E. A. FELDTKELLER.

ADJUSTABLE STOCK RACK.

APPLICATION FILED MAY 9, 1917.

1,282,557.

Patented Oct. 22, 1918.

4 SHEETS—SHEET 1.

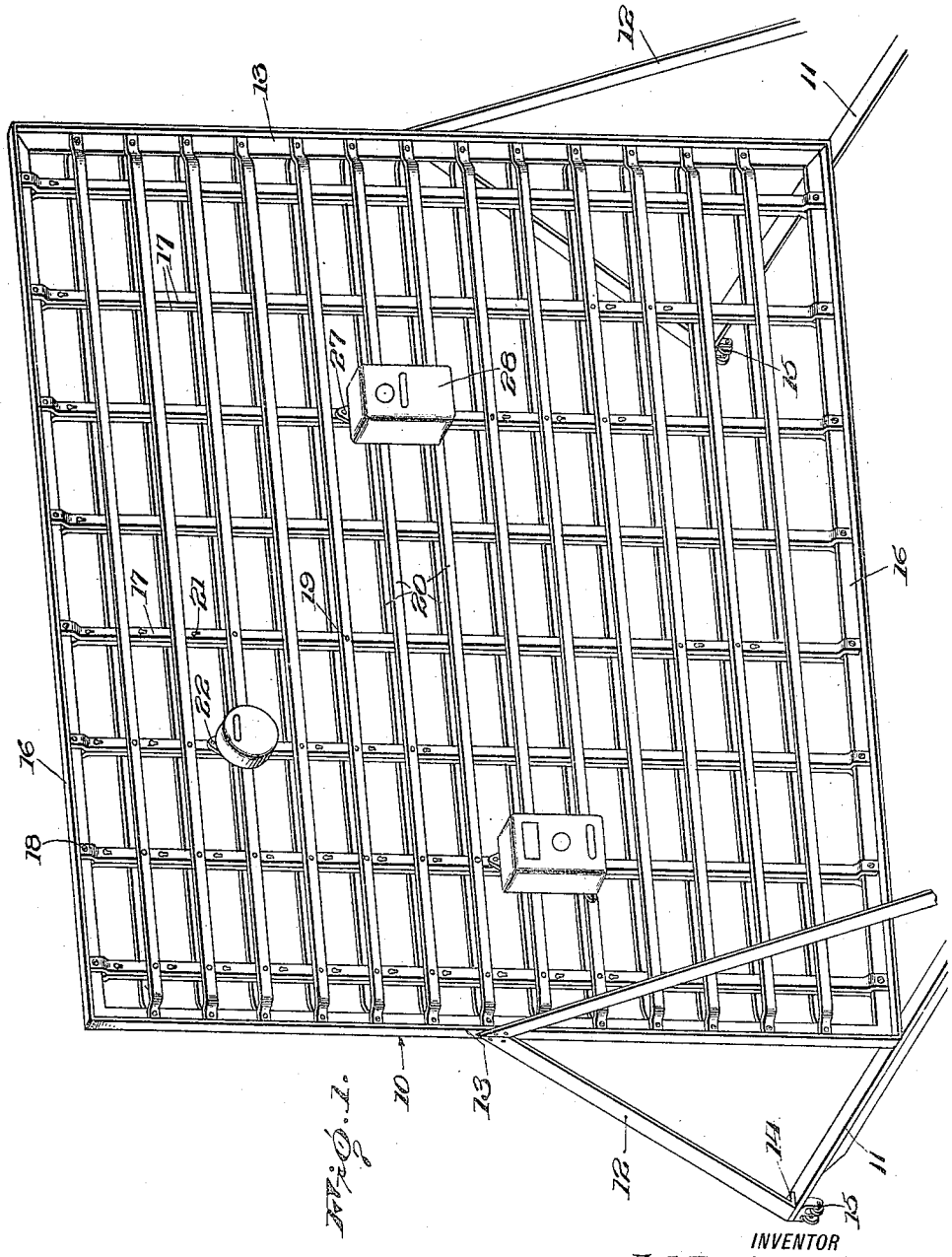


Fig. 1.

INVENTOR

E. A. Feldtkeller.

BY Thos. H. Tracy.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

E. A. FELDTKELLER.

ADJUSTABLE STOCK RACK.

