(No Model.) 2 Sheets—Sheet 1.

C. W. PIERCE.

APPARATUS FOR MOLDING.

No. 414,576. Patented Nov. 5, 1889.

Fig. 1.

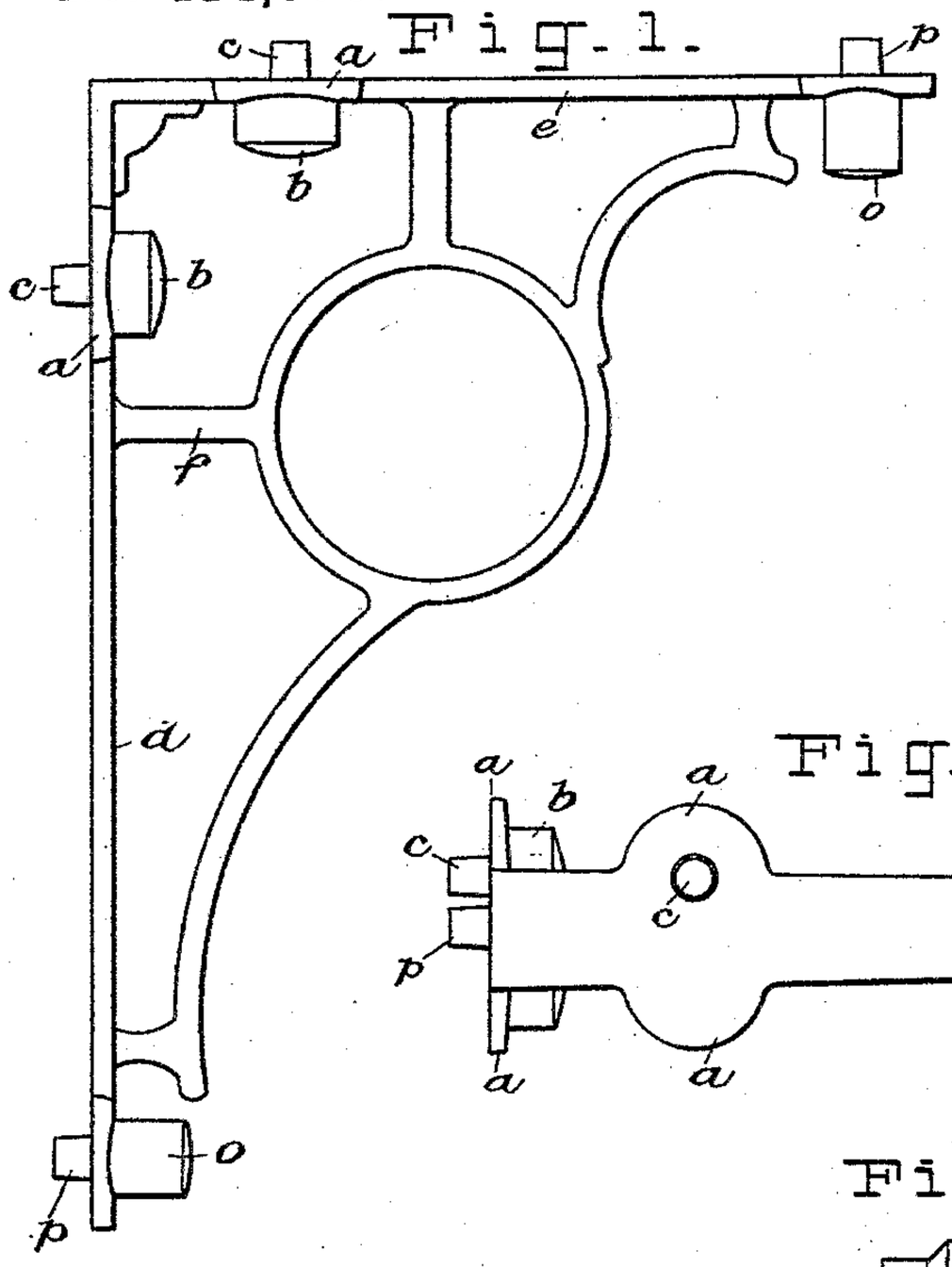


Fig. 3.

