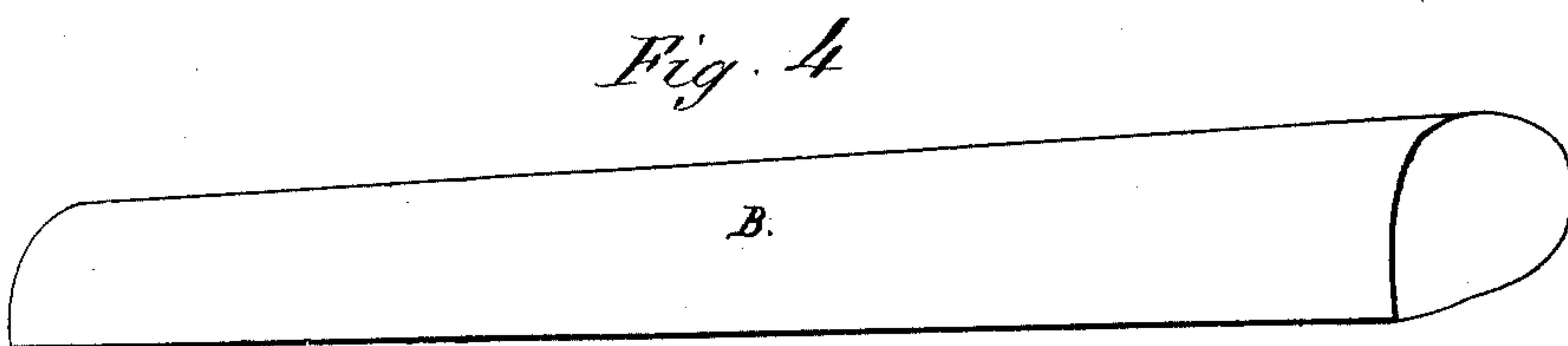
