

(No Model.)

H. G. HANSON.

2 Sheets—Sheet 1.

CAR REPLACER.

No. 496,935.

Patented May 9, 1893.

Fig. 1.

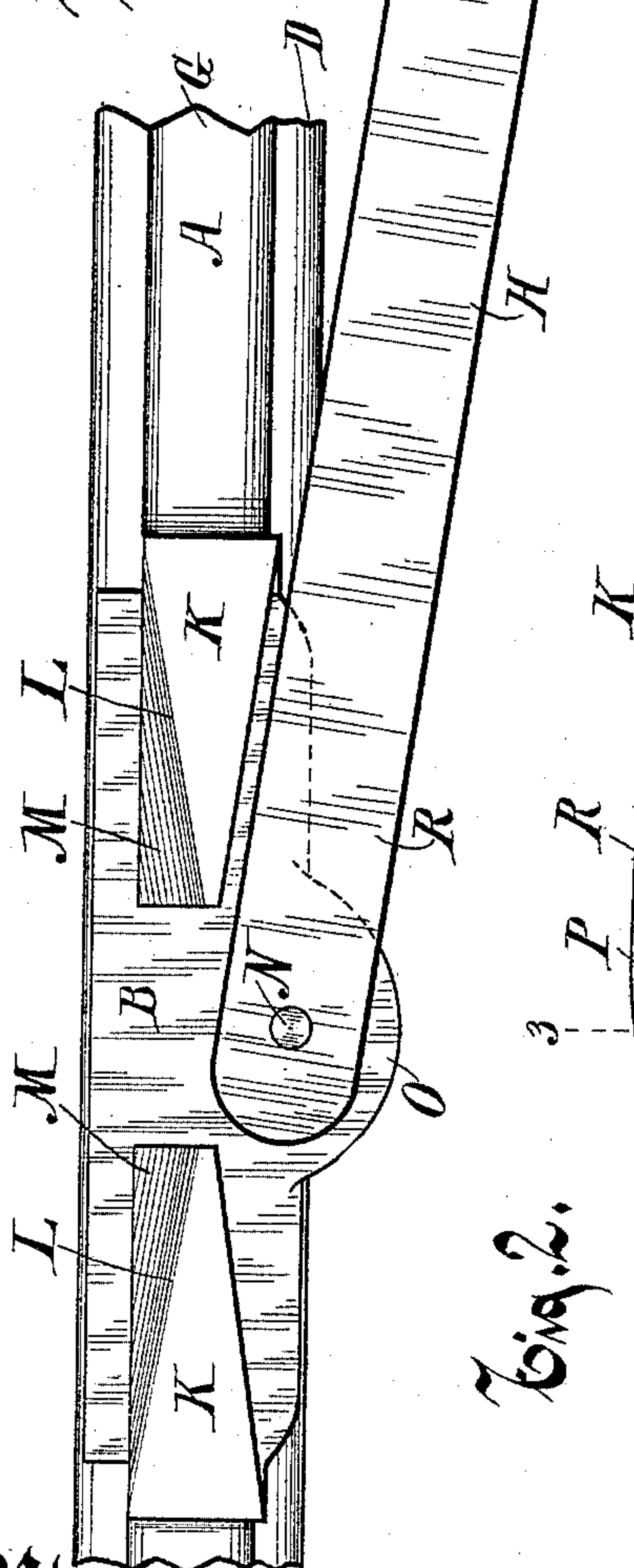


Fig. 2.

