

(No Model.)

W. M. BROWN.
BRACE CHAIR FOR RAILROAD RAILS.

No. 494,243.

Patented Mar. 28, 1893.

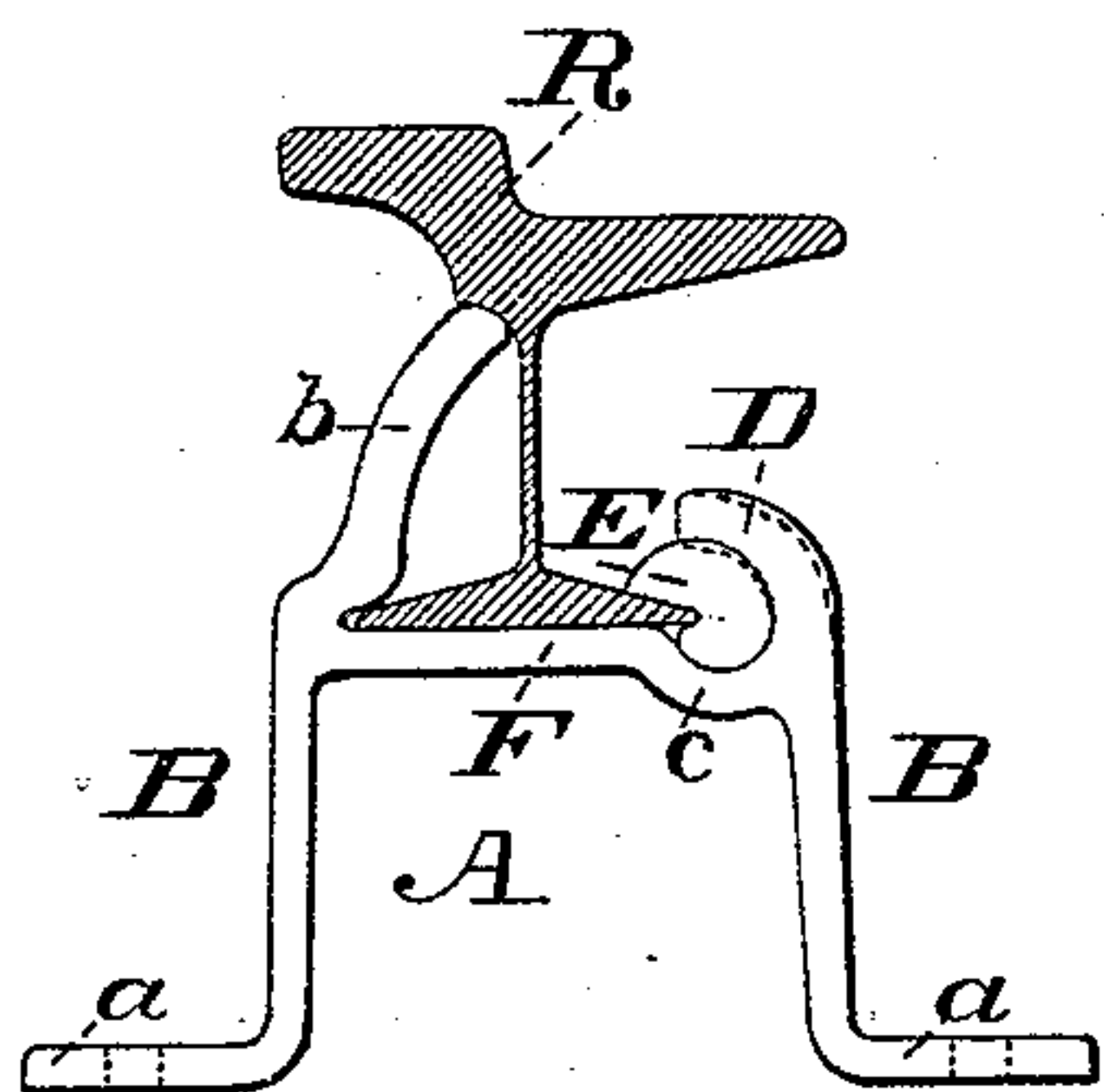


Fig. 1.

