

No. 811,076.

PATENTED JAN. 30, 1906.

F. C. MILLER.  
FRONT AXLE FOR AUTOMOBILES.  
APPLICATION FILED APR. 13, 1905.

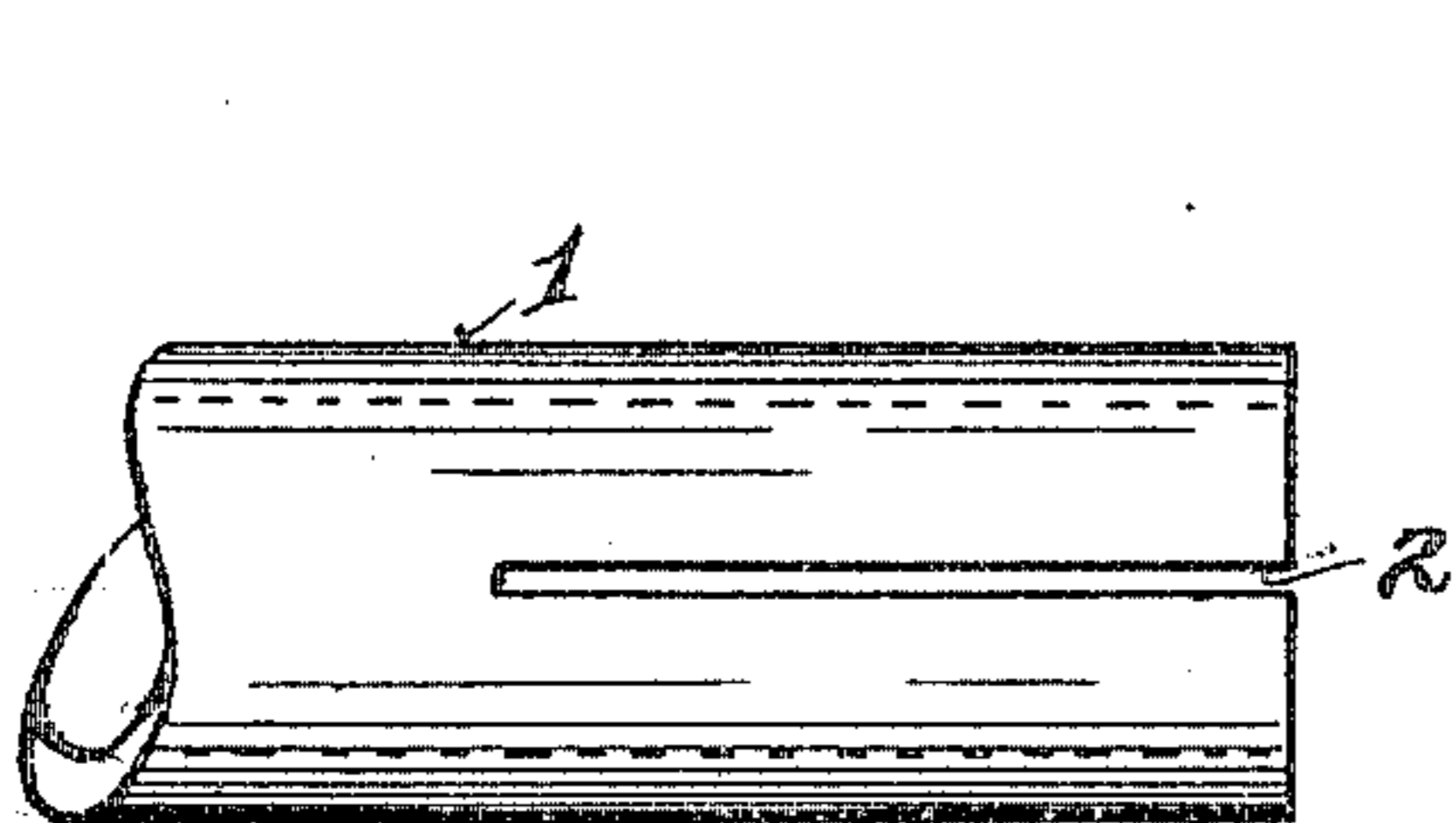


Fig. 1.

