

No. 702,865.

Patented June 17, 1902.

D. W. BENDER.
SET SCREW GUARD.

(Application filed Dec. 27, 1901.)

(No Model.)

Fig. 1.

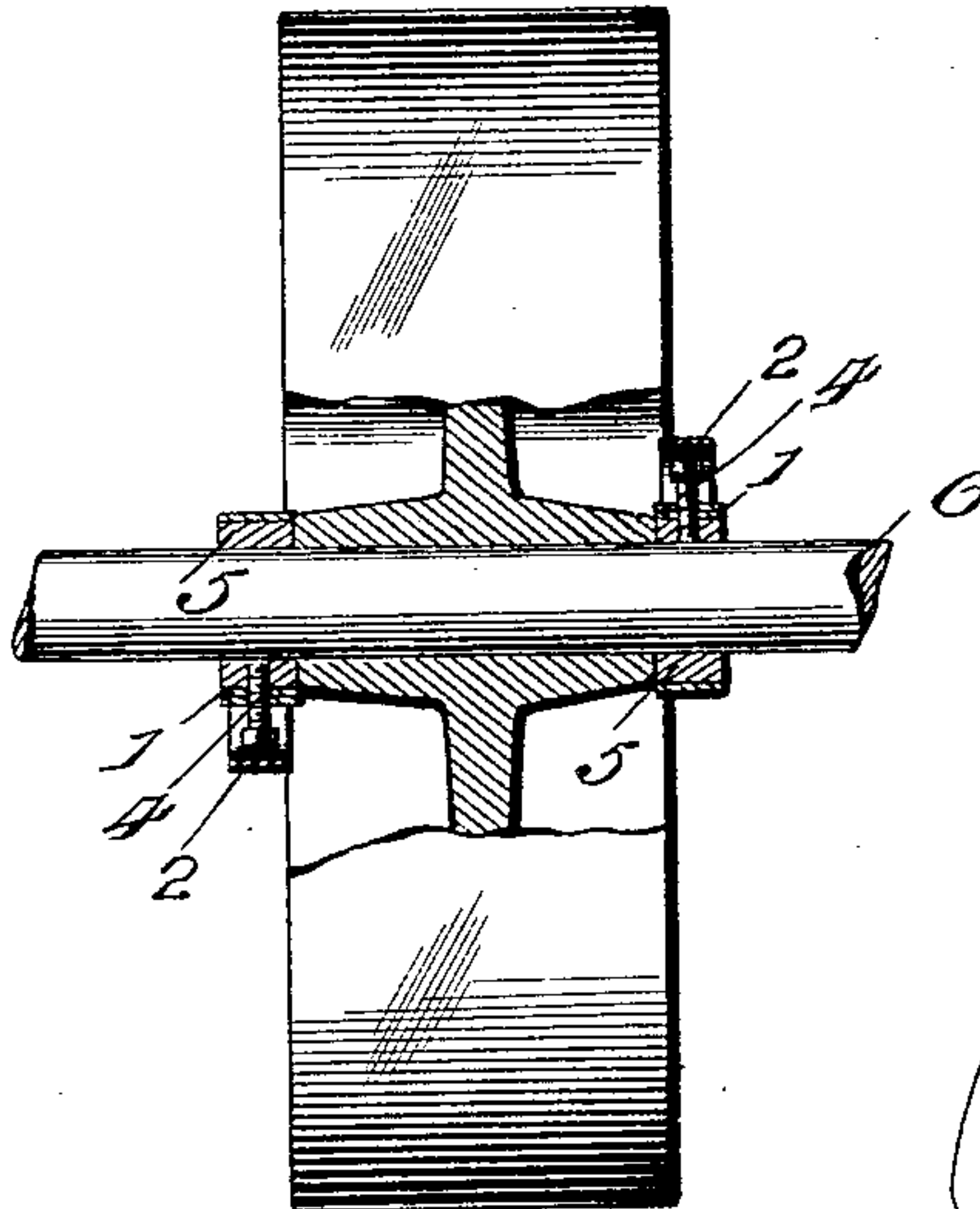


Fig. 5.