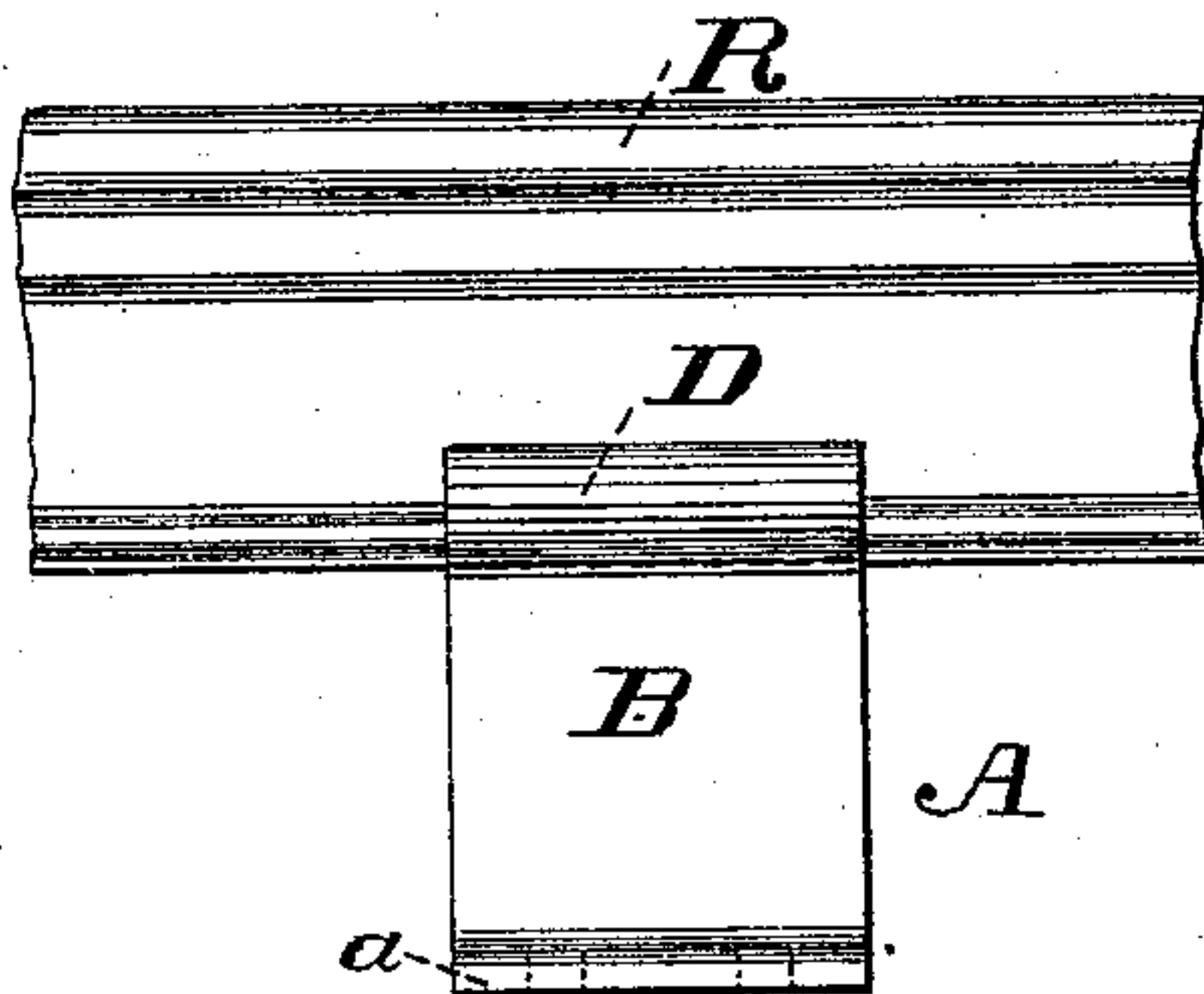


Fig. 2.

