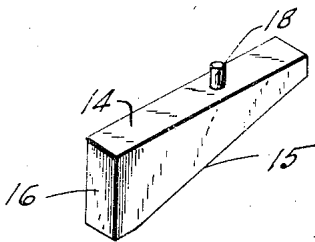
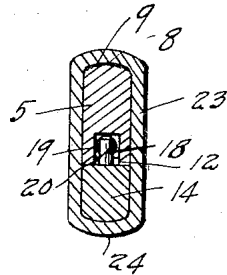
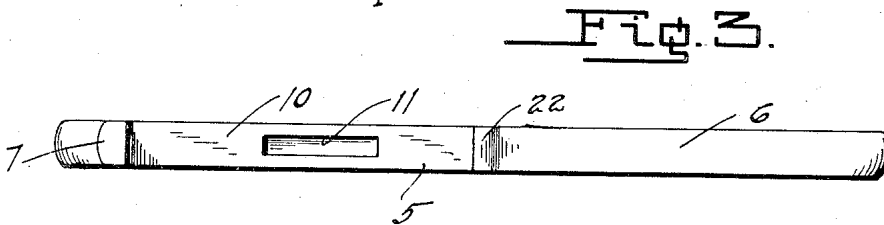
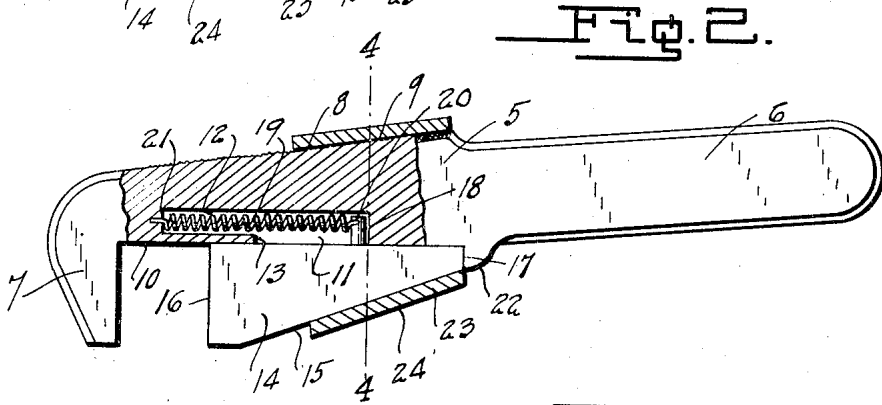
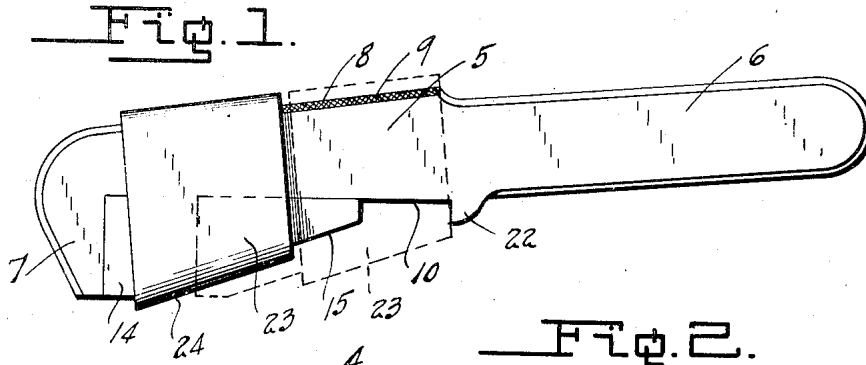


C. H. STAUFFER.
WRENCH.

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1,427,918.

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Inventor

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UNITED STATES PATENT OFFICE.

CHRISTIAN HANS STAUFFER, OF CHICAGO, ILLINOIS.

WRENCH.

Application filed March 4, 1922. Serial No. 541,088.

To all whom it may concern:

Be it known that I, CHRISTIAN HANS STAUFFER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to wrenches and more particularly to quick adjustable wrenches.

An object of the invention is to provide a wrench capable of being adjusted by sliding movement of the movable parts of the wrench and locked in adjusted position by the wedging action of the movable parts.

Another object of the invention is to provide a wrench of this character including a movable jaw operatively connected to the body of the wrench by yieldable means, said means being disposed within and protected by the body member.

It is still a further object of the invention to provide a wrench of this character having a compartment in one face thereof in which a spring is disposed, and a movable jaw slidable on the body member, with means projecting within the slot and connected to the spring, whereby the movable jaw is normally urged away from the stationary jaw.

With these and other objects in view, the invention consists in the improved construction and arrangement of parts to be hereinafter more particularly described, fully claimed and illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a quick adjustable wrench constructed in accordance with an embodiment of the invention, the dotted lines indicating one of the adjusted positions of the wrench;

Figure 2 is a side elevation partly in section, showing the connection of the movable jaw to the body of the wrench;

Figure 3 is a plan view of the front face of the wrench, showing the connection of the movable jaw to the body of the wrench;

Figure 4 is a section taken on the line 4—4 of Figure 2; and

Figure 5 is a perspective view of the movable jaw.

