

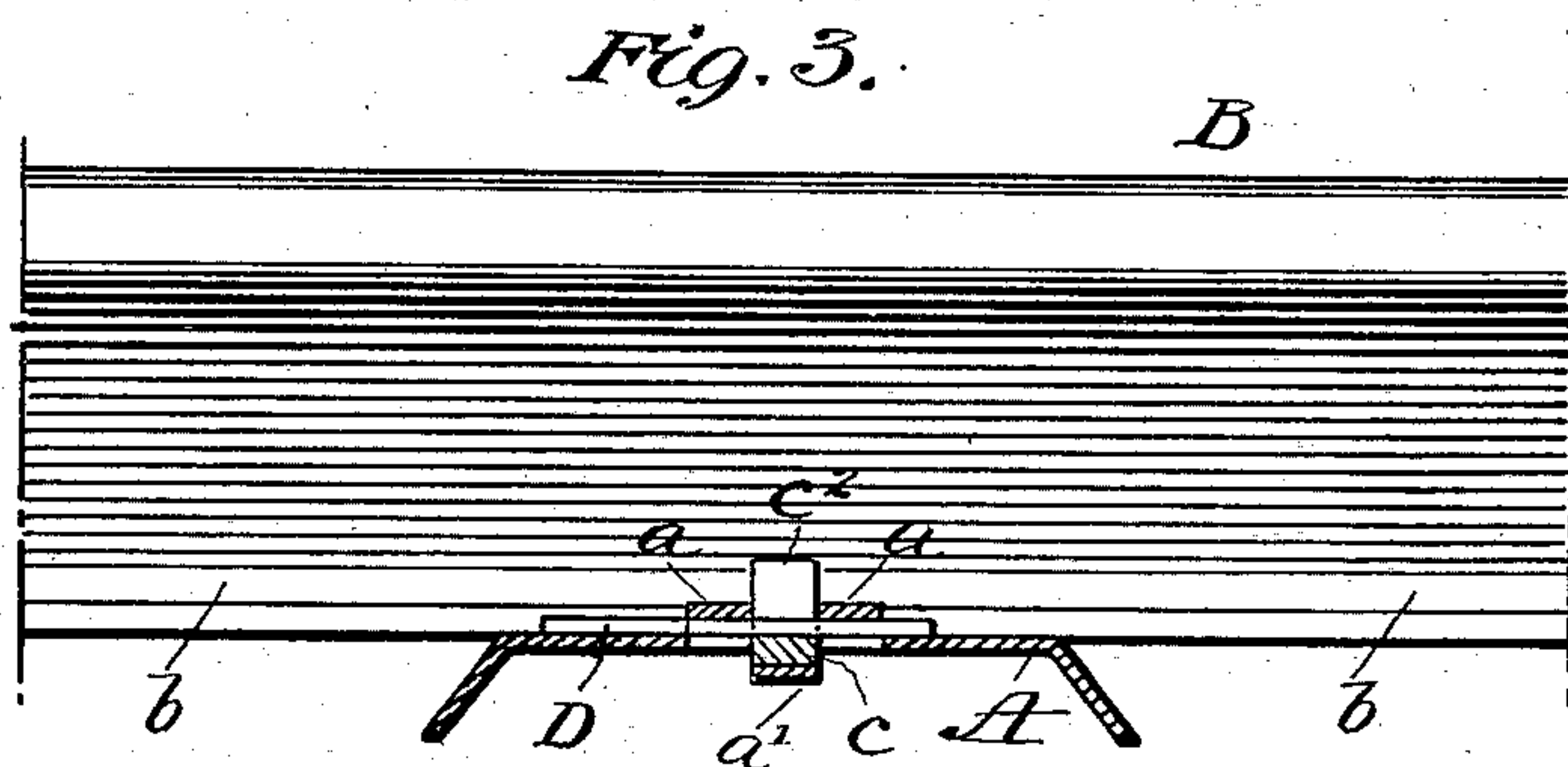
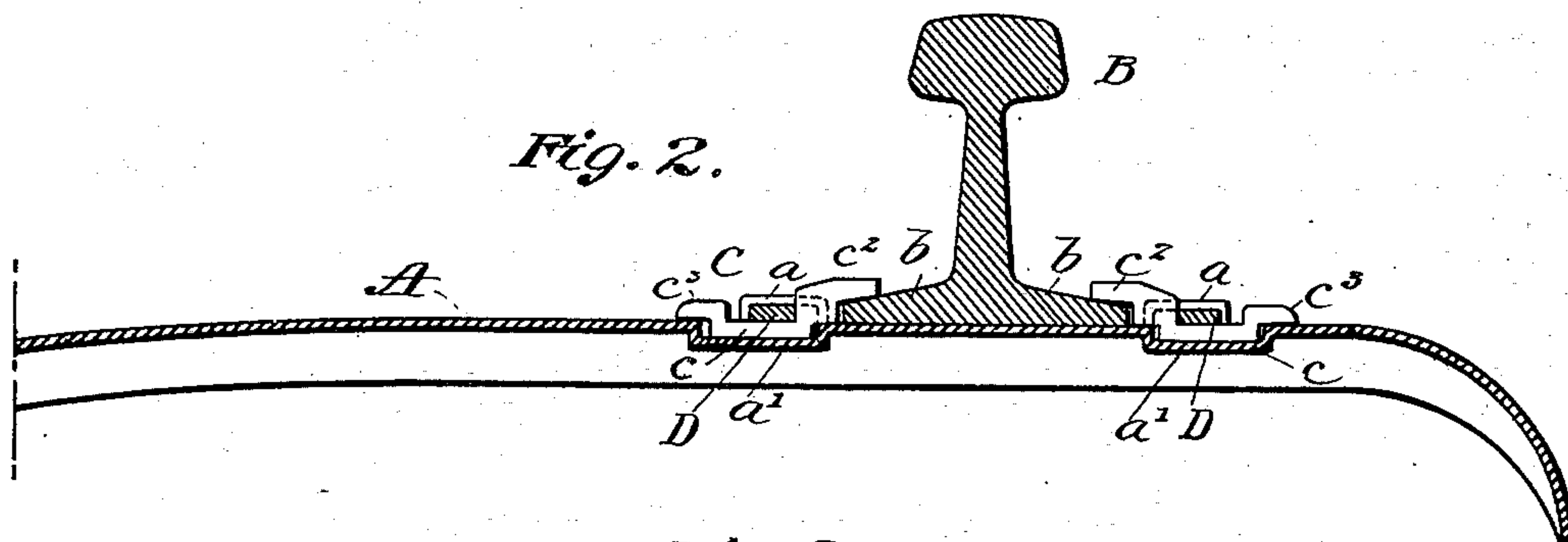
