F. J. VINCENT.

SECTIONAL METAL SHELVING.

APPLICATION FILED NOV. 18, 1921.

1,432,044.

Patented Oct. 17, 1922.

3 SHEETS—SHEET 1.

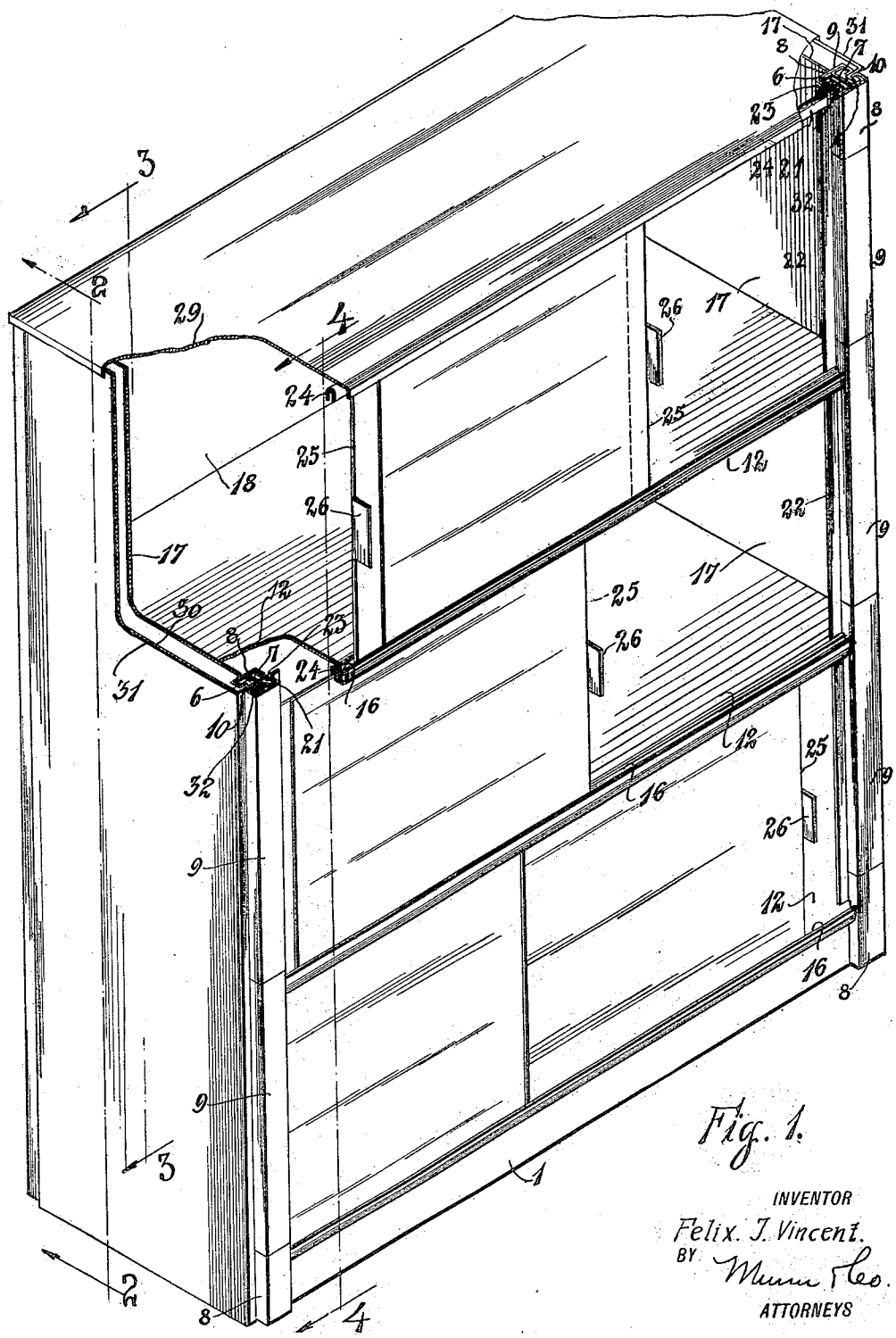

Fig. 1.

