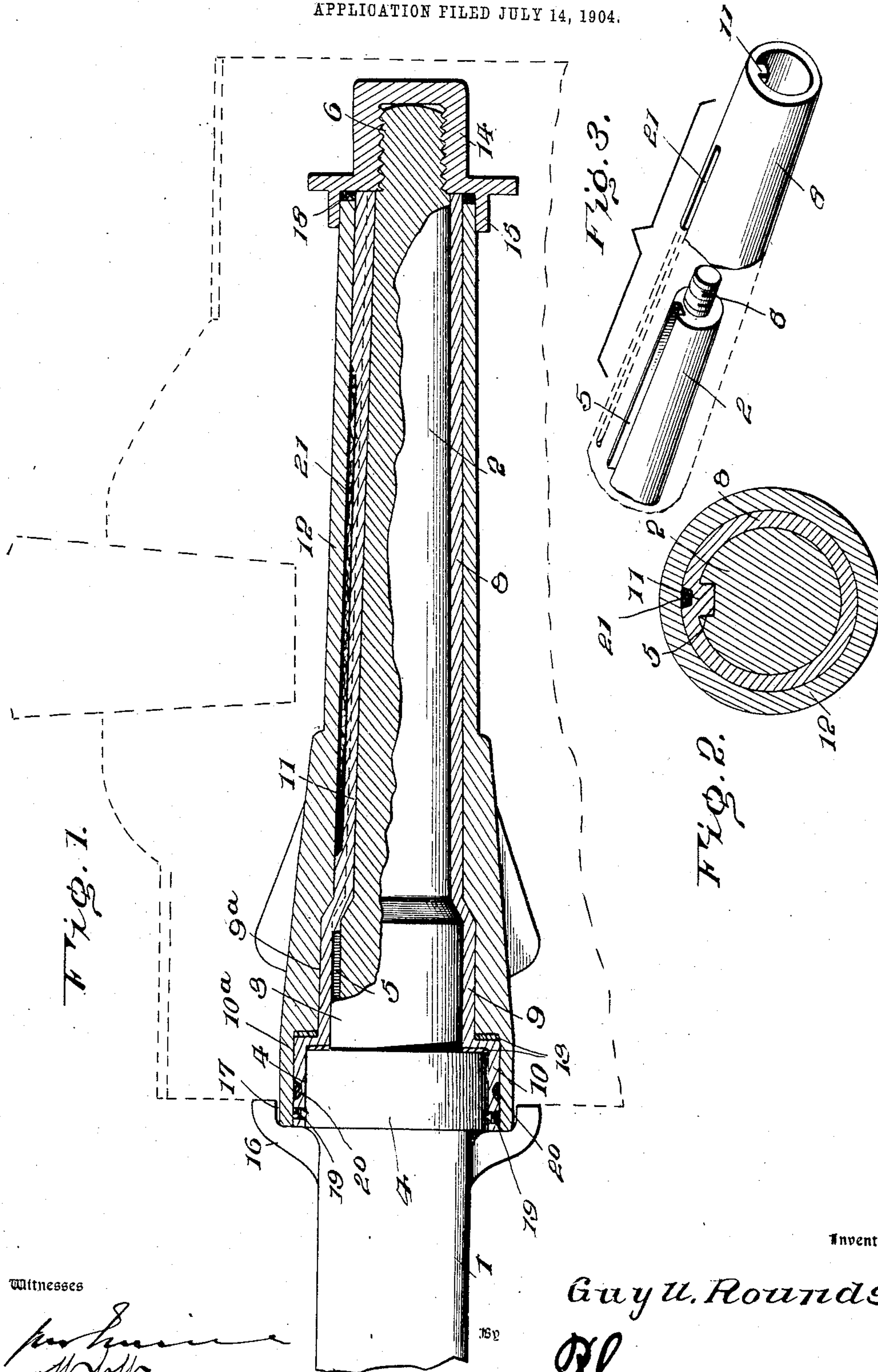


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PATENTED MAR. 28, 1905.

G. U. ROUNDS.
AXLE SKEIN.
APPLICATION FILED JULY 14, 1904.



Witnesses

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AXLE-SKEIN.

SPECIFICATION forming part of Letters Patent No. 786,159, dated March 28, 1905.

Application filed July 14, 1904. Serial No. 216,629.

To all whom it may concern:

Be it known that I, GUY U. ROUNDS, a citizen of the United States, residing at Maryville, in the county of Nodaway and State of Missouri, have invented certain new and useful Improvements in Axle-Skeins, of which the following is a specification.