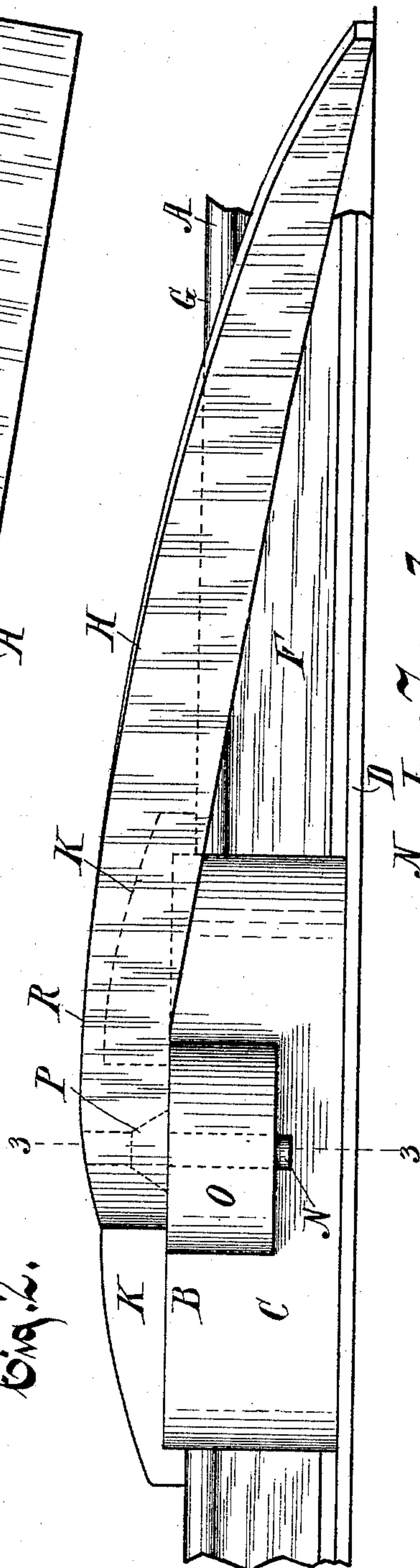
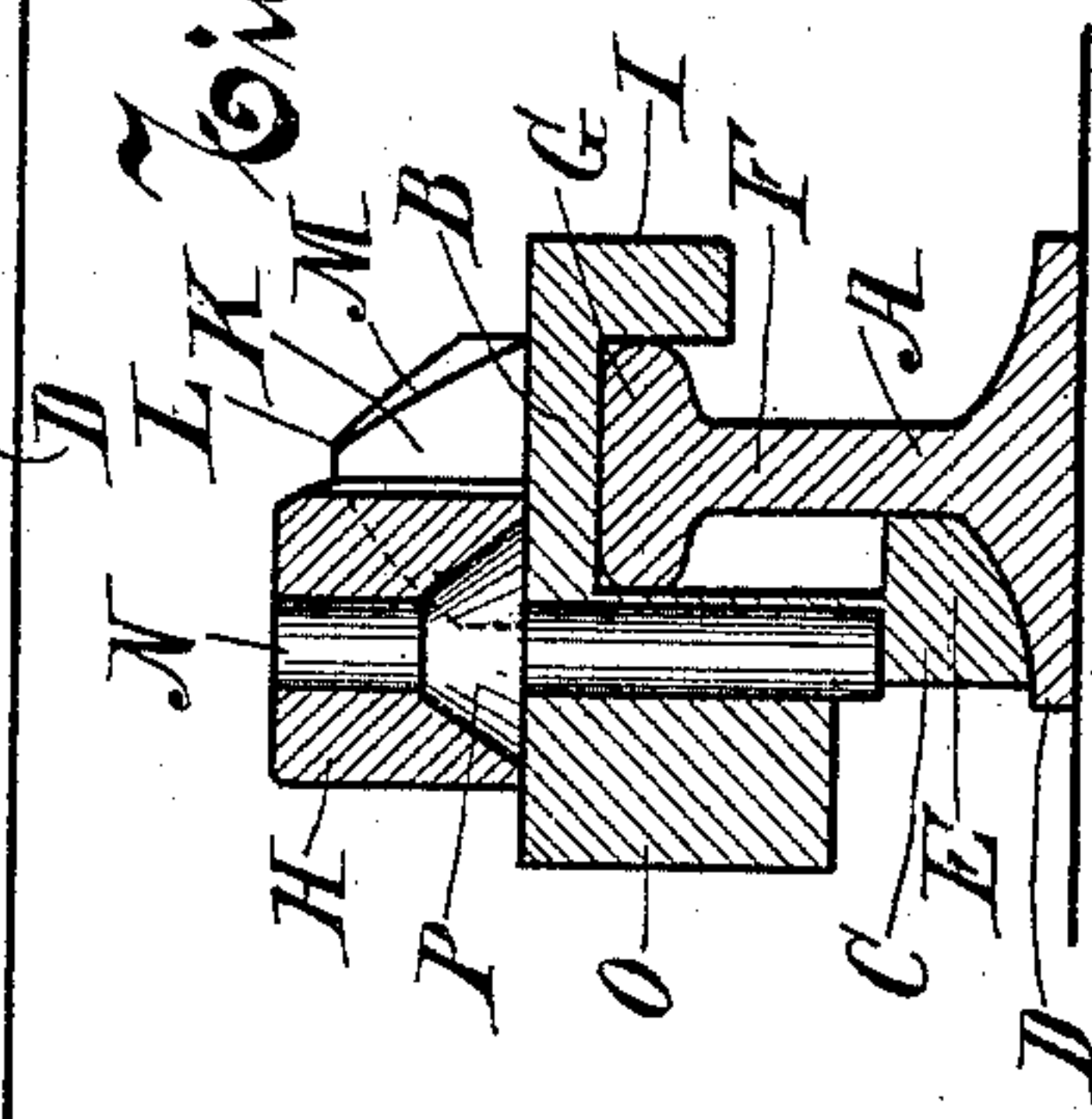


Fig. 3.