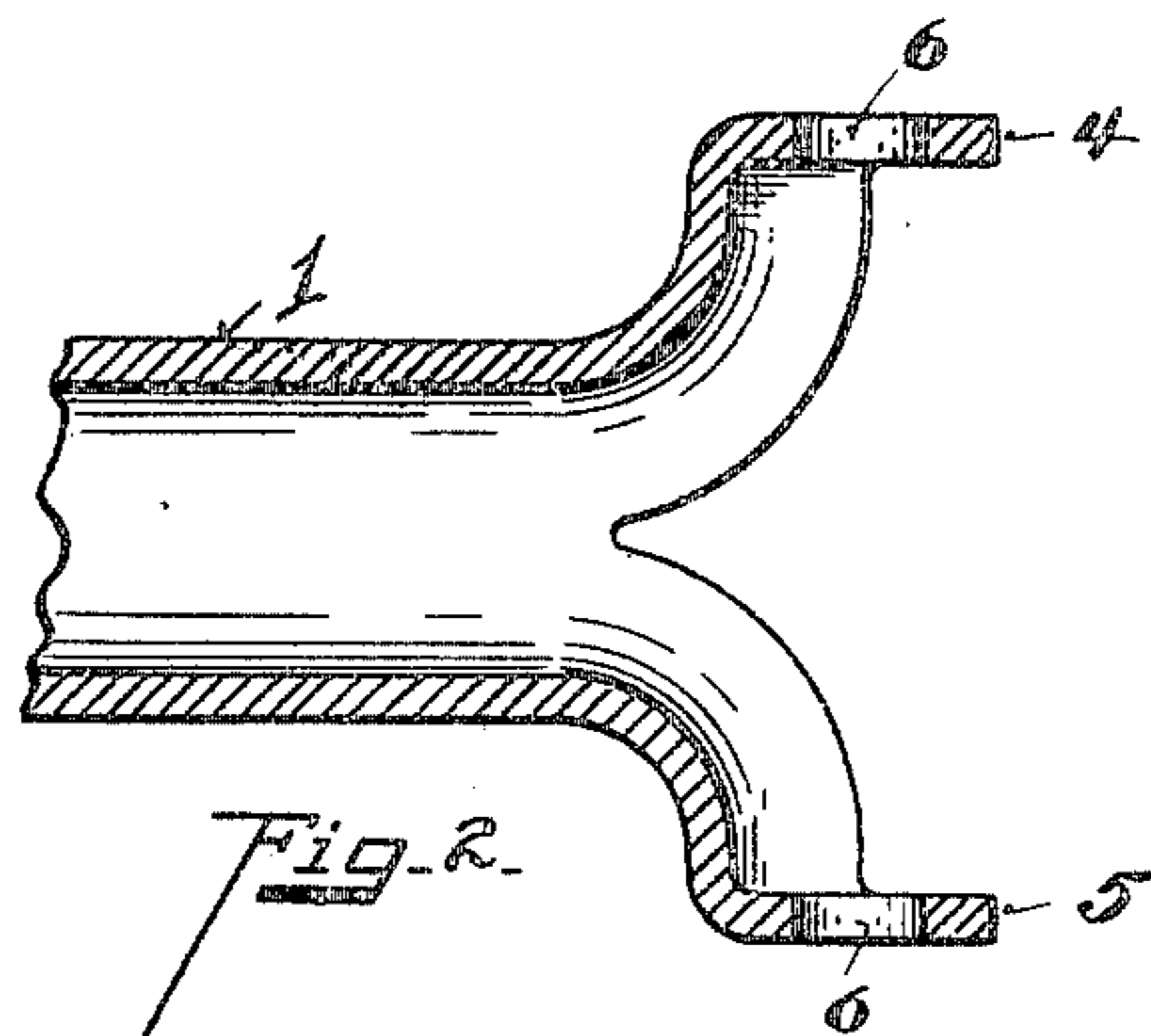


Fig. 2.

