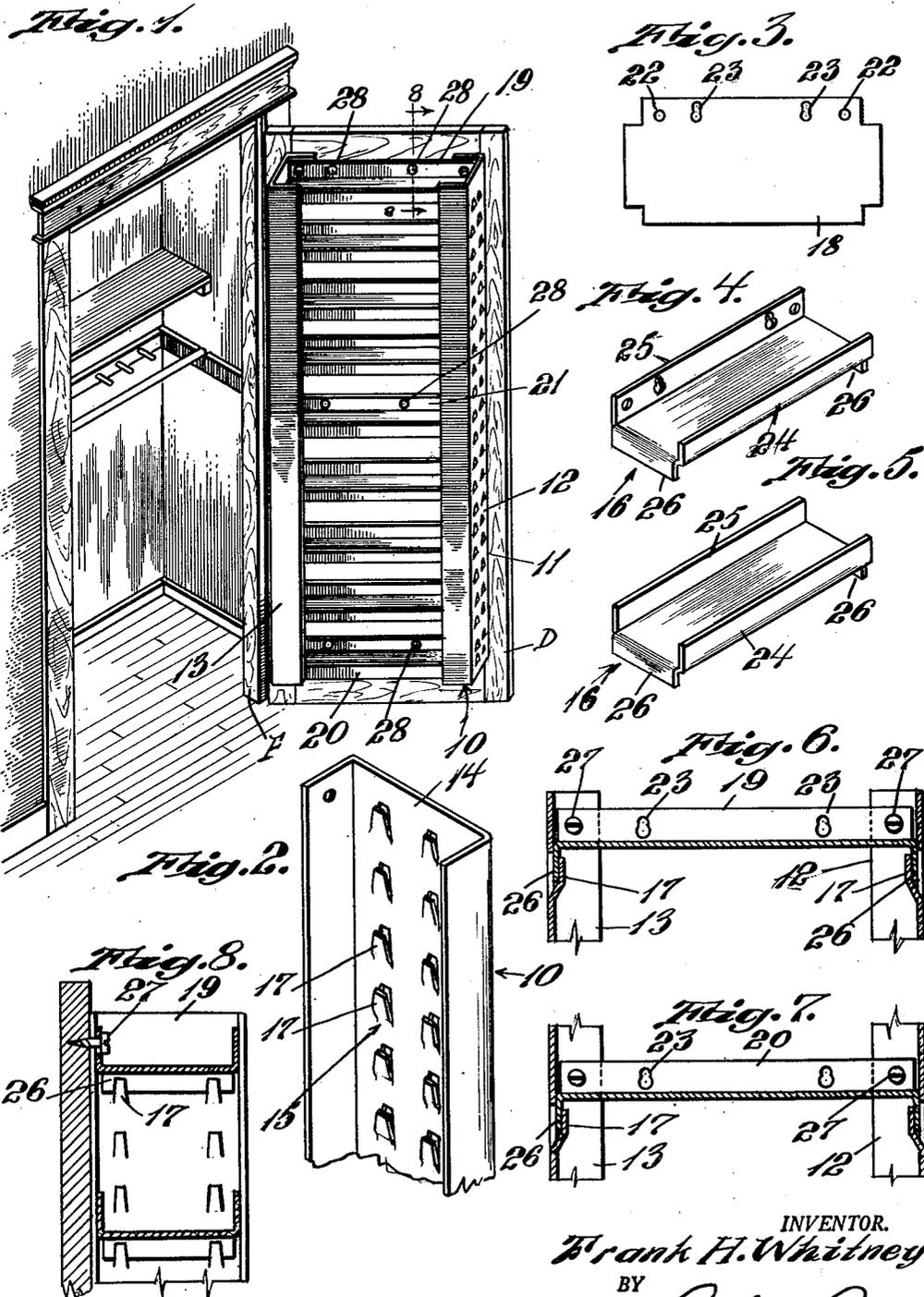


Nov. 7, 1950

F. H. WHITNEY
SHELVING

2,528,807

Filed Oct. 16, 1946



INVENTOR.
Frank H. Whitney
BY
Barlow & Barlow
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,528,807

SHELVING

Frank H. Whitney, Providence, R. I.

Application October 16, 1946, Serial No. 703,659

1-Claim. (Cl. 211—136)

1

This invention relates to improvements in shelving, particularly shelving which is adapted to be mounted upon a door.

In many homes, storage space such as may be provided by shelving in a closet and within easy reach, is often times limited to a single shelf. Accordingly, it is desirable to provide for increasing the shelving in a closet and in a manner so as not to substantially encroach upon the space provided for hanging clothing, and at the same time be within easy reach.

An object of the invention is the provision of shelving which is so constructed as to be adaptable for use in a closet in such a manner as to be within easy reach.

Another object of the invention is the provision of shelving which is so constructed as to be detachably supported against any vertical surface.

A more specific object of the invention is the provision of shelving which is so constructed as to be detachably supported on a door in a manner so as to move therewith.

Another object of the invention is the provision of shelving which is so constructed that the same may be transported in a knock down condition and easily assembled at the place to be used.

Another object of the invention is the provision of shelving which is so constructed that individual shelves may be adjustable as to spacing.

Another object of the invention is the provision of shelving which is so constructed that the shelves will be detachably interlocked with the supporting structure.

Another object of the invention is the provision of shelving made of sheet material.

