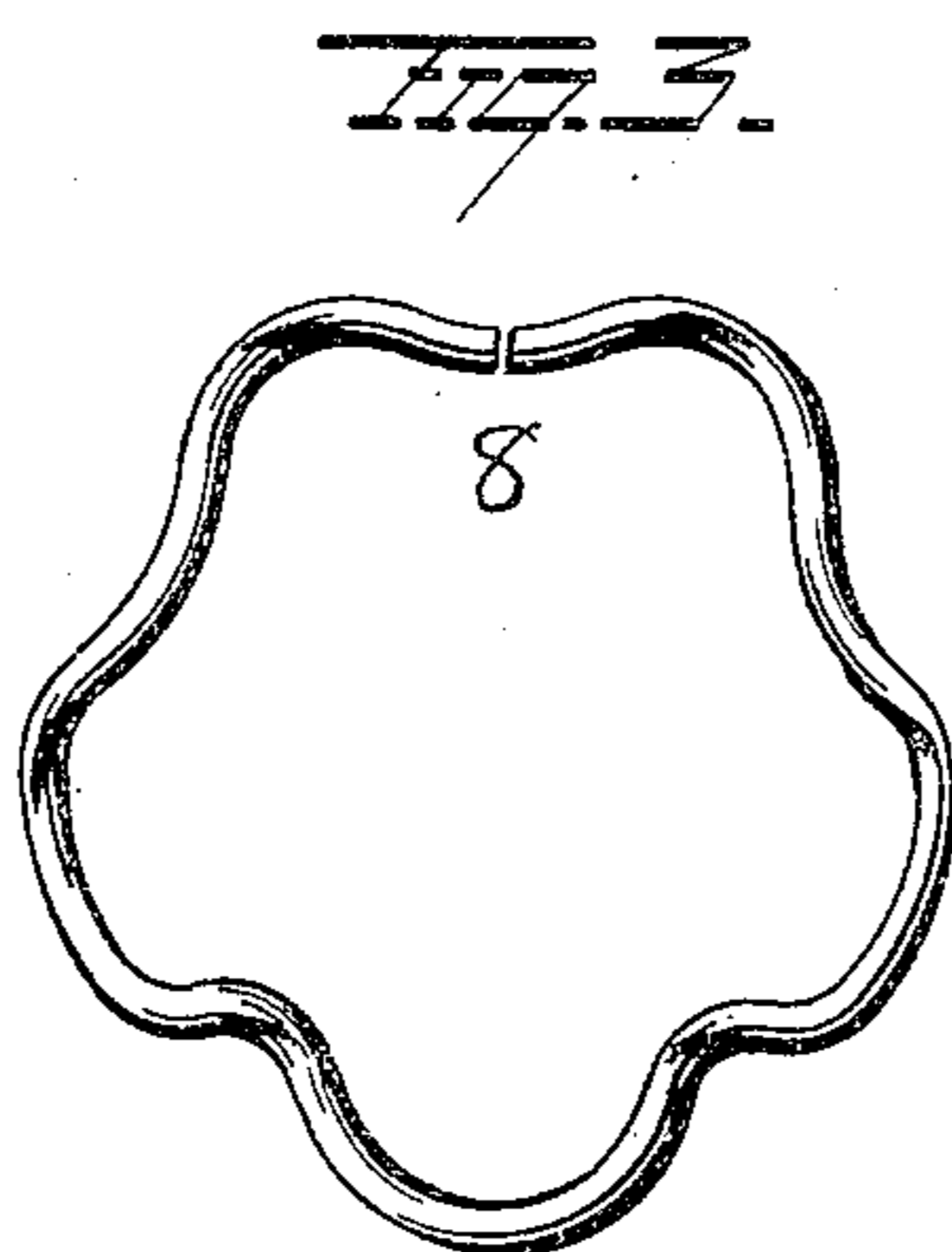
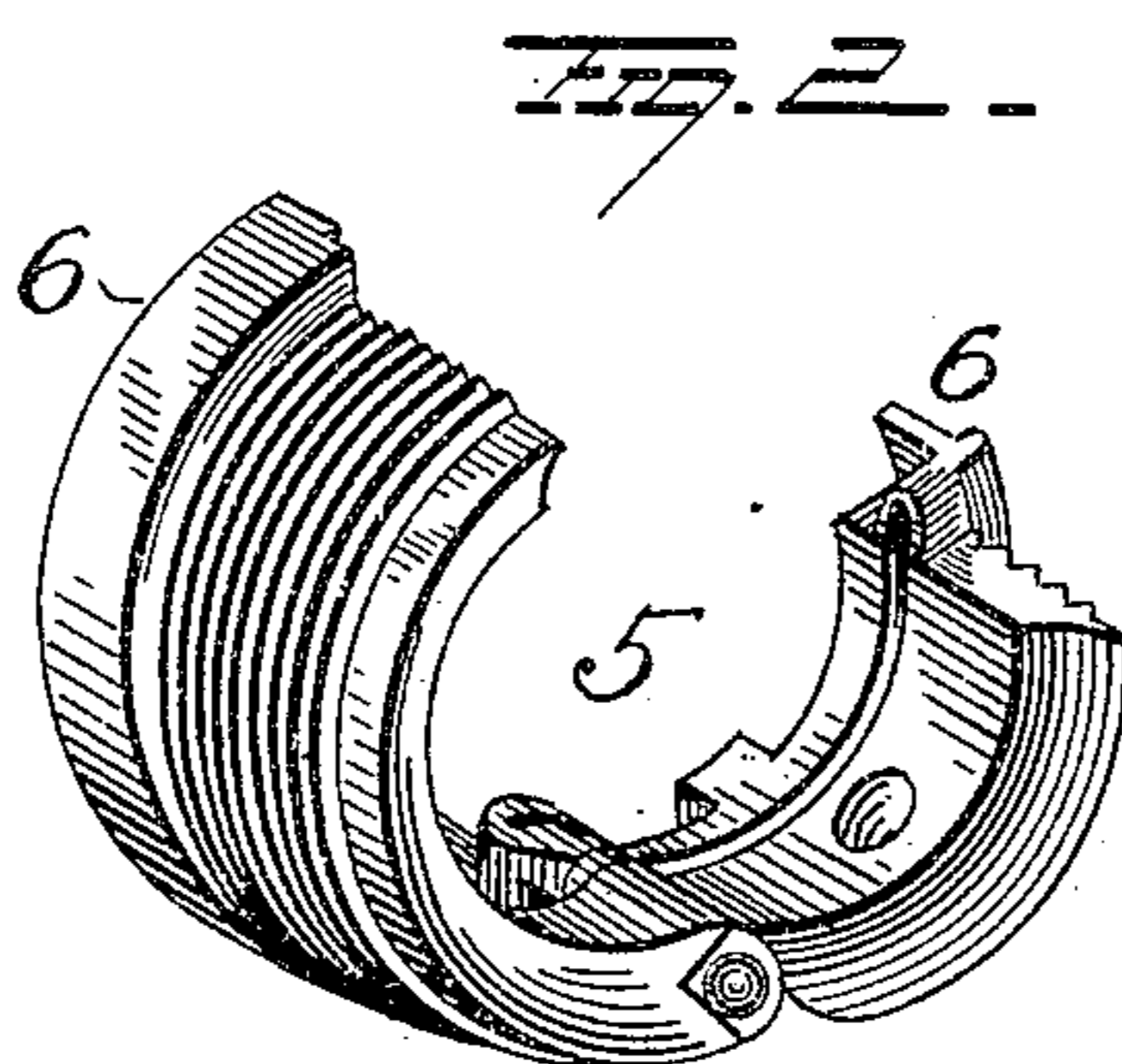
