Dec. 17, 1929. W. N. VANCE 1,739,809

STEEL INSERT FOR STORE COUNTERS

Filed Jan. 20, 1928 3 Sheets-Sheet 1

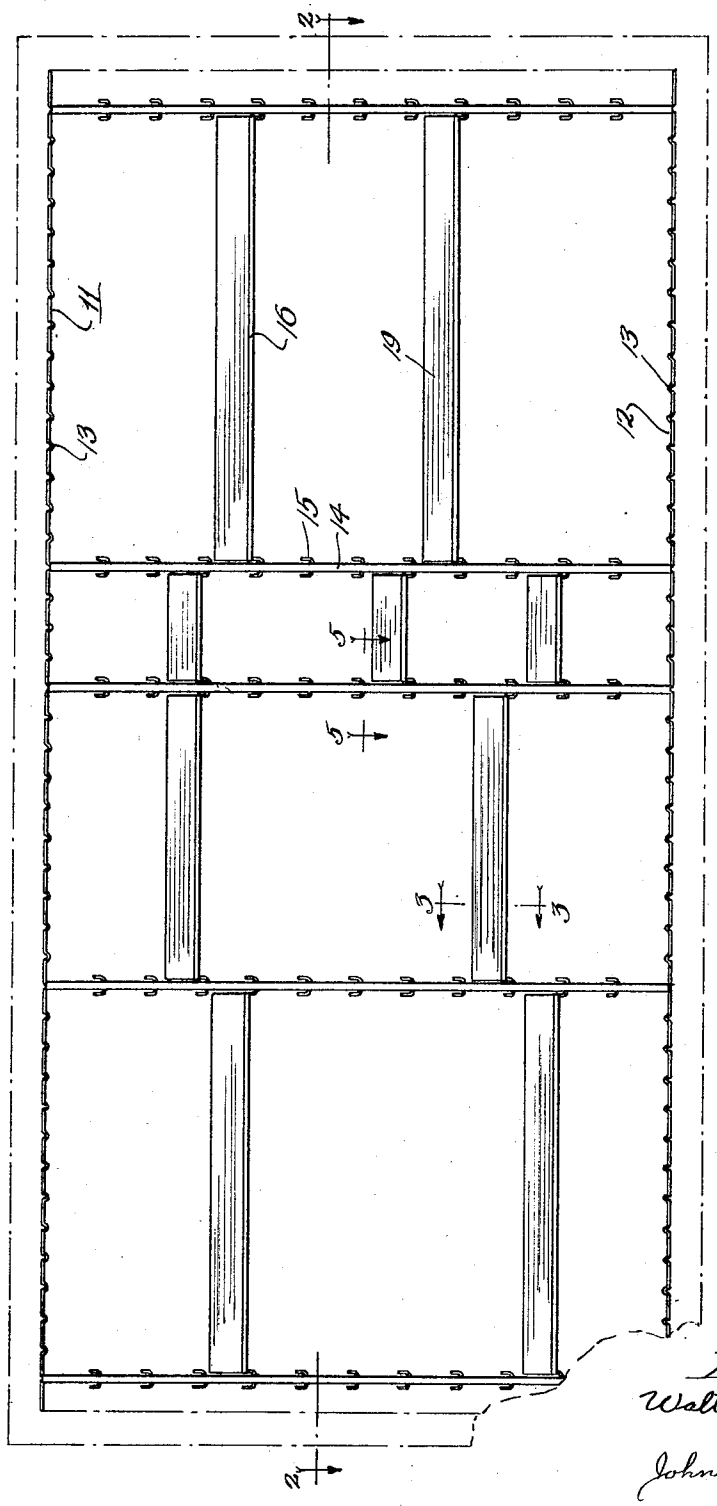