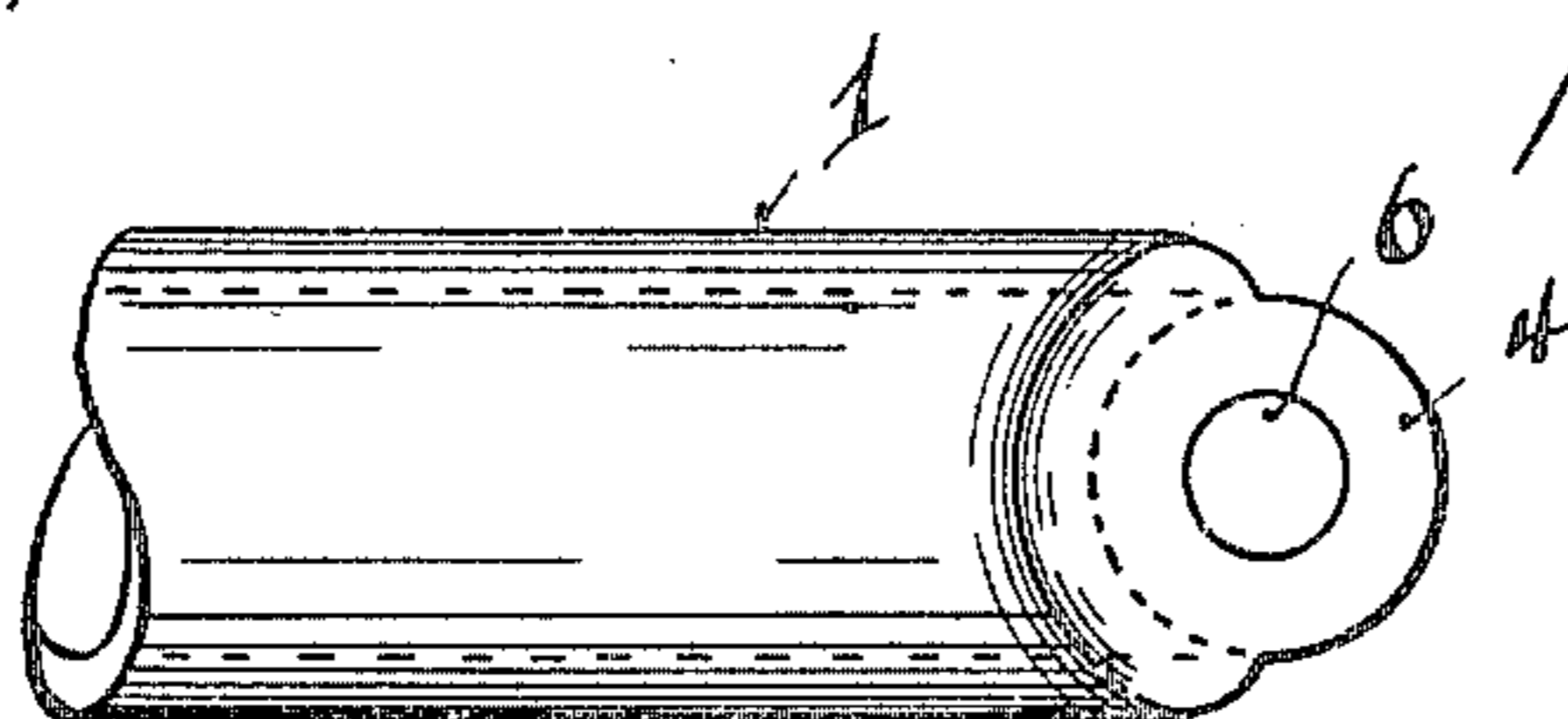


Fig. 3.