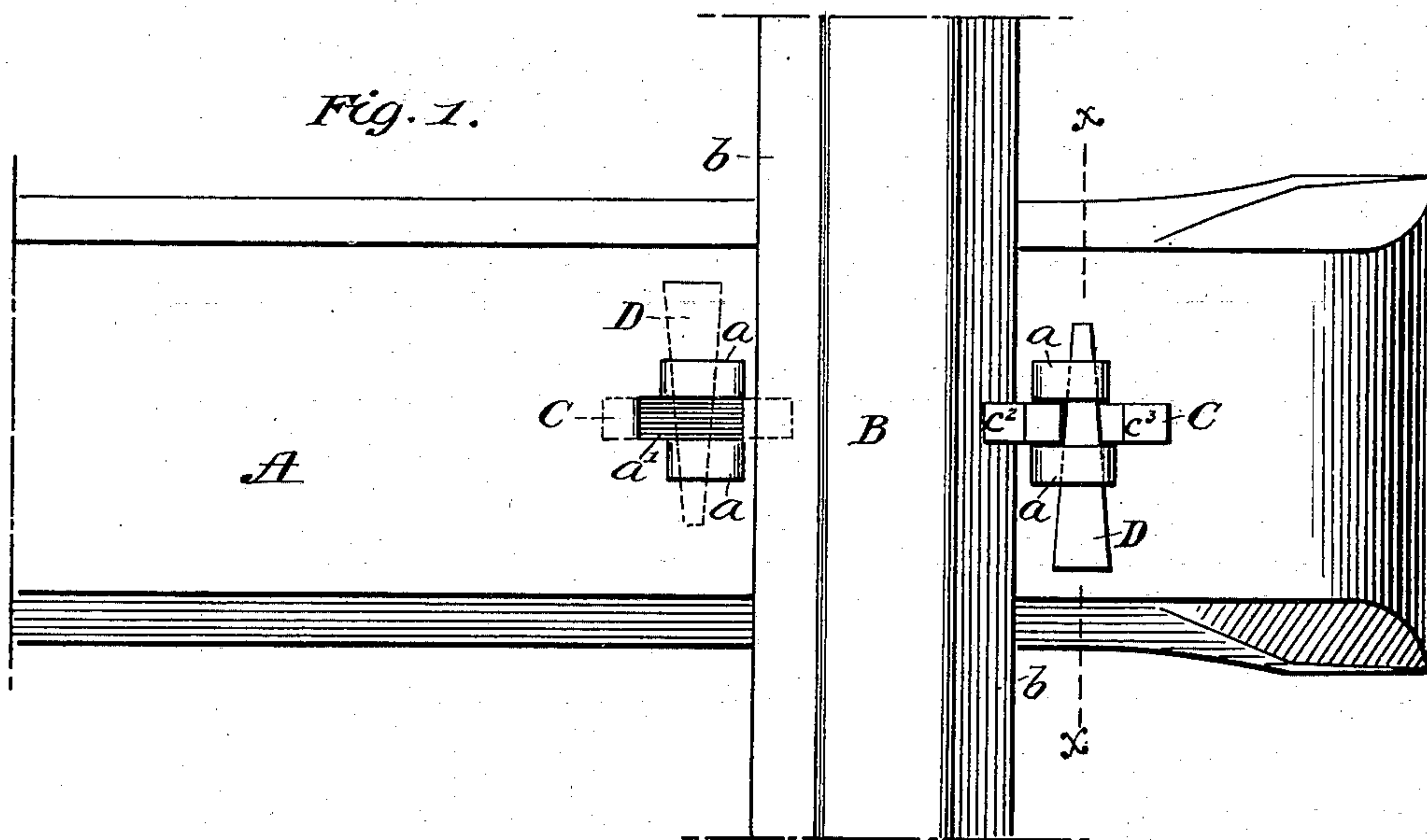
No. 651,893.

