

(No Model.)

F. S. COOK.
SPANNER WRENCH.

No. 466,157.

Patented Dec. 29, 1891.

Fig. 1.

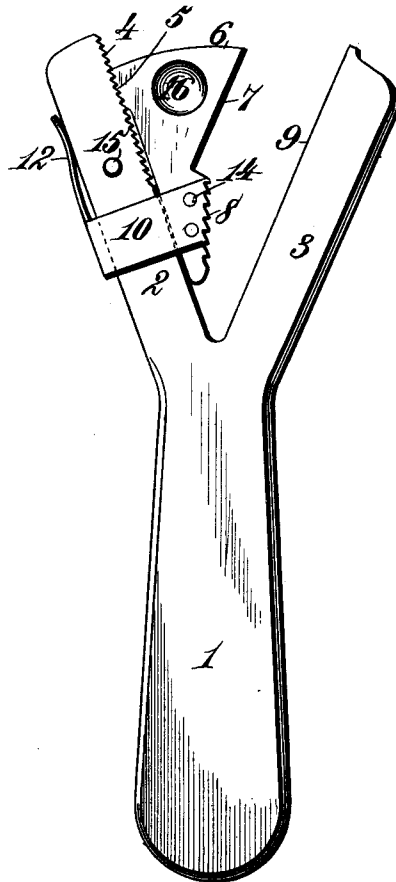
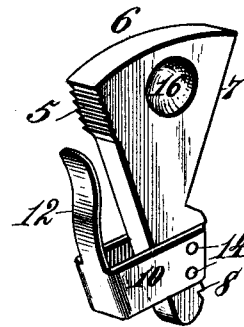


Fig. 2.



Witnesses.
Robert G. Pratt.
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Inventor.
Frank S. Cook.
By James L. Norris.
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UNITED STATES PATENT OFFICE.

FRANK S. COOK, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CAPITAL
MANUFACTURING COMPANY, OF SAME PLACE.

SPANNER-WRENCH.

SPECIFICATION forming part of Letters Patent No. 466,157, dated December 29, 1891.

Application filed July 16, 1891. Serial No. 399,709. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. COOK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Spanner-Wrenches, of which the following is a specification.

This invention has for its object to provide an improved spanner-wrench wherein one of the diverging jaws is provided with a supplementary or slide jaw susceptible of convenient and quick adjustment to vary the space between it and the opposing divergent jaw, and so constructed and arranged as to cooperate with the latter for operating on angular objects—such as screw nuts or bolts—and cylindrical objects, such as pipes.

The invention consists in a spanner-wrench having on the inside of one divergent jaw a supplementary or slide jaw provided with two acting faces arranged at different angles relatively to the acting face of the opposing divergent jaw for gripping nuts or pipes of varying sizes.

The invention also consists of other features of construction and combination or arrangement of parts hereinafter described in detail and specified in the claims, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of a spanner-wrench constructed in accordance with my invention, and Fig. 2 is a detail perspective view of the supplementary or slide jaw.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates a handle of a spanner-wrench having, as usual, two divergent jaws 2 and 3 so relatively arranged as to provide an intervening space, which is approximately V-shaped. The inner face of one divergent jaw is provided with teeth or serrations 4, with which engages the toothed or serrated rear edge 5 of a supplementary or slide jaw 6, suitably supported upon and guided by the toothed or serrated jaw of the wrench. The supplementary or slide jaw 6 is provided with two acting faces 7 and 8, one of which 7 is arranged parallel with the acting face 9

