No. 765,052. PATENTED JULY 12, 1904.

F. P. STEVENSON.

WRENCH.

APPLICATION FILED NOV. 4, 1903.

NO MODEL.

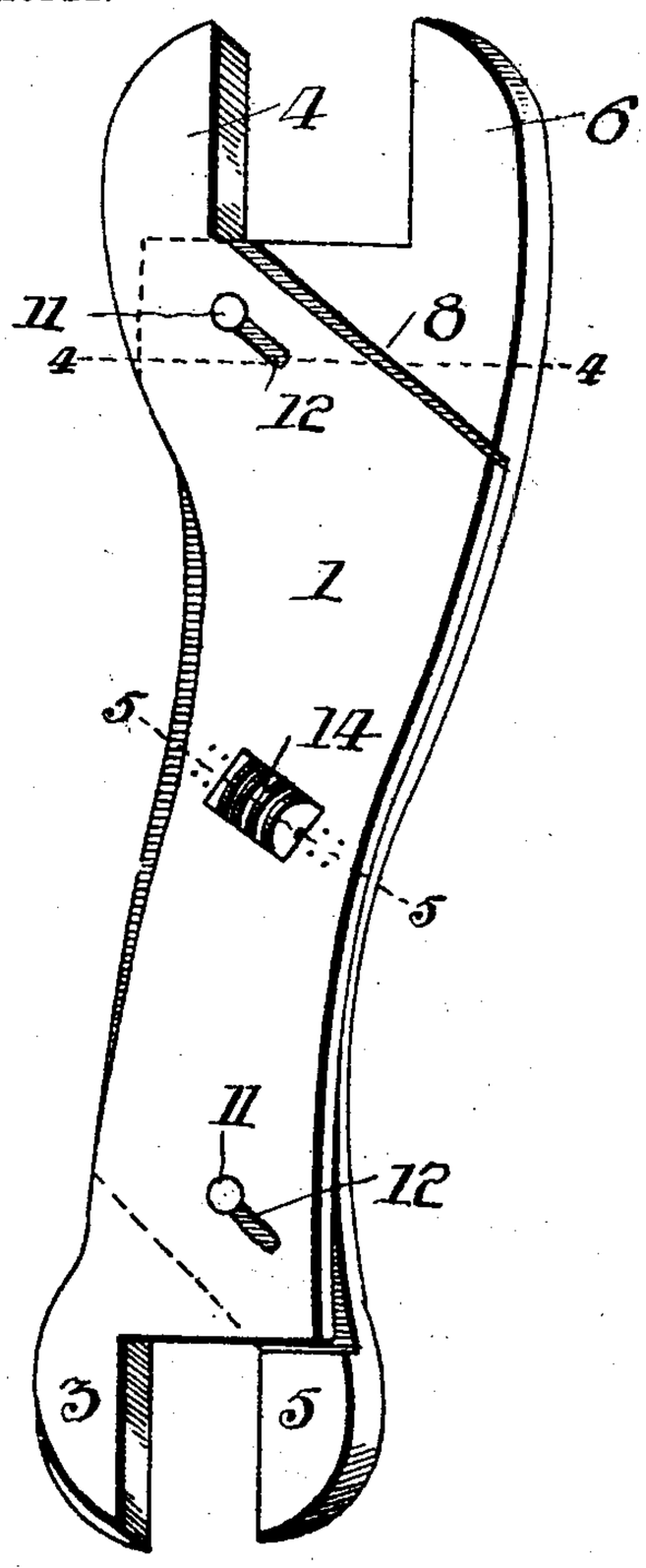

Fig. 1.