This invention relates to a novel construction of hub-attaching device; and, specifically speaking, the same consists, essentially, of a special form of axle-skein adapted to be mounted upon an axle-spindle and designed to receive the wear which would otherwise be borne by the said spindle, being so mounted as to be readily disposed in proper position or removed from the axle whenever worn out or for any other cause.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical sectional view showing the embodiment of the invention in actual use. Fig. 2 is a vertical transverse sectional view. Fig. 3 is a perspective view, the end portion of the spindle being broken away, the skein being shown partially in full and dotted lines.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings the numeral 1 designates an axle, which may be of any ordinary type now in common use, the spindle of the axle being indicated by the numeral 2. The axle-spindle is shouldered annularly adjacent its inner end, as shown at 3; and an annular collar 4 is also provided at the inner extremity of the spindle 2. The spindle 2 is provided longitudinally thereof with a groove 5, which extends from the collar 4 thereof through the outer end, terminating at a point adjacent the

threaded portion 6 of said spindle. The axle-skein 8 is adapted to be received upon the spindle 2, and the bore of the said skein is of a form corresponding somewhat to the form of the spindle 2 for obvious reasons. The skein 8 is enlarged adjacent its inner end, as shown at 9, so as to receive the shoulder 3 of the spindle 2, and a second annular enlargement 10 is provided at the inner extremity of said skein, the latter receiving the collar 4 of the spindle when the skein is in position thereon. In order to prevent revolution of the skein 8, the same is provided with a longitudinal rib 11 in the bore thereof, and this rib 11 extends the length of the enlargement 9 and the body of the skein. The rib 11 is designed to be received by the longitudinal groove 5 of the spindle, so as to effect an interlocking connection between the skein and spindle for the purpose above premised upon. The axle-box 12 in general form is substantially the same as those in ordinary use, and the bore of this box is annularly enlarged at its inner end, as shown at 10^a, to receive the enlargement 10 of the skein. The bore of the axle-box 12 is also enlarged at 9^a, so as to receive the enlarged portion 9 of the skein. Suitable washers 13 may be interposed between the shouldered portions of the skein and axle-box. The threaded end 6 of the spindle is designed to receive an ordinary axle-nut 14, the latter being provided with an annulus 15, which receives the outer ends of the skein and annular box, preventing entrance of dirt or other foreign matter at this point. The axle 1 is provided with an annular flange 16, having its outer side provided with a groove 17, and this flange 16 receives the inner ends of the enlarged portions 10 and 10^a of the skein 8 and axle-box 12, respectively. The flange 16 serves in the capacity of a dust-guard, for purposes which will be readily comprehended.

As clearly shown in Fig. 1, a washer 18 is interposed between the outer end of the axle-box 12 and the nut 14. In order to prevent accidental displacement of the skein 8 from the spindle, set-screws 19 are employed, and these screws pass through openings in the annular enlargement 10 of the skein, so as to

engage the collar 4 upon the spindle. The heads of the screws 19 are flush with the skein 8, so that the inner end of the axle-box can readily project into the groove 17 of the 5 flange 16, and thus prevent accidental displacement of said screws. The annular groove 20 is provided upon the enlargement 10 of the skein in its outer peripheral portion, and this groove receives any dirt or foreign matter 10 which passes between the inner ends of the axle box and the skein. The dust or foreign matter will lodge in the groove 20, and is thus prevented from interfering with the revolution of the axle-box upon the skein. The skein 15 8 is also provided with a longitudinal groove 21, and this groove is formed upon the outer side thereof just above the rib 5, which projects from the bore of the skein. The groove 21 is designed to receive a suitable lubricant, 20 and waste wick material may be disposed in said groove so as to continuously feed the lubricant during the revolution of the axle-box 12. The groove 21 terminates adjacent the end portions of the skein, so as to prevent 25 displacement of the lubricant.

Having thus described the invention, what is claimed as new is—

In combination with an axle, a spindle provided at its inner end with a collar, an annu- 30 lar flange projected from the axle adjacent

the collar and provided upon its outer side with an annular groove, the spindle being provided with a groove longitudinally thereof, a skein disposed upon the spindle and provided at its inner end with an enlargement 35 conforming to the shape of the collar and having an annular groove surrounding said enlargement aforesaid, set-screws threaded into the inner end of the skein and engaging the collar of the spindle, a longitudinal rib pro- 40 jecting from the skein in the bore thereof and received by the groove in the spindle, the skein being provided with a longitudinal groove upon its outer side just above the rib in the bore thereof, said groove terminating 45 adjacent the ends of the skein, absorbent material disposed in the longitudinal groove of the skein, an axle-box disposed upon the skein, the groove of the annular flange projected from the axle receiving the inner ends of the 50 axle-box and skein, the inner end of the axle-box extending over the said screws securing the skein, and a nut threaded upon the outer end of the spindle.

In testimony whereof I affix my signature in 55 presence of two witnesses.

GUY U. ROUNDS. [L. s.]

Witnesses:

ARTHUR A. LEET,
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