

No. 818,310.

PATENTED APR. 17, 1906.

G. H. STRICKLAND.

WRENCH.

APPLICATION FILED OCT. 31, 1905.

Fig. 1.

Fig. 2.

Fig. 3.

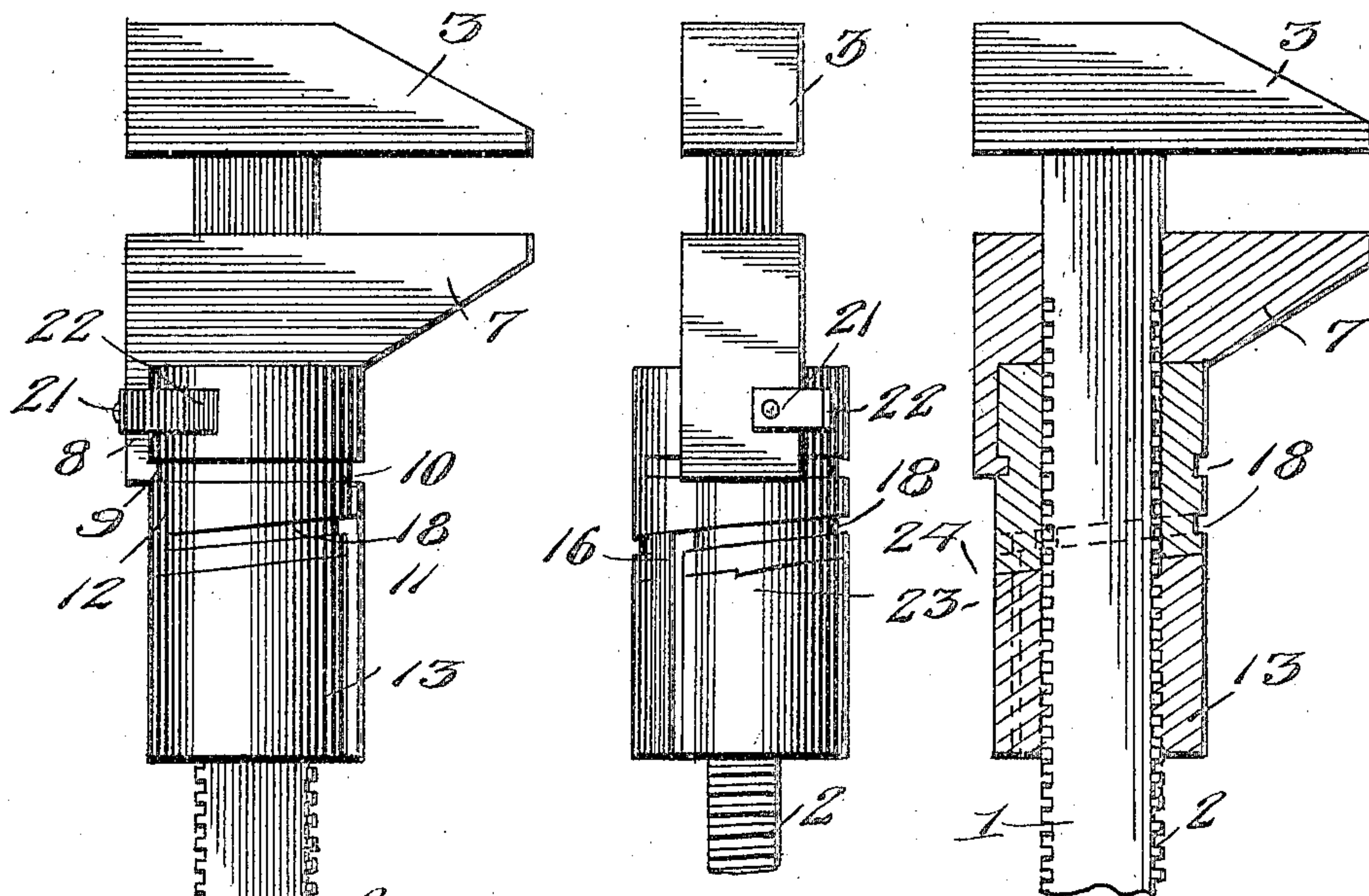


Fig. 4.

