

J. W. Shiveley.
Railroad Chair.

N^o 65,439.

Patented Jun. 4, 1867.

Fig. 5.

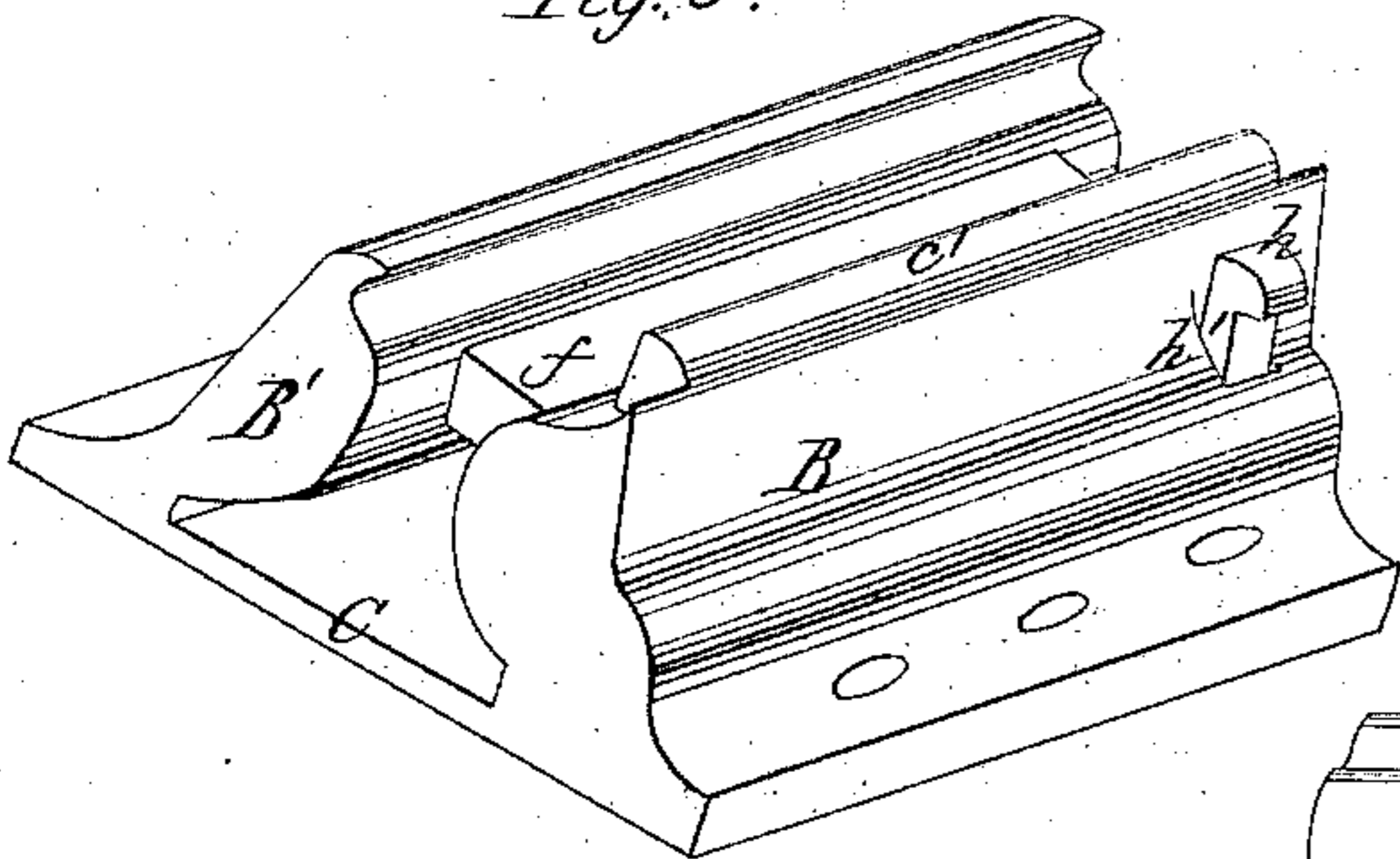


Fig. 7.

