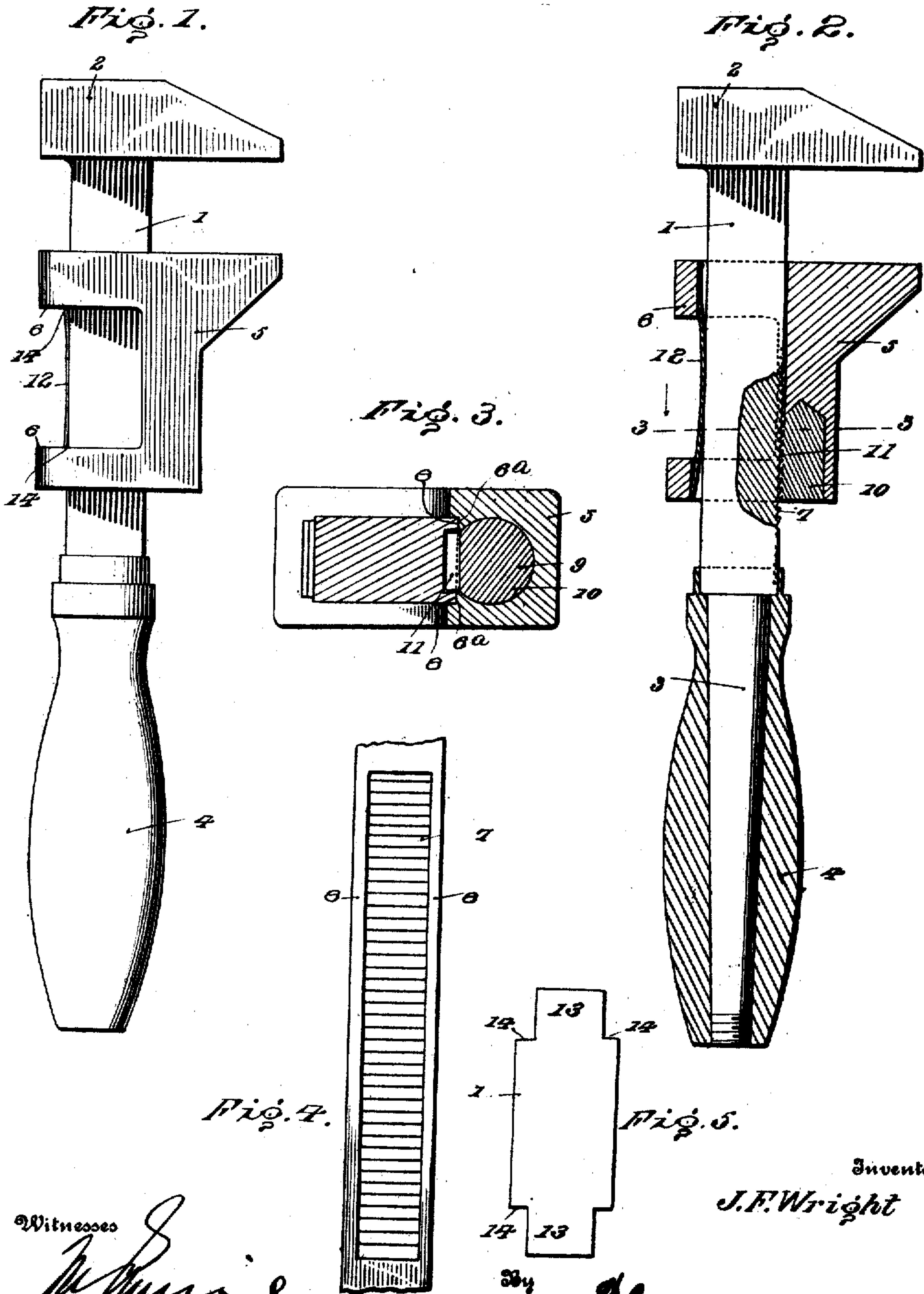


J. F. WRIGHT.
WRENCH.
APPLICATION FILED NOV. 18, 1907.

910,890.

Patented Jan. 26, 1909.



Witnesses
J. F. Wright
W. A. Woodson

Inventor
J. F. Wright
W. A. Woodson Attorney

UNITED STATES PATENT OFFICE.

JAMES F. WRIGHT, OF PHILADELPHIA, PENNSYLVANIA.

WRENCH.

No. 910,890.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed November 18, 1907. Serial No. 492,695.

To all whom it may concern:

Be it known that I, JAMES F. WRIGHT, citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful improvements in Wrenches, of which the following is a specification.

