

No. 754,817.

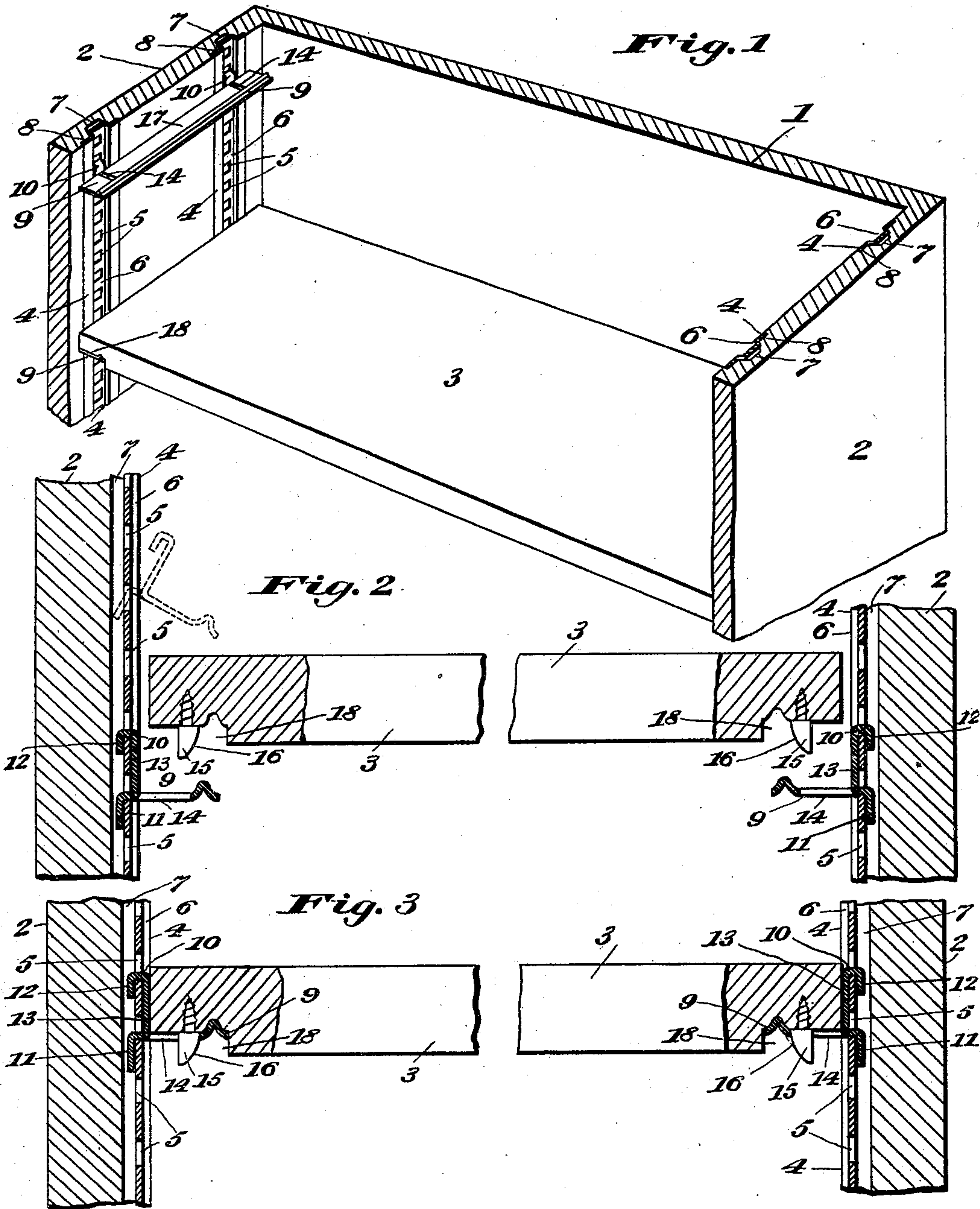
PATENTED MAR. 15, 1904.

