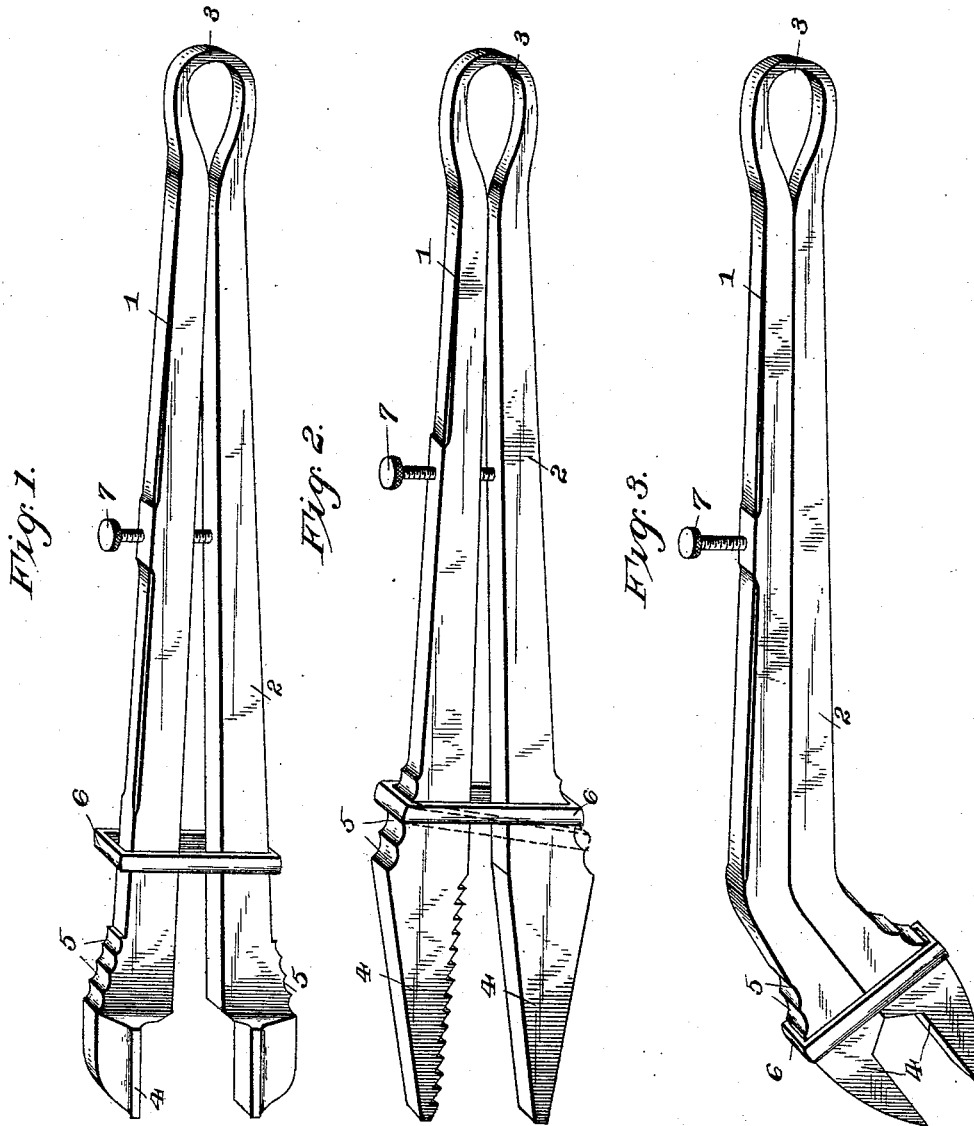


(No Model.)

G. TRAKOFLER.
WRENCH.

No. 523,136.

Patented July 17, 1894.



Inventor

Gregor Trakofler,

Witnesses

Chas A Ford.
N. M. Riley

By U.S. Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE

GREGOR TRAKOFLER, OF PITTSBURG, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 523,136, dated July 17, 1894.

Application filed February 10, 1894. Serial No. 499,778. (No model.)

To all whom it may concern:

Be it known that I, GREGOR TRAKOFLER, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

The object of the present invention is to improve the construction of nut and pipe wrenches, and to provide one of great strength and durability, which, when once set, cannot accidentally spread its jaws and release a nut or pipe.

Heretofore wrenches have been constructed with outward springing sides or members adapted to be confined at the desired adjustment by a link; but, it has been found in practice that in using the wrench the resilient sides are liable to be compressed or sprung inward sufficiently to disengage the link, thereby requiring the parts to be again adjusted.

This invention has for its object more particularly to improve the construction of that class of wrenches, and to provide means to prevent the compression or inward springing of the sides or members when the wrench is set, and thereby securely lock the confining link in its adjustment.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings—Figure 1 is a perspective view of a wrench constructed in accordance with this invention and designed for turning nuts. Fig. 2 is a similar view of a pipe wrench. Fig. 3 is a perspective view of another form of nut wrench.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 and 2 designate similar outward springing sides or members of a wrench; the sides or members are preferably constructed of a single piece of resilient metal; and they are connected at their inner ends by a loop or bend 3, which contributes the outward spring-

ing of the sides or members. The outer extremities of the sides or members are provided with or formed into jaws 4; and at the inner ends of the latter the outer edges of the sides or members diverge and cause the wrench to taper at this point, and are provided with recesses or notches 5 adapted to be engaged by a confining link 6 for holding the jaws at the desired adjustment. The link 6 is rectangular, its sides forming a guide for the sides or members of the link, and the inner faces of its ends conform to the configuration of the notches, and are adapted to be seated in the same. As the link is moved outward on the tapered portion of the wrench the jaws are drawn inward to lessen the space between them, and a reverse adjustment of the link causes a separation of the jaws.

In order to prevent the inward springing of the sides or members and the consequent disengagement of the link, when the wrench is in use and is being handled with great rapidity as is often the case, a set screw 7 is provided. This set screw is mounted in a threaded perforation of the side or member 1; it is disposed transversely of the wrench, and it is adapted to project more or less according to the separation of the sides or members, from the inner edge of the side or member 1 and engage the opposed edge or face of the side or member 2, whereby the parts are locked against accidental depression. This construction enables a wrench to be handled as rapidly as desired, and to be grasped as strongly as necessary without liability of compressing the sides or members and releasing the link.

The jaws of the wrench may be of any desired configuration to suit either a pipe or nut; and as illustrated in Fig. 2 of the accompanying drawings, the link may be adjusted a half notch by advancing only one end thereof.

It will be seen that the wrench is simple and comparatively inexpensive in construction, that it possesses great strength and durability, and that when the parts are set the sides or members are absolutely locked against any accidental compression which might release the link and permit the jaws to separate.

Changes in the form, proportion, and the minor details of construction may be resorted

to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

- 5 In a wrench, the combination of the two outwardly springing sides constructed of a single piece of metal doubled to form the spring loop or bend 3, said sides terminating in jaws and provided adjacent to the same with inclined series of notches 5, one of the sides being provided with a threaded opening, a rectangular link arranged on the sides and having its ends engaging the notches 5 to limit the outward movement of the jaws, and a set

screw arranged in the threaded opening of 15 one of the sides and passing through the same and abutting against the inner face of the other side, whereby the link is locked in its engagement with the notches and the sides are prevented from springing inward, substantially as and for the purpose described. 20

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GREGOR TRAKOFLEK.

Witnesses:

JOHN J. STUDENY,

JOSEPH JOOS.