

No. 719,745.

PATENTED FEB. 3, 1903.

E. CARLTON.
SPINDLE NUT ATTACHMENT.
APPLICATION FILED MAY 27, 1902.

NO MODEL.

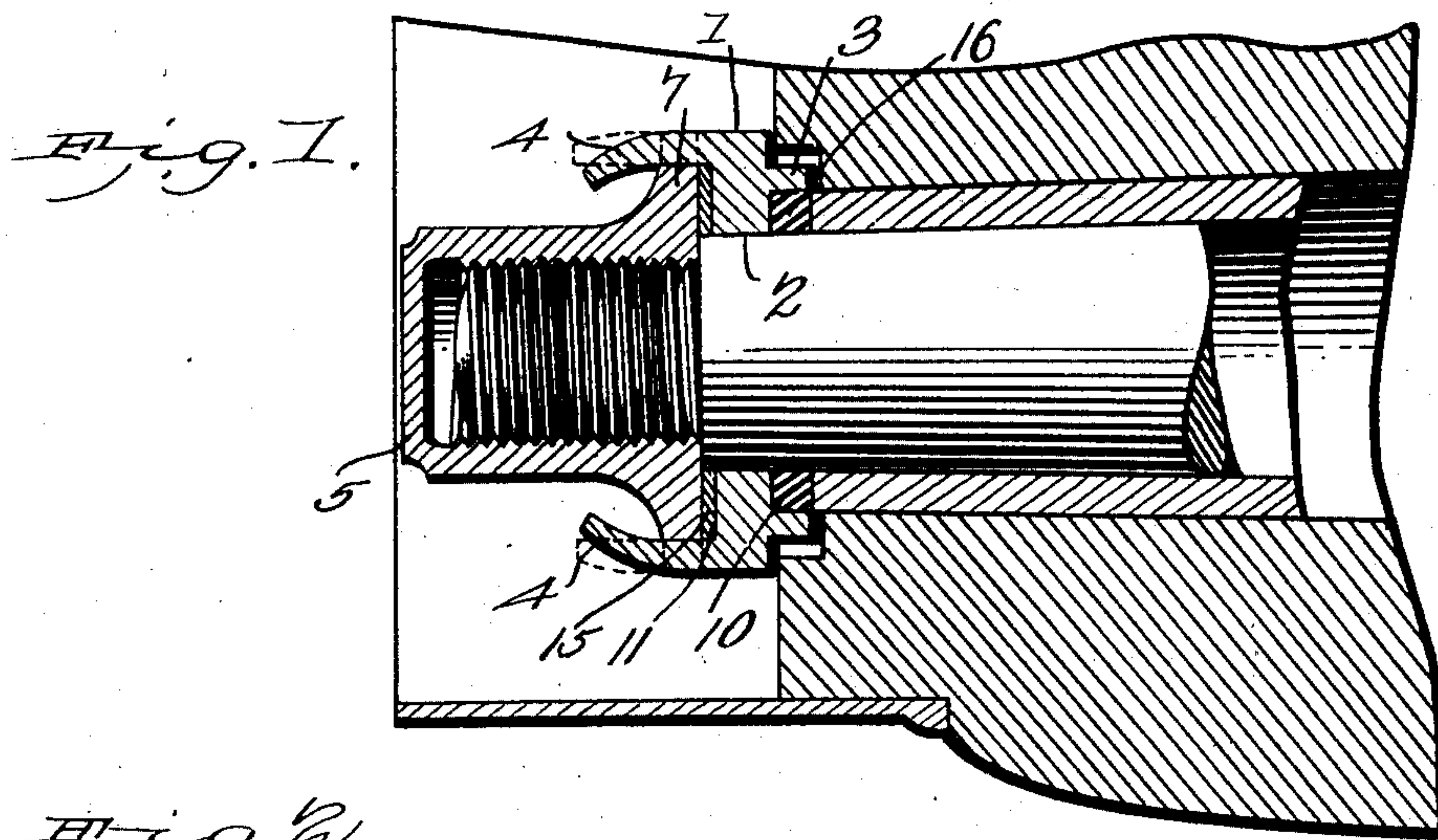


Fig. 2.