E. G. SCHRIEFER.  
ADJUSTABLE SHELF SUPPORT.

APPLICATION FILED APR. 30, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

J. D. Thorne

Herbert F. Harder

Inventor

Edward G. Schriefer,  
By A. F. Waksleb, His Attorney

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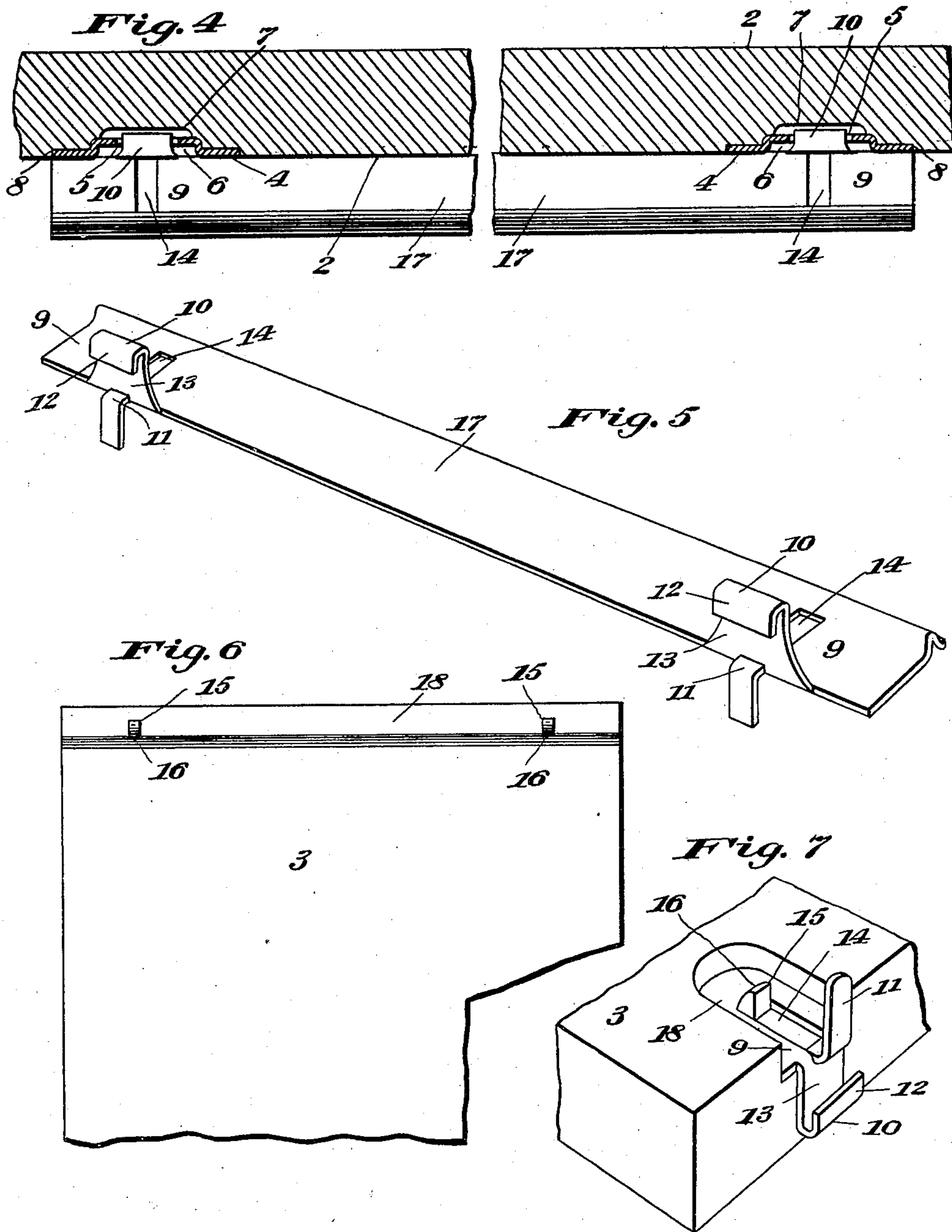
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*Herbert F. Harden*

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# UNITED STATES PATENT OFFICE.

EDWARD G. SCHRIEFER, OF CINCINNATI, OHIO.

## ADJUSTABLE SHELF-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 754,817, dated March 15, 1904.

Application filed April 30, 1902. Serial No. 105,389. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD G. SCHRIEFER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Adjustable Shelf-Supports, of which the following is a specification.

It is the object of my invention to provide new and useful improvements in adjustable shelf-supports; and my invention consists in the parts and in the construction and arrangement and combinations of parts hereinafter more fully described and claimed.

The subject-matter claimed in the present application is also shown and described in my applications, Serial Nos. 92,461, 92,462, and 92,463, filed February 3, 1902. I have also shown, described, and broadly claimed an adjustable shelf-support of the character of the device herein shown, described, and claimed in a separate application of even date herewith, being Serial No. 105,388, to all of which applications reference is respectfully made.

