

No. 673,056.

W. S. JACOBS.

Patented Apr. 30, 1901.

SPANNER.

(Application filed Jan. 2, 1901.)

(No Model.)

FIG. 1.

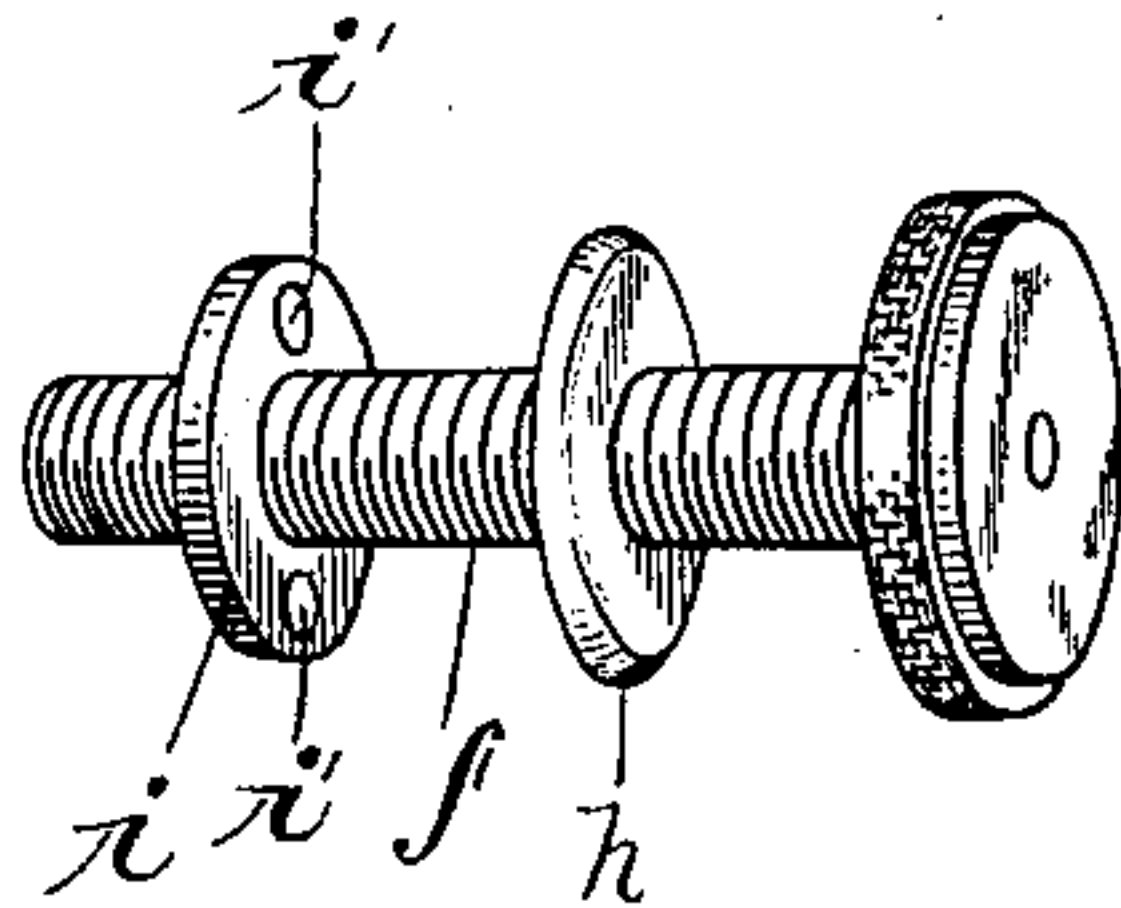
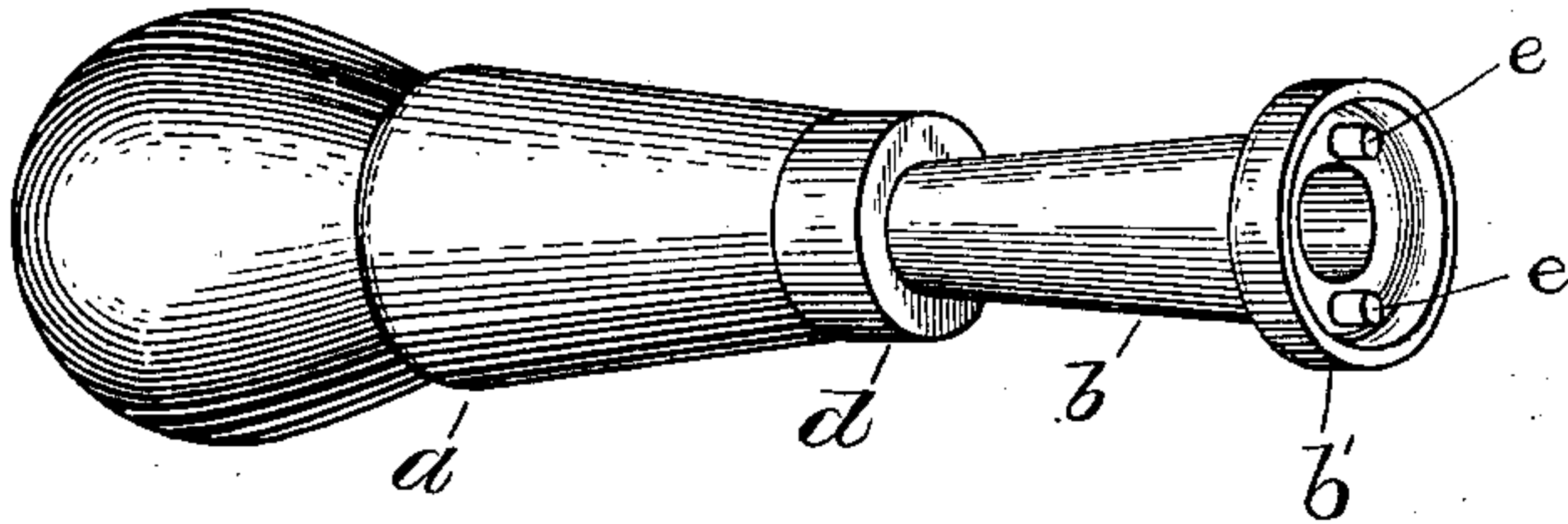
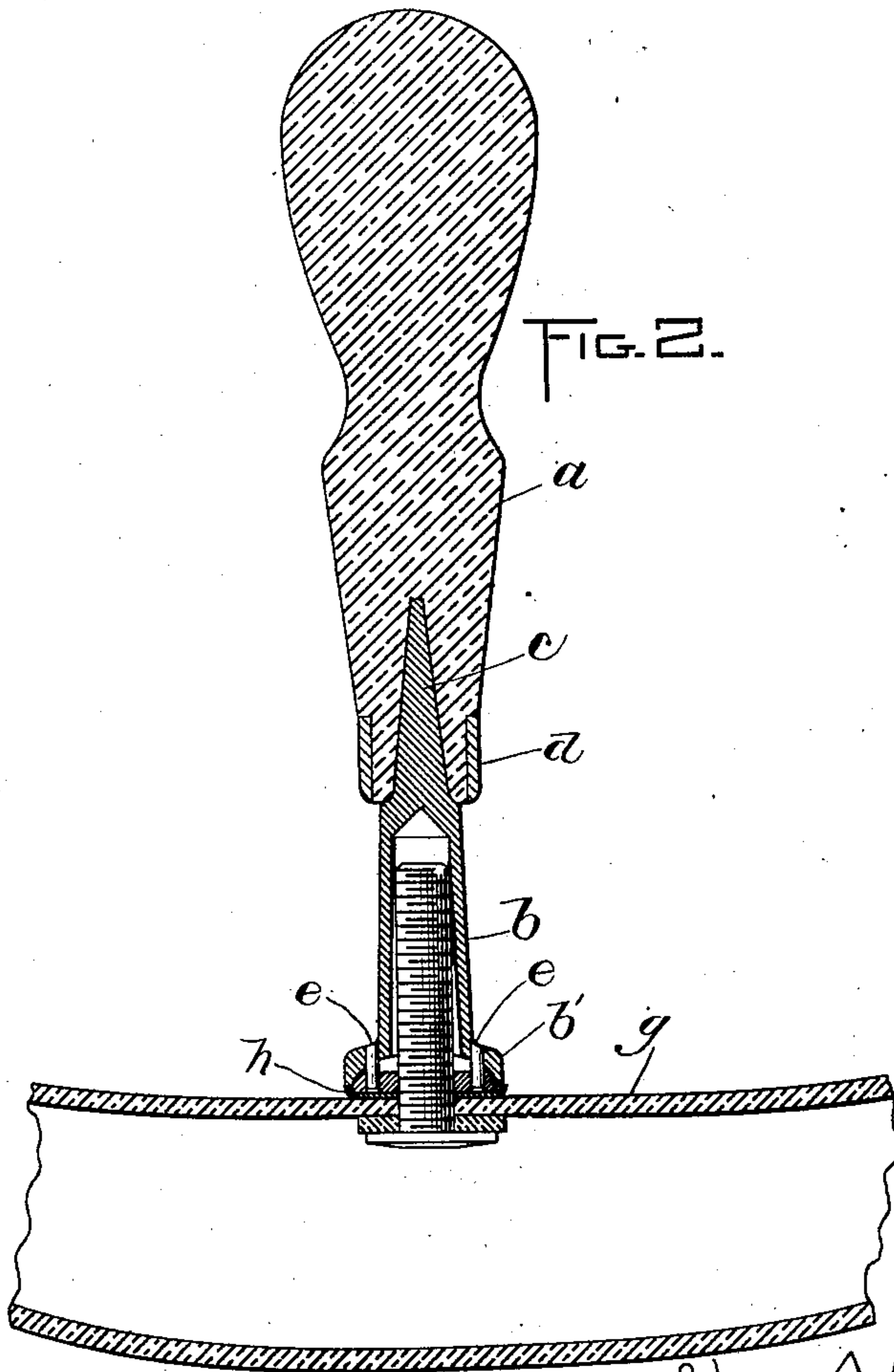


