

H. PRATT.  
CAR REPLACER.  
APPLICATION FILED MAR. 13, 1905.

Fig. 1.

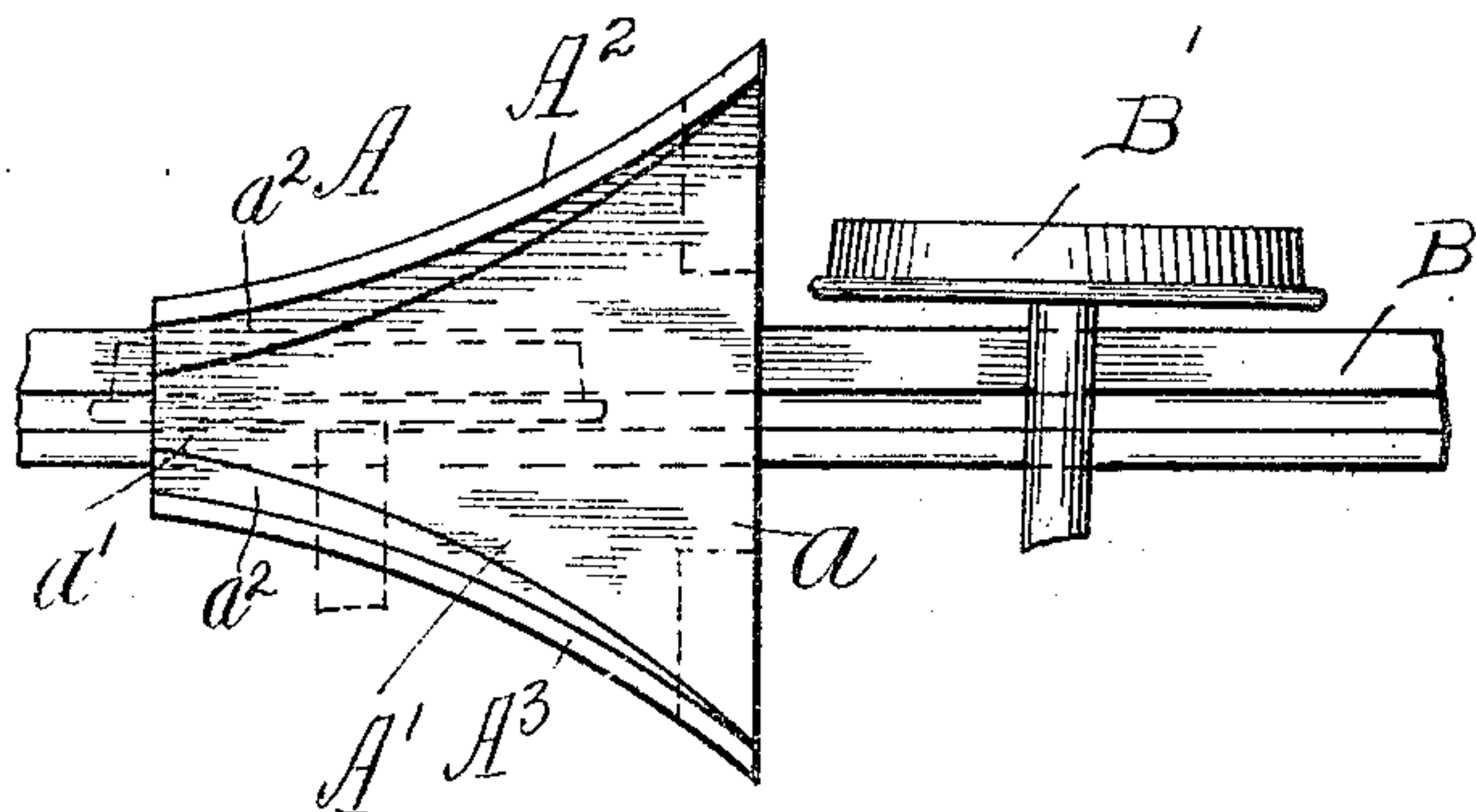


Fig. 2.

