

No. 787,160.

PATENTED APR. 11, 1905.

C. G. ETTE.  
PACKING WASHER.  
APPLICATION FILED NOV. 21, 1904.

Fig. 1.

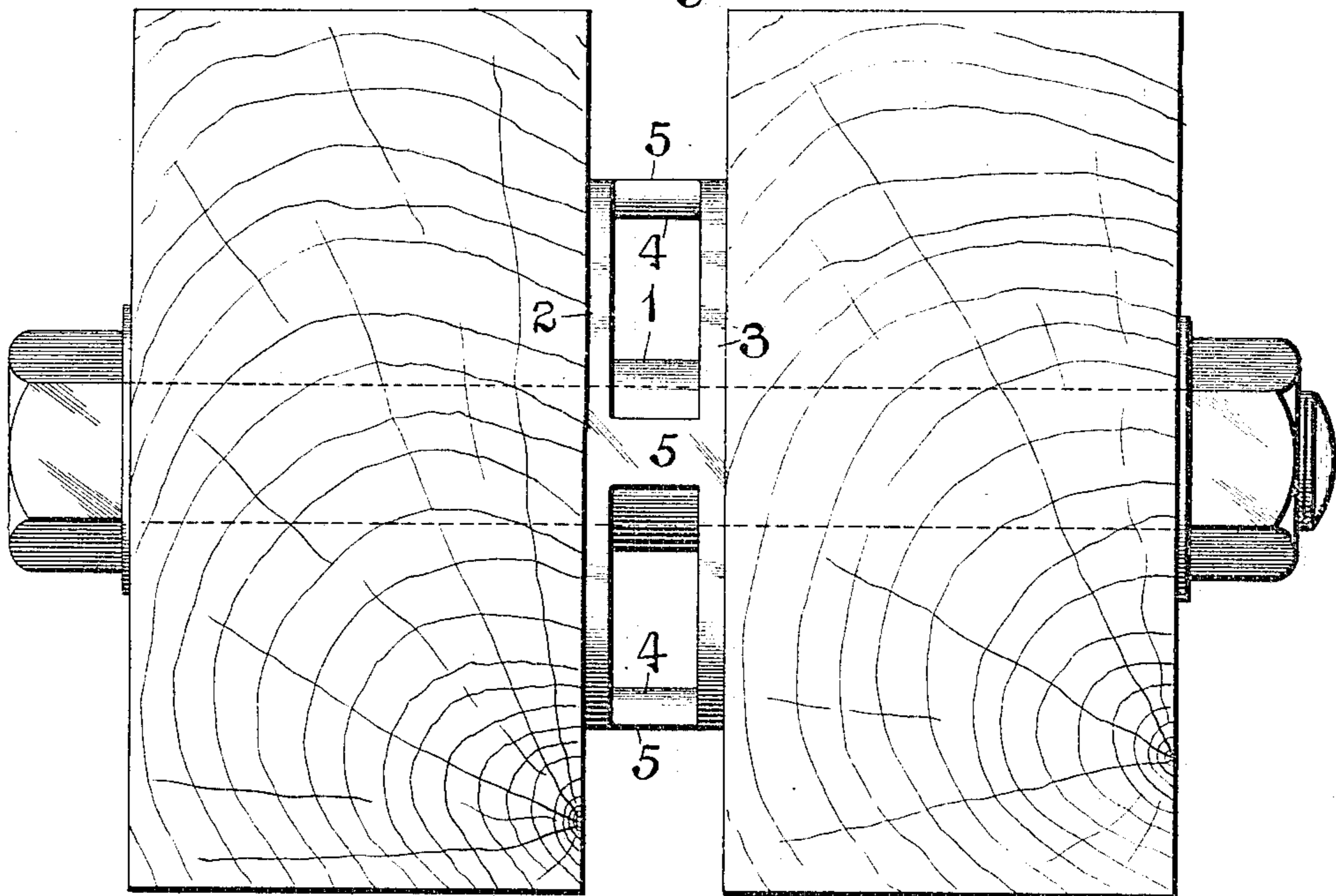


Fig. 2.