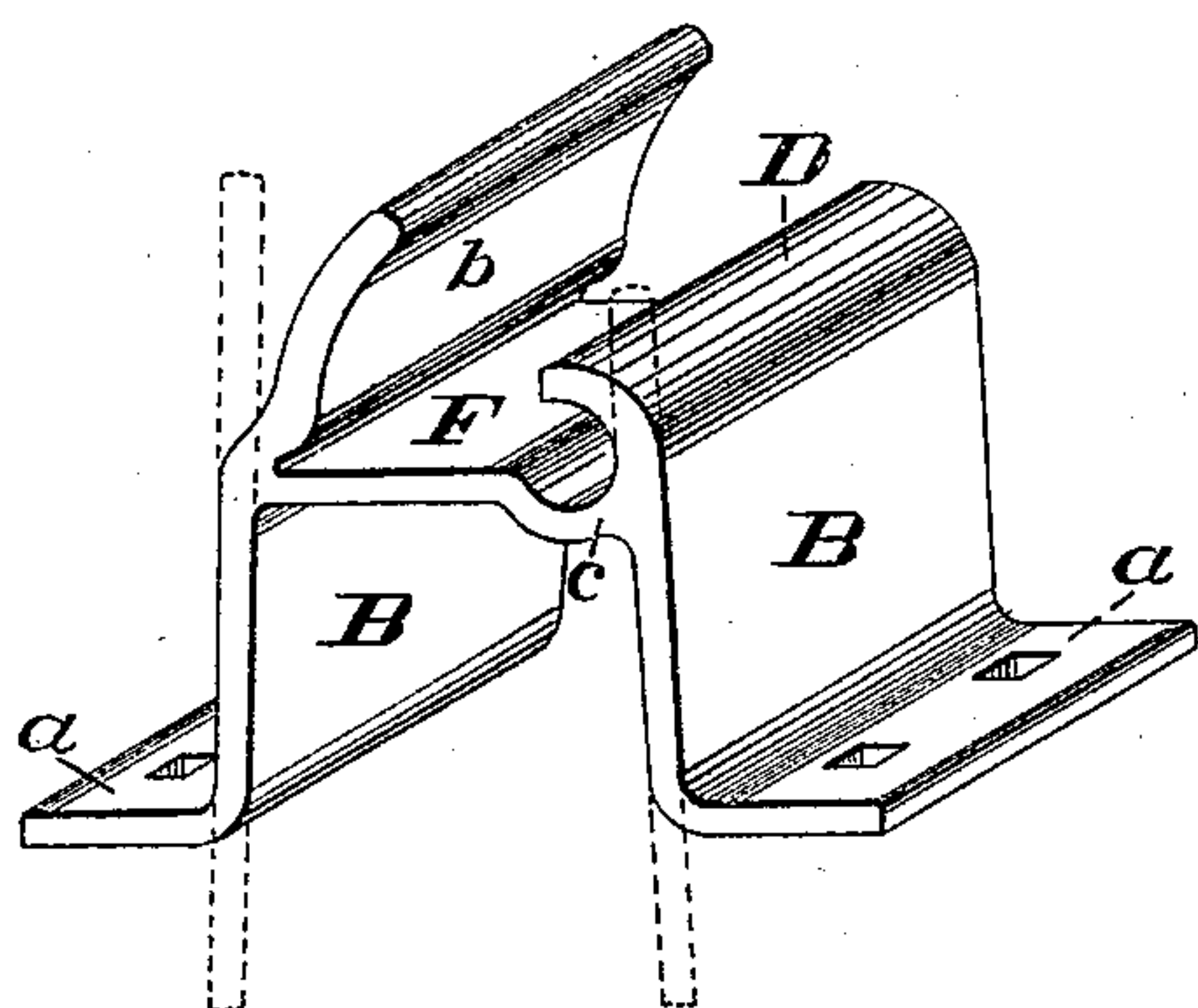


Fig. 4.