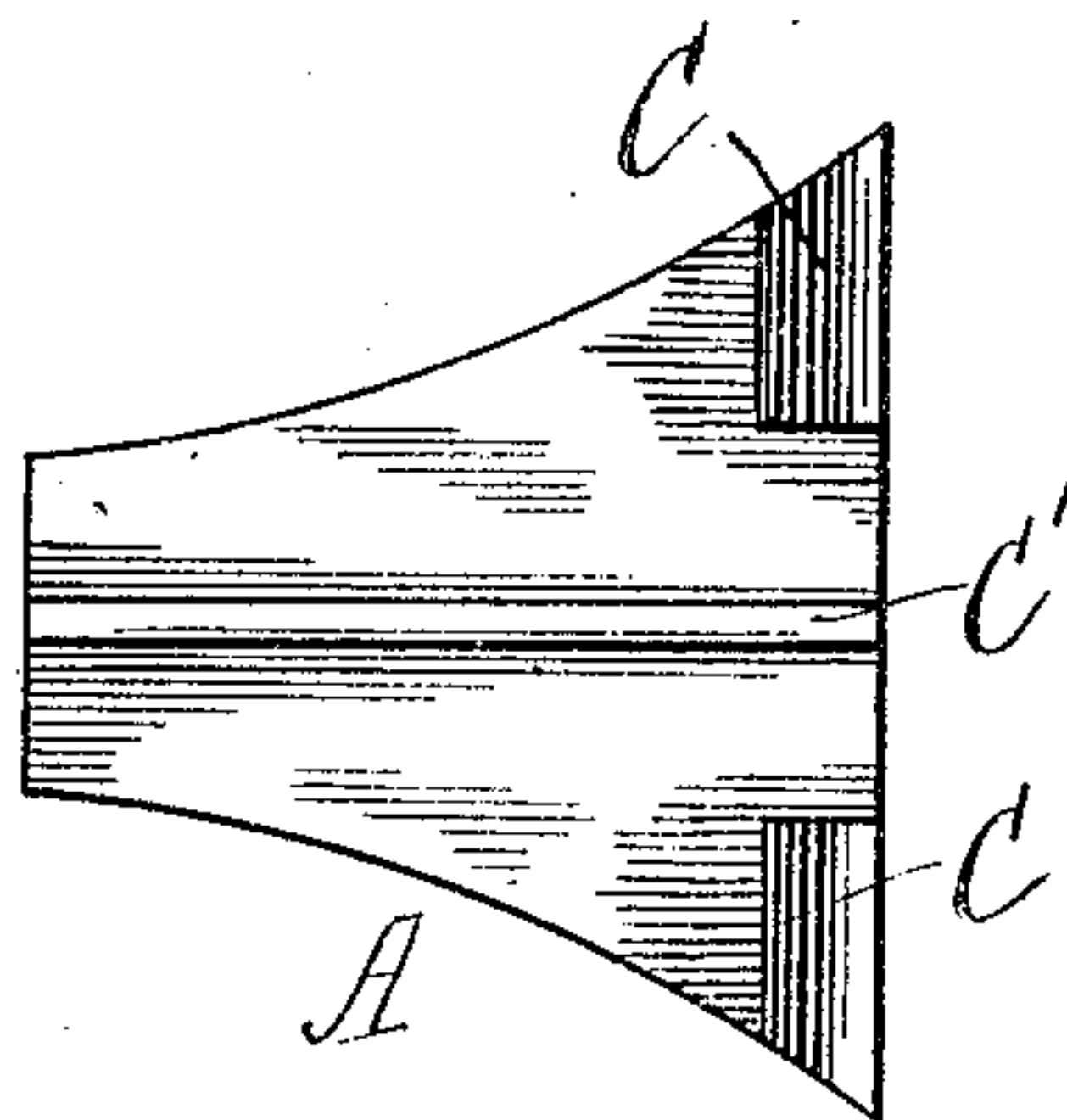


Fig. 5.

