

No. 755,593.

PATENTED MAR. 22, 1904.

O. DURR.  
SHOW CASE CONSTRUCTION.

APPLICATION FILED AUG. 25, 1903.

NO MODEL.

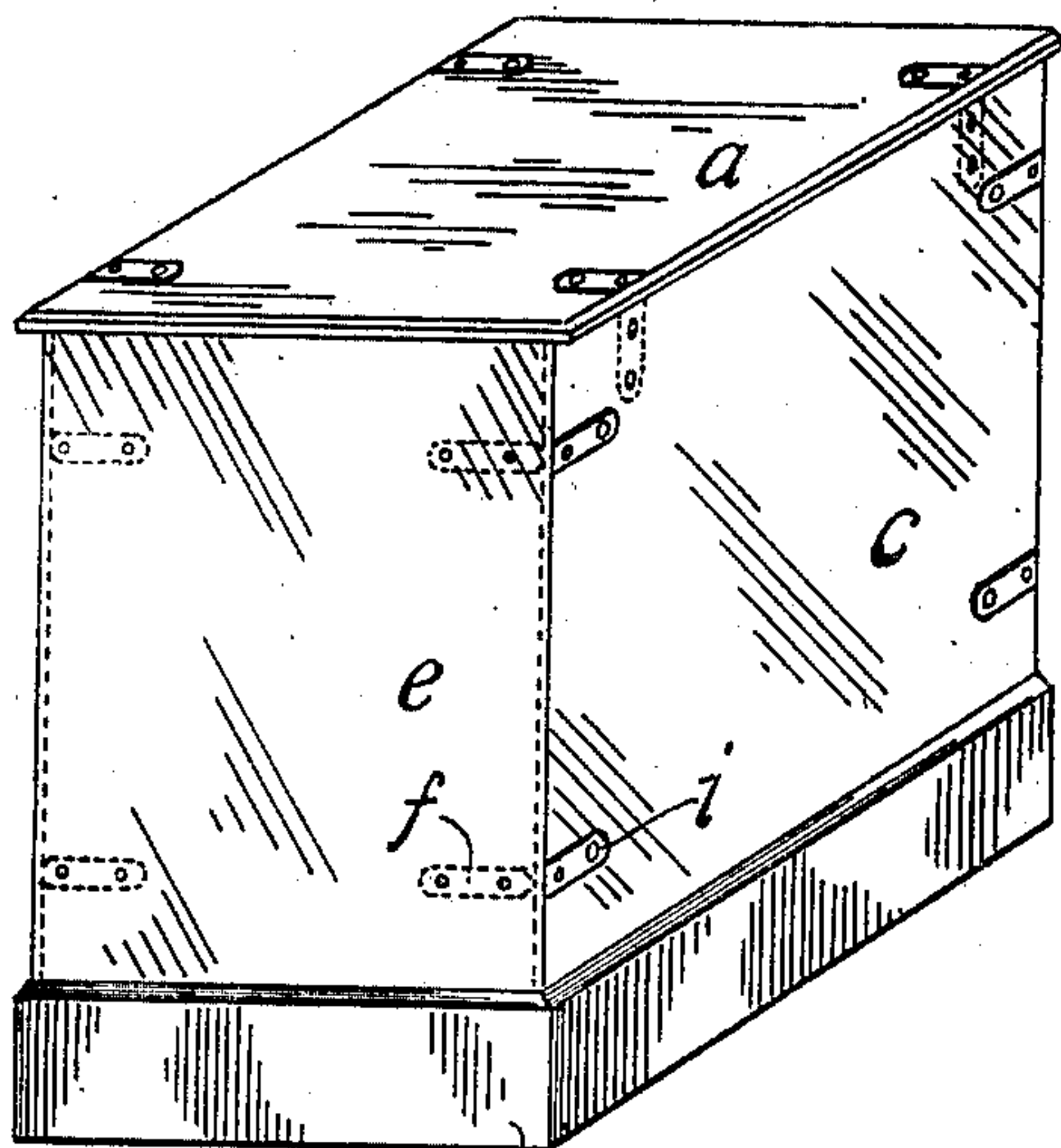


FIG. I.