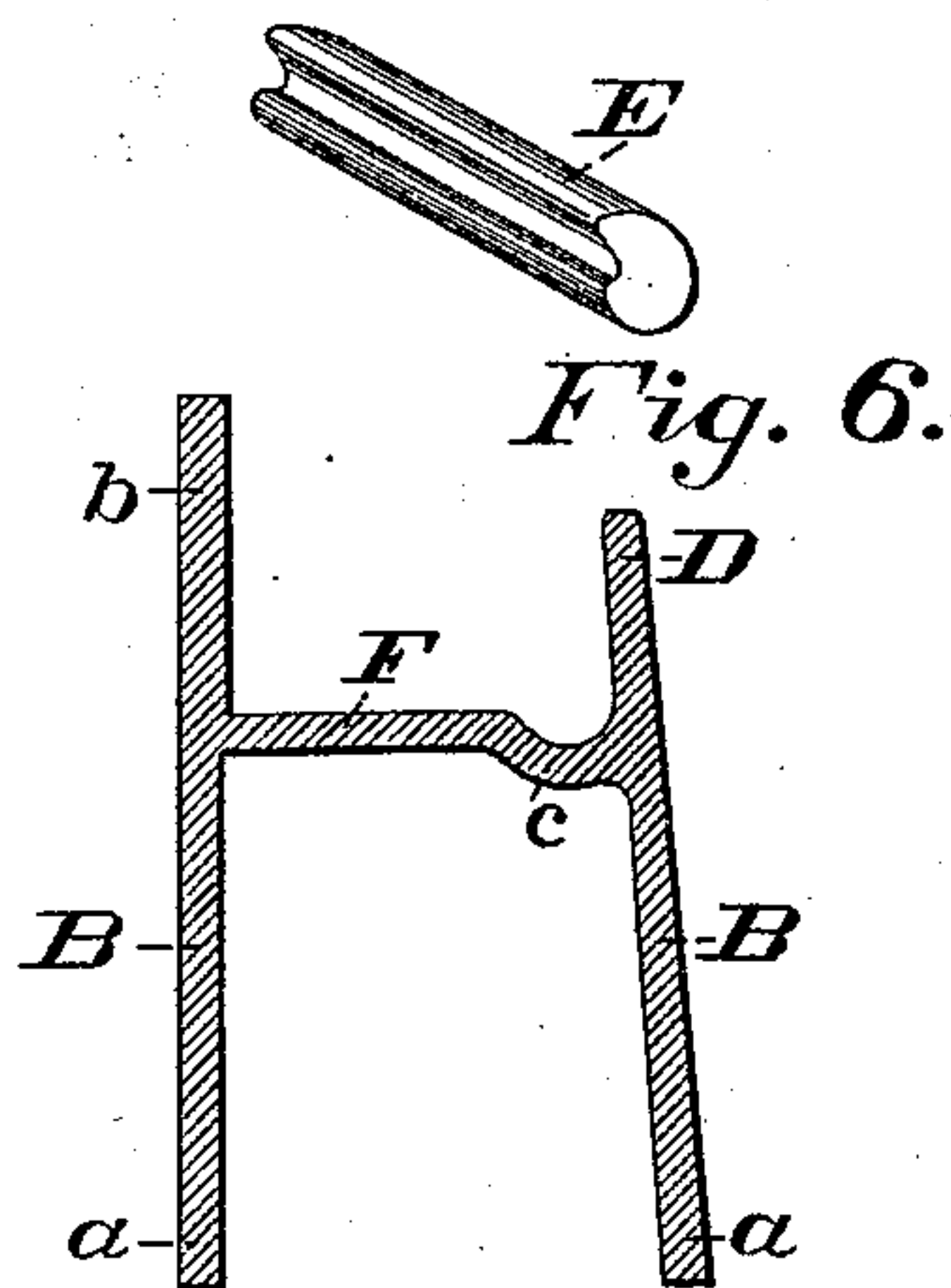


Fig. 5.