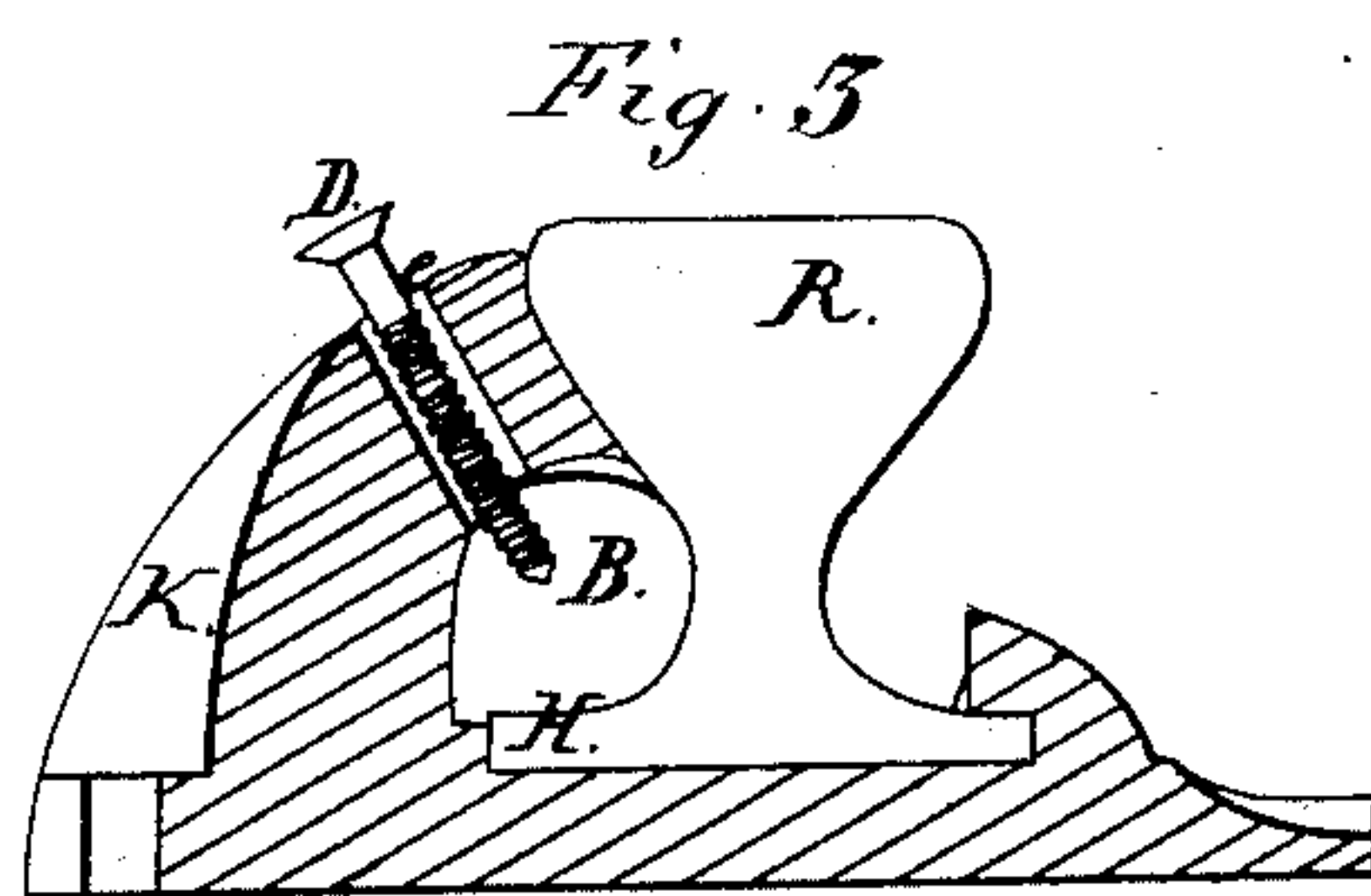
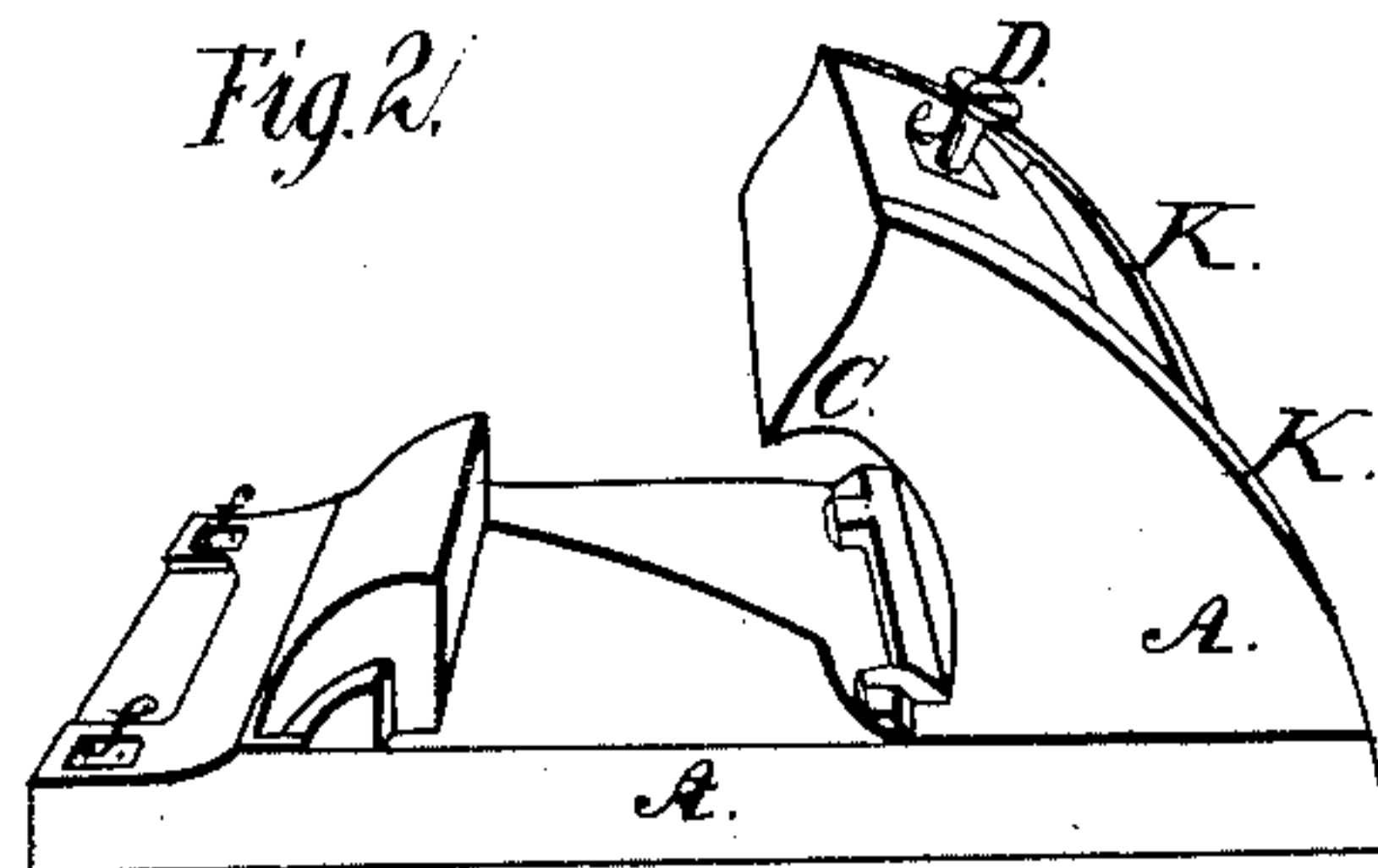
