

No. 644,033.

Patented Feb. 20, 1900.

F. SCHRADER.
COMBINED SPANNER AND WRENCH.

(Application filed Dec. 4, 1899.)

(No Model.)

Fig. 1.

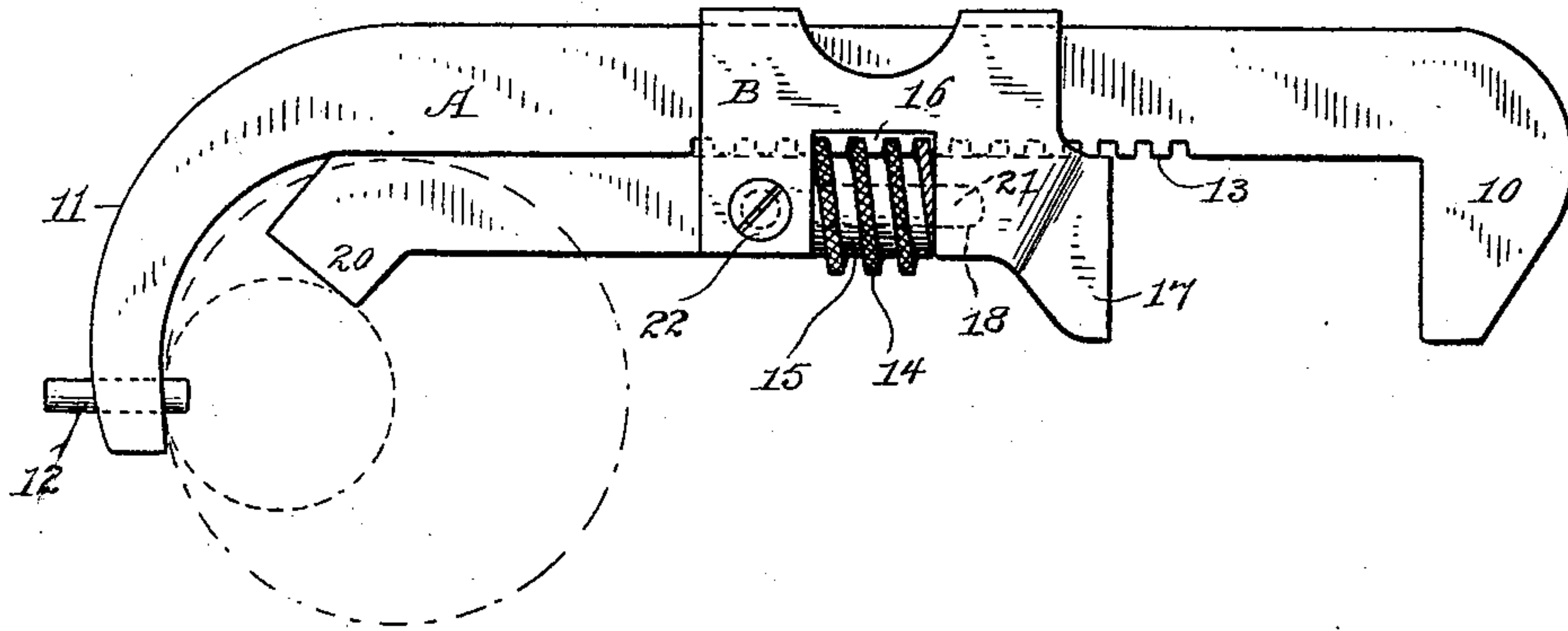


Fig. 2.

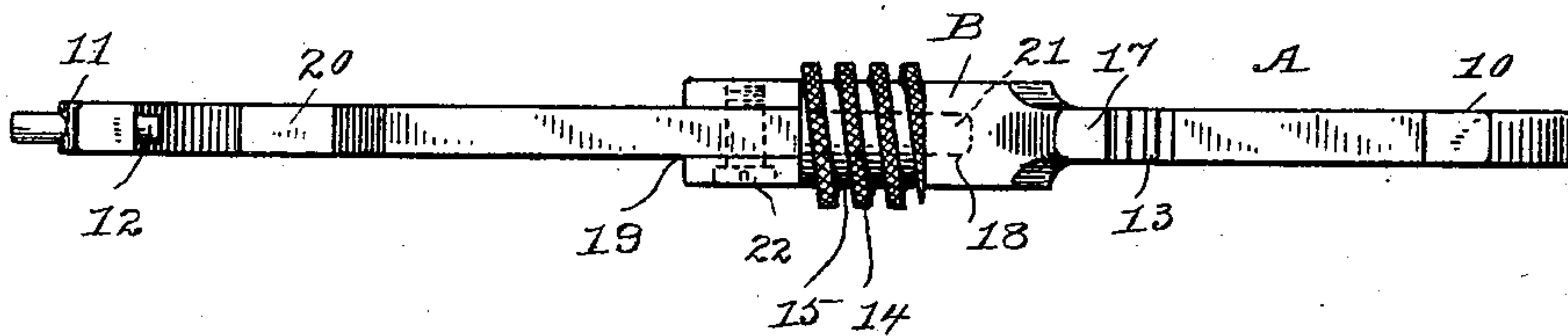
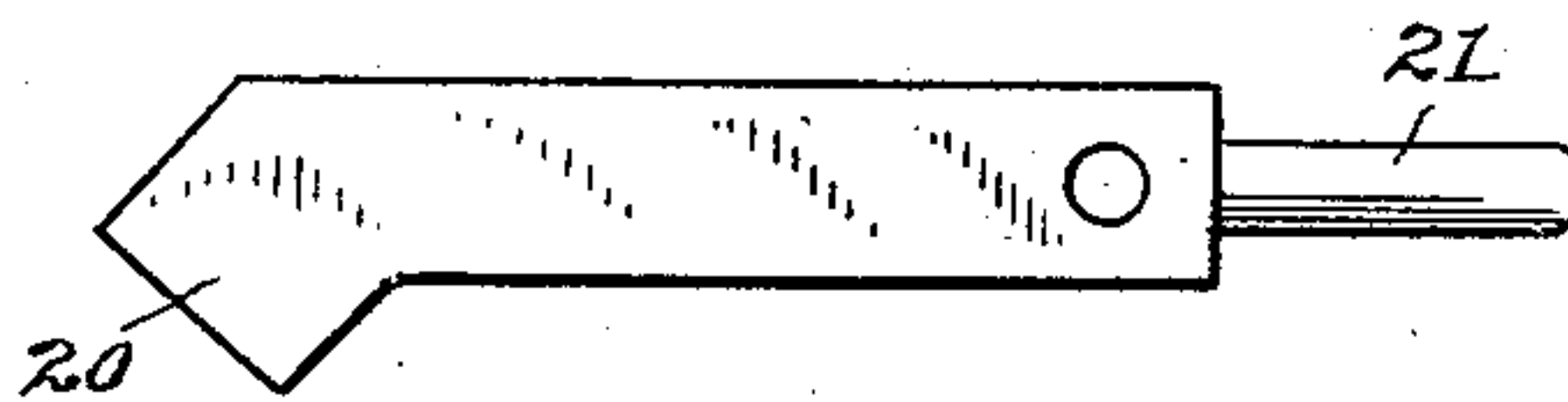


