(Model.)

F. C. SAWHILL.

WRENCH.

No. 351,656. Patented Oct. 26, 1886.

Fig. 1.

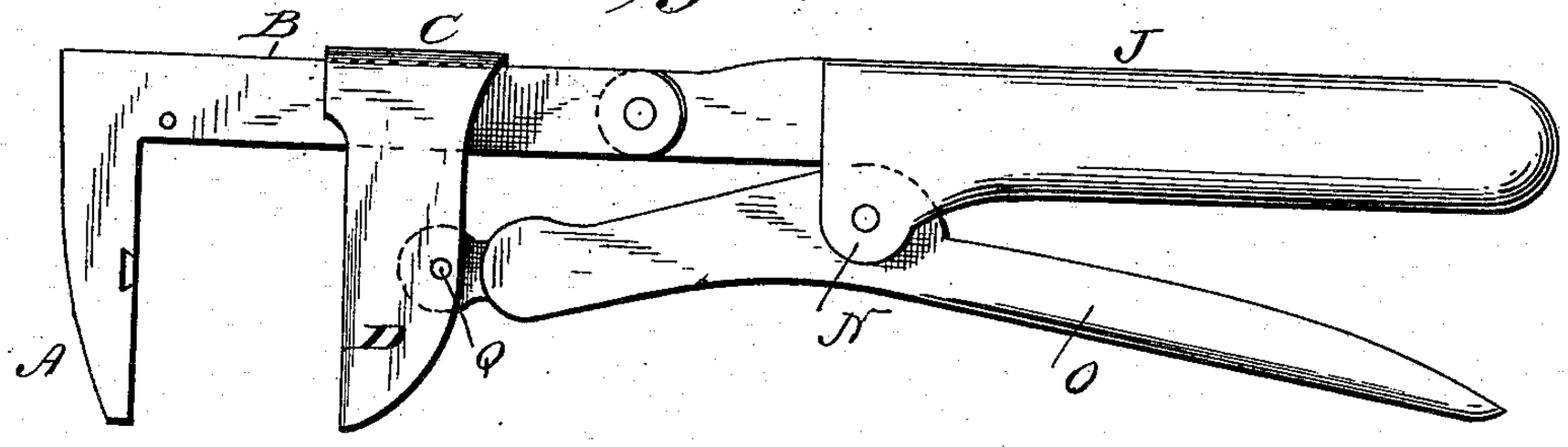


Fig. 2.