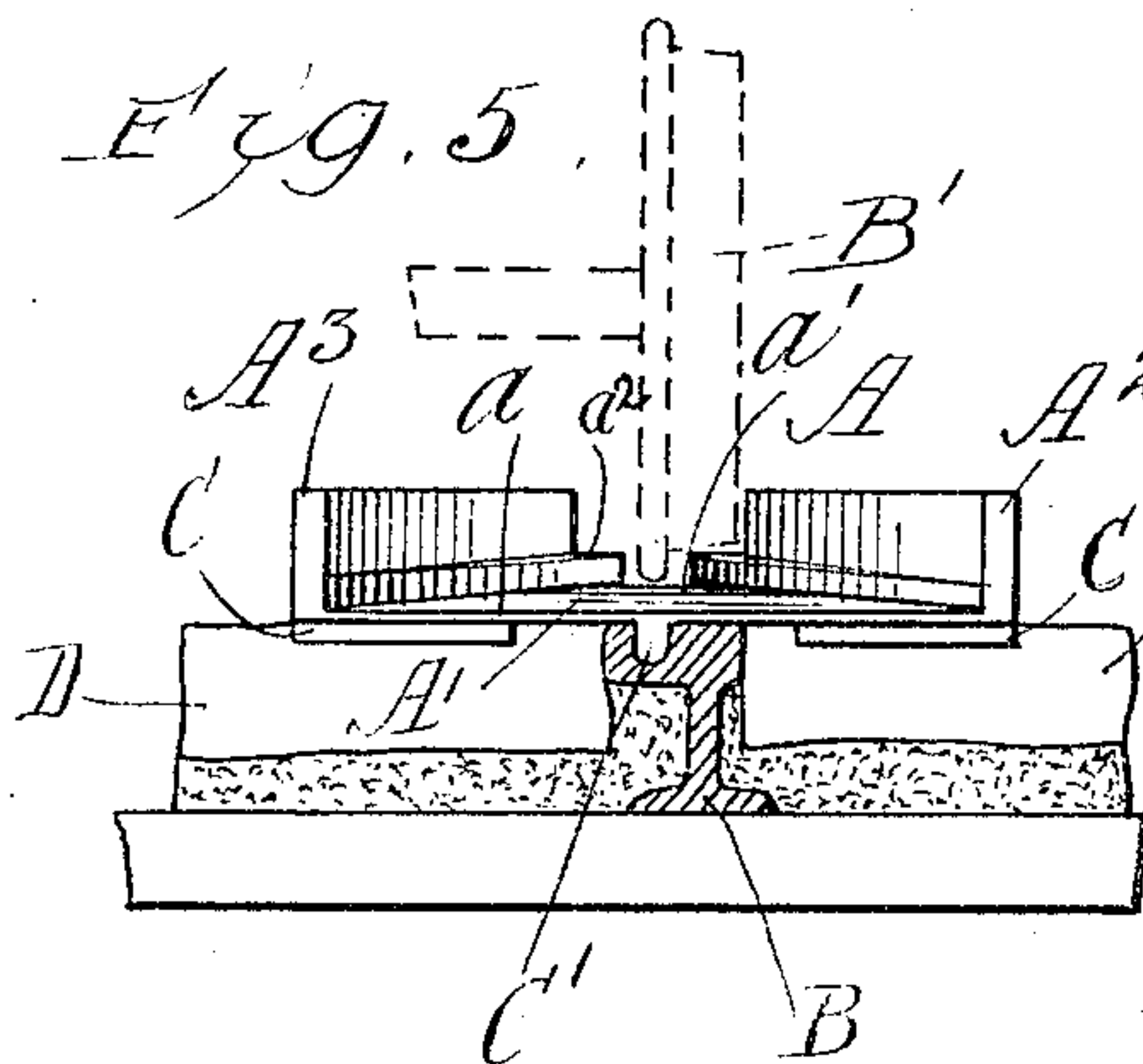


Fig. 6.

