

No. 850,321.

PATENTED APR. 16, 1907.

C. A. SCHLACHTER.

TIRE ARMOR.

APPLICATION FILED MAY 1, 1906.

Fig. 1.

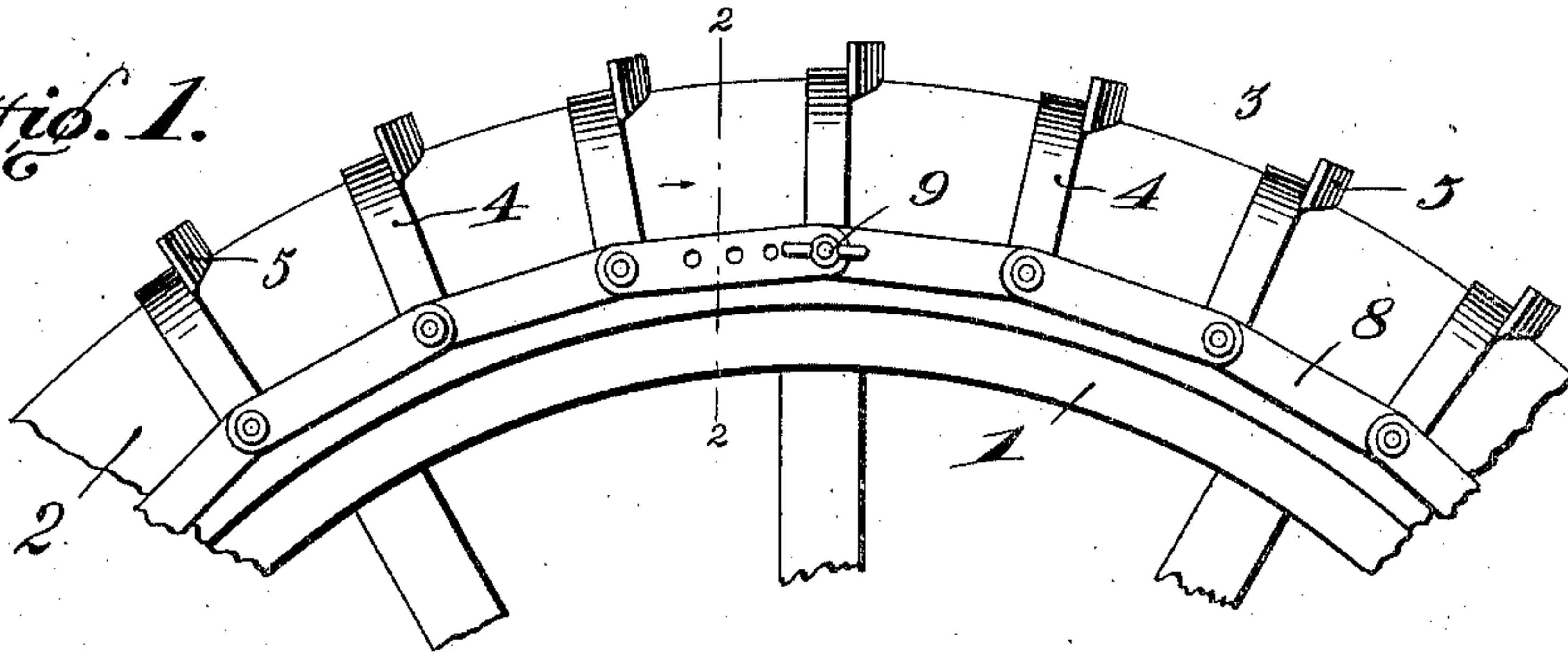


Fig. 2.

