J. L. BROOKS.

WRENCH.

APPLICATION FILED APR. 3, 1915.

1,166,429.

Patented Jan. 4, 1916.

Fig. 1.

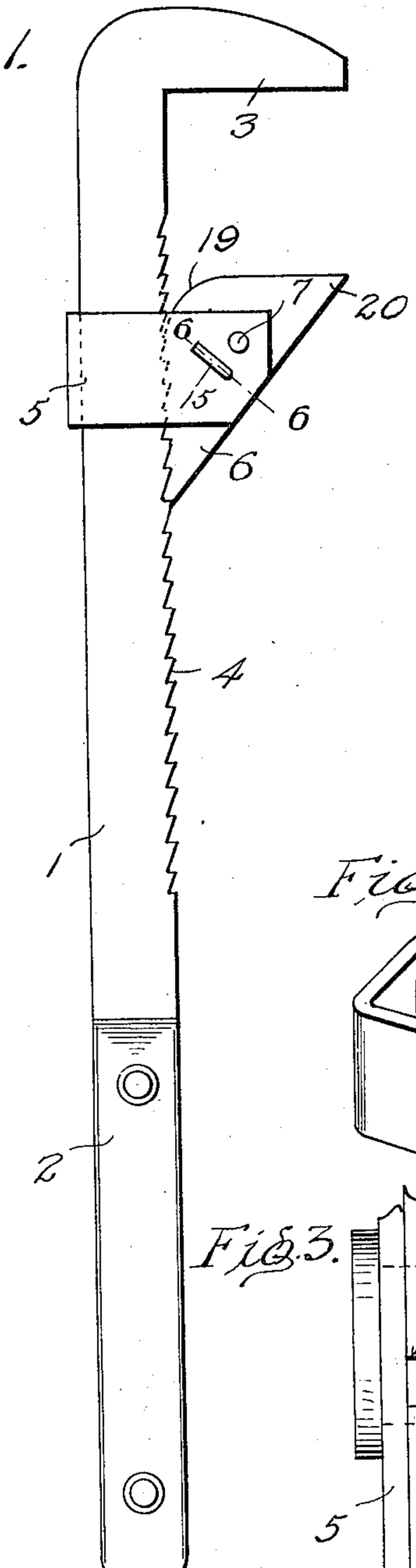


Fig. 2.