In the drawings, Figure 1 represents a perspective view of my improved device in connection with a case, having the top and bottom and front edges of the case broken away. Fig. 2 is a vertical section taken through the sides of the case and shelf on a line corresponding to the line *x x* of Fig. 4 with the shelf in raised position and showing the sides in spread relation. Fig. 3 is a similar view showing the shelf seated and the sides in proper relative position. Fig. 4 is a plan view of my improved device with the side shown in horizontal cross-section and the shelf omitted. Fig. 5 is a perspective view of the connected support. Fig. 6 is a bottom view of the shelf, showing the recesses and engaging means for the support. Fig. 7 is a perspective view of a single support.

1 represents the back of a case, and 2 the sides. 3 is a shelf. Shelf-strips 4 are secured to the sides, the strips having openings 5 and may also have a groove 6, extending longitudinally of the strips and receding outwardly from the inside of the case. In the depressed portion of each groove the openings 5 are located. The strips are suitably secured to the case, and a clearance-groove 7

is located in rear of the openings. The strips are preferably countersunk into the sides into grooves 8, so as to leave the outer edges of the strips flush with the sides. Supports 9 are adapted to support the shelf. The support preferably comprises an upper hook 10 and a lower hook 11, adapted to take into the openings 5, lips 12 of the hooks taking against the rear face of the strips 4. A shank 13 of the support is received by the groove 6. The seats of the hooks preferably rest upon the lower edges of the openings 5, with the inner sides of the hooks taking against the outer sides of the shelf-strips. The lower hook is preferably the longer, so that the support may be held cantingly for readily "finding" and inserting the same into the lower opening, as shown in dotted lines in Fig. 2, when the upper hook may be readily inserted into the upper opening. The hooks provided at the upper and lower part of the support distribute the pulling strain of the shelf on the side when seating the shelf, as hereinafter stated. The supports are provided with recesses 14 for receiving projections 15 on the shelf, the recess preferably being a hole punched into the support and the projection a screw or nail driven into the bottom of the shelf and preferably provided with an inclined face 16, extending outwardly toward the sides, so that the projection may readily find its opening or aperture and while the shelf is being seated, as by pressure upon the top of the shelf, may act for drawing together the side and shelf, the hooks acting to draw the side into position with the support. In the form shown the lower hooks 11 are formed of the metal removed for forming the holes 14, the whole of the support being formed of one piece of metal and forming a simple support for each end of the shelf. Each side of the case is preferably provided with connecting devices of the character described, thereby firmly holding the sides of the case in proper position. The ends of the shelves abut against the sides of the case or the vertical shanks of the shelf-support, and thereby prevent inward movement of the sides, and the inner sides of the hooks take against the outer sides of the shelf-strips and with the recesses



and projections between the supports and shelf prevent relative outward movement of the sides, and the inclined face on the projection draws the sides toward the shelf while seating the shelf, thereby securing the whole firmly together and holding or limiting the sides of the case against sidewise displacement and bulging.

I have shown each side provided with a plurality of shelf-strips and having a plurality of shelf-supports, the latter connected by a web 17. It is obvious, however, that this web may be omitted and a separate shelf-support be provided for each corner of the shelf, the shelf-support then taking the form shown in Fig. 7. The bottoms of the shelves may also be provided with rabbets 18 for accommodating the shelf-supports.

I claim—

1. In an adjustable shelf-support, the combination of a support, means for adjustably connecting said support to a side, said support having an opening, the sides, and a shelf adjustable up and down between the same, said shelf having a projection projecting downwardly from the under side of the shelf between the ends of the shelf and having an inclined face extending transversely to the side taking into the opening and relatively drawing the side and shelf toward each other while seating the shelf on said support.

2. In an adjustable shelf-support, the combination with the sides and a shelf, of a support for each end of the shelf, means for adjusting the supports and shelf up and down between the sides and connecting said supports to said sides, each of said supports having a recess taking under the shelf, said shelf at each end having a projection projecting downwardly from its under side between the ends of the shelf, and said projections each having an inclined face and taking into the respective recesses, and thereby relatively drawing the side and shelf toward each other by pressure applied on the shelf.