Fig. 1

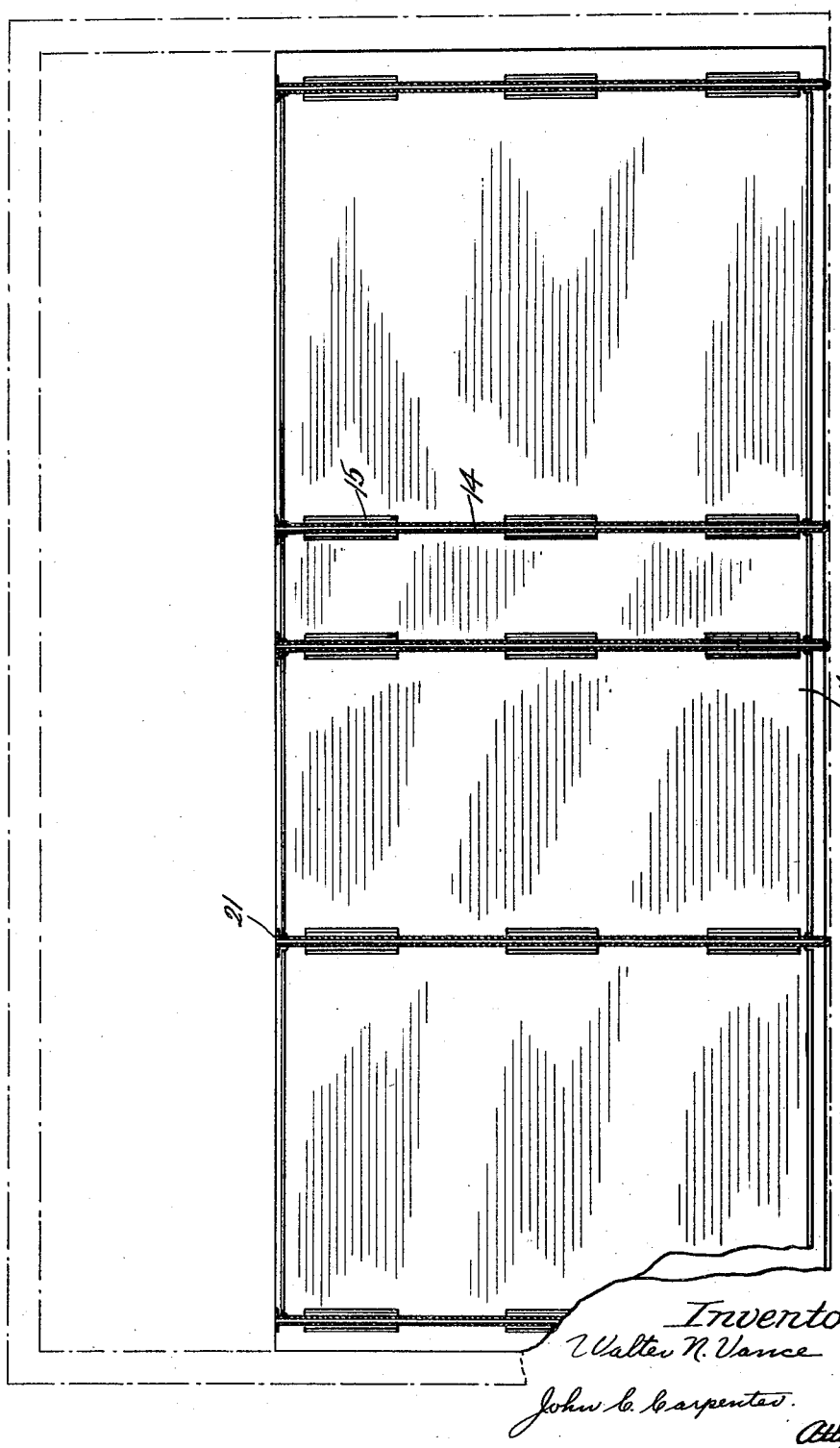
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Fig. 2