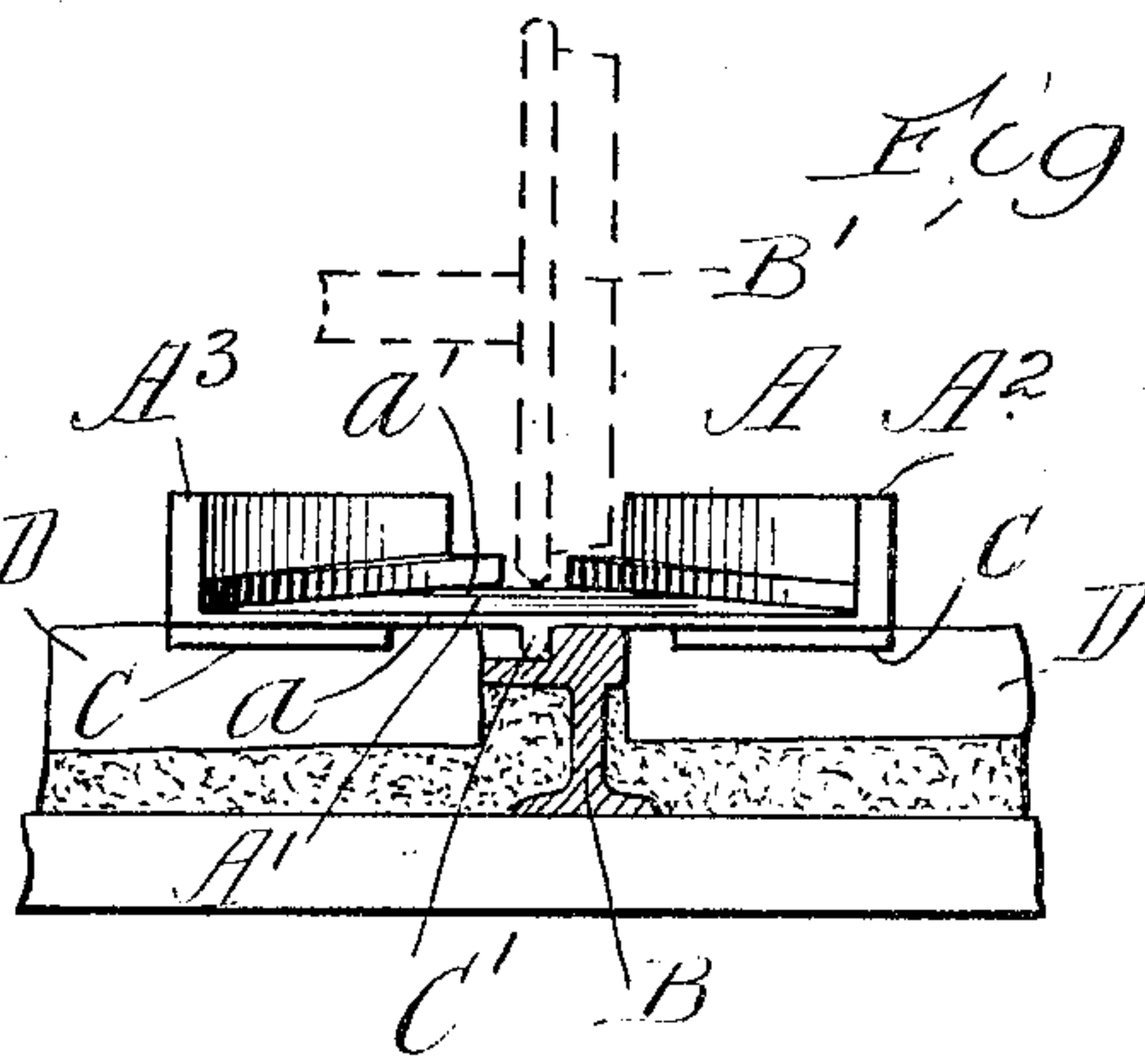


Fig. 3.

