

No. 706,215.

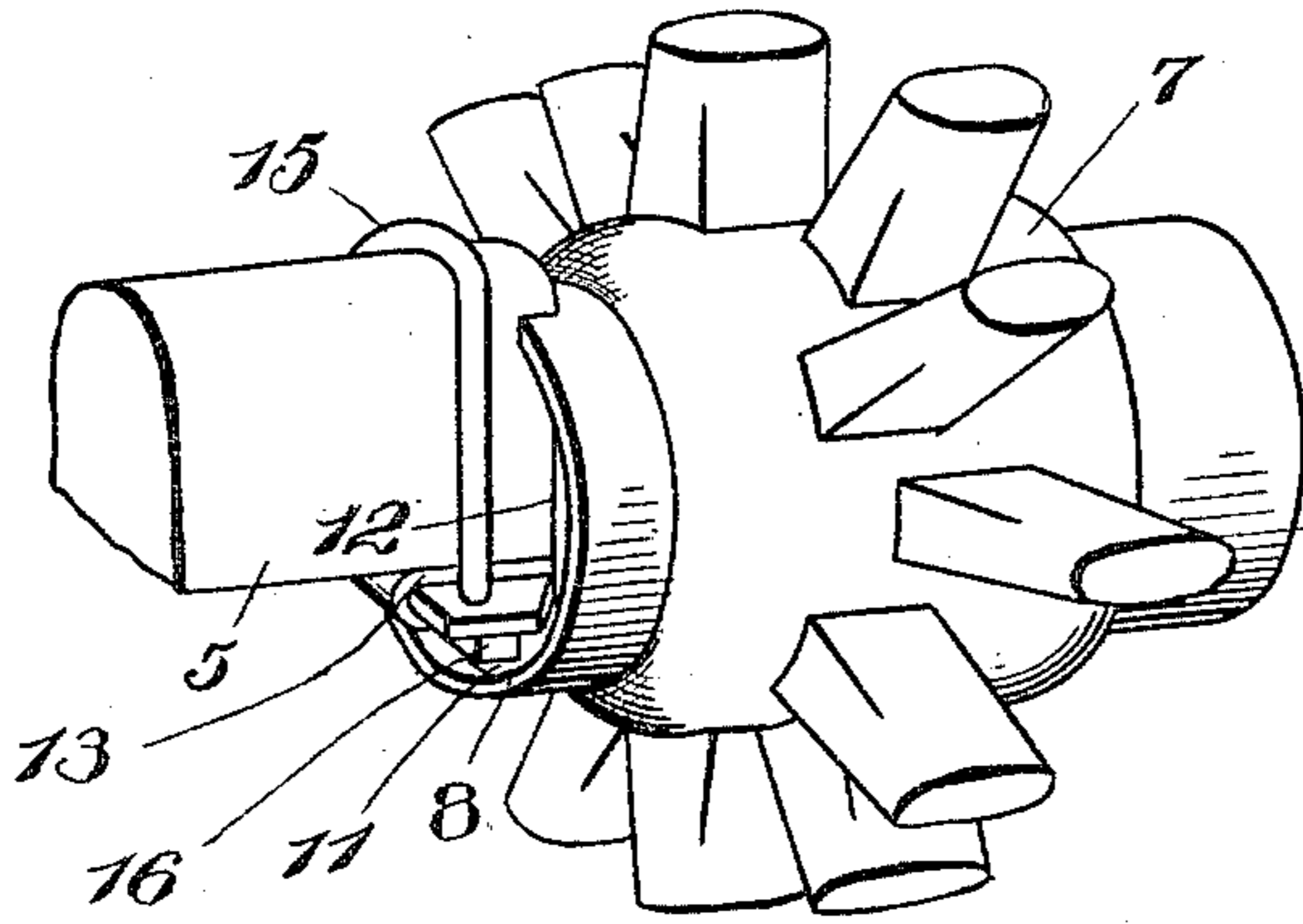
Patented Aug. 5, 1902.