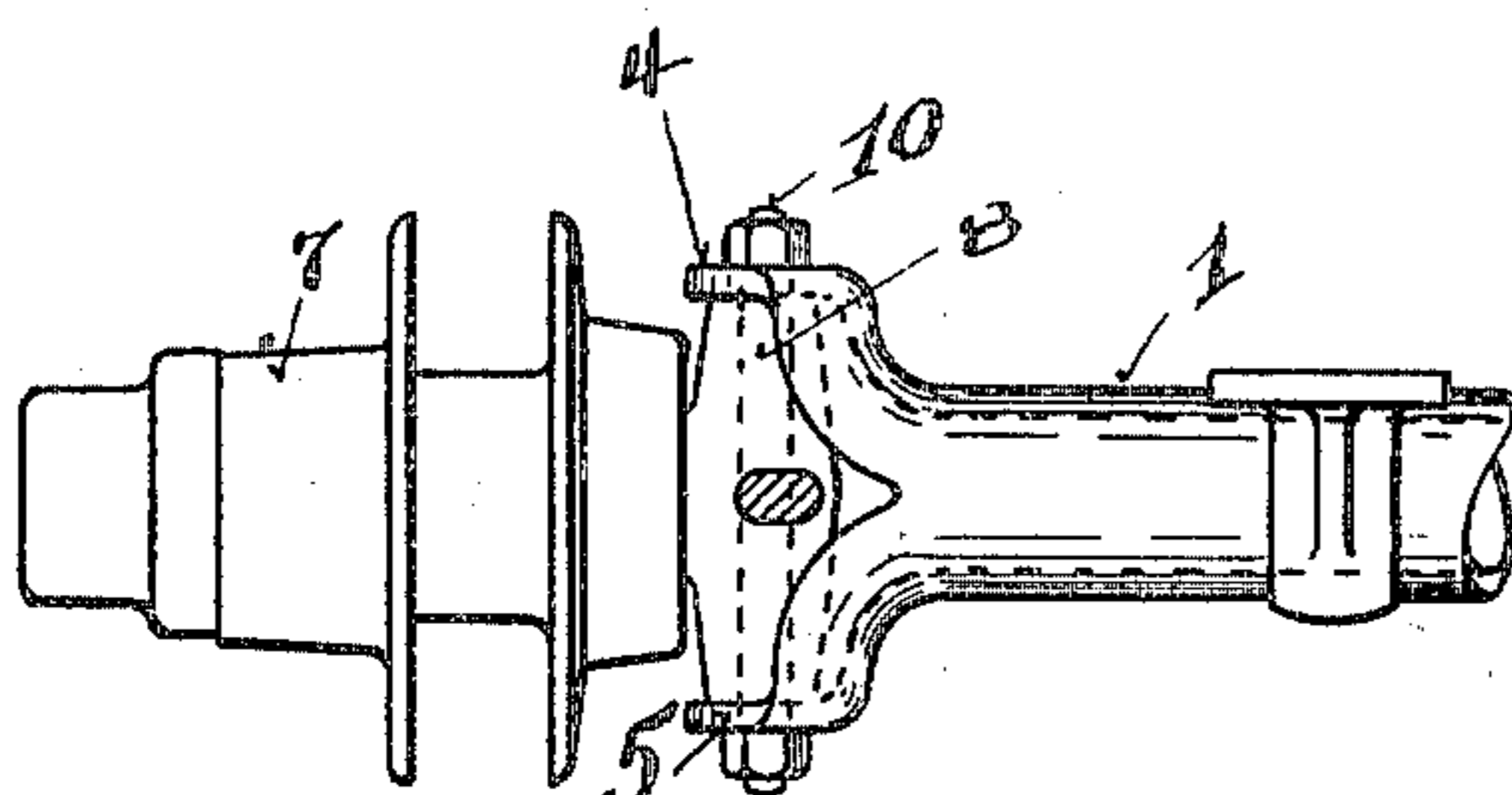


Fig. 4.

