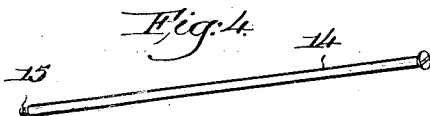
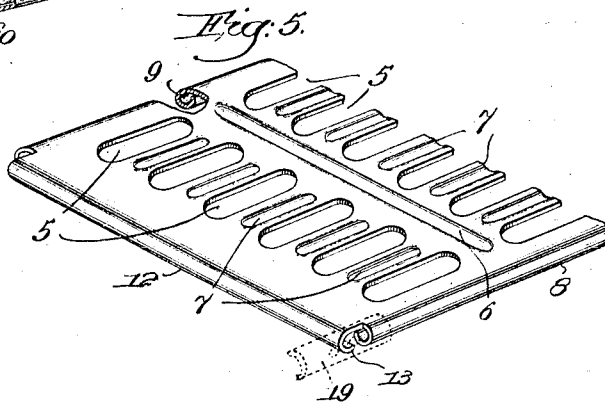
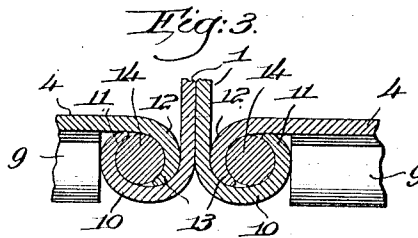
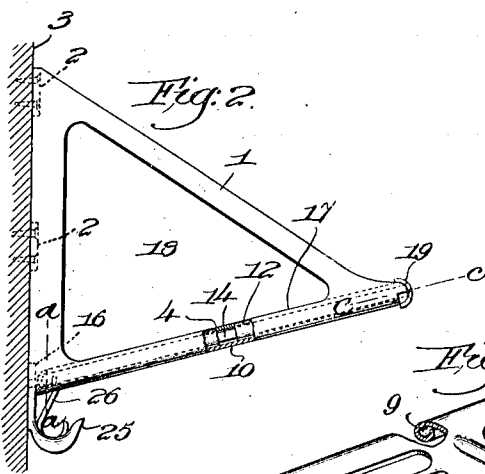
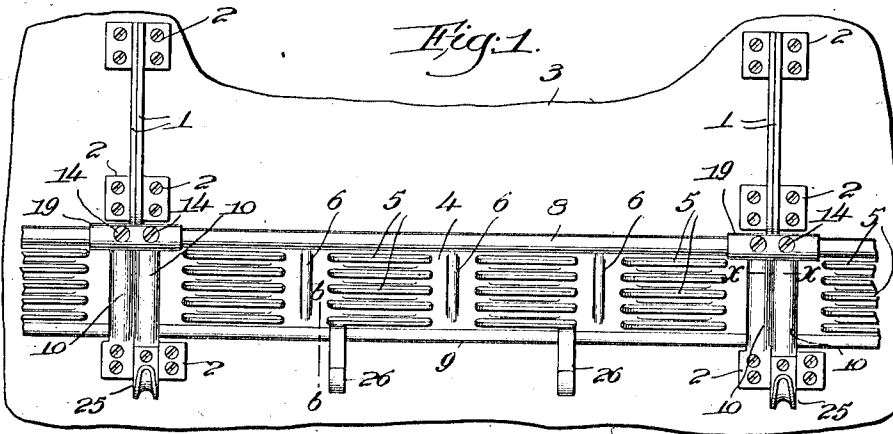


P. L. BRYNING.
RACK OR SHELF.
APPLICATION FILED APR. 17, 1911.

1,040,269.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 1.



Witnesses,
Edward G. Allen.
Warren O'Neil.

