

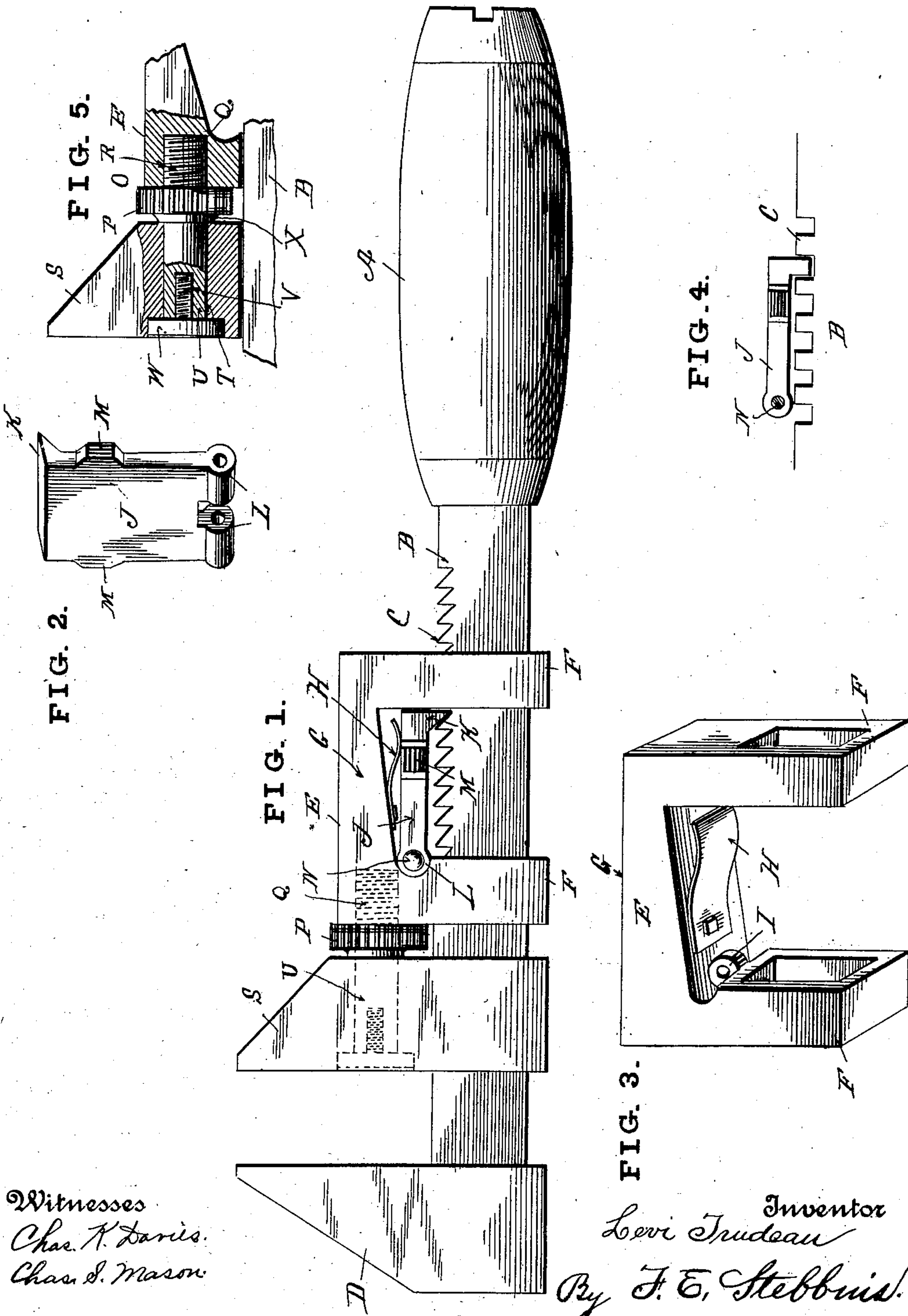
No. 754,520.

PATENTED MAR. 15, 1904.

L. TRUDEAU.
WRENCH.

APPLICATION FILED MAY 26, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

LEVI TRUDEAU, OF TOLEDO, OHIO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 754,520, dated March 15, 1904.

Application filed May 25, 1903. Serial No. 158,676. (No model.)