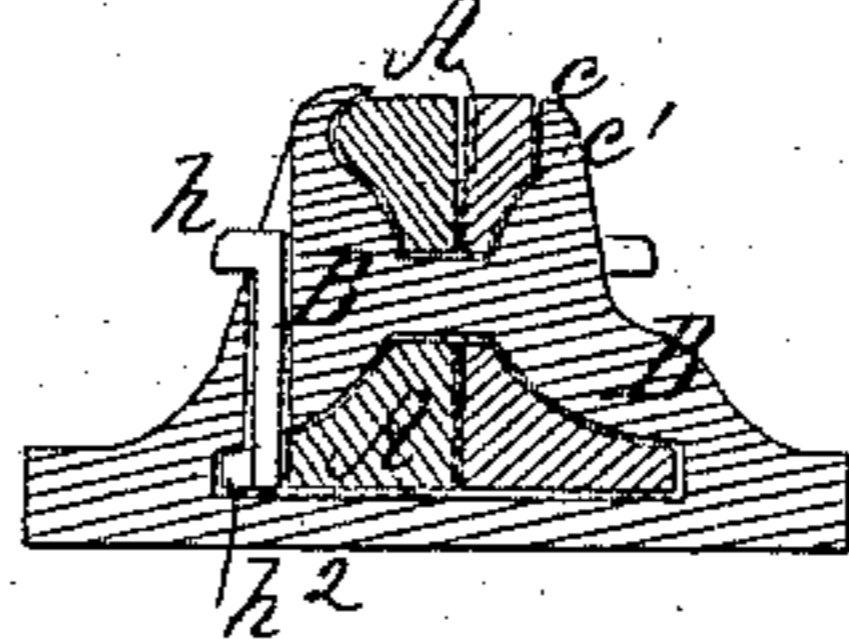


Fig. 6.