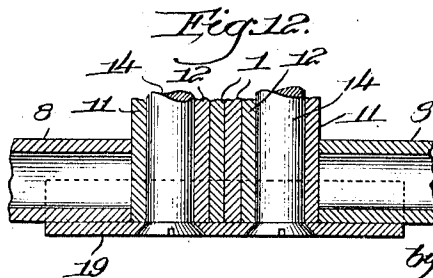
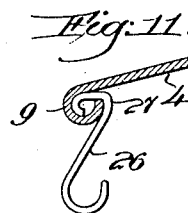
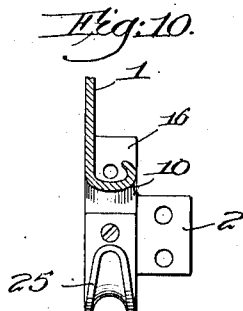
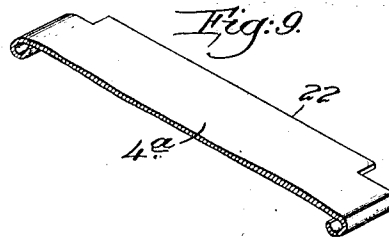
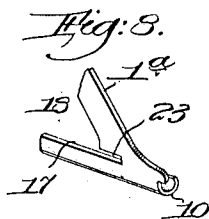
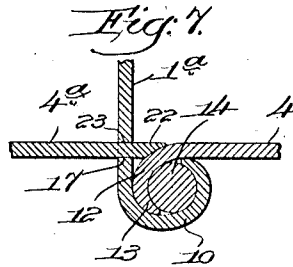
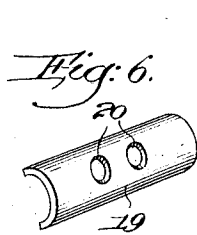
Inventor:
Percy L. Bryning,
by Edwards Hand & Smith
Attorneys

P. L. BRYNING.
 BACK OR SHELF.
 APPLICATION FILED APR. 17, 1911.

1,040,269.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 2.



Witnesses,
 Edward F. Allen.
 Warren O. Nail.

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UNITED STATES PATENT OFFICE.

PERCY L. BRYNING, OF BROOKLINE, MASSACHUSETTS, ASSIGNOR TO BRYNING SHELF COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

RACK OR SHELF.

1,040,269.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed April 17, 1911. Serial No. 621,440.

To all whom it may concern:

Be it known that I, PERCY L. BRYNING, a citizen of the United States, residing at Brookline, county of Norfolk, and State of Massachusetts, have invented an Improvement in Racks or Shelves, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts:

This invention relates to racks or shelves and has for its object to provide a novel rack or shelf construction which is made of sheet metal and which is constructed in sections that can be readily assembled to constitute a rack or shelf of any desired length; to provide a novel manner of connecting the shelves to the brackets or supports whereby the shelves may be readily detached for the purpose of being cleaned, or for any other purpose; and to otherwise improve racks or shelves, all as will be more fully hereinafter described and then pointed out in the appended claims.

My invention can be embodied in racks or shelving capable of use in various locations, such, for instance, as in cars, boats, school rooms, halls, gymnasiums, etc., and in order to illustrate the principle of the invention I have chosen to show it as it might be embodied in a package or parcel rack for railway cars, but I wish to make it clear that the invention is not confined in its use to this particular type of rack.

Referring to the drawings wherein I have shown some embodiments of my invention, Figure 1 is a front view of a portion of a car rack embodying my invention; Fig. 2 is a side view of one section of a rack embodying my invention; Fig. 3 is an enlarged sectional view on substantially the line *x-x*, Fig. 1, showing one way in which the shelf is locked to the bracket or end support; Fig. 4 is a perspective view of one of the locking rods; Fig. 5 is a perspective view of one end of one of the shelves; Fig. 6 illustrates the tie member; Fig. 7 is a view somewhat similar to Fig. 3, but showing a modified construction; Fig. 8 is a fragmentary perspective view of a portion of the bracket shown in Fig. 7; Fig. 9 is a fragmentary perspective view of one end of the shelf in connection with the bracket shown in Fig. 8; Fig. 10 is a section on substantially the line *a-a*, Fig. 2; Fig. 11 is a section on the line

b-b, Fig. 1; Fig. 12 is a section on the line *c-c*, Fig. 2.

