

Wrenches, Sliding Adjustments,
Rack, Pivoted Rack-Catch,
Intermediate Fulcrum.

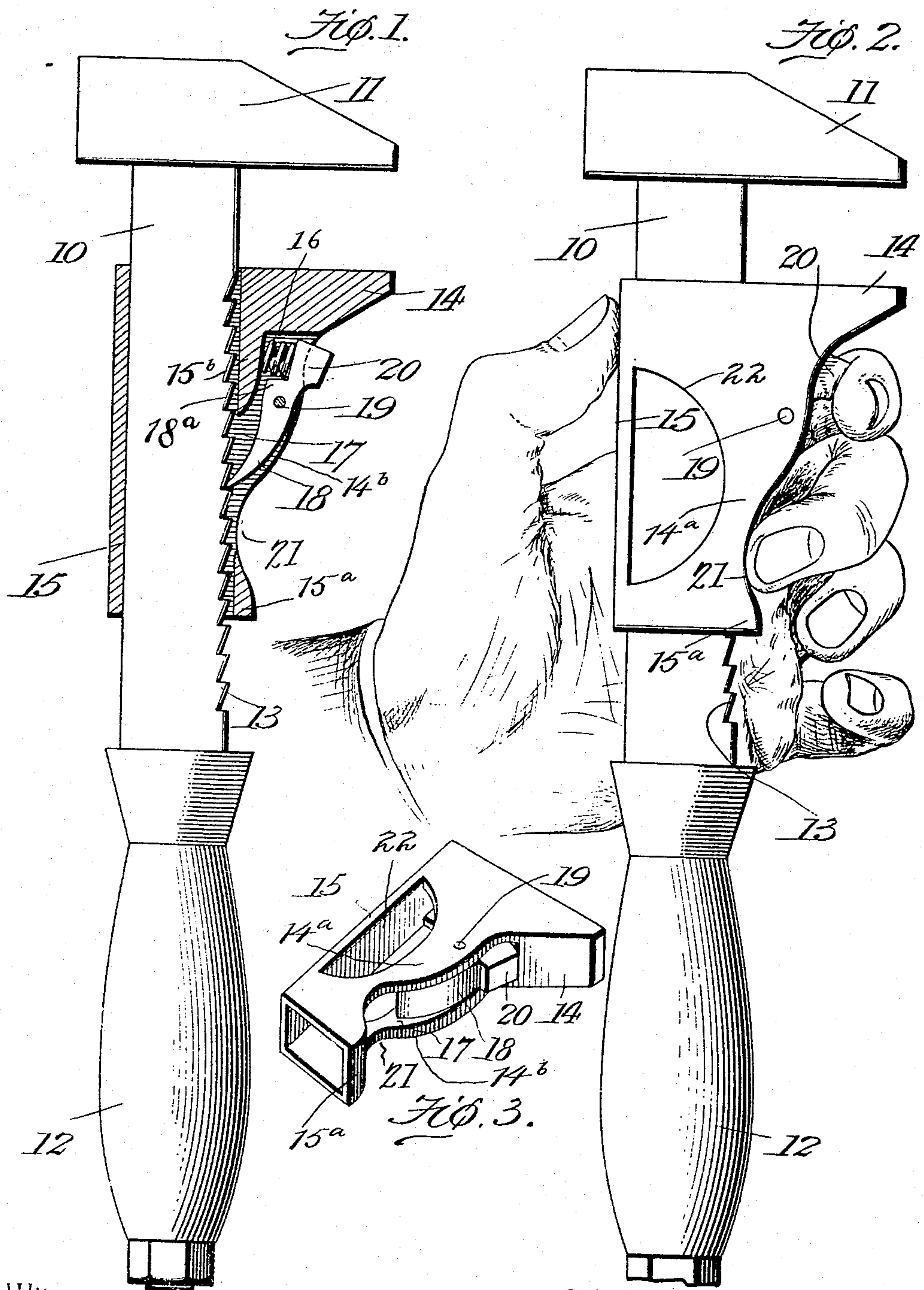
No. 825,525.

PATENTED JULY 10, 1906.

G. E. DORNON.

WRENCH.

APPLICATION FILED APR. 17, 1903.



Witnesses
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UNITED STATES PATENT OFFICE

GEORGE E. DORNON, OF WILLOWGROVE, WEST VIRGINIA.

WRENCH.

No. 825,525.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed April 17, 1903. Serial No. 153,108.

