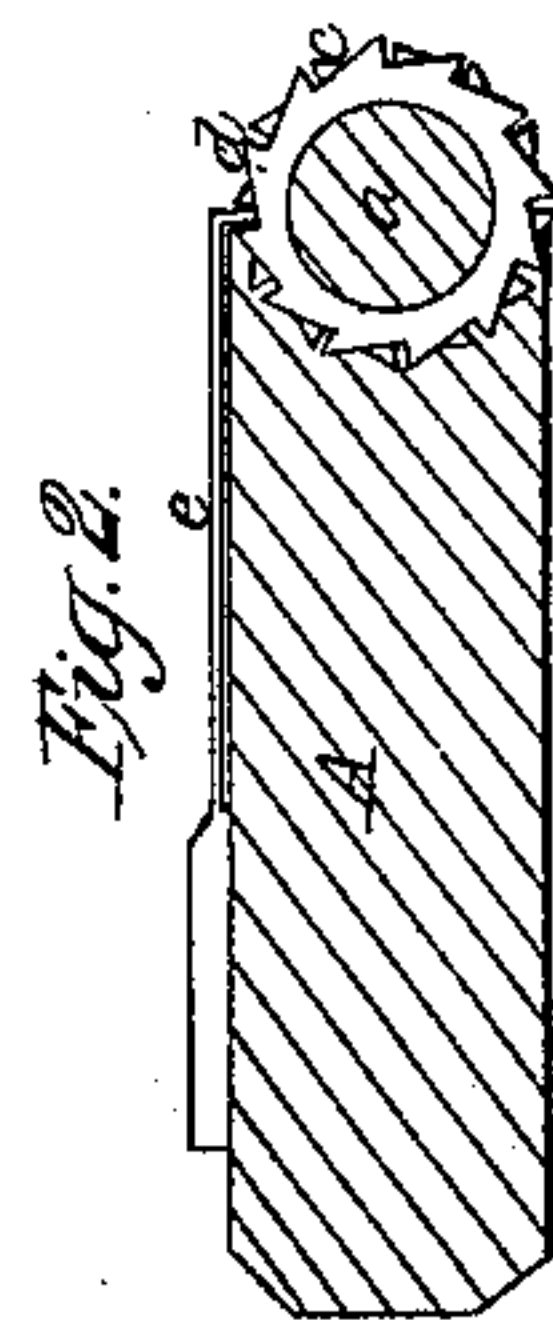
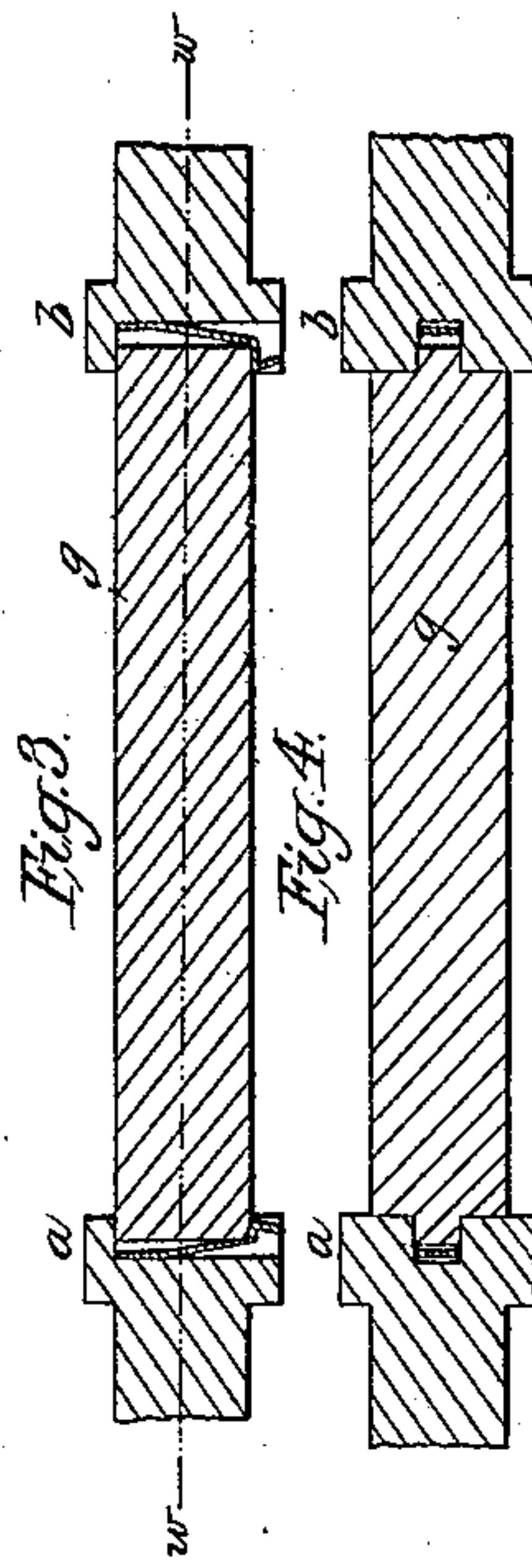
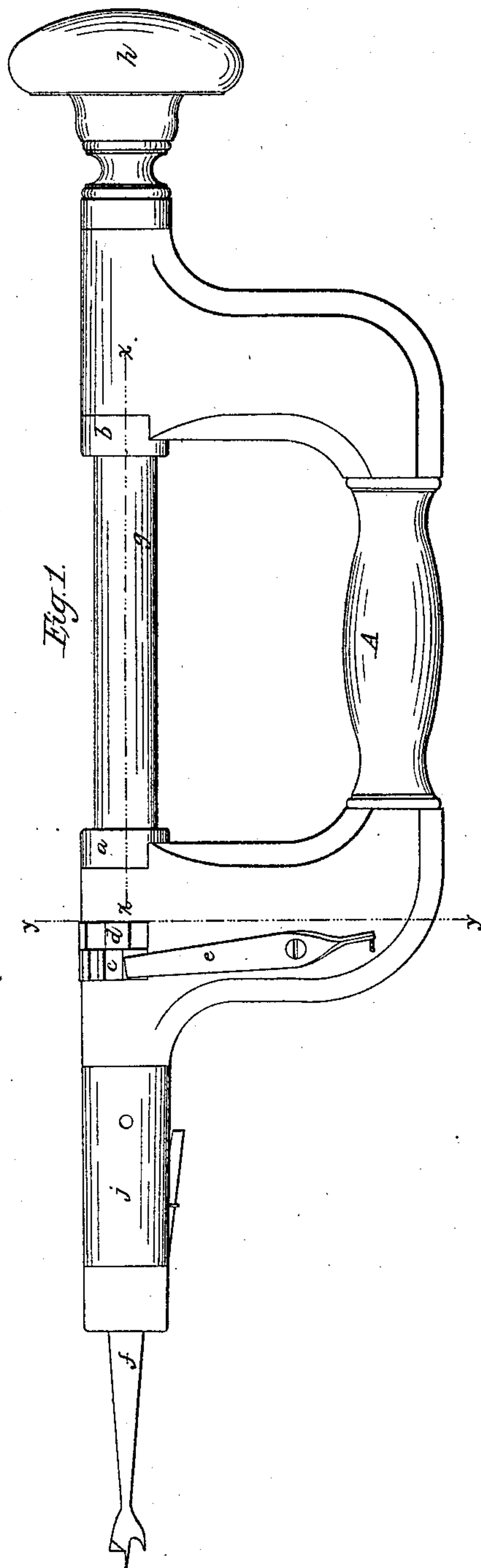