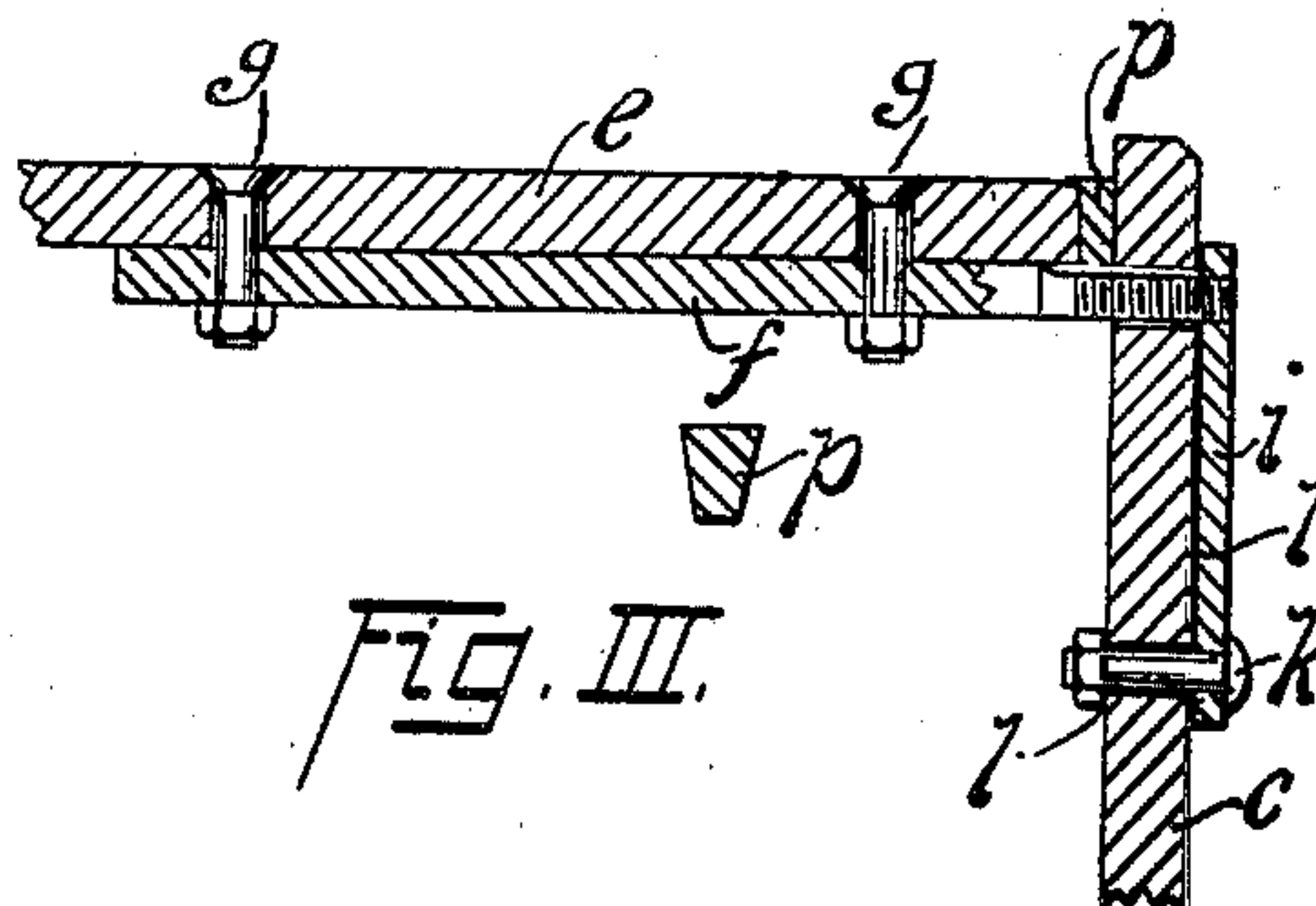


FIG. III.