Fig. 5.

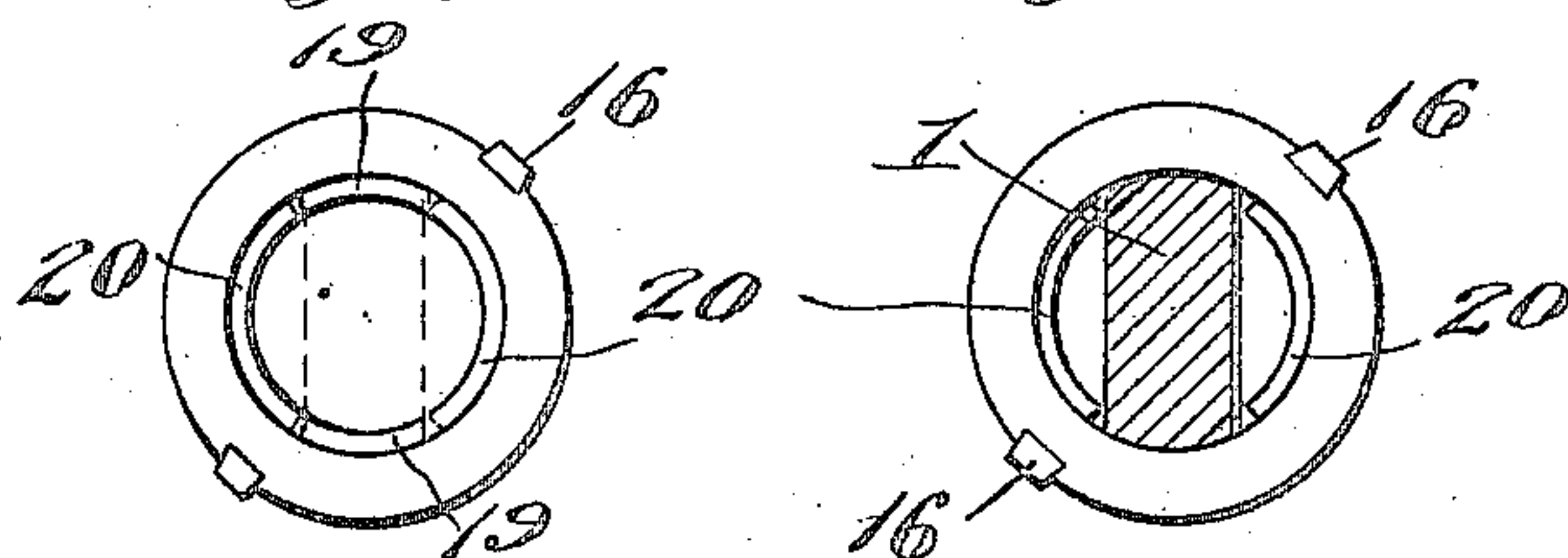
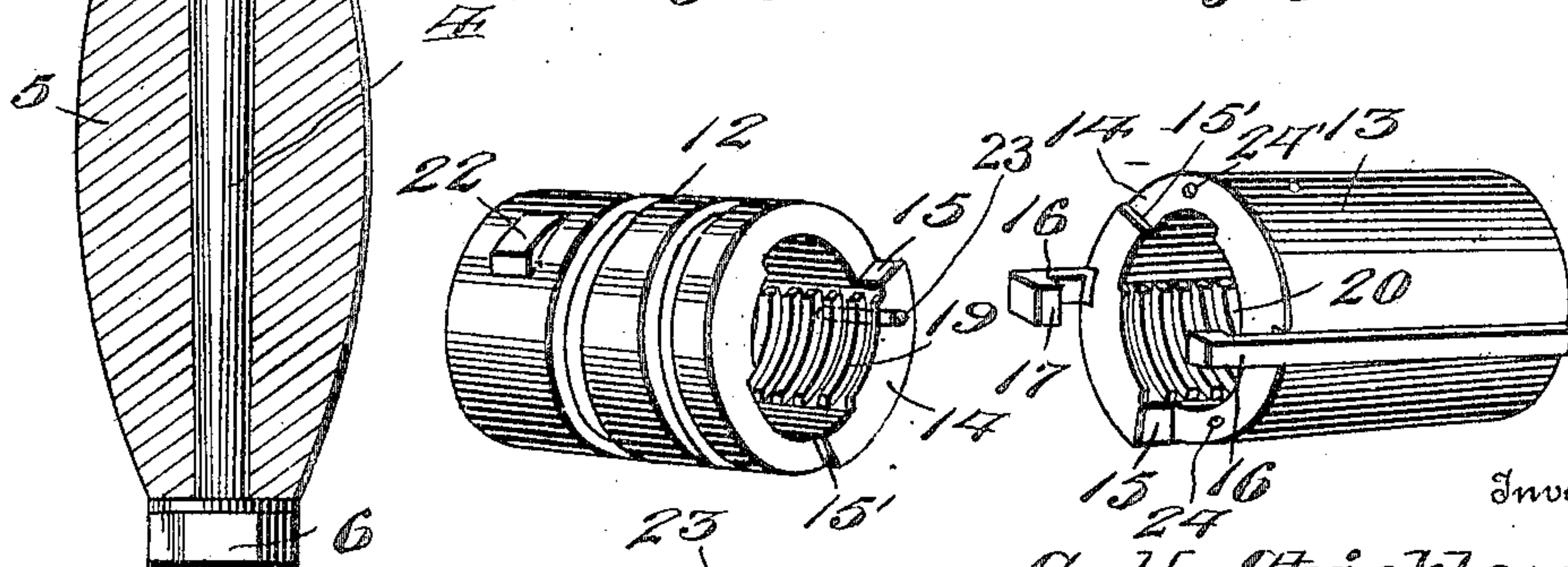


