

H. A. HARVEY.

CHAIR FOR SECURING THE RAILS OF RAILROADS.

No. 26,492.

Patented Dec. 20, 1859.

Fig. 1.

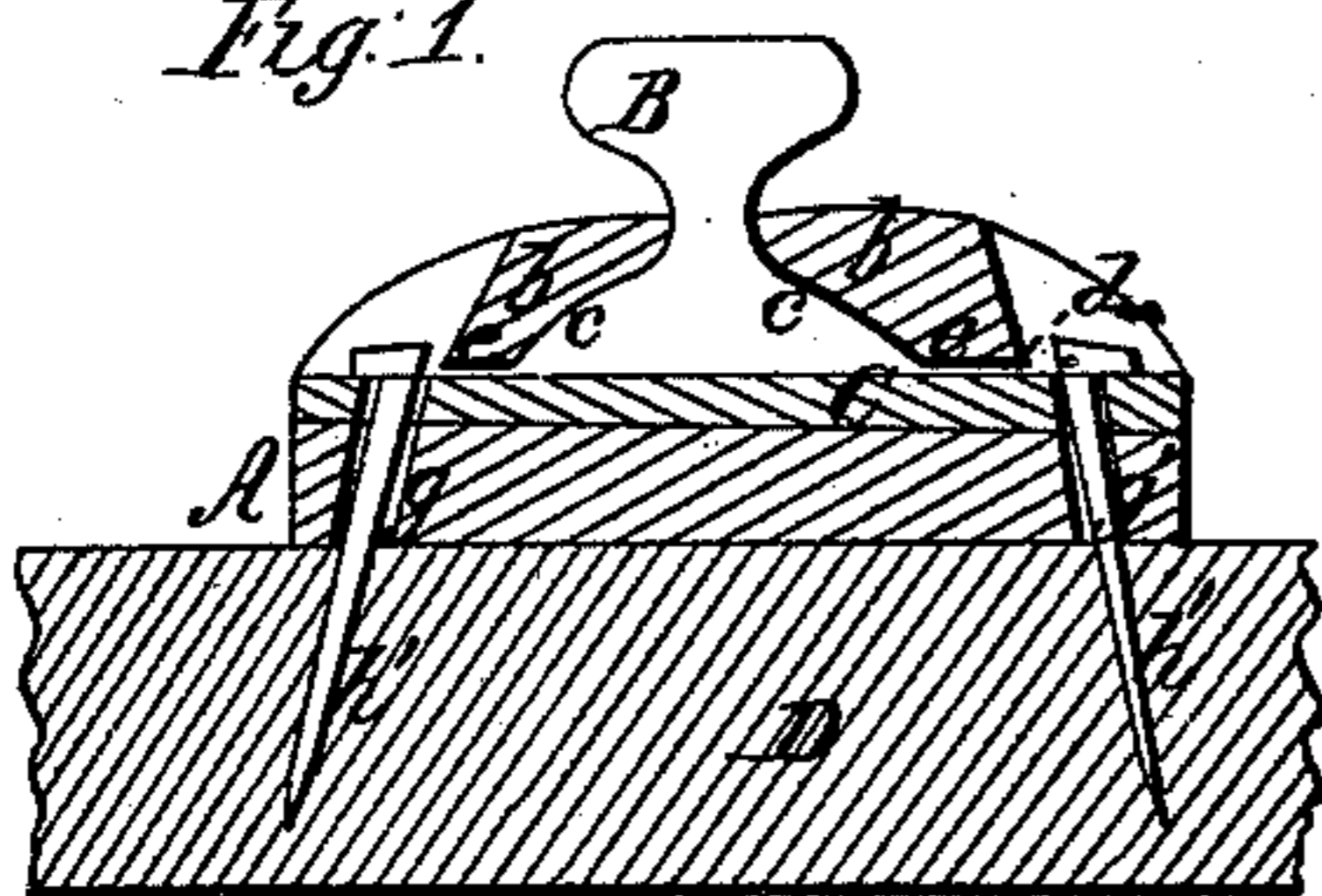


Fig. 2.