FIG. IV.



FIG. V.

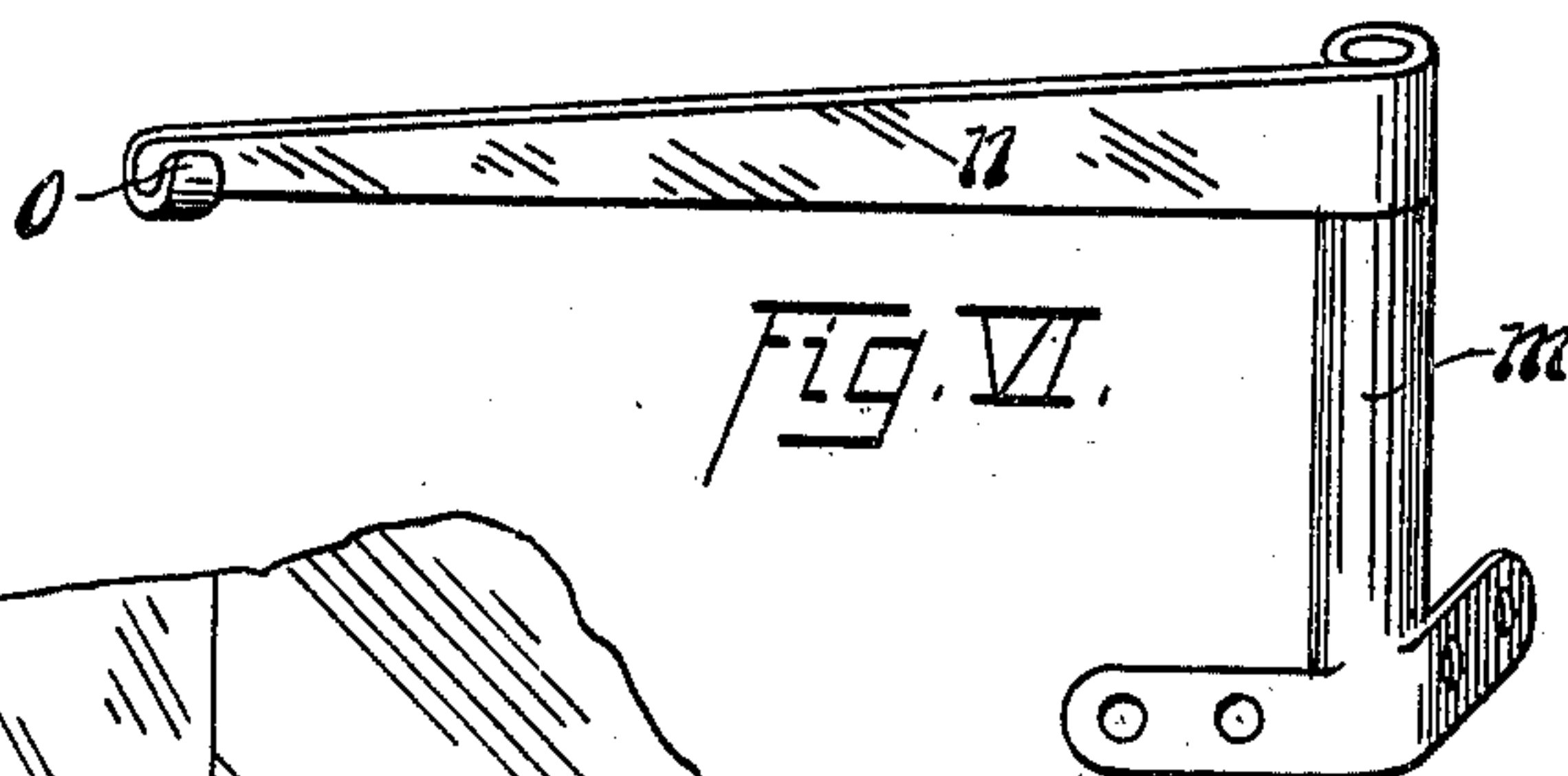


FIG. VI.