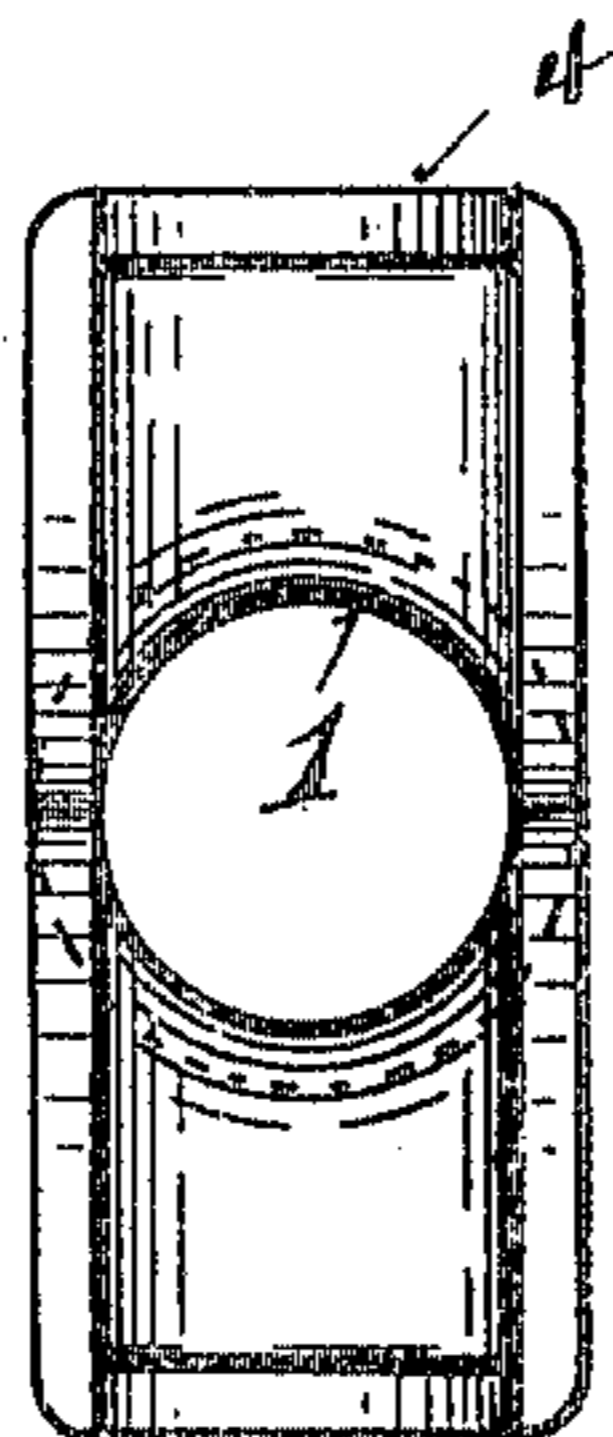
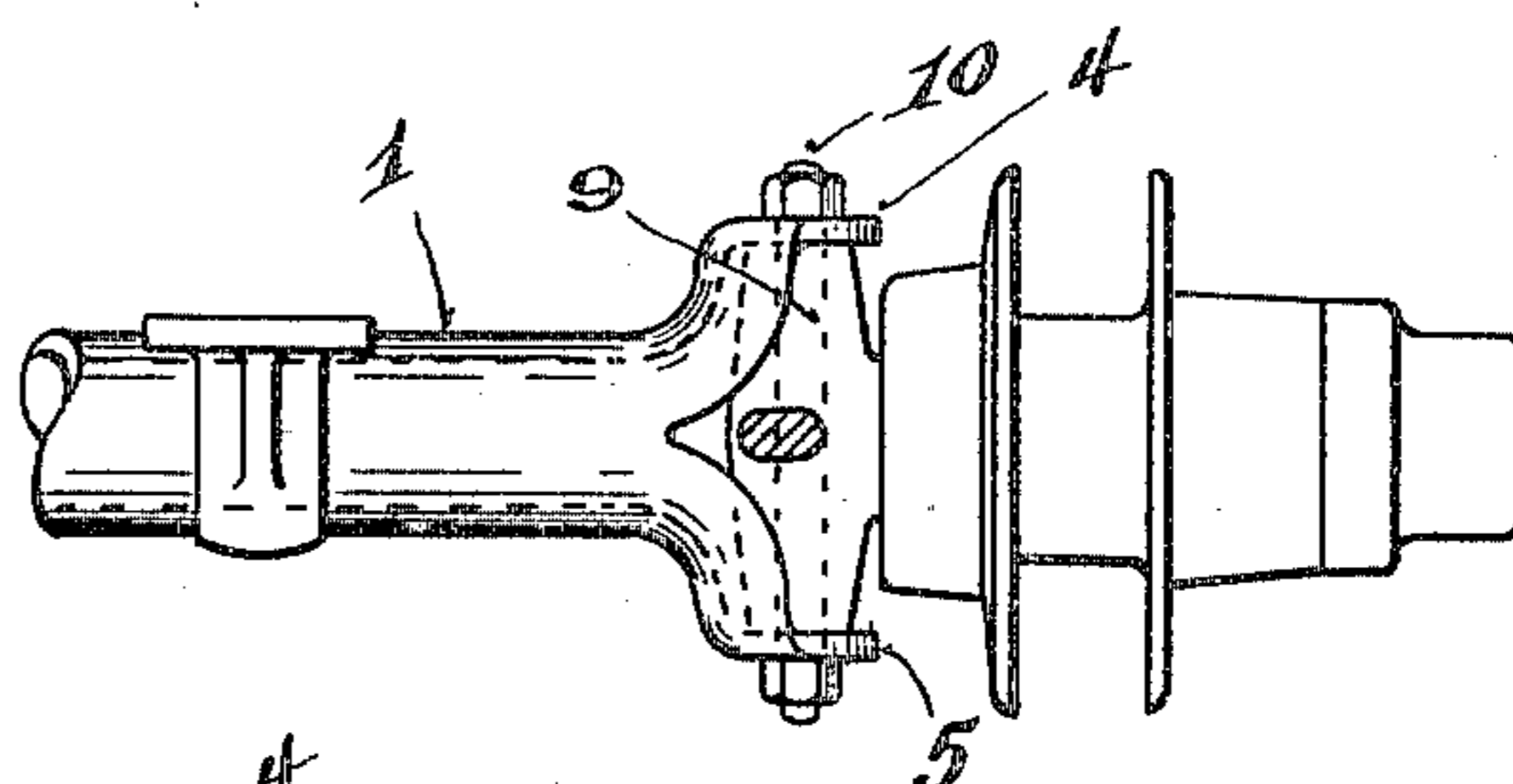