Another object of the invention is the provision of shelving which can be manufactured at a comparatively low cost of production and which will be durable and satisfactory in use.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings:

Fig. 1 is a view in perspective illustrating one embodiment of the invention;

Fig. 2 is a perspective view of a fragmental portion of a channel section forming part of the shelving frame;

Fig. 3 is a plan view of a blank employed for making a shelf;

Fig. 4 is a perspective view of a shelf formed

2

from the blank shown in Fig. 3 and having means for attaching the shelving to a support;

Fig. 5 is a perspective view of an intermediate shelf;

Fig. 6 is a sectional view of the upper part of the shelving, showing the upper shelf as secured to the side sections;

Fig. 7 is a sectional view of the lower part of the shelving, showing the lower shelf as secured to the side sections; and

Fig. 8 is a section view taken substantially along line 8—8 of Fig. 1.

In carrying out my invention, one embodiment of which is illustrated in the drawings, I provide a shelving which is of a size and proportion to cover the inner surface of a door just inwardly from its edges. The shelving is of a width so that when the door is in closed position the shelves will not extend any substantial distance beyond the edge of the casing of the door frame.

Referring to the drawing for a more detailed description of the invention, 10 designates generally the shelving having a frame 11. The frame is made of two channel sections 12 and 13. The sections are identical and preferably made of sheet material. The sections extend in parallel spaced relation with the arms of one section extending toward the arms of the other section. The width of the sections is preferably not much in excess to the finished thickness of the frame F of a usual door opening. In the wall 14 of each section which forms the bridge wall of the channel, means or supports designated generally 15 are provided for engagement with the shelves 16 for supporting the same in position.

The supports 15 may take various forms and are herein shown as lugs or ears 17 which are severed and deflected inwardly from the stock of the wall 14 a sufficient distance so as to space the upper portion of the ears from the surface of the wall 14. The ears 17 are provided in pairs and these are spaced along the length of the wall 14. The number of pairs of ears which are provided is in excess of the number of shelves normally provided, so as to permit a choice of location for the shelves and a variation of spacing between them. Thus, the distance between the two lower shelves may be chosen so as to permit the lower shelf to be employed for storing shoes, rubbers and like articles. The other shelf may likewise be spaced an appropriate distance in accordance with the kind of material to be placed upon any particular shelf.

The shelves 16 each may be made of sheet material from a blank 18 of the general form

shown in Fig. 3. The blanks of which the upper, lower and intermediate shelves 19, 20, 21 respectively are made, may have openings 22, 23 punched when making the blank. The openings 23 are of a bayonet opening form. In the blanks employed for making the other shelves these openings are omitted. In folding the blanks the longitudinal edges thereof are bent upwardly at substantially right angles to the body of the blank to form a front wall 24 and a rear wall 25. The side edges of the blank are bent downwardly to form flanges 26. Each shelf is of a width to be nicely received within the arms of the channel sections.

In assembling the shelving one end thereof may be first assembled with the flanges 26 of the shelves received between a pair of ears 17 and the wall 14 of one of the sections. The spacing between the ears 17 and the wall 14 is such as to provide firm interlocking of the flanges 26 and ears 17. The other channel section may now be placed in position with the adjacent flanges 26 received in the space between the ears 17 and wall 14 of the section. Metal screws 27 may next be inserted in openings 22 and threadedly received in the adjacent arms of the sections 12, 13 whereby the shelving may be securely held together. In order to secure the assembled shelving on a support, preferably on the door D of a closet, the support or door is provided with projections 28. The projections 28 may be screws and these are properly positioned and spaced so as to be detachably received in openings 22 in the upper, lower, and intermediate shelves 19, 20 and 21.

It will be apparent that I have provided a shelving unit which may be shipped in knock-down form and easily assembled at the place of use. It may also be apparent that the unit is particularly adapted to be hung in position on the door of a closet at which location the depth thereof will not encroach to any substantial extent within the space reserved for hanging clothes.

I claim:

Shelving adapted to be suspended in position comprising two vertically extending channel sections spaced from each other in generally parallel relation with the spaced sides thereof ex-

tending toward each other, each section having a plurality of spaced ears deflected from the bridging portion of the stock of the sections and extending upwardly therefrom with the pairs of ears on one section at the same horizontal position as the pairs of ears on the other section, a first shelf adjacent one end of the sections having upstanding front and rear walls and depending flanges at the ends thereof engagable into interlocking relation with one of the pairs of ears on each of said sections, additional means for fastening said shelf to said sections to prevent lifting from said ears, a second shelf adjacent the other ends of said sections having upstanding front and rear walls and depending flanges at the ends thereof engagable into interlocking relation with other pairs of ears on said sections, additional means for fastening said second shelf to said sections to prevent lifting from said ears, a plurality of intermediate shelves each having upstanding front and rear walls and a depending flange at the ends thereof engagable with selected opposite ears on each section to detachably interlock said intermediate shelves and said sections in assembled relation, said first and second shelves having the rear walls thereof provided with spaced openings therein to receive therethrough projections on a wall for suspending said shelving in position.

FRANK H. WHITNEY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
883,001	Curtis	Mar. 24, 1908
1,090,724	Koehler	Mar. 17, 1914
1,164,439	Winqvist	Dec. 14, 1915
1,577,066	Medart et al.	Mar. 16, 1926
2,026,223	Donnelly et al.	Dec. 31, 1935
2,074,785	Gentz	Mar. 23, 1937
2,346,430	Hauser	Apr. 11, 1944

FOREIGN PATENTS

Number	Country	Date
161,530	Switzerland	July 1, 1933
110,246	Australia	Mar. 27, 1940