APPLICATION FILED MAY 9, 1917.

1,282,557.

Patented Oct. 22, 1918.

4 SHEETS—SHEET 2.

Fig. 2.

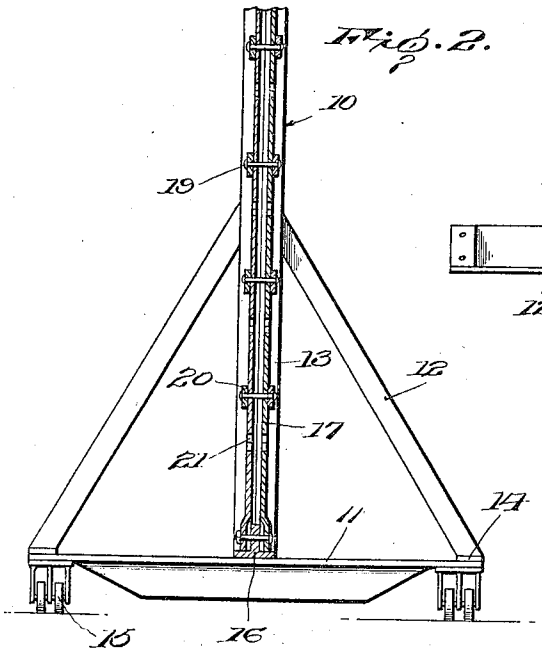


Fig. 3.

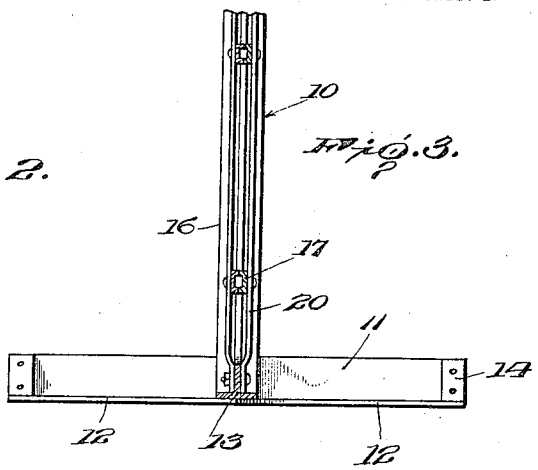
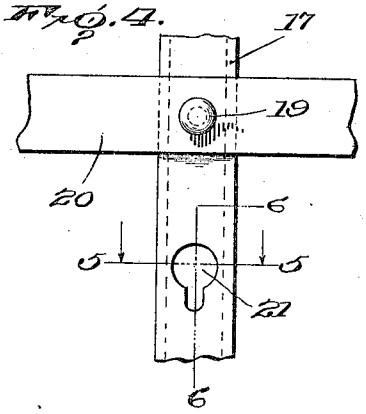


Fig. 4.



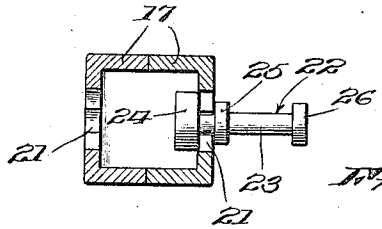


Fig. 5.

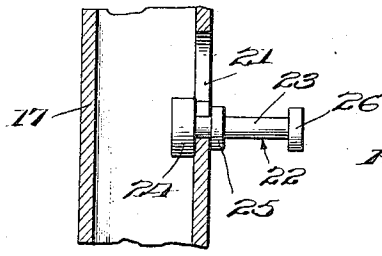


Fig. 6.

INVENTOR

E. A. Feldtkeller.

BY Howson & Howson

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

E. A. FELDTKELLER.

ADJUSTABLE STOCK RACK.

APPLICATION FILED MAY 9, 1917.

1,282,557.

Patented Oct. 22, 1918.

4 SHEETS—SHEET 3.

Fig. 7.

