

(No Model.)

F. W. BROOKS.

RAILROAD RAIL.

No. 322,412.

Patented July 21, 1885.

Fig. 1.

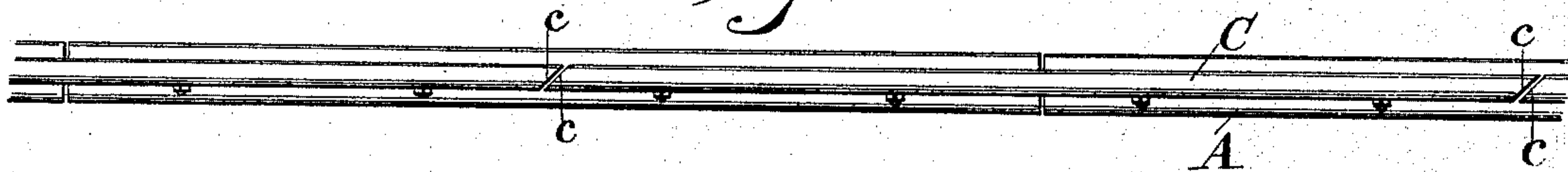


Fig. 2.

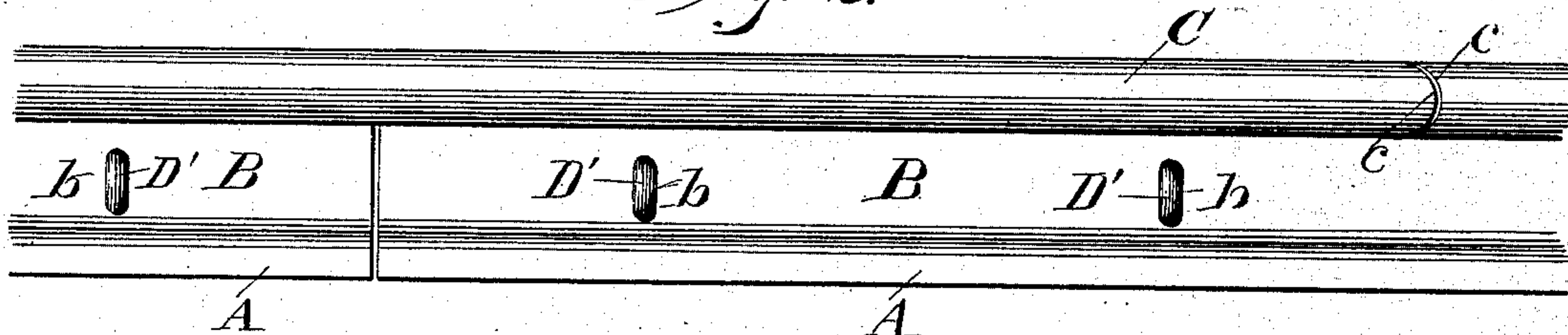


Fig. 3.