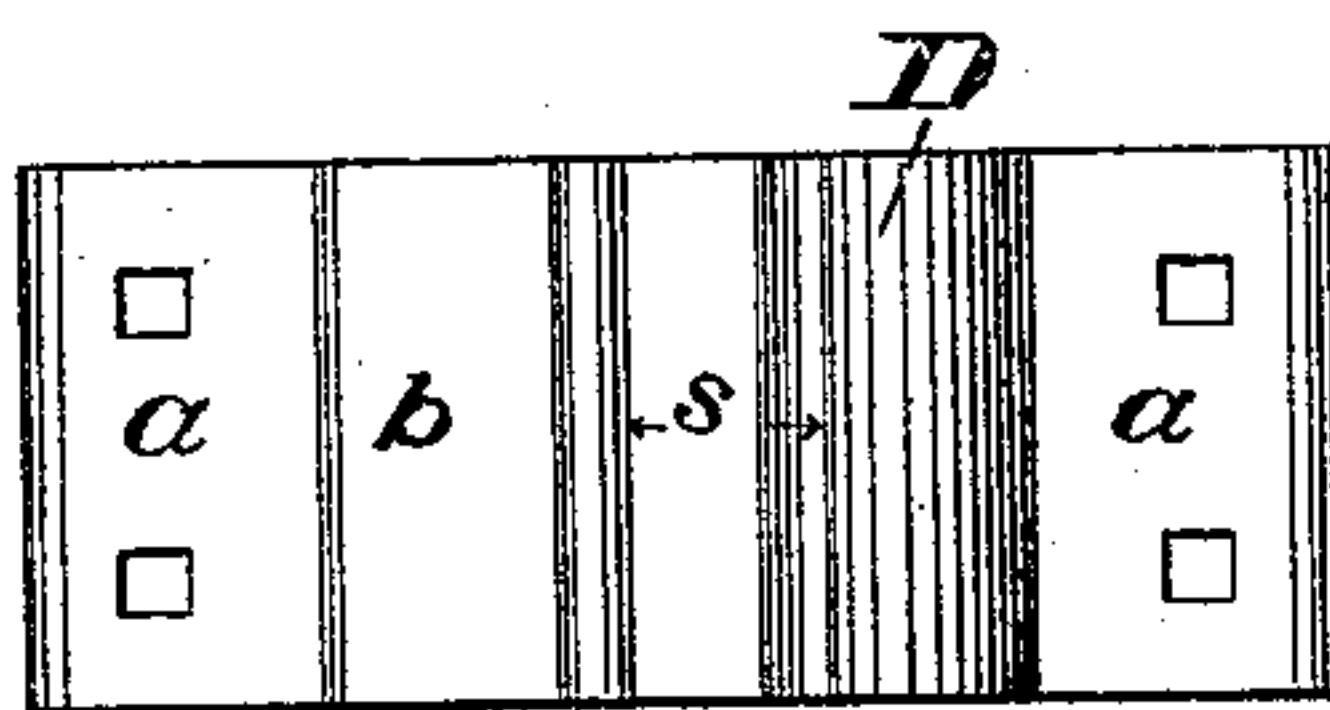


Fig. 3.

WITNESSES:
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WILLIAM MILTON BROWN, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO
THE JOHNSON COMPANY, OF SAME PLACE.

BRACE-CHAIR FOR RAILROAD-RAILS.

SPECIFICATION forming part of Letters Patent No. 494,243, dated March 28, 1893.

Application filed February 20, 1890. Serial No. 341,121. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MILTON BROWN, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented
5 a new and useful Brace-Chair for Railroad-Rails, which invention is fully set forth and illustrated in the following description and accompanying drawings.

The object of this invention is sufficiently
10 indicated by its title.

The invention will first be described in detail and then particularly set forth in the claims.

In the accompanying drawings, Figure 1
15 illustrates the chair in end elevation with a rail, shown in cross-section, in place thereon. Fig. 2 illustrates the parts shown in Fig. 1 in side-elevation. Fig. 3 is a view, in plan of the chair. Fig. 4 is a perspective view of
20 the chair, showing in dotted lines the shape or form of the metal blank, out of which the chair is preferably made. Fig. 5 shows said metal-blank in cross-section, geometrically. Fig. 6 illustrates in perspective the key or
25 clamp which is used to secure the rail and chair together as the same are used when laid in track.

In said figures the several parts are indicated by reference letters as follows:

30 The letter A indicates the chair proper; *a, a*, the feet of the chair; *B, B*, the sides of the chair; *b*, that portion of the chair which forms the brace for the rail; *D* a portion of the chair bent over to form a retaining clip;
35 *F*, the base, or rail-support-portion of the chair; *c*, a groove or channel in said base-portion, or rail-support; and *E*, a key, of the shape shown in Fig. 6, which when driven into place, as seen in Fig. 1, clamps the lower
40 flange of the rail *R* firmly to the chair. The parts as lettered on, Fig. 5, show for the metal-blank, the corresponding, or respective, portions of the chair, into which the similarly lettered parts of Fig. 5, are formed.

45 The purpose of the groove *c*, and the peculiar conformation of the key *E'*, are to secure a side-thrust and ample bearing in the chair, in addition to the holding-down bearing, and also to obviate all danger of the key working
50 out of place. A further advantage is that

said groove provides room for the drop of the lower flange of the rail into the chair to facilitate the attachment of the chair thereto without making the chair too wide; it being
55 a desirable thing that the chair should not be wider than the rail, in order to be non-obstructive to the paving-blocks of the street, these chairs being, in particular, suited for street-railway-use.

In Fig. 3 the letter *s*, shows the space, in
60 plan, between the edge of the brace *b* and that of the clip *D*.

The chair is applied to the rail in the following described manner: The chair is attached to the rail so that the brace *b*, comes
65 well up under the shoulder of the same, when the key *E* is then driven into place.

It is evident that the brace-portion of the chair, if desired, could be so bent or shaped
70 as to come up under the head-portion or against any other of the outside portions of the rail, and it is also evident that the *H*-section, Fig. 5, could be rolled flat across the whole face *F*, instead of with the groove *c* in
75 the same, or made of malleable metal in which case the groove could be dropped in the chair in a subsequent drop-forging or shaping process.

Having thus fully described my said improved rail-chairs as of my invention, I claim—
80

1. A chair, of rolled or malleable metal, for girder-rails, having a portion of its rail-seat pressed downward so as to form a side-channel, and one side of the chair bent over said
85 channel.

2. A box-chair, of rolled or malleable metal, for girder-rails, having a portion of its rail-seat pressed downward so as to form a side-channel and one side of the chair bent over
90 said channel.

3. A box-chair, of rolled or malleable metal, for girder-rails, having a rail-brace on one side and a portion of its rail-seat pressed downward to form a side-channel, in combination with a key inserted in said channel
95 under a clip, as *D*, and over the foot of the rail.

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Witnesses:

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