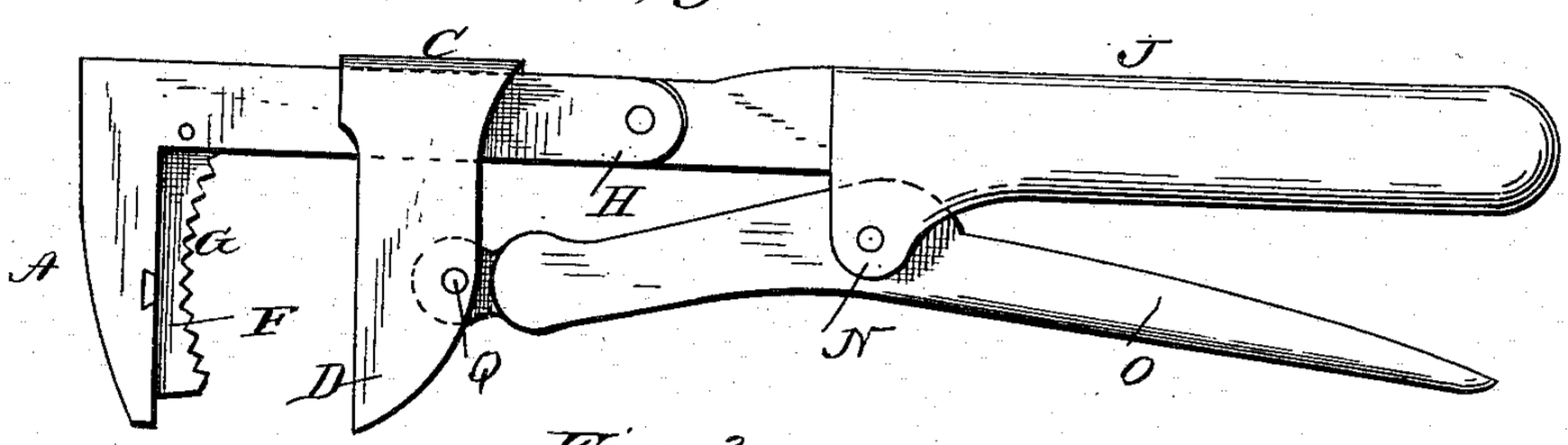


Fig. 3

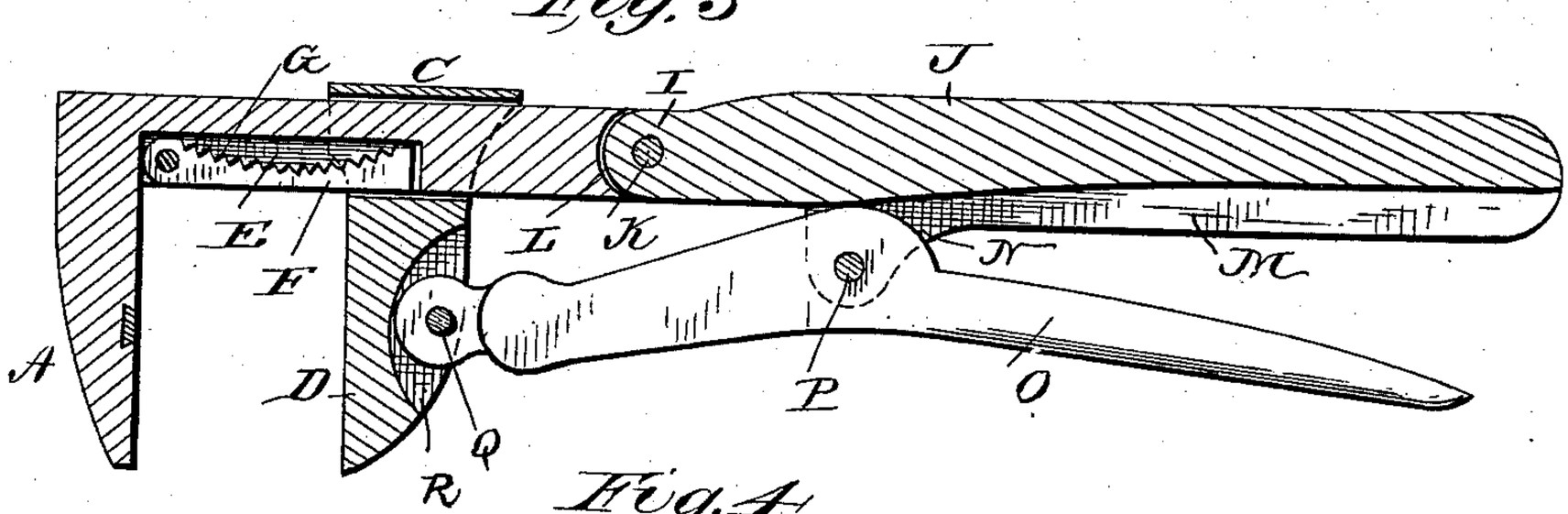
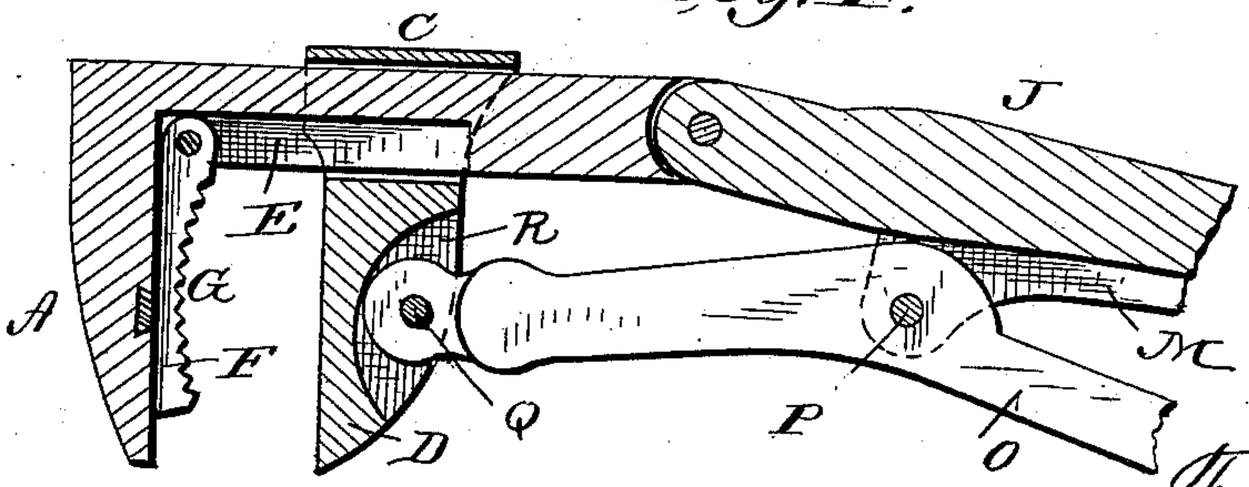


Fig. 4.



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WRENCH.

SPECIFICATION forming part of Letters Patent No. 351,656, dated October 26, 1886.

Application filed August 13, 1886. Serial No. 210,803. (Model.)

