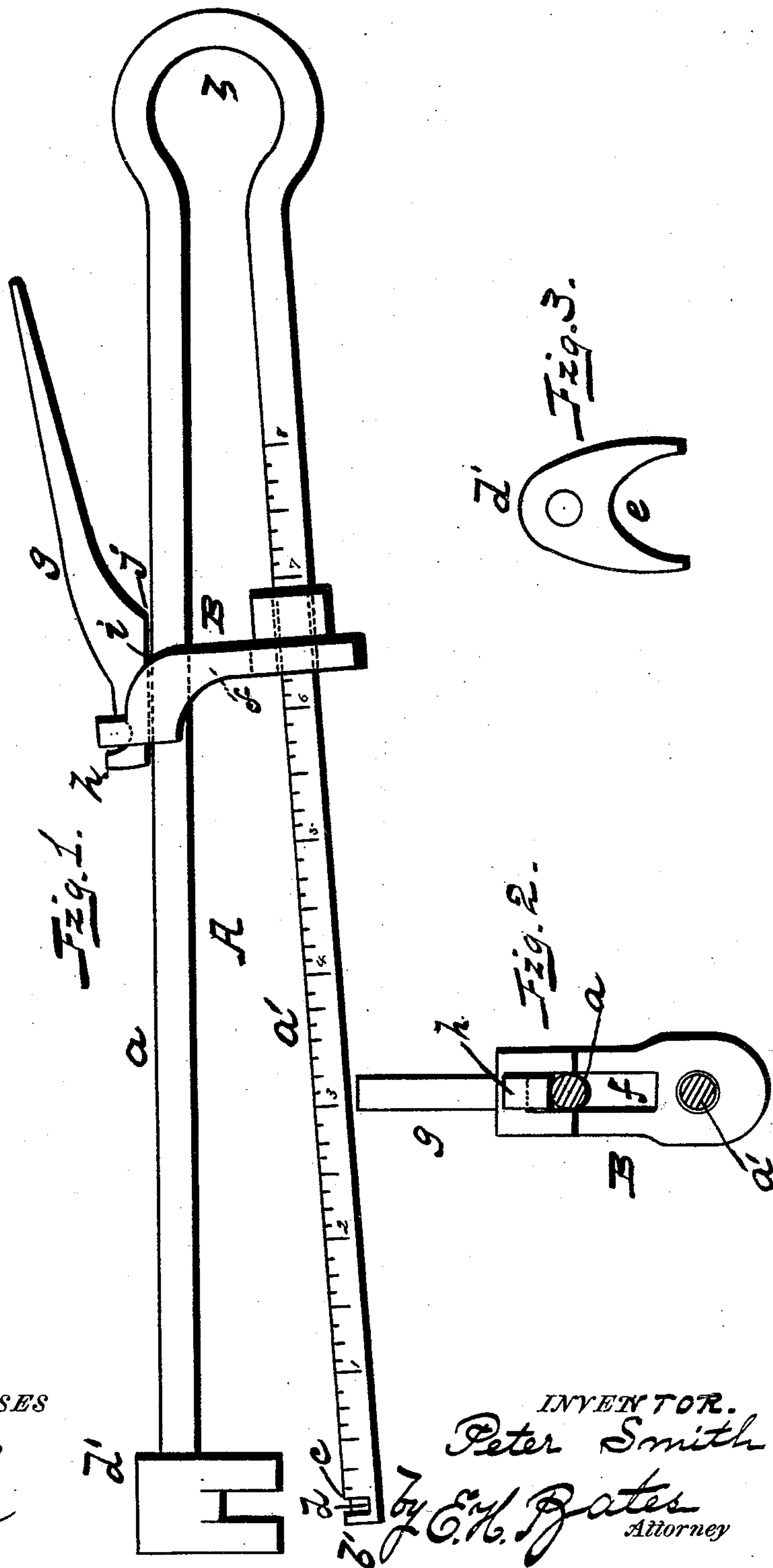


(No Model.)

P. SMITH.
GLASS TUBE CUTTER.

No. 454,233.