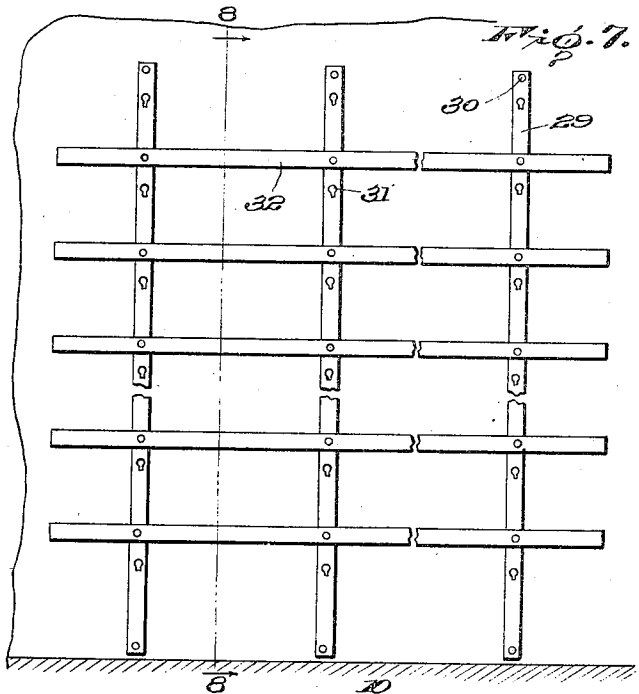
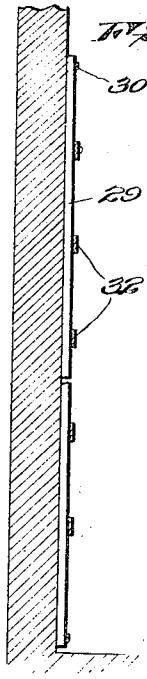


Fig. 8.



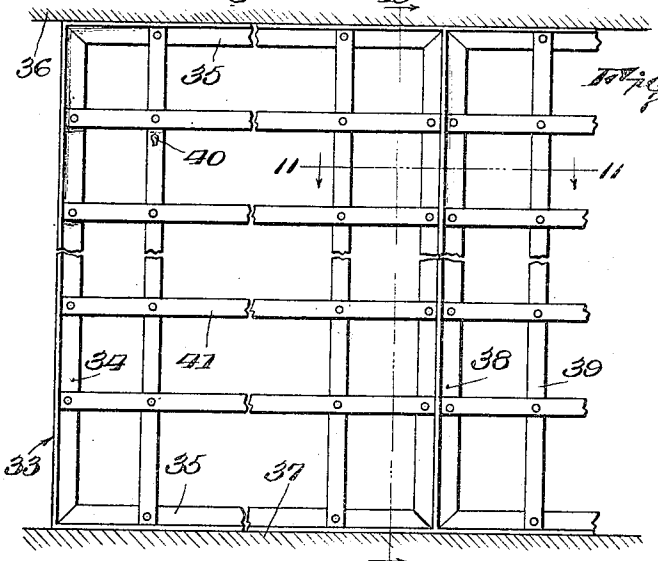


Fig. 9.

Fig. 10.

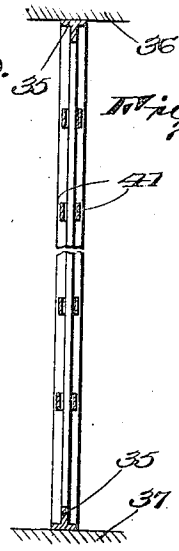
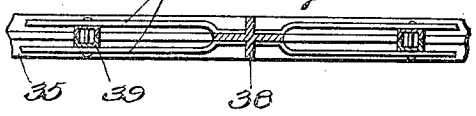


Fig. 11.



INVENTOR

E. A. Feldtkeller.

BY

ATTORNEYS

E. A. FELDTKELLER.

ADJUSTABLE STOCK RACK.

APPLICATION FILED MAY 9, 1917.

1,282,557.

Patented Oct. 22, 1918.

4 SHEETS—SHEET 4.

Fig. 12.