Witnesses.

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2 Sheets—Sheet 2.

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Fig. 4.

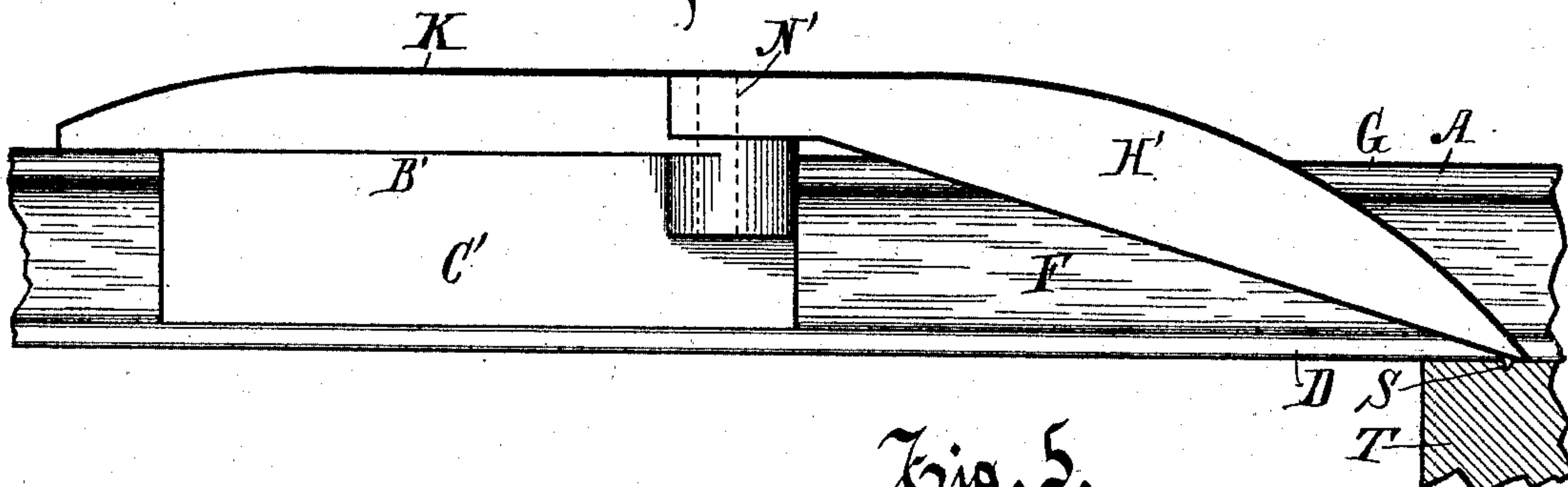


Fig. 5.