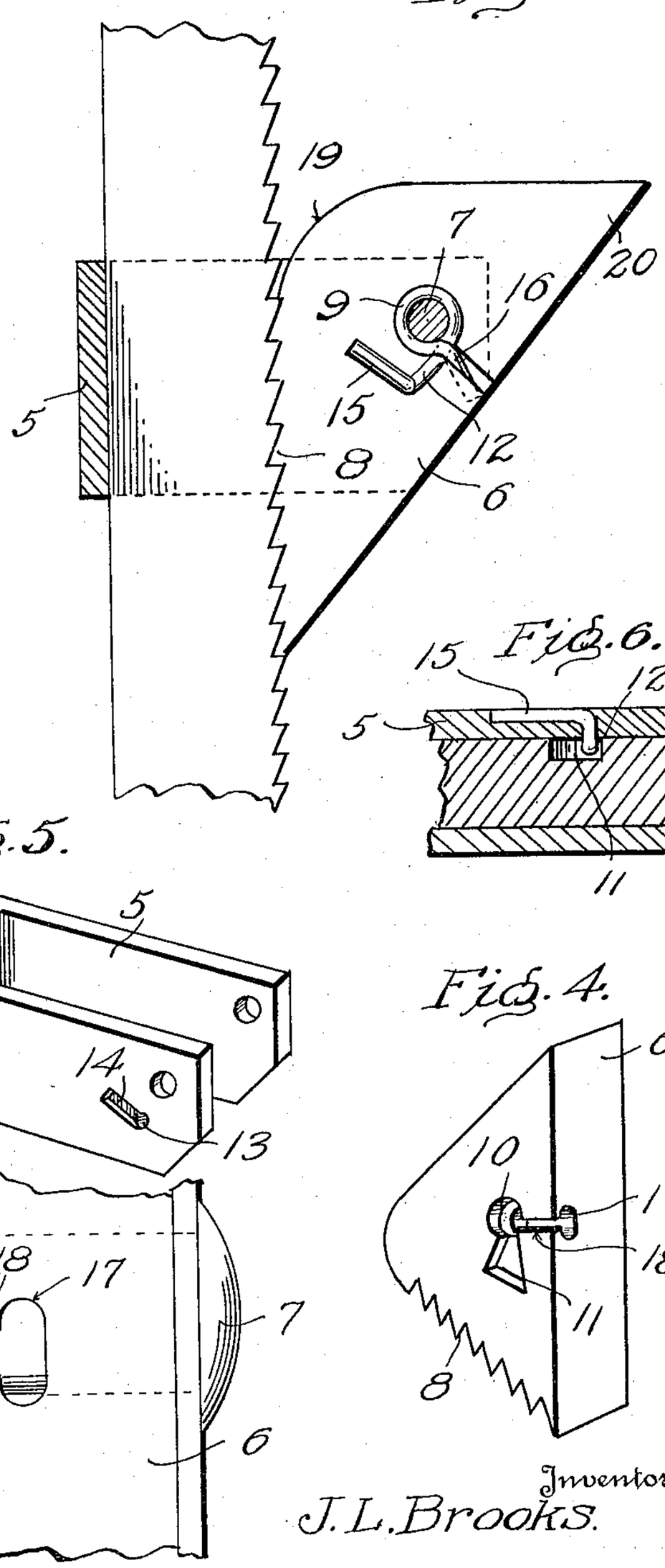


Fig. 6.

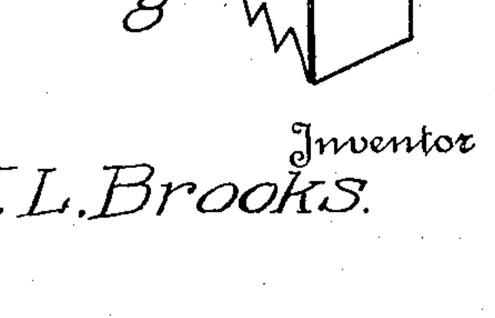


Fig. 5.

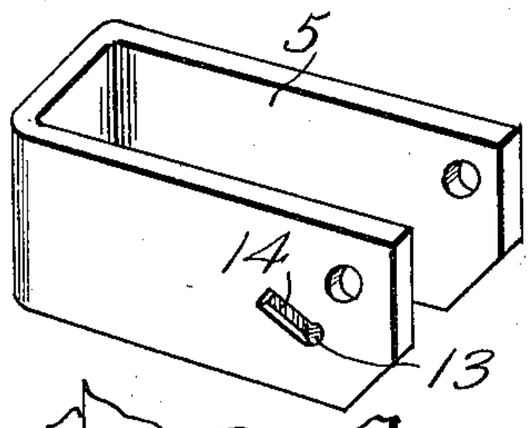


Fig. 4.

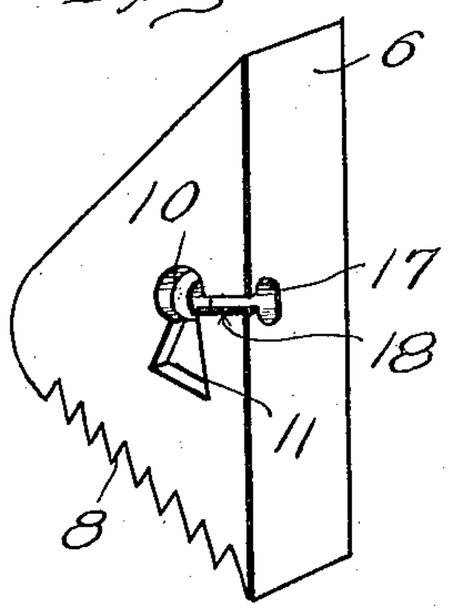
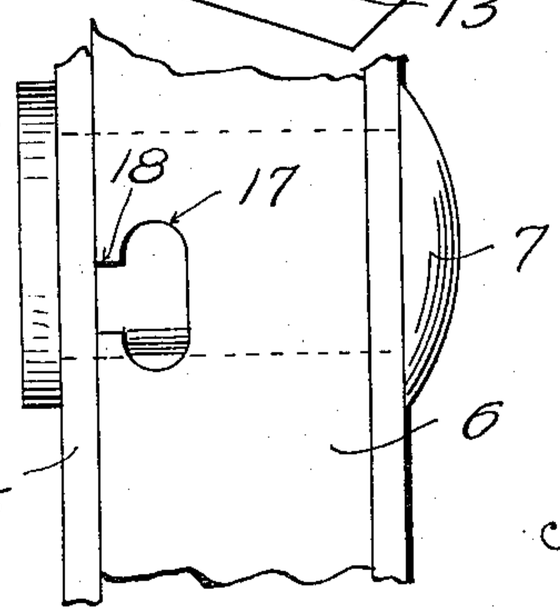


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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WRENCH.