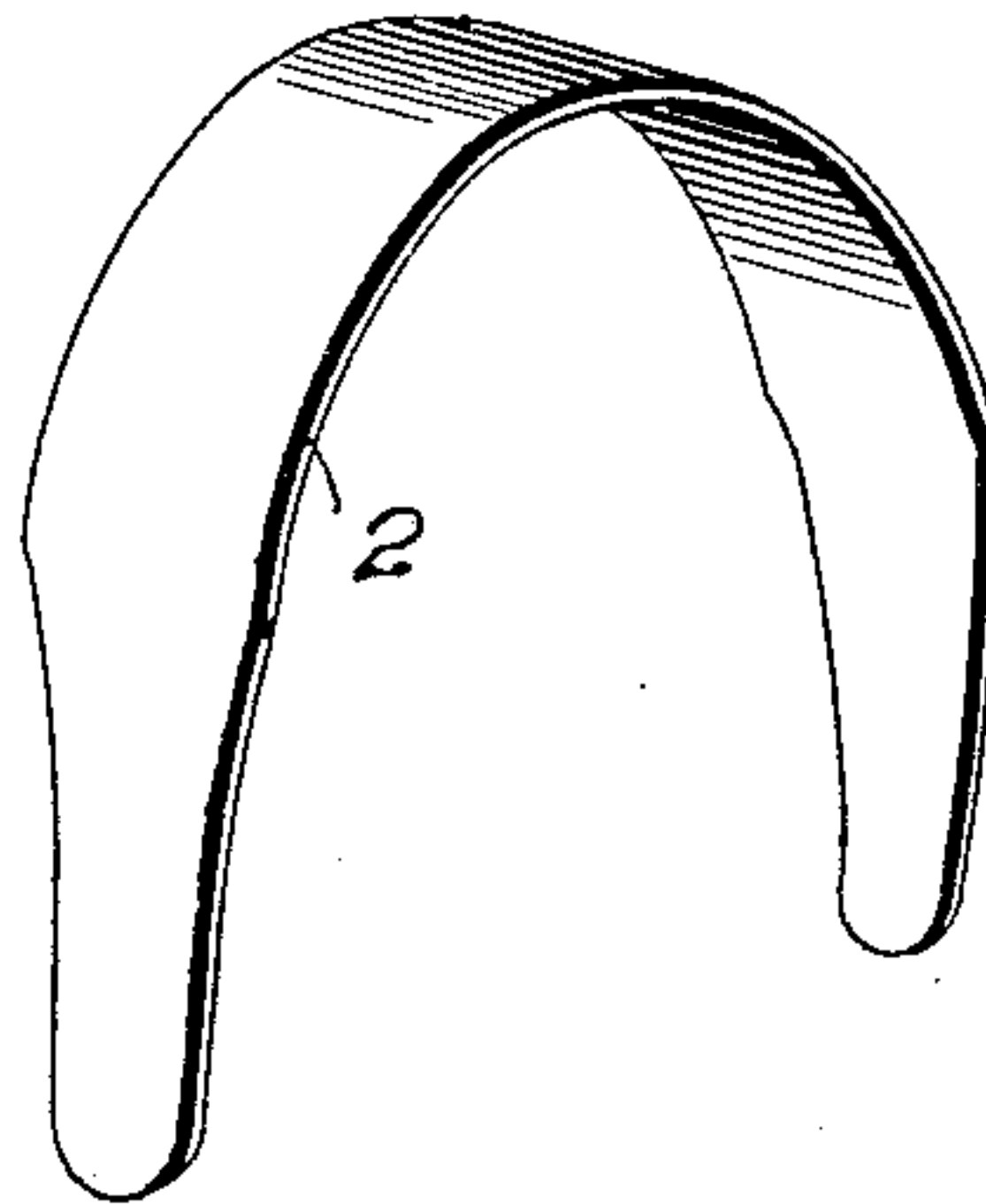


Fig. 4.