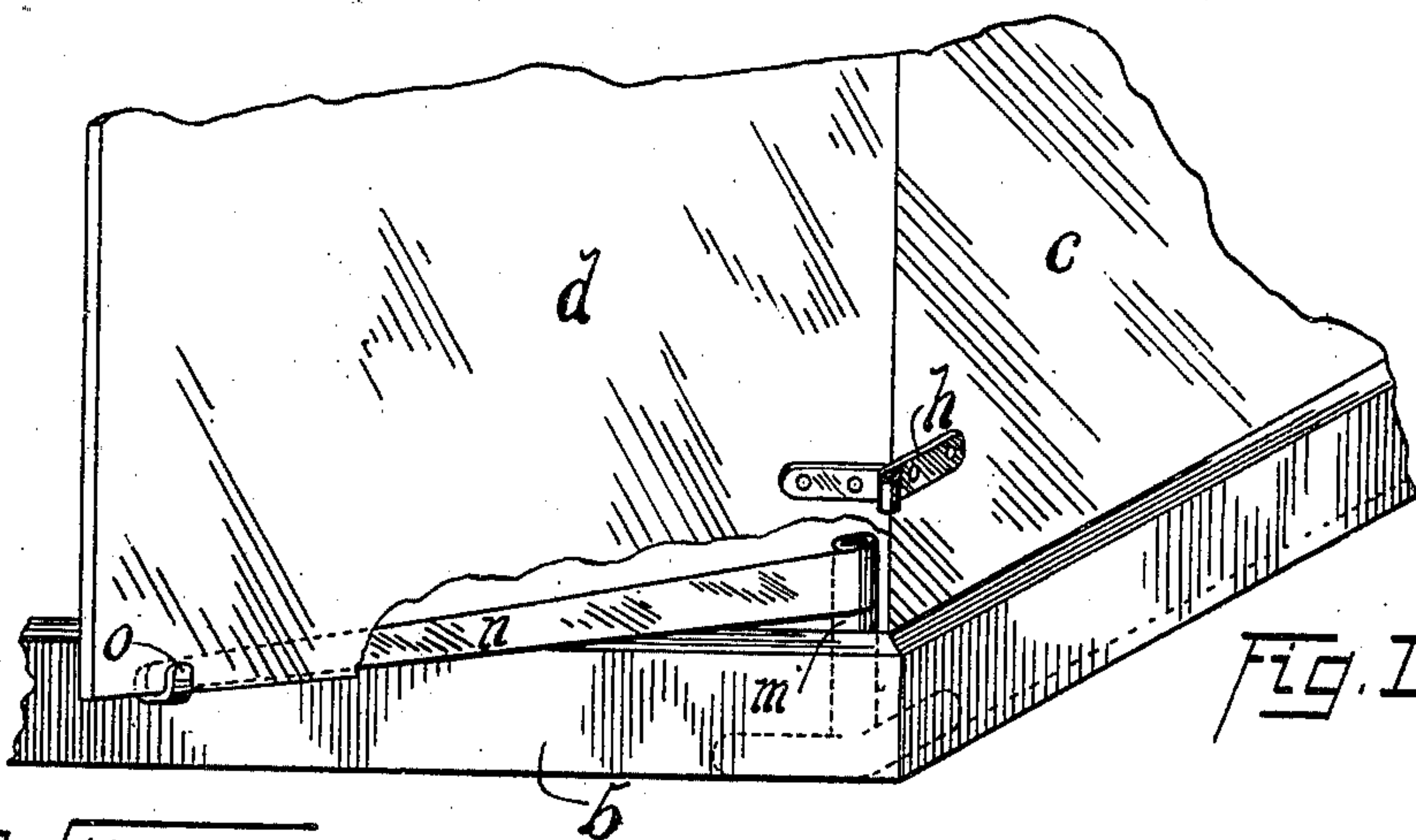


FIG. II.

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# UNITED STATES PATENT OFFICE.

OTTO DURR, OF BUFFALO, NEW YORK.

## SHOW-CASE CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 755,593, dated March 22, 1904.

Application filed August 25, 1903. Serial No. 170,667. (No model.)

