

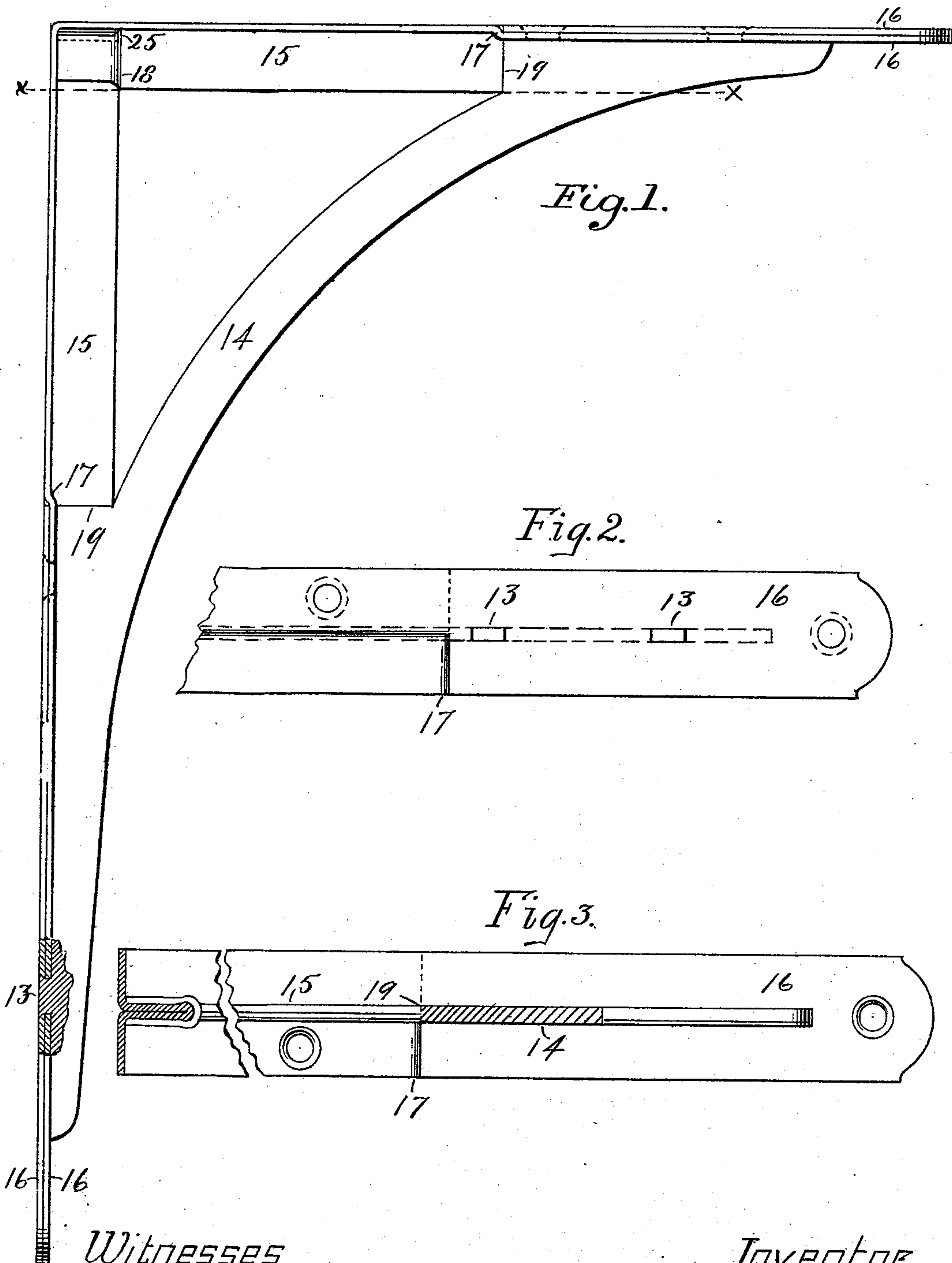
(No Model.)

2 Sheets—Sheet 1.

T. CORSCADEN.  
SHELF BRACKET.

No. 516,475.

Patented Mar. 13, 1894.



Witnesses

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Fig. 4.