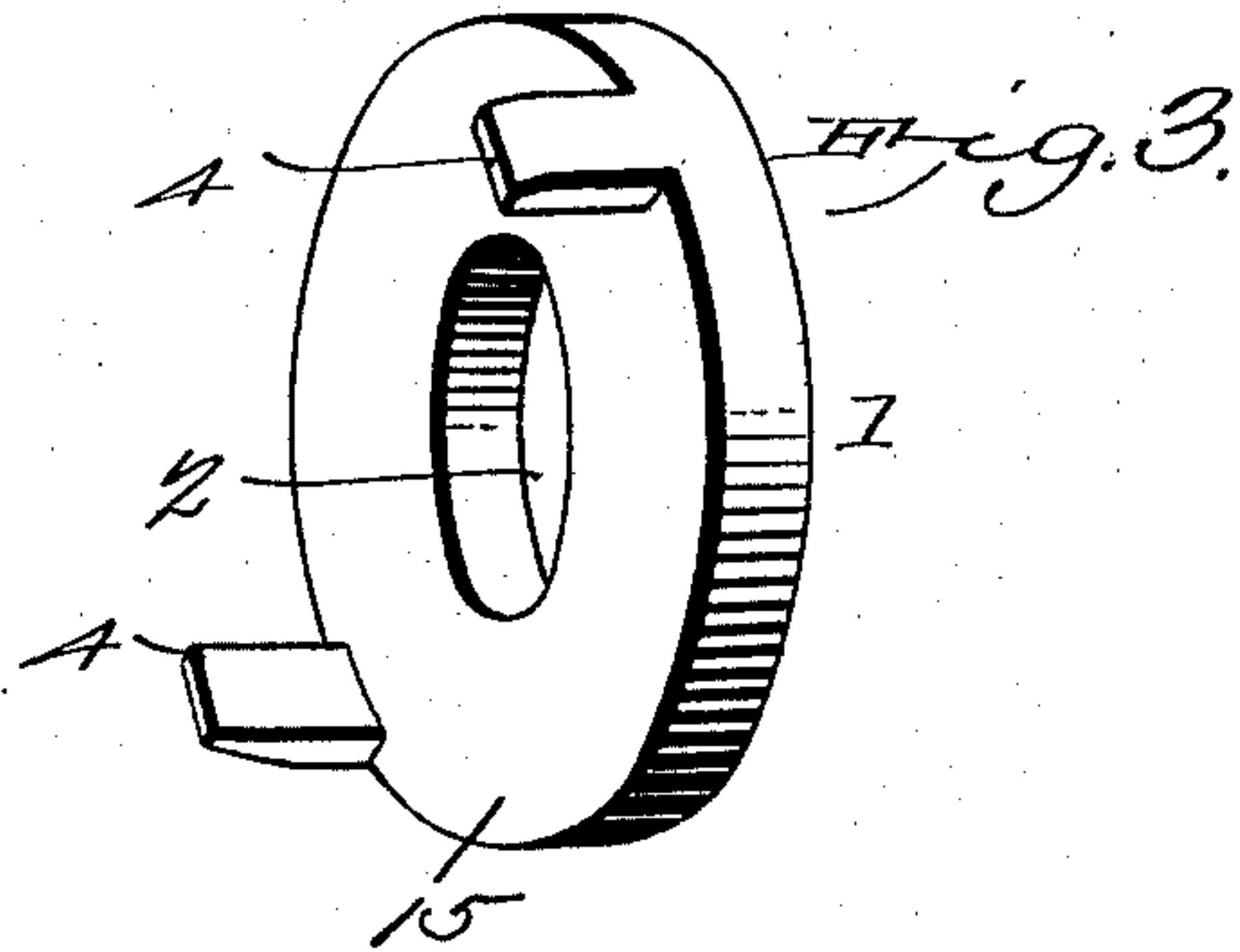