*To all whom it may concern:*

Be it known that I, OTTO DURR, a citizen of the United States of America, and a resident of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Show-Case Construction, of which the following is a specification.

My invention relates to improvements in show-case construction, although not strictly limited thereto in all its features, my objects being the provision of structural means readily adapting themselves to constructions wherein glass principally enters and which obviate undesirable features found in devices of the prior art.

Show-case or show-window construction has demanded and for some time embodied the feature of uniting the glass plates thereof without the use of wood or metal framing, the plate-glass being united at the edges or corners by different forms of strap and bolt connections, but the fastenings frequently are broken away from the glass and many are of such character that they may easily be released from the outside without breaking the glass, thus offering an opportunity for petty thieving. Where doors are used, the weight or strain thereof upon the supporting glass parts is often such as to break the glass away at these relatively small areas. Grinding the abutting surfaces or edges of the plates will insure a reasonably-tight joint between the parts to exclude dust and moisture, but this is an expensive step in the course of manufacture. My improvements have sought to overcome these and other difficulties, and may be briefly referred to in a preliminary way as consisting in the embodiment shown in providing a glass-connector having a side strap with relatively large interiorly-engaging surfaces for one of the plates of glass, the same having an exteriorly-protruding threaded terminal engaged by a similarly-expanded nut-like or tapped part screwing down upon the outer surface of the other plate to form a joint between the glass, said part then being secured by an interiorly-fastening bolt. There preferably is provided between the abutting or presented glass surfaces a flaring or somewhat wedge-

shaped rubber packing-strip, particularly if the structure is for out-of-door use, and rubber or leather may be used with advantage, if desired, between the glass and metal surfaces. Auxiliary to the hinges of the door or closure part supported by the glass I also employ, should the weight or strain of said door demand it, a supporting-arm which may be rigidly pivoted upon a base-post, the device serving to sustain a portion of the door's weight at a point relatively distant from the hinges by preference.

Further details of my improvements may readily be gathered from the accompanying drawings, forming a part of this specification, wherein—

Figure I is a perspective view showing a glass case wherein my improvements are employed. Fig. II is a similar view drawn to larger scale to illustrate a portion of the case with its glass door and auxiliary support, parts being broken away. Fig. III is a sectional view drawn to still larger scale, showing the corner construction in detail and also a packing-strip. Figs. IV and V show the connecting-strap and its coacting tappet part, and Fig. VI illustrates the auxiliary swinging or hinged support for the door.

Throughout the several figures of the drawings I have designated similar parts by the same characters of reference to avoid any confusion or chance for misinterpretation.

Upon the base *b*, which may be suitably constructed of marble, metal, or wood, are mounted the several glass plates forming the sides *c*, the top *a*, and the end *e* of the show-case. A glass door *d* may also be hung by hinges *h* from one of the sides whenever ready access to the interior of the case is desired, as is very commonly required. With the precise form of connector shown two holes must be bored in each plate for every one of its corner connections, although one hole will often suffice for the strap. This connector comprises a side strap *f*, having two holes for accommodating the flush screw-bolts *g*, securing it to the glass, and a threaded terminal part *f*<sup>2</sup> of sufficient length to extend through a hole in the other glass plate and receive the tapped



