

No. 713,810.

Patented Nov. 18, 1902.

A. P. SIMON.  
HUB ATTACHING DEVICE.

(Application filed May 2, 1902.)

(No Model.)

Fig. 1.

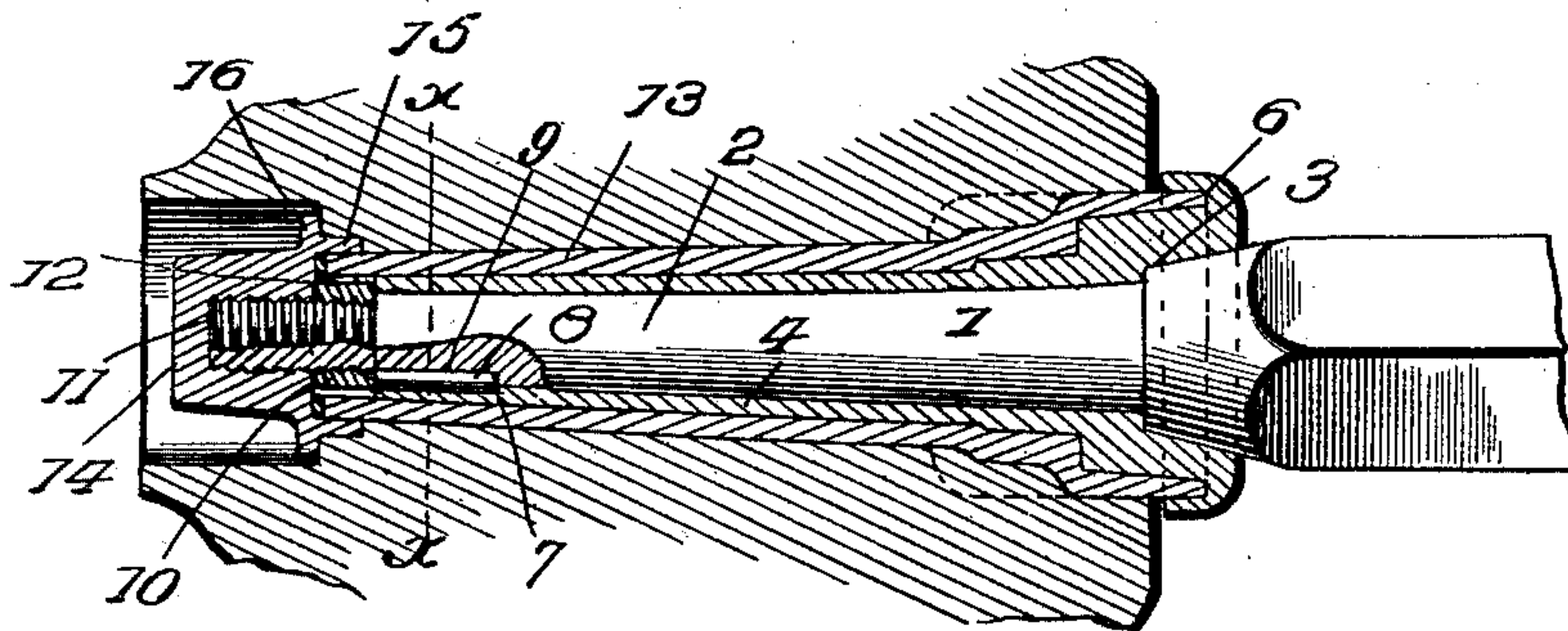


Fig. 2.