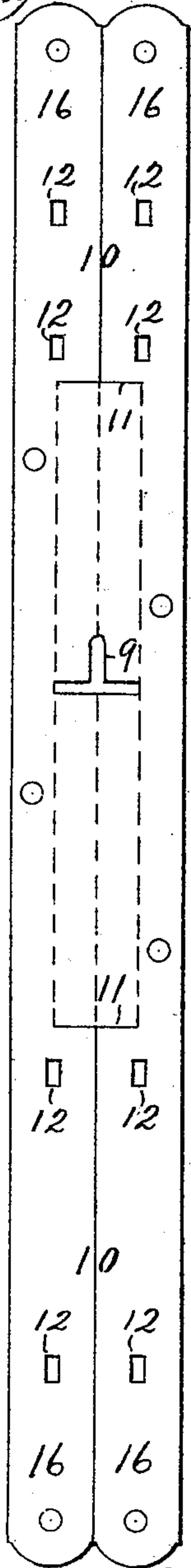


Fig. 5.

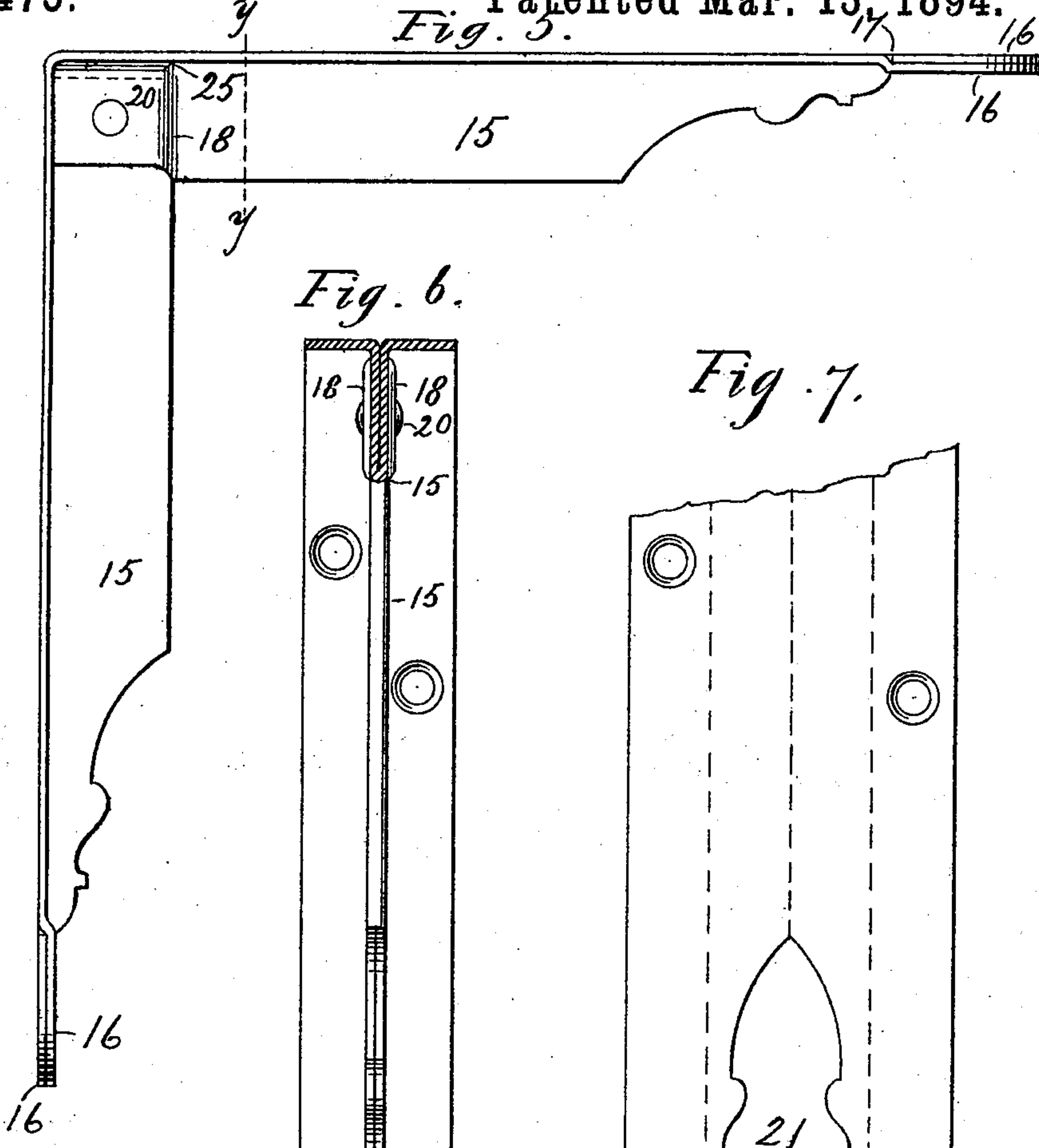


Fig. 6.