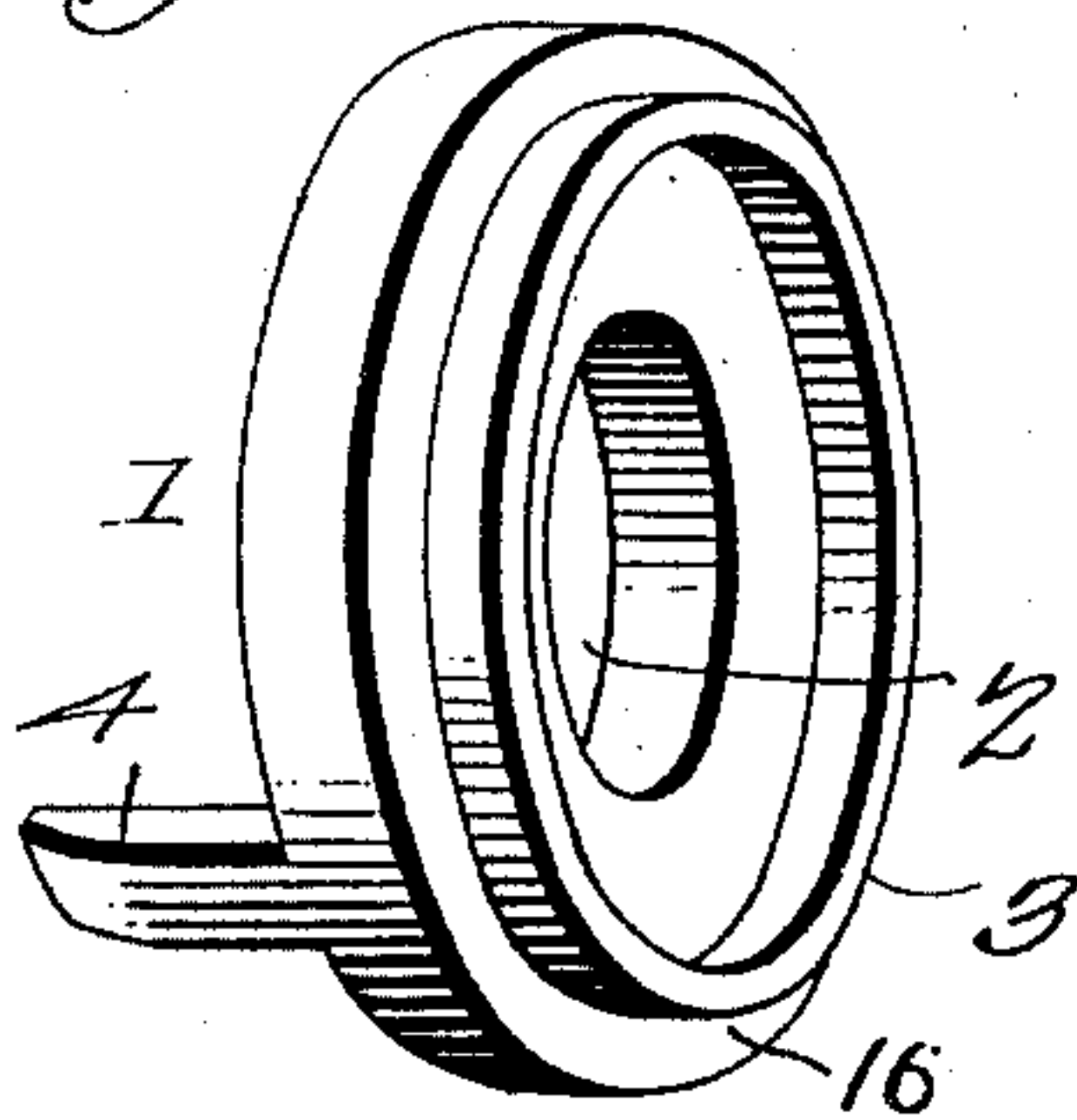
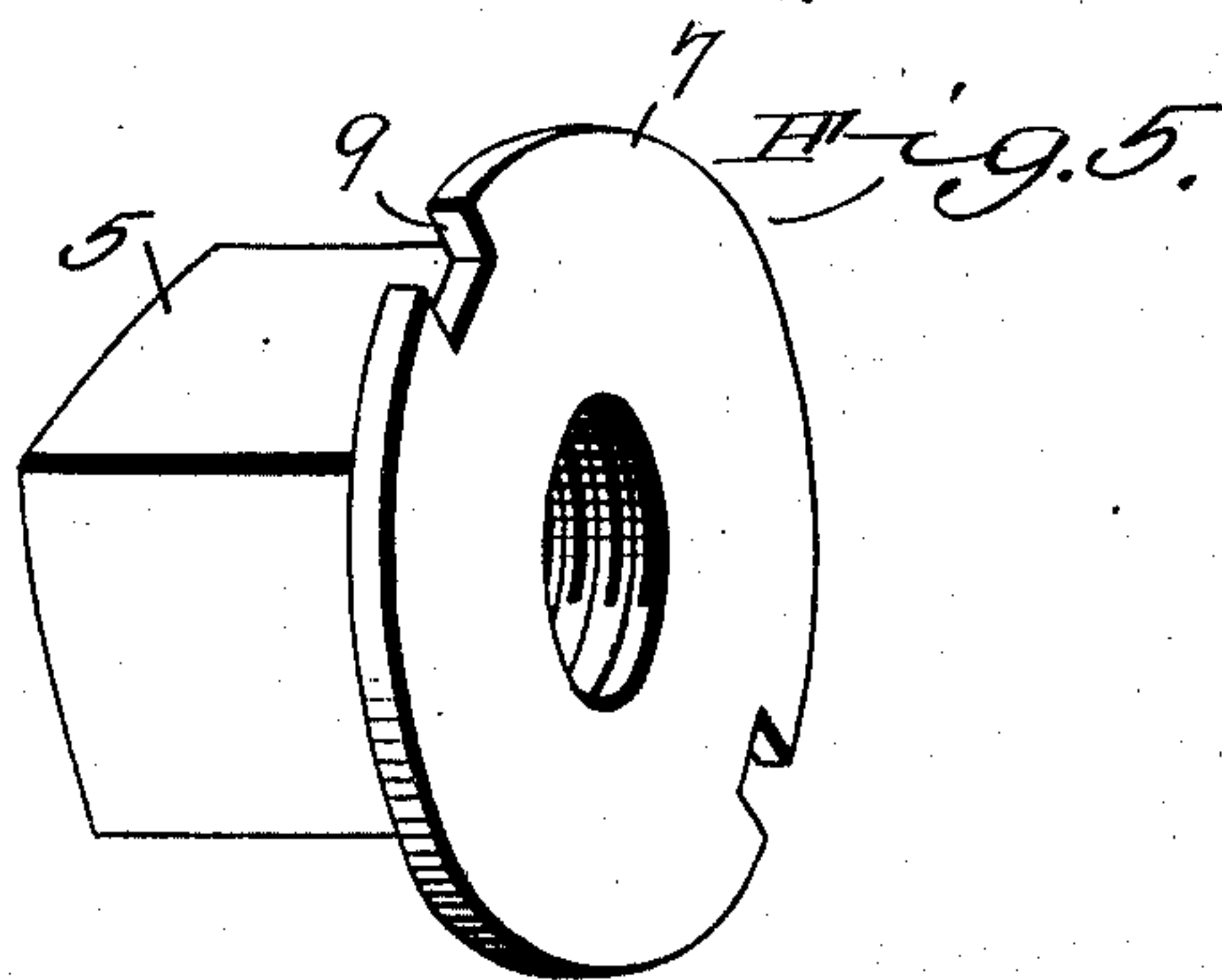