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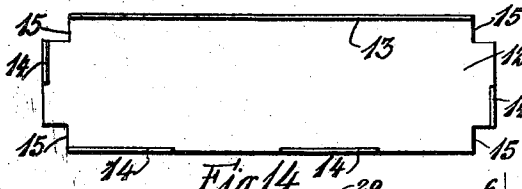

Fig. 14.

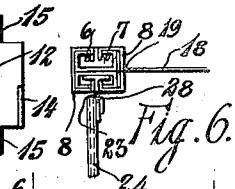

Fig. 6.

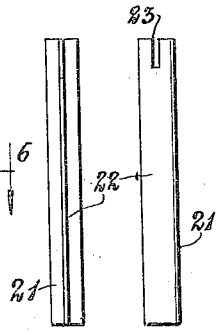

Fig. 7.



Fig. 8.

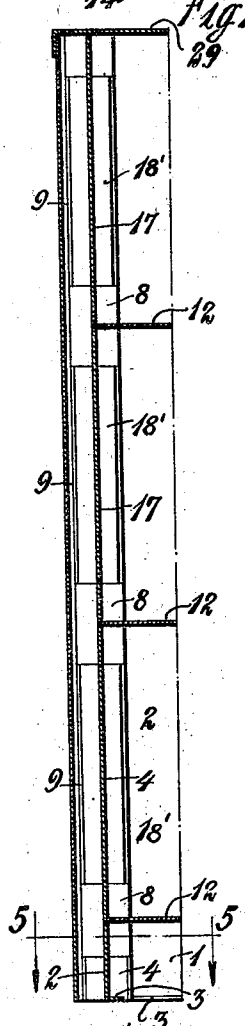

Fig. 2.

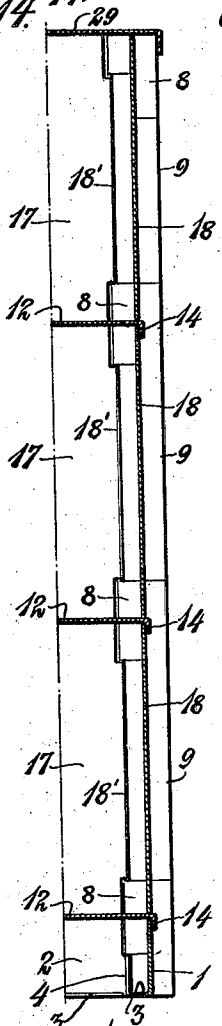

Fig. 3.

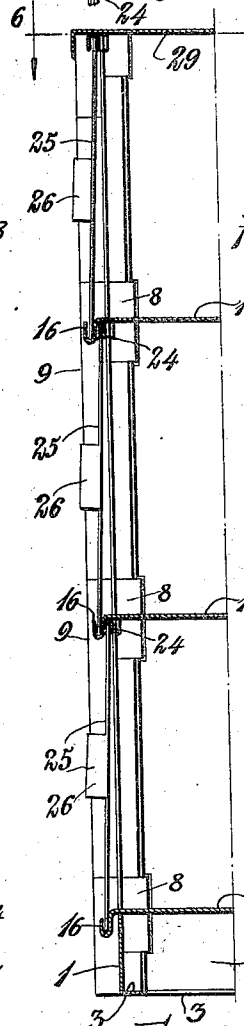

Fig. 4.

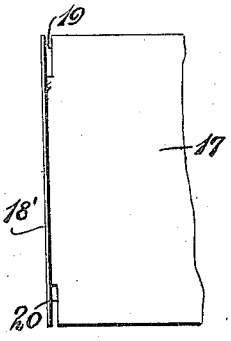

Fig. 9.