To all whom it may concern:

Be it known that I, FRANK C. SAWHILL, a citizen of the United States, and a resident of Midway, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved wrench. Fig. 2 is a similar view of the wrench, showing it adapted to be used for clamping round articles. Fig. 3 is a longitudinal sectional view of the wrench as shown in Fig. 1, and Fig. 4 is a similar view of the wrench as shown in Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to wrenches having a jaw sliding upon the shank of a rigid jaw, and having an auxiliary serrated jaw for clamping round articles adapted to be placed at one of the other jaws of the wrench; and it consists in the improved construction and combination of parts of such a wrench, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the rigid jaw, which is secured to a shank, B, upon which the stirrup C of the sliding jaw D slides. The side of the shank upon which the movable jaw slides is formed with a longitudinal recess, E, and a pivoted auxiliary jaw, F, is pivoted in the outer end of the recess at the rigid jaw, having its smooth face flush with the edges of the recess, and having a serrated and rounded concave inner face, G. The inner end of the shank of the rigid jaw is formed with two perforated lips, H, between which the perforated reduced end I of the handle J is pivoted upon a pin, K, the said handle having concave shoulders L L at the reduced end, against which shoulders the round edges of the perforated lips bear. The handle is formed with a longitudinal groove or recess, M, extending from the end of the handle, and at the inner end of this recess are formed two perforated ears, N, between which the slightly-bent lever O, which operates the sliding jaw, is pivoted at its bend, a removable pin, P, passing through the ears and the lever. The handle end of this lever may be tilted to rest in the groove or recess of the handle, and the other end of the lever is reduced and perforated and pivoted upon a pin, Q, in a slot or recess, R, in the movable jaw. The distance between the pins P and Q being greater than that between the pins P and K causes the pins Q and K to lie in different transverse planes, and provides for the easy and ready manipulation of the jaws. It will now be seen that the shank of the rigid jaw being pivoted at its inner end, the sliding jaw may be slid outward upon the shank by tilting the handle end of the operating-lever toward the handle, while by tilting the said end from the handle the jaw will be slid toward the pivotal point of the shank, opening the jaws, the shank tilting in the direction of the jaws when closed, and from the direction of the jaws when opened. It will thus be seen that nuts or other articles may be clamped by the jaws, and that by drawing upon the lever of the sliding jaw the said jaw will be forced against the article.

The wrench may be adapted to fit a nut or other article of any size, as the sliding jaw may be moved in both directions upon the shank of the rigid jaw.

When the wrench is to be used with a pipe or similar round object, the pivotal pin for the operating-lever is removed and the sliding jaw is slid inward until the free end of the pivoted serrated jaw is uncovered, when the said jaw may be tilted upward and will rest against the inner face of the rigid jaw, forming a serrated and concave jaw, which will bite against any round article.

The sliding jaw has preferably a serrated face for the purpose of allowing it to bite into round objects as well as the pivoted jaw.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a wrench, the combination of a handle, a rigid jaw having a shank pivoted to the end of the handle, a movable jaw sliding upon the shank of the rigid jaw, and a slightly-bent lever pivoted with one end to the sliding jaw, and pivoted at its bend to the side of the han-

dle, the pivotal point of the sliding jaw and bent lever and that of the rigid jaw and handle being in different transverse planes, as and for the purpose shown and set forth.

2. In a wrench, the combination of a handle having a longitudinal groove or recess and two perforated ears at the inner end of the groove, a rigid jaw having the inner end pivoted to the end of the handle, a movable jaw having a stirrup at its inner end sliding upon the shank of the rigid jaw, and having a slot or recess in its outer face, and a slightly-bent lever pivoted at the bend between the perforated ears, and having its handle end fitting in the groove of the handle, and having its outer end reduced and perforated, and pivoted in the slot or recess in the sliding jaw, as and for the purpose shown and set forth.

3. In a wrench, the combination of a rigid jaw having a longitudinal groove or recess in its shank, a movable jaw sliding upon the shank of the rigid jaw, and a jaw pivoted with its inner end in the groove at the rigid jaw and having its smooth face flush with the edges of the recess or groove, and having its inner face concave and serrated, as and for the purpose shown and set forth.

4. In a wrench, the combination of a handle, a rigid jaw having the end of its shank pivoted to the end of the handle and provided in its inner face with a longitudinal recess or groove, an auxiliary jaw pivoted with one end in the outer end of the groove and having its smooth side flush with the side of the shank and its inner face concave and serrated, a jaw sliding with its inner stirruped end upon the shank of the rigid jaw, and a slightly-bent lever pivoted at its bend upon the side of the handle and having one end pivoted to the sliding jaw, as and for the purpose shown and set forth.

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

FRANK C. SAWHILL.

Witnesses:
DAN GALLAGHER,
ALBERT A. HEINER.