This invention comprehends certain new and useful improvements in that class of wrenches that are opened or closed by a sliding adjustment effected through the instrumentality of a rack formed integrally with the shank and a spring seated movable jaw frame carrying a dog rigidly connected therewith and designed for locking engagement with the teeth of the rack, and the invention has for its object a very simple construction of tool of this character which may be cheaply manufactured and which will be composed of comparatively few parts that may be readily assembled and that will be durable.

The invention consists in certain constructions and arrangements of the parts, that I shall hereinafter fully describe and claim.

Figure 1 is a side elevation of my improved wrench. Fig. 2 is a similar view partly in section. Fig. 3 is a transverse section on the line 3—3 of Fig. 2, looking in the direction of the dart. Fig. 4 is a detail edge view of a portion of the shank. Fig. 5 is a detail view of the spring.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing the numeral 1 designates the shank of my improved wrench which is preferably formed integrally with the stationary jaw 2, and which is provided at one end with a preferably tapering end 3 for the reception of the wooden or other handle 4, secured thereon in any desired way. 5 designates the movable jaw which is formed with the yokes 6 encircling the shank 1 and by which the movable jaw is mounted to slide longitudinally on the shank, the openings in the yokes 6 being of such size as to permit a slight lateral play of the jaw on the shank as is customary with this class of wrenches.

The shank 1 is formed on its inner edge with a longitudinally extending rack 7 having transversely extending teeth (as shown), the rack of the shank being preferably formed as an integral part of the shank and being

bounded on both sides by longitudinally extending wear surfaces 8 that are preferably flush with the outer edges of the teeth of the rack.

The movable jaw 5 is formed at its rear end with a segmental socket 9, said socket being of preferably uniform diameter throughout and being, transversely considered, of more than 180 degrees in curvature, the walls of the socket bordering upon the opening in the rearmost yoke 6 and the adjacent portion of the body of the movable jaw converging, as clearly illustrated in the drawing. The movable jaw 5 is formed on both sides of the socket 9 with longitudinally extending wear surfaces 6^a designed to coact with the wear surfaces 8 when the movable jaw is slid longitudinally on the shank 1.

10 designates a dog or toothed block which is shaped to accurately fit the socket 9 and which is preferably held tightly therein by being forcibly driven in the socket, said dog being formed on one edge with teeth 11 corresponding to the teeth of the rack 7.

The movable jaw 5 is held under tension with the dog 10 out of engagement with the rack 7, by means of a plate spring 12 which extends from one yoke 6 to the other and which is formed with reduced ends 13 fitting within the ends of the yokes, shoulders 14 being formed at the bases of the reduced ends 13, said shoulders abutting against the side edges of the yokes and thereby holding the spring 12 securely in place but in a removable manner. It is to be understood that the spring 12 is detachable only after the movable jaw 5 has been slipped off the shank 1, this operation being rendered possible by the detachable handle 4.

I am aware that it is not broadly new with me to provide a wrench of this character with an integral rack formed in the shank and with a spring held by its own formation without the aid of rivets or the like, in the yokes of the movable jaw, and hence I do not claim such construction or arrangement of the parts broadly; but,

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

1. The herein described wrench, comprising a shank, handle portion, stationary jaw, the shank being formed with a longitudinally extending rack and with longitudinally extending wear surfaces on both sides of said rack, said wear surfaces being flush with the

outer edges of the teeth of the rack, and a movable jaw mounted to slide on said shank and spring pressed in one direction laterally, said movable jaw being formed at its rear end with a socket the side walls of which converge towards the opening in the movable jaw that accommodates the shank, the walls of said opening where they border upon the socket being formed with longitudinally extending wear surfaces adapted to coact with the wear surfaces of the shank, and a dog fitting frictionally within said socket and closely conforming thereto and formed in one edge with teeth designed to engage the teeth of the rack.

2. A wrench of the character described, comprising a handle and relatively stationary jaw, the shank being formed with a rack,

a movable jaw provided with two yokes by which it is mounted to slide on said shank, a dog carried by said movable jaw and designed to engage the rack, and a plate spring extending from one yoke to the other and formed with reduced ends and with outwardly facing shoulders at the bases of the reduced ends, said ends fitting within the ends of the yokes respectively and the shoulders abutting against the opposing interior walls of the respective yokes, as and for the purpose set forth.

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

JAMES F. WRIGHT. [L. s.]

Witnesses:

THOMAS J. ELLIS,

CHARLES WM. DETTREY.