

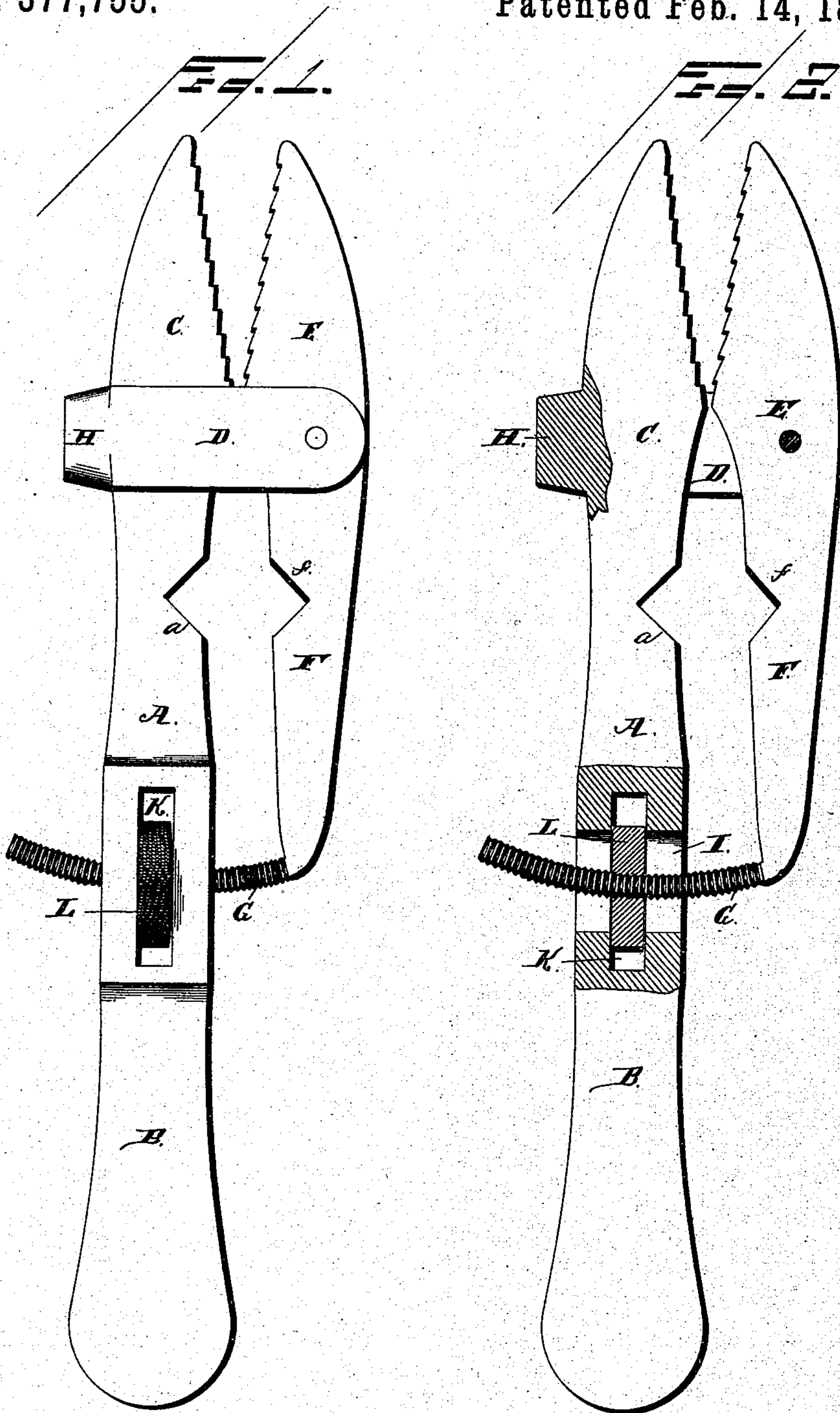
(No Model.)

F. S. HAZELTON & C. LEACH.

WRENCH.

No. 377,755.

Patented Feb. 14, 1888.



Witnesses

Geo. Thayer
O. E. Doyle

Inventor.

Fred S. Hazelton
Chas Leach
by C. A. Snowles
Attorney.

