J. W. POWERS.

MONKEY-WRENCH.

No. 187,773. Patented Feb. 27, 1877.

FIG.1

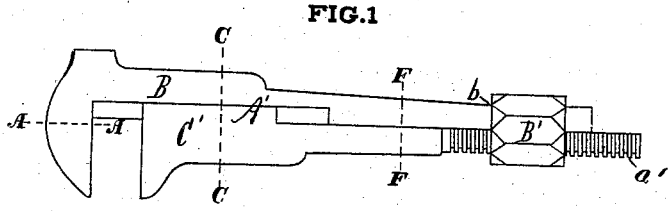


FIG.2

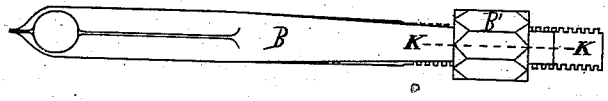


FIG.3

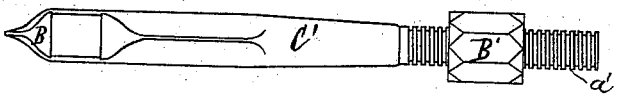


FIG.4

FIG.5

FIG.6

FIG.7

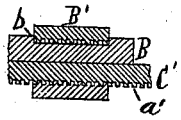
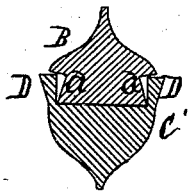


FIG.8



WITNESSES:

R. D. Ingersoll.

M. G. Collson.

INVENTOR:

Jay W. Powers.

UNITED STATES PATENT OFFICE.

JAY W. POWERS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO FRANK M. MELICK, OF SAME PLACE.

IMPROVEMENT IN MONKEY-WRENCHES.

Specification forming part of Letters Patent No. **187,773**, dated February 27, 1877; application filed January 12, 1876.

To all whom it may concern:

Be it known that I, JAY W. POWERS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Monkey-Wrenches; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention relates to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side view; Fig. 2, back view; Fig. 3, front view; Fig. 4, cross-section from A to A; Fig. 5, cross-section from C to C; Fig. 6, cross-section from F to F; Fig. 7, longitudinal section from K to K; Fig. 8, cross-section from C to C, before the wings are closed into the grooves.

My invention relates to what is commonly known as "monkey-wrenches;" and consists in constructing the same in such a manner that no cores are used in casting, by casting the flanges upon the movable jaw straight, which are afterward forced inward upon the beveled grooved stationary jaw, as will be hereinafter more fully described.

In the accompanying drawing, A′ represents my improved wrench, made of suitable material. B is the back or stationary jaw of the same, the inner side being flat, and provided with a bevel-groove, *a*, upon each side the distance the wrench is to move. Near the outer end a portion, *b*, is removed, to receive the nut B′. C′ is the movable jaw, also having a flat surface, which fits the flat surface of the stationary jaw, and provided with the clips D, and the opposite end provided with the thread *a′*, or, if considered more practical, it could be a right and left hand thread, and correspond with the threads in the nut B′.

It will be observed that to put the wrench in working order the two flat surfaces are placed together, as represented in Fig. 1, and the nut B′ turned to the position represented in the same, and the end of the stationary jaw outside of the nut bent up enough to hold the nut in position. The clips or flanges D are then forced into the bevel-grooves *a*, as represented in Fig. 5, so that it can be moved easily backward and forward by the action of the nut. The wrench is then complete. Turning the nut in the direction required opens or closes the wrench.

It will be observed that the bevel upon each side of the back piece can be made any other shape to receive the clip, and answers every purpose; or the clips can be upon the back piece, and the groove upon the movable one, if desired.

The movable jaw C′ is of cast metal, cast with the thread and all the parts, as shown, and by casting the flanges D straight, no core is needed in casting, and no machine-work necessary in putting the wrench together, as, when the parts are placed together, the flanges are pressed in position, and thus secured.

In constructing a wrench in this manner it does away with all cores in casting, and no machine work is necessary to complete it after leaving the mold. Consequently it is a cheap, durable, and efficient wrench.

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

1. In a sliding-jaw wrench, the combination of a jaw having on each side an inwardly-beveled groove, with a jaw having on each side a flange bent into one of such beveled grooves, in contradistinction to a jaw originally formed with inwardly-inclining flanges, and retaining the inclination, as and for the purpose set forth.

2. In a wrench, the threaded stems of whose jaws are embraced by the operating-nut, the combination of a stationary jaw having a seat for the operating-nut, and a beveled groove on each of its sides, with a sliding jaw having on each of its sides a flange bent into one of the beveled grooves, as and for the purpose set forth.

The above specification signed by me this 5th day of January, 1876.

JAY W. POWERS.

Witnesses:

T. Z. INGERSOLL,

R. D. INGERSOLL.