My improved shelving is made in sections and each section comprises two end supports and a shelf sustained thereby. Where the rack or shelf is to be used as a parcel rack in railway cars, as shown in the drawings, the end supports will be in the form of brackets and of such a shape as to be fastened up to the wall of the car and as to hold the shelf slightly inclined from the horizontal thereby to prevent the articles thereon from being thrown off as usual in car racks.

In my improvements I propose to make the brackets and the shelving of sheet metal which is stamped or pressed into the desired shape. In the embodiment of the invention shown in Figs. 1 to 5, the two brackets for each shelf are designated 1, and these are provided with ears or flanges 2 by which they may be secured to the wall 3 of the car in usual way. The shelf which is supported by the brackets is designated generally by 4 and it is made of sheet metal as stated above. The shelf will preferably be provided with apertures 5 so as to give it an open-work appearance and will also be provided with the transverse ribs 6 to give it strength. Said ribs and apertures can be readily formed by means of a proper die or press. I will further preferably provide the shelf with the longitudinal rib 7 situated between the apertures 5 thereby to further stiffen the structure. The shelf is shown as having its front and rear edges curved over, as shown at 8 and 9, respectively, thereby to present an ornamental appearance, and also to provide what amounts to a stiffening flange that extends longitudinally of the shelf.

In the preferred embodiment of my invention each bracket is provided with a laterally-extending lip on which the shelf is supported, and I will preferably make each of said lips with an upwardly and inwardly-directed portion and will provide the end of each shelf with a downwardly and inwardly-directed edge which sits in back of the upwardly-directed portion of the lip, thus providing for locking the lip and flange together.

In the drawings the supporting lip on the bracket is designated 10, and it can conveniently be formed by bending up the

lower edge of the blank from which the bracket is made so as to form the lip having substantially the shape shown in Fig. 3, that is, a laterally-extending lip having the upwardly and inwardly-directed portion 11. The flange on the shelf 4 is shown at 12 and can be made by bending the end of the blank from which the shelf is made so as to constitute said flange, and this flange will preferably be given substantially the shape shown in Fig. 3, and the lower edge 13 thereof will be directed inwardly slightly. The shape of the flange 12 and lip 10 are such as to permit the flange to be readily dropped into place behind the lip, as seen in Fig. 3. In order to secure the shelf to the lip I have provided a locking member 14 which is inserted between the flange and the upwardly-directed portion 11 of the lip and which by engagement with the said portion 11 of the lip and the portion 13 of the flange locks the shelf to the bracket so that the shelf cannot be lifted off from the supporting lip. A simple rod will answer the purpose, for it will be readily observed that when the rod is inserted in place the space between the body of the bracket 1 and the extremity of the lip 10 is not of sufficient width to permit the locking bar 14 and the flange to be moved laterally therethrough.

The locking member 14 may be held in place in any suitable way either by its frictional engagement with the supporting lip and the flange, or by being provided at its extremity with a screw-threaded portion 15, as shown in Fig. 4, which is adapted to have screw-threaded engagement with a nut. This nut may be a portion 16 of the bracket, or may be separate therefrom. The locking rods will preferably be provided at their outer ends with heads which will prevent the shelf from being moved forwardly on the lips 10. With this construction it will be readily seen that the shelf can be simply dropped into place and may then be locked in place by inserting the two locking members from the outer edge of the shelf.