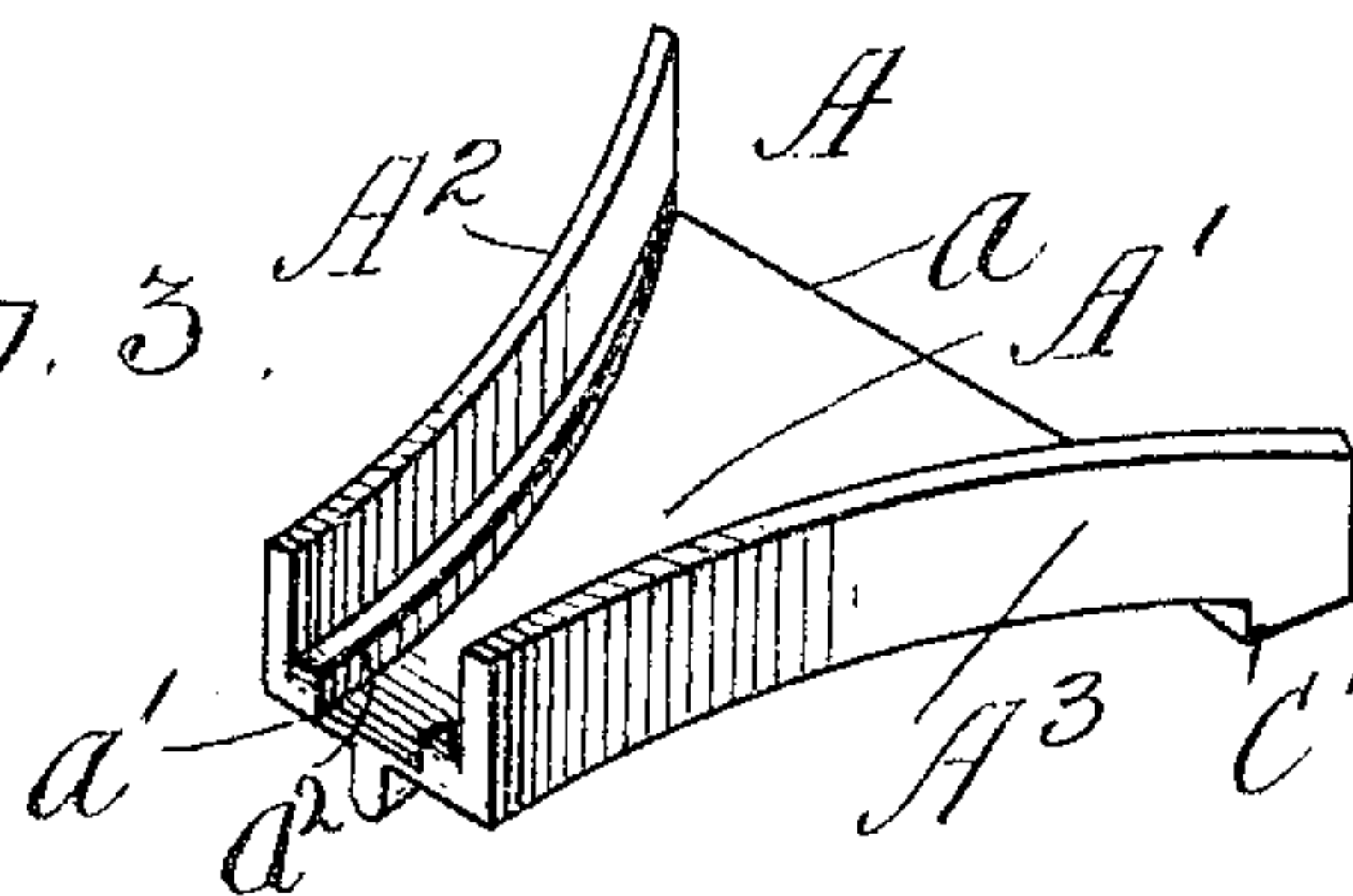
