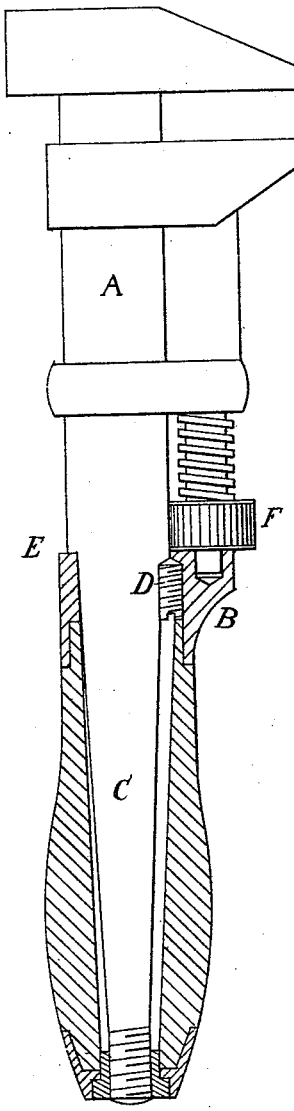
R. S. BATTLES.

Wrench.

No. 165,655. Patented July 20, 1875.



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UNITED STATES PATENT OFFICE.

RUSH S. BATTLES, OF GIRARD, PENNSYLVANIA.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. **165,655**, dated July 20, 1875; application filed March 6, 1875.

To all whom it may concern:

Be it known that I, RUSH S. BATTLES, of Girard, in the county of Erie and State of Pennsylvania, have invented an Improvement in the Construction of Screw-Wrenches, of which the following is a specification:

My invention relates to that class of wrenches known as "monkey-wrenches;" and consists in the improved mode of securing the ferrule to the wrench-bar.

My device is shown in the accompanying drawing, which forms a part of this specification, by one figure, which is an elevation view of a wrench, except at the ferrule, where it is sectioned longitudinally. In all wrenches of this kind the ferrule acts as a brace or stay for the movable jaw; hence it becomes necessary to so attach the ferrule that it will sustain the pressure. To this object my invention relates.

In the figure, A is the wrench-bar. C is the shank of the same, being that part which passes through the handle. B is the ferrule, and D is a holding-screw.

The manner in which I construct that part of the wrench to which my invention relates is as follows: In the bar A, I leave a shoulder, E, against which the ferrule sets. The ferrule B is in the ordinary form, and fits closely upon the bar A. The shank C is dropped down, or made so as to come out of the ferrule near the side opposite that on which the rosette-screw F is journaled. This leaves room for the admission of the holding-screw D, which lies longitudinally with the shank C or bar A, and half of its thread is in the ferrule B, and half in the bar. When this screw is in place, the ferrule is so securely held as to resist any pressure brought against it by the use of the wrench. As the pressure all comes on the long side of the ferrule, it is advisable to always place the screw in the position shown; but it might be put on the opposite side of the ferrule, and perhaps serve every purpose. The shoulder E also assists in sustaining the pressure.

I am aware that it is not new to secure a ferrule to a wrench-bar by means of a nut or thimble-screw encircling the bar, and provided with an external thread engaging with the ferrule; but

What I claim as my invention is—

The ferrule B of a wrench, held in position by screw D, which enters a thread cut in part on the ferrule, and in part on the bar, substantially as shown, and for the purposes mentioned.

RUSH S. BATTLES.

Witnesses:

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