3. The combination of a pair of sides each having a pair of grooves in its inner face, four shelf-strips, one in each of said grooves and extending up and down on the side, each of said shelf-strips having a groove receding outwardly and a flange at each side of said groove projecting sidewardly from said groove in substantially the plane of the inside face of said side, a pair of shelf-supports releasable from said shelf and sides, one at each end of the shelf extending beyond said end from said shelf-strips, said shelf-strips having openings for receiving said supports, said shelf-supports each having a recess under the shelf and said shelf at each end having a projection extending downwardly from the under side of said shelf and between the ends of said shelf into said recess, each of said projections having an inner inclined face taking against the inner wall of said recess.

4. The combination with a pair of sides and a shelf, of shelf-strips secured to and extending up and down on each side at the inner face thereof and shelf-supports, with means thereon engaging said shelf-strips for adjustably positioning said supports at various elevations on said shelf-strips, said shelf-supports extending from said sides under the ends of the shelf, each shelf-support having a recess under the shelf, said shelf having a projection at each end between its ends extending downwardly from the bottom of said shelf and releasably engaging a shelf-support at each end of the shelf, said projections having inner inclined faces engaging the inner walls of said respective recesses.

5. In combination with a pair of sides and a shelf, a sheet-metal shelf-support having a hook struck from its body and thereby forming an opening, and a peg on the bottom of the shelf taking into said opening, said peg having an inner inclined face engaging the inner wall of said opening.

6. In an adjustable shelf-support the combination with a pair of sides and a shelf, of a releasable shelf-support for each end of the shelf taking under and longitudinally beyond the end of the shelf, shelf-strips extending up and down on the inside of said sides, said strips having longitudinal grooves receding outwardly and openings extending from said grooves, and said sides having grooves in rear of said strip, said shelf-supports having segregated hooks taking into said openings and a ledge, the ledge having an opening and the shelf having a projection at its bottom, the inner edge of which projection is inclined outwardly and downwardly and arranged to engage the inner wall of said opening in said ledge.

7. In an adjustable shelf-support the combination with a pair of sides and a shelf, of a releasable shelf-support for each end of the shelf taking under and longitudinally beyond the end of the shelf, shelf-strips extending up and down on the inside of said sides, said strips having longitudinal grooves receding outwardly and openings extending from said grooves, and said sides having grooves in rear of said strips, said shelf-supports having segregated hooks located one above the other, the lower of said hooks being longer than the upper, said hooks taking into said openings, each of said shelf-supports also having a ledge, the ledge having an opening and the shelf having a projection at its bottom, the inner edge of which projection is inclined outwardly and downwardly and arranged to engage the inner wall of said opening in said ledge.

8. In an adjustable shelf-support, the combination with two sides and a shelf, of a shelf-strip secured to each side, a support for each end of the shelf having segregated hooks and 11 at the upper and lower parts thereof respectively and said shelf-strips having openings 5 between the strips and supports for ad-



justably positioning the supports on the sides, said support at each end of the shelf having a recess 14 and said shelf at each end having a projection, said projection having an inner inclined face and taking from the shelf into the recess at each end of the shelf, and said inner inclined face taking against the inner wall of said recess at each end of the shelf.

9. In an adjustable shelf-support, the combination with two sides and a shelf, of a shelf-strip secured to each side, a releasable support for each end of the shelf having upper and lower hooks 10 and 11 at the upper and lower parts thereof respectively, said lower hooks being longer than the upper, said shelf-strips having openings 5 for said hooks for permitting adjustable positioning of the supports on the sides, said supports each having a recess 14 under the shelf, said shelf at each end having a projection, each of said projections having an inclined inner face, and said projections projecting downwardly from the under side of the shelf between the ends of the shelf and taking from the shelf into the recess at

each end of the shelf, substantially as described.

10. In an adjustable shelf-support, the combination with the two sides and a shelf, of shelf-strips 4 secured to each side and shelf-supports 9 having connecting-web 17 and a plurality of segregated hooks 10 11 projecting longitudinally of the shelf, and said shelf-strips having openings 5 for said hooks, for adjustably positioning the shelf on the sides, said shelf-support at each end of said shelf having a recess 14 under the shelf and said shelf having a projection 15 extending downwardly from its under side between its ends taking into the recess, and each of said projections having inner inclined face 16 taking against the inner wall of recess 14.

In testimony whereof I have signed my name hereto in the presence of two subscribing witnesses.

EDWARD G. SCHRIEFER.

Witnesses:

ERNEST G. SIMON,

HERBERT F. HARDEN.