In constructing car racks it is customary to place several sections end to end so as to provide what amounts to a continuous rack. My invention is adapted for a similar arrangement, as the brackets at the ends of the sections can be placed closely together, as shown in Fig. 1, in which case a substantially continuous shelf is provided. I will preferably make my brackets skeleton in shape, as best seen in Fig. 2, and with the lower edge 17 of the opening 18 through each bracket so that it will come at substantially the level of the shelf. This has the advantage that the bracket does not present any obstruction above the plane of the upper surface of the shelf, and um-

brellas, canes, and small parcels can be readily slipped through the brackets from one shelf to another. Where the rack is thus made in sections which are arranged with the ends abutting each other, it is desirable to tie the sections together so as to make a rigid structure. I accomplish this herein by means of tie-members 19 which are adapted to tie together the outer ends of the locking members of two adjacent sections. The tie members 19 may have any suitable shape, and each is provided with two apertures 20 through which the locking members 14 extend. I will preferably make the tie members of the shape shown in Figs. 1 and 6, so that it will fit over the front edge of the shelf and will close the gap between the meeting ends of adjacent shelves. The tie member may conveniently be made of sheet metal rolled or pressed into shape. A tie member of this shape not only ties together the adjacent shelf sections but also constitutes a finish for the front edge of the shelf which covers any gap between adjacent shelves, and also closes over and covers any opening formed by the cutting away of the corners of the shelf during its manufacture, as clearly seen in dotted lines Fig. 5. Furthermore, the tie member acts to support the front edges of the shelves where they are not supported on the lips 10 and thus stiffens and adds strength and rigidity to the structure.

In the embodiment of the invention shown in Figs. 1 to 5 the shelf 4 is provided with the downwardly and inwardly-directed flange 12 at each end and two brackets set back to back are provided at the meeting points of the adjacent rack sections. It is not necessary to my invention that the shelf should have this construction at both ends and that a locking member 14 should be employed at each end of the shelf. In Figs. 7, 8 and 9 I have shown an embodiment of the invention wherein a single bracket supports the ends of two shelf sections. In this embodiment the bracket 1^a is provided with the lip 10 having the upwardly and inwardly-directed portion 11, as above described, and the shelf 4 will have the flange 12, all as above described, to cooperate with the lip 10. The adjacent shelf section 4^a, however, is provided at its end with the extension 22 which merely rests on the edge 17 of the opening 18 formed in the bracket 1^a. In order to hold this end of the shelf down, I propose to provide the bracket with a notch or notches 23 into which the corner of the extension 22 is entered. Where this construction is employed I propose to form the bracket with the edge 17 at such a level that when the shelf 4^a is in position it will be at the same level as the shelf 4. With this construction a single bracket serves to

support the meeting ends of two adjacent shelf sections.

I proposed to provide the brackets with hooks 25 on which garments may be hung, and I also propose to provide a plurality of auxiliary hooks 26 which are provided with the curved upper ends 27 that are adapted to be inserted into the curved edge 9 at the rear of the shelf. These auxiliary hooks 15 can be readily inserted into place or removed from the shelf and can also be adjusted longitudinally of the shelf to suit the convenience of the persons using the rack.

Where the invention is embodied in shelving of other types than package racks for cars, the end supports may assume some other form than brackets and I do not wish to be limited to a construction in which the shelves are supported on brackets adapted 20 to be attached to a wall.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a shelf or rack, the combination with 25 a sheet metal end support having one edge thereof bent laterally to form a supporting lip, of a shelf sustained by said lip, and means to lock the shelf to the lip.

2. In a shelf or rack, the combination with 30 a metal end support having an integral portion thereof at one edge bent laterally to form a supporting lip, of a shelf sustained by said lip, and means connecting said shelf and lip which holds the shelf against upward movement. 35

3. In a shelf or rack, the combination with two end supports, one of which has a laterally and upwardly-directed lip, of a shelf sustained by said end supports and bent at 40 one end to constitute a downwardly-directed flange to enter behind the upwardly-directed portion of the lip, and means to lock said flange and lip together.

4. In a shelf or rack, the combination with 45 two end supports, one of which has a laterally and upwardly-directed lip, of a sheet metal shelf sustained by said end supports and bent at one end to constitute a downwardly-directed flange to enter behind the upwardly-directed portion of the lip, and locking means extending longitudinally of 50 the flange and lip and locking them together.