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Fig 3

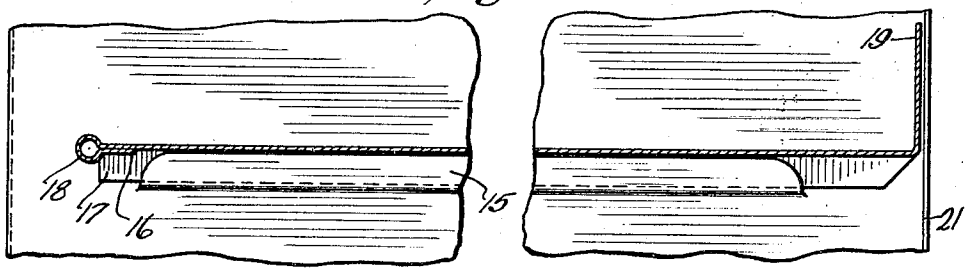


Fig. 4

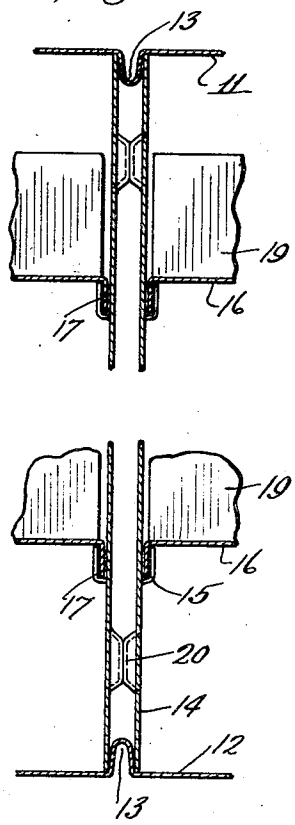
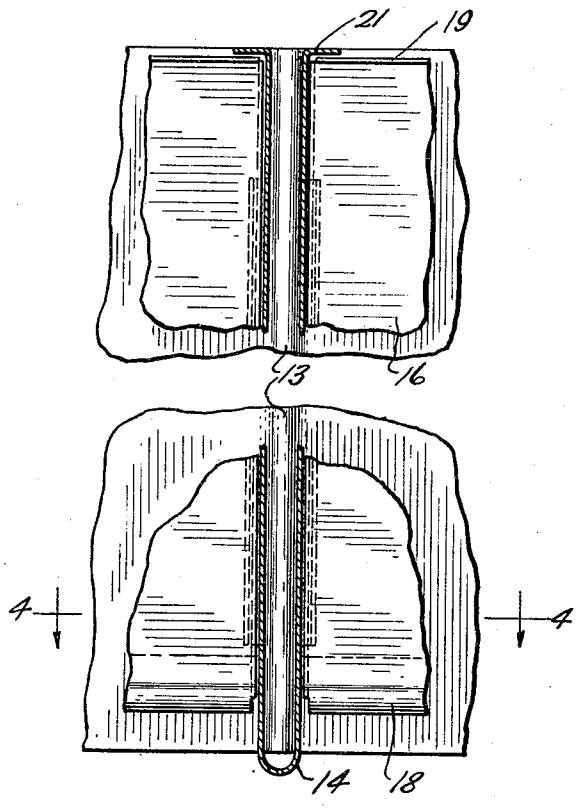


Fig. 5



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Patented Dec. 17, 1929 1,739,809

UNITED STATES PATENT OFFICE

WALTER N. VANCE, OF CHICAGO HEIGHTS, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO LYON METAL PRODUCTS, INCORPORATED, OF AURORA, ILLINOIS, A CORPORATION OF ILLINOIS

STEEL INSERT FOR STORE COUNTERS

Application filed January 20, 1928. Serial No. 248,111.

This invention relates to a system of adjustable shelves of inserts to be placed under counters or for like places.

An object of this invention is to provide a means whereby space under counters and other similar places may be utilized to the best advantage.

Another object of this invention is to provide a means whereby the size and disposition of shelving may be readily and easily altered to meet the changing needs of the user.

As far as I am aware, heretofore no system has been devised whereby the space occupied by shelves has been readily alterable without removing and rebuilding the entire system. One of the novel features of my invention is that shelving is readily removable and just as readily replaced in new positions. Another novel feature is that a part of the shelving may be removed and changed about without the necessity of disturbing other parts of the system. Another novel feature is the means employed to better utilize the storage space under store counters, etc., by means of adjustable shelving. Another novel feature is that since the parts are interchangeable, and due to the construction of certain members, a large variety of shelf arrangements may be secured within a minimum of effort and materials. Other novel and desirable features will be noted in the description of my system.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring now to the drawings,

Figure 1 is a front elevation of my system with dividers and shelves in place in one possible position;

Fig. 2 is a horizontal cross-section taken along the line 2—2 of Figure 1, showing a preferred arrangement of the frets which will support the shelves;

Fig. 3 is a detail of an individual shelf as taken along the line 3—3 of Fig. 1;

Fig. 4 is a vertical cross-section through a dividing member, taken along the line 4—4 of Fig. 5; and

Fig. 5 is an enlarged detail of a horizontal cross-section of a divider taken along the line 5—5 of Fig. 1.