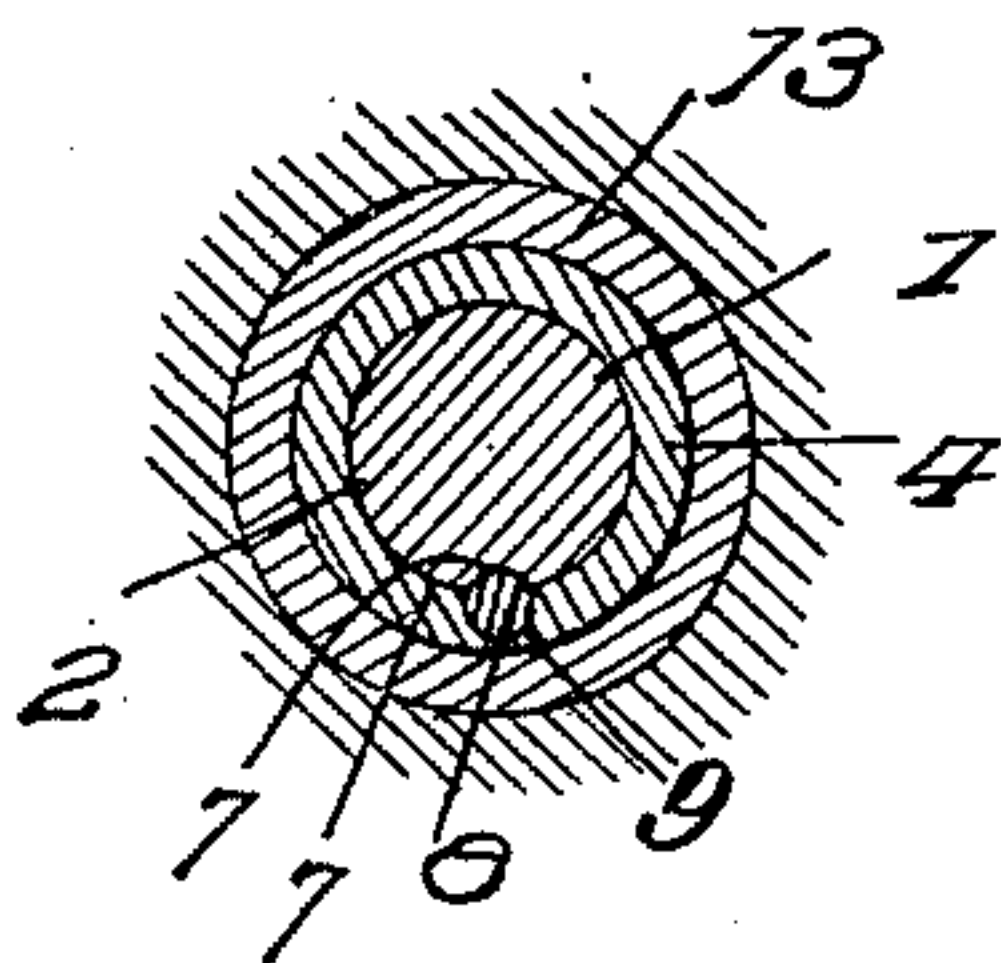


Fig. 3.