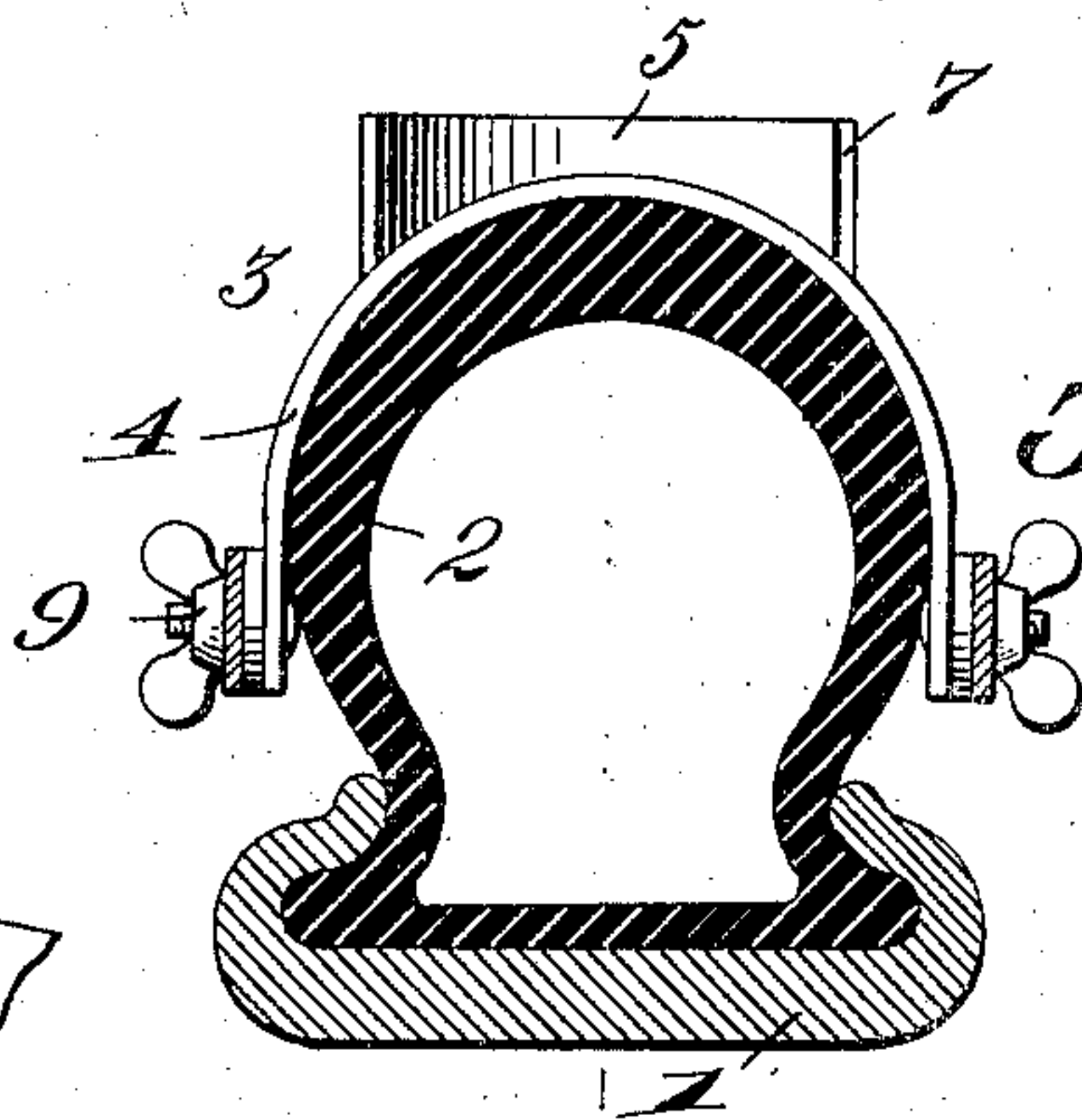


Fig. 4.