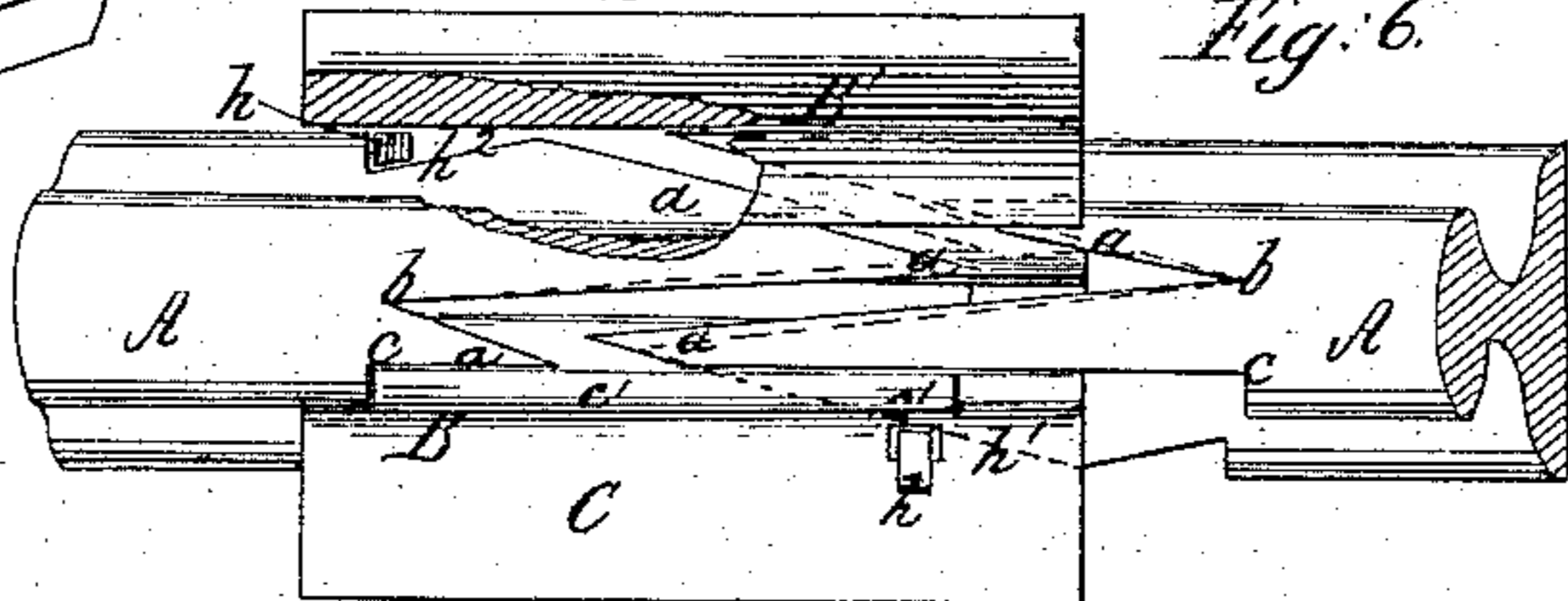


Fig. 8.

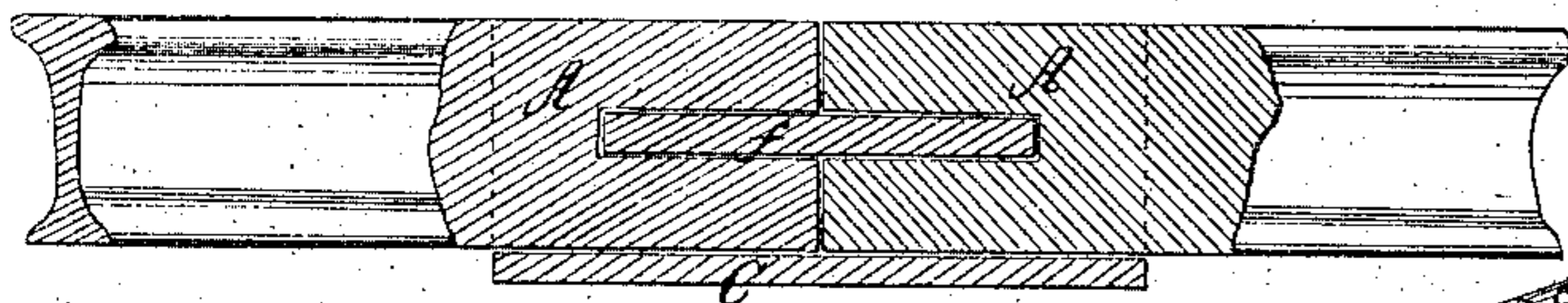


Fig. 1.

