

W. J. TWEEDALE.
COMBINATION TOOL.
APPLICATION FILED SEPT. 21, 1908.

936,194.

Patented Oct. 5, 1909.
2 SHEETS—SHEET 1.

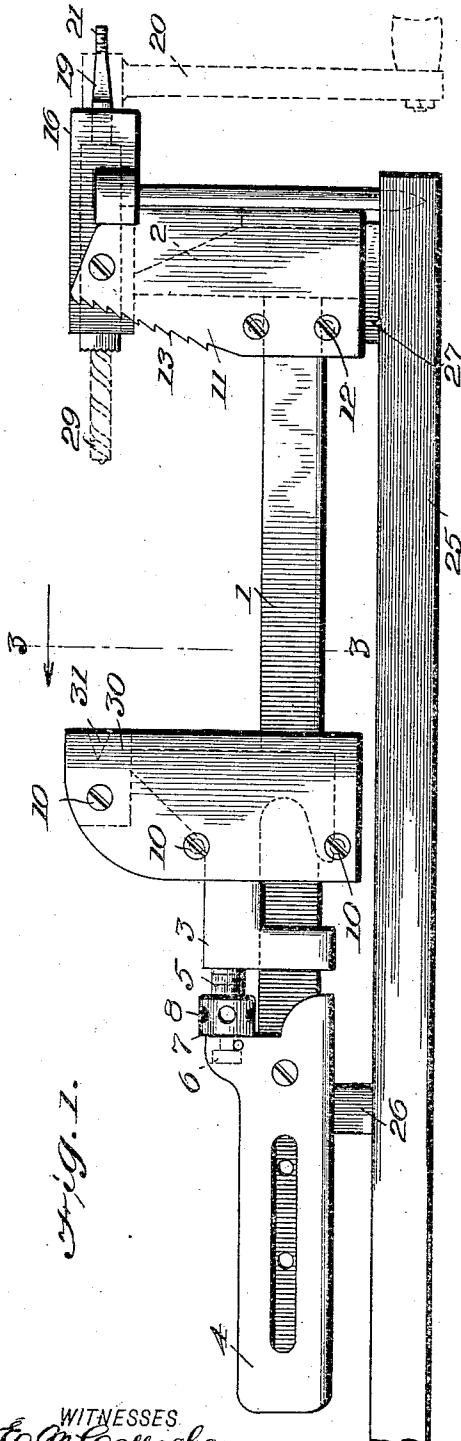


Fig. 1.

Fig. 2.

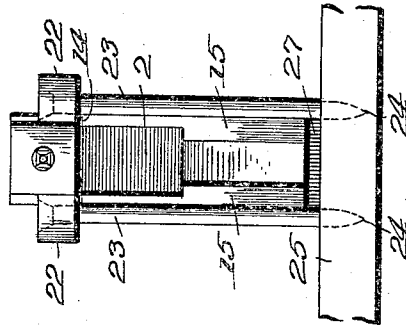
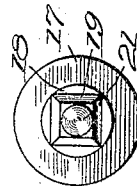


Fig. 7.



Fig. 8.



WITNESSES
E. M. Callaghan
C. E. Farmer

INVENTOR
WILLIAM J. TWEEDALE
BY *Mumford & Co.*
ATTORNEYS

W. J. TWEEDALE.
COMBINATION TOOL.
APPLICATION FILED SEPT. 21, 1908.

936,194.

Patented Oct. 5, 1909.
2 SHEETS—SHEET 2.

Fig. 4.

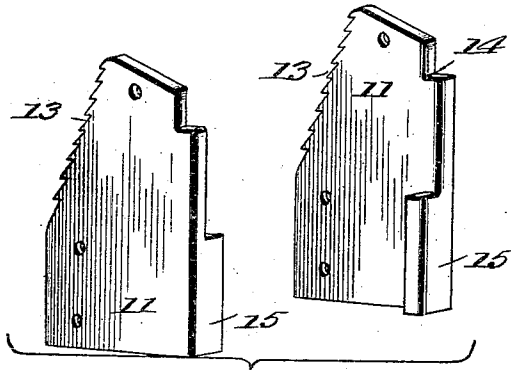


Fig. 5.

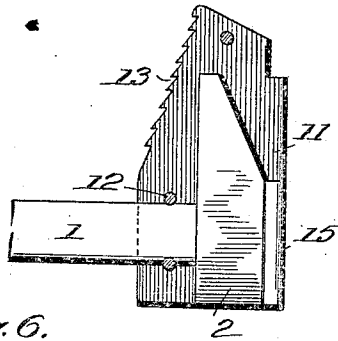


Fig. 6.

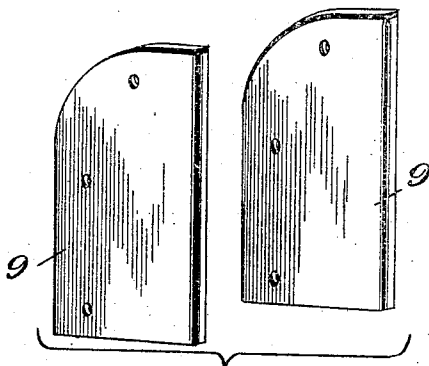
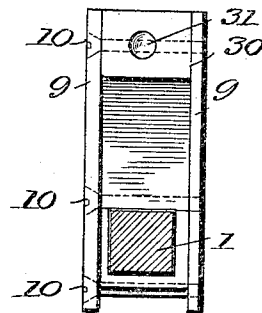


Fig. 3.