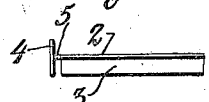

Fig. 11.

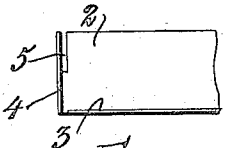

Fig. 10.

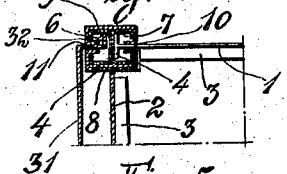

Fig. 5.

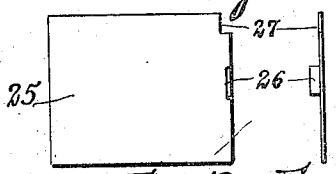

Fig. 12. Fig. 13

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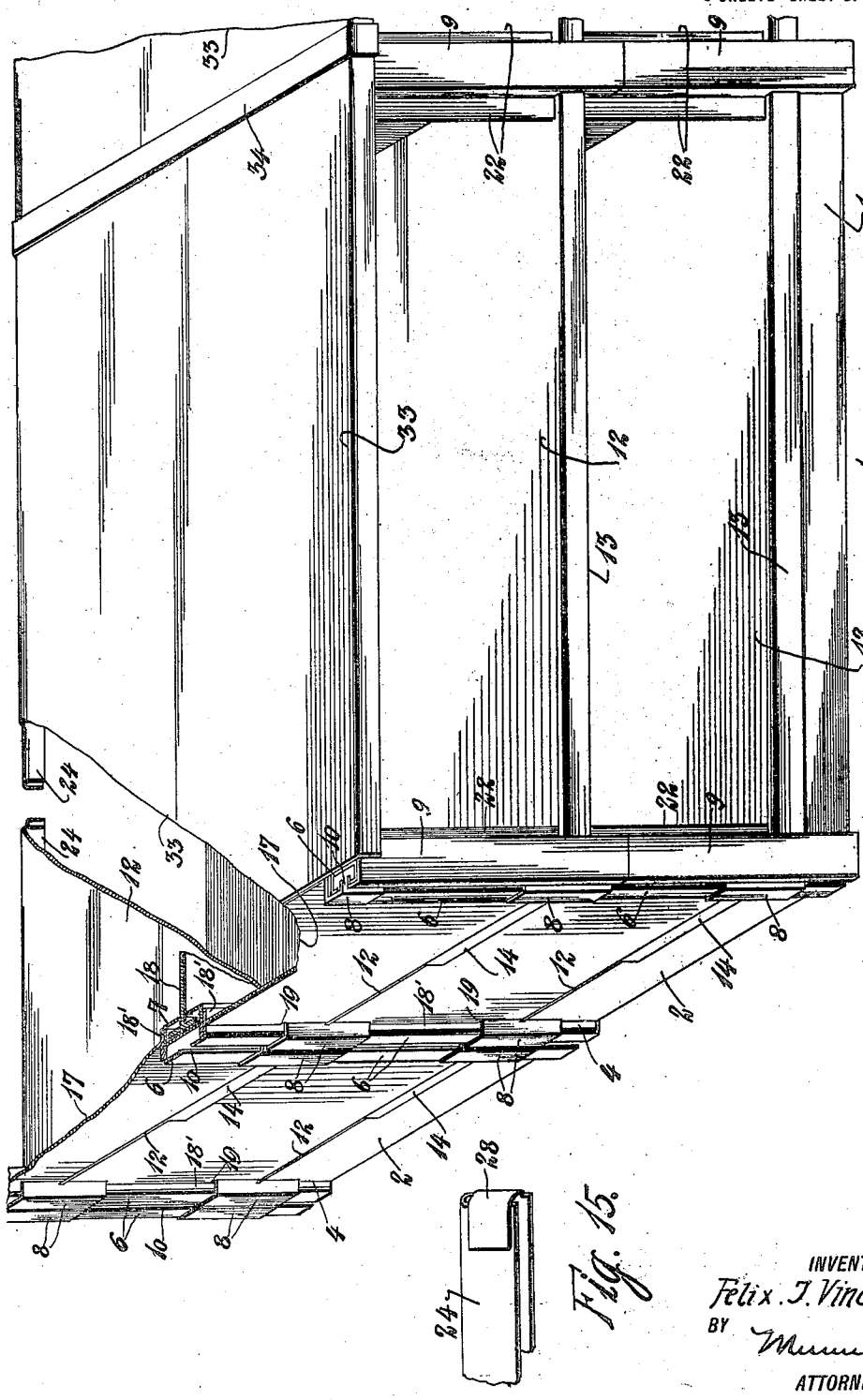

