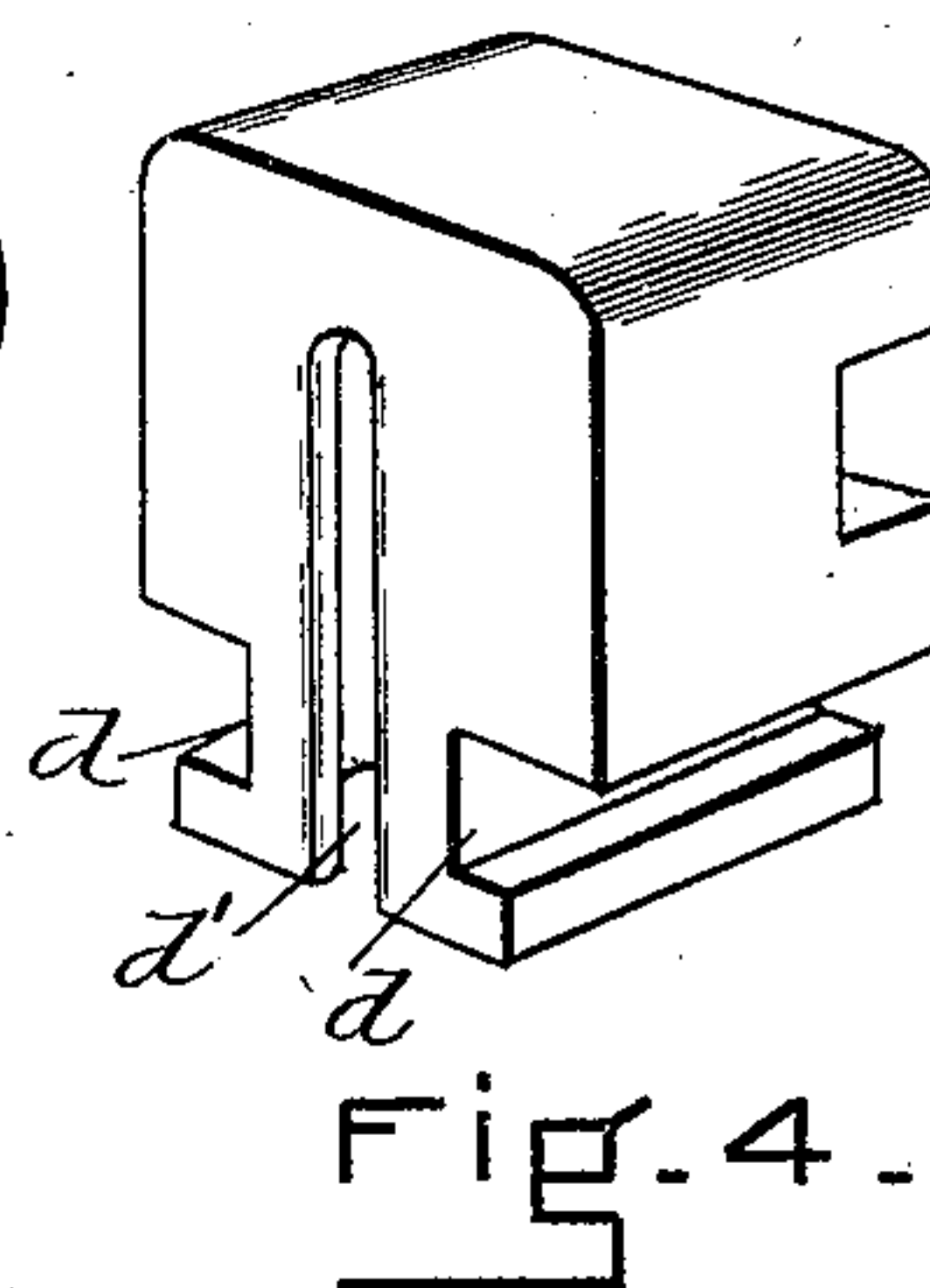