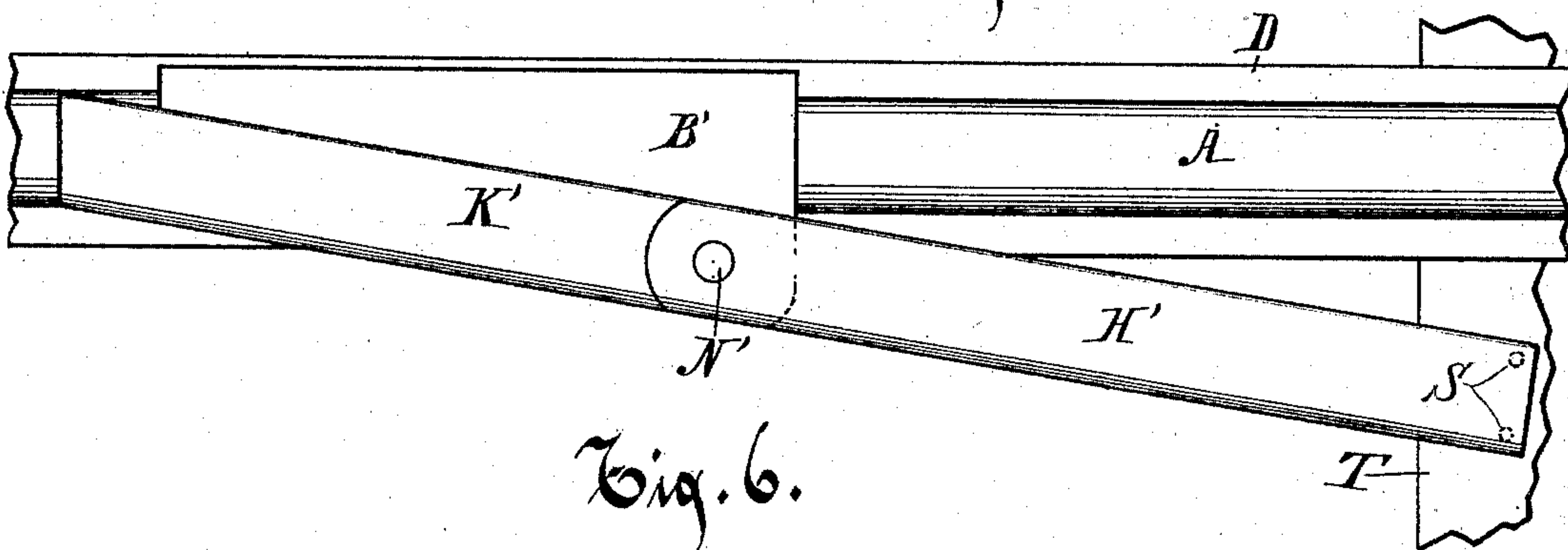
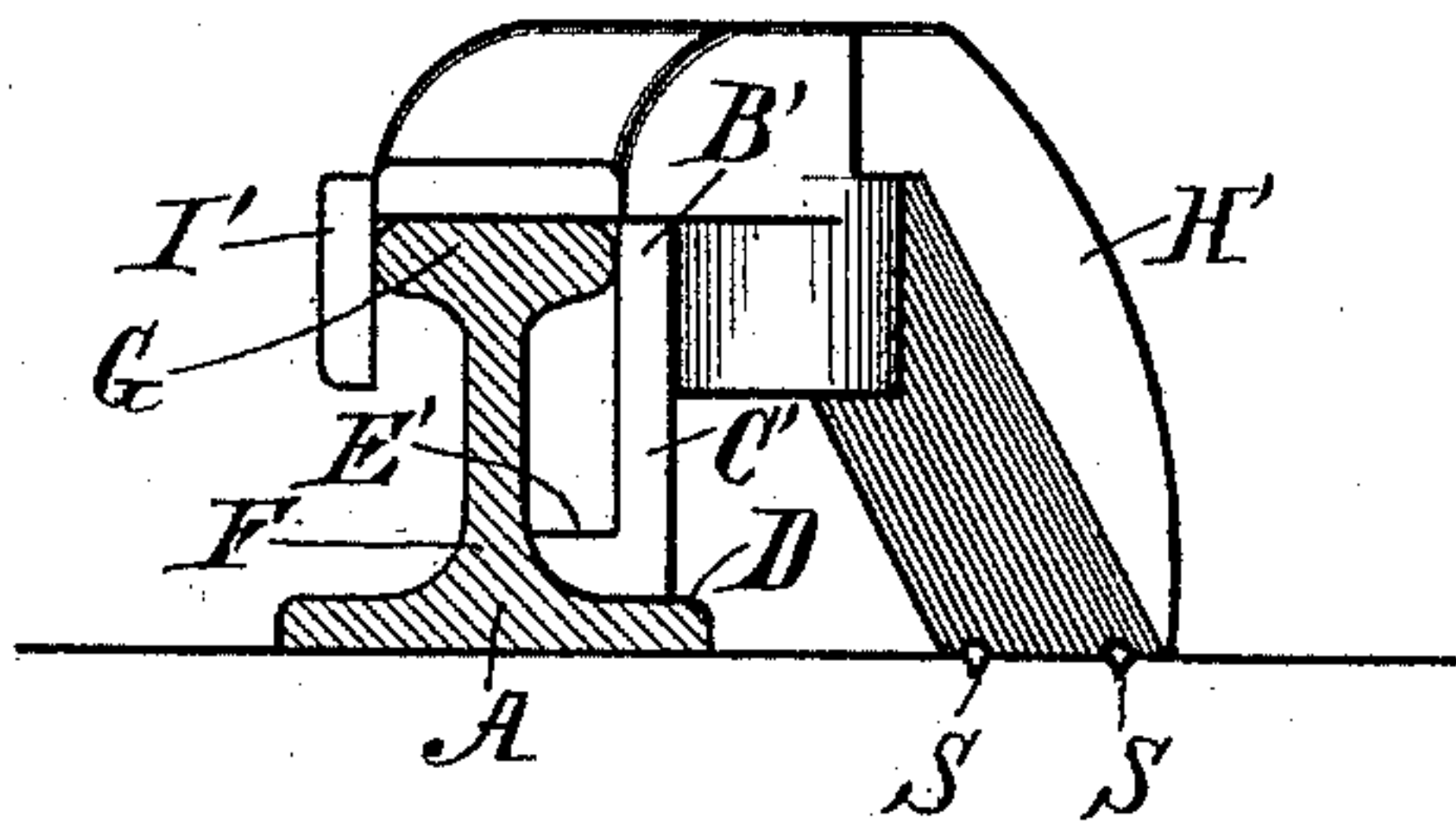