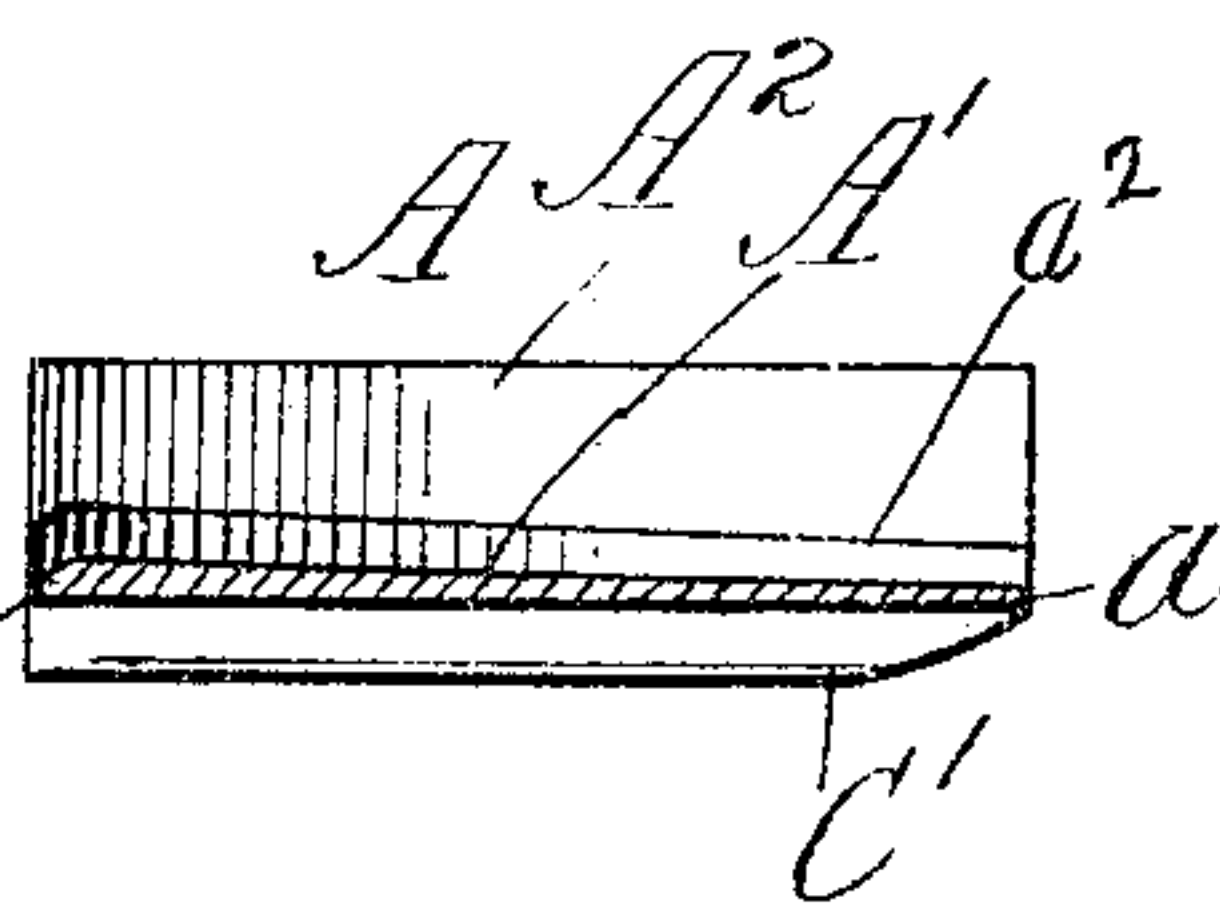