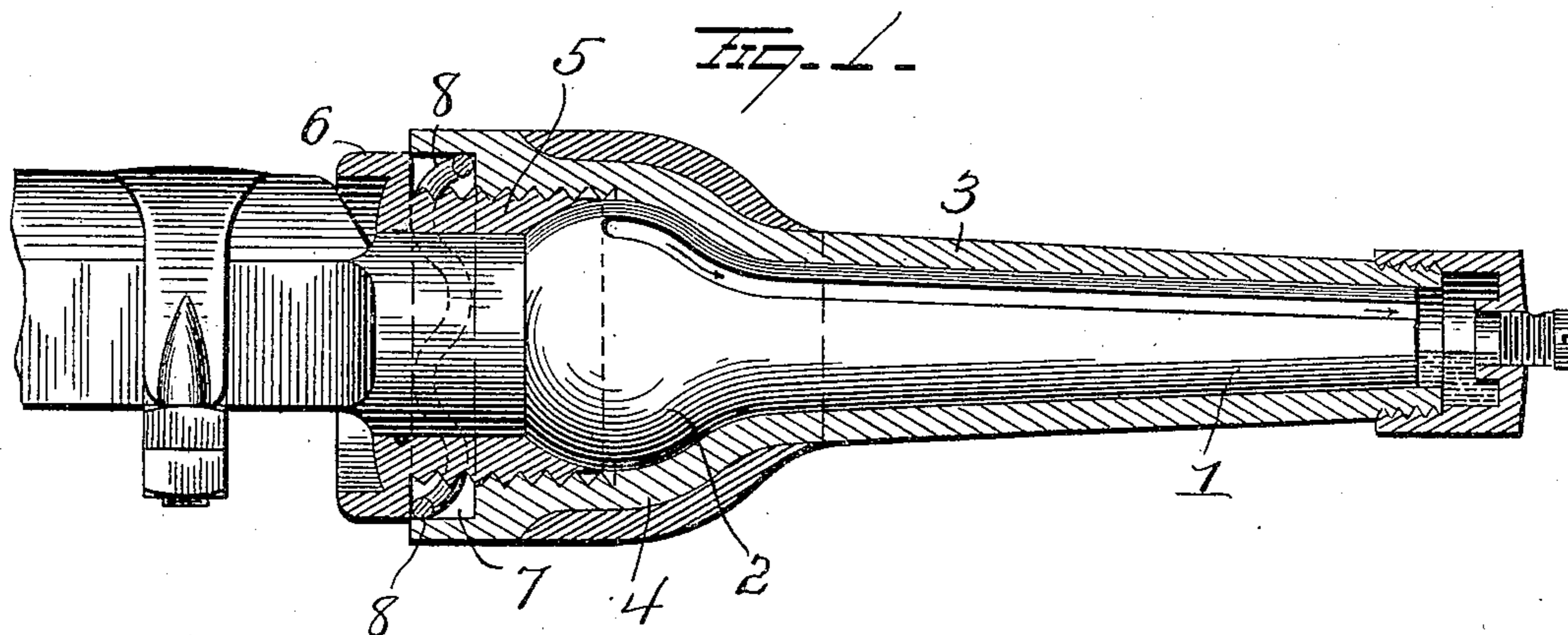


