

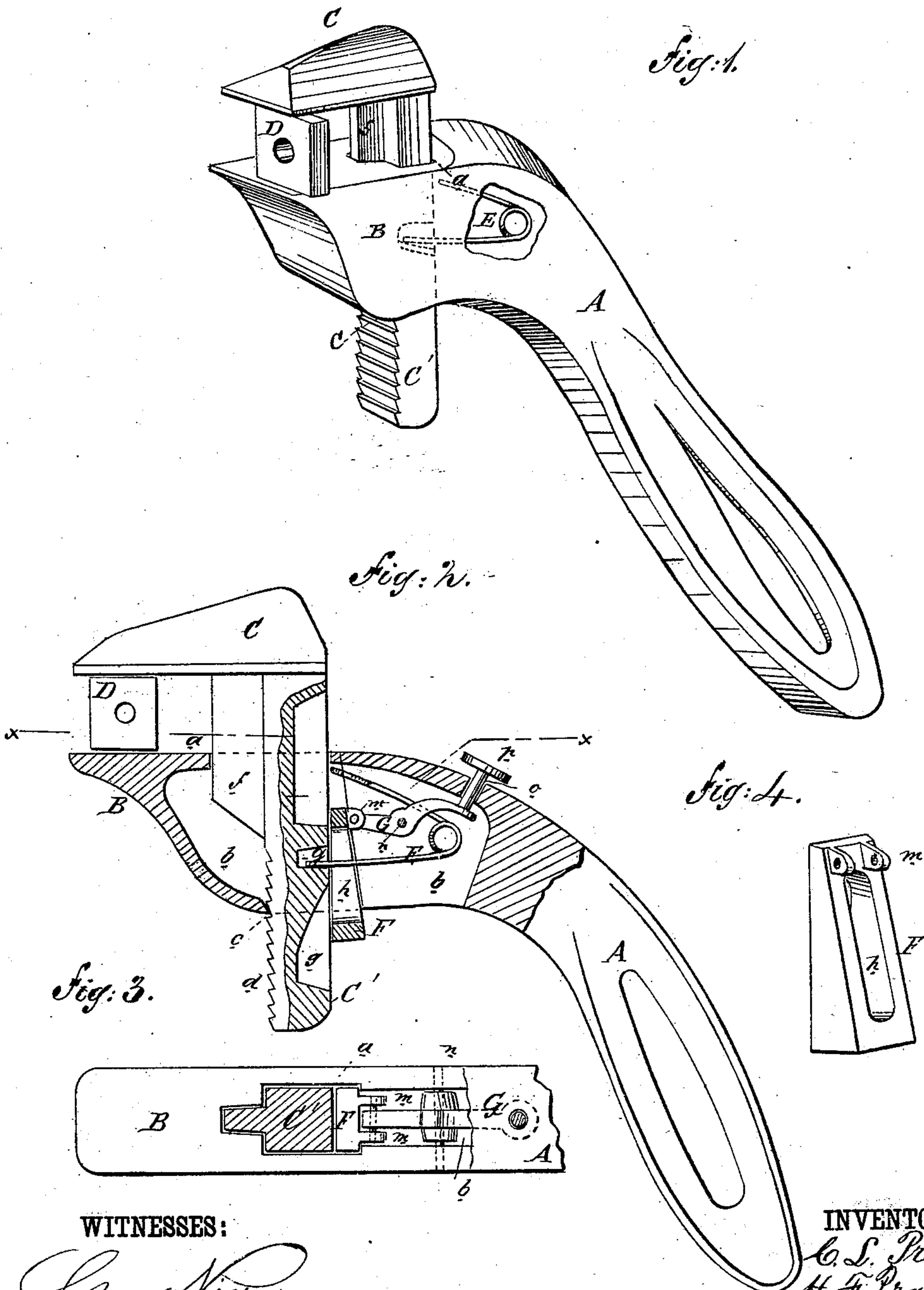
(No Model.)

2 Sheets—Sheet 1.

C. L. & H. F. PRAEGER.
Wrench.

No. 237,594.

Patented Feb. 8, 1881.



WITNESSES:

Chas. Nida
C. Seagrove

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(No Model.)

2 Sheets—Sheet 2.

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Fig: 5.