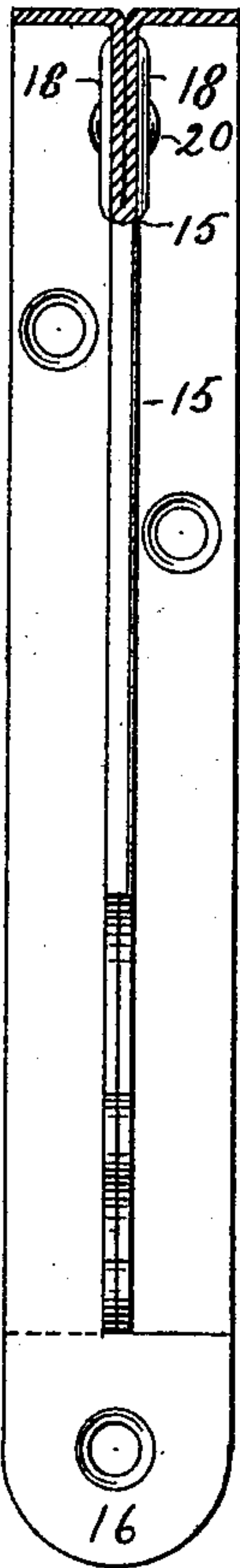


Fig. 7.

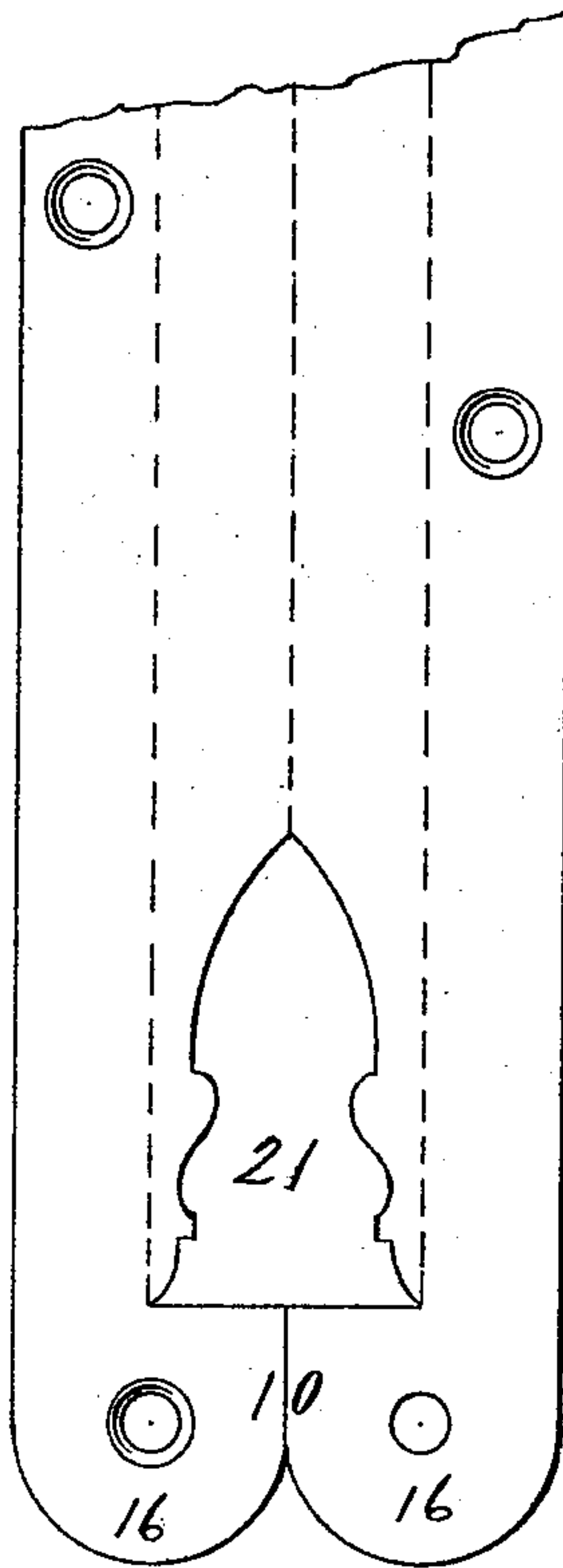
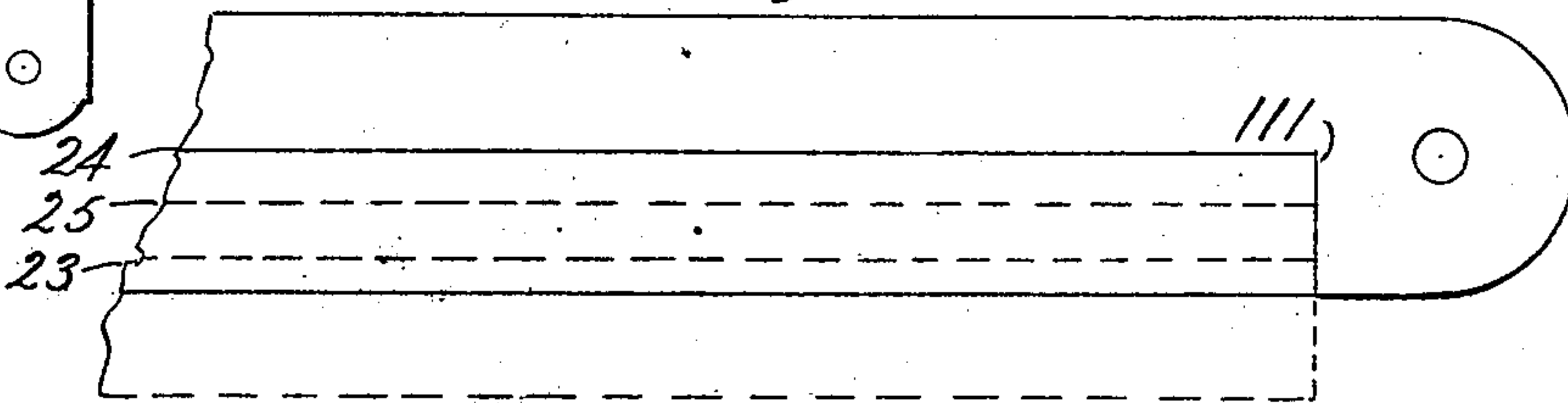