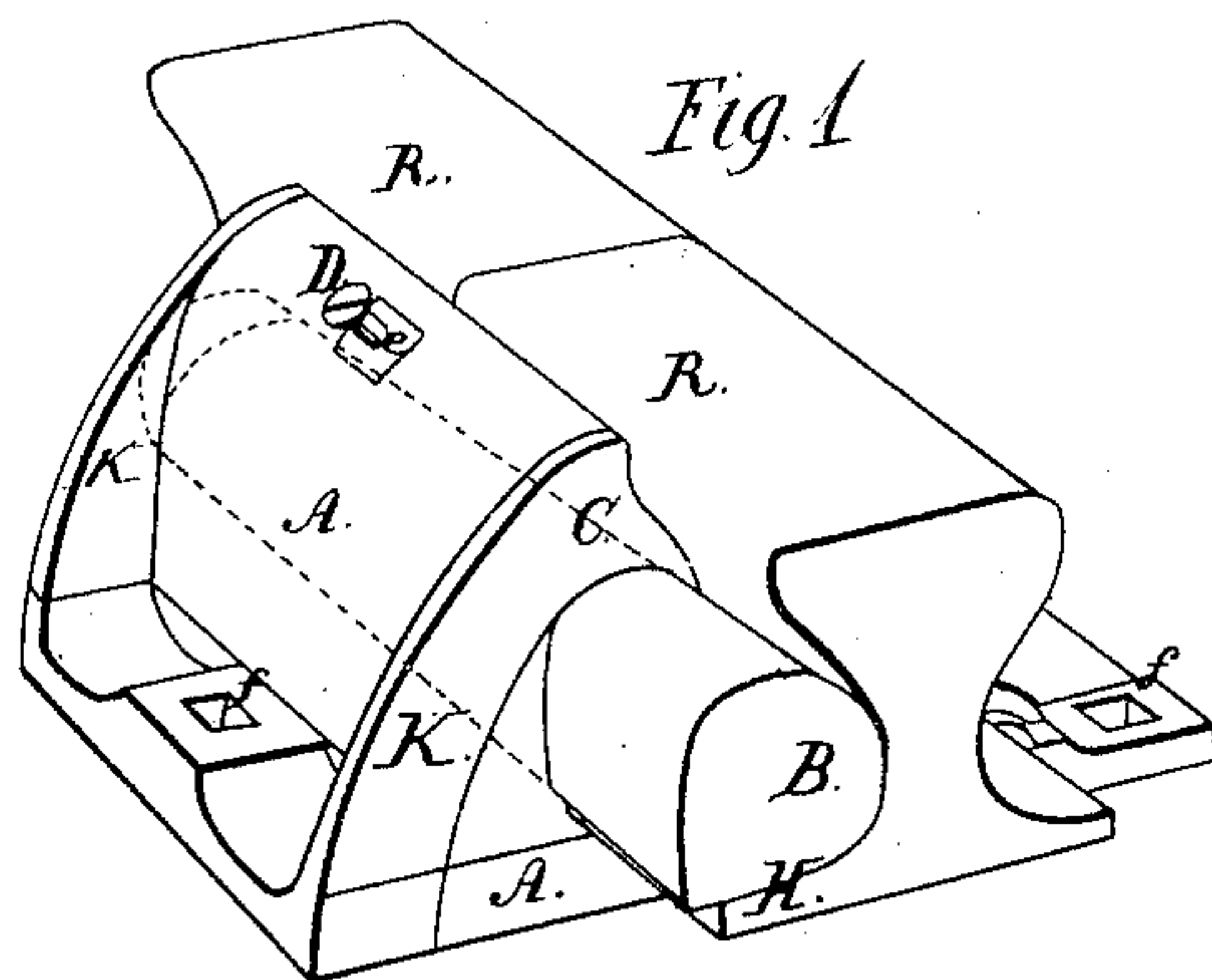