Fig. 6.



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# UNITED STATES PATENT OFFICE.

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## CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 496,935, dated May 9, 1893.

Application filed September 27, 1892. Serial No. 447,019. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY G. HANSON, of Trevor, in the county of Kenosha and State of Wisconsin, have invented a new and useful Improvement in Car-Replacers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention is of a device by the aid of which railway cars that have been derailed may be replaced on the track.

My improved car replacer can readily be attached temporarily to a railway rail at any point being so constructed as to automatically lock itself to the rail when adjusted thereto without extrinsic means for securing it thereon. It is capable of being attached to either rail of the track and is thereby adapted to replace a car that has been derailed either to right or left. It is also adapted to replace a car being pulled in either direction as most convenient.

In the accompanying drawings, Figure 1, is a top or plan view of my device in connection with a fragment of a railway rail. Fig. 2, is a side elevation of the same device and fragment of railway rail. Fig. 3, is a vertical section on line 3—3 of Fig. 2. Figs. 4, 5 and 6 are an elevation, a top plan view and an end view respectively of a modified form of my device, in connection with a fragment of a railway rail on which it is placed.

In the drawings, A is a fragment of a rail of a form in common use forming a portion of a railway track.

In my car replacer B is a clamp or cap adapted to be placed on and thereby automatically secured to the rail A. The under surface of the top of the cap is adapted to rest on the top surface of the tread G of the rail. One side C of the cap depends therefrom a sufficient distance to reach and bear against the base D of the rail and is preferably provided with an inwardly projecting flange E at its lower edge on the inner side which also conforms to and bears against the base D and against the web F of the rail. This construction of the side C and flange E forms a bearing for the cap and a direct support for the end of the bridge H hereinafter to be described. The other side I of the cap depends therefrom a short distance but sufficiently

far to overlap and engage the side of the tread of the rail when the cap is placed in position thereon, as clearly illustrated in Fig. 3. A space is thus left between the lower edge of the side I and the flange E sufficient to permit of the passage of the tread G between these parts for placing the cap on the rail or removing it therefrom. When the cap is in position on the rail the tread G substantially fills the space between the sides C and I thereby preventing lateral movement of the cap on the rail, and the bearing of the side C and flange E on the base of the rail and against its web prevents the tilting of the cap thereon.

On the top surface of the cap and integral therewith are two short fender tracks K K raised above the surface of the cap which tracks are duplicates, the one of the other, though reversely arranged and at a little distance apart leaving centrally a short space between them. These fender tracks are highest at their inner adjacent ends and incline downwardly toward their outer ends which outer ends project somewhat beyond the ends of the cap and are adapted to rest on the tread of the rail. The edges L of these fender tracks are arranged obliquely to the tread of the rail their inner ends being respectively adapted to catch the flange of a car wheel as it comes from the bridge and guide the wheel across the rail to the inner edge thereof against which the flange of the wheel is adapted to bear as it travels on the track in the usual manner. The edges L at their outer ends substantially register with the inner edge of the tread of the rail. The sides of the tracks K are beveled outwardly and downwardly at M M from their inner ends and toward their outer ends, to reinforce the tracks on the cap but in such manner that the projecting or foot portions of the tracks will not interfere with the flanges of car wheels traveling thereon. That portion of the track K which projects beyond the cap longitudinally above the tread of the rail is adapted to carry a car wheel off from the replacer to the rail at such height above the end of the cap that the flange of the wheel will not contact with the cap itself. The bridge H is pivoted at its inner end on the cap B by a pin N set in the cap conveniently in a boss or enlarged portion