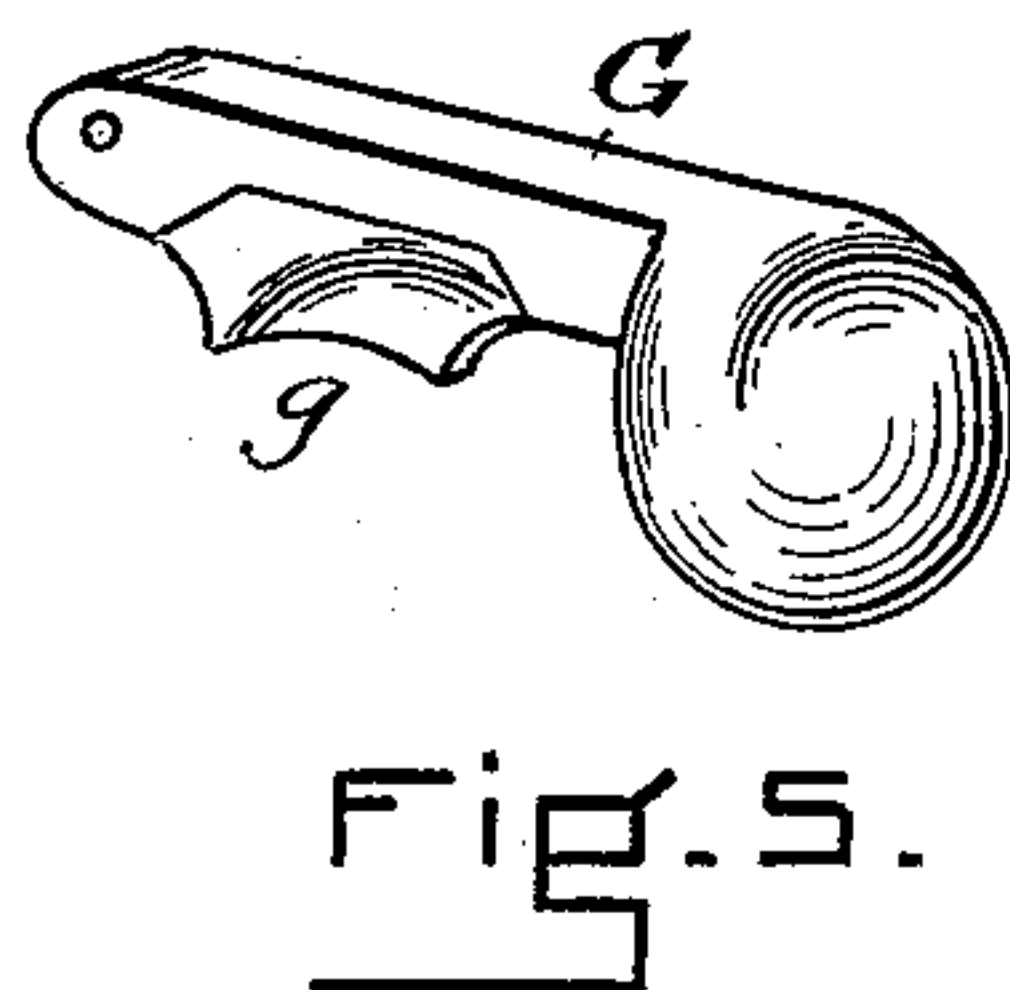
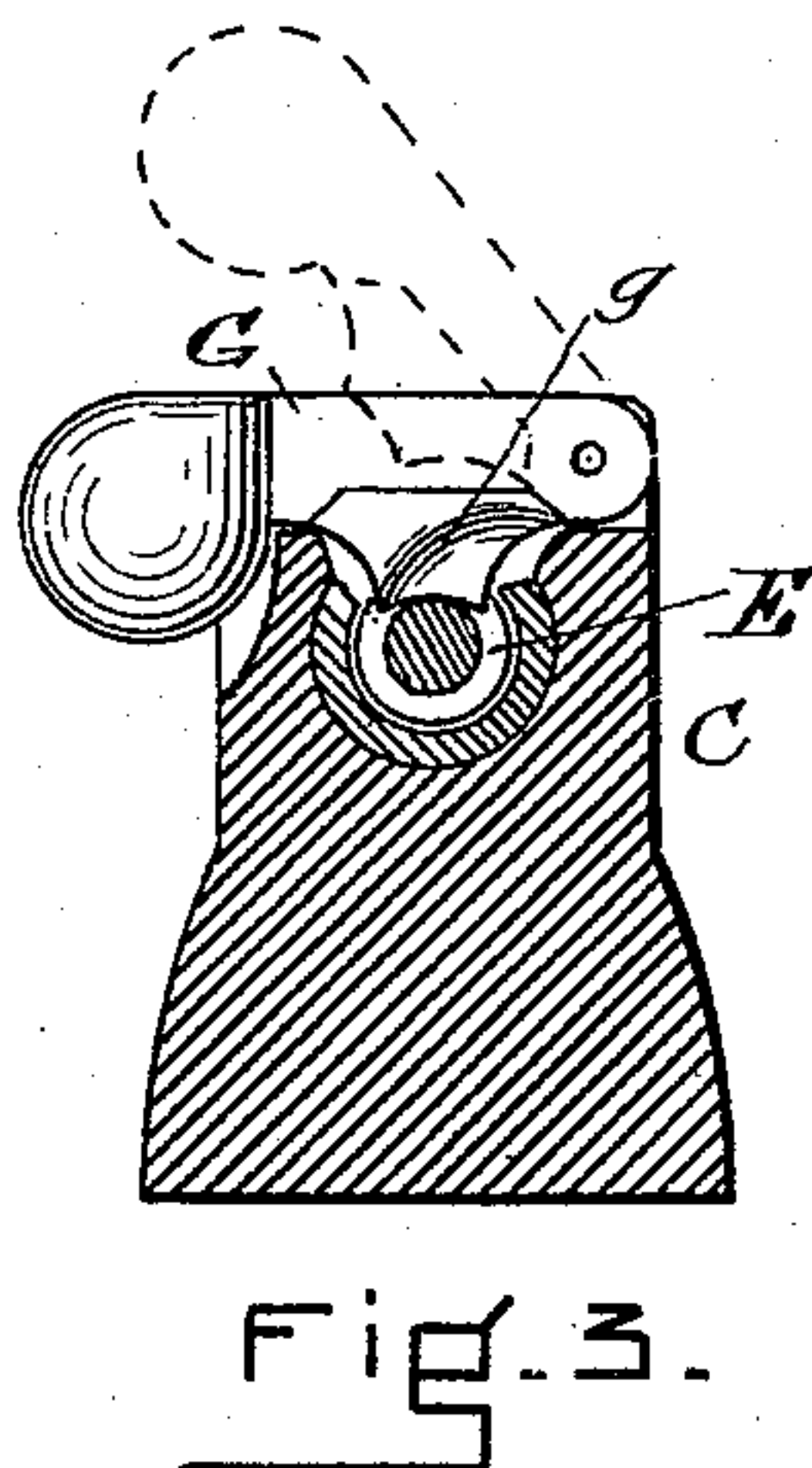