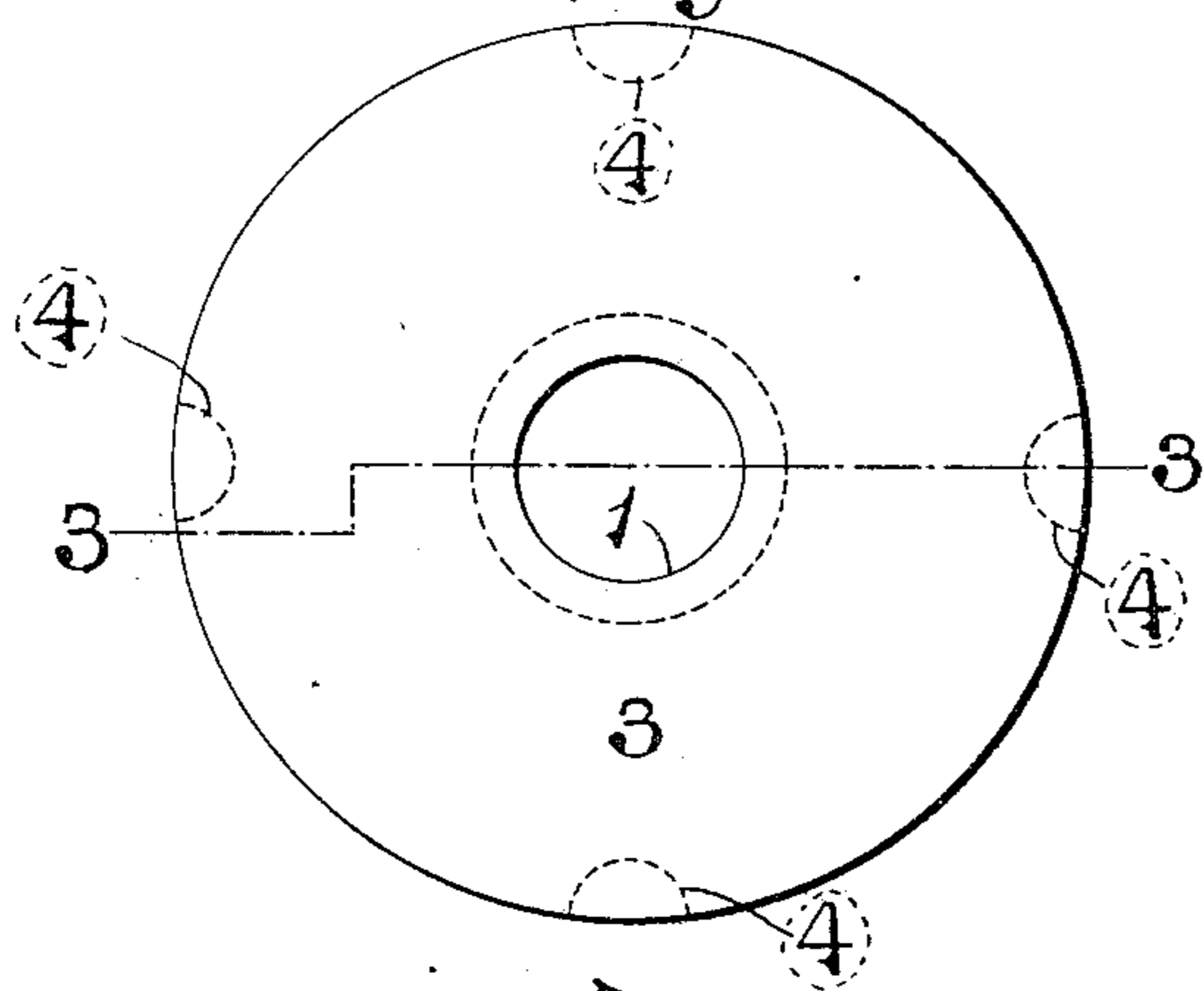
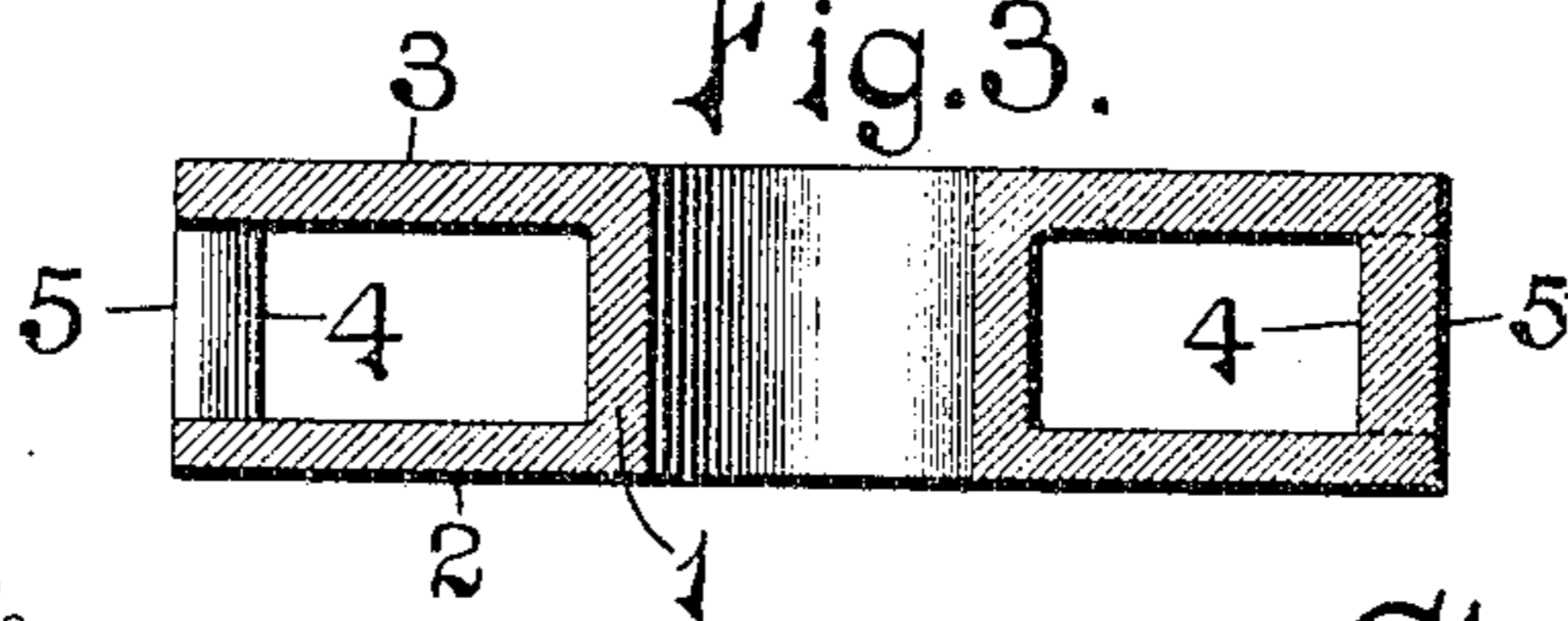


