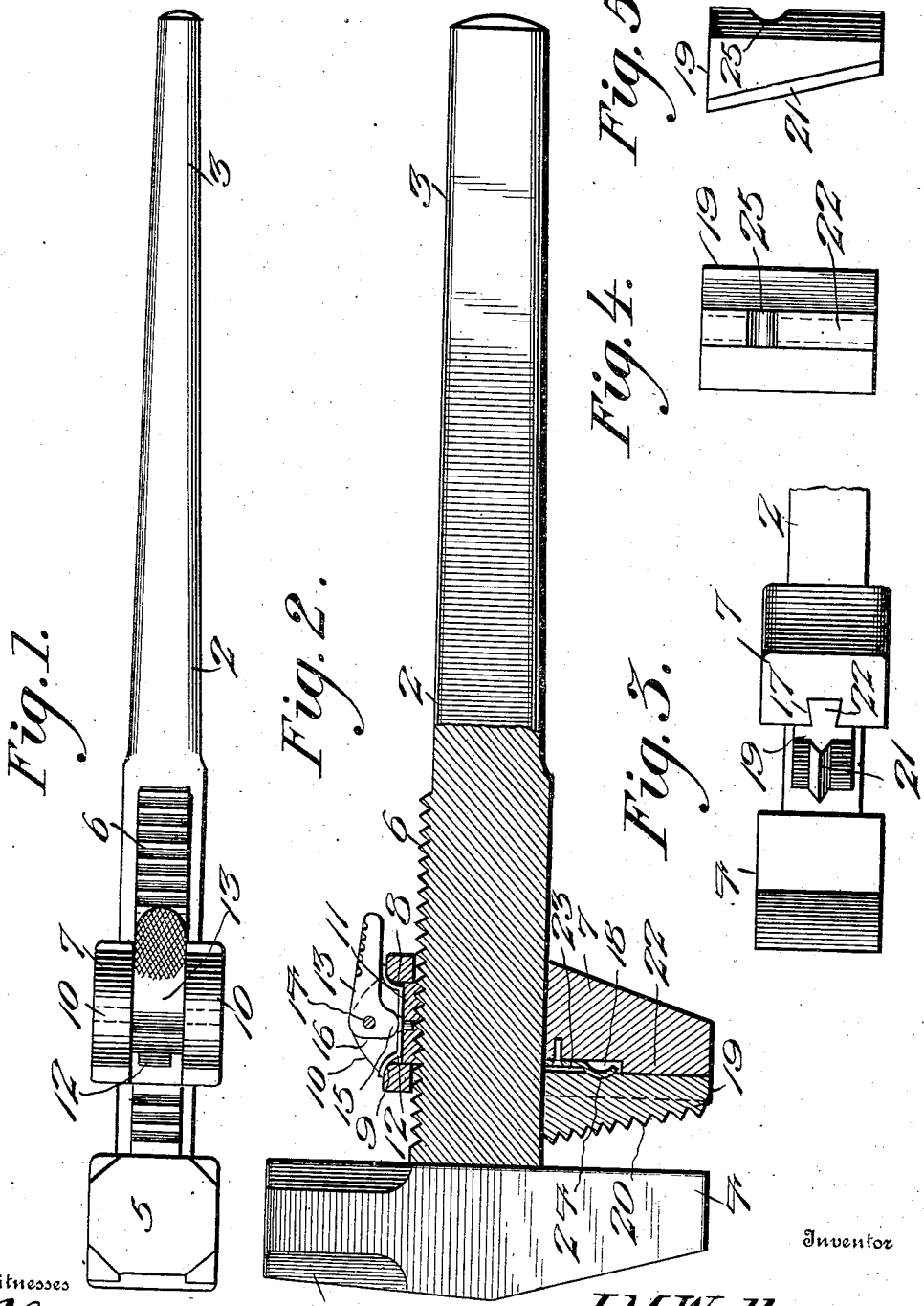


No. 855,367.

PATENTED MAY 28, 1907.

J. M. WALLACE.
WRENCH.

APPLICATION FILED MAY 19, 1906.



Witnesses
Phil. C. Barnes
John H. Byrum.

J.M. Wallace.
Victor J. Evans.
Inventor
Attorney

UNITED STATES PATENT OFFICE.

JOHN M. WALLACE, OF NEW CASTLE, PENNSYLVANIA.

WRENCH.

No. 855,367.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN M. WALLACE, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to wrenches, and its primary object is to provide a novel and highly useful device of this character wherein the movable jaw may be adjusted readily and quickly and locked firmly in adjusted position; one which is simple and durable, and one which may be manufactured and sold at a comparatively low cost.

A further object of the invention is to provide a device of the character stated wherein the movable jaw is adapted to receive an auxiliary jaw to permit the wrench to be converted into a nut wrench, a pipe wrench or a pipe cutter, and to provide said jaw with means which is adapted to firmly retain the auxiliary jaw in position and permit the auxiliary jaw to be freely applied and removed.