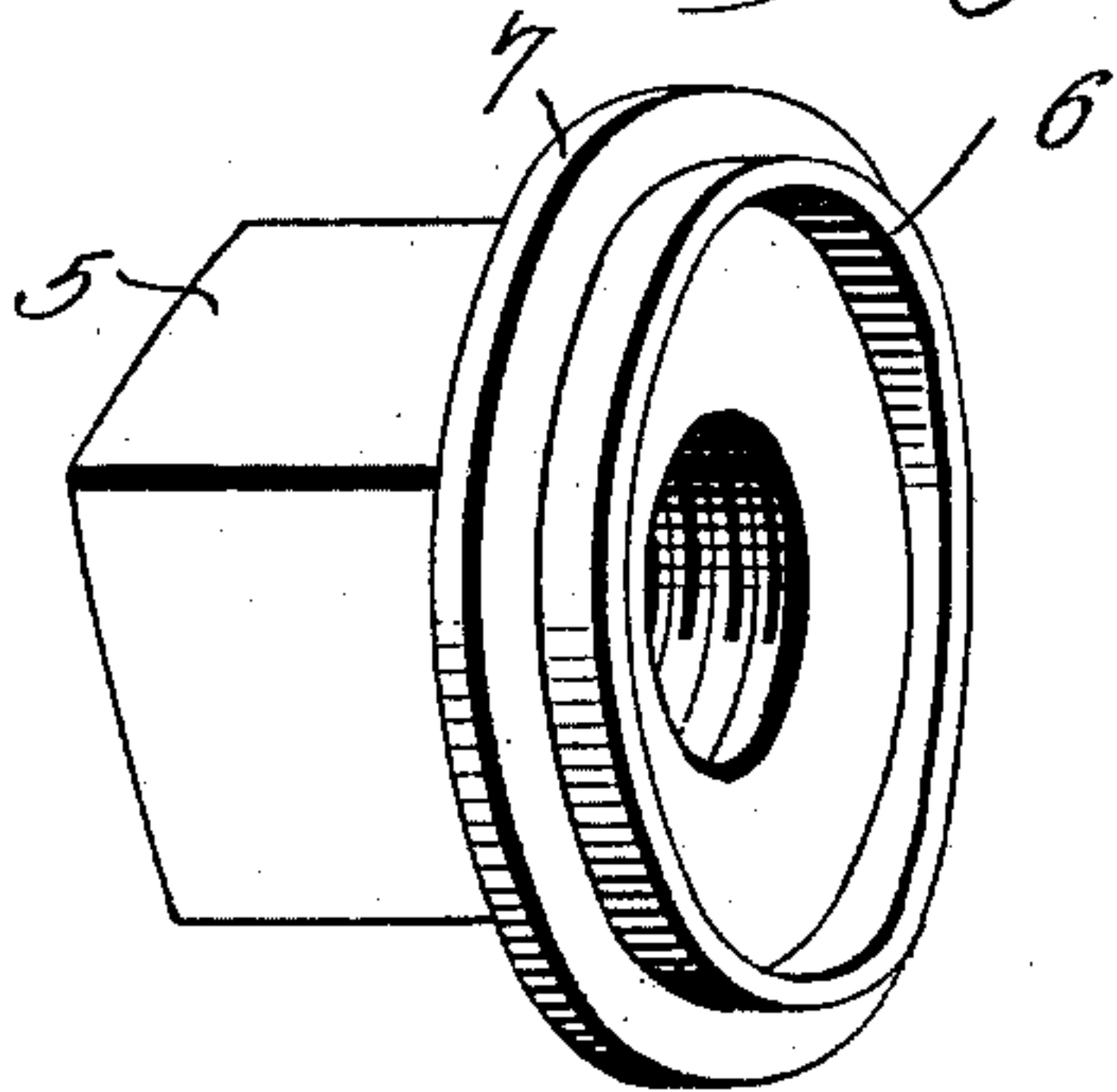


