No. 666,950. Patented Jan. 29, 1901.

G. WIRL.

COMBINATION PIPE TONGS, CUTTER, AND THREADER.

(No Model.) (Application filed July 11, 1900.)

Fig. 1.

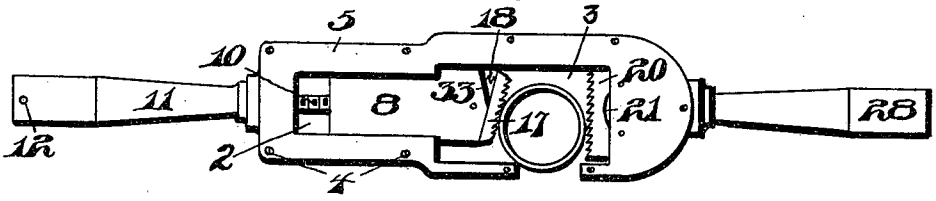


Fig. 2.

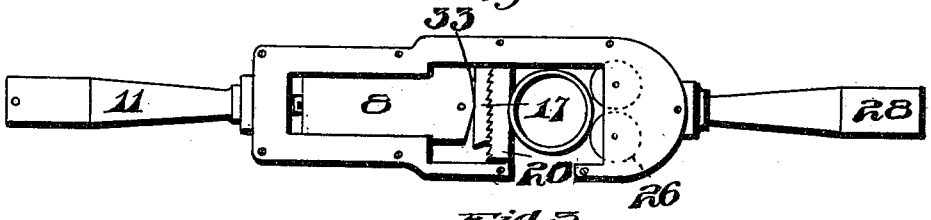


Fig. 3.

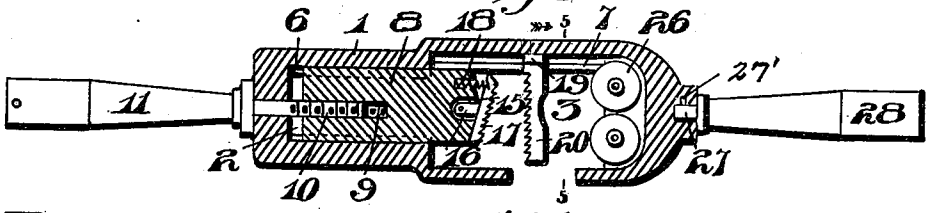


Fig. 4.

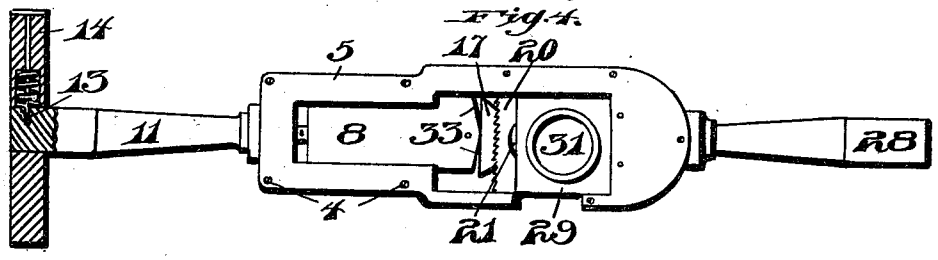


Fig. 5.

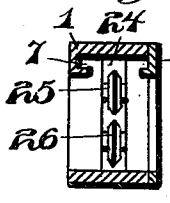


Fig. 6.

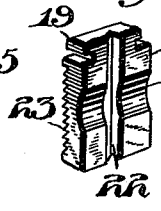


Fig. 7.

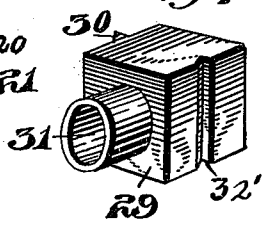


Fig. 8.

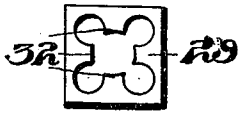
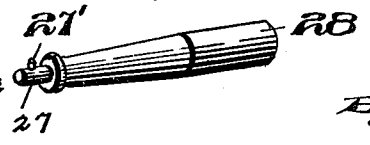


Fig. 9.



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UNITED STATES PATENT OFFICE.

GEORGE WIRL, OF PITTSBURG, PENNSYLVANIA.

COMBINATION PIPE TONGS, CUTTER, AND THREADER.

SPECIFICATION forming part of Letters Patent No. 666,950, dated January 29, 1901.

Application filed July 11, 1900. Serial No. 23,216. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WIRL, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Combination Pipe Tongs, Cutter, and Threader, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in combination-tools, and more particularly to a combination pipe tongs, cutter, and threader.

The invention has for its object to provide a tool of this character which will be easily adapted for use as a pipe-tongs for various-sized pipes, and, further, arranged in such a manner that the tool can be employed for cutting pipe. Furthermore, by the addition thereto of a suitable die the tool can be used for the purpose of threading pipes of various diameters.