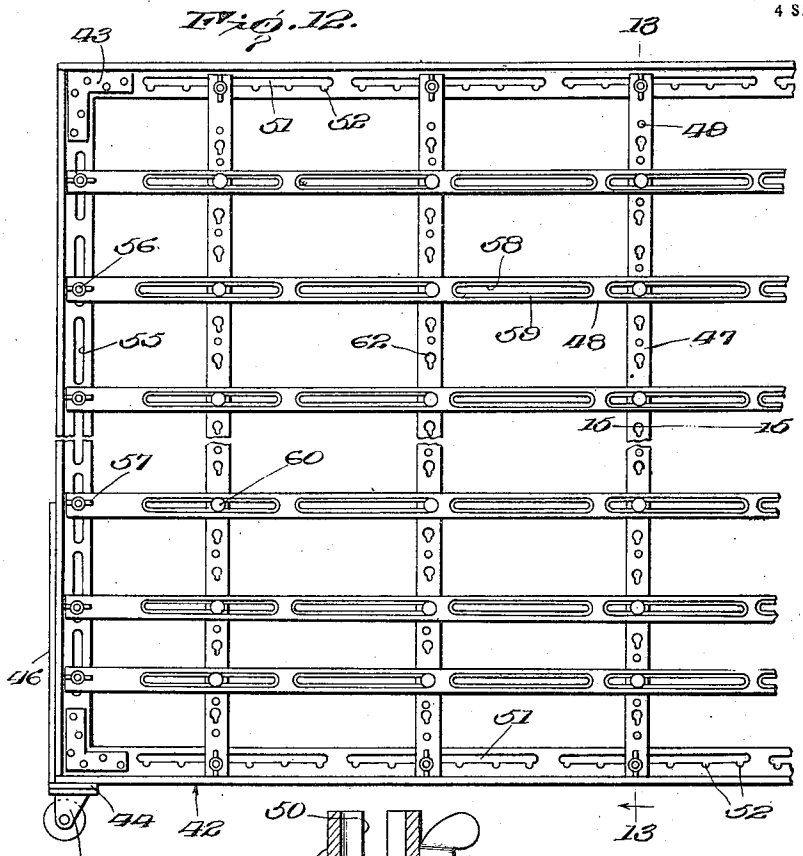


Fig. 13.

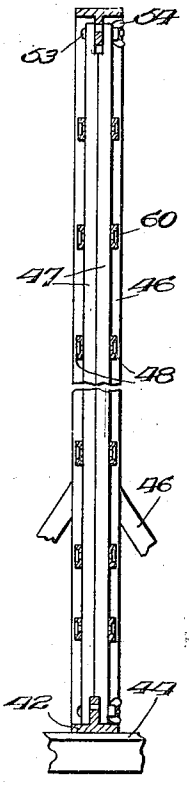
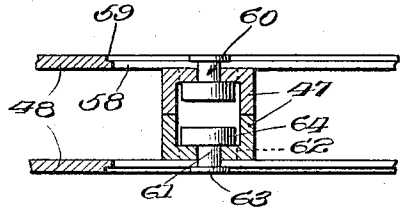


Fig. 14.

Fig. 15.



INVENTOR

E. A. Feldtkeller.

BY

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDGAR A. FELDTKELLER, OF MILWAUKEE, WISCONSIN.

ADJUSTABLE STOCK-RACK.

1,282,557. Specification of Letters Patent. **Patented Oct. 22, 1918.**

Application filed May 9, 1917. Serial No. 167,499.

To all whom it may concern:

Be it known that I, EDGAR A. FELDTKELLER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Adjustable Stock-Racks, of which the following is a specification.

My invention relates to new and useful improvements in adjustable stock racks, the primary object of my invention being the provision of a rack which will provide a reliable, efficient and at the same time pliable method for handling electrical meters and similar contrivances and which may be profitably employed in meter testing plants and testing departments of electric light and power companies where a large number of meters of various kinds must be kept in stock and must be moved from place to place for testing purposes and the like.

In this connection, a still further object of my invention consists in the construction of a portable all-metal stock rack which shall be strong and yet light and which will be capable of receiving electrical meters of all types, as well as various other articles or objects of a kindred nature.

A still further object of my invention resides in the provision of a stock rack of the above character which, with slight modifications, may be permanently built against the wall of a room or may be built into a room in such a manner as to provide corridors between a number of the racks.

A still further object which I have in view is the provision of a rack construction employing a supporting frame and a plurality of vertical and transverse supporting elements adjustably mounted upon the frame and provided with means for receiving electrical meters in such a manner that the meters will be suspended in vertical position as is necessary in many instances, due to their internal construction.