Fig. 16.



Fig. 15.

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# UNITED STATES PATENT OFFICE.

FELIX JOSEPH VINCENT, OF CHICAGO, ILLINOIS.

## SECTIONAL METAL SHELVING.

Application filed November 18, 1921. Serial No. 516,053.

*To all whom it may concern:*

Be it known that I, FELIX JOSEPH VINCENT, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sectional Metal Shelving, of which the following is a full, clear, and exact description.

My invention relates to improvements in sectional metal shelving, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a sectional metal shelving which consists of a plurality of interlocking members, which when assembled, provide a rigid construction.

A further object of my invention is to provide a device of the type described which can comprise any desired number of sections, the section at the top of the device being as rigid in construction as the section at the bottom of the device.

A further object of my invention is to provide a device of the character described in which the parts are interchangeable.

A further object of my invention is to provide a device of the type described which is fireproof.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application, in which—

Figure 1 is a perspective view of the assembled device,

Figure 2 is a section along the line 2—2 of Figure 1,

Figure 3 is a section along the line 3—3 of Figure 1,

Figure 4 is a section along the line 4—4 of Figure 1,

Figure 5 is a section along the line 5—5 of Figure 2,

Figure 6 is a section along the line 6—6 of Figure 4,

Figure 7 is a side elevation of a portion of the device,

Figure 8 is a side elevation at right angles to the portion of the device shown in Figure 7,

Figure 9 is a side elevation of another portion of the device,

Figure 10 is a side elevation of another portion of the device,

Figure 11 is a plan view of the portion of the device shown in Figure 10,

Figure 12 is a side elevation of the sliding door,

Figure 13 is an end elevation of the sliding door,

Figure 14 is a bottom plan view of one of the shelves,

Figure 15 is a perspective view of a portion of the device, and

Figure 16 is a perspective view of a modified form of the device.

In carrying out my invention, I provide a base consisting of side members 1 and end members 2 (see Figures 2, 3, 4, 10, and 11). The members 1 and 2 are identical with respect to each other except that the members 2 are preferably made shorter in length than the members 1 and are provided with slots 5. A side elevation and a plan view of the member 2 is shown in Figures 10 and 11. It will be noted that both members are provided with inwardly extending flanges 3 at the lower edges thereof, and are also provided with T-shaped portions 4 at each end thereof. I then provide corner posts which comprise two U-shaped channel irons 6 and 7 which are placed back to back and are disposed in a vertical position (see Figure 5). I then secure these two channel irons 6 and 7 to each other by means of two other channel irons 8 and 9 which are adapted to have their ends disposed around the ends of the channel irons 6 and 7. It will be obvious that this provides a rigid post construction and as will be seen from the drawings, I dispose one of these posts between the ends of the members 1 and 2. This post construction also provides longitudinal grooves 10 and 11 which are adapted to receive the portions 4 of the members 1. The members 1 are therefore rigidly secured to the posts. It will be further observed that the upper ends of the channel irons 6 and 7 are flush with the upper edges of the members 1 and 2, and side walls 17 and 18 while the channel irons 8 and 9 project above the upper edges of the channel irons 6 and 7. The channel irons 8 are identical with the channel irons 9 except that they are shorter in length and when assembling them to the device, they are moved downwardly on the channel irons 6 and 7 so that the lower edges thereof abut against the bottoms of