To all whom it may concern:

Be it known that I, LEVI TRUDEAU, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
 5 invented new and useful Improvements in Wrenches, of which the following is a specification.

The object of my invention is the production of a wrench the movable jaw of which is
 10 to be adapted for quick adjustment to fit various sizes of nuts; and with this end in view the invention consists in certain novelties of construction and combinations of parts, as hereinafter set forth and claimed.

15 The accompanying drawings, forming part of the specification, illustrate the novel features of the wrench constructed according to the best mode I have so far devised for the practical application of the principle.

20 Figure 1 is a plan view of a wrench embodying my improvements. Fig. 2 shows the pawl. Fig. 3 shows the movable frame. Fig. 4 illustrates a modification of the pawl-and-ratchet mechanism. Fig. 5 shows the location of the
 25 adjusting-screw.

Referring to the several figures, the letter A designates the handle of the wrench, the exterior part of which is preferably made removable, so that the jaw and frame may be
 30 taken from the shank; B, the shank; C, ratchet-teeth formed for a suitable distance along the edge of the shank; D, the outer fixed jaw; E, the adjustable pawl-frame; F, the arms of the frame, each having a hole corresponding in
 35 shape to the shape of the shank in cross-section; G, the base of the frame; H, a leaf-spring; I, a perforated lug adjacent one of the arms of the frame; J, a pawl; K, the tongue of the pawl; L, the forked perforated end of the pawl; M, projections on the sides of the
 40 pawl, which may have milled surfaces; N, a pin which pivots the forked end of the pawl to the perforated lug on the frame; O, an adjusting-screw; P, the enlarged and milled portion of the adjusting-screw; Q, a threaded end
 45 of the set-screw; R, a threaded recess in the end of the pawl-frame; S, the movable jaw, having a hole therethrough corresponding in shape to the shape of the shank in cross-

tion; T, a circular hole through the jaw; U, 50 the end of the adjusting-screw located within the hole through the movable jaw; V, a threaded hole in the end U of the set-screw, and W is a headed and threaded screw with the head seated within a recess formed in the movable 55 jaw and the shank seated within the threaded hole in the end of the adjusting-screw. The adjusting-screw may be enlarged at X, if desired, so as to bear against the movable jaw.

In Fig. 4 the ratchet-and-pawl mechanism 60 is slightly changed in minor particulars, the teeth on the shank being rectangular in shape and the tongue of the pawl also being rectangular to fit the recesses between the teeth.

The operation of the wrench is obvious. 65 The pawl is raised and the frame and jaw moved so that the latter will engage the nut, when the pawl is dropped to engage the teeth on the shank, the spring holding it in place. Then the adjusting-screw is turned to cause 70 the jaw to be brought into frictional contact with the nut. Owing to the disposition of the teeth, a small space may sometimes be left between the jaw and the nut, and the adjusting-screw is provided to move the jaw so as to 75 close up this space. To release the wrench from the nut, the pawl is raised and the frame and jaw retracted.

From the foregoing description, taken in connection with the drawings, it is clear that 80 I have produced a quick-acting wrench having a double adjustment and which fulfils all the conditions set forth as the purpose and object of my invention.

What I claim as new, and desire to secure 85 by Letters Patent, is—

A wrench having a toothed shank; a movable frame provided with perforated arms F, F, base G, a spring secured upon the inner surface of the base, a perforated lug I, and a 90 threaded recess R; a pawl J located between the base G and the toothed shank and pivoted to lug I, said pawl having projections M, M, at the sides to be engaged by the thumb and finger; a movable jaw S having a hole for the 95 shank B, a circular hole T and a recess of larger diameter than the hole; an adjusting-screw located between the movable frame and

the movable jaw, one end Q being threaded
and engaging a threaded recess R in the frame,
the other end U located within the circular
hole T in the jaw S and having a threaded hole
5 V; and the headed and threaded screw W, the
head seated within the recess in the movable
jaw and the shank engaging the threaded hole
V in the end of the adjusting-screw; the en-

larged portion of the adjusting-screw being in
frictional contact with the movable jaw. 10

In testimony whereof I affix my signature in
presence of two witnesses.

LEVI TRUDEAU.

Witnesses:

JOHN KETTING,
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