Patented June 16, 1891.



WITNESSES

Jas. B. Clarke
M. M. Mason

INVENTOR.

Peter Smith
by E. W. Bates
Attorney

UNITED STATES PATENT OFFICE.

PETER SMITH, OF NEW YORK, N. Y.

GLASS-TUBE CUTTER.

SPECIFICATION forming part of Letters Patent No. 454,233, dated June 16, 1891.

Application filed March 10, 1891. Serial No. 384,431. (No model.)

To all whom it may concern:

Be it known that I, PETER SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Glass-Tube Cutters; and I do hereby 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.

This invention has relation to improvements in implements for cutting glass, and more particularly glass of tubular form; and it consists in the novel construction and arrangement of the various parts of which it is composed, all as will be hereinafter more fully described.

The annexed drawings, to which reference is made, fully illustrates my invention, in which—

Figure 1 represents a side view of my device. Fig. 2 is a cross-sectional view of the same, and Fig. 3 is a detail view.

Referring by letter to the accompanying drawings, A designates my improved glass cutter, consisting of the U-shaped bars *a a'*, formed integral, the rear end *b* thereof providing the spring therefor. These spring-bars are parallel or nearly parallel to one another, the end *b'* of the bar *a'* being slotted, as at *c*, and in which is journaled a cutting-disk *d*. The end of the opposite rod *a* is provided with a forked head or knob *d'* of peculiar construction, the same having a slot crosswise, forming a fork, and a concave opening *e* lengthwise the same, all for a purpose presently explained.

In constructing the bar or rod *a* I provide the same with graduating-marks, whereby the length desired may be readily cut from the tube or other article of glass. Upon these spring-arms I mount a sliding device, presenting a combined yoke and collar B, the latter of which slides upon the bar *a'*, while the bar *a* passes within the yoke or slot *f*, and a hand-lever *g* is interposed between said arm and end of the yoke, as shown in Fig. 1 of the

drawings. This lever has a turned-up end *h*, which serves to keep it in place in connection with the yoke, and a flat or horizontal portion *i*, that rests upon the bar. The point *j* of this lever forms the fulcrum therefor when the lever is operated, and the same is detachable from the bar *a* and yoke. This forked head serves as a clamp, whereby the glass tube is kept in perfect alignment with the cutter-arm *a'*, thereby securing an even cut, and the glass tube parting more readily by reason of the pressure of the cutter acting on the glass between the two points of rest or bearing.

It will be observed that in using my device for cutting tubular glass the bar or end of the rod *a'* is to be passed within said glass tube and the collar serving to gage the distance for said end to enter, after which the operator presses upon the hand-lever, thus forcing the two arms toward one another, holding the tube between the arm *a'* and the forked head or clamp. At the same time the lever is pressed upon, bringing the cutter in close contact therewith, and by revolving the implement said cutter cuts the glass, after which the lever is relieved of pressure and the arms spring apart, and the yoke serves the double purpose, to wit: a gage for the bar *a'* and a retainer both for the lever and bar *a*, and the continuous bend of the two bars serve as a spring for the same, and a cutter, as herein described, is easily and quickly operated, simple in construction, durable, and cheap to manufacture.

I do not claim, broadly, a glass-tube cutter comprising a bar with a cutter at one end, said bar being attached at or near the end to another bar carrying a suitable bearing opposite the cutter of the first bar, the bars being so connected as to permit movement toward and from each other and having an auxiliary connecting device connected to or bearing upon each bar and with projecting lever-handle, whereby the bars may be pressed toward each other during the cutting; but,

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

The glass-tube cutter herein described, consisting of the parallel bars formed integral, the rear end forming the spring therefor and having the cutting-disk, the head curved, as
5 described, and secured to the end of the bar opposite to that of the disk, the sliding yoke, and the lever engaging the same and one of the bars, said lever adapted to be removed

from said yoke at will, substantially as described. 10

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

PETER SMITH.

Witnesses:

A. FRED. SILVERSTONE,
JAMES F. McLAUGHLIN.