Patented June 19, 1900.

L. T. SHEFFIELD.  
RAILWAY APPLIANCE.

(Application filed Apr. 1, 1899.)

(No Model.)

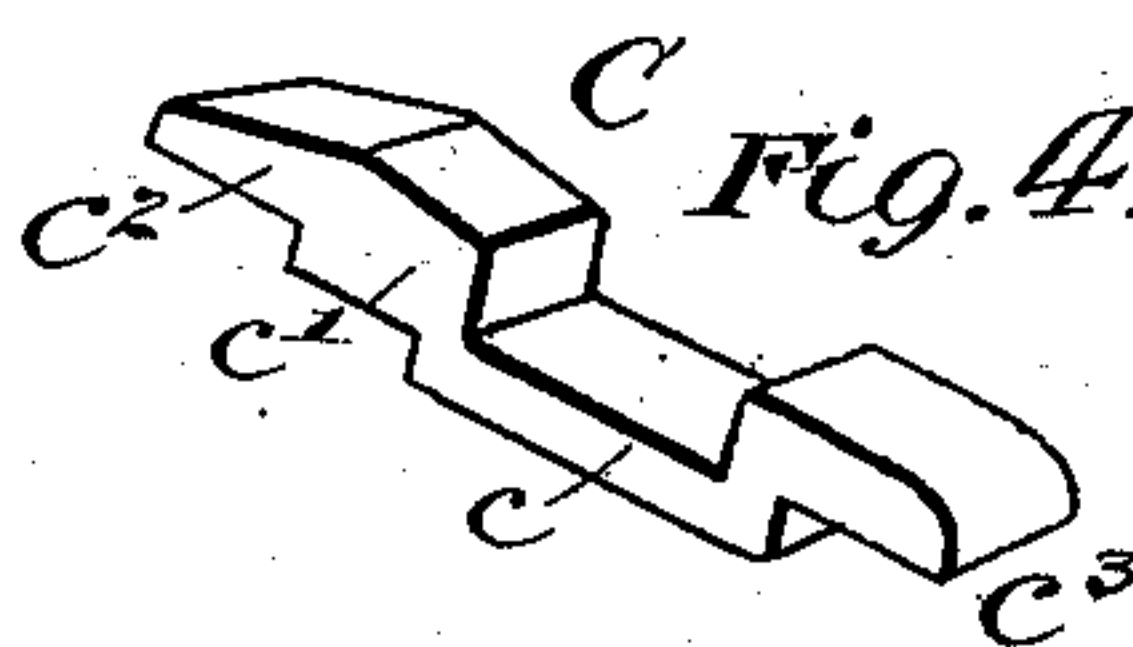


WITNESSES:

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# UNITED STATES PATENT OFFICE.

LUCIUS T. SHEFFIELD, OF NEW YORK, N. Y.