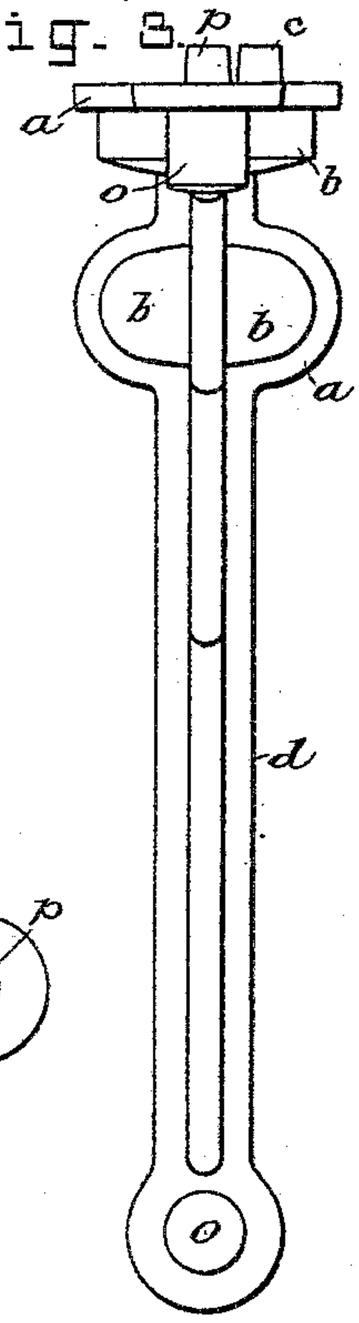


Fig. 4.

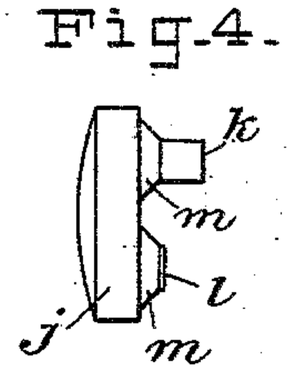


Fig. 2

Fig. 5.

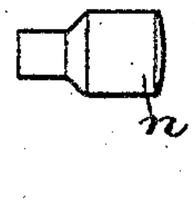
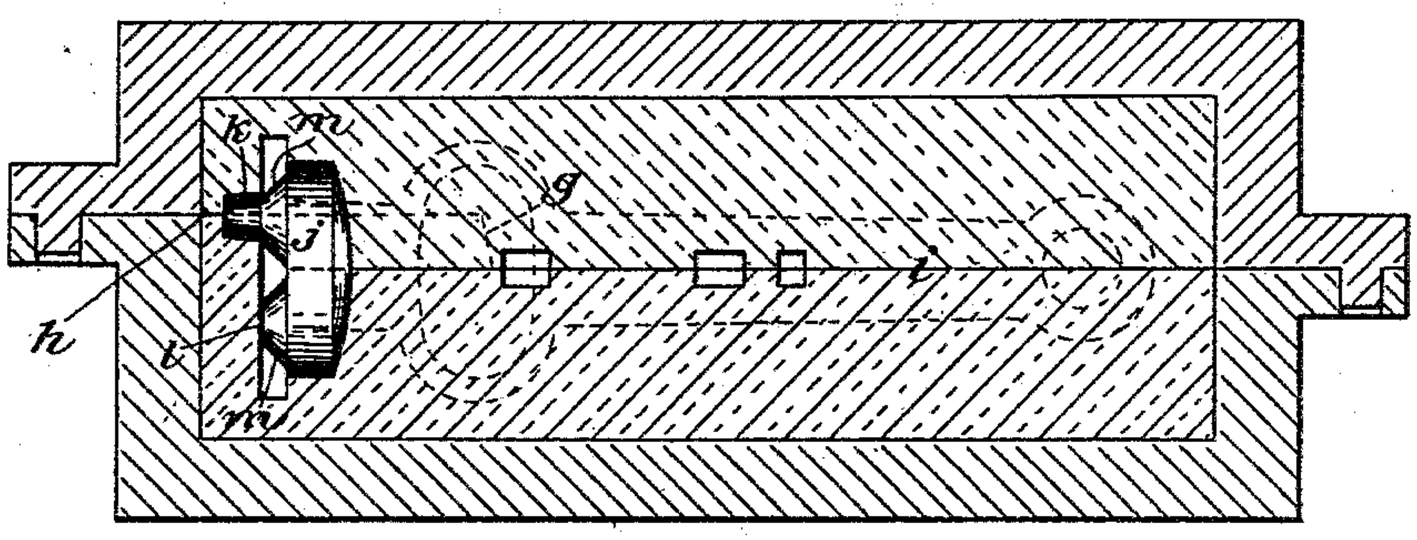


Fig. 6.



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(No Model.) 2 Sheets—Sheet 2.

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APPARATUS FOR MOLDING.

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Fig. 7.