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD CARLTON, OF BRENHAM, TEXAS.

SPINDLE-NUT ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 719,745, dated February 3, 1903.

Application filed May 27, 1902. Serial No. 109,209. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CARLTON, a citizen of the United States, residing at Brenham, in the county of Washington and State of Texas, have invented a new and useful Spindle-Nut Attachment, of which the following is a specification.

This invention relates to an attachment or device to be used in connection with "spindle-nuts," whereby is meant such nuts as are used for securing the axle-boxes upon the spindles of vehicle-axes.

When vehicles have been in use for some time, it is well known that the spindles, as well as the axle-boxes, become worn not only upon their meeting surfaces, but also at their ends. To compensate for such wear, it is customary to introduce washers between the spindle-nut and the outer end of the axle-box, which is thereby forced to a seat upon the spindle. While the parts are comparatively new this remedy will prove efficient; but as the parts become older and more worn and it becomes necessary to introduce additional washers the remedy is not so effective, because such additional washers will very quickly be cut out and rendered useless by the movement of the box upon the spindle. Various means have heretofore been devised for overcoming this objection, and to accomplish this object in a thoroughly efficient and satisfactory manner is the object of my present invention.

My invention may be described as consisting of an extension to the spindle-nut, not being a washer in any sense of the word, but to all intents and purposes an integral part of said nut adapted to extend toward the outer end of the axle-box and to hold the same to its seat upon the spindle as efficiently as when the parts were new. This extension I provide with a rim or seat adapted to receive a washer in like manner as spindle-nuts are usually constructed. It is provided with means for so connecting it with the nut as to turn with the latter when the latter is adjusted upon the threaded end of the spindle, and provision is made for introducing washers between the spindle-nut and its extension, which constitutes my present improvement, so as to com-

pensate for wear, and thereby increase the durability or life of the device.

The invention specifically consists in the construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a sectional view taken longitudinally through the spindle and axle-box and showing the adjacent parts of the hub, as well as the spindle-nut and the extension of the same, which constitute my invention. Fig. 2 is a perspective view showing one side of my improved spindle-nut attachment. Fig. 3 is a perspective view showing the opposite side of the same. Fig. 4 is a perspective view showing a spindle-nut disabled by wear and prior to being prepared to receive my attachment. Fig. 5 is a perspective view showing a spindle-nut prepared to be used in connection with my invention.