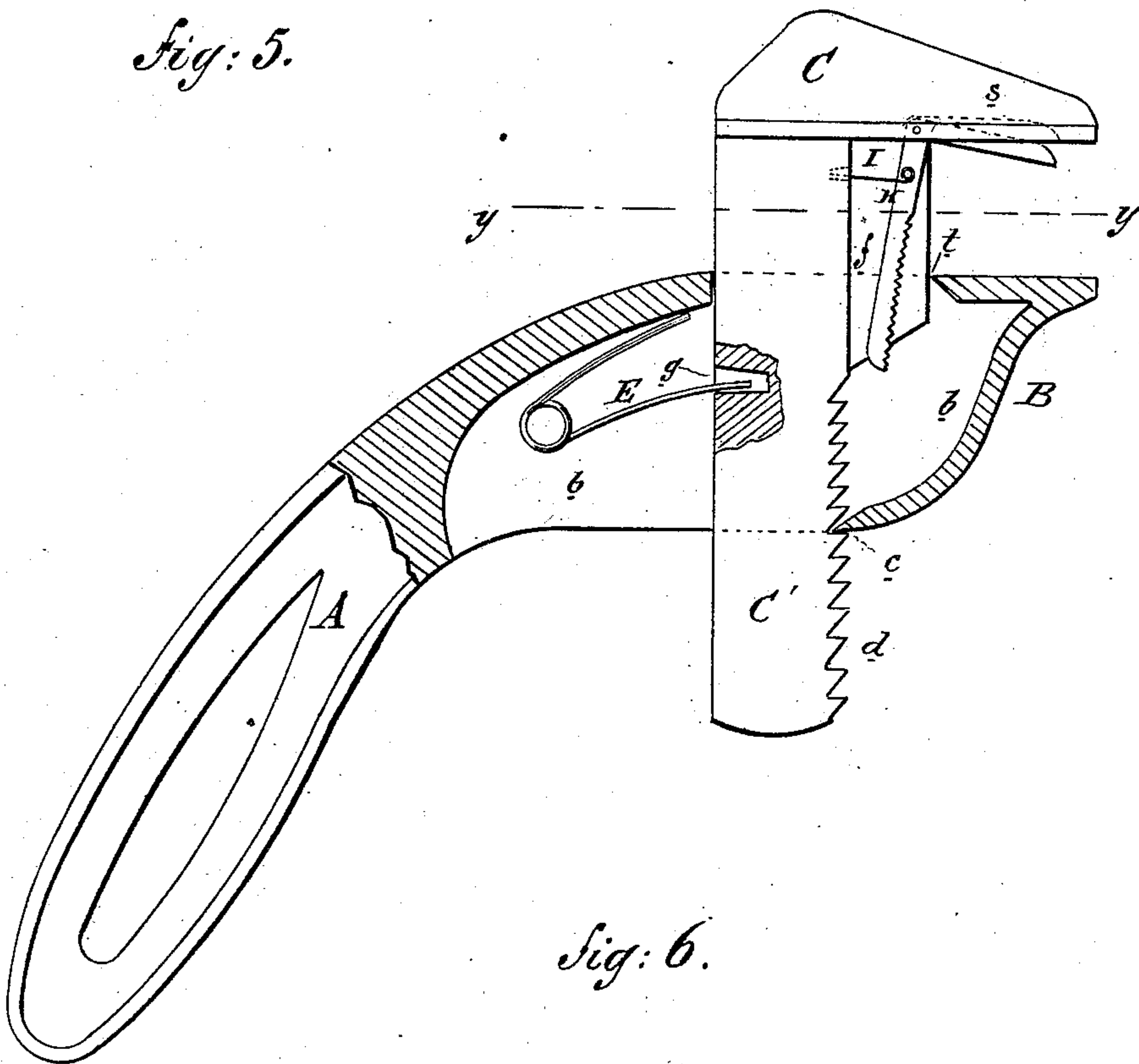


Fig: 6.

