

(No Model.)

I. G. S. CLELAND.

MANUFACTURE OF SOLID WOOD CORNERS.

No. 291,032.

Patented Jan. 1, 1884.

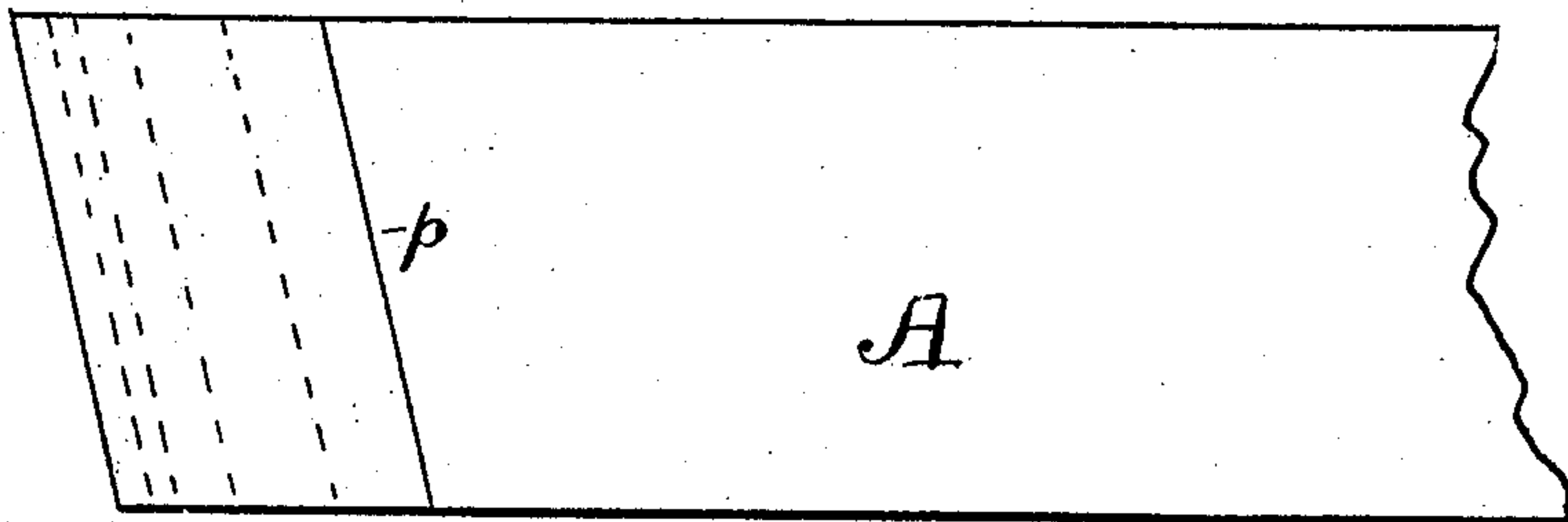


Fig. 1.