FIG. 2.



WITNESSES:

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INVENTOR:

*Wm. S. Jacobs*  
*by* *Wm. S. Jacobs*  
*his atty*

# UNITED STATES PATENT OFFICE.

WILLIAM S. JACOBS, OF MALDEN, MASSACHUSETTS.

## SPANNER.

SPECIFICATION forming part of Letters Patent No. 673,056, dated April 30, 1901.

Application filed January 2, 1901. Serial No. 41,888. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM S. JACOBS, of Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Spanners, of which the following is a specification.

This invention has relation to spanners and similar tools, and has for its object to provide certain improvements therein to adapt them for use in setting valves in pneumatic tires. Such valves are formed with a long threaded stem, which is projected through one wall of the tire, and with a nut, which is forced into engagement with the exterior of said wall. The nut in each case is circular and is provided with two eccentric apertures and has a convex outer face. According to the illustrated form of my invention it has a hollow shank to receive the valve-stem, a concave head adapted to fit over the nut, and one or more teeth or projections to extend into the aperture or apertures in the nut to rotate it.

Referring to said drawings, Figure 1 represents in perspective view a valve and my improved tool. Fig. 2 represents a longitudinal section through the tool and illustrates the manner of its use.

The tool is illustrated as having a wooden handle *a* and a hollow shank *b*, the tang *c* of which is inserted in the handle. A ferrule *d* encircles the end of the handle, into which the tang is passed. The end of the shank is formed with a flange *b'*, which forms a head, its face being concave, as shown. Through the flange are passed pins *e*, which constitute teeth, for a purpose to be described.

The manner of using the tool is as follows: After the valve-stem *f* is passed through the wall of the tire *g* the washer *h* and the nut *i* are placed on the stem. Then the shank of

the tool is placed over the valve-stem and the teeth *e* are inserted in the apertures *i'* of the nut, after which by rotating the handle *a* the nut is driven home.

The pins or teeth *e* are projected through apertures in the flange *b*, and they are located outside the shank, so that they can be removed and replaced when they become bent and broken. Preferably the said pins are made of hardened steel, so that the liability of breaking is reduced.

The head of the tool being concave fits closely upon the outer face of the nut, the aperture in the shank being large enough to receive valve-spindles of standard sizes.

It is evident that various changes may be made in the tool without departing from the spirit and scope of the invention.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

1. A tool of the character described comprising a hollow shank, a flange at the end of the shank to form a head, and teeth on said shank.

2. A tool of the character described comprising a hollow shank, a flange at the end of the shank to form a head, and one or more pins passed removably through said head and having engaging portions projecting from the surface of said head.

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

WILLIAM S. JACOBS.

Witnesses:

M. B. MAY,  
E. BATCHELDER.