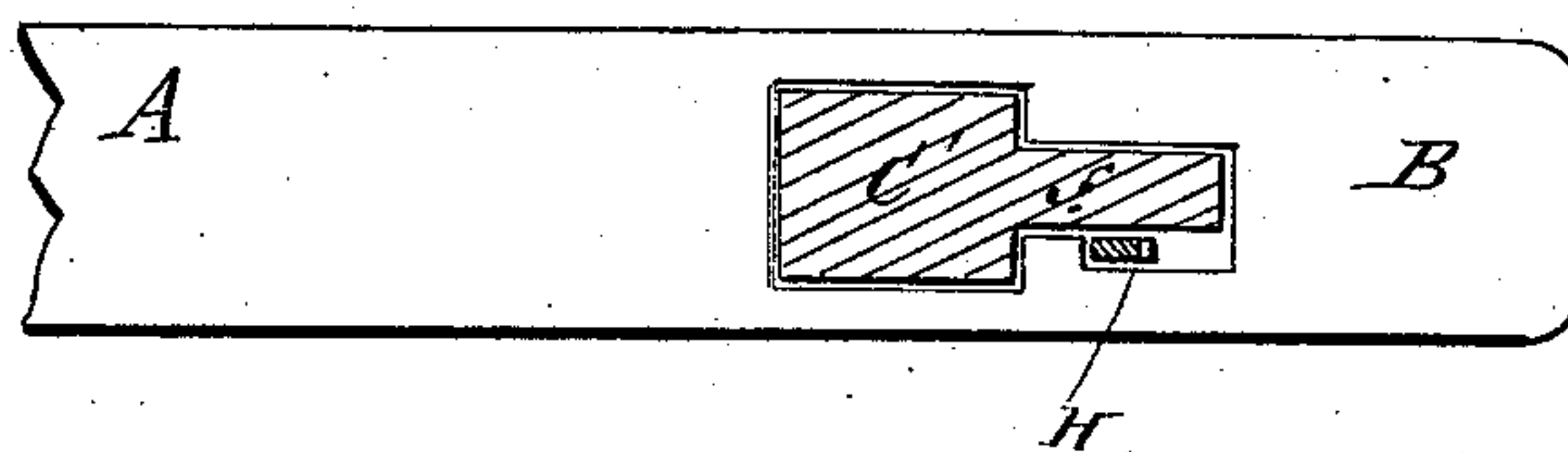
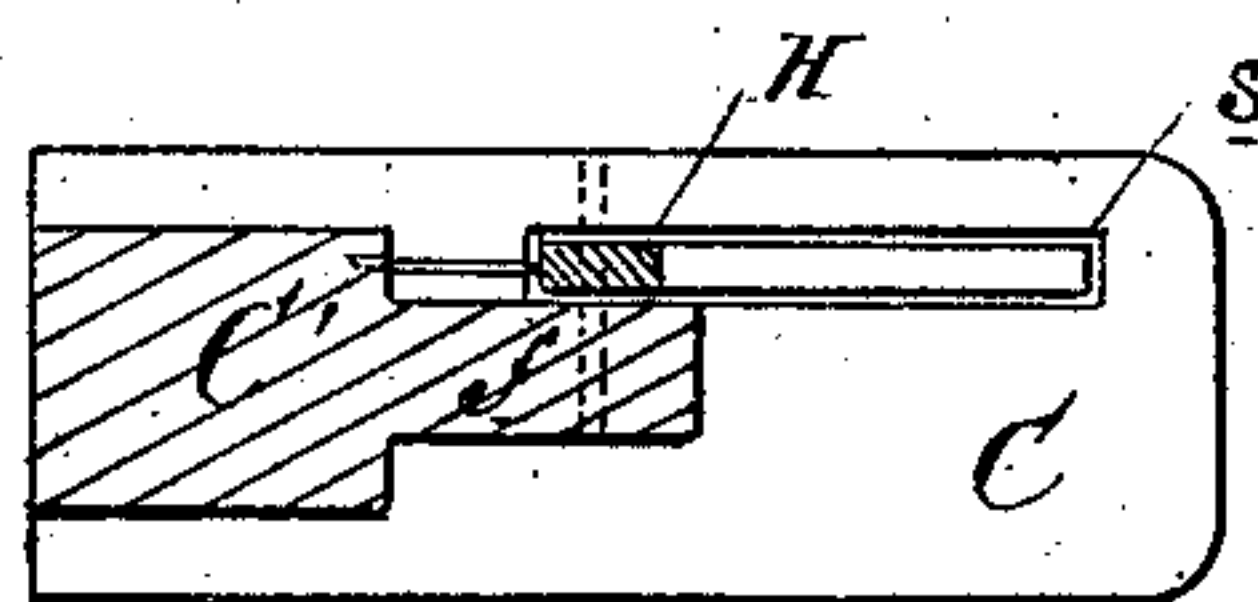


Fig: 7.



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UNITED STATES PATENT OFFICE.

CARL L. PRAEGER, OF PHILADELPHIA, AND HUBERT F. PRAEGER, OF
SOUTH BETHLEHEM, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 237,594, dated February 8, 1881.

Application filed December 8, 1880. (No model.)

To all whom it may concern:

Be it known that we, CARL L. PRAEGER, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, and HUBERT F. PRAEGER, of South Bethlehem, in the county of Northampton and State of Pennsylvania, have invented a new and Improved Wrench, of which the following is a specification.

The object of this invention is to provide a simple and compact self-adjusting wrench for bolts, nuts, &c.

The invention consists of a curved handle, one end of which serves as a lower jaw, and is socketed and chambered to receive the shank and operating mechanism of the upper jaw; and it consists, further, of a spring, slotted wedge, and lever arranged in the chamber of the lower jaw, whereby the upper sliding jaw is adjusted and held.