With these and other objects in view, my invention will be more fully described, illustrated in the accompanying drawings, and then specifically pointed out in the claims which are attached to and form a part of this application.

In the drawings:

Figure 1 is a perspective view of an improved stock rack constructed in accordance with my invention, this rack being portable and adjustable;

Fig. 2 is a fragmentary vertical sectional view;

Fig. 3 is a fragmentary horizontal sectional view;

Fig. 4 is a fragmentary elevation upon an enlarged scale, showing one of the supporting peg receiving slots;

Fig. 5 is a section taken on the line 5—5 of Fig. 4, looking in the direction of the arrows, and showing a peg in place;

Fig. 6 is a section on the line 6—6 of Fig. 4 with the peg in place;

Fig. 7 is a fragmentary elevation of an adjustable rack fixed to the wall of a building;

Fig. 8 is a vertical sectional view taken on the line 8—8 of Fig. 7, looking in the direction of the arrows;

Fig. 9 is a front elevation of a rack of the type to be built into a room and spaced from the walls thereof;

Fig. 10 is a vertical sectional view taken on the line 10—10 of Fig. 9, looking in the direction of the arrows;

Fig. 11 is a fragmentary horizontal sectional view taken on the line 11—11 of Fig. 9, also looking in the direction of the arrows;

Fig. 12 is fragmentary elevation of a portable stock rack possessing additional features of adjustment;

Fig. 13 is a vertical sectional view taken on the line 13—13 of Fig. 12, looking in the direction of the arrows;

Fig. 14 is a central longitudinal sectional view taken through the upper end of one of the vertical supporting elements of the rack shown in Fig. 12;

Fig. 15 is a fragmentary sectional view taken on the line 15—15 of Fig. 12.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The simplest form of portable and adjustable stock rack, constructed in accordance with my invention, is disclosed in Figs. 1 to 6 inclusive and includes an outside frame 10, preferably rectangular in shape and formed of T-iron, the stem forming web of which is directed inwardly. T-iron cross pieces or feet 11 are secured to the lower corners of the frame and braced by diagonal braces of band iron 12 which are secured at one end to the side members 13 of the frame and which have their opposite ends laterally bent, as shown at 14, and secured

to the upper faces of the cross pieces. The depending webs of the cross pieces, at their ends, are cut-away to permit swiveled attachment of double roller casters 15. Obviously, the length of the cross pieces or feet 11 and the size of the casters will be dependent upon the size of the rack which they support and the load which the rack is intended to carry and intermediate cross pieces and casters may be provided, if deemed necessary.

Within this frame 10 and riveted to the inwardly directed flanges of the top and bottom members 16 thereof are upright columns or standards 17 formed of channel iron set with the flanges face to face at intervals to provide in effect tubular standards substantially square in cross section, as will be appreciated by reference to Fig. 5 of the drawings. These channel irons are, of course, suitably bent or cut-away at their ends to receive the flanges of the frame members to which they are secured by rivets 18 or other suitable fastening devices. Preferably, these standard are provided at regular spaced intervals, but they may be otherwise spaced, if desired, as for instance where the rack is to support a large number of electrical meters or other devices of greatly differing type.

Riveted, as shown at 19, to these standards and to the inwardly directed flanges of the side members 13 of the frame and in vertical spaced relation to each other, are band iron cross bars 20 which are horizontally disposed and which are preferably regularly spaced from each other. It should also be noted that each of these cross bars secured to one face of the rack, is directly opposed to a corresponding cross bar secured to the opposite face of the rack. Each of the supporting standards 17 is stamped out at suitable intervals, such as slightly below each of the cross bars, to provide key-hole shaped slots 21, as indicated in Fig. 1, and as most clearly shown in Fig. 4. Each rack is provided with a plurality of removable and interchangeable supporting pegs 22, the construction of which is clearly shown in Figs. 5 and 6. Each supporting peg includes a shank portion 23 provided at one end with spaced annular locking flanges 24 and 25 and at its other end with a retaining head or enlargement 26. The terminal locking flange 24 is proportioned to pass through the larger end of one of the slots 21 and the shank portion between the locking heads is proportioned to seat within the reduced end of the slot. Furthermore, the peg is so proportioned that when applied in the manner shown in Figs. 5 and 6, the heads will engage snugly against the inner and outer faces of the standards and the pegs will be held against any movement other than vertical movement. The peg may be, however, removed at any time by lifting it upwardly until its head 24 is in alinement with the larger end of the slot.