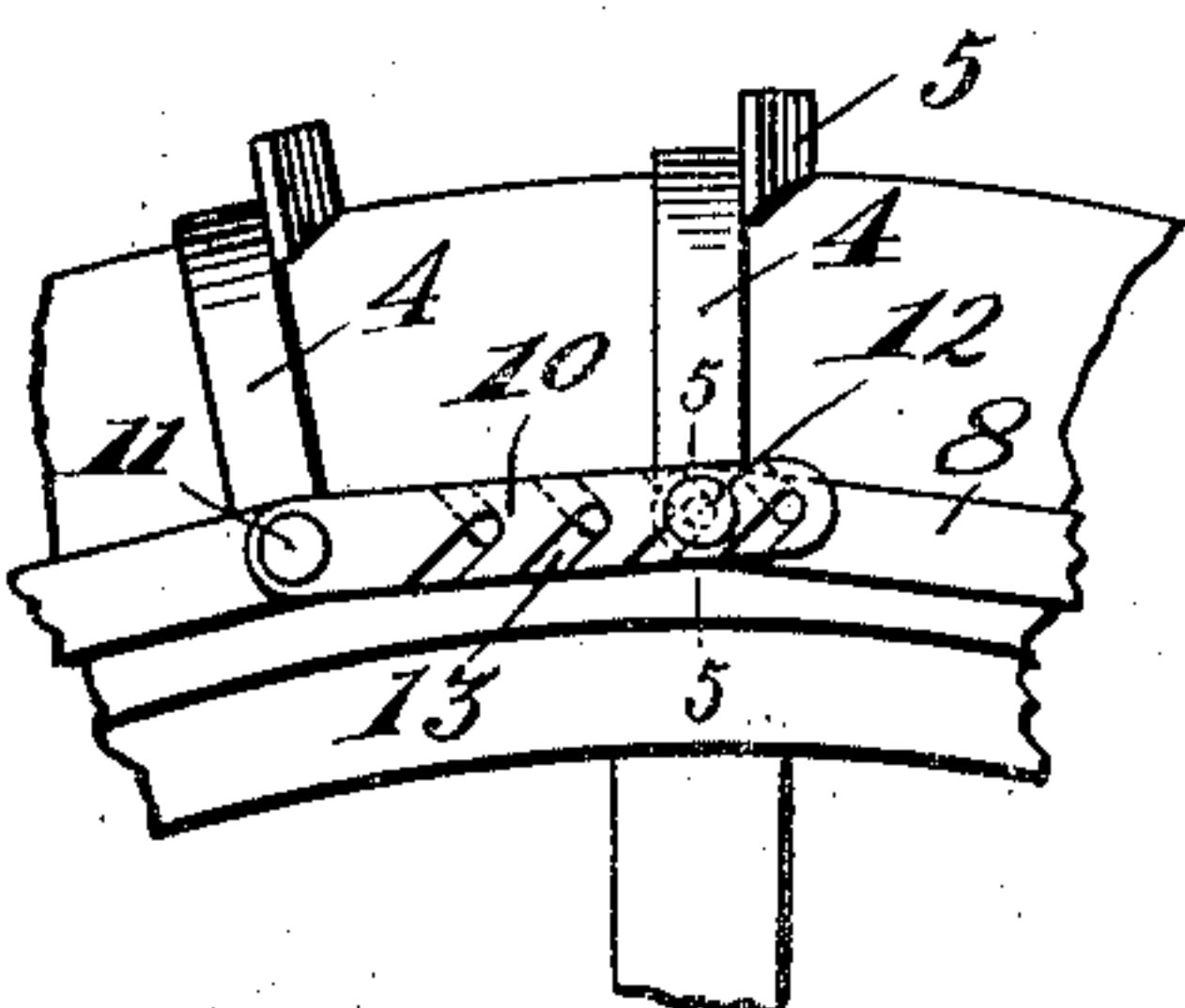


Fig. 3.