5. The combination with two brackets, each of which has a laterally and upwardly-directed lip with an inwardly-bent end, of 55 a sheet metal shelf sustained by said brackets and provided at each end with a downwardly and backwardly-curved flange, said flanges being adapted to enter behind said lips, and a locking rod extending longitudinally of each lip and inserted between it and the flange thereby to lock the lip to the flange. 60

6. In a rack, the combination with brackets, of a shelf supported thereby and having

one edge bent back on itself, and hooks detachably connected to said backwardly-bent edge of the shelf.

7. In a shelf or rack, the combination with two brackets, each of which has a laterally and upwardly-directed lip with an inwardly-bent end, of a sheet metal shelf sustained by said bracket and provided at each end with a downwardly and backwardly-curved flange, said flanges being adapted to enter 70 behind said lips, a locking rod extending longitudinally of each lip and inserted between it and the flange thereby to lock the lip to the flange, and a nut engaging said rod thereby to prevent it from being withdrawn. 75

8. In a shelf or rack, the combination with a plurality of separate shelf sections arranged end to end, each comprising a pair of end supports and a shelf supported 80 thereby, one end support of one section abutting the end support of the adjacent section, of a tie member embracing the edges of the shelves and connecting together the abutting end supports. 85

9. In a shelf or rack, the combination with a plurality of shelf sections, each shelf section comprising a pair of brackets, each having a laterally and upwardly-directed lip, of a shelf sustained by said lips and provided at each end with a downwardly-turned flange to enter behind the lips, a locking rod extending longitudinally of each lip between it and the flange of the shelf, the brackets of two adjacent shelf sections abutting each other, and tie members tying together the locking rods on the meeting ends of adjacent shelf sections thereby connecting said sections. 90

10. In a rack, the combination with 105 brackets, of a shelf supported thereby and having one edge bent back on itself, and hooks detachably connected to said backwardly-bent edge of the shelf and adjustable longitudinally thereon. 110

11. In a shelf or rack, the combination with a plurality of shelf sections, each shelf section comprising a pair of brackets, each having a laterally and upwardly-directed lip, of a shelf sustained by said lips and provided at each end with a downwardly-turned flange to enter behind the lips, a locking rod extending longitudinally of each lip between it and the flange of the shelf, the brackets of two adjacent shelf sections 115 abutting each other, and tie members overlapping the meeting ends of adjacent shelves and tying together the locking rods at said meeting ends. 120

12. In a shelf structure, the combination 125 with two end supports, each of which has a laterally and upwardly-directed lip, of a shelf sustained by said end supports and bent at its ends to constitute downwardly-directed flanges to enter behind the up- 130

wardly-directed portions of the lips, and means to lock said flanges and lips together to prevent upward movement of the shelf relative to the end supports.

5 13. In a shelf structure, the combination with a plurality of separate shelf sections arranged end to end, each comprising a pair of end supports and a shelf supported thereby, the end support at one end of one section
10 abutting the end support at the end of the other section, of a tie member embracing the meeting edges of the two shelves, and means connecting said tie member to each shelf, said tie member covering the joint where
15 the shelves meet.

14. In a shelf structure, the combination with a plurality of separate shelf sections arranged end to end, each comprising a pair of end supports and a shelf supported there-
20 by, the end support at one end of one section abutting the end support at the end of the other section, of a tie member embrac-

ing the meeting edges of the two shelves. and means connecting said tie member to each shelf and to the abutting end supports, 25 said tie member covering the joint where the shelves meet.

15. In a shelf structure, the combination with two end supports, each of which has a laterally and upwardly-directed lip, of a 30 shelf provided at its ends with downwardly-directed flanges that enter behind said lips and engage the end supports, and means interposed between the lips and flanges to lock them together and prevent upward 35 movement of the shelf relative to the end supports.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

PERCY L. BRYNING.

Witnesses:

LOUIS C. SMITH,

THOMAS J. DRUMMOND.