Storekeepers and others often desire shelves to better utilize the space under counters and in similar places. By means of my all-steel insert with adjustable shelves and combined dividers and racks, I provide an insert which is readily alterable and practically entirely removable if desired. I provide top and bottom members or plates 11 and 12 to be screwed into place or otherwise securely fastened at the top and bottom of the space under the counter or other such place as may be desired. These top and bottom members are practically identical and carry ribs 13 running from front to back spaced at a given distance apart preferably on one inch centers. In installing these members care should be taken that the ribs are on the inside, that is, towards each other, with corresponding ribs vertically opposite each other to insure the correct positioning of the dividers. I provide vertical dividers 14 to divide the space longitudinally by engaging the ribs on the top and bottom plates. These dividers are of one piece of steel bent to a U-shape and spotwelded together as at 20. In making these dividers, I prefer to punch out and form the shelf supporting frets before the bend is made. Also, I sink the points to be spotwelded to a depth substantially one-half of the thickness of the finished divider. The welds are made at these points after the bend is made and give the required thickness to the divider with the sides in spaced apart relation. These points also serve to give the divider a strength and rigidity not otherwise obtained, since they act as struts and reinforcing members. Flanges 21 are provided at the back to provide stops for the shelves when they are inserted, the U-shaped portion of the divider providing a back stop for the divider against the ribs of the top and bottom plates.

At desirable intervals along the faces of the dividers frets 15 are provided, designed to carry the shelves 16 and disposed vertically

so that the shelves may be inserted at almost any height. In manufacture, these frets should be punched from the faces of the dividers before they are bent and welded together. While they may run nearly the full length of the divider, it is preferable to provide a number spaced apart at each elevation, as this gives greater strength to the divider and does not reduce the carrying strength of the frets. The shelves 16 are provided with flanges 17 along the sides to engage the frets 15 of the dividers. A loop 18 is provided on the front edge to present a strengthened smooth edge of the shelf. An upturned portion 19 at the back of the shelves provides a back to prevent materials from falling off at the back and to serve as a back for the insert if no back is otherwise provided.

The whole insert may be economically made from sheet steel. It is durable and readily adjustable and has other desirable features already mentioned. It can readily be seen from this description and on the drawings how a wide variety of different arrangements of the shelves is possible and how all parts, if so desired, may be removed, except the top and bottom members which take up but very little space.

Also, if desired, the top and bottom members may be secured in a suitable frame and a back member added. In such a case end members may be provided with frets to correspond to the frets on the dividers. This would permit the use of my system of adjustable shelves in other places than those mentioned.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that many changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In an adjustable shelf rack, corrugated top and bottom members, removable dividing members adapted to engage corresponding corrugations of the top and bottom members and shelves supported by the dividing members, said dividing members being formed at their opposed ends to embrace a corrugation whereby said dividing members may be supported in arranged position between registering corrugations in the top and bottom members.

2. In an adjustable shelf rack, corrugated top and bottom members mounted in spaced relation and providing spaced registering ribs of substantial depth and correspondingly spaced in both top and bottom members, dividers adapted to embrace registering ribs in the top and bottom members, and supporting means on the dividers to removably receive and support shelves between the dividers.

3. In an adjustable shelf rack, correspondingly corrugated top and bottom members arranged in spaced apart relationship, said members providing registering ribs of substantial depth, the ribs being uniformly spaced in each member, removable dividing members adapted to interlock between corresponding ribs of the top and bottom members, the dividing members having means to removably support shelves thereon and means to serve as back stops for the said shelves, the dividing members comprising a sheet folded to form spaced sides, the sides being spot-welded together, the folded portion of the dividing members forming a stop for the dividing members, and removable shelves supported by the dividing members and being provided with back stops for materials placed thereon.