To all whom it may concern:

Be it known that I, GEORGE E. DORNON, a citizen of the United States, residing at Willowgrove, in the county of Jackson and State of West Virginia, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to quick-action wrenches; and it has for its object to simplify and improve the action of instruments of this character, to increase the efficiency, and to cheapen the cost of manufacture.

With these ends in view the invention consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of the improved wrench. Fig. 2 is a side elevation illustrating the manner of operating the movable jaw member. Fig. 3 is a perspective view of the movable jaw member detached.

Corresponding parts in the several figures are designated by like characters of reference.

The improved wrench comprises a stock or shank portion 10, having at one end the stationary jaw 11, which may be integral therewith and provided at its opposite end with the handle 12. Ratchet-teeth 13 are formed upon one side of the shank between the stationary jaw and the handle.

14 designates the movable jaw member, which is provided with a shank-engaging sleeve which may be described as comprising side members 14^a 14^b, a back wall 15, connecting said side members at their rear sides, and a bridge-piece 15^a, which serves, together with the jaw proper 14, to connect the front part of the side members of the sleeve. At the inner end of the jaw member 14 is a depending flange 15^b. Said flange and the bridge-piece 15^a cooperate to engage the toothed side of the shank, thus enabling the jaw-carrying sleeve to be conveniently moved up and down upon the latter.

In the socket or recess 17, formed between the side members of the sleeve, is disposed a pawl 18, pivotally mounted near one end on a pin 19, while its other end extends normally past the flange 15^b and into engagement with one of the teeth on the shank. This pawl is curved from end to end and is at all times entirely confined between and protected by the side members of the sleeve. The pivot end of the pawl is cut off at an angle to

form a shoulder 18^a, and formed on one corner of the pawl is an angular thumb-piece 20, which normally projects from and extends close to the end wall of the socket 17. The innerface of this thumb-piece is slightly longer than the diameter of a coiled spring 16, which is disposed upon the flange 15^b and is confined and prevented from twisting out of proper position by the shoulder 18^a and the end wall of the socket 17. It thus becomes unnecessary to employ centering-pins, and, as shown in Fig. 1, the spring merely bears upon the thumb-piece 20 and is held in proper position by the shoulder and the walls of the socket, as stated.

Within the edges of the side portions 14^a and 14^b of the sleeve and between the free end of the pawl 18 and the bridge-piece 21 are formed depressions 21, forming finger-grips to enable the operator to firmly grasp the implement with the middle, third, and little finger and thumb of the same hand which operates the wrench, leaving the index-finger free to operate the pawl by pressing upon the protruding end 20, as illustrated in Fig. 1. The movable member of the wrench is thus molded to fit the hand of the operator and enables him to adjust and operate the implement with one hand only, leaving the other hand free for other work. The recesses 21 being located below the operative or ratchet-engaging end of the pawl, the action of the latter is not obstructed by the fingers of the operator when grasping the implement while manipulating the pawl, as above described. When employing the implement in contracted or cramped localities, the movable jaw may be adjusted toward the stationary jaw by pressing with the thumb upon the bridge-piece 15^a.

The side walls of the sleeve are preferably provided with openings 22, which are partly for the purpose of lightening and cheapening the construction, partly in order to reduce friction, and partly to prevent the accumulation of dirt within the sleeve, which would interfere with the successful operation of the device. It is to assist in this latter purpose that the front portion of the sleeve is made entirely open. Dirt, waste, and the like, which in course of time is apt to enter the sleeve, will, owing to this construction, work out freely under the free end of the pawl 18.

Having thus described my invention, I claim as new and desire to secure by Letters Patent of the United States—

In a wrench the combination with a toothed shank having a jaw at one end; of a slidable jaw mounted on the shank and comprising a sleeve having an elongated socket therein, a
5 transversely-extending flange within the socket, the end wall of said socket being disposed at right angles to the shank, a pawl pivoted at one end within the socket and normally engaging the shank, said pawl being
10 entirely interposed between and protected at all times by the walls of the socket, and the pivoted end of the pawl being cut away to form an angular recess one wall of which is normally parallel with the end wall of the
15 socket, a thumb-piece formed on one corner

of the pawl and adjacent the recess, said thumb-piece normally projecting from the socket, and a coiled spring interposed between and bearing against the flange and thumb-piece, said spring being positively 20 confined in operative position by the walls of the recess and socket.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE E. DORNON.

Witnesses:

ZACHARY T. MCKAY,
CHARLES M. CHALFANT.