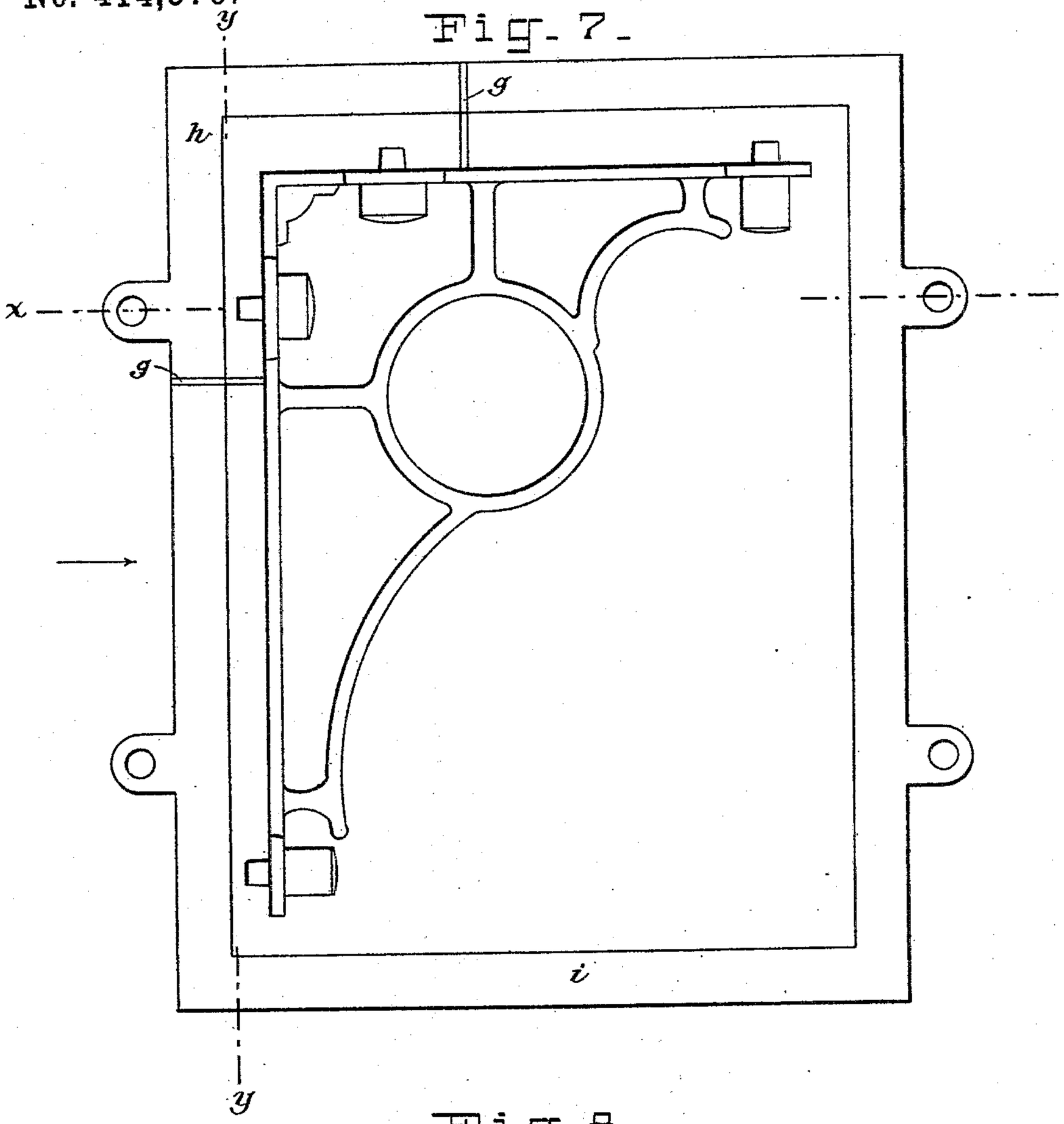
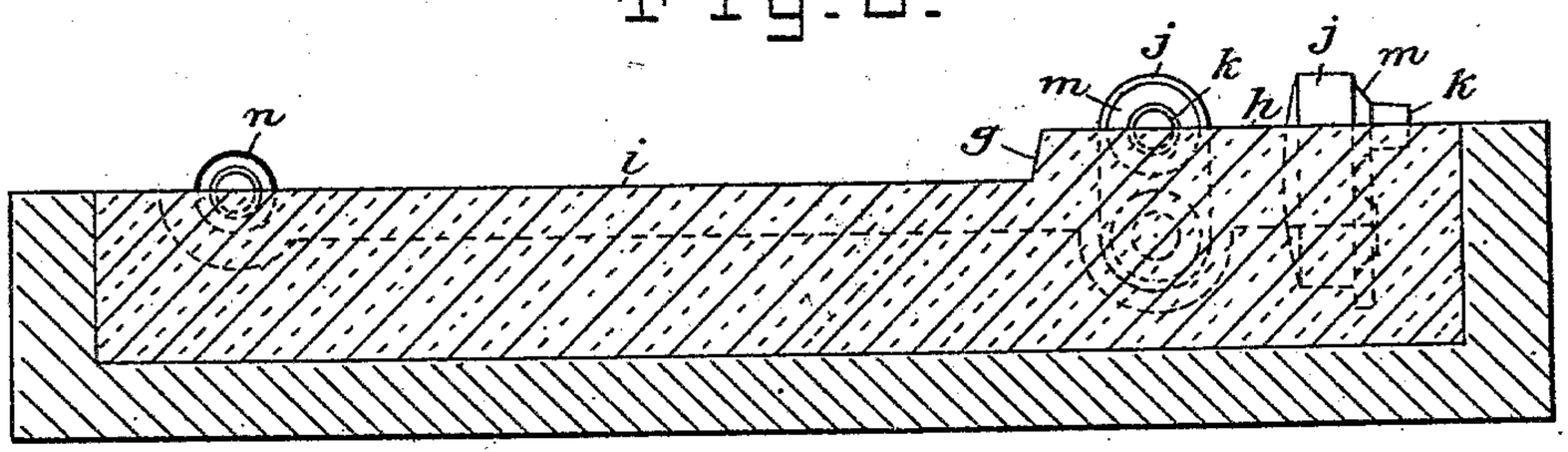