No. 801,429.

PATENTED OCT. 10, 1905.

A. H. WORREST.
HUB ATTACHING DEVICE.
APPLICATION FILED NOV. 1, 1904.



WITNESSES
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ALFRED HARVEY WORREST, OF LANCASTER, PENNSYLVANIA.

HUB-ATTACHING DEVICE.

No. 801,429.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed November 1, 1904. Serial No. 230,985.

To all whom it may concern:

Be it known that I, ALFRED HARVEY WORREST, a resident of Lancaster, in the county of Lancaster and State of Pennsylvania, have
5 invented certain new and useful Improvements in Hub-Attaching Devices; and I 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
10 it appertains to make and use the same.

My invention relates to an improved hub-attaching device, the object of the invention being to provide an improved construction of butt-ring and improved mechanism acting as
15 a nut-lock to firmly secure the same at any adjustment; and the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed
20 out in the claims.

In the accompanying drawings, Figure 1 is a view showing the axle in elevation and the box, butt-ring, and locking device in section. Fig. 2 is a view of the butt-ring removed, and
25 Fig. 3 is a view of the locking-ring.

1 represents an axle provided with a ball or spherical enlargement 2, and 3 is the hub-box, fitting the axle and mounted to turn thereon. The inner end of the box 3 is enlarged to receive ball 2 and fit one side or half thereof,
30 and the enlarged end portion 4 of the box which extends out beyond ball 2 is internally screw-threaded to receive external screw-threads on my improved butt-ring 5. Butt-
35 ring 5 is made in two half-sections hinged together to enable its being readily placed around axle 1 or removed therefrom, and an annular shoulder or enlargement 6 is provided around the rear end of ring 5, and the
40 inner end of box 3 is made with an annular recess or pocket 7 to receive and house a nut-locking ring 8, which will be more fully hereinafter described. The inner end of butt-ring 5 is shaped to fit against the ball 2 on axle 1
45 and can be adjusted to take up wear and insure a perfect running-box on the axle, and the locking-ring 8 is to effectually secure this butt-ring 5 at any adjustment and against possibility of accidental movement.

50 The locking-ring 8 shown consists of a spring-wire having corrugations or scalloped in circular arrangement to form a series of

spring bearing faces or points, bearing against the wall of recess or pocket 7 and the annular shoulder 6 of ring 5 and capable of compression to bind the screw-threads of butt-
55 ring 5 against those of box 3 and effectually lock the butt-ring at any adjustment.

While I describe and illustrate a locking-ring 8 of a particular form, I wish it distinctly understood that I do not restrict myself thereto, but wish to cover any compressible device or devices of any material and form which may be inserted between the butt-ring
60 shoulder and box recess and act to bind the ring and prevent its accidental displacement. In other words, I wish to cover broadly any locking means for this butt-ring, whether such means be located between the butt-ring and box or back of the ring, and do not
65 restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. The combination with an axle having a spherical enlargement, of an axle-box enlarged at one end and having a bearing against said
80 spherical enlargement, a butt-ring screwed into the enlarged end of the box and bearing against said spherical enlargement, an annular flange projecting from the rear end of said box and forming a chamber around the butt-
85 ring, a shoulder on the butt-ring closing said chamber, and a spring located in said chamber, and bearing against said shoulder and box.

2. The combination with an axle having a spherical enlargement and an axle-box having a bearing against said spherical enlargement, of a divided butt-ring comprising two sections hinged together and screwed into the axle-
90 box, said ring having a bearing against the spherical enlargement on the axle, and a spring interposed between the butt-ring and axle-box and tending to press these parts in opposite directions.

3. The combination with an axle having a spherical enlargement, and an axle-box having a bearing against said enlargement, said box having an annular flange at its rear end forming an annular chamber, of a butt-ring screwed
100

into said box and forming the inner wall of
said annular chamber, a shoulder on the butt-
ring closing said annular chamber, and a cor-
rugated spring-ring inclosed within said an-
5 nular chamber and bearing against the shoul-
der on the butt-ring and against the axle-box.

In testimony whereof I have signed this

specification in the presence of two subscrib-
ing witnesses.

ALFRED HARVEY WORREST.

Witnesses:

CHRISTIAN GEORGE BASSLER,
GEORGE ARMENT LANE.