Fig. 3.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

CHARLES G. ETTE, OF ST. LOUIS, MISSOURI.

## PACKING-WASHER.

SPECIFICATION forming part of Letters Patent No. 787,160, dated April 11, 1905.

Application filed November 21, 1904. Serial No. 233,688.

*To all whom it may concern:*

Be it known that I, CHARLES G. ETTE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Packing-Washers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end view of two beams, showing my invention applied. Fig. 2 is a top plan view of my improved washer, and Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 2.

This invention relates to washers, and particularly to the class known to the trade as "packing" or "spacing" washers.

Heretofore washers utilized between beams for car-sills, bridge construction, and the like have generally been constructed of a solid casting the size and weight of which was a considerable disadvantage, owing to the amount of metal employed, and, further, due to the fact that said washers were generally made of cast-iron, so that they became easily broken in transit, were unsightly in appearance, their weight adding considerable to their ultimate cost, due to transportation, &c.

It is the purpose of my invention to make a light, durable, and efficient packing-washer which will possess substantially the same cross-sectional area throughout, so that the washer will not only be light, but owing to the fact that it can be readily annealed or made into a malleable casting will be considerably stronger than the solid casting heretofore used and which required so much more metal in its construction. As a result I find that while the washer constructed in accordance with my invention possesses considerably more strength than the washers heretofore employed they are not liable to break and a greater number of washers per pound may be provided, thus reducing the cost of freight per given number, as well as reducing the weight of the metal on the car or bridge construction.

In the form of washer illustrated in the accompanying drawings, 1 designates a tubular body portion, preferably cylindrical and hav-

ing projecting outwardly from its respective ends web portions 2 and 3, which are connected at their peripheries by spacing-webs 4, arranged in multiple and preferably being semi-cylindrical in cross-section, the flat faces 5 being turned outwardly, while the inclined portions are intumed.

Inasmuch as this washer is particularly designed to be placed between two wooden beams, as shown in Fig. 1, it will be obvious that moisture due to rain, snow, &c., will readily pass off the washer, owing to the curved portions against which it would strike, so that the moisture will not be held in contact with the wood to cause rot, deterioration, &c. Attention is also called to the fact that by providing the walls of the cylindrical body portion 1 and the webs 2 and 3 of the same thickness the washer may be readily annealed, so that the malleable casting resulting from such treatment will possess the maximum amount of strength with a minimum weight.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A malleable washer, comprising a malleable casting, including a tube having parallel webs, one at each end thereof, and integral braces between said webs and spaced away from the tube; substantially as described.

2. A washer, comprising a cylindrical body portion, outwardly-extending webs, one at each end of the body portion, and a plurality of webs disposed around the peripheries of the first-named webs and connecting them; substantially as described.

3. A malleable washer, comprising a central tubular body portion, outwardly-extending webs connected to the body portion, and webs connecting the first-named webs, said connecting-webs being substantially semicircular in cross-section with their flat faces presented toward the peripheries of the first-named webs; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 17th day of November, 1904.

CHARLES G. ETTE.

Witnesses:

EDW. SCHWIDDE,

EDW. P. KYLE.