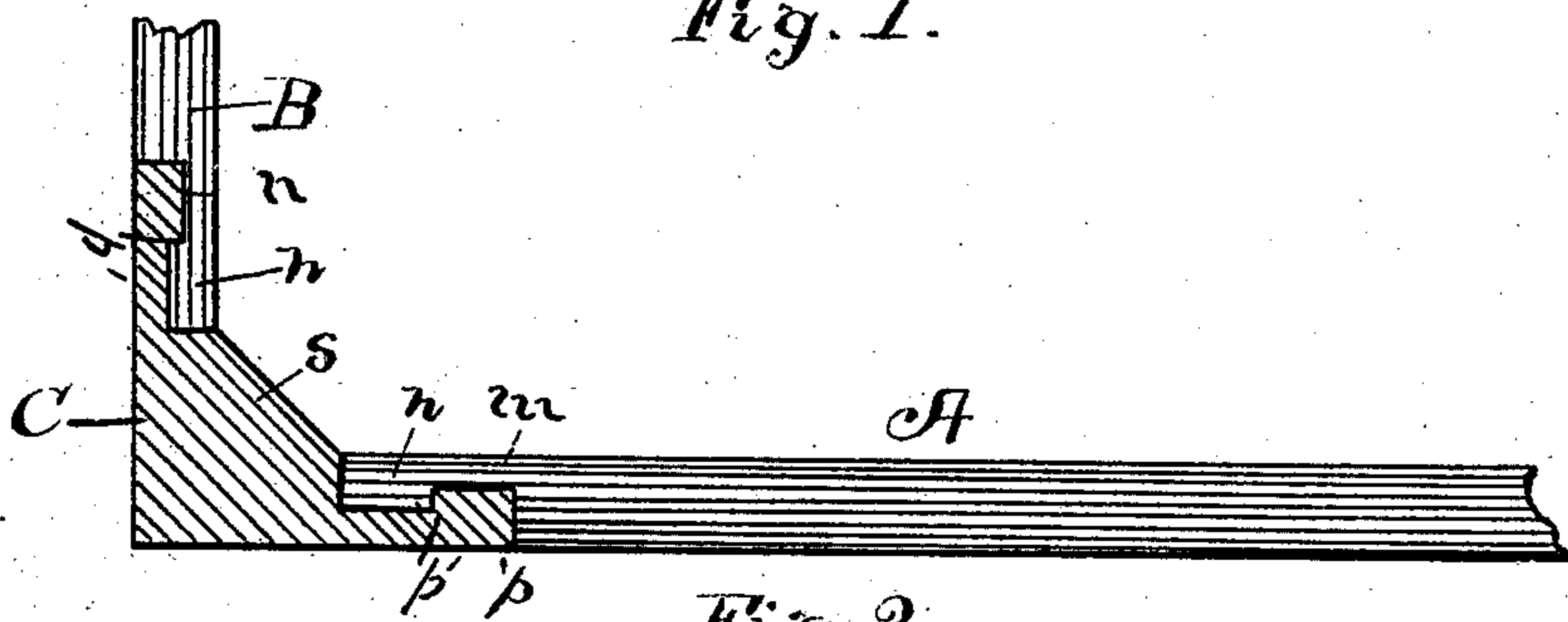


Fig. 2.