Fig. 4.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

HARRY PRATT, OF KENILWORTH, ILLINOIS.

## CAR-REPLACER.

No. 804,766.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed March 13, 1905. Serial No. 249,682.

*To all whom it may concern:*

Be it known that I, HARRY PRATT, a citizen of the United States, and a resident of the city of Kenilworth, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Replacers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in car-replacers, and more particularly to a car-replacer adapted for use upon street-car lines where the top of the track-rails is approximately flush with the surface of the road-bed or street.

Heretofore various kinds of car-replacers have been constructed, many of which have been objectionable because of a tendency to slip along the rail when attempting to run the car-wheels upon the same. Furthermore, many of such devices have been so constructed as to render them easily broken by the great pressure exerted upon them, and consequently rendering their use too costly to bring them into general favor.

The object of this invention is to provide a cheap, simple, and durable car-replacer of light weight, adapted to firmly grip the road-bed when in use, thereby preventing its slipping longitudinally of the rails.

A further object is to provide a car-replacer adapted for use with grooved rails and affording means holding the same from movement laterally of the rail when in use.

It is also an object of the invention to afford a compact construction requiring but little space in the car when not in use.

The invention consists in the matters hereinafter described, and more fully pointed out and defined in the appended claims.

In the drawings, Figure 1 is a top plan view of a car-replacer embodying my invention and in position to replace a car upon the track. Fig. 2 is a bottom plan view of the same. Fig. 3 is a perspective view of the same. Fig. 4 is a longitudinal vertical section. Fig. 5 is a front elevation of the replacer, showing its use with a grooved track-rail. Fig. 6 is a similar view showing its use with a side-flanged rail.

As shown in said drawings, the car-replacer (indicated as a whole by A) is constructed of malleable iron or other preferred material and

comprises a bottom portion A', having a broad forward end  $a$ , which, as shown, is thinner than the remaining portion of the bottom and when in position upon the rail B extends on either side thereof a sufficient distance to receive the car-wheel B'. The rear end  $a'$  of the replacer is much narrower than the forward end thereof, and, as shown, the lateral edges curve inwardly and are provided with approximately vertical integral flanges A<sup>2</sup> A<sup>3</sup>, adapted to engage the sides of the wheels B' of the car-truck and force the truck laterally into position for the wheels to engage upon the track-rails when they leave the rear end  $a'$  of the replacer. On the inner side of said flanges A<sup>2</sup> and A<sup>3</sup> and tapering forwardly are ledges  $a^2$   $a^2$  of less height than the width of the wheel-flanges and against the inner sides of which the wheel-flanges engage to insure a true centering of the wheels upon the rails.

The forward end of the replacer is provided beneath the same and adjacent the lateral sides thereof with one or more transverse rearwardly-directed shoulders or claws C, adapted, as shown more clearly in Figs. 5 and 6, to engage between the paving-blocks D or upon the surface of the street and acting to rigidly hold the replacer from slipping longitudinally of the rail as the car-wheel rises thereon.

On the under side of the bottom A' and extending longitudinally thereof is a central rib C', which when the replacer is in position upon the rail extends into the groove in the top thereof, as shown more clearly in Figs. 1 and 5, or in case a laterally-flanged rail is used extends into the groove formed by the top of the rail and the end of the paving-block D or other paving material, as shown in Fig. 6. The forward end of said rib, as shown, curves upwardly, permitting the replacer to be tilted, if necessary, to receive the car-wheel.

