

No. 780,305.

PATENTED JAN. 17, 1905.

H. H. RIGGIN.

WRENCH.

APPLICATION FILED FEB. 4, 1904.

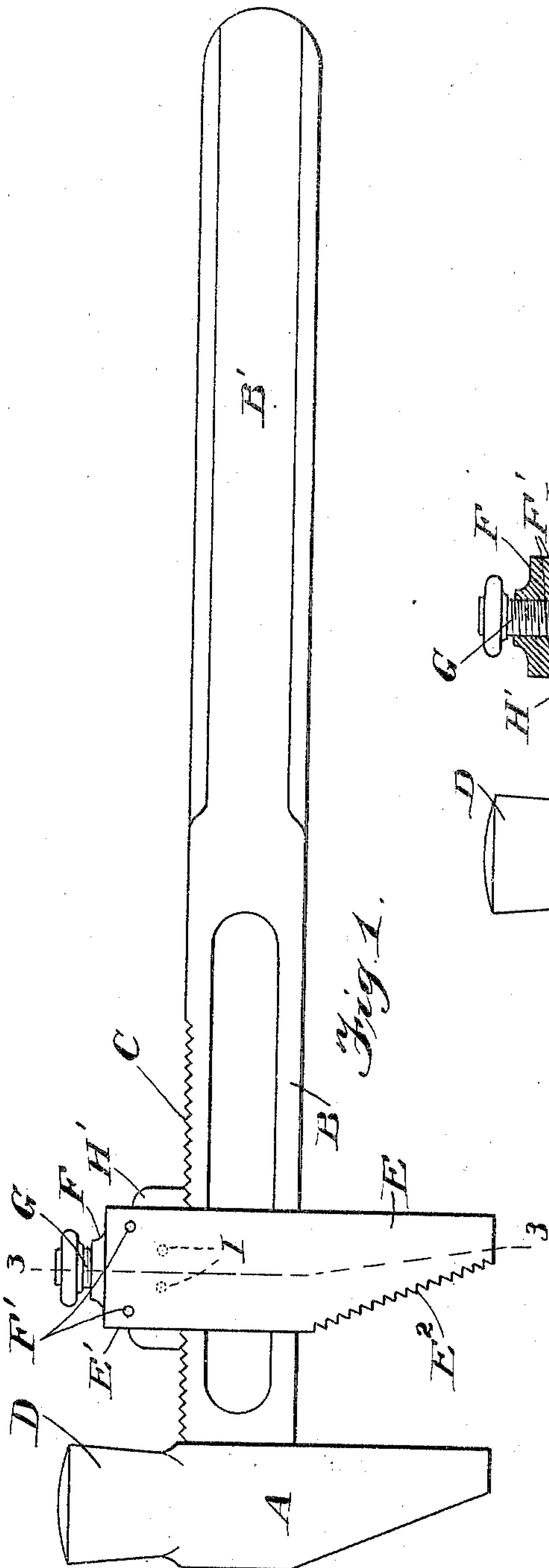


Fig. 1.