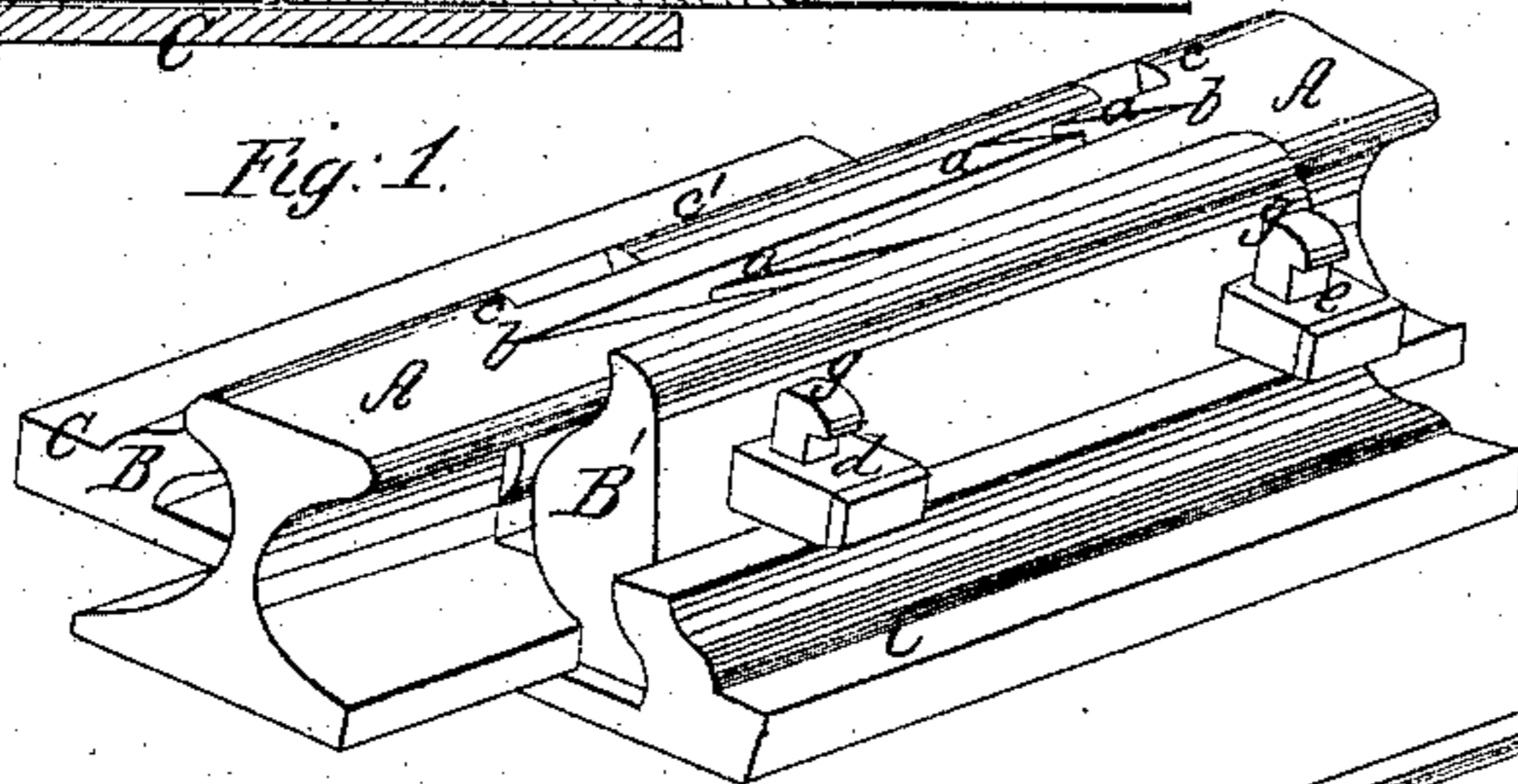


Fig. 4.

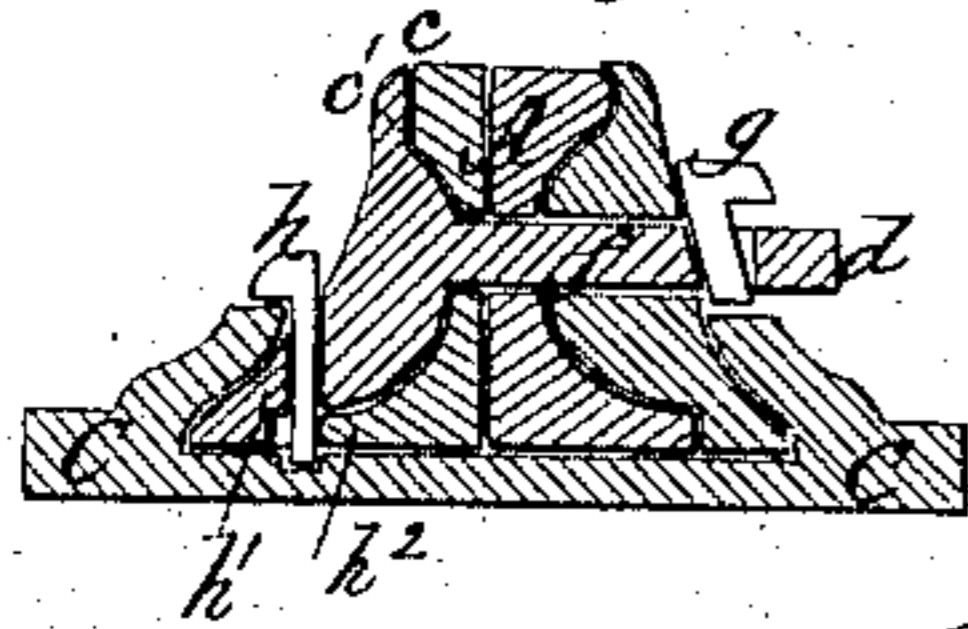


Fig. 2.