Briefly described, the invention comprises an open frame with a handle secured to one end thereof and a pair of cutters journaled in the frame at one end of the opening and projecting partly into the same, an adjusting-block arranged in the opposite end of the frame, a handle connected to said latter end of the frame and provided with an adjusting-screw engaging the adjusting-block, together with a jaw pivoted to the inner end of the adjusting-block, and a spring connected to the jaw and to the adjusting-block for normally holding the block at an incline.

The invention finally consists in the novel combination and arrangement of parts, to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail, reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a side view of my improved tool when used as a pipe-tongs. Fig. 2 is a side elevation of my improved tool when used as a pipe-cutter. Fig. 3 is a longitudinal sectional view thereof, showing the sliding jaw and pipe-cutters, as well as the pivoted jaw and adjusting-block. Fig. 4 is a side elevation of my improved tool, showing the same adapted for use for threading pipe, also showing, in section, the removable grip for the handle. Fig. 5 is a cross-sectional view taken on the line 5 5 of Fig. 3. Fig. 6 is a perspective view of the sliding jaw. Fig. 7 is a perspective view of the threading-die. Fig. 8 is a rear elevation thereof. Fig. 9 is a perspective view of one of the detachable handles.

In the drawings, 1 indicates a suitable open frame, the portion 2 of the opening being of less width than the portion 3 thereof, the walls surrounding the portion 2 of the opening being provided with a dovetailed groove 6, and the wall around the portion 3 having a like groove 7. Arranged to slide in the dovetailed groove 6 and extending into the portion 3 of the opening is an adjusting-block 8, provided in its one end with a threaded opening 9 to receive an adjusting-screw 10, extending through the end of the frame and connected to a removable handle 11. This handle 11 is provided near its outer end with a recess 12 for the reception of a spring-actuated fastening-pin carried by a grip 14, adapted to be mounted on the handle 11 when it is desired to use the device as a pipe-cutter.

The adjusting-block projects into the portion 3 of the opening and is provided with a recess 15, in which is pivotally mounted a link 16, having a jaw 17 pivoted to its outer end. This end 33 of the adjusting-block is substantially wedge-shaped, and the jaw 17 is normally held at an incline against one of the faces of said block by a spring 18, connected near one end of the jaw and to the adjusting-block. The dovetail 7 has arranged to slide therein a jaw 20, having a tenoned end to engage in the dovetail and provided with a concave seat 21, and on the same face with a groove 22, extending transversely to the seat 21. The opposite side or face of this jaw is provided with corrugations 23, which engage the corrugations on the outer face of the jaw 17. When a pipe is to be gripped, the jaw 20 is moved to the closed end of the portion 3 of the opening, as shown in Fig. 1, and the pipe clamped between the jaws 17 and 20, the groove 22 in the jaw receiving the cutters 26, which are journaled within a recess 24 on shafts 25 at one end of the frame. When the

device is to be employed for cutting the pipe, the jaw 20 is moved against jaw 17 and the pipe engaged between jaw 20 and the cutter 26, as shown in Fig. 2 of the drawings. A removable handle 28 is secured in the end of the frame which carries the cutters by means of a pin 27′ engaging the end 27 of said handle.

I may also employ the device for threading the pipe, and in this connection use a die 29, provided on one face with a shoulder 30 to engage in the groove 22 and on one end with a nipple to receive the pipe. This die is provided with suitable cutting-teeth 32, as shown, and on the face opposite to the shoulder 30 has a groove 32′ to receive the cutters 26. The application of this die is shown in Fig. 4, the jaw 20 being moved over against the jaw 17 and the die clamped between this jaw and the cutters. A suitable retaining-plate 5 is secured to the frame 1 by means of screws 4 and serves to retain the parts in position in the open frame.

The adjusting-block, it will be observed, is brought to its proper position by the screw 10, and when used as tongs for gripping the pipe the latter is held therein as shown in Fig. 1. When used for cutting the pipe, the latter is held therein as shown in Fig. 2, and when threading as shown in Fig. 4.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, an open frame, a handle secured to one end of said frame, a pair of cutters journaled in the frame at one end of the opening and projecting partly into said opening, an adjusting-block arranged in the opposite end of the frame, a handle connected to said end of the frame and provided with an adjusting-screw engaging the adjusting-block, a jaw pivoted to the inner end of said adjusting-block, and a spring connected to said jaw near its one end and to the adjusting-block for normally holding said block at an incline, substantially as described.

2. In a device of the character described, an open frame, a handle secured to one end of said frame, an adjusting-block arranged within the frame-opening at one end thereof and provided with a wedge-shaped inner end, a rotatable handle mounted in the end of the frame and engaging in the adjusting-block for moving the same in the frame, a jaw pivoted to the wedge-shaped inner end of the adjusting-block, a spring connected to said jaw near its one end and to the adjusting-block, a sliding jaw arranged within the frame-opening, and a retaining-plate connected to the frame for securing the adjusting-block and sliding jaw within the frame, substantially as shown and described.

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

GEORGE WIRL.

Witnesses:
JOHN NOLAND,
N. L. BOGAN.