Fig. 5.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## FRONT AXLE FOR AUTOMOBILES.

No. 811,076.

Specification of Letters Patent.

Patented Jan. 30, 1906.

Application filed April 13, 1905. Serial No. 255,276.

*To all whom it may concern:*

Be it known that I, FREDERICK C. MILLER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Front Axles for Automobiles, of which the following is a specification.

This invention relates to a new and improved front axle for automobiles.

The object of the invention is to provide a tube-axle, the opposite ends of which are split and swaged or stamped to form jaws integral with the axle between which the stud-shafts of the wheels are pivotally secured.

The features of the invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the tube-blank. Fig. 2 is a central vertical section through one end of the axle-tube completed. Fig. 3 is a top plan view of the end shown in Fig. 1. Fig. 4 is a front elevation of the axle with wheel-hubs and stud-shafts in position. Fig. 5 is an end view of Fig. 2.

1 represents the tube, which in the blank is provided with the horizontal diametrical slit 2.

By suitable swaging or metal shaping process the semicylindrical sections of the tube formed by slit 2 are forced apart vertically, forming the integral jaws 4 5, having the bolt-holes 6.

7 represents the wheel-hubs, mounted upon stud-axles, having at their inner ends the vertical sleeves 8 9, bored to receive the pivot-bolts 10, passed through the holes 6 of jaws 5 and through the bore of the sleeves 8 9, as shown in Fig. 4, the said sleeves seating against the inner surfaces of the jaws 4 5, so as to be turned by the steering apparatus. This strong integral structure is both cheap and convenient and affords the simplest possible connection pivotally between the wheel stud-shafts and the axle.

As will be seen from Fig. 2, the edges of the slitted portion of the tube are formed by the swaging operation into arched side walls between the jaws. This construction adds great strength and rigidity to the structure.

Having described my invention, I claim—

1. A front axle for automobiles, consisting of a tube, the ends of which have been slitted and swaged apart to form jaws.

2. A front axle for automobiles, consisting of a tube, the ends of which have been slitted and swaged apart to form jaws, the slitted edges of the tube forming arched side walls to the jaws.

In testimony whereof I have hereunto set my hand.

FREDERICK C. MILLER.

Witnesses:

OLIVER B. KAISER,  
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