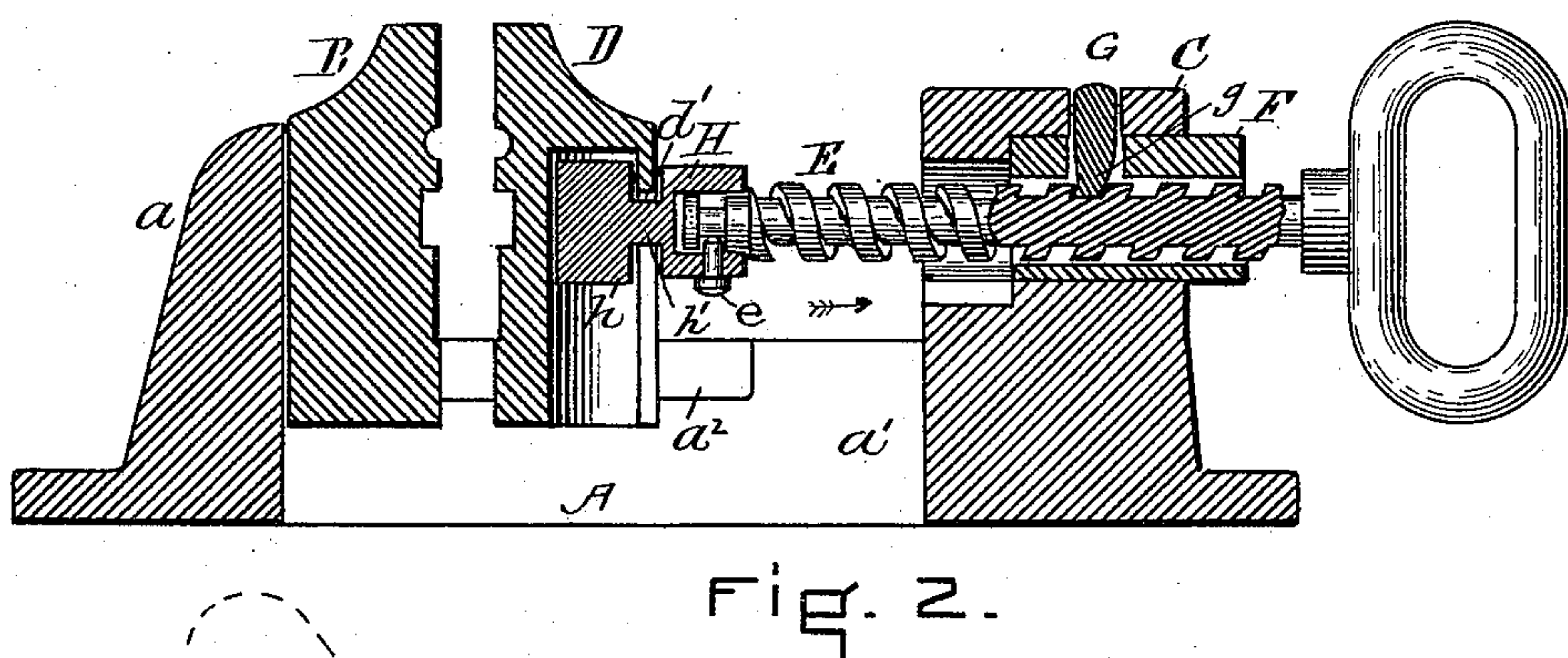