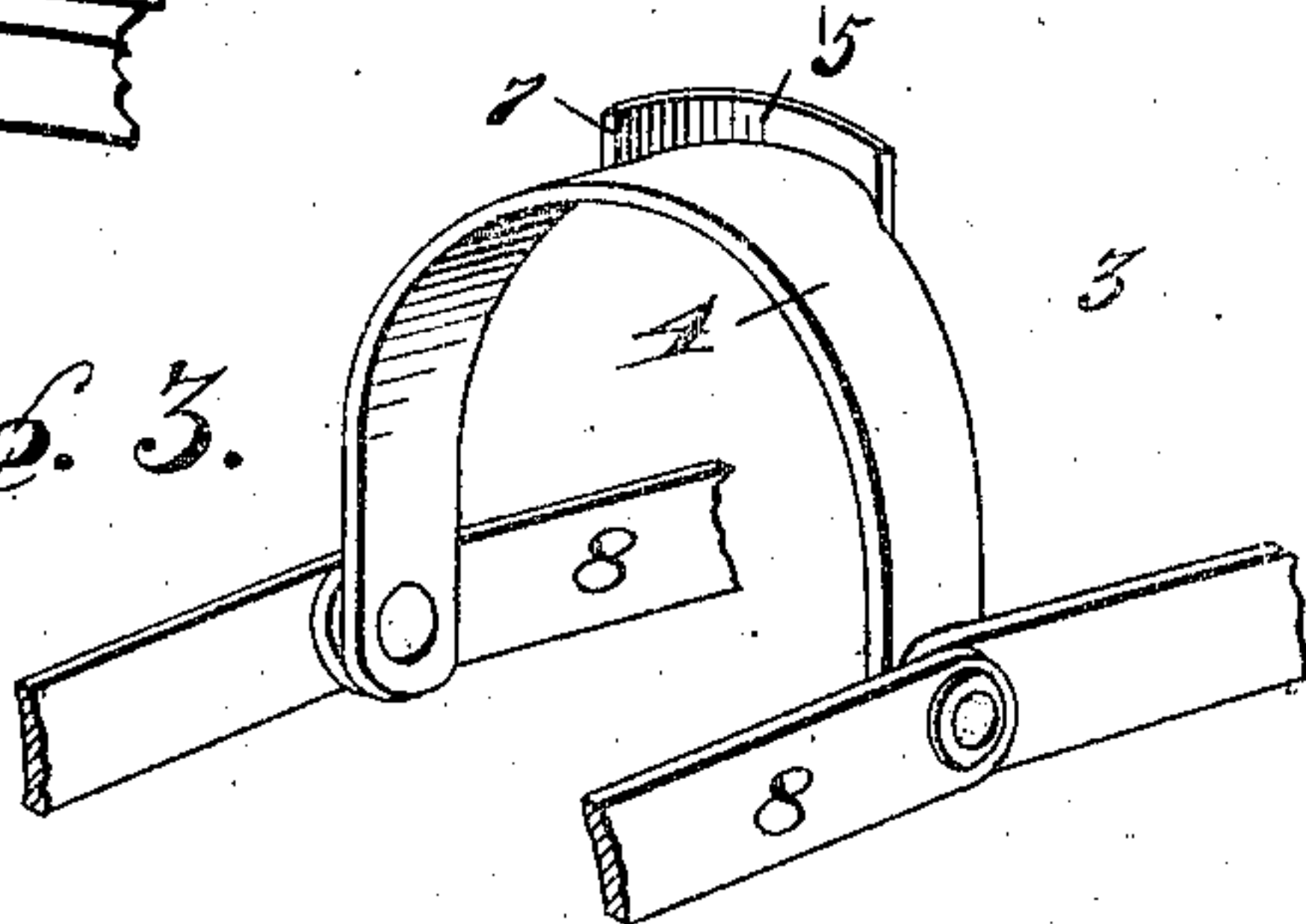
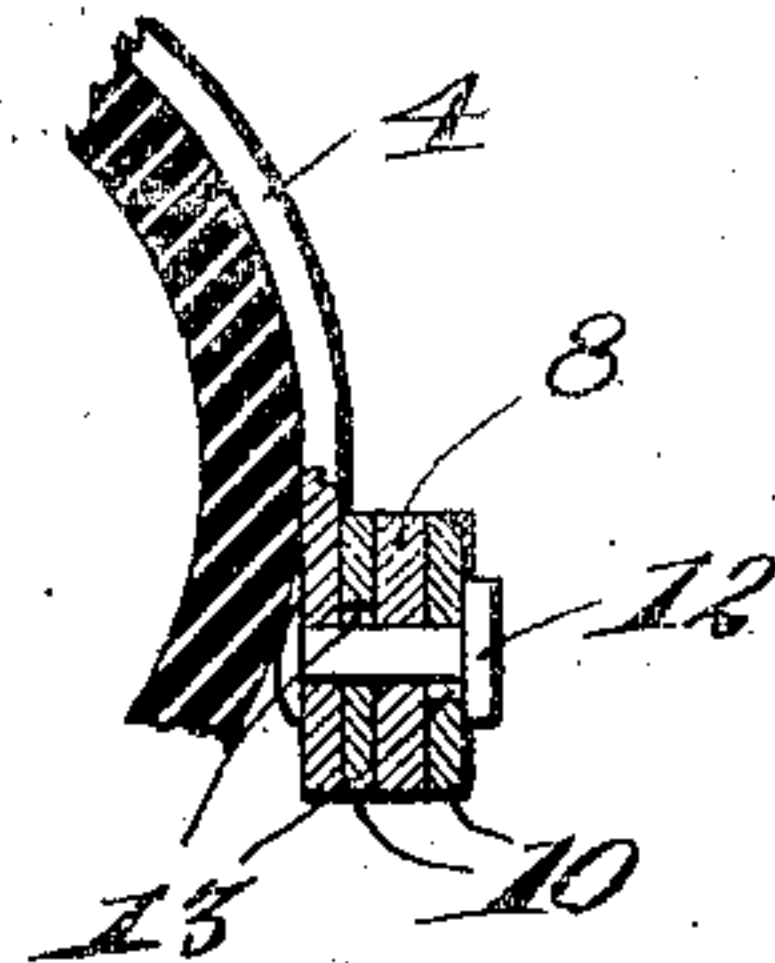