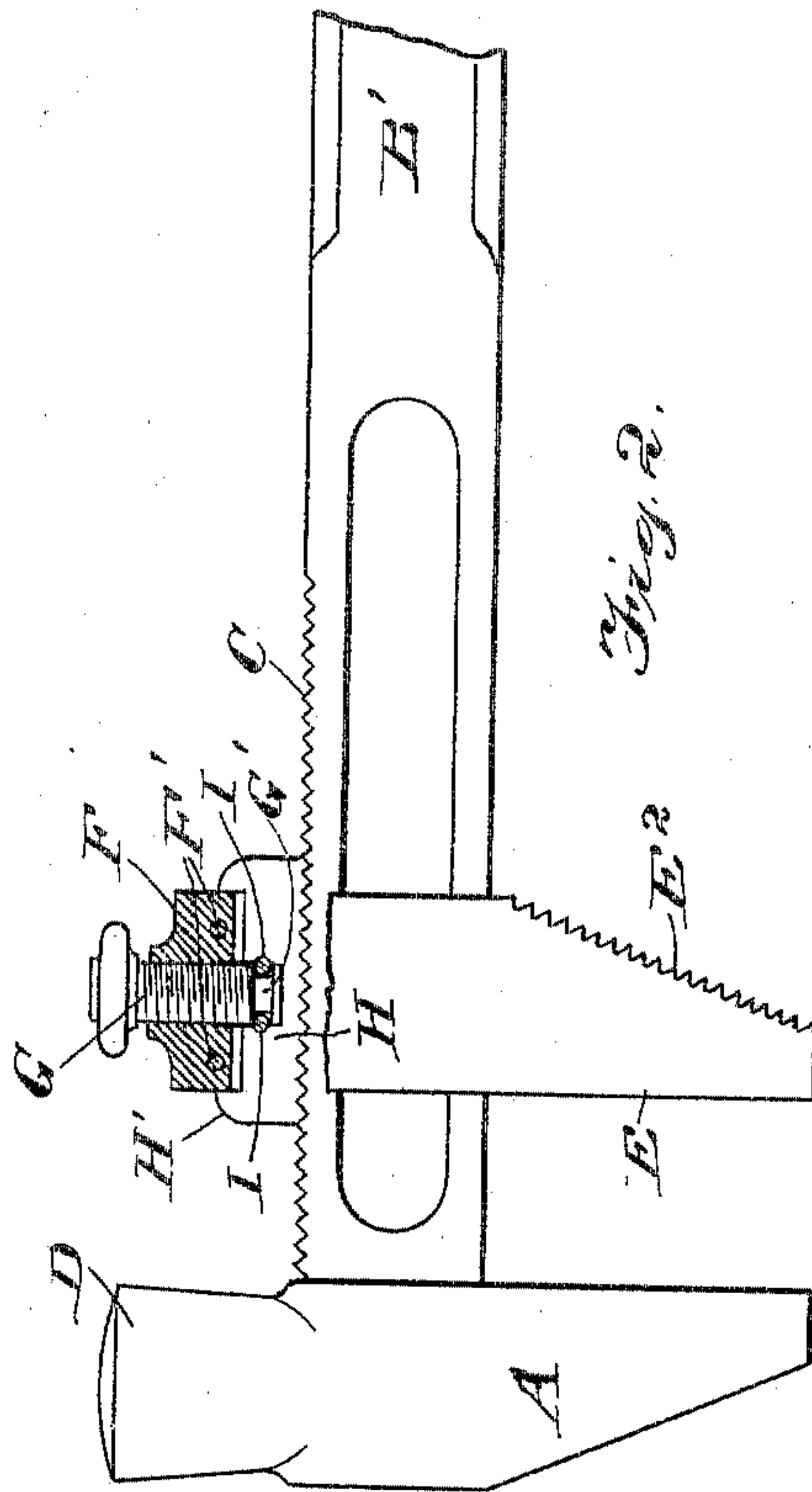


Fig. 2.

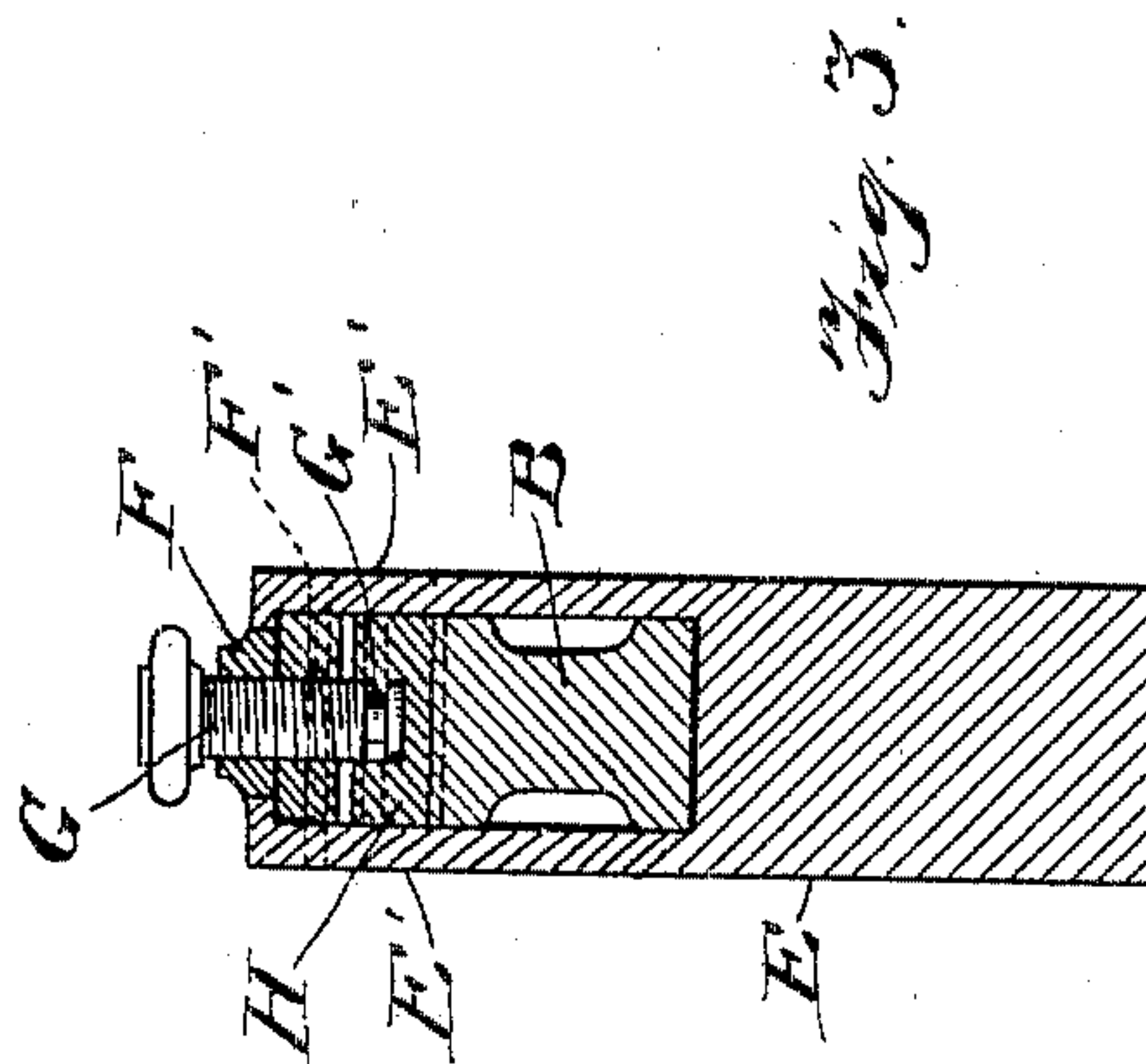


Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY H. RIGGIN, OF ALTOONA, PENNSYLVANIA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 780,305, dated January 17, 1905.