the slots 5 of the members 2. It will therefore be seen that the channel irons 8 rigidly secure the members 2 to the channel irons 6 and 7. The construction described so far provides a rigid base for the device. I then provide a shelf 12 which is shown in Figure 14 of the drawings, the shelf being provided with a depending lug 13 and other depending lugs 14 on the various sides thereof and also being provided with square recesses 15 at each corner thereof. The shelf is mounted on the base of the device so that the lugs 13 and 14 project over the upper edges of the members 1 and 2 and the recesses 15 receive the posts of the device. It will be noted that the lug 13 is bent back upon itself so as to provide a groove 16 therein for a purpose hereafter described.

In building walls around the shelf 12, I provide other channel irons 6 and 7 which are disposed between the upwardly projecting portions of the channel irons 8 and 9 and which are adapted to rest on the upper edges of the lower channel irons 6 and 7. These channel irons 6 and 7 are of any desired height and determine the space between the various shelves 12 of the device. I then provide end walls 17 and a rear wall 18, these walls being provided with end portions 18′ which are identical with respect to the portions 4. The end walls 17 (see Figure 9) are provided with slots 19 and 20 in the upper and lower edges thereof. In assembling the end wall 17 to the device, the portion 18′ is disposed between the channel iron 8, and the channel irons 6 and 7 so that the upper edge of the channel iron 8 abuts the upper edge of the slot 20. In assembling the rear wall 18, I dispose the portion 18′ thereof in the groove 10, thus permitting the lower edge of the wall 18 to rest on the shelf 12. The grooves 10 of the posts which are disposed in the front side of the device have disposed therein portions 21 of members 22 which are identical to the portions 4 of the members 2. These members are provided with slots 23 in the upper edges thereof and in which are adapted to be disposed U-shaped bars 24. The U-shaped bars 24 are adapted to support the front edge of the shelf 12 which is disposed thereover. The bar 24 also acts as a means to prevent the posts from moving outwardly. It will now be observed that I provide a groove 16 in the shelf 12 and also provide a groove in the bar 24. I slidably dispose in these grooves, doors 25 which have outwardly projecting lugs 26 at one end thereof which are adapted to be used as handles. The doors are inclined slightly from the vertical as clearly shown in Figure 4 and thus prevent any rattling thereof when the device is slightly jarred. The doors 25 are also provided with recesses 27 disposed in one corner thereof, the vertical edges of these recesses being adapted to abut the end walls 28 of the bars 24.

It will now appear from this construction that I have provided a shelf which has walls therearound and which is provided with sliding doors in the front thereof. If more shelves are desired, other channel irons 8 and 9 are disposed on the channel irons 6 and 7 so as to rigidly secure these channel irons together and to secure the upper portions of the end walls 17 to the channel irons 6 and 7 in the manner heretofore described. These channel irons 8 and 9 would project above the upper edges of the channel irons 6 and 7 and would be adapted to receive other channel irons 6 and 7 which would thus form the corner posts for the new shelf. It is obvious that the new shelf will be assembled in the same manner as heretofore described and therefore needs no further description. I can dispose as many shelves as I want, one above the other, and these shelves will be rigid in construction when assembled. When the top shelf has been reached, I dispose small channel irons 8 and 9 over the channel irons 6 and 7 so that the upper edges of the channel irons 8 and 9 are flush with the upper edges of the channel irons 6 and 7. I then place a top 29 over the tops of the posts and over the upper edges of the walls 17 and 18.