H. N. Porter,
Bit Stock.

N^o 17,769.

Patented July 7, 1857.



UNITED STATES PATENT OFFICE.

HENRY W. PORTER, OF ROTHSVILLE, PENNSYLVANIA, ASSIGNOR TO SAML. G. PORTER, OF WEST EARL, PENNSYLVANIA.

BIT-BRACE.

Specification of Letters Patent No. 17,769, dated July 7, 1857.

To all whom it may concern:

Be it known that I, HENRY W. PORTER, of Rothsville, in the county of Lancaster and State of Pennsylvania, have invented
5 an Improved Bit-Brace; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, Figure 1 being a side
10 view of said bit-brace; Fig. 2, a section in the line *y y* of Fig. 1; Fig. 3, a section in the line *x x* of Fig. 1, and Fig. 4 a section in the line *w w* of Fig. 3.

Similar letters indicate the same part in
15 each drawing.

The shape of the handle A, of my improved bit-brace is the same as that usually given to such articles. The bit-holder *j*, is secured to a spindle *a*, which passes out-
20 ward through a perforation in the forward end of the handle A; and the knob *h*, is secured to the spindle *b*, which passes outward through a perforation in the after end of said handle. The heads of the spindles
25 *a*, *b*, are transversely grooved, as represented in Figs. 3 and 4; and each of said grooved spindle-heads has a spring catch combined with it substantially as represented in said drawings.

30 The grooves in the heads of the aforesaid spindles *a*, *b*, receive the auxiliary handle *g*, at times when it is desired to bore a hole in confined situations where it is impossible to rotate the main handle A of the brace.

35 A couple of ratchet wheels *c*, *d*, whose teeth are reversely inclined to each other, as shown in Fig. 2, are secured side by side upon the spindle *a*, in such a position as to project through a lateral opening in the
40 forward end of the brace handle A. A detent *e*, is pivoted to the side of the brace handle in such a position that it can be thrown into connection with the teeth of either of the ratchet wheels *c*, *d*, or it may
45 be made to embrace the teeth of both of said wheels at the same time.

When it is desired to use the auxiliary handle *g*, the detent *e* should be thrown on to the teeth of the ratchet wheel *c*, which will enable the bit to be rotated in a for- 50 ward direction by applying the requisite force to said auxiliary handle; and when it is desired to reverse the motion of the bit for the purpose of withdrawing it from a perforation, the detent must be moved over 55 on to the teeth of the ratchet wheel *d*. When the bit is to be operated by applying the force to the main handle A, the detent *e* should be placed in a central position upon the teeth of both the ratchet wheels *c*, *d*, 60 which will securely combine the spindle *a*, and the bit-holder *j*, to the main handle of the brace in such a manner that the bit will turn with said handle when it is rotated in either a forward or a reverse direction. 65

Having thus fully described my improved bit-brace, what I claim herein as new, and desire to secure by Letters Patent, is—

1. Combining the knob *h*, with the bit-holder *j*, by means of the auxiliary handle 70 *g*, whenever it may be necessary to bore holes in situations where it is impossible to rotate the bit-brace, substantially as herein set forth.

2. And in connection therewith, I also 75 claim the double ratchet-wheels on the spindle *a*, when arranged in such a manner in relation to the detent *e*, as to enable the necessary connections and disconnections to be effected between the bit holder and 80 the permanent and the auxiliary handles of the brace, substantially as herein set forth.

The above specification of my improved bit-brace signed and witnessed this fourteenth day of March, 1857.

HENRY W. PORTER.

Witnesses:

CYRUS PORTER, Sr.,
WILLIAM BITZER.