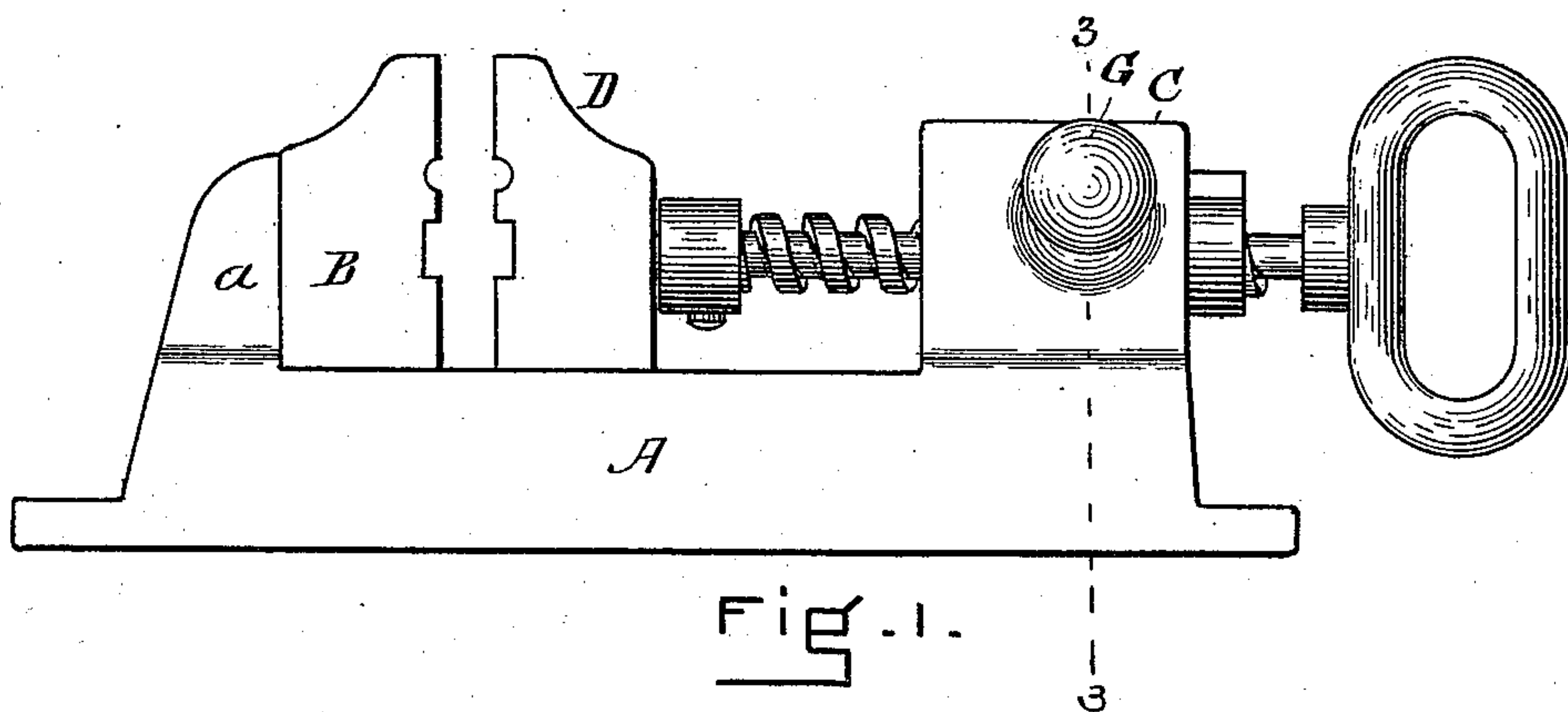