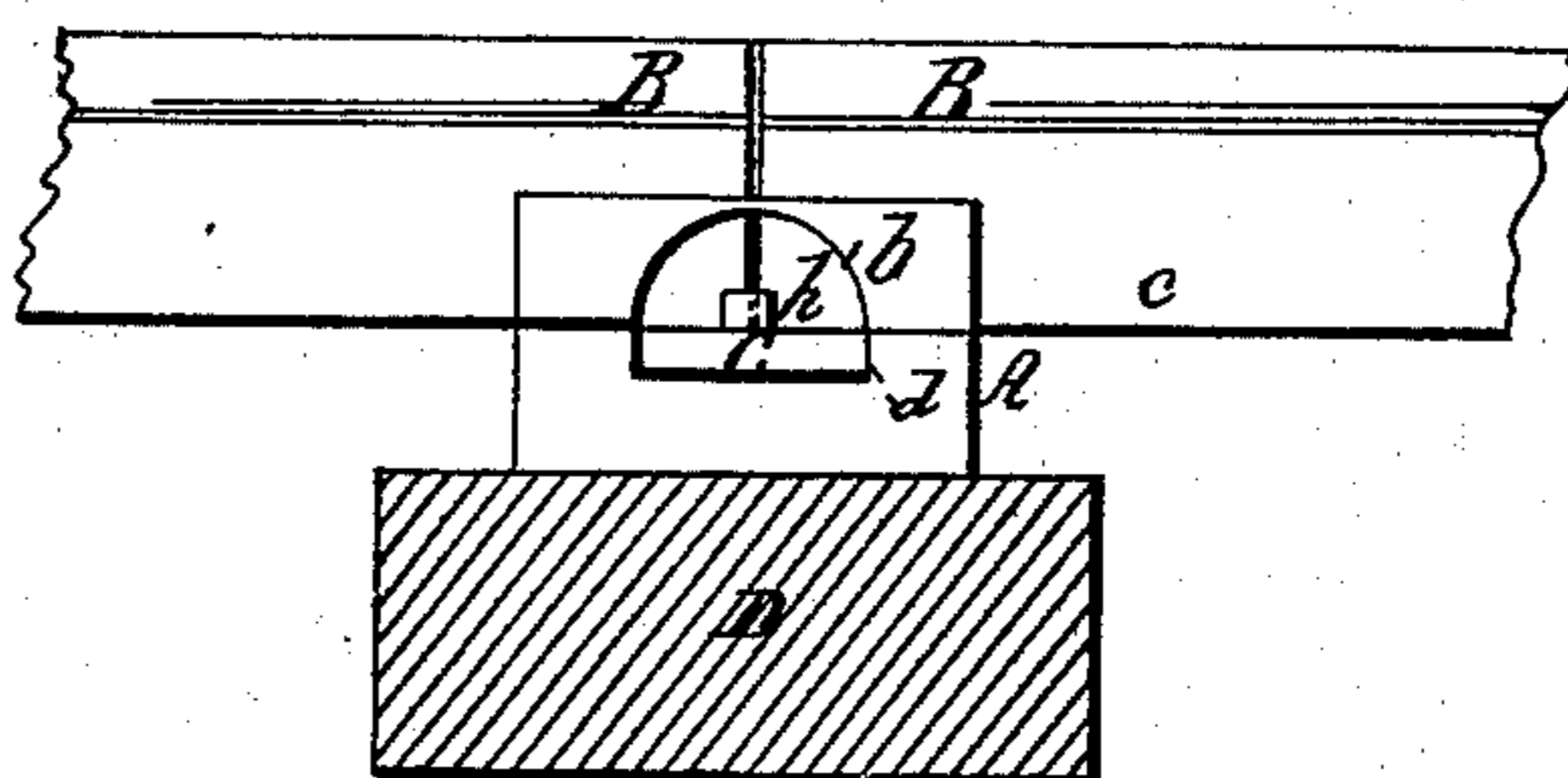


Fig. 3.