The operation is as follows: When a car-truck is off the track, the car-replacer is placed upon the rail with its front end facing the wheel and the longitudinal central rib C' seated in the groove formed either in the top of the rail or between the top of the rail and the paving material. Inasmuch as the street-surface is usually flush with the top of the rails the broad bearing-surface of the replacer renders it less liable to break. The transverse claws C' engage between the paving-blocks D, or in case other paving material is used embed therein and prevent the replacer from slipping longitudinally on the rail when the car-wheel is mounting the same. From the construction



shown it is obvious that the car-wheel is not greatly elevated in running upon the replacer, and to reduce said distance to a minimum the forward end of the bottom is brought to a relatively thin edge, as shown more clearly in Fig. 4. As the car is forced rearwardly of the replacer the wheel engages either of the side flanges A' or A<sup>2</sup> and is forced centrally into position above the rail, so that when it runs off the rear end of the replacer, which is also slightly rounded, it drops into position upon the rail. The ledges a<sup>2</sup> enable the replacers to be used interchangeably, and inasmuch as they engage the wheel-flanges they will guide the wheel into position whether the wheel is between the rails or on the outside thereof.

Obviously the replacer is adapted for use upon any kind of pavement and many details of construction may be varied without departing from the principles of my invention. I therefore do not purpose limiting this application for patent otherwise than necessitated by the prior art.

I claim as my invention—

1. In a car-replacer, the combination with a bottom tapering in thickness toward one end, of integral curved flanges converging toward the other end thereof.

2. In a car-replacer, the combination with a flat bottom tapering in thickness toward one end, of integral side flanges converging toward the other end of the bottom and affording a space therebetween admitting the passage of a car-wheel and transverse claws at the forward end thereof extending from each side to near the center of the replacer.

3. In a device of the class described the combination with a flat bottom, tapering in thickness toward one end and rounded at the opposite end, of integral inwardly-curved side flanges thereon convergent toward the rear end of the replacer and a centrally-disposed rib having a rounded forward end and adapted to engage the top of the rail and prevent lateral displacement of the replacer.

4. A car-replacer, comprising a flat bottom plate provided with a flat upper surface and having integral inwardly-curved side flanges thereon converging toward one end of the bottom, the other end of the bottom being broad and adapted to project on either side of the car-rail and a rib on the under side the replacer acting to engage the rail and prevent lateral displacement and having an upwardly-curved forward end adapting the replacer to be tilted.

5. A car-replacer comprising a flat bottom plate, relatively broad at one end and taper-

ing in thickness toward the other, having inwardly-curved, upwardly-directed lateral flanges thereon, a rib on the under side of said plate adapted to extend longitudinally of the rail and preventing lateral movement, a ledge adjacent each flange, and means adapted to engage the road-bed and prevent movement longitudinally of the rail.

6. A street-car replacer comprising a bottom adapted to rest flat on the street and the rail, a longitudinal rib thereon adapted to engage in the flange-groove, upwardly-directed flanges converging to one end of the replacer adapted to guide the car-wheel onto the rail and a ledge adjacent the inner face of each flange affording a narrow opening at the rear.

7. A street-car replacer comprising a flat bottom adapted to rest on the street-surface and the rail and tapering in thickness to one end, a central longitudinal rib integral therewith and fitting in the flange-groove, one or more transverse claws on the broad end the bottom extending from each margin to near the center and directed toward the narrow end, upwardly-directed side flanges converging toward the narrow end of the replacer and a low ledge adjacent each flange and tapering in width from the front rearwardly.

8. In a device of the class described, the combination with a broad plate tapering toward one end in width and toward the other in thickness, of upwardly-directed, inwardly-curved lateral flanges adapted to direct a car-wheel centrally of the plate, a longitudinal rib on the under side of said plate tapering to the broad end of the plate and a plurality of transverse claws on the under side of the replacer adapted to grip the street-bed.

9. A car-replacer comprising a bottom plate, upwardly-directed curved flanges thereon, a ledge on the inner side of each flange and means adapted to hold the replacer in position.

10. A car-replacer, comprising a bottom having a broad forward end, integral, upwardly-directed side flanges thereon, a ledge on the inner side of each flange tapering in width from the rear forwardly, a longitudinal rib beneath the bottom and a plurality of transverse claws beneath the bottom.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

HARRY PRATT.

Witnesses:

C. H. HILLS,  
H. S. RUDD.