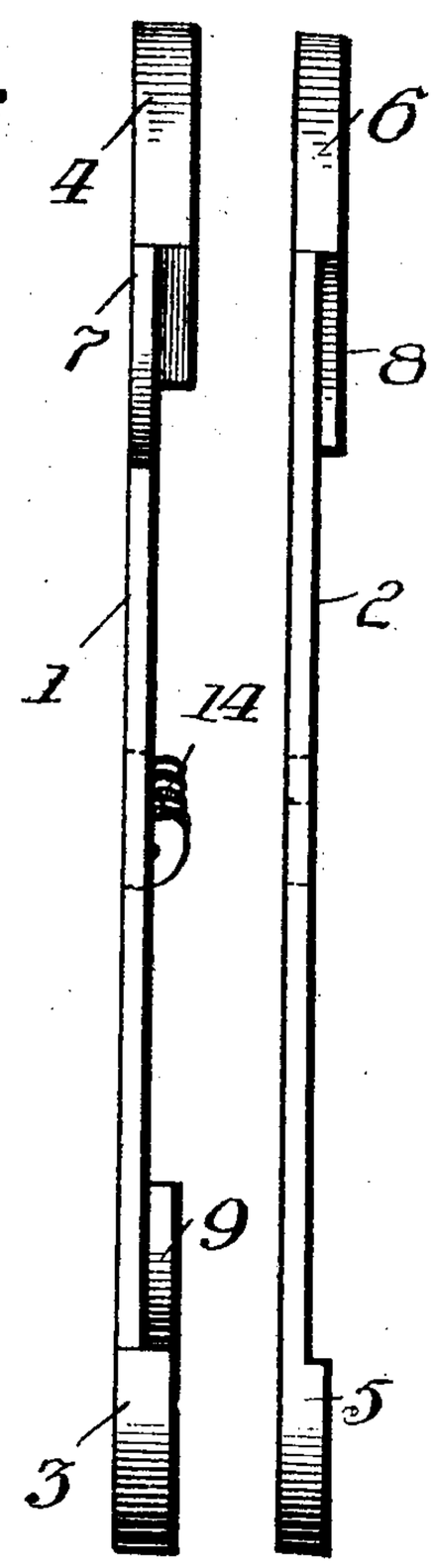

Fig. 2.

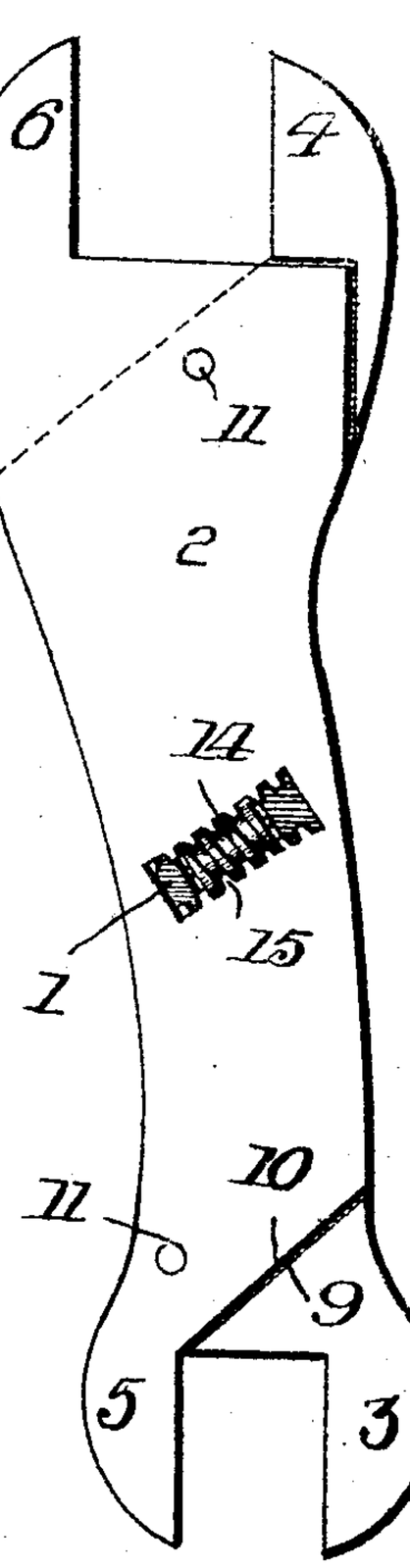

Fig. 3.

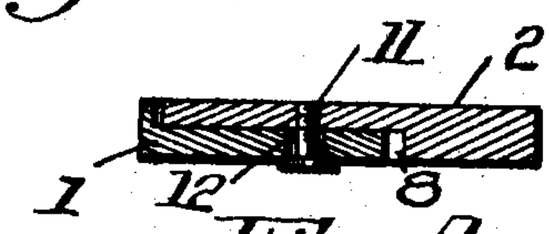

Fig. 4.

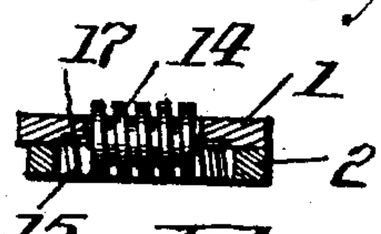

Fig. 5.

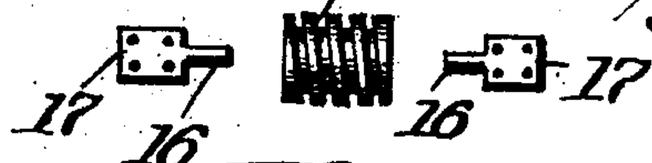

Fig. 6.