With the above and other objects in view, the invention consists of the construction, combination and arrangement of parts hereinafter fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a top plan view of a wrench constructed in accordance with my invention. Fig. 2 is a view in side elevation, the movable jaw and a portion of the shank being in section. Fig. 3 is a bottom plan view. Fig. 4 is a view in rear elevation of an auxiliary jaw, and Fig. 5 is a view in side elevation of said jaw.

Referring to the drawings by reference numerals, 2 designates the shank which has one of its ends formed to provide a handle 3 and its other end formed to provide a stationary jaw 4, the acting face of said jaw being at right angle with relation to the shank 2. The stationary jaw projects above the shank 2 and is formed to provide a hammer head 5. The upper longitudinal edge of the shank 2 is provided with teeth 6, sufficient in number to permit the movable jaw to have a wide range of adjustment. A movable jaw 7 is mounted upon the shank 2 and has its upper end provided with a vertically extending opening 8, the upper edges of the end walls of said opening being rounded, as at 9, for a purpose to be presently set forth. A pair of ears 10 rise vertically from the upper end of the jaw 7 and each is ar-

ranged on one side of the opening 8, said ears being provided with alining perforations. A dog 11 is mounted in the opening 8 for a limited vertical movement, and is retained normally out of engagement with the teeth 6 by a leaf spring 12. The spring 12 is secured to the upper surface of the dog 11 and the free ends thereof project beyond the edges of the dog and lie in engagement with the curved portions 9 of the end walls of the openings 8.

A lever 13 is pivotally mounted between the ears 10 and above the spring 12 by a pin 14 which engages in the bearings of said ears. The lever is provided with a cam portion 15 and a flat face 16. When the lever is swung to bring its cam portion 15 into engagement with the spring 12, the dog 11 is brought and held firmly in engagement with the teeth 6, and when said lever is swung to move its cam portion 15 out of engagement with the spring 12, said spring moves the dog 11 upward out of engagement with the teeth 6 and engages the plain face 16 of said lever. The engagement of the spring 12 with the plain face 16 of the lever retains the lever in position to be swung to move the dog 11 into engagement with the teeth 6 and also retains the dog 11 out of engagement with the teeth 6 to permit the jaw 7 to be adjusted freely and quickly. The acting face of the jaw 7 is provided with a longitudinally extending dovetail-slot 17, the bottom wall of said slot being provided with a recess 18. An auxiliary jaw 19, which may have its acting face provided with a series of transversely extending teeth 20, Fig. 2 of the drawings, or an auxiliary jaw having its acting face provided with a longitudinally extending cutting blade 21, Figs. 3 and 5, is provided with a longitudinally extending dovetail-rib 22, said rib being adapted to be received by the slot 17 to secure the auxiliary jaw to the jaw 7 against tilting. A leaf spring 23 is secured in the recess 18 and is provided with a bowed portion 24 adapted to be received by a depression 25 in the rib 22, said spring preventing the auxiliary jaw from having any longitudinal movement with relation to the jaw 7, whereby said auxiliary jaw is secured in applied position against accidental displacement. Although said spring prevents the auxiliary jaw from having any accidental longitudinal movement upon the jaw 7, said auxiliary jaw may be applied to or removed from the jaw 7 readily and quickly, owing to the fact that the bowed

portion 24 of the spring 23 is adapted to move inwardly and out of the depression 25 when sufficient pressure is applied to the auxiliary jaw to overcome the tension of the
5 spring.

It should be apparent from the above description, taken in connection with the accompanying drawings, that I provide a wrench which may be used as a nut wrench, a
10 pipe wrench or a pipe cutter, that the movable jaw of the wrench may be adjusted readily and quickly and held firmly in adjusted position, that I provide means by
15 which an auxiliary jaw may be retained in applied position upon the movable jaw against accidental displacement, and that said means will also permit the auxiliary jaw to be applied or removed readily and quickly.

Changes in the form proportions and minor
20 details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my
25 invention, what I claim is:

1. A wrench comprising a shank provided with a stationary jaw and with teeth, a movable jaw mounted upon the shank and having its end provided with an opening, a dog
30 movable within said opening, a spring carried by said dog and engaging the upper

edges of the walls of said opening, and a lever pivotally mounted upon the movable jaw and provided with a cam portion adapted to be brought into engagement with the spring to move and hold the dog in engagement with the teeth.

2. A wrench comprising a shank provided with a stationary jaw and with teeth, a movable jaw mounted upon the shank and having its upper end provided with an opening, a dog mounted in said opening, a leaf spring secured to the dog and having its ends disposed in engagement with the upper edges of the walls of said opening, said spring being adapted to retain the dog normally withdrawn from the teeth, and a lever pivotally mounted upon the movable jaw and provided with a cam portion adapted to be brought into engagement with the spring to
5 move and hold the dog in engagement with the teeth, said lever being provided with a plain face adapted to be engaged by the spring to retain the lever in position to be moved to bring the dog in engagement with
5 the teeth.

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

JOHN M. WALLACE.

Witnesses:

LILLIAN DAUGHERTY,
ROBERT L. WALLACE.