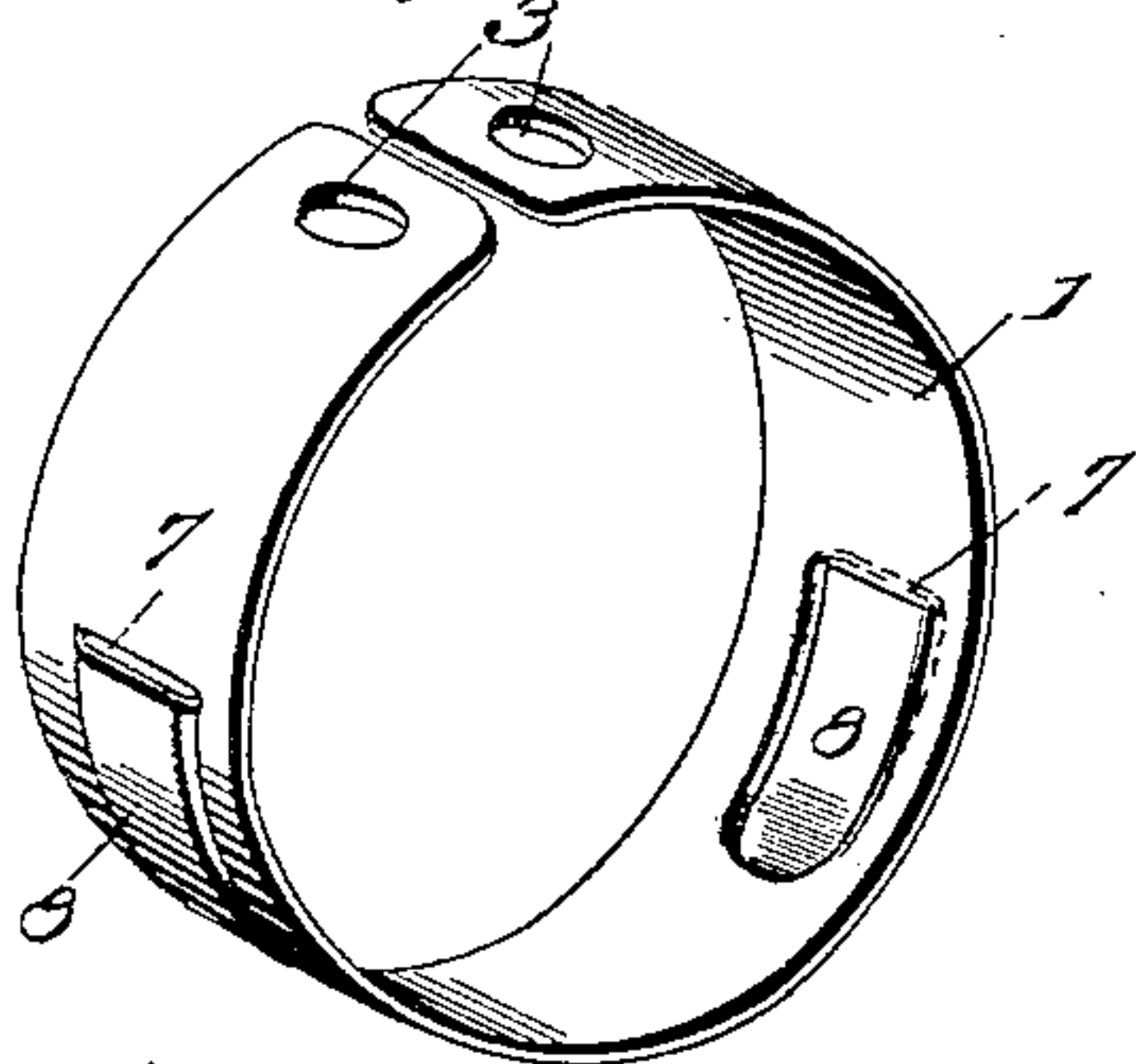


Fig. 3.