of the divergent jaw 3, while the other acting face 8 is arranged at an acute angle relatively to the acting face of the jaw 3, and is approximately in alignment with the longitudinal axis of the wrench-handle 1 in such manner as to render the spanner-wrench susceptible of engaging angular objects—such as screw nuts or bolts—and also cylindrical objects, such as pipes. The supplemental slide-jaw is provided with a yoke or frame 10, embracing the toothed or serrated jaw 2, and provided at its outer extremity with a leaf-spring 12, resting against the outer edge or face 13 of the jaw 2, and exerting sufficient pressure thereupon as to normally retain the toothed or serrated portion 5 of the slide-jaw 6 in engagement with the toothed or serrated portion 4 of the divergent jaw 2. The yoke or frame 10 comprises parallel sides which rest against the opposite side surfaces of the jaw 2, and preferably this yoke or frame is riveted to the slide-jaw, as at 14; but obviously some other method of connecting the yoke or frame to the slide-jaw can be adopted without altering the character of my invention. The acting face 8 of the slide-jaw is toothed or serrated for the purpose of insuring a proper gripping engagement with the cylindrical object to be turned. The lower extremity of the slide-jaw is rounded or curved to accurately fit the base portion between the two divergent jaws when such slide-jaw is in its lowermost or innermost position, and to limit the outward adjustment of the slide-jaw and also prevent its accidental displacement from the wrench, I provide the toothed or serrated jaw 2 with a stop-pin 15, against which the yoke or frame 10 is adapted to abut. The supplementary or slide jaw 6 is preferably constructed at one or both sides with a concavity 16 to form a finger-recess to facilitate the adjustment of the slide-jaw. The teeth or serrations 4 of the divergent jaw 2 all point toward the wrench-handle; but the teeth or serrations 5 of the slide-jaw point in a reverse direction, by which construction the outward movement of the slide-jaw is effectually prevented while the wrench is being operated to turn a nut or pipe.

The construction and arrangement of parts

are such as to render the slide-jaw susceptible of quick and convenient adjustment for the purpose of adapting the wrench to nuts or pipes of varying sizes.

5 The wrench-handle and divergent jaws are preferably constructed of a single piece of metal; but I do not confine myself to any particular material or any particular construction or form of wrench-handle, for ob-
10 viously any form and any material may be employed which will fulfill the conditions required in a spanner-wrench. The spanner-wrench is further improved by providing the outer extremity of its divergent jaw 3 with
15 a reduced extension 17, which in form corresponds to the acting end of a screw-driver, the object being to render the implement useful for screwing and unscrewing metal or wood screws, and for other purposes for which
20 a screw-driver is usually employed.

The implement is simple, strong, durable, efficient, and economical, and the construction and arrangement are such as to provide
25 a spanner-wrench which fulfills all the conditions required of the usual expensive and comparatively complicated pipe and nut wrenches.

Having thus described my invention, what I claim is—

30 1. A spanner-wrench having on the inside of one divergent jaw a sliding supplementary jaw provided with two acting faces, one of which is toothed and arranged at an angle to the opposite divergent jaw and the other one
35 of which is plain-surfaced and arranged parallel to such opposite divergent jaw, substantially as described.

2. A spanner-wrench having on the inside
40 of one divergent jaw a sliding supplementary jaw provided with two acting faces, one of

which is toothed and arranged at an angle to the opposite divergent jaw and the other one of which is plain-surfaced and arranged parallel to such opposite divergent jaw, a yoke
45 secured to the supplementary jaw and embracing the divergent jaw on which the supplementary jaw slides, and means for holding the supplementary jaw in any desired position of adjustment, substantially as described.

3. The combination, with a spanner-wrench
50 having divergent jaws, one of which is provided with teeth or serrations, of a supplementary or slide jaw having teeth or serrations to engage and disengage the toothed or serrated divergent jaw, a yoke or frame slid-
55 ing on the toothed or serrated divergent jaw and rigidly attached to the supplementary or slide jaw, and a spring acting to press the toothed part of the slide-jaw into engagement with the toothed or serrated divergent
60 jaw, substantially as described.

4. The combination, with a spanner-wrench having divergent jaws, one of which is provided with teeth or serrations, of a toothed or serrated slide-jaw having two acting faces
65 arranged at different angles relatively to the opposite divergent jaw and coacting therewith to grip nuts or pipes, a yoke or frame sliding upon the toothed or serrated divergent jaw and rigidly attached to the slide-jaw, and
70 a spring carried by the yoke or frame and bearing against the toothed or serrated divergent jaw, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK S. COOK.

Witnesses:

H. KALLMORGEN,
CHAS. EDDY, Jr.

It is hereby certified that the name of the assignee in Letters Patent No. 466,157, granted December 29, 1891, upon the application of Frank S. Cook, of Chicago, Illinois, for an improvement in "Spanner-Wrenches," was erroneously written and printed "The Capital Manufacturing Company," whereas said name should have been written and printed *The Capitol Manufacturing Company*; and that the said Letters Patent should be read with this correction therein that the same may conform to the files and records of the case in the Patent Office.

Signed, countersigned, and sealed this 5th day of January, A. D. 1892.

[SEAL.]

CYRUS BUSSEY,
Assistant Secretary of the Interior.

Countersigned:

W. E. SIMMONS.
Commissioner of Patents.