Fig. 5.



WITNESSES:

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CARL A. SCHLACHTER, OF ROCKWELL CITY, IOWA.

TIRE-ARMOR.

No. 850,321.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed May 1, 1906. Serial No. 314,696.

To all whom it may concern:

Be it known that I, CARL A. SCHLACHTER, a citizen of the United States, residing at Rockwell City, in the county of Calhoun and State of Iowa, have invented a new and useful Tire-Armor, of which the following is a specification.

The present invention relates to a shoe or armor construction adapted to be used on pneumatic or other tires for self-propelled vehicles. Its object is to provide a device of this character which is of simple and substantial construction and positive and efficient in operation for preventing skidding and slipping and for increasing the tractive effect.

To these ends the invention comprises a tire-shoe composed of a number of substantially semicircular members adapted to extend around the outside of the tire in radial relation thereto and are each provided with outwardly-extending ribs that are adapted to penetrate the surface of the road and to positively prevent the wheel from slipping or skidding. These webs or blades are so constructed as to best perform their function and withstand the strain put upon them.

The inner ends of the members disposed on the same side of the wheel are connected together by links to which they are riveted. This permits of ample flexibility in the armor and at the same time enables said armor to be securely held on the tire.

For a more complete understanding of the details of construction and arrangement of parts reference is to be had to the following description, taken in connection with the accompanying drawings, while the features of novelty are set forth in the claims appended hereto.

In the accompanying drawings which illustrate one embodiment of the invention, Figure 1 is a side elevation of a portion of a vehicle-wheel, showing the tire-armor attached thereto. Fig. 2 is a transverse section on line 2 2, Fig. 1. Fig. 3 is a perspective view of a portion of the armor removed. Fig. 4 is a detail view of a modified form of link for connecting the ends of the armor. Fig. 5 is a sectional view taken on the line 5 5, Fig. 4.