A. Hay.

Railroad Chair.

N^o 21,471.

Patented Sept. 7, 1858.



UNITED STATES PATENT OFFICE.

ADAM HAY, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF, SILAS W. MILLER, AND LEBBUS B. MILLER, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-CHAIRS.

Specification forming part of Letters Patent No. 21,471, dated September 7, 1858.

To all whom it may concern:

Be it known that I, ADAM HAY, of the city of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Chairs for Supporting the Rails of Railroads; and I do hereby declare that the following is a full, clear, and exact description of the construction of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the chair with a portion of two rails joined or wedged therein. Fig. 2 is a perspective view of the chair. Fig. 3 is a transverse section of the chair with the rail and wedge therein, and Fig. 4 is a perspective view of the wedge required by and used with the chair.

The same letters indicate like parts in all the drawings.

The chairs for rails now in use, so far as I am aware, are constructed in such a manner that the only rest or support for the rail is upon its bottom or lower flanges, and the rail is bound or fastened by the wedge only at its side, leaving the upper flanges of the rail wholly unsupported by the chair, except so far as may be by the lateral pressure of the wedge. The effect of this insufficient arrangement, especially where the ends of the rails are joined, is soon plainly seen in the battered or shivered appearance presented by the outer flanges of the rails and the broken or disordered condition of the chair and wedge. To overcome these disadvantages and to construct a chair which, while it shall afford the usual convenience for laying the rails and the usual rest, shall also firmly support the outer flange of the rail and by means of the wedge combine the chair and rail perpendicularly as well as laterally together as one piece in such a manner that the rail cannot batter, the chair break, nor the wedge jar loose, is the object of my invention.

In the drawings, A is the chair; B, the wedge; C, a lip or inner projection of one side of the chair fitted and adapted to support the outer flange of the rail. D is a screw passing through the wooden plug *e*, fitted in the chair A to secure the wedge B after said wedge is driven to its place. *ff* are apertures for spiking down the chair to its appropriate place. K K are flanges cast on the chair for the purpose of strengthening the same, and R is the rail.

In Figs. 1, 2, and 3, C is the projection or lip of the chair and formed, as represented, exactly to fit and support the outer flanges of the rail, and on its lower side extends in to meet the rail and forming altogether simply by the chair an aperture such as would alone contain the wedge and prevent it from getting loose were the rail entirely removed. At the same time the rail affords, as represented in the drawings, in combination with the chair, both a perpendicular and lateral bearing for the wedge. The bearing of the wedge is therefore upward upon the projection *c*, and downward upon the lower flanges of the rail, and laterally upon the chair on one side and the rail upon the other. This arrangement and combination of the chair, wedge, and rail thus simply and firmly together, while it is exceedingly durable, entirely prevents the battering and derangements of the rail before referred to.

The wooden plug *e*, driven into the chair, as represented, and through which the screw D passes, is for the purpose of removing the jar from the screw and thus prevent it from breaking or getting loose.

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

1. The lip or projection C, formed and adapted, substantially as represented, to support the flange of the rail and in turn to be supported by the upper portion of the wedge.

2. A chair having an aperture for the wedge, substantially as described, which will in itself contain and secure the wedge and yet leave it free to support the flange perpendicularly and to bind the rail laterally, substantially as described.

3. The combination of the lip C with the flange of the rail and the wedge B—in other words, the support of the flange by the lip and the support of the lip by the wedge, affording a firm rest for the flange, at the same time preventing by this combination of wood and iron all vibration and jar.

4. The combination, in the chair, of the wooden plug *e*, and the screw D, in the manner and for the purpose described.

ADAM HAY.

Witnesses:

THOS. E. HICKS,
JAS. PECKWELL.