C. & R. L. BETHEA.  
WASHER FOR VEHICLE AXLES.

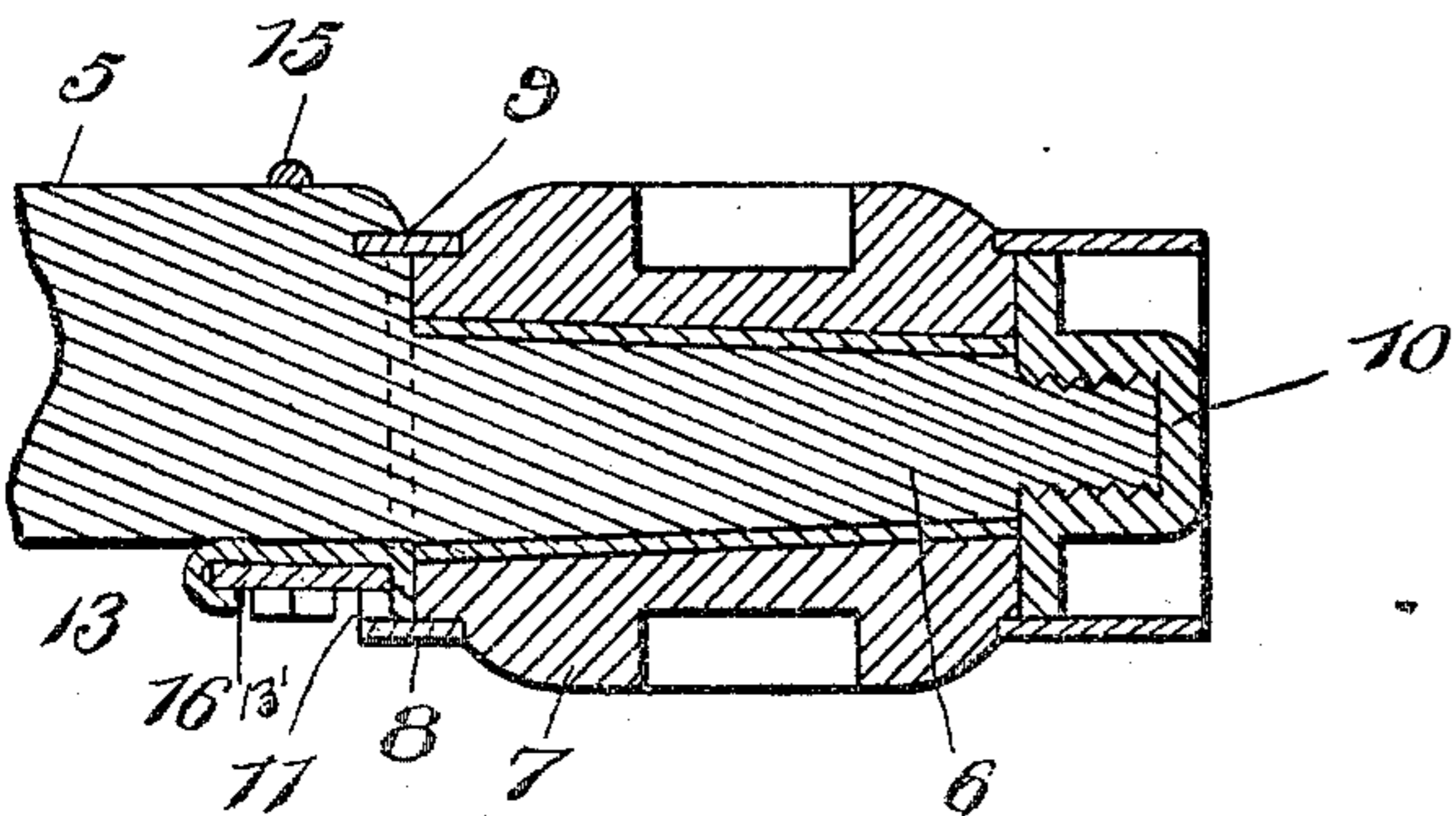
(Application filed Dec. 4, 1901.)

(No Model.)