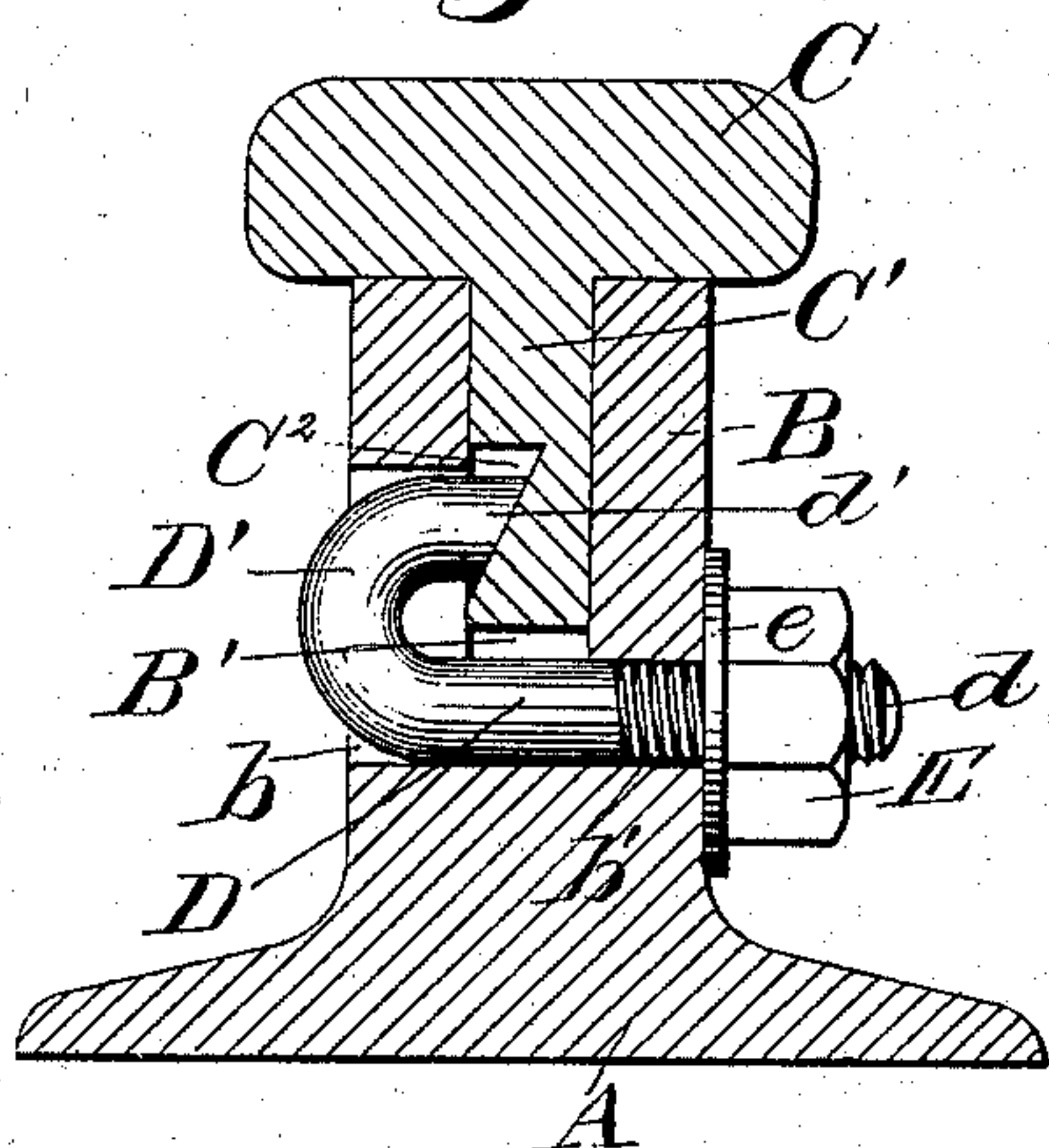
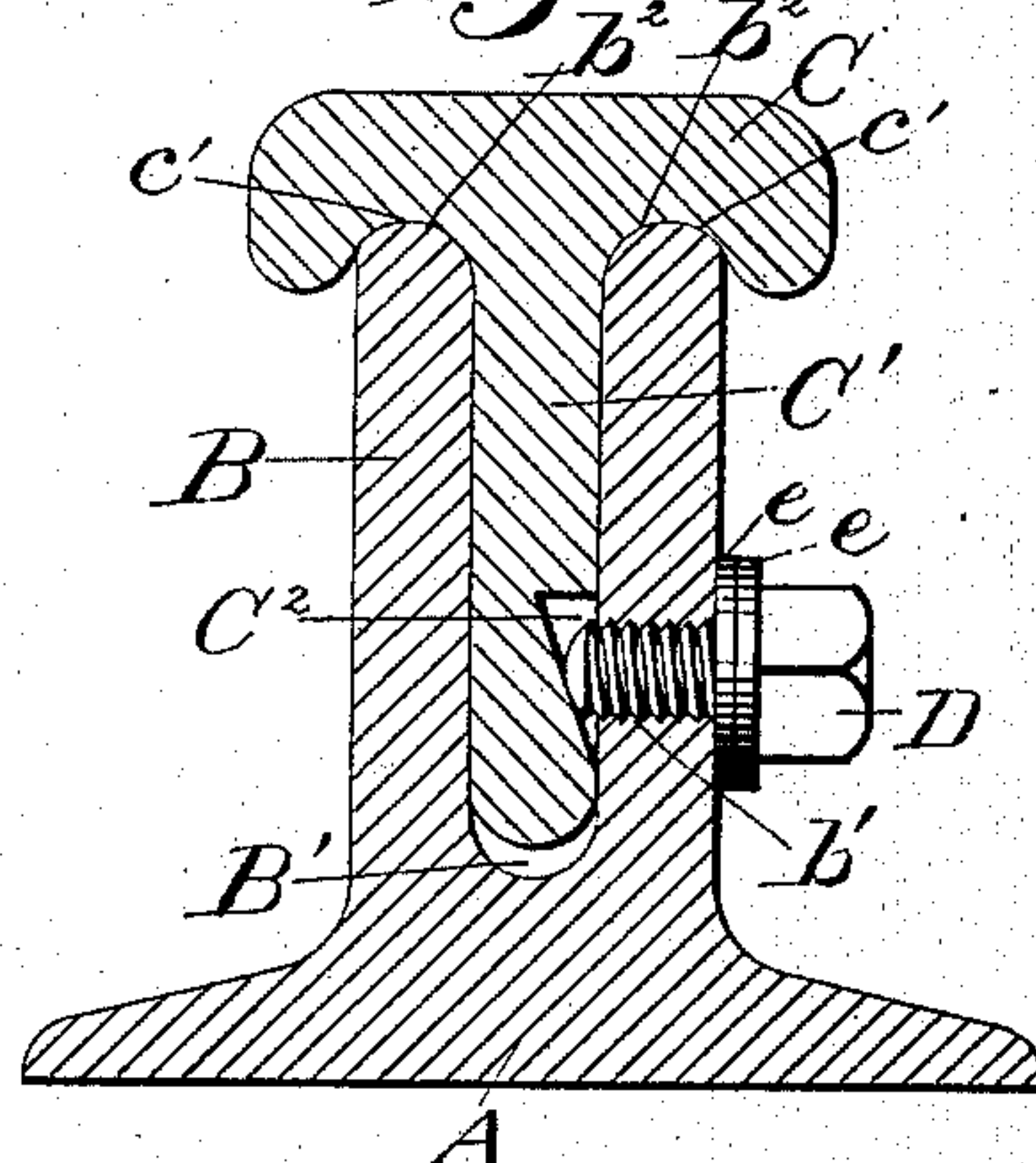


