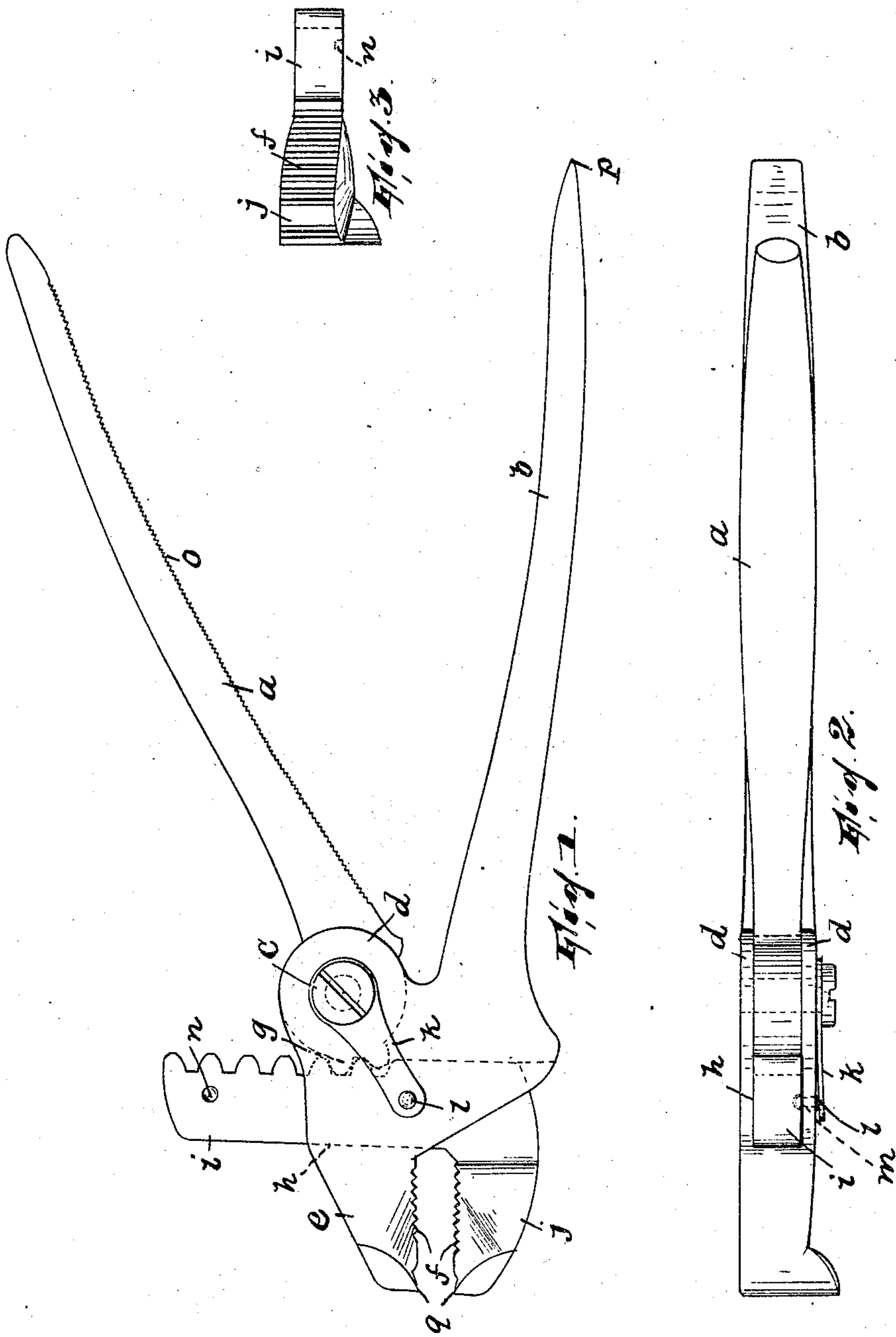


No. 785,586.

PATENTED MAR. 21, 1905.

C. WULST.  
WRENCH.

APPLICATION FILED DEC. 30, 1904.



WITNESSES:

*Wm. Drell*  
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# UNITED STATES PATENT OFFICE.

CARL WULST, OF PATERSON, NEW JERSEY, ASSIGNOR OF TWO-THIRDS  
TO PAUL W. TOPETERS AND ROBERT P. GEYER, OF PATERSON, NEW  
JERSEY.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 785,586, dated March 21, 1905.

Application filed December 30, 1904. Serial No. 238,897.

*To all whom it may concern:*

Be it known that I, CARL WULST, a subject of the Emperor of Germany, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to adjustable wrenches of that class wherein there are two handles or shanks pivotally connected together for operating the jaws.

The principal object of the invention is to provide a wrench of this class in which, by simple means, quick adjustment may be effected.

I have illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a side view of my improved wrench. Fig. 2 is a top plan view thereof, and Fig. 3 an inside view of a certain sliding jaw.

In said drawings, *a* and *b* are two shanks or handles pivotally connected together by a screw *c*. In order to form the pivotal joint, the member *b* is formed with two lugs *d*, which receive the pivot portion of the member *a* and screw *c*. Member *b* has a jaw *e*, which may be serrated, as at *f*, on its acting face. The member *c* is formed with teeth (preferably two) *g*.

Vertically through member *b* and between jaw *e* and lugs *d* is formed an opening *h*, preferably rectangular in cross-section. In this opening slides the shank or rack portion *i* of a jaw *j*, which is opposed to the jaw *e*. The teeth of the rack *i* are adapted to be engaged by the teeth *g* of member *a*, whereby said member *a* may be made to move jaw *j* to and from jaw *e*. Member *a* is movable far enough from member *b* so that its teeth will disen-

gage from the teeth of the rack *i* and permit movement of jaw *j* independently of member *a*. By this means a rough adjustment can be first secured by making a change in the teeth of rack *i*, with which the teeth *g* engage, whereupon the final adjustment following on the movement of member *a*, causing jaw *j* to move toward jaw *e*, can be accomplished.

In order to prevent the jaw *j* from moving too freely in member *b*, I provide a plate-spring *k*, which is secured in place by the screw *c* and has a pintle *l* projecting through a hole *m* in member *b* and against the rack *i*. *n* is a notch or depression formed in the side of rack *i* to receive pintle *l*. Thus the spring both acts by frictional contact to prevent too easy movement of the jaw *j* and by its pintle *l* engaging in notch *n* to stop the jaw *j* from entirely falling out of the implement.

If desired, the surface of member *a* may be serrated, as at *o*, to make thereof a file. The extremity of member *b* may be flattened to form a screw-driver, as at *p*, and the tips of the jaws *e j* sharpened to form wire-cutters, as at *q*.

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

The combination of two members one of which has a rigid jaw and the other teeth, a screw forming the fulcrum for one of said members in the other, a sliding jaw arranged in said first-named member having teeth adapted to be engaged by the teeth of the other member, a plate-spring carried by said screw, and a pintle on the plate-spring, said sliding jaw being engaged by the pintle and having a notch adapted to receive the same, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of November, 1904.

CARL WULST.

Witnesses:

ROBERT P. GEYER,  
PAUL W. TOPETERS.