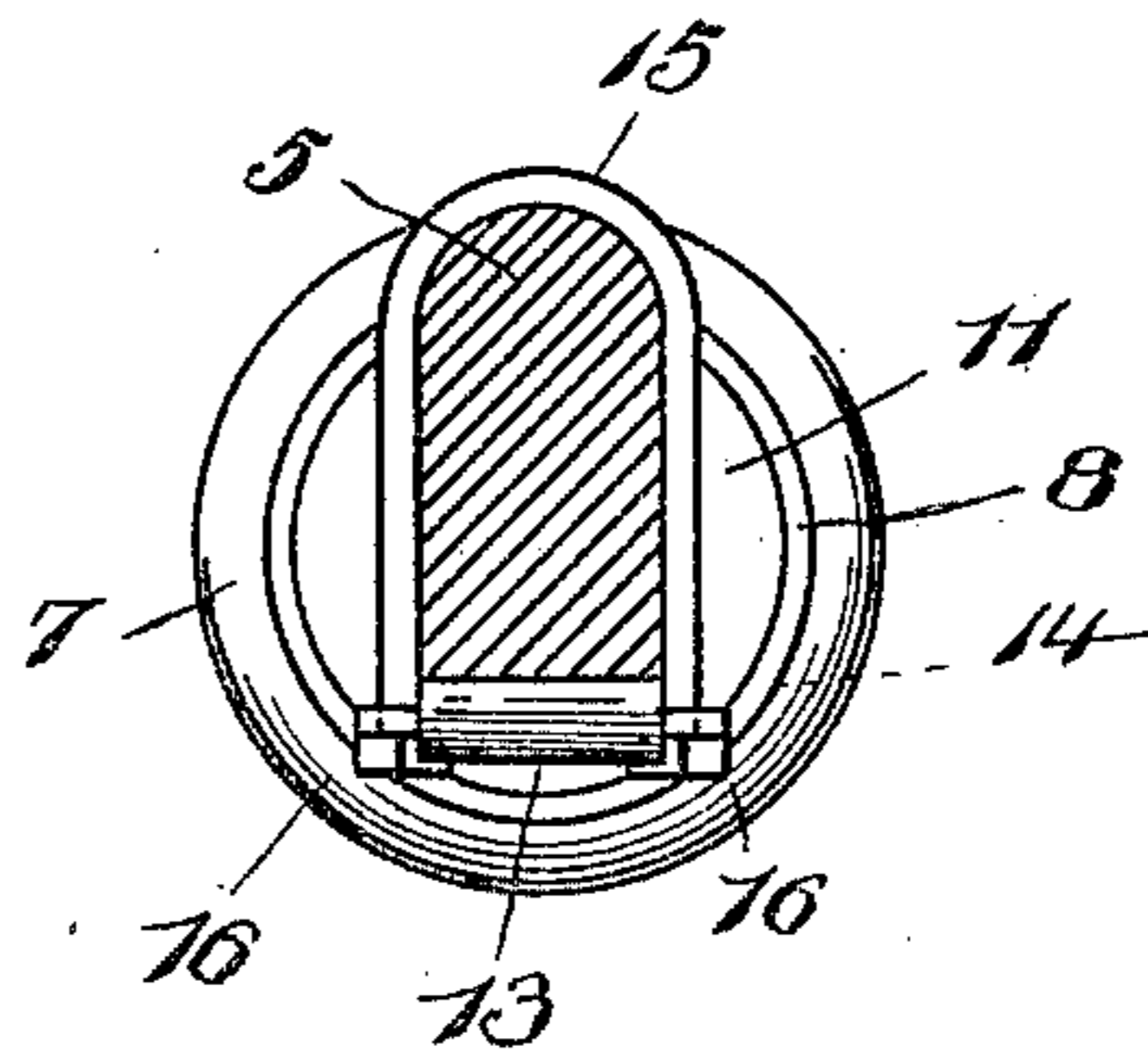
*Fig. 1.*



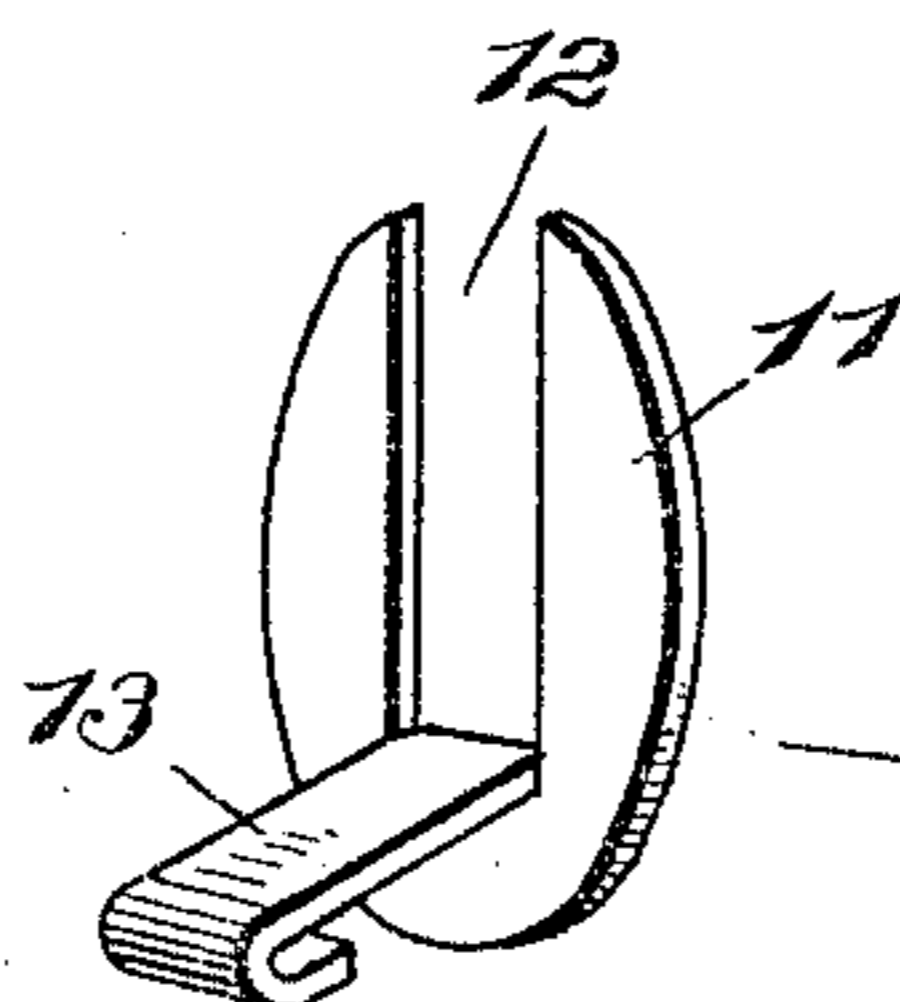
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