Application filed February 4, 1904. Serial No. 192,053.

To all whom it may concern:

Be it known that I, HENRY H. RIGGIN, a citizen of the United States, residing at Altoona, county of Blair, and State of Pennsylvania, have invented a certain new and useful Improvement in Wrenches, of which the following is a specification.

My invention relates to a new and useful improvement in wrenches, and has for its object to provide a wrench in which the movable jaw may be moved to any position along the shank and quickly set in place, and the movable jaw is constructed upon one side with a beveled surface, which beveled surface is provided with teeth, so that by reversing the jaw the device is converted into a pipe-wrench.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of my improved wrench; Fig. 2, a side elevation of the wrench, a portion of the same being broken away; Fig. 3, a section on the line 3 3 of Fig. 1.

A is the fixed head of the wrench, which has formed with it the shank B. The rearward end of this shank is provided with notches extending laterally across the same, as represented at C. The rearward portion of the head A is made in the form of a hammer-head D, so that when the movable jaw is removed from the wrench the device could be used as a hammer.

E represents the movable jaw through which the shank B passes, so that the movable jaw may slide upon said shank. The rearward portion of the jaw E is forked, the prongs E' passing each side of the shank B and a considerable distance to the rear thereof.

F is a block which is adapted to slide in between the outer ends of the prongs E', and these prongs E' have inturned ends which fit over a flange upon the block F. This block F is then secured in place by the pins F', which

pass through the prongs and also through the block.

G is a set-screw which is threaded through the block F, as shown in Figs. 2 and 3.

H is a gib which is adapted to fit between the prongs E' and between the shank B and the block F. The face of the gib next to the shank is provided with teeth to correspond to the notches C in the shank. Sufficient distance is left between the gib H and the block F to allow for the gib being drawn out of engagement with the notched surface C of the shank. The inner end of the set-screw G is provided with an annular groove G', and this inner end fits into a circular hole formed in the gib. Pins I pass through the gib upon each side of the set-screw through the annular groove G', so that said set-screw is swiveled in the gib, as shown in Fig. 2. Thus as the set-screw is turned in one direction or the other the gib is either raised out of contact with the shank or forced into contact therewith. Upon each end of the gib are formed rearwardly-extending flanges H', which pass upward upon each side of the block F and serve to guide the gib in its movement. One side of the movable jaw E is straight and smooth, and this side is turned toward the fixed jaw and is opposed to the same when the device is used as a monkey-wrench. The other side of the jaw forward of the shank is beveled, and this beveled surface is provided with teeth E², and as the handle B', formed with the shank, is no larger than the shank the movable jaw E may be slid from off the handle and placed upon the shank again in a reversed position, so that the teeth E² will be opposed to the fixed jaw, and the device can then be used as a pipe-wrench.

The advantage of my improved wrench is that by one turn of the screw G the movable jaw is reversed so as to be slid at any point along the shank, and then by turning the screw back this jaw is fixed securely in place, and therefore the wrench can be adjusted quickly to any size nut and will have a greater range of movement than an ordinary monkey-wrench, and by forming the movable jaw as shown a pipe and monkey-wrench are com-

bined in one, and by removing the movable jaw entirely the device can be used as a hammer, and I accomplish this by an extremely-simple construction, and yet the wrench is
5 exceedingly durable and is not liable to get out of order.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from
10 the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a wrench, a fixed head, a shank formed with said fixed head, a handle formed with the
15 shank no larger in cross-section than said shank, a movable head through which the shank extends, the rearward side of the shank being provided with a series of notches, the rearward portion of the movable head being
20 fork shape, an inwardly - extending flange formed at the outer end of each of the prongs of the fork, a block rabbeted upon the sides so as to fit underneath said flanges and be flush with the upper surface of the same, said

block adapted to be slid in between the 25 prongs endwise, pins passing through the prongs and through said block, a gib interposed between the block and the notched surface of the shank, teeth formed upon the inner face of the gib adapted to engage the 30 notches, a screw threaded through the block and swiveled in the gib for raising and lowering said gib, means for guiding said gib in its movements independent of the screw, the forward end of the jaw of the movable head 35 being formed flat on one side and beveled on the other, the beveled surface being provided with teeth so that when the head is reversed the wrench can be used as a pipe-wrench, as
40 and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HENRY H. RIGGIN.

Witnesses:

D. G. ROSEBERRY,
H. G. WILLIAMS.