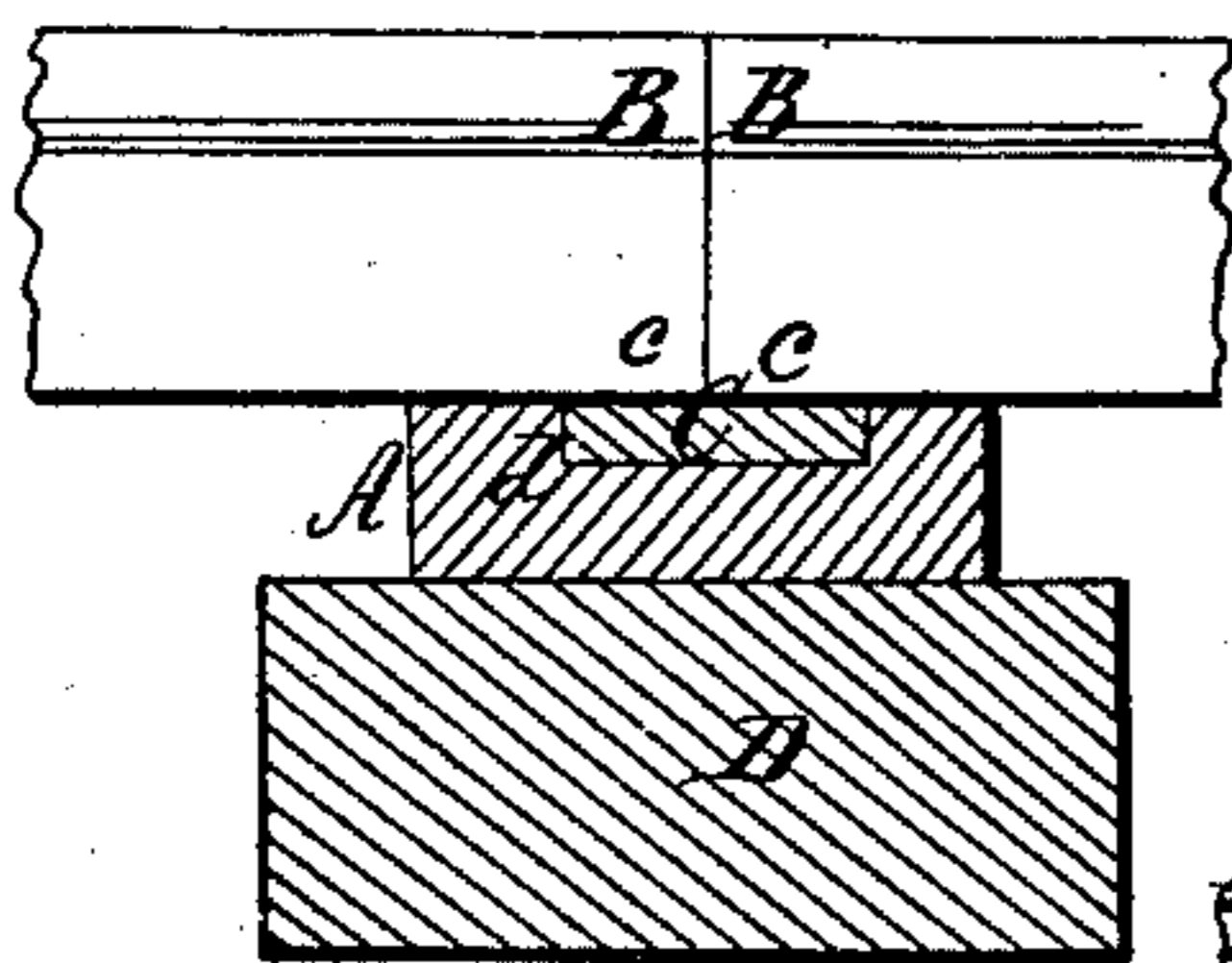