(No Model.)

A. E. BROCKETT.
PORTABLE VISE.

No. 575,687.

Patented Jan. 26, 1897.



WITNESSES
 Frank G. Parker,
 Eva A. Guild

INVENTOR
Alvin E. Brockert
By Geo. O. G. Brockert
his attorney

UNITED STATES PATENT OFFICE.

ATWATER E. BROCKETT, OF EVERETT, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WILLIAM G. NIXON, OF BRAINTREE, MASSACHUSETTS.

PORTABLE VISE.

SPECIFICATION forming part of Letters Patent No. 575,687, dated January 26, 1897.

Application filed April 6, 1896. Serial No. 586,332. (No model.)

To all whom it may concern:

Be it known that I, ATWATER E. BROCKETT, of Everett, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Portable Vises, of which the following is a specification.

My invention relates more especially to that class of vises in which a bed is provided, along which the movable jaw is caused to slide toward and from the stationary jaw and in which there is a pawl mechanism for the purpose of making a rapid adjustment of the parts; and it consists more especially in the construction of the pawl mechanism.

In the drawings is shown at Figure 1 a side elevation of a vise embodying my invention, Fig. 2 being a longitudinal section. Fig. 3 is a cross-section on line 3 3 of Fig. 1; Fig. 4, a detail of one of the vise-jaws, and Fig. 5 a detail of the pawl.

