No. 676,067. Patented June 11, 1901.

C. H. LEONARD.

ADJUSTABLE METALLIC SHELVING.

(Application filed Sept. 4, 1900.)

(No Model.) 2 Sheets—Sheet 1.

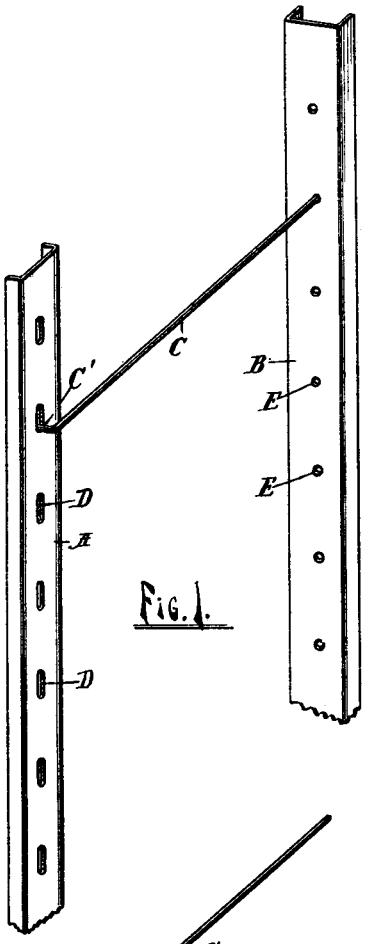

Fig. 1.

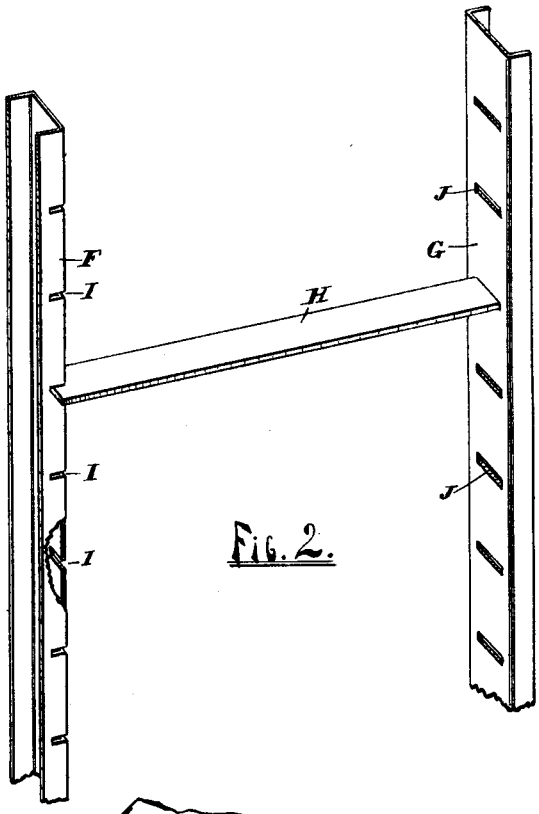

Fig. 2.

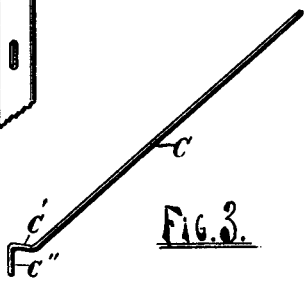

Fig. 3.

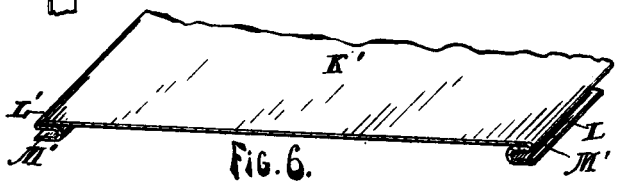

Fig. 6.

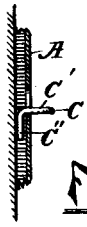

Fig. 4.