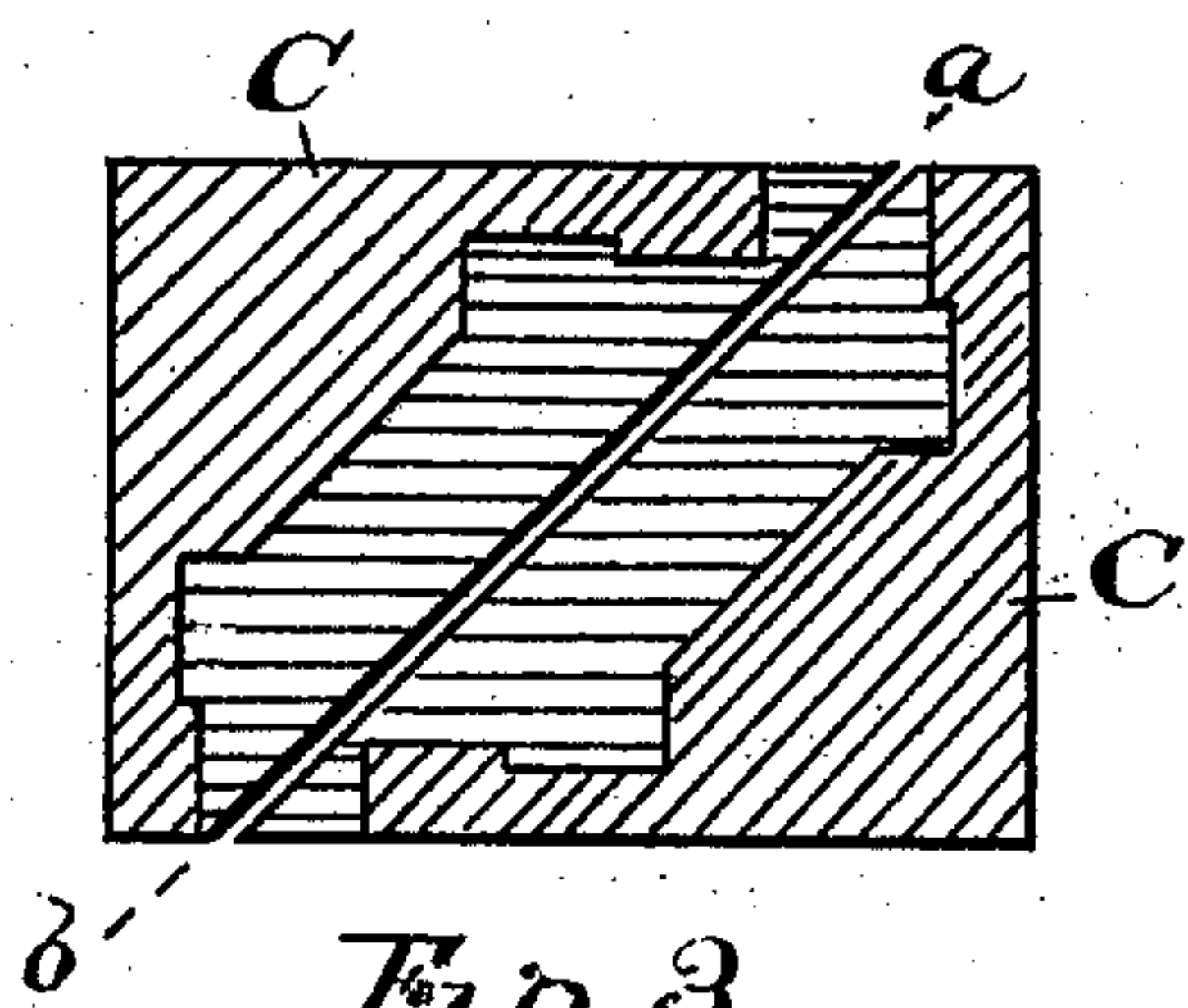


Fig. 3.