4. In a sheet metal shelf rack, a corrugated sheet metal top and bottom providing spaced apart transverse ribs of substantial height, dividing members of substantially the same depth as the distance between said plates adapted to removably engage the ribs at their opposite edges, the dividing members being provided with supporting means and back stopping means for shelves, and shelves having means to removably engage the supporting means of the dividing members, and being provided with means to prevent the loss of materials placed thereon over the back of the shelves.

5. In an adjustatble sheet metal shelf rack, a corrugated sheet metal top wall providing a spaced series of downwardly extending ridges, a similarly corrugated sheet metal bottom wall spaced from the top wall and providing a similar spaced series of upwardly extending ridges and removable partitions adapted to detachably embrace registering ridges in said top and bottom walls whereby to provide means for adjusting the spacing of said partitions, said corrugations being adapted to strengthen the top and bottom walls and simultaneously furnishing means for supporting the partitions in arranged position.

6. In an adjustable sheet metal shelf rack, a corrugated sheet metal wall providing a spaced series of inwardly extending ridges, a second corrugated sheet metal wall spaced from said first mentioned wall and providing a similar spaced series of inwardly extending ridges and removable partitions extending between said spaced walls and detachably engaging said ridges at their opposed edges whereby the positions of said partitions may be adjusted, said partitions comprising a pair of spaced sheet metal members, secured together in spaced relationship and providing spaced edges adapted to re-

ceive a ridge therebetween whereby to support the partitions in place between the spaced walls.

7. In an adjustable sheet metal shelf rack, a corrugated sheet metal wall providing a spaced series of inwardly extending ridges, a second corrugated sheet metal wall spaced from said first mentioned wall and providing a similar spaced series of inwardly extending ridges and removable partitions extending between said spaced walls and detachably engaging said ridges at their opposed edges whereby the positions of said partitions may be adjusted, said partitions comprising a strip of sheet metal walled on itself to provide spaced apart sides, means securing said sides in spaced relationship to provide spaced edges adapted to receive a ridge therebetween whereby the partition may be supported in place between the spaced walls.

8. In an adjustable sheet metal shelf rack, a corrugated sheet metal wall providing a spaced series of inwardly extending ridges, a second corrugated sheet metal wall spaced from said first mentioned wall and providing a similar spaced series of inwardly extending ridges and removable partitions extending between said spaced walls and detachably engaging said ridges at their opposed edges whereby the positions of said partitions may be adjusted, said partitions comprising a sheet of metal walled at its mid-portion to provide spaced plates, means comprising registering struck out portions formed in the said plates for supporting the plates in spaced relationship to provide spaced edges adapted to receive a ridge therebetween whereby to support the partitions in place between the spaced walls.

9. In an adjustable sheet metal shelf rack, a corrugated sheet metal wall providing a spaced series of inwardly extending ridges, a second corrugated sheet metal wall spaced from said first mentioned wall and providing a similar spaced series of inwardly extending ridges and removable partitions extending between said spaced walls and detachably engaging said ridges at their opposed edges whereby the positions of said partitions may be adjusted, said partitions comprising a sheet of metal walled at its mid-portion to provide spaced plates, means comprising registering struck out portions formed in the said plates for supporting the plates in spaced relationship to provide spaced edges adapted to receive a ridge therebetween whereby to support the partitions in place between the spaced walls, said plates having struck out louvers therein and removable shelves supported at their edges by said louvers.

10. In an adjustable sheet metal shelf rack, a corrugated sheet metal wall providing a spaced series of inwardly extending ridges, a second corrugated sheet metal wall spaced from said first mentioned wall and providing a similar spaced series of inwardly extending ridges and removable partitions extending between said spaced walls and detachably engaging said ridges at their opposed edges whereby the positions of said partitions may be adjusted, said partitions comprising a sheet of metal walled at its mid-portion to provide spaced plates, means comprising registering struck out portions formed in the said plates for supporting the plates in spaced relationship to provide spaced edges adapted to receive a ridge therebetween whereby to support the partitions in place between the spaced walls, said plates having struck out louvers therein and removable shelves detachably and interlockingly engaged at their edges between registering louvers of adjacent partitions.

WALTER N. VANCE.