So far, I have described only a single column of shelves and it will be apparent that as many columns as desired may be assembled. In case an additional column of shelves is desired, a new base can be assembled in the same manner as the base heretofore described was assembled. The sides 1 of the new base would be received in the grooves 11 of the posts and would thus rigidly secure the two columns of shelves together. Further assembly of the new column of shelves would be accomplished in identically the same manner as the column heretofore described. I also provide an end wall 30 which has inwardly extending sides 31, these sides being provided with outwardly projecting flanges 32. This end wall 30 is disposed in the grooves 11 of the outer posts of the device and thus presents a uniform and contiguous wall to the observer.

With the parts of the device heretofore described, I can also assemble a structure which is shown in Figure 16 of the drawings. This structure has a plurality of open shelves which are only provided with side walls made from the members 17. In this figure, I have shown two shelves 12 disposed adjacent each other and lying in the same plane. It will be apparent that as many shelves as desired can be disposed in the same plane, thus providing a single shelf which can be of any length desired. In this device, the posts are assembled in identically the same manner as heretofore described and

therefore need no further description. The members 22 are adapted to support the bars 24, which in turn support the shelves thereabove, in the same manner as heretofore described. It will be apparent, however, that the lug 13 is not bent back upon itself so as to provide a groove therein in which the doors 25 were formerly disposed. As shown in Figure 14, the lugs 14 of the shelves 12 are spaced apart so that in case a plurality of shelves are desired to be disposed in the same plane, the lugs 14 of the adjacent shelves can be disposed over the wall common to both shelves. In this form of the device, the top 33 is adapted to extend from front to back of the shelves and as long as the length of one of the shelves 12. In case a series of open shelves are desired to be disposed adjacent each other, a plurality of tops 33 are provided and a strip 34 is disposed over the adjacent ends of these tops. In this form of the device, the rear wall 18 can be done away with, if desired, and bars 24 disposed at the front and back of each shelf, thereby providing an open shelf.

It will be observed that I provide a device which may comprise as many sections as desired, and which is assembled without the use of any screws, bolts, or the like, and which also provides a fireproof and rigid construction. The device is made up of a plurality of simple parts and can be readily assembled by anyone. It will also be observed that the parts can be packed into a small space for shipment and can be assembled at the place of destination. The device is also light in construction and can be readily moved from place to place without much effort.

I claim:

1. A device of the type described comprising a plurality of hollow metal posts, said posts being made up of a plurality of interlocking parts, wall members disposed one above each other and adapted to be carried by and rigidly secured to said posts, the upper edges of each set of wall members being adapted to be in the same plane, a shelf carried by the upper edges of each set of wall members, said shelves having longitudinal grooves therein and being disposed adjacent one edge thereof, and doors slidably mounted in said grooves.

2. A device of the type described comprising a plurality of sectional hollow metal posts, the sections of said posts being adapted to interlock one with another, wall members placed one above each other and adapted to be disposed between and to be rigidly secured to said posts, thus forming three sides, the upper edges of each set of wall members being adapted to lie in the same plane, bars having grooves therein being disposed between and rigidly secured to said posts, one of said bars being disposed in the plane of the upper edges of each set of wall members, a shelf carried by the upper edges of each set of wall members, said shelves having longitudinal grooves therein, and doors slidably disposed in the grooves of said shelves and in the grooves of said bars.

3. A device of the type described comprising a plurality of hollow metal posts composed of interlocking sections, wall members disposed one above each other and adapted to be carried by and rigidly secured to said posts, the upper edges of each set of wall members lying in the same plane, and a shelf carried by the upper edges of each set of wall members, said shelves having downwardly projecting lugs adapted to engage the outer surface of the adjacent wall member, whereby the lugs on adjacent shelves lying in the same plane engage the wall member common to both shelves.

4. A device of the type described comprising a plurality of hollow sectional posts constructed so as to provide smooth exterior outer walls, shelves and walls rigidly secured to said posts, and single piece side walls carried by said posts and extending the full length of said posts.