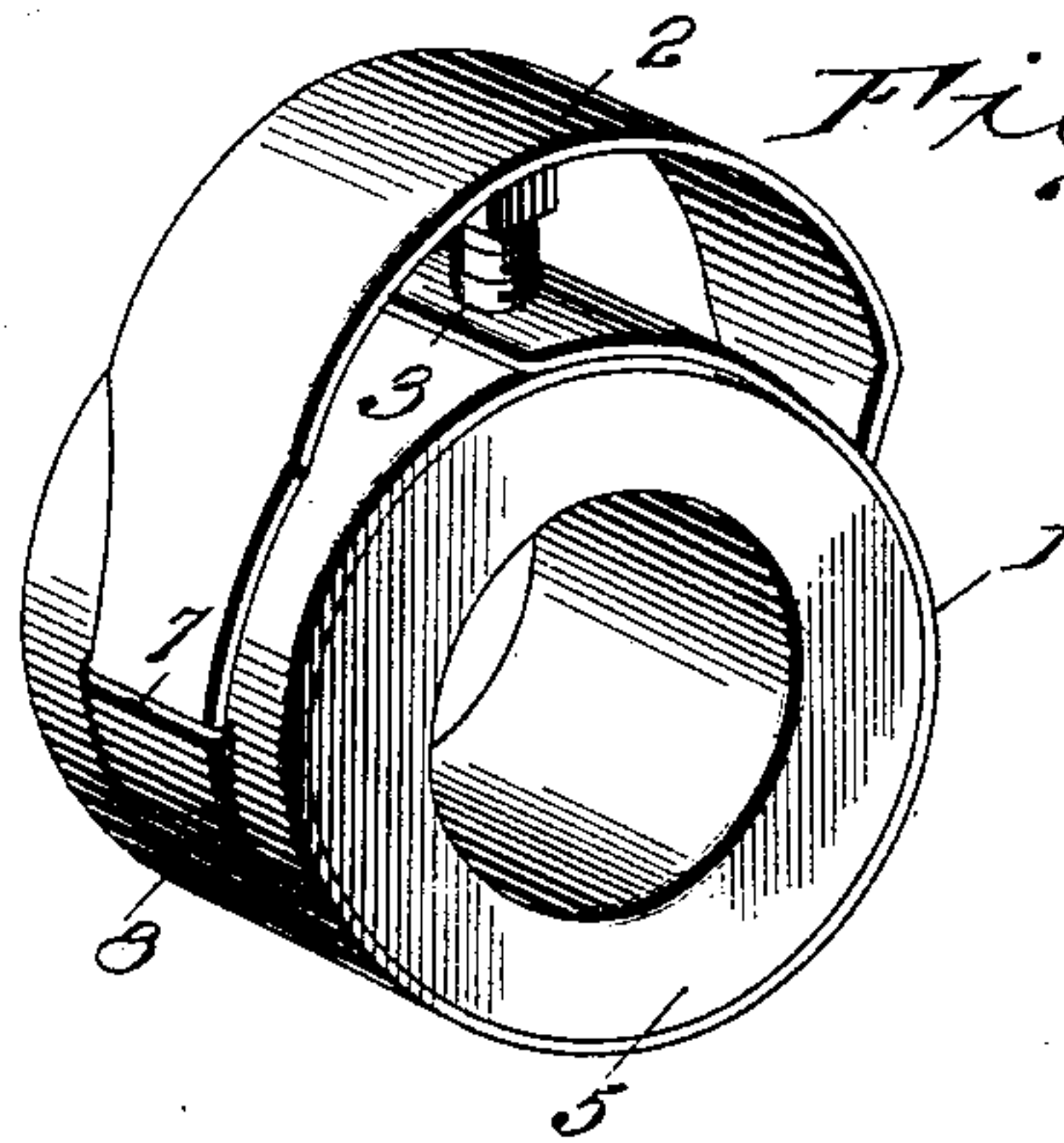
