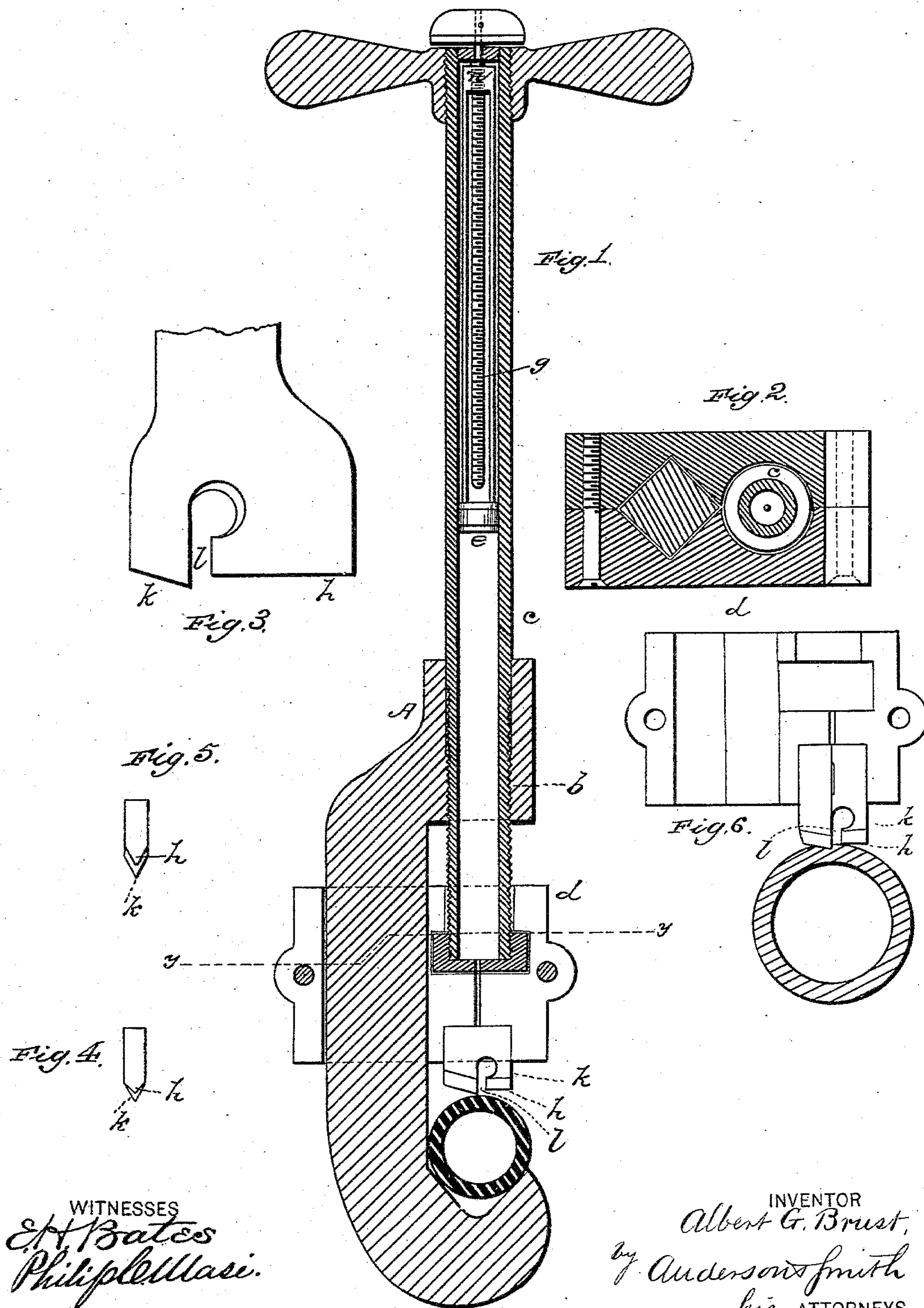


(Model.)

A. G. BRUST.
METAL GROOVING TOOL.

No. 288,159.

Patented Nov. 6, 1883.



UNITED STATES PATENT OFFICE.

ALBERT G. BRUST, OF WASHINGTON, D. C., ASSIGNOR OF ONE-HALF TO E. W. ANDERSON AND J. C. SMITH, BOTH OF SAME PLACE.

METAL-GROOVING TOOL.

SPECIFICATION forming part of Letters Patent No. 288,159, dated November 6, 1883.

Application filed March 8, 1883. (Model.)

To all whom it may concern:

Be it known that I, ALBERT G. BRUST, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Metal-Grooving Tools; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view of my device. Fig. 2 is a cross-sectional view of the same, taken on line *y y*. Figs. 3, 4, and 5 are detail views. Fig. 6 is a representation of one part of a sliding-bit holder, and the bit and front guard made in separate pieces.

This invention has relation to tools for cutting pipe or other forms of metal-work; and it consists, mainly, in providing in front of the bit or cutting-edge a depressed guard or bearing to limit and regulate the depth of the cut, together with a recess to serve as a clearance-way; and, further, the invention consists in providing the turning-handle which feeds the bit with an oil-chamber and feed-screw, all as hereinafter set forth.

In the accompanying drawings, illustrating this invention in its application to a pipe-cutter, the letter A designates the head of the tool, having a threaded bearing, *b*, which engages the turning-handle *c*, to which the movable-bit holder *d* is connected. Usually it is preferred to make the turning-handle hollow, to contain oil, which is forced toward the cut-

ting-bit by means of a piston or follower, *e*, having a nut, *n*, engaging a feed-screw, *g*.

The bit-holder may be made entire, but is preferably constructed in sections. It is provided with a bearing for the bit and its front guard, *h*.

The bit *k*, or cutting projection, is provided with a front guard or bearing, *h*, which is separated from the cutting-edge of the bit by a small interval or throat, *l*, which provides a clearance-way, while allowing the tool free action. The bearing-surface of the guard should be parallel or nearly parallel to the cutting-edge of the bit, and a little depressed relative thereto, as it limits the cut of the bit and prevents the latter from springing into the cut.

The bit and its front bearing may be made entire of a single piece of steel; or the front bearing may be separate.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. A metal-cutting bit having in front of the bit a depressed bearing to limit the cut, and between the bit and the front bearing a clearance-throat, substantially as specified.

2. In a pipe-cutter, an axially-turning handle having an oil-chamber, and a feed-screw connected with the piston therein, substantially as specified.

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

ALBERT G. BRUST.

Witnesses:

THEO. MUNGEN,
PHILIP C. MASI.