## RAILWAY APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 651,893, dated June 19, 1900.

Application filed April 1, 1899. Serial No. 711,453. (No model.)

*To all whom it may concern:*

Be it known that I, LUCIUS T. SHEFFIELD, a citizen of the United States, residing in the city of New York, county and State of New York, have invented new and useful Improvements in Railway Appliances, of which the following is a full, clear, and exact description.

This invention relates to that class of devices by which the rails of a railway are secured to the ties on which they are laid; and it consists in improvements in the clip or chair holding the rail by means of which the distance between opposite rails of the track, or the "gage" of the track, as it is commonly known in the art, may be readily and quickly adjusted or altered. The methods heretofore employed of securing railway-rails to the ties, whether by the well-known spikes or more improved means, have been found deficient, especially where metal ties are utilized, both as to firmly holding the rails when laid and gaged and enabling them to be quickly readjusted when thrown out of proper alinement from any cause.

The object of my invention is to furnish a rail "clip" or "chair," as such rail-holding devices are commonly known, which shall enable the rails to be quickly alined and secured to the ties when first laid and afterward readily moved laterally on the ties and then rigidly secured thereto when properly gaged.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a section of rail and metal tie of ordinary construction with my improved rail-holding devices on either side of the rail; Fig. 2, a part-sectional elevation of the same; Fig. 3, a sectional elevation on the line  $xx$  of Fig. 2, and Fig. 4 is a perspective of the clip.

Similar letters refer to the same parts in each drawing.

A is the tie, preferably composed of pressed steel.

B is the rail, of the common T form.

CC are the clips, located on opposite sides of the rail in relatively-reversed position.

DD are the wedge-shaped clip-holders, which pass under the pressed-up portions  $aa$  of the tie A. The tie also contains the pressed-down channels  $a'a'$ , Figs. 1 and 2, in which the base or lower part  $c$  of the clip C

rests when in position. The clip C is provided with a flange  $C^3$  on one side, which rests on the tie. The shoulder  $c'$  occupies a corresponding position on the opposite side of the channel  $c$ , and from thence the flange  $c^2$  projects over and rests upon the rail-flange  $b$ . The raised portions  $aa$  and the depressed parts  $a'a'$  are preferably formed integral with the tie A by pressing the same by a process well known in the art out of the metal of which the tie is composed, as is plainly shown in the accompanying drawings.

When a rail is to be secured by my improved clip, it is first placed on the tie having the several pressed-out portions before referred to in such position that its flanges  $b b$  lie between the depressed portions  $a'a'$  of the tie. It then having been gaged or placed exactly parallel with the opposite rail at the other end of the tie and at the exact required distance therefrom, two clips C are placed in position on opposite sides of the rail and between the raised portions  $aa$  of the tie, with their respective inner flanges  $c^2$  over the rail-flanges and the shoulders  $c$  bearing firmly against the sides of the rail-flanges. The wedges D are then driven in opposite directions into position under the parts  $aa$ , thus occupying the channels  $cc$  until the outer edge of each wedge bears firmly against the inner vertical of its respective elevation  $a$ , the inner edge of each wedge at the same time engaging firmly with the vertical face of its channel  $c$ . When the wedges are driven to their inner limit or binding position, it is further evident from the construction of the various parts that the rail will be held firmly as against any tendency to vertical as well as lateral motion.

An important feature of my invention consists in the facility with which rails held by my improved clip may be gaged or brought into exact alinement as regards the opposite rails of the ordinary track. By reference to the construction and arrangement of the parts it will be readily seen that this may be accomplished by releasing both wedges of any pair of clips, adjusting the rail laterally, and successively driving home the two wedges to their binding position. This operation is a frequent one in the maintenance of way and may be more readily and quickly performed



with my improved device than with any other similar device of which I have knowledge.

The exact form of clip and wedge herein shown and described may of course be varied  
5 materially without departing from the spirit of my invention, and I do not limit myself in this respect or as to the particular substance of which said parts are constructed.

Having thus described my invention, I  
10 claim—

The combination of a railway-tie, a rail on said tie, and means for removably holding said rail thereon, said means comprising a

clip having a flange engaging the rail and a depressed portion fitting in a recessed portion 15 of the tie, and a wedge passing under raised portions of said tie and over the depressed portion of the clip.

In testimony whereof I have signed my name to this specification in the presence of 20 two subscribing witnesses.

LUCIUS T. SHEFFIELD.

Witnesses:

ROLAND L. JANES,  
K. R. HAMPTON.