Fig. 3.



WITNESSES

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FREDERICK SCHRADER, OF BRIDGEPORT, CONNECTICUT.

COMBINED SPANNER AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 644,033, dated February 20, 1900.

Application filed December 4, 1899. Serial No. 739,128. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SCHRADER, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Combined Spanner and Wrench, of which the following is a specification.

My invention has for its object to provide a combined spanner and sliding-jaw wrench which shall be neat and attractive in appearance, shall have in full the qualifications for service of both a spanner and a wrench, and which shall be so simple and inexpensive to produce that it may be placed upon the market at an expense hardly perceptibly larger than the expense of either spanner or wrench alone. With these ends in view I have devised a simple and novel combined spanner and wrench, the same being an improvement upon and carrying forward of the principle disclosed in Letters Patent No. 532,238, granted to me May 11, 1897, which I will now describe, referring to the accompanying drawings, forming part of this specification, and using reference characters to designate the several parts.

Figure 1 is an elevation of my novel spanner and wrench; Fig. 2, an edge view thereof, and Fig. 3 a view of the adjustable spanner-contact detached.

A denotes the body of my novel tool, and B the slide. The body is provided at one end with a fixed wrench-jaw 10, the other end being curved, as at 11, to adapt it for use as a spanner. Near the end of portion 11 is a pin 12, which is adapted to engage a hole in a curved surface when the tool is used as a spanner. Intermediate the wrench-jaw and portion 11 and upon the inner face of the body are threads 13, which are adapted to be engaged by spiral threads 14 on a barrel 15, lying in an opening 16 in the slide. The slide is provided at one end with a wrench-jaw 17, which coacts with jaw 10.

18 is an opening in the end of the slide carrying the wrench-jaw, which leads into opening 16 and is shown in the drawings by dotted lines only. Upon the opposite side of the opening 16 and leading inward from the edge of the slide—that is, from the under side as it appears in Fig. 1—is a recess 19.

20 denotes the adjustable contact of the

spanner, which is provided with an operative face lying in a plane oblique to the sides of the body. The rear end of this adjustable contact is adapted to lie in recess 19 in the slide and is provided with a shank which crosses opening 16, serving as an axle upon which barrel 15 is mounted and the end of which closely engages opening 18 (see dotted lines, Figs. 1 and 2) in the slide. The spanner-contact is made rigid with the slide through the engagement of shank 21 with opening 18 and by means of a screw 22, which passes through the walls of recess 19 in the slide and through the rear end of the contact itself, as is clearly shown in the drawings.

The use of my novel tool is too obvious to require description in detail, it being apparent at a glance that when used as a wrench its operation is the same as is common with sliding-jaw wrenches and when used as a spanner its use is identical with that set forth in my former patent referred to, except that the adjustable contact is not a screw, but is a sliding piece operated by a screw and moving in a different plane than the adjustable contact in my said former patent referred to and having, moreover, an oblique contact-face, which I find to be of distinct advantage in use.

Having thus described my invention, I claim—

A combined spanner and wrench consisting of a body having at one end a wrench-jaw, the other end being curved and carrying a spanner-pin, and a slide having a wrench-jaw and also having an opening 16, upon one side of said opening an opening 18 and upon the other side of said opening a recess 19, an externally-threaded barrel lying in opening 16, a spanner-contact whose rear end lies in recess 19 and which is provided with a shank upon which the barrel is mounted and which engages opening 18, and a screw passing through the walls of recess 19 and through the spanner-contact by which the latter is locked to the slide.

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

FREDERICK SCHRADER.

Witnesses:

A. M. WOOSTER,
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