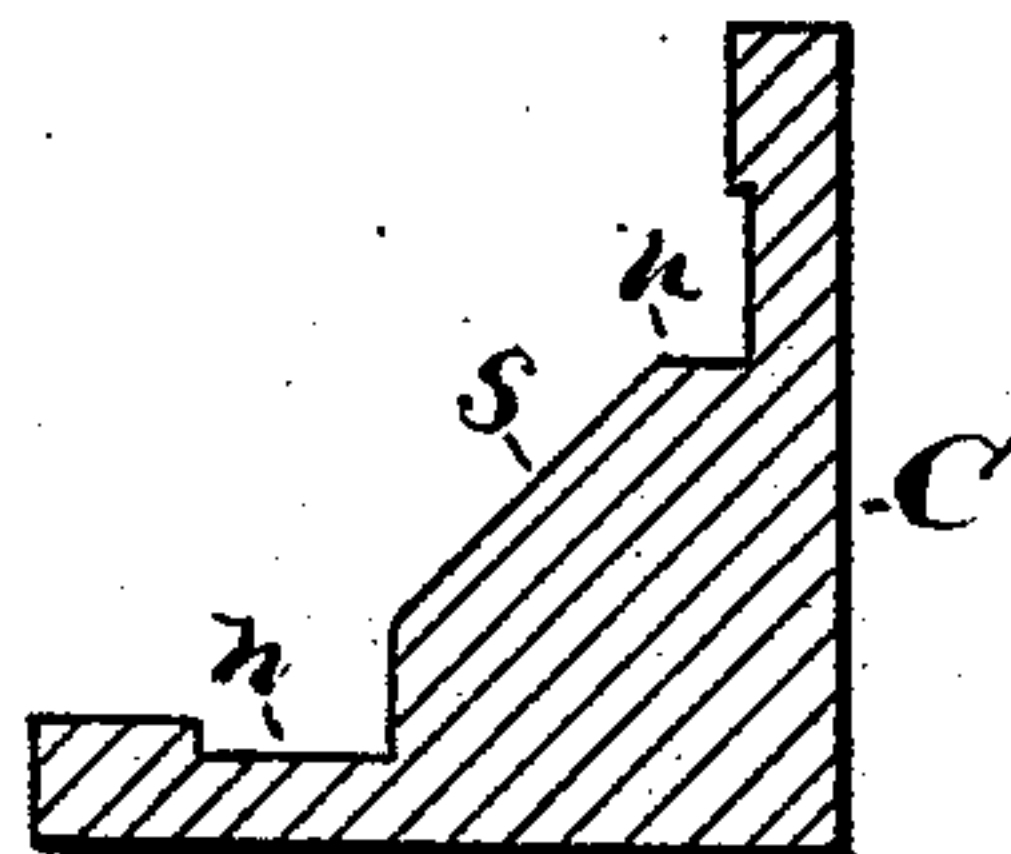


Fig. 4.

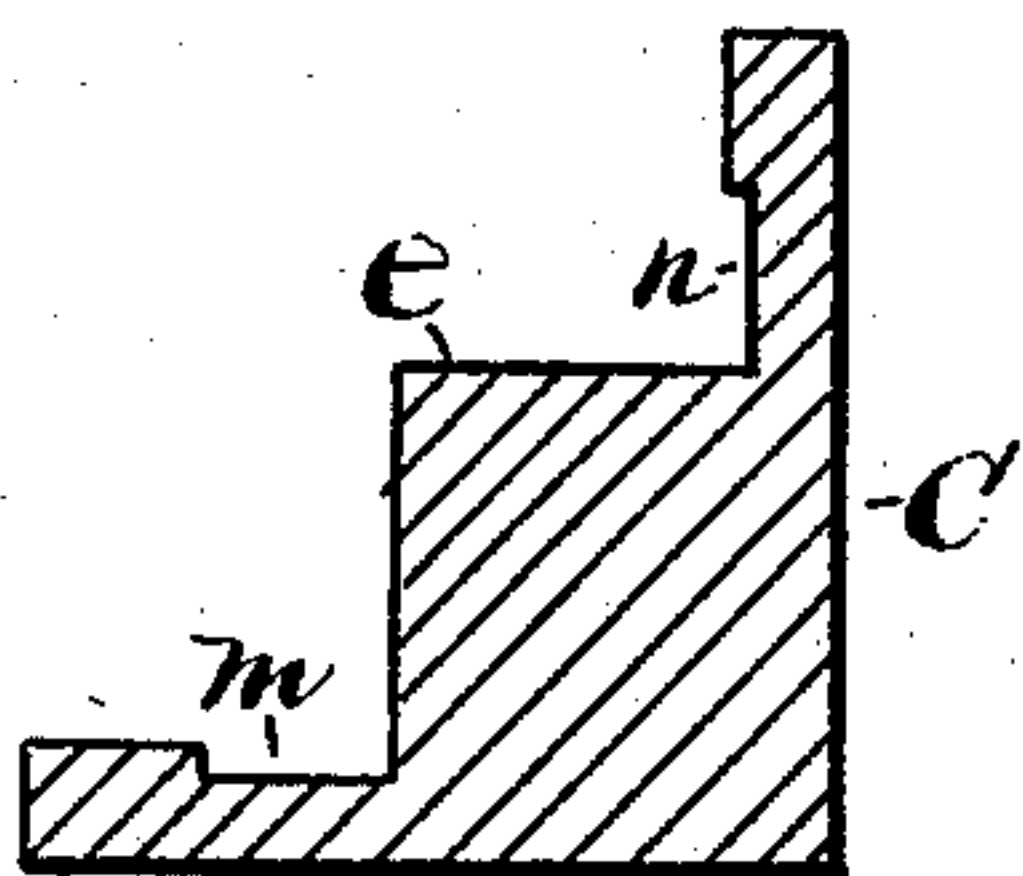


Fig. 5.