part *i*. This either may be screwed down to form a close joint between the abutting surfaces of the glass or a suitable packing-strip *p*, preferably of rubber and slightly flaring, as seen in cross-section, may be interposed and strongly clamped between the presented faces of the glass by the connector. When thus compressed, said strip preferably is of sufficient width to overlap the glass at its outer edge and assist in forming a perfectly tight joint for excluding dust and rain. The packing-strip also permits the case a slight give when under strain and, furthermore, does not require the formation of perfectly even or absolutely straight edges upon the glass. The nut-like or tapped part *i* after being screwed down upon the terminal *f*<sup>2</sup> is fastened in place by an interiorly-secured screw-bolt *k*. Thus all the fastenings of the corner-connector are interior of the case and may not be removed from the outside. The side strap *j* and its tapped part *i* preferably are made of sufficient size to distribute the strain over quite large areas of the glass and avoid breaking or cracking the same. Furthermore, the engaging metal parts of the connector may often be faced with rubber, leather, or like material, as at *l*, to afford a slightly-yielding fastening, and to the same end the holes in the glass may be made of sufficient size to offer a small clearance for the contained screw-bolts. The hinges *h* are similarly mounted to the glass side and door by screw-bolts; but the strain thereon is greater than at the permanently-connected corners, so I frequently provide in addition an auxiliary hinged support for the door. In the drawings this comprises a rigidly-mounted post *m*, secured within the case upon the base portion and a pivoted or hinged arm *n* mounted thereon by a relatively wide bearing, the outer end of said arm having a lip or support *o* for the lower edge of the door, wherein it has a slight sliding movement. By this arrangement the auxiliary support may be mounted in the case where it will be out of the way and at the same time afford the most efficient stay for the swinging door at a point relatively distant from the hinges. If mounted substantially as shown in the drawings or approximately in line with the hinges, this device does not impede the opening and closing of the door.

Having now described a construction embodying my invention or improvements, I claim as new, and desire to secure by Letters Patent, the following:

1. In a glass structure, the combination with the closure part or door, of the glass-mounted hinge or hinges carrying the same in position to swing to and fro, and an auxiliary pivoted supporting part connected with and staying the door at a point relatively distant from the hinges, substantially as set forth.

2. In constructions of the class described, the combination with the swinging door, of its

glass-supported hinges mounting the same from its pivoted edge, and an auxiliary hinged part rigidly mounted substantially in line with said hinges and connected to support the door near its free or swinging edge, substantially as set forth.

3. In a glass show-case, the combination with the glass sides thereof, of the glass plate forming the door, hinges connecting an edge thereof to one of the sides, a rigidly-mounted post, and a pivoted arm thereon substantially in line to swing with the hinges; said arm supporting the door at a point distant from the hinges and near its free edge, substantially as set forth.

4. In constructions of the class described, the combination with two angularly-abutting glass plates, of a flaring rubber packing-strip interposed between their presented faces, and means for tightly clamping or compressing said strip between the plates to form a tight joint, substantially as set forth.

5. In constructions of the class described, the combination with two angularly-abutting glass plates, of a flaring or wedge-shaped resilient packing-strip of greater width than the edge of the glass, interposed between the presented faces of the plates, and a screw device or clamp engaging the angularly-disposed plates and compressing the strip to cause its thicker edge to overlap and form a tight joint between the plates, substantially as set forth.

6. In a fastening for corners in glass construction, the combination with the two plates of glass meeting at an angle, of the strap secured to one of said plates and having a screw-threaded terminal extending through an opening in the second plate, a relatively large tapped part screwed upon the terminal exterior to, and bearing upon a large area of the latter plate to form a substantially tight joint between the plates, and means for interiorly securing the strap and tapped part to the respective plates, substantially as set forth.

7. In a fastening for corners in glass construction, the combination with the two plates of glass meeting at an angle, of the strap secured to one of said plates and having a screw-threaded terminal extending through an opening in the second plate, a tapped part screwed upon the terminal exterior to, and bearing upon the latter plate to form a substantially tight joint between the plates, a yielding surface interposed between the plates and the strap and tapped part respectively, and means for interiorly securing the said strap and tapped part to the plates, substantially as set forth.

8. In a fastening for corners in glass show-case construction, the combination with the two plates of glass meeting at an angle, of the interior strap secured to one of said plates and having a screw-threaded terminal extending through a hole in the second plate, an elongated



tapped part exteriorly screwed upon the terminal to engage the second plate, said strap and tapped part affording relatively large engaging surfaces for the plates, and interiorly-  
5 secured screw-bolts fastening the said parts to the respective glass plates, substantially as set forth.

Signed at Warren, Ohio, United States of America, this 24th day of August, 1903, in the presence of two subscribing witnesses.

OTTO DURR.

Witnesses:

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T. M. ROBBINS.