Fig. 8.



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# UNITED STATES PATENT OFFICE.

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STANLEY WORKS, OF SAME PLACE.

## SHELF-BRACKET.

SPECIFICATION forming part of Letters Patent No. 516,475, dated March 13, 1894.

Application filed May 3, 1893. Serial No. 472,880. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS CORSCADEN, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Shelf-Brackets, of which the following is a specification.

My invention relates to improvements in shelf brackets, and the objects of my improvement are simplicity of construction and general efficiency of the article, and particularly to form a bracket with a longitudinal fold which is securely fastened at the angle and in which the terminations of the wall and shelf plates are solid for their full width.

In the accompanying drawings: Figure 1 is a side elevation of my bracket with a portion in longitudinal section. Fig. 2 is a plan view of a part of the shelf plate. Fig. 3 is a horizontal section on the line  $x x$  of Fig. 1 as viewed from the under side, a part of the shelf plate being broken out in order to occupy less space. Fig. 4 is a plan view of the blank from which the wall and shelf plates are formed, the same being on a smaller scale. Fig. 5 is a side elevation of one of my brackets without any brace. Fig. 6 is a vertical section of the same on the line  $y y$ . Fig. 7 is a plan view of one end of the blank from which the wall or shelf plate is formed, with somewhat shorter ends and with an additional cut on the part which is to form one end of the strengthening rib. Fig. 8 is a plan view of one end of a shelf plate formed from a slightly different blank, together with the contour of the blank and the line of folds indicated by broken lines.

I form the wall and shelf plates of my bracket from a flat piece of sheet metal with a part of the middle portion folded into a longitudinal strengthening rib. For a bracket with a brace, I prefer to blank out the wall and shelf plates in the form shown in Fig. 4 in which there is a T shaped slot 9 cut in the blank at the point which is to form the angle between the wall and shelf plates. The ends of the wall and shelf plates I slit on the line 10 and at the inner end of said slit 10 I form a transverse slit 11 which is as long as the metal which is to be folded into the longitudinal rib, is wide, the width of the metal to

be folded in this case being substantially equal to half the width of the blank and consequently equal to the width of the metal upon each side of the slits 10. I also form mortises 12 to receive the tenons 13 on the brace 14 and these mortises may be formed in the blank as shown before it is folded, or if desired, they may be formed in the blank after the longitudinal rib has been folded. I fold the metal which is between the transverse slits 11 11 into a longitudinal strengthening rib 15 by doubling the metal upon itself, on the lines of fold indicated by the broken lines in Fig. 4. The confronting edges of the metal on each side of the slit 10 are sprung by each other so as to lap one over the other and form the two thicknesses 16 at the ends of the wall and shelf plate, the metal at the junction of the single and double thicknesses being offset slightly as shown at 17. The plate is then bent in line with the transverse portion of the T shaped slot 9 to bring the wall and shelf plates at right angles to each other, while the folded strengthening rib at the solid side of said T shaped slot is made to enter in between the ends of the strengthening rib at the slit formed by the longitudinal portion of said T shaped slot, the metal at the junction of the ribs being slightly offset as at 18 and 25.