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

FREDERICK W. BROOKS, OF OAK GROVE, WISCONSIN.

RAILROAD-RAIL.

SPECIFICATION forming part of Letters Patent No. 322,412, dated July 21, 1885.

Application filed January 12, 1885. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. BROOKS, of Oak Grove, in the county of Dodge, and in the State of Wisconsin, have invented certain new and useful Improvements in Railroad-Rails; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has especial reference to rails used in the construction of steam-railroads; and it consists in certain peculiarities of construction, as will be more fully set forth hereinafter.

In the drawings, Figure 1 is a top view of a rail-section embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical transverse section thereof, and Fig. 4 is a like sectional view showing a modified construction.

A is the base or foot of the rail, and B the web, the two being preferably formed integral with each other, and the web having a vertical central longitudinal groove, B', extending from the top half-way down the web or more. C is the tread, formed independently of the web B, and having a downward depending central longitudinal flange, C', its entire length, adapted to fit in the grooves B' of the web-sections, as shown.

The treads C C are disposed so as to "break joints" with the foot and web sections A B, as shown, and each end of every tread is cut at an angle to its length of, say, forty-five degrees, so that the successive tread-sections C will match when put together, as shown at c c, and preferably about midway of the length of the foot and web sections. At intervals along the length of the web-sections B the same is perforated from each side, the slots b on one side being much longer than the slots b' on the opposite side, and both slots opening into the groove B', aforementioned. The flange C' of the tread-sections C is cut away on one side its entire length, forming a groove, C², with flat top and inclined side, as shown in Figs. 3 and 4.

The preferred method of fastening the several sections of my device together is illustrated in Fig. 3.

D is a bolt, one end of which, d, is screw-threaded, while the other end, D', is bent into a hook having an inclined end or face, d', which is cut at the same angle that the groove

C² in the tread-flange C' is, so that the hooked end will rest smoothly upon the said flange, as shown in Fig. 3, the parts being tightened to place by means of the nut E, working on the screw-threaded end d of the bolt, and preferably having a washer, e, interposed between the web B of the rail and the bearing-face of the said nut E. It will thus be seen that when the several parts of my device are put together, as shown, the tread C will be drawn down tightly on the web-sections B B by turning the nut E, which draws on the hook-bolt D D', and as the pressure is increased the inclined face d' of the hook will draw down on the inclined face of the groove C² in the side of the tread-flange C', thus holding all the parts firmly together without the necessity of using any fish-plates or other securing devices.

In Fig. 4 I have shown a modification of the foregoing device, but one working on the same principle. In this form the groove B' in the web-sections B is preferably deeper, and I have but one side of the web perforated, using only the slots b' to communicate with the groove B', but make these slots screw-threaded. I use a short bolt, D, wholly screw-threaded, and dispense with the nut, though I may use one or more of the washers e, as found necessary.

If desired, I may make the upper surfaces of the two parts of the web-sections B rounded, as shown at b² b², and round out at the under surface of the tread C to correspond, as shown at c' c', and this construction I may apply to the form shown in Fig. 3, if preferred, as well as to the form shown in Fig. 4, and correspondingly I may, if desired, make the top surfaces of the web-section B and under surface of the tread C flat, with the form of bolt shown in Fig. 4, as well as with the style shown in Fig. 3. With the form shown in Fig. 4, by simply turning the bolt D a downward pressure is exerted on the tread-flange C' by the contact of the bolt end against the inclined groove C², as before described.

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

1. In a railroad-rail, the combination of the foot and web section A B, having longitudinal vertical groove B', and side perforations communicating with said groove, with the tread-

section C, having depending longitudinal flange C', provided with an inclined-faced side groove, C², and bolt D, adapted to bear against the inclined side of the groove C², substantially as set forth.

2. In a railroad-rail, the combination of the foot and web section A B, having longitudinal vertical groove B', and side perforations, *b b'*, communicating therewith, with the tread-section C, having depending longitudinal flange C', provided with an inclined-faced side groove,

C², and the hook-bolt D D', adapted to bear against the inclined side of the said groove C², and nut E, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Juneau, in the county of Dodge and State of Wisconsin, in the presence of two witnesses.

FREDERICK W. BROOKS.

Witnesses:

W. T. RAMBUSCH,
A. VELING.