Fig. 6.

Fig. 7.



Witnesses

Fig. 8.



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# UNITED STATES PATENT OFFICE.

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## WRENCH.

No. 818,310.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed October 31, 1905. Serial No. 285,326.

*To all whom it may concern:*

Be it known that I, GEORGE H. STRICKLAND, a citizen of the United States, residing at Warren, in the county of Trumbull and State of Ohio, have invented new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and has for its objects to produce a comparatively simple inexpensive device of this character in which the movable jaw may be readily released for free sliding movement upon the wrench-shank, one wherein the jaw may be quickly locked in its adjusted positions, and one in which the jaw-adjusting nut may be rotated in the usual manner for obtaining a slight or accurate adjustment of the jaw.

A further object of the invention is to provide a device of this character in which the sections of the jaw-adjusting nut may be positioned relatively for total disengagement from the wrench-shank, one in which the nut-sections may be disposed relatively for presenting a continuous thread for coöperative engagement with the teeth on the shank, and one in which the parts of the nut will be normally locked against relative movement.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a wrench embodying the invention. Fig. 2 is a front edge view of the same. Fig. 3 is a detail sectional view, the section being taken centrally through the operating-nut or sleeve. Fig. 4 is an end view of the sleeve with the parts thereof adjusted to present a continuous thread. Fig. 5 is a similar view, partly in section, showing the nut adjusted for disengagement with the shank. Fig. 6 is a perspective view of one portion or section of the nut. Fig. 7 is a similar view of the other section of the nut. Fig. 8 is a detail view of the locking-plunger.

Referring to the drawings, 1 designates the wrench-shank, provided on its opposite edges with teeth or threads 2, properly pitched, as shown, and having at its forward end a fixed head or jaw 3 and at its rear end a reduced portion 4, formed to receive a handle 5, secured in place by a nut 6, there being disposed for movement upon and longitudinally of the shank 1 a movable jaw 7, these parts, except as hereinafter explained, being all of

the usual or any appropriate construction and material.