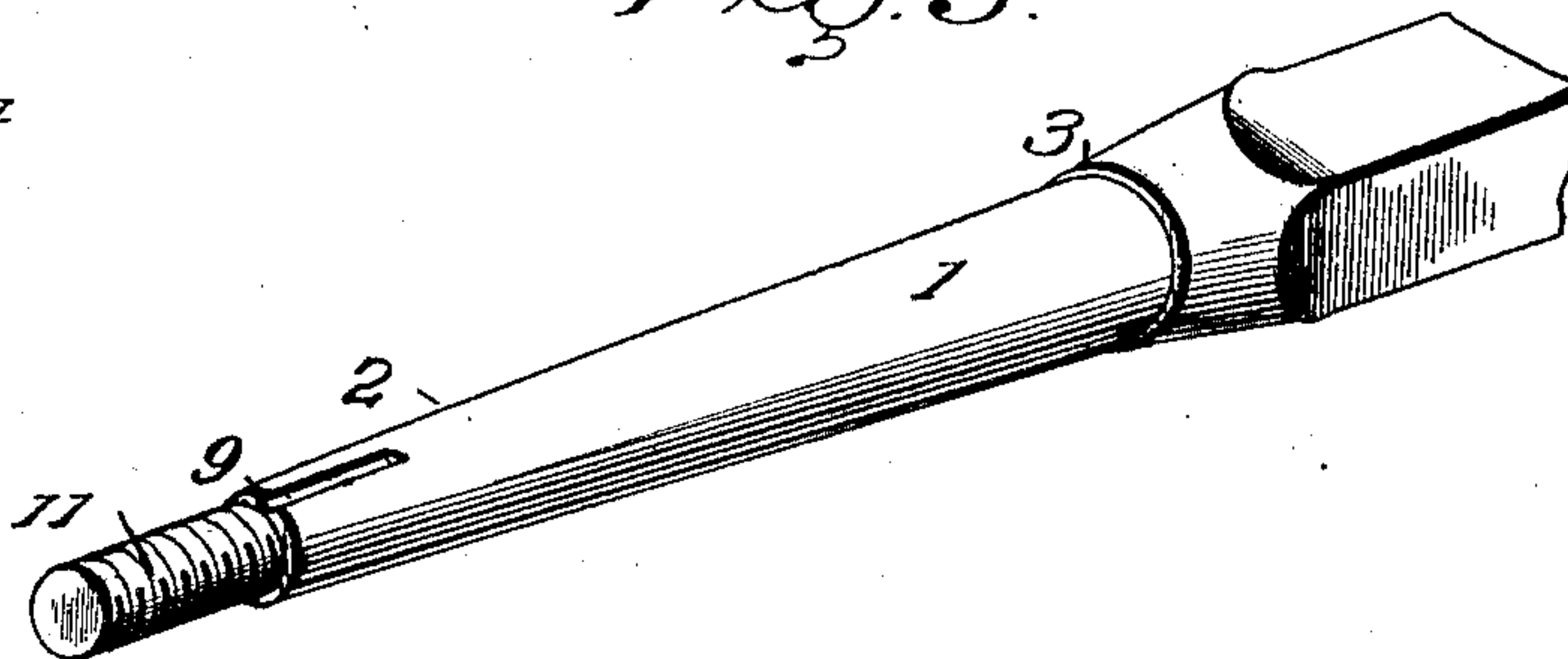
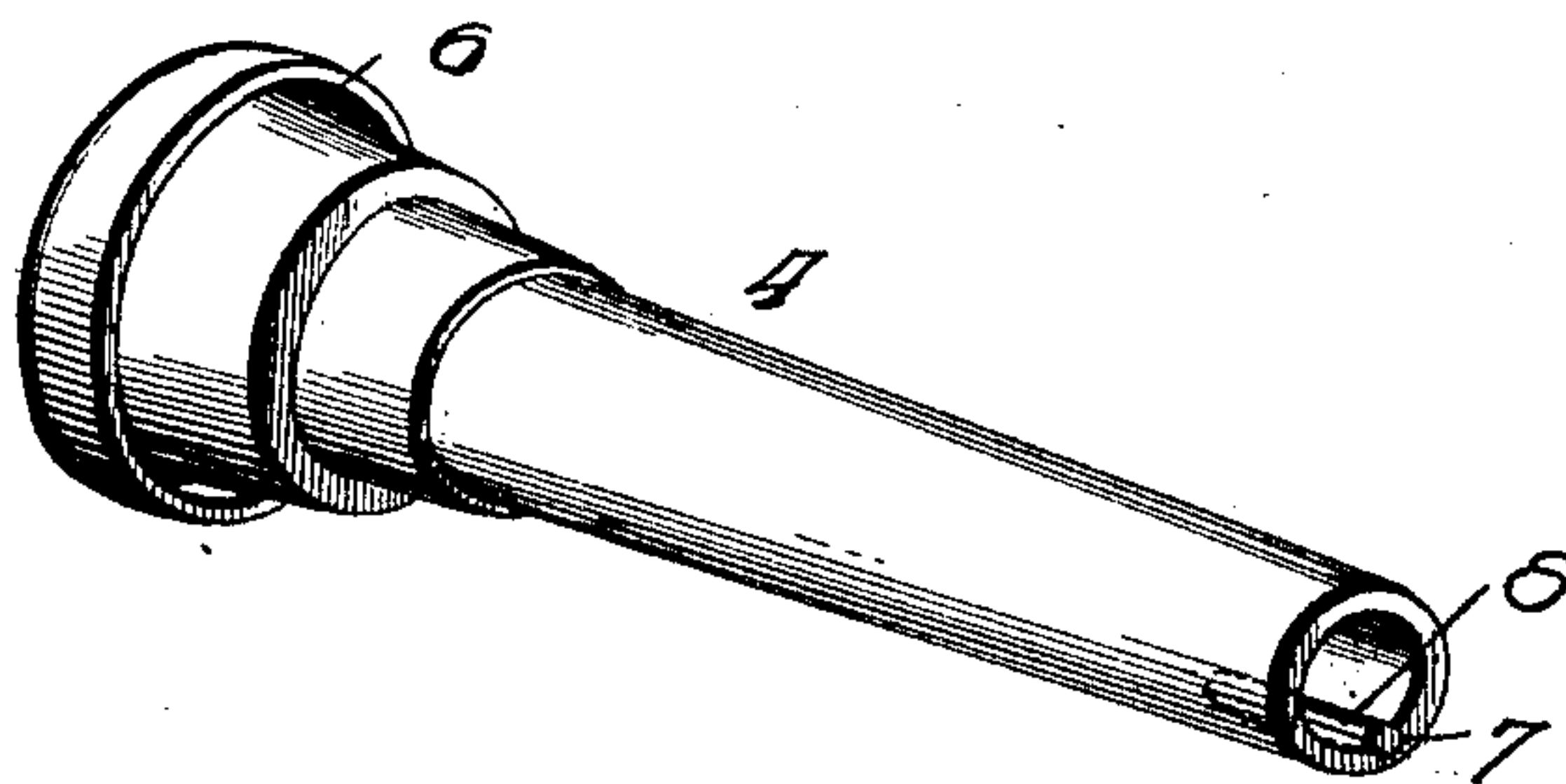


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## HUB-ATTACHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 713,810, dated November 18, 1902.