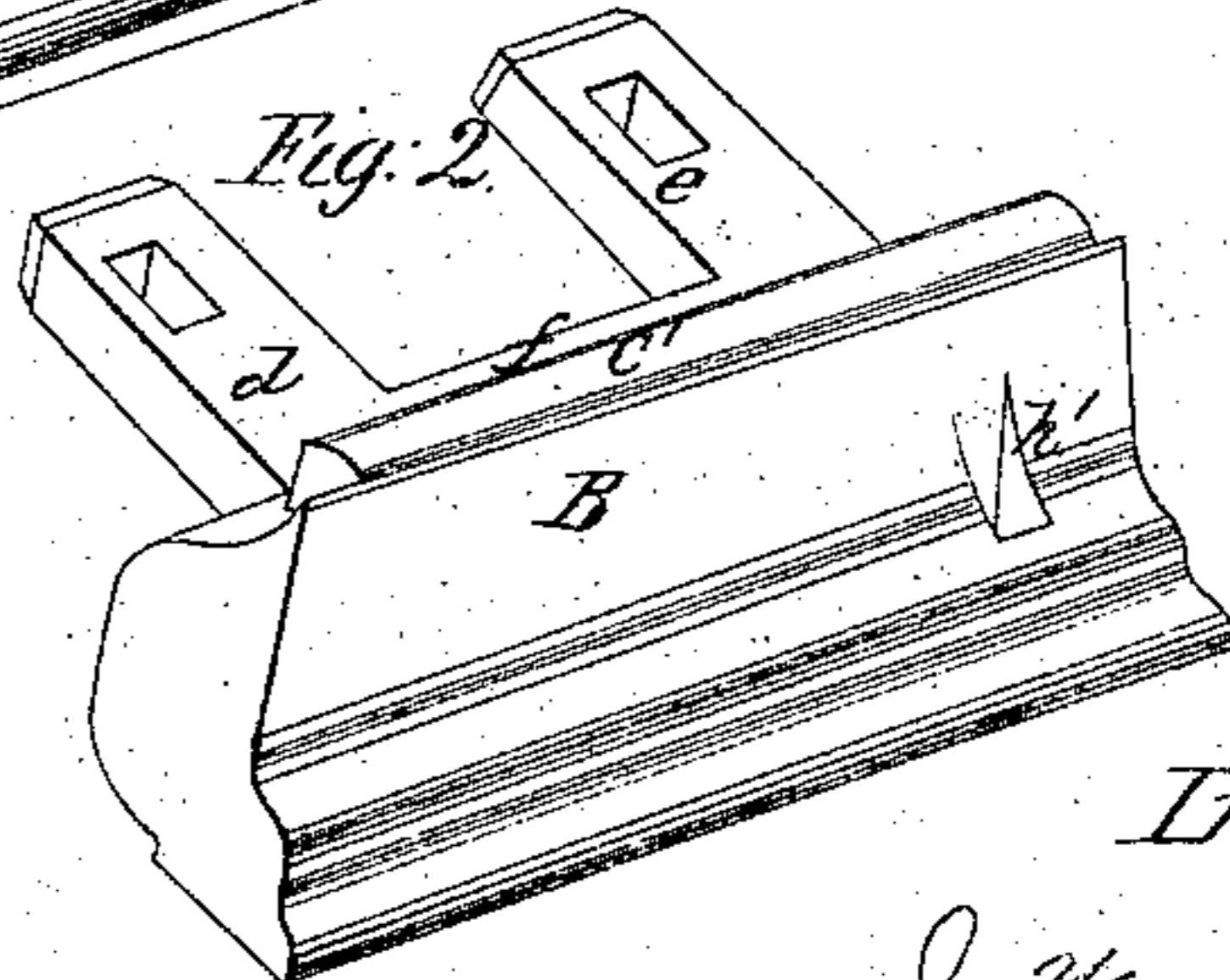