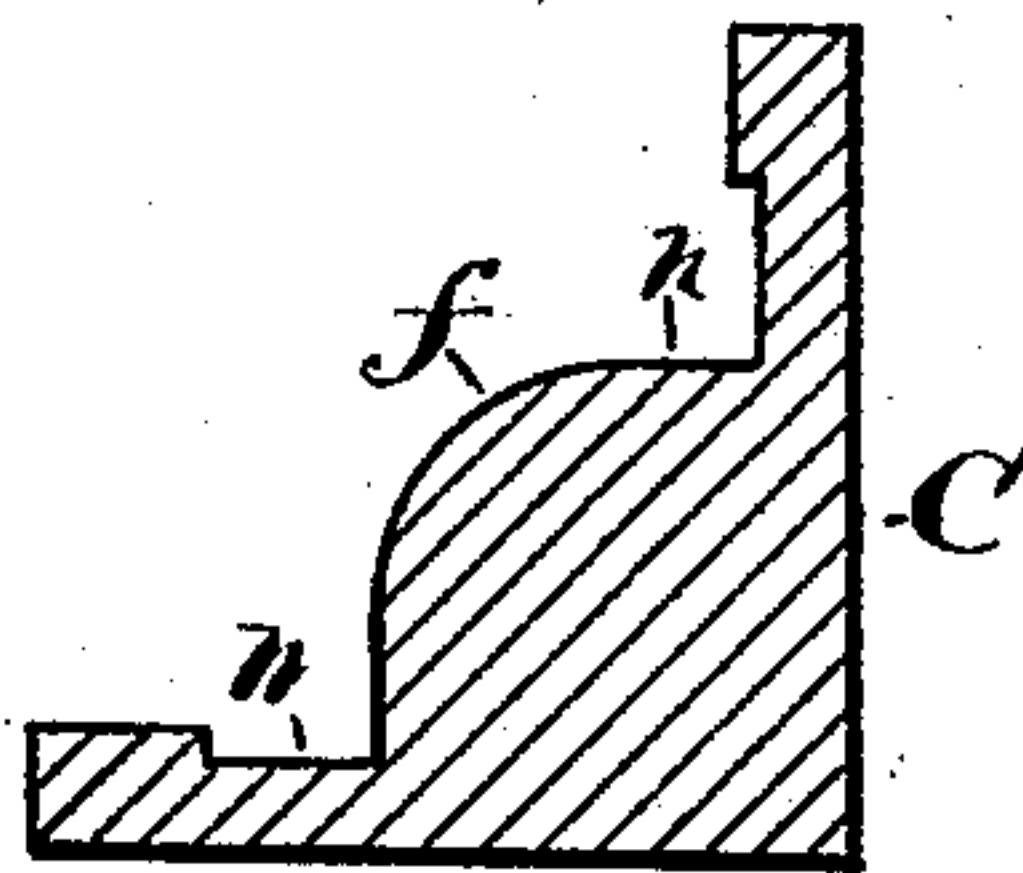


Fig. 6.

Witnesses:

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By Edwin H. Parley  
att'y



# UNITED STATES PATENT OFFICE.

ISAAC G. S. CLELAND, OF NEW HARTFORD, NEW YORK.

## MANUFACTURE OF SOLID WOOD CORNERS.

SPECIFICATION forming part of Letters Patent No. 291,082, dated January 1, 1884.