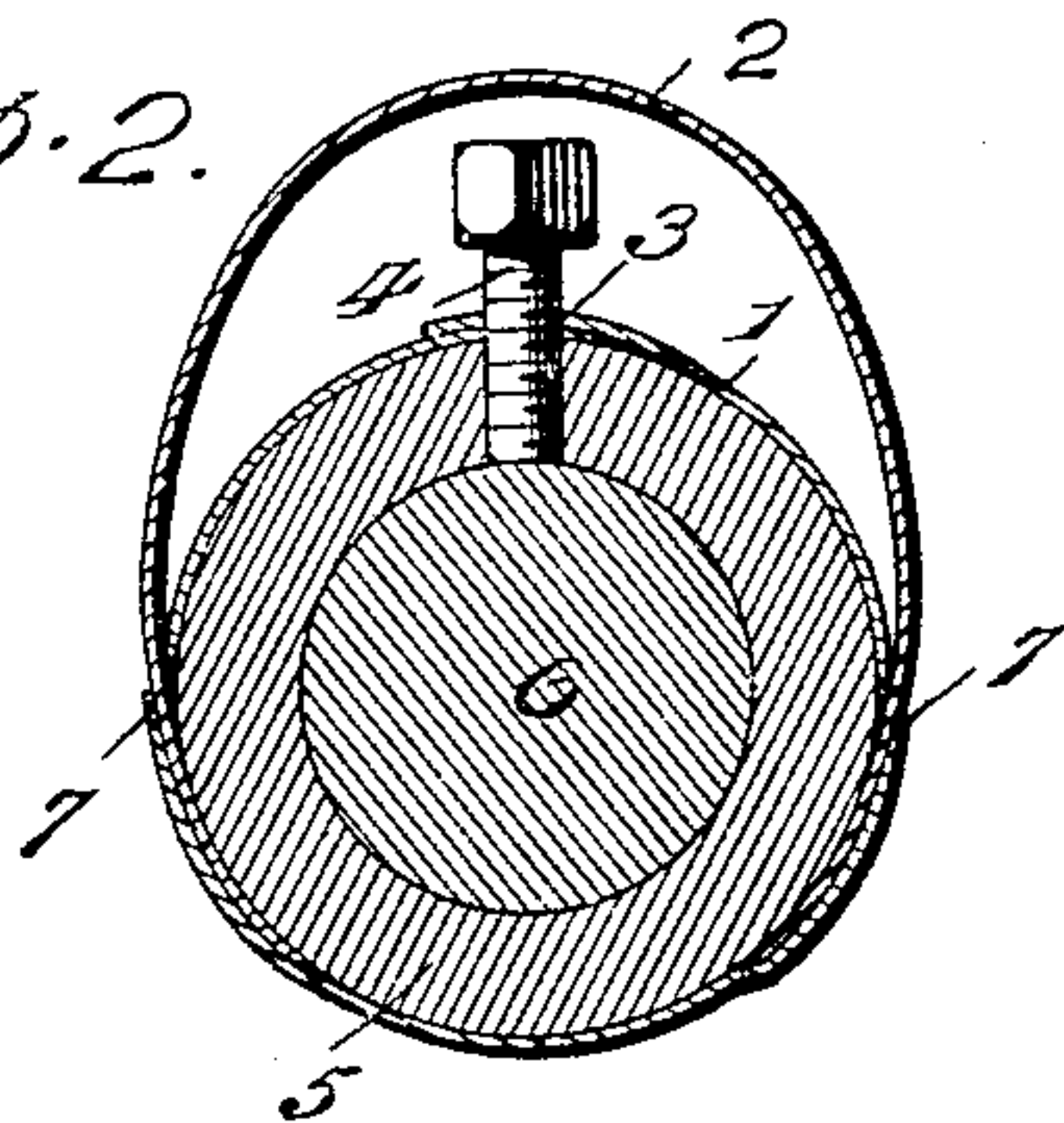