UNITED STATES PATENT OFFICE.

FRED S. HAZELTON AND CHARLES LEACH, OF NORTON, KANSAS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 377,755, dated February 14, 1888.

Application filed October 17, 1887. Serial No. 252,612. (No model.)

To all whom it may concern:

Be it known that we, FRED S. HAZELTON and CHARLES LEACH, citizens of the United States, residing at Norton, in the county of Norton and State of Kansas, have invented a new and useful Improvement in Wrenches, of which the following is a specification.

Our invention relates to an improvement in wrenches; and it consists in a certain novel construction and arrangement of devices fully set forth hereinafter, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a side view of the wrench. Fig. 2 is a similar view, partly in section.

Referring by letter to the drawings, A designates the main shank of the wrench, fashioned at one end to form a handle, B, and at the other end to form the jaw C, which is serrated on the inner side.

D D represent two parallel lugs or apertured ears, formed on the sides of the jaw C and extending beyond the inner side of the same, and E designates the movable jaw, which is pivoted between the free ends of the said apertured ears. The inner side of this jaw is also serrated, as shown clearly in the drawings. The movable jaw E is provided with a shank, F, which extends rearwardly and is tapered toward the rear end. The extremity of the said shank F is bent toward the main shank to form the curved or segmental arm G, which is threaded its entire length. The outer side of the main shank, at the rear end of the jaw C, is provided with a projection or hammer-head, H. The shank C is further provided with two slots, I and K, intersecting each other at right angles, and the threaded arm G is adapted to operate in the slot I when the rear end of the movable shank is operated.

L designates a thumb-nut which operates in the slot K and screws on the threaded arm G. It will be readily seen that if the said thumb-nut is turned the rear end of the shank F will be operated. It may thus be moved either toward or from the main shank, and as the jaw E is on the outer end of the shank F the former may be operated to grip a pipe or nut at will. It will be seen that the opposite sides of the nut L project beyond the sides of the

shank A, and therefore it may be turned very easily by the thumb and finger, and it cannot become detached from the wrench as long as it is engaged with the threaded shank G.

The inner sides of the shanks A and F, between the pivot and the threaded arm, are provided with angular notches *a* and *f*, respectively, which notches are in line with each other and adapted to engage opposite sides of a nut or bolt-head. Thus this wrench combines the utility of a pipe-wrench, a hammer, and a nut-wrench, and it is very compact and simple of construction, as will be readily seen.

A further advantage of this wrench is that, with the exception of the thumb-nut, it is formed in two parts—namely, the main shank, having the jaw C, and the apertured ears attached thereto or formed integral therewith, and the movable shank carrying the jaw E and the threaded arm G. The hammer-head is formed integral with the main shank, preferably opposite the point where the jaws are pivoted together. The thumb-nut being held in the slot K and engaging the threaded arm, we can fix and hold the jaws at the desired distance apart without the use of a device to hold the shanks apart—such as a spring between said shanks. This is a great advantage in construction, as when the jaws have been set to bind on a nut situated where there is not sufficient light and have to be removed temporarily from the nut for any cause, they can be immediately replaced thereon without loss of time and patience. Moreover, the nut, resting in the slot and protected on each side by the shank, is not so liable to be accidentally turned as if not so protected.

Having thus described our invention, we claim—

The herein-described wrench, composed of but four parts, the shank A, having the integral hammer-head H, the integral perforated ears D, and the integral jaw C, transversely serrated on its inner or meeting edge, and provided with the rectangular notch *a*, and the slots K and L, intersecting each other at right angles, the shank F, having the integral segmental threaded arm G and integral jaw E, transversely serrated on its meeting edge to correspond and coact with the jaw C,

and provided with the rectangular notch *f*,
opposing the notch *a*, the pivotal pin connect-
ing the shank *F* to the perforated ears *D*, and
the thumb-nut *K*, engaging the threaded arm
5 *G* in the slot *K*, in which slot the said nut is
held while engaging said arm, substantially as
specified.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures
in presence of two witnesses.

FRED S. HAZELTON.
CHARLES LEACH.

Witnesses:

GEORGE B. STEAR,
P. H. HARRIS.