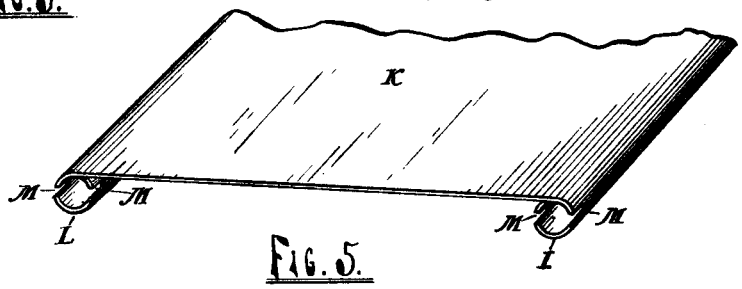

Fig. 5.

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(Application filed Sept. 4, 1900.)

(No Model.) 2 Sheets—Sheet 2.

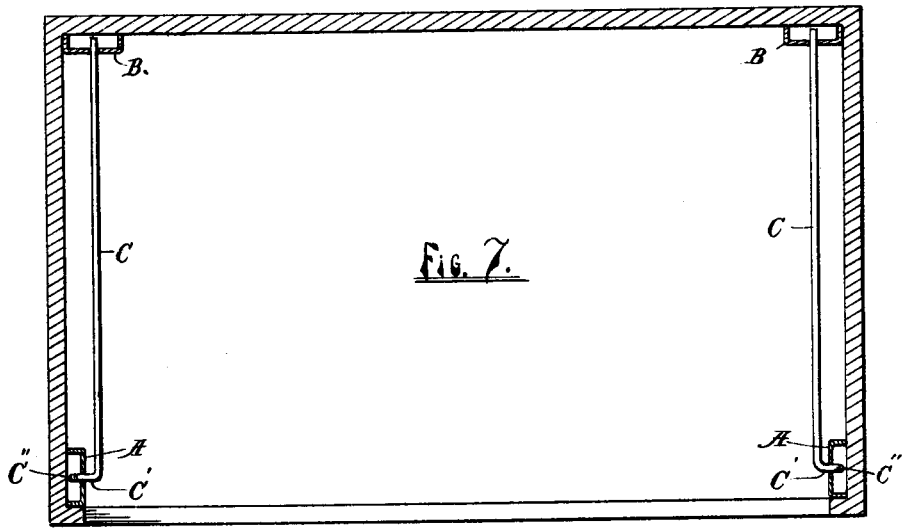

Fig. 7.

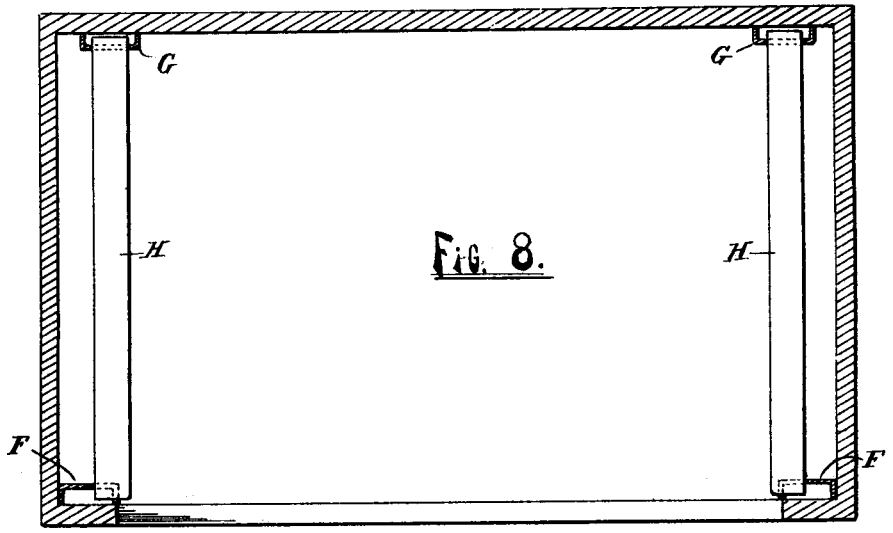

Fig. 8.

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UNITED STATES PATENT OFFICE.

CHARLES H. LEONARD, OF GRAND RAPIDS, MICHIGAN.

ADJUSTABLE METALLIC SHELVING.

SPECIFICATION forming part of Letters Patent No. 676,067, dated June 11, 1901.

Application filed September 4, 1900. Serial No. 28,911. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. LEONARD, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Adjustable Metallic Shelving; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in adjustable metallic shelving; and its object is to provide the same with certain new and useful features, hereinafter more fully described, and particularly pointed out in the claims.