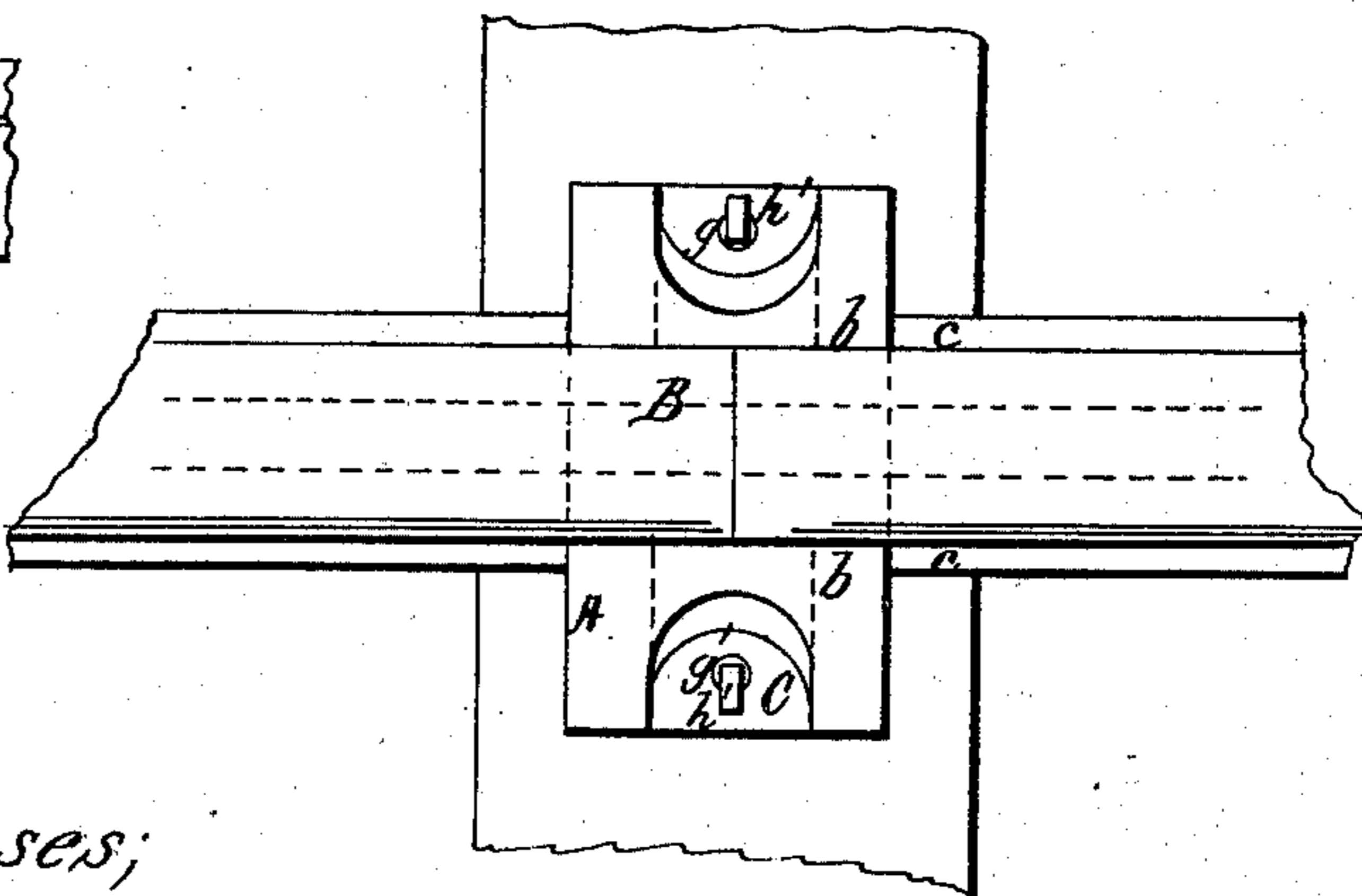