A is a bed-piece provided at one end with a back rest *a*, against which rests the stationary vise-jaw B. At its other end the bed is provided with a post C, and between the back rest and post it is chambered at *a'* and has upon each side of the chamber ways *a*², extending not quite the entire length thereof.

D is the movable vise-jaw. Both this jaw and the stationary jaw are provided with suitable grooves *d*, which are adapted to slide upon the ways *a*², and each jaw is so shaped at its lower portion as to allow it, when at the end of the chamber nearest the post C, to be lifted entirely out from the bed, in order that other jaws having differently-shaped faces may be substituted therefor. It is apparent that the back rest *a* may be used as a stationary jaw, if thought best.

The adjustment of the jaw D is made by means of a screw-handle E of peculiar construction, its peculiarity lying in the fact that it is provided with a large undercut thread, as will be seen from that portion of Fig. 2 which shows the screw-handle E in section. The post C has a longitudinal opening therein of a diameter slightly greater than the greatest diameter of the threaded portion of the screw-handle, so that (except as below described) the screw-handle may be moved longitudinally therein. I prefer to make the opening in the post of sufficient diameter to

hold a sleeve F, in which the screw may be moved, as described.

A pawl G, having a tooth *g* properly shaped to engage with the thread on the screw-handle E, is pivoted to the post, as shown in Fig. 3, being weighted at its free end. This construction is such that any pressure brought to bear upon the screw-handle E in the direction of the arrow in Fig. 2 causes the overhanging edge of the periphery of the screw-thread to bite against the pawl G and thus prevents the pawl from jumping out from the thread. This construction I believe to be entirely new with me, and it is obvious that it may be used in a variety of places where a quick adjustment followed by a more accurate screw adjustment is desirable.

The forward end of the screw-handle E may be attached to the adjustable jaw D in any suitable manner. I have shown an attachment, which is fully described in another application, Serial No. 586,331, filed April 6, 1896. It consists of a key-piece having a head H at one end socketed to receive the end of the screw-handle E and having at the other end a key *h*, adapted to lie in a vertical socket in the adjustable jaw D, the jaw being slotted, as shown at *d'*, to allow it to slide down over the neck *h'*, which connects the key *h* with the head H. As shown, the end of the screw-handle E is grooved and a pin *e* passes up through the head H into said groove, thus connecting the key-piece with the screw-handle.

When it is desired to adjust the jaws to a piece of work, the pawl G is thrown out of engagement with the screw-handle and the screw-handle is pushed in the direction of the stationary jaw B until the adjustable jaw D confines the work between the jaws. The pawl G is then dropped into the positions shown in Figs. 1, 2, and 3. It adjusts itself by the weight of its free end or it may be pushed into the thread of the screw. The screw being turned in the proper direction will cause the jaws to clamp the work. It will be seen that the greater the pressure the harder the engagement between the pawl and the screw-thread.

What I claim as my invention is—

1. The vise above described consisting of a stationary jaw and a movable jaw adapted to

be moved toward and from it, in combination
with an adjusting screw-handle mounted in a
suitable post and connected with said adjust-
able jaw, the thread of said screw-handle being
5 undercut as described, said post carrying a
pawl adapted to engage with the thread of
said screw-handle, all as and for the purposes
set forth.

2. In a tool, one member of which is ad-
10 justable, the adjusting mechanism above de-
scribed consisting of a screw-handle provided
with an undercut screw adapted to slide with-

in an opening in a suitable slotted post, in
combination with a pawl pivoted on said post
and adapted to pass through the slot in said 15
post into said thread, and engage therewith,
all as and for the purposes set forth.

In testimony whereof I have hereunto set
my hand this 24th day of February, 1896.

ATWATER E. BROCKETT.

Witnesses:

GEORGE O. G. COALE,
EVA A. GUILD.