Our invention further consists in attaching a bell-lever and spring to the upper part of said shank, in the manner and for the purpose hereinafter described.

Figure 1 is a perspective view of the wrench. Fig. 2 is a partly-sectional side elevation of a modification of the same. Fig. 3 is a sectional plan view on line *x x*, Fig. 2. Fig. 4 is a perspective view of the wedge applied in the modification. Fig. 5 is a partly-sectional side elevation of another modification of the wrench. Fig. 6 is a sectional plan view of the same on line *y y*, Fig. 5, looking upward. Fig. 7 is a sectional view of the same on line *y y*, Fig. 5, looking upward.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the curved handle of the wrench, one end of which forms the horizontal lower jaw, B. This jaw B is socketed and chambered, as shown at *a b*, respectively, the lower front edge, *c*, of the socket forming a dog, against which the ratchet-teeth *d* on the front of the shank C' of the vertically-adjustable or sliding jaw C engage, whereby said jaw C is held when applied to an object—such as a nut, D—as shown in the drawings. Above the ratchet *d* the jaw-shank C' is provided with a rib, *f*, to give it increased strength, said shank C' and rib *f* being set at right angles to the head of the jaw C, which

projects forward with its point flush with the extremity of the lower jaw, B.

In the chamber *b* is fixed a spring, E, whose free end engages in one of the sockets, *g*, formed in the back of the adjustable jaw-shank C', to bring the said jaw C down upon the object D, to which the wrench is applied. For the purpose of neutralizing the action of said spring E, so as to keep the jaws of the wrench open for repeated removals and applications, when turning a nut or other object, a wedge, F, is provided for holding said jaws open, as shown in Figs. 2 and 3. This wedge F is slotted, as shown at *h*, to fit over the spring E and move freely up and down without interfering therewith, and it is provided with lugs *m* at its upper and smaller end, by means of which it is pivoted to the end of a lever, G, that is fulcrumed on a pin, *n*, which passes transversely through the chamber *b* in rear of the jaw-shank C'. The handle of said lever G extends upward through an orifice, *o*, in the bend of the handle A of the wrench, and has on its end a button, *p*, upon which the operator holding the wrench can conveniently place his thumb, and thereby press the wedge F against the back of the shank C', as shown in Fig. 2, and hold the jaw C open against the tension of spring E.

In Figs. 5, 6, 7 is shown another modification of the device, wherein, instead of the wedge F and lever G, acted upon by the thumb for neutralizing the action of the spring E, a bell-lever, H, is pivoted at its angle to the rib *f* of the jaw-shank C', so that its upper arm shall swing horizontally up in a corresponding socket, *s*, in the jaw C, while the other arm of said lever H is toothed on its front edge and projects downward along the shank C'. A spring, I, connects the vertical toothed arm of said lever H with the shank C'.

When an object to be wrenched is placed between the jaws B C it acts on the lever H and forces the teeth thereof in contact with the dog *t* of the lower jaw, B, and thereby checks the further action of the spring E on jaw-shank C'. The spring I operates to release the lever H from the dog *t* as soon as said jaw-shank C' is pressed out by the thumb, or a spring may be inserted to press the jaw-shank teeth against

the dog *c*, so as to completely make void the action of the spring *E*, and the jaw-shank becomes stationary whenever it is moved.

This wrench is cheaply constructed, strong and durable, and is easily applied to any work for which an ordinary monkey-wrench is adapted; and, besides, it has the advantage over other wrenches that it can be used in corners and other narrow spaces.

10 Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. As an improved article of manufacture, a wrench constructed substantially as herein
15 shown and described, consisting of a chambered handle and jaw, *A B c*, in which moves a sliding jaw, *C*, having a ratcheted shank, *C'*, provided with sockets *g* and rib *f*, said sliding jaw being operated by spring *E*, slotted wedge
20 *F*, and lever *G*, as set forth.

2. In a wrench, the combination, with the

chambered handle and jaw *A B* and adjustable jaw *C*, provided with ratcheted shank *C'*, having sockets *g*, of the spring *E*, substantially as herein shown and described, whereby
25 said adjustable jaw is closed upon an object, as set forth.

3. In a wrench, the combination, with the chambered handle and jaw *A B c* and adjustable jaw *C*, having socket *s*, of the bell-lever *H*,
30 pivoted at its angle to rib *f* of shank *C'*, and having toothed arm and spring *I*, substantially as and for the purpose set forth.

CARL LUDWIG PRAEGER.

HUBERT FRANCISCO PRAEGER.

Witnesses as to signature of Carl L. Praeger:

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Witnesses as to signature of Hubert F. Praeger:

JULIA MYERS,

GEO. ZIEGENFUSS.