CLARENCE BETHEA AND ROBERT LEE BETHEA, OF LITTLEROCK,  
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## WASHER FOR VEHICLE-AXLES.

SPECIFICATION forming part of Letters Patent No. 706,215, dated August 5, 1902.

Application filed December 4, 1901. Serial No. 84,698. (No model.)

*To all whom it may concern:*

Be it known that we, CLARENCE BETHEA and ROBERT LEE BETHEA, citizens of the United States, residing at Littlerock, in the county of Marion, State of South Carolina, have invented certain new and useful Improvements in Washers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to washers for wheeled vehicles, and it has for its object to provide a washer which may be attached to the axletree and which will be held in position to close the rear end of the wheel-hub to prevent access of sand, mud, or other foreign matter thereto.

A further object of the invention is to provide a simple and cheap construction which when in position will be held securely and which may be easily and quickly applied and removed.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing a portion of an axletree and an attached wheel with the present invention in place thereon. Fig. 2 is a section taken vertically and longitudinally of the axle spindle and tree and showing the invention applied. Fig. 3 is a transverse section through the axletree in the rear of the wheel. Fig. 4 is a perspective view of the washer.

Referring now to the drawings, there is shown a portion of an axletree 5, from which projects a spindle 6, to receive the ordinary wheel-hub 7, at the rear end of which projects the metal hoop or band 8, which is received in the notch or slot 9, formed in the end of the axletree, the axletree being somewhat higher than the upper face of the band or hoop. The wheel is held upon the spindle by means of the usual axle-nut 10.

The washer employed consists of a metallic disk 11 of a diameter to fit snugly within the inclosure of the band 8, the washer having an ear 13 cut therefrom and leaving a diametrical slot 12, which extends from the upper edge thereof to a point near to the lower

edge to snugly receive the axletree, around which the edges of the slot fit, as shown. The axletree thus acts to close the central portion of the band 8 and the portions of the inclosure thereabove, while the washer closes the sides of the inclosure and the portion below the axletree. The ear 13 is bent rearwardly at right angles to the face of the washer, and against the under side of the ear is disposed a plate 13', in which are engaged the legs of a U-shaped clip 15, which is disposed over the axletree, nuts 16 being engaged with the legs of the clip to hold the latter in place. The end of the tongue is bent around the plate 13' to hold the latter from slipping off the end of the tongue. With this construction it will be seen that the washer may be easily and quickly adjusted to its place and the clip as readily engaged over the axletree and with the perforations of the ear of the washer, the axletree and washer jointly preventing ingress of foreign matter to the inclosure of the band and to the bearing-surface of the axle-box.

It will be understood that in practice modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A device of the class described comprising a metallic disk having a diametrical slot extending from its upper edge to a point near to its lower edge and having an ear at its lower edge bent outwardly at right angles to the face of the disk, a plate disposed transversely of the under side of the tongue and having spaced perforations, and a U-shaped clip having its legs engaged through the perforations and provided with nuts to prevent withdrawal thereof.

2. The combination with an axletree and spindle, of a wheel disposed upon the spindle and having a hub-band projecting from the inner end thereof, the axletree being higher than the band and having a slot in its end face in which the band is received, a metallic disk disposed in the end of the band having a tongue cut therefrom and a resultant diametrical slot in which the axletree is

snugly received, said ear being bent outwardly from the face of the disk, a plate disposed against the under side of the ear and provided with laterally-spaced perforations, and a clip disposed over the axle tree and having its legs engaged through the perforations of the plate, said legs having nuts engaged therewith to prevent withdrawal thereof.

In testimony whereof we affix our signatures in presence of two witnesses.

CLARENCE BETHEA.  
ROBERT LEE BETHEA.

Witnesses:

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