The manner of employing the above described rack will be readily understood by reference to Fig. 1 of the drawings, the supporting eyes 27 of meters 28 being engaged over pegs mounted in proper position upon the rack and the meters being held against any swinging movement as they rest against the various cross bars of the rack. Obviously, a rack of this character may be employed for supporting a vast range of objects and I do not therefore in any way limit myself to its use as a meter rack, although it is primarily designed for such purpose.

In Figs. 7 and 8, I have illustrated a modified form of rack construction which, while adjustable, is not portable. In the construction there shown, upright supporting members 29, of channel iron, are secured in parallel spaced relation directly to the wall of a building by screws 30 or either suitable fastening means and are punched out to provide the key hole shaped peg receiving slots 31. Secured in parallel spaced relation to these supports are the transverse bars 32, of band iron, corresponding to the supporting bars 20. Of course, pegs 22 are provided with this type of rack and meters or other articles are supported on it in the manner already described.

In Figs. 9 to 11, I have illustrated a still further modification of rack structure in which the rack is adjustable, but not portable, and is rigidly built into a room between the floor and ceiling, but in spaced relation to the walls of the room. With this form of rack, a rectangular frame 33, corresponding to the frame 10, and formed of T-iron 34, is provided, the upper and lower members 35 of the frame being secured directly to the ceiling 36 and floor 37 of the room. This rack, however, has its frame provided at spaced intervals with vertically disposed braces 38 of cross iron which, together with the usual vertical supporting bars 39, of channel iron, produce a rigid and strong structure. The supporting bars 39 are, of course, formed with the peg receiving openings 40, and cross bars 41, of band iron, are secured to the supporting bars and at their ends either to the inwardly directed flanges of the side frame members 34 or to the adjacent flanges of the cross iron braces 38, this construction being fully shown in Figs. 9 to 11. It will be clear that a number of racks of this character may be built in parallel spaced relation, providing corridors between them so that ready access may be had to any goods stored upon them.

In Figs. 12 to 15 inclusive, I have illustrated a portable rack which, in addition to the adjustment of the pegs, also has its ver-

tical supports and cross bars adjustable relative to each other and to the frame. In other respects, it is substantially identical with the form of rack shown in Fig. 1. This rack includes a rectangular frame 42, of T-iron, which may be preferably braced at its corners by L-shaped plates 43 and which is mounted upon cross pieces 44, of T-iron, having casters 45 and being properly braced to the frame by braces 46. Supported by this frame and adjustable thereon are a plurality of vertical supporting standards 47, of channel iron, and cross bars 48, of band iron. Each vertical supporting standard 47 is riveted, as shown at 49, to its opposed standard, the heads of the rivets being countersunk in the standards and the opposing flanges of the channel irons 47 making up the resultant compound standards, are cut away at the ends, as shown at 50, so that they may straddle the inwardly directed flanges of the upper and lower members of the frame 42. Both the upper and lower members of the frame are formed at close interval with relatively long horizontally extending slots 51 which, at suitable intervals, are formed in their lower edges with notches 52, the notches of the upper frame member being in vertical alinement with corresponding notches in the lower frame member. Clamping bolts 53 are passed through the ends of the supporting standards and through the slots 51 and are provided with winged clamping nuts 54 by means of which the spaced portions of the ends of the standards may be sprung together to clamp between them the inwardly directed flange of one of the frame members. In any given adjusted position, the shanks of these clamping bolts will be seated in a pair of vertically alined notches 52 in the upper and lower frame members so that the standard will be held against any movement. However, by slightly loosening the winged nuts 54, the standard may be raised somewhat to bring the shanks of the bolts out of the notches and permit movement of the standard laterally to another position when it may be lowered and clamped in place.

