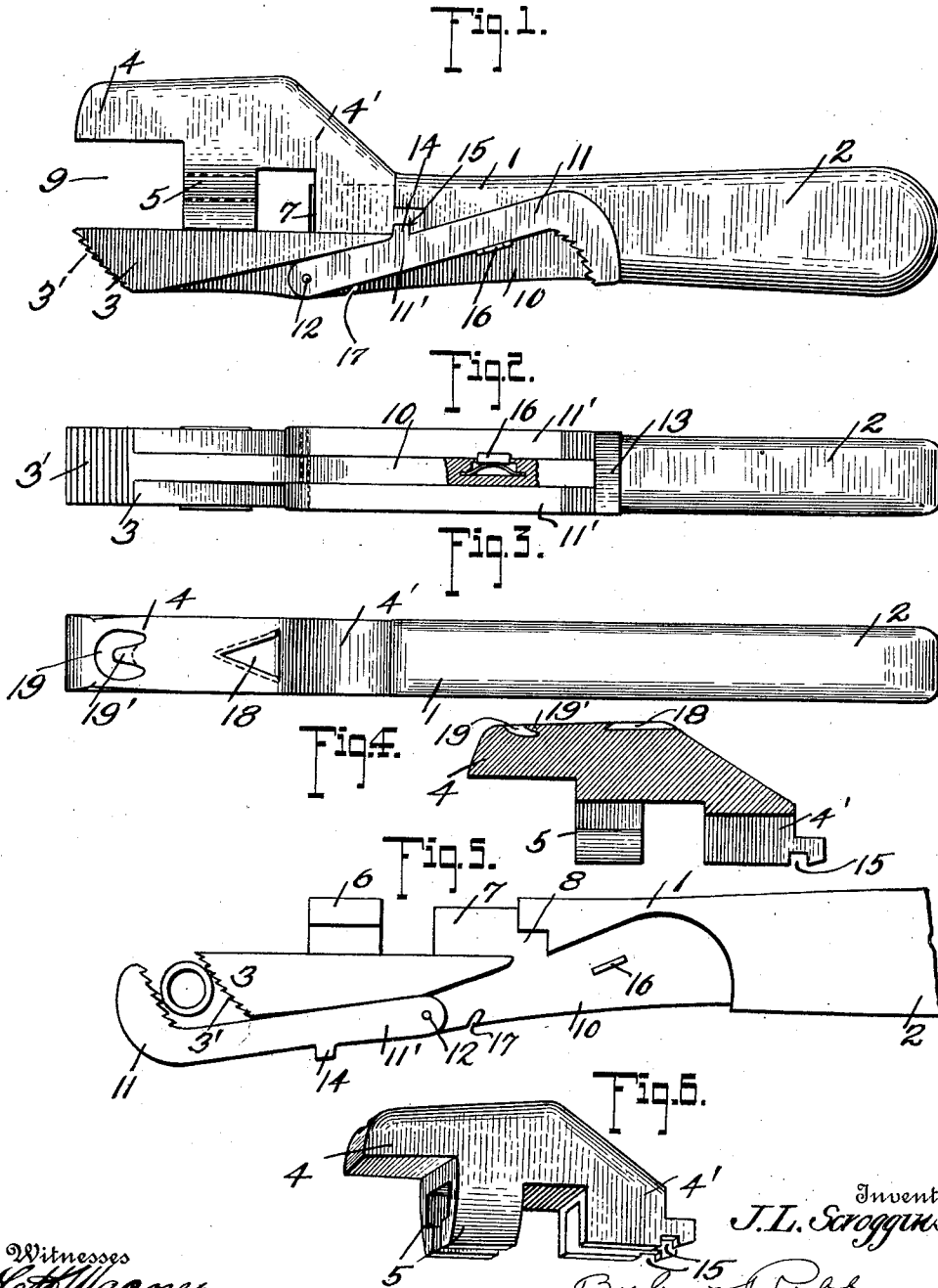


J. L. SCROGGINS.
COMPOUND TOOL.

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1,056,594.

Patented Mar. 18, 1913.



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UNITED STATES PATENT OFFICE.

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COMPOUND TOOL.

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To all whom it may concern:

Be it known that I, JAMES L. SCROGGINS, a citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Compound Tools, of which the following is a specification.