The jaw 7 is provided with a rear extending portion or arm 8, having an inturned engaging portion or finger 9, seated in a groove or recess 10, formed peripherally of a tubular operating-nut or member 11, adapted for movement longitudinally of the shank 1 and comprising a pair of relatively rotatable portions or sections 12 and 13, having correspondingly beveled or inclined meeting end faces 14, provided with shoulders or abutments 15 and 15' for a purpose which will presently appear, said sections being connected by means of engaging elements or dogs 16, projecting forwardly from the primary section 13 and having inturned engaging portions or fingers 17, designed to seat in inclined grooves or recesses 18, formed peripherally upon the secondary section 12 and disposed parallel with the inclined face 14 of said section, whereby the section may freely and relatively rotate.

The section 12 of the sleeve or nut is provided at diametrically-opposed points with internal teeth or threads 19, adapted for engagement or non-engagement with the threads 2, while the section 13 is similarly provided with diametrically-opposed internal threads or teeth 20, also designed for engagement with the teeth 2, and, further, for alinement or non-alinement with the threads 19, there being provided upon the jaw 7 a spring member or dog 21, adapted for engagement with a stop or lug 22 on the section 12 to limit reverse rotation of the latter for disengaging the threads 19 with the teeth 2, while upon the section 12 there is also provided a spring-actuated latching member or plunger 23, designed to seat in suitable depressions or seats 24 24', formed in the section 13 for locking the latter against movement relative to section 12 and with the threads 19 and 22 in alinement or non-alinement.

In practice the sections 12 and 13 are normally adjusted with their internal threads in non-alinement and with the shoulders 15 in contact and the plunger 23 engaging the depression 24, under which conditions the threads 19 and 20 will present a continuous thread within the sleeve for coöperation with the teeth 2, and the nut or sleeve 11 may as a whole be freely rotated upon the shank 1 for moving the jaw 7 in the usual manner. If, however, a rapid adjustment of the jaw 7 is desired, the sleeve 11 as a whole is reversely



rotated until the spring member 21 engages lug 22, thus preventing further movement of section 12, whereupon rotation of section 13 may be continued until the shoulders 15' contact and the plunger 23 engages the depression 24', whereupon threads 19 and 20 are brought into relative alinement and to positions opposite the smooth side faces of the shank 1, thus adapting the sleeve to be moved freely longitudinally of the latter. After the desired adjustment of the jaw 7 has been thus obtained the section 13 may be again rotated forwardly until the latching member 23 enters the depression 24 in the face of section 13, thus locking the sections in their normal relation for further adjustment of the jaw through rotation of the nut, as heretofore explained and as is usual in devices of this class.

From the foregoing it is apparent that I produce a comparatively simple inexpensive device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. In a device of the class described, a shank provided with teeth and having a fixed jaw, a movable jaw slidably disposed upon the shank, and a tubular operating member connected with the movable jaw, said operating member comprising a pair of relatively movable sections having oppositely-disposed

sets of threads adapted for engagement or non-engagement with the teeth.

2. In a device of the class described, a shank having teeth and carrying a pair of cooperating jaws, one of said jaws being movable longitudinally of the shank, and a tubular operating member disposed for movement on the latter and operatively connected with the movable jaw, said cooperating member comprising a pair of sections having opposed sets of internal threads adapted for engagement or non-engagement with the teeth, the sections being relatively rotatable to effect alinement or non-alinement of either set of threads.

3. In a device of the class described, a shank provided with teeth and carrying a pair of cooperating jaws, one of said jaws being movable upon the shank, a tubular operating member movable upon the shank and operatively engaged with the jaw, said member comprising a pair of sections having oppositely-disposed sets of threads adapted for engagement or non-engagement with the teeth, the sections being relatively rotatable to effect alinement or non-alinement of the sets of threads, and means for locking the sections against relative movement.

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

GEORGE H. STRICKLAND.

Witnesses:

H. PECK,  
M. L. HYDE.