The brace may be formed in any suitable way, but it is preferably cut from sheet metal with the tenons 13 formed thereon and square shoulders 19 for abutting against the ends of the strengthening rib. The brace is then secured by riveting the ends of its tenons as shown at 13 in Fig. 1, the other tenons being indicated by broken lines. The back or face of the wall and shelf plates will show a longitudinal seam as far as the strengthening rib extends, and from that point the plates are of full width and of double thickness without any seam in the line of said rib, the tenons of the brace passing through both thicknesses of the wall and shelf plates.

In Figs. 5, 6 and 7, I have illustrated substantially the same construction, excepting that I omit the brace and secure the two strengthening ribs together at their junction by means of the transverse rivet 20. I have also made the double thickness 16 at the ends



of the wall and shelf plate somewhat shorter and I have trimmed off the ends of the strengthening rib to give a more ornamental appearance. This trimming of the strengthening rib may be done after the same is folded, or if desired, an opening may be cut in the blank as shown at 21 in Fig. 7. In case the ends of the rib are to be trimmed after folding, the ends of the blank, Fig. 7, would be slit longitudinally, as at 10, and then with a simple transverse slit, as at 11, in the blank first described. In Fig. 7, the counter sunk screw hole on the left side is designed to go upon the inside of the wall or shelf plate, while the non-counter sunk hole is designed for the back or face side of the wall and shelf plate. The longitudinal broken lines in Fig. 7 indicate the lines of fold in forming the rib.

If desired to make a fold which before folding is of less width than the finished wall and shelf plate, the blank may be cut as shown and indicated in Fig. 8 in which the outer broken lines in connection with the full lines indicate the blank, while the broken line 22 indicates the fold where the metal is doubled upon itself to form the strengthening rib, and the broken line 23 and full line 24 indicate the lines of bend at the junction of the wall plate and rib. In this blank the end of the wall or shelf plate is only of a single thickness and consequently there is no slitting of the blank at the end in a longitudinal direction, but it is slit transversely as at 111 to correspond with the slit 11 in the blank first described.

By my improvements, I not only produce a superior and substantial bracket with a folded rib, but I am enabled to terminate this folded rib at a point short of the ends of the wall and shelf plates so as to leave said plates unslit, whereby a much stronger bracket is formed and the wall and shelf plates may be provided with a central and unslit screw hole at the ends. I am also enabled to strengthen the bracket at the junction of the wall and shelf plates by overlapping the strengthening rib, and if desired, securing them together with a rivet.

While I prefer to embody both of the improvements here described in a bracket, it is evident that the overlapped strengthening rib at the junction of the wall and shelf plates may be employed in a bracket where the folded ribs extend to the extreme outer end of said wall and shelf plates, and in like manner the terminations of the wall and shelf plates may be made solid by stopping the strengthening rib before reaching their extreme ends

whether the ribs are lapped or not at the junction of the wall and shelf plates.

While I prefer to embody my improvement in both the wall and shelf plates and refer to both of said plates in my claims in order to include a complete bracket, I wish to be understood as pointing out and claiming a certain construction whether or not the same shall be embodied in only one or both of said plates.

I claim as my invention—

1. The herein described sheet metal bracket consisting essentially of the wall and shelf plates, each having a strengthening rib formed by folding a portion therefrom on a longitudinal line of said plate, the ribs of said two plates having their broad sides lapped one over the other inside of the wall and shelf plates at their junction, substantially as described and for the purpose specified.

2. The herein described sheet metal bracket consisting essentially of the wall and shelf plates having a strengthening rib formed by a longitudinal fold of the metal which terminates at a transverse slit, beyond which the wall and shelf plates are solid, substantially as described and for the purpose specified.

3. A sheet metal bracket, the wall and shelf plates of which are provided with a strengthening rib formed by a longitudinal fold and the ends of the plate outside of said fold formed by two thicknesses lapped over each other, substantially as described and for the purpose specified.

4. A sheet metal bracket, the wall and shelf plates of which have a strengthening rib formed by a longitudinal fold of the metal which terminates at a transverse slit, beyond which the wall and shelf plates are solid, and a non integral brace with its ends secured to the solid portions of said plates outside of the ends of said fold, substantially as described and for the purpose specified.

5. A bracket in which the wall and shelf plates are provided with a strengthening rib formed by a longitudinal fold, a solid or unslit part of said plates extending outside of the strengthening ribs, a brace having shoulders secured to the solid portions of said plates with said shoulders abutting against the outer ends of said strengthening ribs, substantially as described and for the purpose specified.

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