In like manner, the vertical end members of the frame 42 are formed at closely spaced intervals with vertical slots 55 and clamping bolts 56 have their shanks passed through the openings formed in the ends of opposed cross bars 48 and through these slots and receive winged clamping nuts 57 so that the cross bars may be secured in any desired position and yet may be freed for vertical adjustment at will. Each of the cross bars 48 is provided at frequent intervals with longitudinally extending slots 58 and the outer faces of these bars, surrounding the slots, are grooved, as shown at 59. Coupling pegs 60 are provided for adjustably securing the cross bars to the supporting standards, each coupling peg including a shank 61 capable of movement in the slots 58 and also capable of seating in the smaller end of keyhole shaped openings 62 formed in the standards to receive the usual supporting pegs 22. The shank of the coupling peg is formed at one end with a head 63 which seats in the channeled portion of the cross bar surrounding the slot therein so as to lie flush with the outer face of the cross bar and at its opposite end with a locking head 64 capable of passage through the larger end of the keyhole slot or opening. These pegs are, of course, formed in two sections which are secured together after the shank has been passed through the slot of the cross bar.

Obviously, because of the connecting peg and slot fastenings between the cross bars and supporting standards and because of the manner in which the ends of the supporting standards are joined to the frame, such standards may be adjusted from side to side at will to adapt the rack for various purposes. Furthermore, it will be obvious that by removing the winged clamping nuts 57 and their bolts of any pair of cross bars, such cross bars may be raised to free their coupling pegs from the standards and may then be reapplied at any desired point and again secured by the coupling pegs, bolts and clamping nuts. Because of this, practically any desired lateral adjustment of the vertical standards, together with any desired vertical adjustment of the cross bars may be had, in addition to the article supporting peg adjustment common to all the racks disclosed in the drawings.

Although I have illustrated and described my invention in all its details of construction, it will of course be understood that I do not wish to limit myself to such details, but reserve the right to make any changes, within the scope of the appended claims, without in the slightest degree departing from the spirit of my invention.

Having thus described the invention, what is claimed as new is:

1. In a rack, a plurality of spaced vertical supporting members of channel iron rigidly fastened at their upper and lower ends, a plurality of flat cross bars secured to the supporting members in vertical spaced relation, and a plurality of article-receiving devices removably engaged in and projecting from the supporting members between the cross bars.

2. A rack including a substantially rectangular frame of T-iron with the stem forming flange of the iron directed inwardly, a plurality of supporting members secured at their ends to the flanges of the upper and lower members of the frame and having their intermediate portions formed with peg receiving openings, a plurality of

pegs removably applicable to the openings, and a plurality of flat cross bars secured at points between their ends to the supporting members and having their ends turned inwardly and secured to the flanges of the side members of the frame.

3. A rack including a frame having its top, bottom and ends provided with inwardly extending flanges formed with longitudinal slots, the slots in the top and bottom flanges having notches in their lower walls, vertical supporting members having their ends disposed against the flanges of the top and the bottom of the frame, securing bolts inserted through said ends and the slots in said flanges and adapted to rest in the notches of the lower walls of said slots, cross bars provided between their ends with longitudinal slots and having their ends resting against the flanges on the ends of the frame, securing bolts inserted through the ends of the cross bars and the slots in the adjacent flanges, securing bolts inserted through the slots in the cross bars and through the supporting members, and article receiving pegs engageable in the supporting members.

4. A rack including a frame, a plurality of spaced substantially vertically disposed supporting members, means detachably connecting the upper and lower ends of said members to the upper and lower portions respectively of the frame and arranged to permit adjustment of such members lengthwise of the frame, a plurality of cross bars, means detachably connecting the ends of the cross bars to the sides of the frame and the intermediate portions of the cross bars to the vertical supporting members and permitting vertical and independent adjustment of the cross bars, and article-suspending pegs detachably engaged in the supporting members between the cross bars.

5. A rack including a frame, a plurality of substantially vertically disposed supporting members provided with openings in their outer sides, means detachably connecting the ends of said members to the upper and lower portions of the frame and arranged to permit adjustment of said members lengthwise of the frame, a plurality of cross bars each provided with longitudinal slots, means detachably connecting the ends of the cross bars to the sides of the frame and permitting vertical and independent adjustment of the cross bars, fastening devices passing through the longitudinal slots in the cross bars and engaged in same of the openings in the supporting members whereby the supporting members and cross bars may be both adjusted, and article-suspending pegs detachably engaged in other of the openings in the supporting members between the cross bars.

In testimony whereof I affix my signature.

EDGAR A. FELDTKELLER. [L. S.]

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."