Application filed May 2, 1902. Serial No. 105,690. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH P. SIMON, a citizen of the United States, residing at Evant, in the county of Coryell and State of Texas, have 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 it appertains to make and use the same.

This invention relates to means applied to ordinary vehicle-axles for preventing wear upon the same, a false wearing-surface being provided, which may be renewed when necessary, either on account of wear or for any other reason.

The invention also provides a simple and novel construction of the axle-skein, preventing dust or the like from impeding the ready revolving of the wheel upon the axle-skein.

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 vertical section showing the application of the invention. Fig. 2 is a cross-section about on the line *x x* of Fig. 1. Fig. 3 is a detail perspective view of the axle. Fig. 4 is a detail perspective view of the skein.

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.

Referring to the drawings, 1 is the ordinary axle, the device being adapted to be readily applied to any axle of common construction. The axle arm or spindle 2 of the axle slightly tapers toward its extremity and is provided with the shoulder 3. The skein 4 is of peculiar form, tapering slightly to conform to the shape of the spindle 2, the inner end of its bore being enlarged to more snugly fit against the shoulder 3 of the spindle. The skein 4 has also upon its inner end the flanged por-

tions 5, which are annularly grooved, as at 6, this groove being provided for purposes to be hereinafter set forth. To prevent the skein from revolving, it is longitudinally grooved upon its inner circumference, as illustrated at 7, the groove adapted to receive a key 8, which, coacting with a corresponding groove located upon the spindle numbered 9, serves to lock the skein from rotation with the axle-box. The key 8 is prevented from displacement by the clamp-nut 10, which screws upon the reduced thread portion 11 of the spindle 2. It is obvious that the locking means may be varied without departing from the spirit of the invention. A lug may be formed upon the bore of the skein to register with a groove upon the corresponding portion of the axle, or vice versa. This clamp-nut 10 clamps the skein 4 hard against the shoulder 3 of the spindle and may be provided with any suitable means to enable it to be screwed upon the said spindle. Preferably it has the slightly-flattened portions 12 upon its outer circumference to enable a wrench to obtain sufficient gripping force to rotate the same, as will be readily understood.

The axle-box 13 (shown in the drawings) is of usual construction, being held in place upon the skein 4 by the nut 14, which has upon its inner side an annular horizontal flange 15 and right-angularly disposed with relation to the said flange the flange 16. The flange 15 covers the outer end portion of the axle-box in the same manner as the flange 5 of the skein covers the inner end portion of the axle-box, said portion being located within the grooved portion 6 of the flange. The grooved flange 5 of the skein prevents any dirt or like substance from getting between the skein and the axle-box, the corresponding flange on the nut serving a like purpose. The clamping-nut, which holds the skein in place, is circular to correspond to the form of the skein and to form approximately a continuation thereof, as shown most clearly in Fig. 2.

The device is susceptible of many modifications which will be included within the scope of the invention.

The device is simple in construction and can be readily applied by any ordinary mechanic.

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



1. In combination, an axle tapering at its spindle portion, said portion being provided with an annular shoulder, a skein outwardly flanged upon its inner end, said flange provided with a groove upon its outer face, the bore of the skein being correspondingly enlarged to fit snugly against the shoulder upon the spindle, a key adapted to register in longitudinal grooves located upon the spindle and the inner circumference of the skein to lock the said skein from rotation upon the spindle, a clamp-nut adapted to hold the skein upon the spindle and to retain the aforementioned key in place, an axle-nut adapted to be screwed upon the reduced thread portion of the spindle and provided with right-angulardisposed flanges, an axle-box, the ends of the same adapted to be inclosed within the grooved annular flange of the skein and the horizontal flange of the aforesaid axle-nut, substantially as and for the purpose specified.

2. In combination, an axle tapering at its spindle portion and provided with a tapering enlargement upon said portion, the latter constituting a shoulder, a skein having its bore

enlarged at its inner end to correspond to the enlargement on the spindle, said skein having an annular flange on its inner end, said flange being grooved upon its outer face, a key adapted to fit into corresponding grooves upon the spindle and inner circumference of the skein to lock the latter from rotation with the axle-box, a clamp-nut screwed upon the reduced threaded portion of the spindle, said nut clamping the skein hard upon the spindle and retaining the key from displacement, an axle-nut provided with horizontal and vertical flanges and an axle-box adapted to rotate upon the skein and having its inner and outer ends inclosed by the grooved flange of the skein and the horizontal flange, respectively, of the axle-nut, the vertical flange on the latter adapted to bear against the hub portion of the wheel, substantially as set forth.

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

ADOLPH P. SIMON. [L. S.]

Witnesses:

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