In its broader aspect, the object of this invention is to provide a compound tool of the wrench type, the several parts of the construction of which so coöperate as to permit of a wide range of usage of the device.

As is well known, even under ordinary conditions of work, a mechanic requires two different species of wrenches which, for the purpose of differentiation, I herein term a nut-wrench and a pipe-wrench. To prevent the necessity of duplicating these tools, it has been my object to combine their features in a single device and to this end it is contemplated to provide in my invention a stationary, a detachable, and a pivoted jaw member, the latter co-acting normally with the detachable jaw member to hold the same in operative position when using the wrench particularly as a nut-wrench, and being susceptible of movement into a predetermined position to coöperate with the stationary jaw member for use as a pipe wrench.

A still further object of my device is to provide a wire cutting element on the shank whereby wire may be severed by the pivoted jaw member, and with the above and other objects in view, this invention consists of the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein,

Figure 1 is a view in side elevation of a wrench constructed in accordance with my invention; Fig. 2 is a front view of the same; Fig. 3 is a rear view; Fig. 4 is a horizontal sectional view of the detachable jaw; Fig. 5 is a view in elevation of the wrench, showing the coöperation of the pipe jaw, the detachable jaw member being omitted to show more clearly the interlocking parts thereof; and Fig. 6 is a perspective view of the detachable jaw.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Specifically describing my invention, 1 designates the shank of a wrench having one end thereof, designated as 2, constituting the usual handle. The shank 1 terminates at its other extremity in the fixed or stationary jaw member 3, which member performs a dual function, as will hereinafter be more fully set forth.

4 designates a detachable jaw member which, when in operative position, constitutes an off-standing member having formed on its inner side the spaced locking members 5 which are adapted to receive therebetween the T-shaped lug or projection 6 which is formed on the inner side of the stationary jaw member 3. The jaw member 4 is furthermore formed at one end with the bifurcated portion 4' between which is received the projection 7 formed on the stationary jaw member 3 adjacent the shank 1 of the wrench. The bifurcated portion 4' is cut away preferably at one side to conform to the recessed portion 8 on opposite sides of the shank 1 and when thus constructed the detachable jaw member is held from lateral displacement in the use of the invention, it being understood that as just described the device constitutes a nut-wrench. The jaw member 4 when in operative position, at its outer end, is spaced from the fixed or stationary jaw member 3 so that the nut may be received in the opening 9. It is only necessary in positioning the detachable jaw member 4 to slide the same longitudinally of the wrench in such a manner that the T-shaped projection 7 is received into the opening between the spaced locking members 5 which conforms to the shape of said projection 7.

The shank of the wrench on the side opposite the stationary jaw member 4 is cut away on both sides of the wrench so as to form recesses therein and near the outer portion of the recesses which form a reduced edge 10 is pivotally mounted the pipe jaw member 11. The jaw member 11 is formed with spaced side members 11' through which the pivot 12 passes when mounted on the shank 1 and said members 11' are curved at their opposite extremity, where they are also connected by means of the end portion 13. At a suitable point on the edges of the side members 11' of the pivoted jaw member 11 are provided the lugs 14 which are adapted to lockingly engage in

notches 15 formed in the bifurcated end portion 4' of the detachable jaw member 4.

When thus engaged, the detachable jaw member 4 is positively held in position and a spring actuated projection 16 is mounted in the recessed portions of the shank 1 so as to project therefrom into engagement with a side member 11' on the opposite side to the lugs 14 and by this means the pivoted jaw member is prevented from becoming disengaged from the detachable jaw member 4.

It is contemplated that a number of jaw members 4 are to be provided for each wrench, each of said jaw members being of similar construction but formed in such a manner that the opening 9 will be of different sizes according to the customary sizes of nuts with which it may be used.

When it is desired to use the wrench in connection with pipes or rods, it is only necessary to depress the projection 16, thereby disengaging the pivoted jaw member 11, which may then be swung into its outward position where the curved outer end of the same may cooperate with the inclined or curved extremity 3' of the fixed jaw member 3. The inner edges of the curved portion just mentioned, as well as the inclined extremity 3', are preferably serrated in order to facilitate the gripping action on the object which is to be screwed or unscrewed.