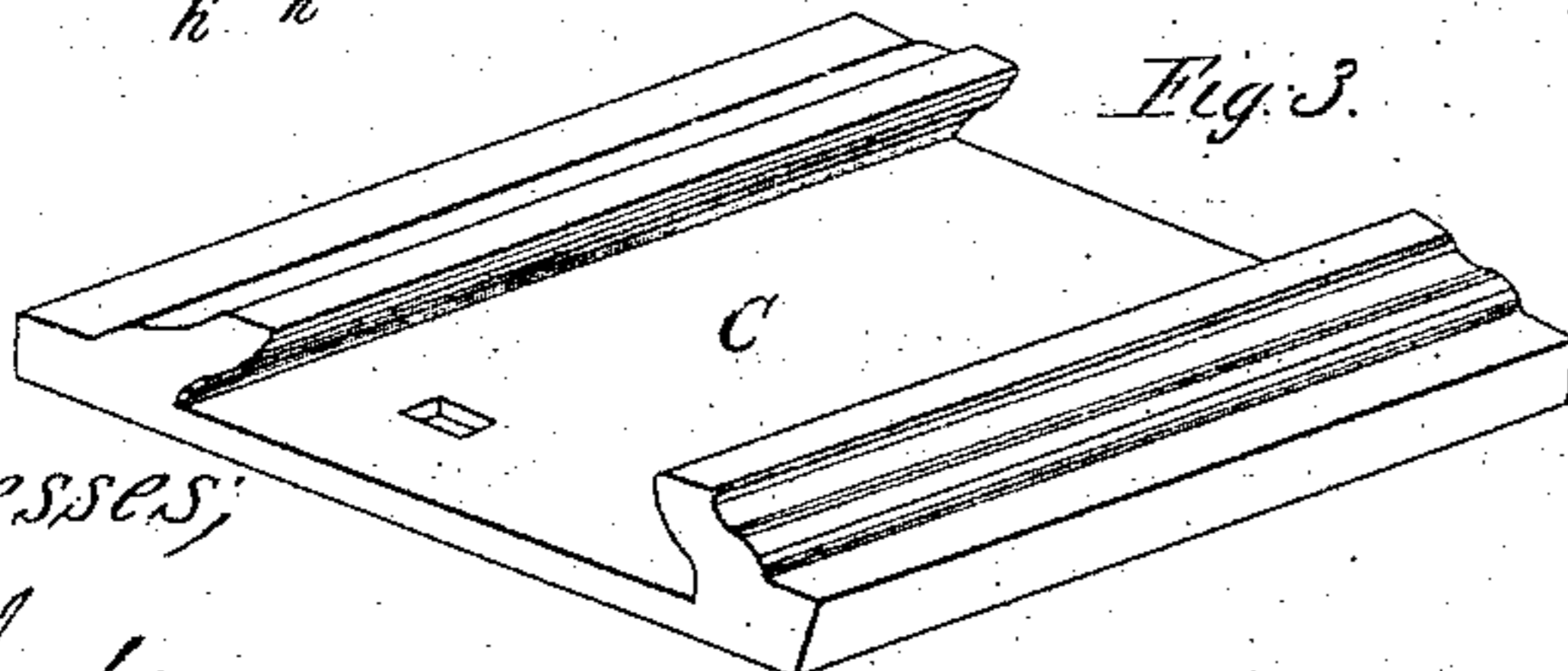