My device consists, essentially, in posts, each having a series of openings, adjustable supports for the shelves inserted in the openings in the posts, and a shelf or shelves consisting of sheet metal having recesses or grooves in the ends to engage the supports, as will more fully appear by reference to the accompanying drawings, in which—

Figure 1 is a perspective of a device embodying my invention; Fig. 2, a perspective of a modified form of the same; Fig. 3, a perspective of a rod-support used in the form shown in Fig. 1; Fig. 4, a detail in vertical section of a part of the post A of Fig. 1; Fig. 5, a perspective detail of the shelf; Fig. 6, a modified form of shelf; Fig. 7, a horizontal section showing the device shown in Fig. 1, and Fig. 8 the same view of the device shown in Fig. 2.

Like letters refer to like parts in all of the figures.

A represents one of the front posts, having a series of vertically-elongated openings or slots D at intervals, and B one of the rear posts, having a corresponding series of round openings E.

C represents a rod, having the forward end bent horizontally, forming a laterally-projecting portion C′, and thence bent vertically, forming a vertical portion C″. The rear end of this rod is left straight and adapted to be inserted in the openings E in the post B, and the vertical end of the rod is adapted to be inserted in the openings D in the post A. In the form shown in Fig. 2 a flat bar H is used for a shelf-support and arranged in a horizontal plane, and the posts each have a series of transverse slots, those in the rear post G being in the front of the post to receive the rear end of the bar H and the slots I in the forward post F being cut through the angle of the post. The rod C and the bar H are each inserted in place by first inserting the rear end longitudinally in the openings in the rear post and then inserting the forward ends laterally in the front posts. In the case of the rod the vertical portion C″ of the forward end engages the wall at the rear of the post and supports the part C′ of the rod in a horizontal position. The respective posts are formed at right angles at each side, forming channel-bars, and are so adjusted relatively that the opposing rods C or bars H will be parallel and at proper distances from each other to engage the recesses M in the shelves, it being understood that the posts shown in each figure are but one pair at one end of the shelf, another similar pair being at the other end of the shelf and the posts at the front arranged at a greater distance apart than the rear posts, whereby the shelf may be drawn forward and removed between the front posts. These shelves are made as shown in Figs. 5 and 6. In Fig. 5, K represents suitable sheet metal rolled in tubular form at opposite sides and having recesses M in the respective ends of the tubular portions and adapted to engage the supports C or H and slide thereon, or, if preferred, they may be made as shown in Fig. 6, in which the ends of the shelf K′ may be folded, as at L′, and thence turned outward, forming channels or grooves M′, to slidably engage the supports H or C.

My invention is particularly adapted for use in refrigerators, in which case the respective posts are formed of sheet metal and secured in proper places on the inner wall of the refrigerator. For other uses, such as library-shelving, larger posts of channel-bars may be used and suitably supported in any convenient manner. I prefer the modified form shown in Figs. 2 and 5 for most purposes. In some cases other forms of posts might be preferable. I do not limit my device to posts having the form of channel-bars.

From the foregoing the operation of my de-

vice will be readily understood and needs no further description.

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

1. The combination of inwardly-projecting shelf-supports and a shelf of sheet metal rolled in tubular form at each side, and having recesses in the ends of the tubular portions to slidably engage the shelf-supports, substantially as described.

2. The combination of two opposing pairs of posts, arranged with the forward posts at a greater distance apart than the rear posts, openings in the front of the rear posts, and openings in the adjacent sides of the front posts, and shelf-supports inserted longitudinally in the rear posts and inserted laterally in the front posts, substantially as described.

3. The combination of a rear post having a series of transverse slots in its front, a front post having a series of transverse slots each slot extending continuously through a portion of the rear of the post and through a portion of the side thereof, and a flat bar inserted longitudinally in the rear post and inserted laterally in the front post, substantially as described.

4. The combination of four posts having the form of channel-bars and arranged in opposing pairs, with the front pair a greater distance apart than the rear pair, the rear posts also having a series of transverse slots in the middle portion, and the front posts having a series of slots extending partially in the middle portion and partially in one side portion, and flat bars inserted in said slots, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. LEONARD.

Witnesses:

LUTHER V. MOULTON,

PALMER A. JONES.