5. A device of the type described comprising a plurality of sectional hollow posts, a plurality of wall members secured rigidly to said posts, the upper edges of each set of wall members lying in the same plane, a shelf carried by the upper edges of each set of wall members, a top adapted to overlie the upper ends of said posts and the upper edges of the top set of wall members, and a side wall comprising a single sheet adapted to be carried by the outer posts.

6. A device of the type described comprising a plurality of sectional hollow posts, wall members carried by said posts, said wall members being parallel with respect to each other, the upper edges of each set of wall members lying in the same plane, a shelf supported on two sides thereof by the upper edges of two adjacent wall members, and bars rigidly secured to said posts and being adapted to support the other two sides of said shelves.

7. A device of the type described comprising a plurality of sectional hollow posts constructed so as to provide a smooth exterior outer surface, a plurality of members rigidly secured to said posts and constituting a base, wall members carried by said posts, the upper edges of each set of said wall members lying in the same plane, a shelf carried by said base and by the upper edges of each set of wall members, and a top adapted to overlie the upper ends of said posts and the upper edges of the top set of wall members.

8. In a device of the type described, a plurality of metal posts comprising two channel irons disposed back to back, and two other channel irons adapted to bind said first

named channel irons together, whereby a T-shaped longitudinally extending groove is provided on two sides of said posts.

9. In a device of the type described, a plurality of metal posts comprising two channel irons disposed back to back, two other channel irons adapted to bind said first named channel irons together, whereby a T-shaped longitudinally extending groove is provided on two sides of said posts, and wall members having T-shaped ends adapted to be received in said grooves.

10. In a device of the type described, a post comprising two channel irons placed back to back, and two other channel irons adapted to lock said first named channel irons together and to form with said first named channel irons two longitudinally extending T-shaped grooves in said post, said second named channel irons adapted to project beyond said first named channel irons and to receive a second set of said first named channel irons.

11. In a device of the type described, a post comprising two channel irons placed back to back, two other channel irons adapted to lock said first named channel irons together and to form with said first named channel irons two longitudinally extending T-shaped grooves in said post, said second named channel irons adapted to project beyond said first named channel irons and to receive a second set of said first named channel irons, and wall members having T-shaped ends adapted to be received in said grooves.

12. In a device of the type described, a post comprising two channel irons placed back to back, two other channel irons adapted to lock said first named channel irons together and to form with said first named channel irons longitudinally extending T-shaped grooves in said post, and a wall member having a T-shaped end and a slot adjacent said T-shaped portion, said T-shaped portion being adapted to be disposed between one of said second named channel irons and said first named channel irons so that the bottom of the slot abuts the channel iron.

13. In a device of the type described, a post comprising two channel irons placed back to back, two other channel irons adapted to lock said first named channel irons together and to form with said first named channel irons longitudinally extending T-shaped grooves in said post, a wall member having a T-shaped end and a slot adjacent said T-shaped portion, said T-shaped portion being adapted to be disposed between one of said second named channel irons and said first named channel irons so that the bottom of the slot abuts the channel iron, and a second wall member having a T-shaped end adapted to be received in one of said grooves.

14. In a device of the type described, a shelf consisting of supporting posts and three side walls carried thereby, two posts having longitudinally extending T-shaped grooves therein, two members having T-shaped portions adapted to be received in said grooves, said members having slots therein, and a bar having the ends thereof disposed in said slots and adapted to be carried by said members.

15. In a device of the type described, a shelf consisting of supporting posts and three side walls carried thereby, two posts having longitudinal T-shaped grooves therein, two members having T-shaped portions adapted to be received in said grooves, said members having slots therein, a bar having its ends disposed in said slots and being carried thereby, said bar having a longitudinal groove therein, a shelf disposed below said bar and having a longitudinal groove therein, and doors slidably disposed in the groove of said bar and in the groove of said shelf.

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