The reduced edge 10 is suitably formed with a notch 17 at a point near the pivot 12 of the movable jaw member 11, said notch constituting a wire cutting element. When it is desired to sever a piece of wire the jaw 11 is swung outwardly and said wire inserted in the notch 17, and by movement of said jaw toward the shank of the wrench, the wire will be easily cut in an obvious manner.

It is further contemplated that the top or outer side of the detachable jaw member 4 be formed with a V-shaped recess 18, the edge portions of which are undercut and the function of said recess is to permit a nail to be withdrawn when the head of the latter is inserted in said recess, the shank of the wrench acting as a lever. A second recess 19 is also provided on the jaw member 4, so formed as to have a pointed projection 19' therein, and the purpose of this recess is to provide a simple means for withdrawing staples, or the like.

There are numerous advantages of my particular construction of wrench, among which may be mentioned the elimination of the screw actuated sliding jaw found in the ordinary constructions of monkey wrenches which are always subject to wear and rust. The device also serves for performing numerous functions as disclosed in the description and much expense may be

saved by the same from a manufacturing standpoint.

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

1. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member mounted on the shank, and means secured to the shank adapted to lockingly engage with the detachable jaw member to hold the same in operative position and movable into a predetermined position for cooperation with the stationary jaw member.

2. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member mounted on the shank, and a pivoted jaw member secured to the shank adapted to lockingly engage with the detachable jaw member to hold the same in operative position and movable into a predetermined position for cooperation with the stationary jaw member.

3. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member mounted on the shank, a pivoted jaw member secured to the shank adapted to lockingly engage with the detachable jaw member to hold the same in operative position and movable into a predetermined position for cooperation with the stationary jaw member, and means for holding the pivoted jaw member in engagement with the detachable jaw member.

4. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member, means formed on the shank adapted to interlock with the detachable jaw member to prevent lateral displacement of the latter, and means adapted to lockingly engage with the detachable jaw member to prevent longitudinal movement thereof.

5. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member, means formed on the shank adapted to interlock with the detachable jaw member to prevent lateral displacement of the latter, and a pivoted jaw member adapted to lockingly engage with the detachable jaw member to prevent longitudinal movement thereof.

6. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member having spaced locking members formed thereon, a T-shaped lug formed on the stationary jaw and adapted to interlock with the spaced members on the detachable jaw member, a movable jaw member secured to the shank and adapted to normally engage with the detachable jaw member, said movable member being also adapted to swing into a position for cooperation with the stationary jaw member.

7. A compound tool comprising a shank terminating in a stationary jaw member, a

detachable jaw member mounted on said shank, and a pipe jaw member adapted to lockingly engage with the detachable jaw member, said shank having a wire cutting element formed thereon adapted to sever a wire as the pipe jaw member aforesaid is moved toward the shank.

8. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member mounted on said shank, and a pivoted jaw member mounted on the shank and adapted to lockingly engage with the detachable jaw member when in normal position, said shank having a wire cutting element formed thereon adapted to sever a wire as the pivoted jaw member aforesaid is moved toward the shank.

9. A compound tool comprising a shank terminating in a stationary jaw member, a detachable jaw member, a pivoted jaw member carried by the shank and adapted to lockingly engage with the detachable jaw member, means for holding the pivoted jaw member in engagement with the detachable jaw member, the shank aforesaid having a wire cutting element adapted to cooperate with the pivoted jaw member for severing wire, when the former is moved to engage with the detachable jaw member.

10. A compound tool comprising a shank

having a handle at one end and terminating at its other end in a stationary jaw member, a T-shaped lug formed on said stationary jaw member, a detachable jaw member formed with spaced locking members and adapted to interlock with the T-shaped lug aforesaid, a pipe jaw member pivotally mounted on the shank and comprising spaced side members, lugs projecting from said spaced side members, the detachable jaw member having notches formed therein to receive the lugs formed on the side members of the pivoted jaw member whereby the detachable jaw member may be held in operative position, and a spring actuated projection mounted in the shank and adapted to engage with the pivoted jaw member to hold the same in positive engagement with the detachable jaw member, said pivoted jaw member being movable into a predetermined position to cooperate with the stationary jaw member, substantially as described.

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

JAMES L. SCROGGINS.

Witnesses:

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A. S. WALDROP.