Fig. 2.



Inventor

Daniel W. Bender.

Witnesses

Jno. Robt.
J. B. Keefe

By

R. H. Racy

Attorneys.

UNITED STATES PATENT OFFICE.

DANIEL W. BENDER, OF BLUFFTON, INDIANA, ASSIGNOR OF ONE-HALF TO
LEWIS L. DE HAVEN, OF BLUFFTON, INDIANA.

SET-SCREW GUARD.

SPECIFICATION forming part of Letters Patent No. 702,865, dated June 17, 1902.

Application filed December 27, 1901. Serial No. 87,420. (No model.)

To all whom it may concern:

Be it known that I, DANIEL W. BENDER, a citizen of the United States, residing at Bluffton, in the county of Wells and State of Indiana, have invented certain new and useful Improvements in Set-Screw Guards; 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 it appertains to make and use the same.

It is common in machinery of various kinds to secure parts to shafts, axles, and like rotating elements by means of set-screws, pins, and like fastenings which project at one end and not infrequently cause serious accidents by catching the clothing or part of the person.

This invention provides a guard readily applicable to any hub, collar, sleeve, or analogous part for protection of the head of the set-screw or like fastening.

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 drawings hereto attached.


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 view showing the invention applied to set-collars holding a loose pulley in place upon a line-shaft. Fig. 2 is a cross-section of a line-shaft, set-collar, and guard for the set-screw or fastening. Fig. 3 is a perspective view of the parts shown in Fig. 2. Fig. 4 is a detail view in perspective of the band. Fig. 5 is a perspective view of the guard.

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.

The invention comprises, essentially, two parts—a band 1 and a guard 2, the band being fitted to the part provided with the set-screw or fastening to be shielded. The band may be of any form, dependent upon its particular use, and for line-shafting it is split, so as to be sprung therearound when placing it in po-

sition or removing it from the part to be protected. Openings 3 are provided near the ends of the split or separation and are adapted to receive the set-screw 4 or other fastening, by means of which the part 5 is secured in place upon the shaft, axle, or like part 6. The end portions of the band are overlapped, so as to bring the openings 3 in coincident relation for the passage therethrough of the fastening 4, by means of which the said band is held in place. Transverse slots or fastenings 7 are formed in the band at opposite points and communicate with depressions 8 in the inner sides of said band, forming pockets into which the end portions of the guard 2 are fitted. These pockets 8 may be provided in any selected way and constitute keepers to hold the guard 2 in place after being properly positioned.

The guard 2 is approximately of  form and is adapted to extend over the head or projecting end of the set-screw or fastening 4 and have its end portions fitted in the pockets or keepers 8, whereby the said guard is held in place. The guard 2 is preferably formed of spring metal, although any material may be utilized in its construction. The pockets or keepers 8 are situated upon opposite sides of the fastening 4 and receive the end portions of the guard 2 when the latter is in place.

As shown in Fig. 1, the part 6 is a line-shaft, the element 7 a loose pulley, and the parts 5 set-collars secured to the shaft 6 for holding the pulley in place. Obviously the part 6 may be a spindle, axle, or rod, and the part 5 may be a hub, collar, or like element.

The band 1 and guard 2 will be provided in various sizes and may be constructed of any suitable material, sheet metal being preferable. The pockets 8 are formed by pressing outwardly portions of the band, and their inner sides are closed by the part 5, to which the band is fitted, the end portions of the guard 2 being held between the part 5 and the band 1, as shown most clearly in Fig. 2. When the parts are in place, the head or projecting end of the fastening 4 is completely protected and nothing can come in contact therewith, as will be readily comprehended.

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

1. A protector for the projecting portion of a fastening applied to a rotating part, the same comprising a band to be fitted to the rotating part, and a guard spanning the projecting end of the fastening and having its end portions detachably connected to the band at opposite sides of the fastening by means of a slip-joint, substantially as set forth.

2. A protector for the projecting portion of a fastening applied to a rotating part, the same comprising a band having openings at opposite points, and a guard for spanning the projecting portion of the fastening and having its end portions passed through the said openings and held between the band

and the part to which the band is fitted, substantially as specified.

3. A protector for the projecting portion of a fastening applied to a rotating part, the same comprising a split band adapted to have its end portions overlapped and formed with openings to receive the projecting portion of the fastening, and a guard of approximately U form for spanning the fastening and having its end portions fitted to the band at opposite sides of the said fastening, substantially as set forth.

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

DANIEL W. BENDER. [L. S.]

Witnesses:

JACOB H. C. SMITH,
FRANK S. SMITH.