Fig. 4.



Witnesses;  
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# UNITED STATES PATENT OFFICE.

HAYWARD A. HARVEY, OF NEW YORK, N. Y.

## CHAIR FOR RAILROADS.

Specification of Letters Patent No. 26,492, dated December 20, 1859.

*To all whom it may concern:*

Be it known that I, HAYWARD A. HARVEY, of the city, county, and State of New York, have invented a certain new and useful Improvement in Chairs for Securing the Rails of Railroads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a cross vertical section taken in the plane of the junction of the rails; Fig. 2 a side elevation of the rails in the chair; Fig. 3, a section taken in the central longitudinal plane of the rails; Fig. 4, a plan of the rails, chair and sleeper.

The same letters indicate like parts in all the figures.

The object of my said invention is to secure the junctions of the sections of rails so as to insure the retaining of them in line, and to this end my said invention consists in the employment of a chair with lips to extend over the web or base of the rail, and with a groove or other suitable receptacle for a cross wedge which is to be used in combination therewith, and which is to be driven across the longitudinal plane of the rail and just under the base of the proximate ends of two sections so as to force the webs of the said rails up against the two lips of the chair, and at the same time to form a base for them to rest on, whereby I am enabled to keep the proximate ends of the sections of rails in line and on the same level, and avoid that hammering action which is so injurious to rails, and all the other difficulties consequent upon the use of imperfect modes of securing the ends of rails in chairs.

In the accompanying drawings (A) represents the chair, which may be secured in any suitable manner to the sleeper or cross tie (D). This chair is formed with lips (b, b) to extend over the web (c, c) or base of the rails (B) while the under surface of the web or base rests on the flat surface of the chair between the lips. I prefer so to form the under surface of the lips (b, b) that they shall fit the upper surface of the web (c, c) of the rails. The upper surface of the base of the chair, on which the base of the rail rests is formed with a groove (d) at right angles with the longitudinal plane

of the rails and extending the whole breadth of the chair, and hence continuing through the lips (b, b) in the form of mortises (e, e) and to this is fitted a flat wedge (C) which I prefer to make of very slight inclination, and in width about half the length of the chair. The mortise (e, e) are to be in depth a little greater than the thickness of the wedge, that is just enough to clear the upper surface of the wedge that when driven in it may act fully against the under surface of the base of the rails to force them up against the lips of the chair.

The ends of the rails (B, B) are to be inserted in the chair so as to meet or nearly meet in the middle of its length, as represented, and of course with the web (c, c) of the rails, under the lips (b, b) of the chair, and then the wedge (C) is inserted in the groove (d) and under the ends of the rails, and driven until the web (c, c) of the rails are forced up against the lips (b, b) of the chair, the upper surface of the wedge thus becoming the base on which the two sections of rail rest.

To secure the wedge in place when driven home it has a hole near each end corresponding with holes in the chair in which spikes (h', h') are inserted and driven into the cross tie or sleeper; and to facilitate this I prefer to make the chairs with a recess (g, g') on each side to give free access to the heads of the spikes. And although I prefer this mode of securing the wedge I do not wish to be understood as limiting my claim of invention to the employment of such mode, as other modes of effecting this may be employed.

I contemplate in some instances uniting the two lips (b, b) of the chair and slotting the ends of the rails between the web and the cap to fit over such extension of the lips, but this makes no part of the invention claimed by me.

I am aware that wedges have been applied in various ways for securing rails in chairs, but not under an arrangement or mode of operation, such as constitutes my said invention.

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

Forming the chair with lips extending over the web or base of the rails, and with a groove or equivalent reception for a wedge,

substantially as described, but this I only claim when combined with a wedge to be driven across the longitudinal plane of the rails and passing under the base of the two rails to force and hold them up against the lips of the chair, and to form a base or rest for the base of the ends of the two sections

of rails to rest on, substantially as and for the purpose specified.

H. A. HARVEY.

Witnesses:

WM. C. BROWN,  
WM. H. BISHOP.