S. S. VAUGHAN.

WRENCH.

APPLICATION FILED MAR. 3, 1908.

913,995. Patented Mar. 2, 1909.

Fig. 1

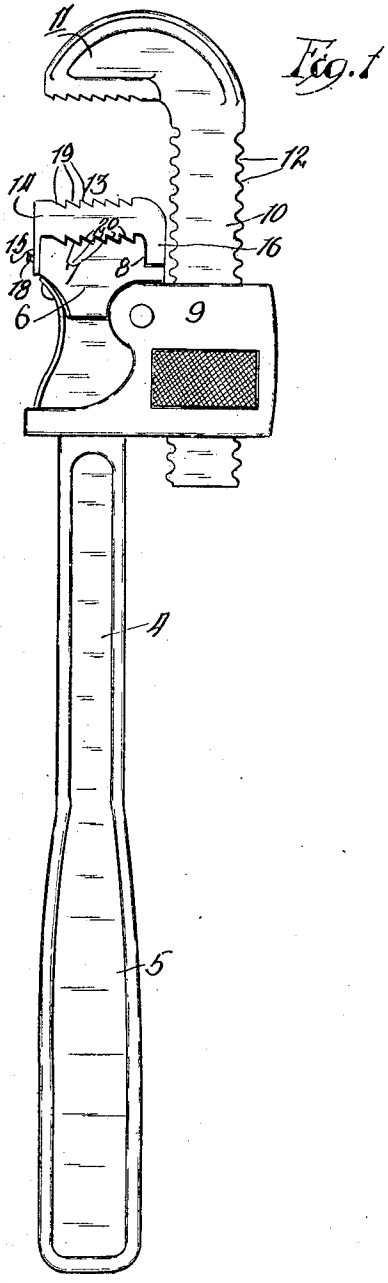


Fig. 2

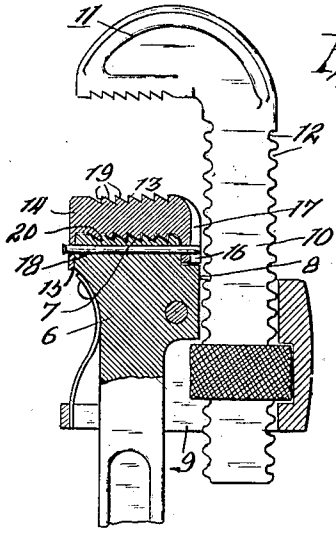
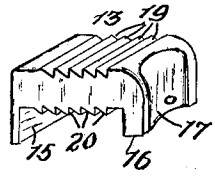


Fig. 3.



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UNITED STATES PATENT OFFICE.

SANFORD S. VAUGHAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO VAUGHAN & BUSHNELL MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

WRENCH.

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To all whom it may concern:

Be it known that I, SANFORD S. VAUGHAN, 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.

This invention, in the embodiment herein shown, is applied to a pipe wrench of standard type, although the invention does not relate exclusively to pipe wrenches.

The invention consists, essentially, in the provision of an auxiliary or supplemental jaw member, having a formation which permits it to be readily and easily secured to the acting face of the lower jaw of the wrench, which provides, in effect, an extra lower jaw for the wrench which may be initially used until worn out and thereafter discarded or recut, the regular lower jaw of the wrench meanwhile remaining unworn and unused and in condition for subsequent usage.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a pipe wrench, showing the supplemental jaw of the present invention; Fig. 2 a view partly in section of the same; and Fig. 3 a perspective view of the upper toothed surface of the supplemental jaw.

The pipe wrench shown in the views is of the usual variety, comprising a shank 4 terminating, at its lower end, in a handle 5, and terminating, at its upper end, in a serrated lower jaw 6 having the usual forwardly extending teeth 7. The rear inner corner of the jaw is cut away to provide an angular recess 8, immediately below which the usual rocking frame 9 is pivoted, which carries the shank 10 of the upper jaw head 11. The shank is of the usual type and is provided with broken threads 12, which are engaged by the usual milled thumb nut. These features are of ordinary type, and further description is deemed unnecessary.

The supplemental or auxiliary jaw 13, which more particularly forms the subject matter of the present invention, comprises a body 14 of slightly greater length than the length of the acting face of the lower jaw, which body is provided, at its forward end, with a depending ear 15, and, at its rear or inner end, with a depending tongue 16 of the proper thickness to bring its edges flush with the side and rear faces of the lower jaw. The inner face of the tongue, as shown in Fig. 2, is provided with a rounded channel or recess 17, and the tongue as a whole enters the angular recess 8 in the lower jaw. The ear 15 engages the front face of the lower jaw, and the supplemental or auxiliary jaw as a whole is rigidly held by means of a pin 18 which is passed through the ear 15, the head of the lower jaw, and the tongue 16, being of sufficient length to project slightly, at opposite ends, from the supplemental jaw. The supplemental jaw is provided, on its upper or acting face, with forwardly projecting teeth 19, which correspond, in number and arrangement, with the teeth 7 on the lower jaw; and, in addition to the upper or acting teeth 19, the supplemental jaw is provided, on its under face, with rearwardly extending clamping teeth 20 which register with the teeth of the lower jaw.

With the supplemental jaw in the position shown in Fig. 1, the wrench can be used in the usual manner, and the pressure on the supplemental jaw, incident to ordinary usage, will cause the clamping teeth to closely engage with the teeth of the lower jaw, which relieves the pin 18 and the tongue and ear of most of the strain and concentrates the pressure at the point where it can be most advantageously sustained. If the supplemental jaw becomes worn after continued usage, it can be readily removed by withdrawing the pin and lifting the supplemental jaw from position, after which the main jaw of the wrench will be brought into service and can be used as long as may be desired.

The provision of the supplemental jaw gives to the wrench, in effect, the life of two wrenches, and the construction is one which enables the teeth of the lower jaw to serve a double function, in that, in addition to their usual function, they serve to sustain the pressure due to the engagement of the teeth on the supplemental jaw.

What I regard as new and desire to secure by Letters Patent is:

In a wrench, the combination of a main jaw provided with forwardly extending teeth adapted for service, a supplemental jaw provided, on its acting face, with forwardly extending teeth adapted for service, and provided, on its under face, with rearwardly ex-

tending teeth adapted to engage the teeth on the main jaw, depending members on the supplemental jaw adapted to engage the inner and outer faces of the main jaw, and a pin, entered through such members and through the main jaw, for removably securing the supplemental jaw thereon and holding the teeth of the two jaws in engagement and adapted to permit the complete removal of the latter jaw, substantially as described.

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