Referring to the drawings, 5 designates the body member of the wrench, having a handle 6 on one end and a stationary jaw 7

on the opposite end, said stationary jaw projecting at right angles to the shank of the wrench. The back 8 of the body member is beveled from the stationary jaw to a point adjacent the handle, said back being provided with teeth 9, the purpose of which will be hereinafter described. The front face 10 of the body member is provided with a longitudinally extending slot 11, while a passage or bore 12 extends through the upper end wall 13 of the slot toward the stationary jaw 7 and terminates in spaced relation to the jaw 7. A movable jaw 14 is provided, the outer face 15 of said jaw tapering from the work engaging face 16 to the opposite end 17, while the inner or rear face of the jaw is disposed substantially at right angles to the work engaging face and adapted to engage the face 10 of the body member. Projecting inwardly from the inner or rear face of the jaw is a finger 18, said finger being shorter than the depth of the slot 11, and is adapted to move within the slot in the adjustment of the wrench. To operatively connect the movable jaw to the wrench, a spring 19 is provided. The spring 19 is intended to extend longitudinally of the slot 11, the end 20 of the spring being secured to the finger 18, while the opposite end 21 of the spring is passed into the bore or passage 12 and secured therein, the outer face 10 of the body member extending over the upper end of the spring so that there will be no danger of the work coming in contact with and injuring the spring. By this means, the finger 18 is normally urged toward the lower wall of the slot, and also serves as a stop to limit movement of the movable jaw by contact with the lower wall of the slot. It will be noted that the finger 18 is disposed adjacent the center of the rear or inner face of the movable jaw. In addition to the cooperation of the end wall of the slot 11 with the finger 18, a stop lug 22 is provided at the junction of the handle with the body member, said stop being adapted to be engaged by the lower end 17 of the movable jaw, thereby cooperating with the finger to limit movement of the jaw, and also preventing damage to the finger by sudden contact of the finger with the end of the slot.

To hold the movable jaw in various adjusted positions, against the tension of the spring 19, a novel wedge collar 23 is provided, the inclined front wall 24 of the col-

lar cooperating with the substantially vertical outer face 10 of the body member to provide a wedge shaped compartment for the reception of the wedge jaw. The rear
5 face of the collar is intended to engage the teeth 9 on the back of the wrench so as to prevent accidental slipping of the wedge collar.

To adjust the wrench, the wedging action
10 is broken by moving the collar away from the movable jaw, and at the same time holding the jaw to prevent movement of the jaw inwardly of the collar through the medium of the spring. The movable jaw
15 may then be adjusted to the point desired and the wedge collar moved toward the jaw, which, through the cooperation of the spring 19 urges the jaw into the compartment formed by the collar and body member,
20 thereby firmly holding the movable jaw indefinitely in the correct position.

From the foregoing it will be readily seen that this invention provides a novel form of quick adjustable wrench wherein
25 the movable jaw is constantly urged downwardly or longitudinally of the body member of the wrench through the medium of the finger which is movable within the slot 11, the spring being protected at all times
30 in view of the fact that it is entirely enclosed within the body member. Furthermore, there is no danger of strain of the movable jaw interfering with the finger 18, as the inner face of the movable jaw is
35 intended to slide upon the outer face 10 of the body member, and in this way serve as a cover for the slot 11.

What is claimed is:—

1. A wrench comprising a body member
40 having a fixed jaw at one end and a longitudinally extending slot in the front face of the body member, a wedge jaw slidable on said front face, a portion of said jaw being movable within the slot, a wedge
45 collar embracing the body member and the wedge jaw, and yieldable means disposed within the slot and operatively connecting said portion of the wedge jaw to the body member.

50 2. A wrench comprising a body member

having a fixed jaw at one end and a longitudinally extending slot in the front face of the body member, a wedge jaw slidable on said front face, a portion of said jaw being movable within the slot, a wedge
55 collar embracing the body member and the wedge jaw, and yieldable means disposed within the slot and operatively connecting said portion of the wedge jaw to the body member, said yieldable means being ar-
60 ranged to urge said portion of the jaw toward one end of the slot.

3. A wrench comprising a body member having a stationary jaw at one end, and a
65 longitudinally extending slot in the front face of the body member, said body member having a bore extending through one end of said slot and toward the stationary jaw, a spring mounted in said bore, said
70 spring extending longitudinally of the slot, a wedge jaw having a finger projecting from one face thereof, said finger being movable within the slot and connected to the spring, and means for holding said movable jaw
75 in various adjusted positions against the tension of the spring.

4. A wrench comprising a body member having a stationary jaw at one end and a
80 longitudinally extending slot in the front face of the body member, a stop member projecting from said front face of the body member in spaced relation to the slot, a
wedge jaw slidably mounted on said front face of the body member, said jaw having
85 a finger extending from the central portion of the inner face of the jaw and inwardly of the slot, an expansion spring disposed within said slot for normally urging the finger
toward one end of the slot, one end of the
90 movable jaw being adapted to engage the stop of the body member to limit movement of the wedge jaw upon contact of the finger with said end of the slot, and means embracing the body member and the jaw for
95 holding said jaw in various adjusted positions.

In testimony whereof I hereunto affix my signature.

CHRISTIAN HANS STAUFFER.