Referring to the drawings, 1 represents a vehicle-wheel shod with a pneumatic tire 2,

on which is arranged a shoe or armor 3 for preventing skidding and slipping. The shoe 3 comprises a plurality of members 4, which are substantially semicircular, so as to fit around the outside of the tire in a radial position thereon. Extending outwardly from the middle portion of each member is a blade or web 5, which is adapted to penetrate the road-surface and prevent skidding of the wheel. These webs are preferably, although not necessarily, formed integral with the members 4, and can be forged or stamped to the desired configuration. They are made of metal of sufficient thickness to withstand the strain subjected upon them without becoming deformed. Viewed in a radial direction the webs 5 are arc-shaped, Fig. 3, so as to withstand the strain, and viewed from in front the root portions of the webs follow the curvature of the members 4, as shown in Fig. 2, and the outer edges extend tangentially. By this arrangement the ends 7 of the webs are of greater depth than the intermediate portions, so that they penetrate deeper into the sand or mud, so as to better prevent slipping or skidding.

The ends of the members are connected by means of two sets of links 8, to which they are pivoted, thus connecting the members to form a single structure or chain, the ends of which are united by means of thumb nuts and screws 9.

It will be noted that the links permit the members to move one with respect to another, so as to follow the compression of the tire and return as the latter expand, so that the shoe does not diminish the elasticity derived from the tire.

It is to be furthermore noted that the peculiar arc-shaped form of the blades besides providing a substantial construction is intended primarily to prevent sidewise slipping or skidding of the wheels.

Referring to Figs. 4 and 5, a modified construction of the end-connecting links is shown. This comprises a pair of links 10, located on each side of the armor and riveted or pivoted to one end of the chain or armor structure, as indicated at 11. On the opposite end of the armor structure are rivets 12, one on each side, as indicated in Fig. 5. These rivets, while serving to connect the member 4 with the links 8 adjacent the end of the armor, also serve to engage the links

10. The links of each pair are provided with inclined slots 13, the slots of one link extending inwardly in an inclined direction, while those of the other link incline outwardly in the corresponding direction, as shown by the full and dotted lines in Fig. 4. By this arrangement one of the links 10 is hooked to the rivet 12 by an inward movement relatively to the wheel and the other by an outward movement. By providing the two links, as shown, the degree of safety of the connections is doubled.

I have described the principle of the operation of the invention together with the apparatus which I now consider to be the best embodiment thereof; but I desire to have it understood that the apparatus shown is merely illustrative and that the invention can be carried out by other means.

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

1. In a shoe for vehicle-tires, the combination of a plurality of antiskidding members comprising substantially semicircular pieces extending around the outside of the tire and apertured at their ends and each provided with a middle portion wider than the rest and formed with a radially-extending integral web which is arc-shaped in the direction of its length and is straight at the outer edge, two sets of apertured links, rivets for connecting the apertured ends of the said members with the links to form a chain

structure, and devices for adjustably connecting the ends of the said structure together.

2. A shoe for vehicle-tires, comprising a plurality of antiskidding members extending around the outside of the tire, links for connecting the ends of said members to form a chain structure, and means for connecting the ends of said structure, comprising a plurality of members pivoted to each side of the latter and provided with oppositely-extending slots, and devices on the other end of the structure engaging in the said slots.

3. A shoe for vehicle-tires, comprising a plurality of antiskidding members extending around the outside of the tire, links for connecting the ends of said members to form a chain structure, and means for connecting the ends of said structure, comprising a pair of links arranged on each side of the structure and pivoted to one end thereof and provided with oppositely-extending and correspondingly-inclined slots, and rivets on the opposite end of said structure adapted to engage in the said slots.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CARL A. SCHLACHTER.

Witnesses:

E. C. STEVENSON,
J. F. HUTCHISON.