thereof O. A cone bearing-ring P about the pin N is preferably used, which rests on the surface of the cap and is received in the bridge which is fitted thereon. This bearing ring tends to strengthen the pin at a point where great strain comes on it. The free outer end of this bridge is intended and adapted to rest on a tie or the road-bed and may be swung horizontally so as to arrange it at any angle to the railway rail and in either direction with reference to the line of the track. The inner end of the bridge is so located and pivoted on the cap that the bridge is adapted to carry a car wheel up its incline from alongside the rail and even at a considerable distance therefrom and deliver the wheel to one or the other of the fender tracks K as will be seen by the arrangement shown in Fig. 1. The inner end of the bridge is of substantially the same height as the inner end of the complementary track K toward which the bridge is directed and to which it is to deliver the car wheel, so that the wheel will pass easily from the bridge to the fender track and thence to the railway rail. In this form of device shown in Figs. 1, 2 and 3 in which there are two fender tracks K running in opposite directions and in which the bridge is adapted to be arranged and used in either direction, the bridge at R opposite the idle or temporarily unused track K is elevated sufficiently to carry the flange of the car wheel running thereon over this unused fender track. This construction is clearly shown in Fig. 2.

It will be understood that these car replacers are to be used in pairs as both wheels on the same axle of a derailed car must be run on to their respective rails at the same time. The modified form of car replacer shown in Figs. 4, 5 and 6 is adapted for replacing a car on the track only when moved in one direction, which direction would be toward the left with reference to the device shown in Fig. 5. The bridge in this device is not arranged so that it can be reversed to receive the wheel of a car coming toward it from the opposite direction or moving toward the right with reference to Fig. 5. This form of replacer is somewhat more simple than the other form and is entirely satisfactory in use where a derailed car can be conveniently moved in the direction necessary to be engaged and carried on to the track by this device. In other situations the device shown in Figs. 1, 2 and 3 will be found more convenient. This form of device shown in Figs. 4, 5 and 6 differs from the device shown in Figs. 1, 2 and 3 in that there is but one fender track K'; that the bridge has no elevation corresponding to the elevation R in the other form of device; that the side of the fender track K' is not cut away to permit the bridge H' to swing around to receive the wheels of a car moving in the other

direction and that the bearing ring P is omitted. In other respects this device including cap B', the sides C' and I' and the flange E' and the track K', pin N' and bridge H' correspond substantially with the device shown in Figs. 1, 2 and 3.

Calks S S on the free end of the bridge may be used and are serviceable and desirable in cases where the free end of the bridge can rest on a tie T or on a timber of a trestle or bridge.

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

1. In a car replacer, the combination with a clamp formed to rest on the top of the rail, to embrace both sides of the tread and at one side to rest on the base of the rail, and an inclined fender track rigid on the clamp, the thinner end of which fender track is arranged to rest on and register with the rail, the fender track extending from said end obliquely over the rail, of an inclined bridge resting and pivoted at one end on the clamp so as to register with the inner or higher end of the fender track, being thereby adapted to deliver the wheel of a moving car to the fender track to be carried thereby across and down on to the rail, as set forth.

2. In a car replacer, a clamp or cap consisting of a top part adapted to rest on the rail and depending sides passing over and embracing the edges of the tread of the rail, substantially throughout the entire length of the top part, an inclined oblique fender track rigid on the clamp adapted to carry a car wheel over and across the rail on which it is placed, which fender track at its outer end registers with the rail and extends longitudinally beyond the top part of the clamp at a height above the top part at the end thereof sufficient to carry the flange of the wheel traveling thereon over the top of the clamp, and an inclined bridge resting and pivoted at one end on the clamp in such manner as to register with the inner or higher end of the fender track, substantially as described.

3. A car replacer, comprising a clamp having depending sides arranged to embrace a railway rail, reversely arranged oblique fender tracks raised on the top of the clamp, and a bridge pivoted at one end on the cap in such manner as to register with one or the other of the fender tracks and capable of being swung either to right or left to receive and carry the wheel of a car moved in either direction, to the registering fender track, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY G. HANSON.

Witnesses:

J. M. ORVIS,  
H. E. ROBBINS.