Witnesses:
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No. 765,052. Patented July 12, 1904.

UNITED STATES PATENT OFFICE.

FRANK P. STEVENSON, OF PIPER CITY, ILLINOIS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 765,052, dated July 12, 1904.

Application filed November 4, 1903. Serial No. 179,791. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. STEVENSON, a citizen of the United States of America, residing at Piper City, in the county of Ford and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in wrenches; and it relates more particularly to that type of wrench generally termed an "S-wrench" in the trade, the object of the invention being to provide a wrench of this type in which the space between the two coacting jaws at each end of the wrench may be varied in order to accommodate different-sized nuts.

Briefly described, the invention comprises two members which are placed in engagement with each other and which are adapted to be rocked or manipulated with their center as a fulcrum-point whereby to increase or decrease the space between the two coacting jaws at each end of the wrench. Means is provided for operating the members whereby to adjust the positions of the coacting jaws, and means is also provided whereby the width of the coacting jaws will be equal when the members are placed in engagement with each other.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a detail perspective view of my improved wrench. Fig. 2 is an edge view of the two members separated. Fig. 3 is an inverted plan view. Fig. 4 is a transverse vertical sectional view taken on line 4 4 of Fig. 1. Fig. 5 is a transverse vertical sectional view taken on the line 5 5 of Fig. 1. Fig. 6 is a detached detail plan view of the operating-screw and its pintle.

To put my invention into practice, I provide two flat metallic members 1 and 2, respectively, which are adapted to be placed in engagement with each other and each of which members has a single jaw at each end, the jaw on one member at the end thereof coacting with the jaw on the other member at the corresponding end thereof. The jaws 3 and 4 on the member 1, as well as the jaws 5 and 6 on the member 2, lie on the said side edge of their respective members—that is, the jaw 3 projects from one corner of the end of member 1 and the jaw 4 projects from the corresponding corner of the opposite end of the member, while jaw 5 projects from one corner of one end of member 2 and the jaw 6 projects from the corresponding corner of the opposite end. The jaws are made of equal thickness or width and of a thickness equal to the combined thickness of the two shank members when placed together by the reinforcing of the jaws on their side faces. The member 1 at one end back of the jaw is cut at an obtuse angle, as shown at 7, and the member 2 is correspondingly cut, as at 8, the other end of the said member 1 back of the jaw 3 being at a right angle, and this member 1 having on its reverse face an obtuse-angular shoulder 9, corresponding to the obtuse-angular end 10 of the member 2. The members are held against displacement by means of headed screws 11, which are adapted to work in slots 12, provided therefor in the member 1, these slots extending at an obtuse-angle corresponding with the obtuse-angular shoulders of the members. The jaws are adjusted laterally by means of an operating-screw 14, carried by the member 1, with the thread of said screw engaging threads 15, provided in the side walls of the opening in the member 2, the screw being mounted on pintles 16, carried on plates 17, which are countersunk in the underneath face of the member 1 at the end of the opening which receives the screw 14, the said plate 17 being suitably secured to the member 1 and the pintle 16 extending into the ends of the screw 14. It will be observed that when the screw 14 is operated the member 1 may be moved laterally on the member 2, carrying jaws 3 4 therewith, and thus increasing or decreasing the space between jaws 4 6 and jaws 3 5, according to the direction in which the screw 14 is operated, the members remaining in the adjusted position.

In the practice of the invention it will be obvious that various slight changes may be

made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench comprising two members of equal thickness throughout spaced one on the other and each having an enlarged jaw on each end thereof, the jaw on one end of one member coacting with the jaw on the corresponding end of the other member, said members having alining apertures therein, inclined with relation to the longitudinal axis of said members, one of said members having the walls formed by its aperture threaded, a screw projecting partly in the aperture of the other member and engaging said threads, plates carrying pintles projecting into the ends of said screw, said plates being mounted in countersunk portions in the first-named member and secured thereto.

2. A wrench comprising two members formed of plates of equal thickness throughout, each carrying coöperating jaws at their ends, said plates having alining apertures, the walls formed by one of the slots being threaded, a screw engaging said threads and projecting through the aperture of the other member to lie above the plain face thereof, and means for mounting said screw countersunk in the under face of said last-named member.

3. A wrench composed of two flat members with plane outer surfaces and plane conformable edges, in combination with a screw mounted in coinciding apertures in both plates the axis of said screw being substantially in the plane of the meeting faces of both members and the screw projecting above the outer face of but one of said members and engaging teeth on the sides of the aperture in the other member.

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

FRANK P. STEVENSON.

Witnesses:
FRANK WAGNER,
A. M. THOMPSON.