Corresponding parts in the several figures are designated by like characters of reference.

My improved spindle-nut attachment may be described as consisting of a disk 1, having parallel sides 15 and 16 and provided with a central perforation 2 of a size corresponding with or slightly larger than the screw-threaded opening in the nut in connection with which it is to be used. Said disk is provided on one side with an annular rim 3, forming a washer-seat. On its opposite side it is provided with a pair of lugs or ears 4 4, located, preferably, diametrically opposite to each other. These lugs should be made quite stout; of a length sufficient to enable the use of washers to compensate for wear as will be hereinafter described.

In Fig. 5 of the drawings I have shown a spindle-nut 5 prepared to receive my improved attachment. This is done by removing the washer seat or flange 6, which has been shown in Fig. 4 of the drawings, from the face of the nut by filing or otherwise. This is necessary because the said washer-seat is almost invariably unevenly worn, as has been indicated in Fig. 4, and it is therefore absolutely necessary to remove or at least to level it in order to insure the perfect operation of my invention in connection with

the nut. The flange 7 of the nut 5 is also provided with opposite notches or recesses 9 9, adapted to receive the lugs or ears 4 4 of my improved attachment.

5 The operation of the invention will be easily understood by reference to Fig. 1 of the drawings. After preparing the nut 5 for its reception, as above described, my improved device is connected therewith by adjusting the
10 lugs or ears 4 4 in the notches 9 9, where by tapping the lugs or ears 4 4 slightly they will be bent toward each other, as shown in Fig. 1, where the dotted lines indicate their original straight position, thus causing them to bind
15 and hold with sufficient security. The nut, with its attachment, is now mounted upon the spindle in the usual manner and screwed up until the face of the attachment or disk 1 or
20 of the disk 1, comes in contact with the end of the axle-box, which by continued tightening of the nut may be forced to its seat until there is no possibility of swaying or rattling.

The body or disk 1 of my improved attachment
25 may be made of sufficient thickness to compensate for wear for quite a long period; but when its face begins to show wear one or more washers, such as 11, may be interposed between the meeting faces of said disk 1 and
30 the nut 5. These washers not being subject to wear may be duplicated or increased in number as long as the lugs or ears 4 4 are long enough to remain in secure engagement with the notches in the flange of the nut.
35 When an additional washer is to be inserted; it is only necessary to bend the ears or lugs slightly apart sufficiently to permit the temporary removal of the disk 1 from the nut. After placing the washer in position the disk is re-
40 turned and the lugs or ears 4 4 tapped to restore them to the binding position. (Illustrated in Fig. 1 of the drawings.)

As will be seen from the foregoing description, my improved attachment is not a washer
45 in any sense of the word. On the contrary, it forms practically an extension to the nut, whereby the life of the latter, as well as of the parts connected or held thereby, may be increased to the utmost limit. The construc-

tion is simple in the extreme, and the attachment may be produced and applied at a trifling expense.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A spindle-nut attachment consisting of a disk provided on one side with an annular rim or flange forming a washer-seat and on the other side with ears or lugs extending longitudinally and of sufficient length to receive between them a plurality of washers and to be bent toward each other, substantially as set forth.

2. A spindle-nut attachment consisting of a disk having flat parallel sides and provided on one side with an annular rim or flange forming a washer-seat and on its opposite side with longitudinally-extending lugs or ears, said disk being centrally perforated, substantially as set forth.

3. A spindle-nut attachment consisting of a centrally-perforated disk provided on one side with an annular rim or flange forming a washer-seat and on its opposite side with longitudinally-extending ears or lugs, in combination with a spindle-nut having its flange provided with notches to receive said ears or lugs, substantially as set forth.

4. The combination with a spindle-nut having notches formed in the flange thereof, of the herein-described improved extension attachment consisting of a disk having a washer-seat on one side thereof and provided on its opposite side with ears or lugs having a sliding connection with the notches in the flange of the nut, whereby washers may be interposed between said nut and extension attachment to compensate for wear, and the lugs or ears being bent toward each other to secure the attachment in position upon the nut, substantially as set forth.

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

ED. CARLTON.

Witnesses:

W. H. C. MEYER,
T. F. MATCHETT.