1,166,429. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed April 3, 1915. Serial No. 18,986.

To all whom it may concern:

Be it known that I, JAMES L. BROOKS, a citizen of the United States of America, residing at Douglas, in the county of Cochise and State of Arizona, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wrenches and has for its object the production of a simple and efficient wrench, whereby the jaw thereof may be easily swung for the purpose of allowing the same to be adjusted to the desired position upon the shank of the wrench.

Another object of this invention is the production of a simple and efficient means for mounting the spring in engagement with the pawl, whereby the pawl will be automatically thrown into engagement with the ratchet teeth upon the inner face of the shank of the wrench in order to hold the adjustable jaw of the pawl in a set position.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing: Figure 1 is a side elevation of the wrench. Fig. 2 is a side elevation of the shank of the wrench showing the yoke plate in cross section. Fig. 3 is an edge view looking at the front edge of a portion of the adjustable jaw or pawl. Fig. 4 is a perspective view of the adjustable jaw or pawl. Fig. 5 is a detail perspective view of the yoke plate. Fig. 6 is a section taken on line 6—6, of Fig. 1.

By referring to the drawing it will be seen that 1 designates the shank of the wrench which is provided with the handles 2. The upper end of the shank 1 is provided with an overhanging stationary jaw 3, and the inner face of the shank 1 is provided with a series of teeth 4 formed thereon.

A yoke plate 5 which is substantially U-shaped fits around the shank 1, and an adjustable jaw or pawl 6 is pivotally secured between the outer ends of the yoke plate 5 by means of a pivot bolt 7. The adjustable jaw 6 is substantially V-shaped and is provided upon one side thereof with a series of teeth 8 as illustrated clearly in Figs. 2 and 4. A coil spring 9 is mounted upon the pivot pin 7 and fits within the socket 10 formed in the adjustable jaw 6. The socket 10 communicates with a laterally projecting pocket 11, within which pocket 11 works the projecting end 12 of the coil spring 9. The projecting end 12 of the coil spring 9 projects through the aperture 13 formed in one end of the plate 5 and is bent rearwardly so as to fit snugly within the socket 14 formed in the outer face of the plate 5 so as to hold the laterally bent end 15 of the spring cut of engagement with foreign objects. The other end 16 of the spring 9 fits in a pocket 17 formed in the adjustable jaw 6, which pocket is provided with a narrow entrance mouth 18 and terminates in an enlarged socket portion as clearly illustrated in Figs. 3 and 4 of the drawings for the purpose of allowing the end 16 of the spring to conveniently fit within the socket 17, and in this manner hold the spring 9 in its proper position. It should be understood that the spring 9 is adapted to normally force the ratchet teeth 8 upon the jaw 6 in engagement with the teeth formed upon the inner face of the shank 1.

From the foregoing description it will be seen that a very simple and efficient adjustable wrench has been produced, whereby the jaw may be positioned in any desired or convenient place upon the shank and held in this position to permit the tightening of a bolt, nut or the like.

Special attention is called to Fig. 2, and it will be seen that the adjustable jaw 6 is provided with a nose 19 so as to permit the outer end 20 of the jaw to be moved upwardly by means of the finger of the operator, and in this manner cause the teeth of the adjustable jaw to be drawn out of engagement with the teeth of the shank 1. This is made possible owing to the fact that the jaw 6 may rock upon the rounded nose 19 of the jaw.

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

A wrench of the class described comprising a shank, said shank provided with a plurality of ratchet teeth formed upon one side thereof, a yoke plate slidably mounted upon said shank, an adjustable jaw pivotally secured to said yoke plate, teeth formed upon said adjustable jaw and shank, a pivot pin for supporting said adjustable jaw, a coil spring mounted upon said pivot pin, said yoke plate provided with a transversely

extending aperture formed therein, said aperture terminating in a laterally extending socket, said coil spring having one end projecting through said aperture and fitting snugly within said socket for holding the outer end of said spring out of engagement with foreign objects, said adjustable jaw provided with a socket adjacent said socket for receiving the coil of said coil spring, said adjustable jaw also provided with a pocket having a narrow mouth for receiving the free end of said coil spring, and the free end of said coil spring being adapted to force said adjustable jaw into firm engagement with said shank.

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

JAMES L. BROOKS.

Witnesses:
J. J. Wood,
Thomas Sullivan.