Fig. 3.



Witnesses;

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United States Patent Office.

J. W. SHIVELEY, OF NEW YORK, N. Y.

Letters Patent No. 65,439, dated June 4, 1867.

IMPROVED RAILWAY CHAIR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. W. SHIVELEY, of the city, county, and State of New York, have invented a new and improved Railroad Chair; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of the chair, double cheek-bar, and rails, united, the rails being slightly separated.

Figure 2 is a perspective view of the two cheek-bars separated.

Figure 3, a perspective view of the chair.

Figure 4, a cross-sectional elevation of the chair, cheek-bar, and rail, united.

Figure 5 is a perspective view of the chair and cheek-bars when constructed of one piece.

Figure 6 is a plan or top view of the same, partly in section.

Figure 7, a cross-sectional elevation; and

Figure 8, a longitudinal vertical section of the same.

Similar letters of reference indicate like parts.

This invention relates to an improved manner of uniting, joining, and supporting the ends of railroad rails, and represents an improvement over the railroad rail-joint, Letters Patent for which were granted to me on the 10th day of July, 1866. The invention consists—

First. In such a construction of the rails and double cheek-bar, that the friction of the trains passing over the rails is transferred from the edge of the rail to a projection on the chair or cheek-bar, whereby the ends of the rails are protected from the hammering and consequent destruction by the trains.

Second. In constructing the double cheek-bar out of two pieces, to one of which is secured the central longitudinal bar or rib, which corresponds to the openings in the ends of the rails. The two cheek-bars are connected to each other by means of tenons attached to the aforesaid rib, passing through mortises cut through the other cheek-bar, and secured there by keys or bolts. This method admits of a ready removal of the rails and chair, when one of them should have become unfit for further use; but, as it is not quite as strong and compact as the one mentioned in my patent of July 10, 1866, I propose to use one of the disconnected cheek-bars in about every twentieth chair.

Third. My invention consists in casting the chair, cheek-bars, and central rib in one single piece, thereby securing greater strength, simplicity, and cheapness, while the rails are connected and joined as readily and in the same manner as in the old method, where the cheek-bar was cast independent of the chair, and was secured to it by keys or bolts. The rails are in the combined chair and cheek-bar secured by means of keys passing through recesses or notches in the cheek-pieces and rails through the chair into the tie, or simply into the bottom of the chair. The recesses in the base of the rails are large enough to permit the expansion or contraction of the rails.

A A represent the adjoining or abutting ends of two rails, provided with angular tongues *a a a a*, and corresponding recesses *b b b b*, forming a zigzag joint, as shown and described in my patent of July 10, 1866. The threading edge *c* of the rails is partly cut away, as seen in figs. 1, 4, 6, and 7. A flange or lip, *c'*, attached to the upper edge of the cheek-bar B, fills up the recess in the rail when joined together, thus forming a flush and even continuation of the threading edge, and transferring the strain and wear from the ends of the rails to the chair or cheek-bar. The lip or flange *c'* does not extend the whole length of the cheek-bar, but stops at about an inch from either end, so as to form a shoulder for the rail to rest against, as shown in fig. 6. This lip *c'* may be attached to the cheek-bars when the latter are independent of, as well as when they are cast together with the chair. The cheek-bars B and B', when made in two pieces, are connected by means of tenons *d* and *e*, which are attached to the rib *f* on the bar B, and pass through mortises *d'* and *e'*, cut through the bar B', as seen in fig. 2. The tenons projecting from the outside of the bar B' are perforated, to admit the keys *g g*, by which the two cheek-bars are held firmly together. The cheek-bars, when thus united, form a double-cheek bar, the same as described in my Letters Patent of July 10, 1866, and are secured to the chair C and to the rails in the manner therein described. When the cheek-bars B and B', chair C, and rib *f* are cast in one piece, as seen in

figs. 5, 6, and 7, the necessity of keying the cheek-bars to the chair is overcome, besides securing a stronger and cheaper chair. In all cases the rails A are secured to the chair by means of keys h passing through notches h^1 and h^2 , respectively, in the outer sides of the cheek-bars, and in the outer sides of the bases of the rails, into or through the bottom of the chair. The notches in the base of the rails are large enough to permit a contraction or expansion of the rails.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

1. The recesses in the rail ends, in combination with a cheek-bar, which fits into said recesses, substantially as and for the purpose herein shown and described.
2. I claim the combination of the longitudinal rib f , or its equivalent, with the cheek-bar, substantially as and for the purpose herein shown and described.
3. Making the cheek-bars B and B' and central rib f one piece with the chair C, substantially as and for the purpose herein set forth and described.

J. W. SHIVELEY.

Witnesses:

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