Application filed November 9, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC G. S. CLELAND, of the town of New Hartford, in the county of Oneida and State of New York, and a citizen of the United States, have invented and discovered a new and useful Improvement in Solid Wood Corners, of which the following is a specification.

My invention relates to improvements in the manner and method of constructing solid wood joints or corners as an article of manufacture.

The object of my invention is to furnish a solid wood corner in all places where a corner or an angle is to be joined, one that will not shrink or crack, that will be durable, easily and cheaply made; and my invention may be applied to pianos, bureaus, wagon-boxes, and all other articles of manufacture where a solid wood joint or corner is required.

Heretofore corners or joints have been formed by mitering the two angles of the side pieces, or by allowing the side piece to cover the end piece without miter, and in various other ways. In constructing solid wood corners by my process I attain the same by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a front view of a section with my solid wood corner attached. Fig. 2 is a top view of the corner formed with the end and side piece. Fig. 3 represents a cross-section of wood out of which the corner is constructed. Figs. 4, 5, and 6 represent cross-sections of my solid wood corner embracing features of my invention and discovery.

Similar letters refer to similar parts throughout.

The nature and construction of my invention and discovery consist in forming the solid wood corner or joint out of solid block of wood, of the required shape, by means of a buzz-saw or a gang of saws used to plow a longitudinal slot on each of the angles of the corner and a corresponding groove plowed by the same process in the side piece, so as to form a closely-fitting corner, as indicated in Fig. 2. The wood corner and the side pieces are then fastened together by glue, screws, rivets, nails, or any other suitable method of fastening the same.

Having described the nature and construc-

tion of my invention, I will now describe it by reference to the accompanying drawings, in which—

A represents the side piece, which forms a part of a corner or joint. B represents the opposite angle, side, or end piece.

C represents the solid wood corner or angle constructed or formed out of a solid piece of wood of any required angle.

*a* represents the direction of the cut in forming the corner from a square or other angular block. *b* represents the same.

*e* represents the right angle on the inner corner. *f* represents a rounded surface of the same.

*s* represents a straight line.

*n* represents a groove plowed, as described, longitudinally about one-half inch from the outer edge of the corner. This groove can be plowed deeper or broader, according to the wishes of the person using the same, without interfering with my invention, care being taken to have the furrow plowed sufficiently deep to have a strong projecting shoulder on the inner side.

*m* represents a corresponding groove, formed in the same manner for the same purpose, on the opposite wing of the angle.

*p p* represent a slot plowed, by means of a gang of buzz-saws or any other suitable means, crosswise of the end or side pieces which form the side or end of wagon-boxes, pianos, or any other article of manufacture where a right-angle corner or any other angle corner is required, and at such distance of the end thereof as to fit closely into the grooves in the wood corner, as indicated in Fig. 2. The wood corner and the side or end pieces are then fitted together with glue, screws, rivets, nails, or any other suitable method.

*p' p'* represent the union of the shoulders of the two pieces, which form a strong and substantial corner when united by glue or other means.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an article of manufacture, solid wood corner C, with extension-arms, as described, provided on the inner side of each arm with longitudinal slots or grooves *n n*, as described, as and for the purposes stated.

2. In an article of manufacture, solid wood

corner C, with extension-arms, as described, with a right-angle shoulder on the inside of each arm, as described, as and for the purposes stated.

5 3. In an article of manufacture, side piece A, provided with cross slot or groove *m*, in combination with solid wood corner C, provided with longitudinal slot or groove *n n*, as described, as and for the purposes stated.

10 4. In an article of manufacture, solid wood corner C, provided with longitudinal grooves

*n n*, in combination with side pieces A and B, provided with cross slots or grooves *m m*, with shoulders *p' p'*, as described, as and for the purposes stated.

Signed at Utica, in the county of Oneida and State of New York.

ISAAC G. S. CLELAND.

Witnesses:

EDWIN H. RISLEY,

C. D. F. HOXIE.