Fig. 8.



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CHARLES W. PIERCE, OF OAK HILL, NEW YORK.

APPARATUS FOR MOLDING.

SPECIFICATION forming part of Letters Patent No. 414,576, dated November 5, 1889.

Application filed April 16, 1888. Serial No. 270,752. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. PIERCE, of Oak Hill, Greene county, New York, have invented a new and useful Improved Method of Molding Shelf-Brackets, of which the following is a specification,

My invention consists of improved apparatus for molding shelf-brackets, for the production of brackets with laterally-projecting attaching-flanges having two holes for attaching-screws—one each side of the brace-web—to facilitate the driving of the screws without interference of the brace-web, as where only one screw is employed, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of the pattern used for making the mold to cast the bracket. Fig. 2 is a top view of the same. Fig. 3 is a front elevation. Fig. 4 is a side elevation of the chill-core for coring the two-hole device for the attaching-screws. Fig. 5 is a side view of the chill-core for the holes at the ends of the bracket. Fig. 6 is a transverse section of the mold on line *x x*, Fig. 7, with the chill-core for the screw-holes of the lateral flanges in position. Fig. 7 is a plan view of a portion of the upper part of the mold inverted. Fig. 8 is a section of Fig. 7 on line *y y*, with the cores in position.

Referring to the pattern for a description of the bracket which I propose to make, it is to be observed that I make laterally-extending attaching-flanges corresponding in form to the parts *a* of the pattern, minus the core parts *b c*, near the angle between the wall-plate *d* and shelf-arm *e*, and on each of said parts *d e* for two screw-holes in each of said flanged parts—one each side of the brace-web *f*—instead of a single hole in the plane of the web, as heretofore made, so that a screw-driver can be freely used each side of the said brace-web and without interference with it in driving the screws to secure the bracket in position, and the purpose of the invention is to provide for molding the bracket and for chill-coring these two holes in a two-part mold with only one parting.

I make the pattern with the core-print *b* on the side for the heads of the screws large enough for including both screw-holes, but on the other side make only the print *c* for one hole, and on the latter side I make the parting of the mold from *g* to *g* in the plane of said print, as shown partly at *h*, while the rest of the parting on that side and all the parting along the side of the screw-heads and brace-web *f* are in the middle plane of the pattern, as at *i*, thus providing for drawing the pattern as any plain pattern draws; and for coring the holes I provide a screw-hole core for each part *d e*, consisting of the head *j* for both holes with one hole-core *k*, corresponding to the print *c*, and another one *l* only long enough to cross the mold-space for the parts *d* and *e*, both of said cores having a taper shoulder *m* for countersinking the holes for the screw-threads, and the whole of the core being made of cast-iron for chilling the metal surrounding the holes. I also make chill-cores *n* for the holes at the ends of the parts *d* and *e* of the bracket, said cores corresponding to the prints *o p* of the pattern.

I claim as my invention—

The combination, with the shelf-bracket pattern having the one print *b* on the side for the screw-heads and only one hole-print on the other side, of the core consisting of head *j*, adapted for two screw-holes on the side for the screw-heads, the hole-core *k*, corresponding to the print *c* of the pattern, and the short core *l*, terminating flush with the side of the mold opposite to the core-head, both of said hole-cores having taper shoulders for countersinking the screw-holes, substantially as described.

CHARLES W. PIERCE.

Witnesses:

M. M. CHERITREE,

J. H. CHERITREE.