WITNESSES
E. M. Gallagher
C. E. Fairer

INVENTOR
WILLIAM J. TWEEDALE
BY *Wm. J. Tweedale*
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM JAMES TWEEDALE, OF SAGINAW, MICHIGAN.

COMBINATION-TOOL.

936,194.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed September 21, 1908. Serial No. 453,898.

To all whom it may concern:

Be it known that I, WILLIAM JAMES TWEEDALE, a citizen of the United States, and a resident of Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful improvements in Combination-Tools, of which the following is a specification.

My invention is an improvement in wrenches, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

The object of the invention is to provide a wrench of ordinary construction, with attachments whereby it may be used as a pipe wrench or a drill, or a turning lathe, and for many other purposes which will be obvious when the construction is understood.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the improved wrench. Fig. 2 is an end view. Fig. 3 is a section on the line 3—3 looking in the direction of the arrow. Fig. 4 is a detail perspective view of the pipe wrench jaws removed. Fig. 5 is a view of a portion of the end of the wrench with one jaw removed. Fig. 6 is a detail perspective view of the gripping plates of the movable jaw. Fig. 7 is a view of the drill spindle partly in section, and Fig. 8 is an end view of the drill socket.

The present embodiment of the invention comprises a shank 1, substantially square in cross section, having at one end the usual integral fixed jaw 2, and at the other the movable jaw 3, the shank being provided at the end adjacent the movable jaw with a handle 4. The movable jaw is operated by a screw 5 threaded therein and provided at its opposite end with a head 6, journaled in the handle, the screw having an integral wheel 7, for operating the same, and the wheel is provided in my improved wrench with a plurality of radial openings 8, for receiving a pin whereby to operate the screw. When used as a pipe wrench, a pair of plates 9 shown in Fig. 6 are arranged upon each side of the jaw, and are secured together by screws 10, arranged above and below the movable jaw, and close to the edge thereof as shown in Fig. 1. A second pair of plates 11 are arranged on each side of the fixed jaw, and are also secured in place by screws 12 arranged above and below the shank. The plates 11 as shown in Fig. 4, have their inner edge inclined and serrated near the free end

thereof as shown at 13, and the rear edge is provided with a notch 14, at the free end thereof, and with an inward flange 15, at the end adjacent the shank, the said flange 15 lapping over the end of the fixed jaw, and abutting the flange 15 of the opposite plate.

When arranged as above described, the wrench may be used as a pipe wrench, the inclined serrated edge of the plates on the fixed jaw, engaging and moving the pipe, the plates 10 engaging and holding the other side. It will be noticed that the serrations 13 are pointed downwardly or toward the shank, whereby to better grip the pipe. When used as a drill, a square block 16 is arranged between the plates 11, the said block having a recess therein for receiving the socket 17 of the drill, and a reduced opening leading from the recess for receiving the shank 18 of the socket, the free end of the shank projecting beyond the block, and being provided with a square portion 19 for receiving the handle 20, the free end of the shank being threaded as at 21 for receiving a nut whereby to secure the handle in place. At its sides the block is provided with ears 22, through which pass headed pins 23, the points of the pins engaging sockets 24, in a support 25 upon which the wrench rests, the wrench being supported by the blocks 26, and 27 arranged between the support and the wrench. The inner end of the socket 17 is serrated as at 27 for engaging wood, and is provided with the usual opening 28 for receiving the drill 29. A block 30 is arranged between the plates 9 when the wrench is used for turning, the said block being provided with a recess 31, for receiving the opposite end of the object to be turned.

When used as a drill, the parts are arranged as shown in Fig. 1, the blocks 16 and 30 being arranged between the plates 11 and 9, one of the screws 10 passing through the block 30 and one of the screws 12 passing through the block 16. The pins 23 are inserted in the recesses 24 in the support 25, and the socket is arranged in the recess of the block with the handle 20 secured thereto, and the drill 29 is placed in the recess 28. It will be evident that by turning the handle 20, the drill will be properly operated to make a hole in the object supported by the block 30.

When used as a turning lathe, the handle 20 may be replaced by a pulley not shown,

whereby to connect the socket 17 with a suitable source of power, and the object to be turned is arranged between the serrated end 27 of the socket and the block 30, the end of the socket constraining the article to rotate therewith.

The shank is provided with holes at the handle end by which the handle may slip out to the extreme end of the shank so as to give room between the jaws for the drill bit.

I claim:

A device of the class described, comprising a shank having a fixed and a movable jaw, plates arranged upon each side of the

movable jaw and detachably secured to each other said plates projecting beyond the movable jaw, a block detachably secured between the projecting ends of the plates, plates arranged on each side of the fixed jaw and secured together, said plates projecting beyond the fixed jaw, a block secured between the projecting ends, a socket rotatable within the block, and means whereby to rotate the socket.

WILLIAM JAMES TWEEDALE.

Witnesses:

S. S. ROBY,

CHAS. M. COPLIN.