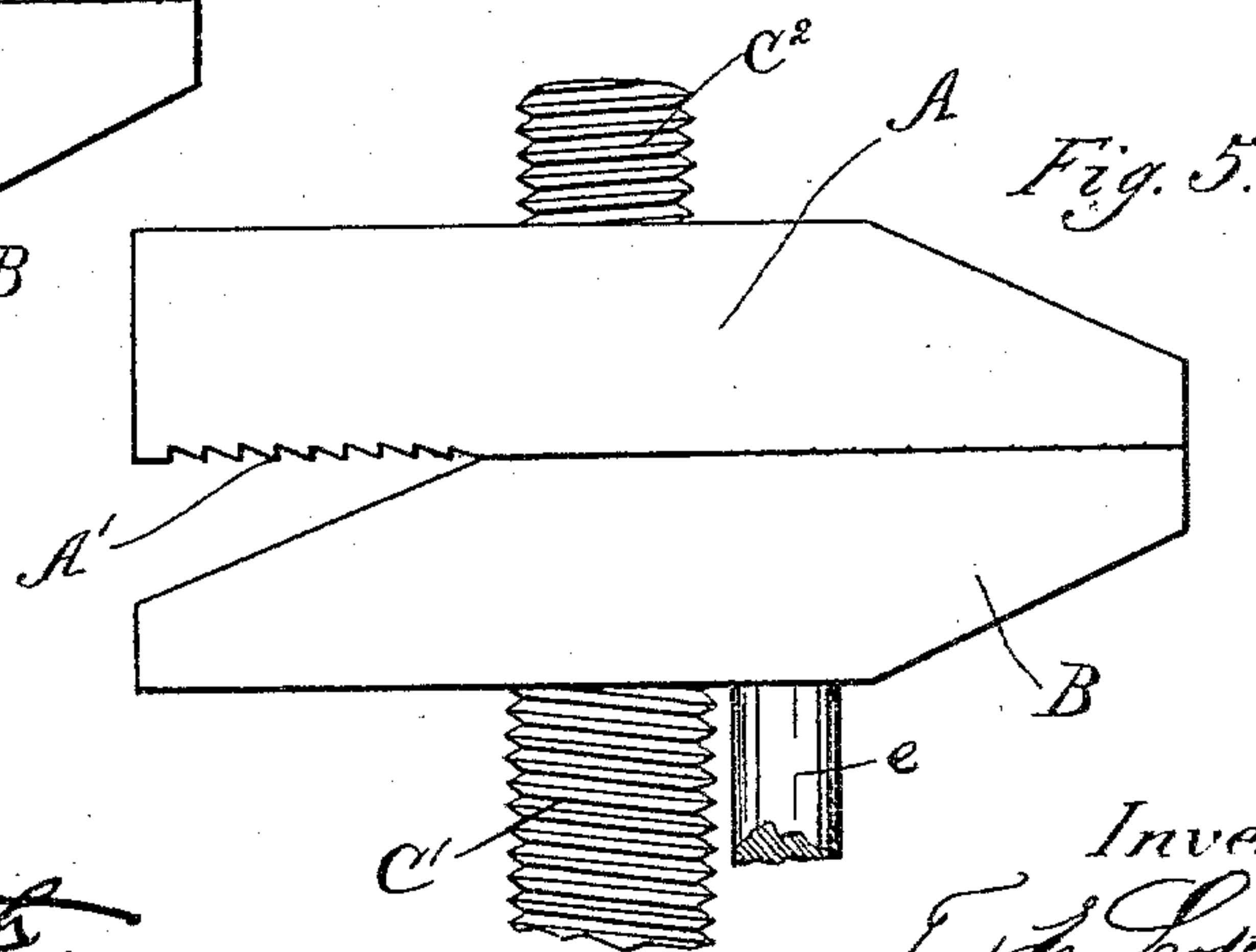
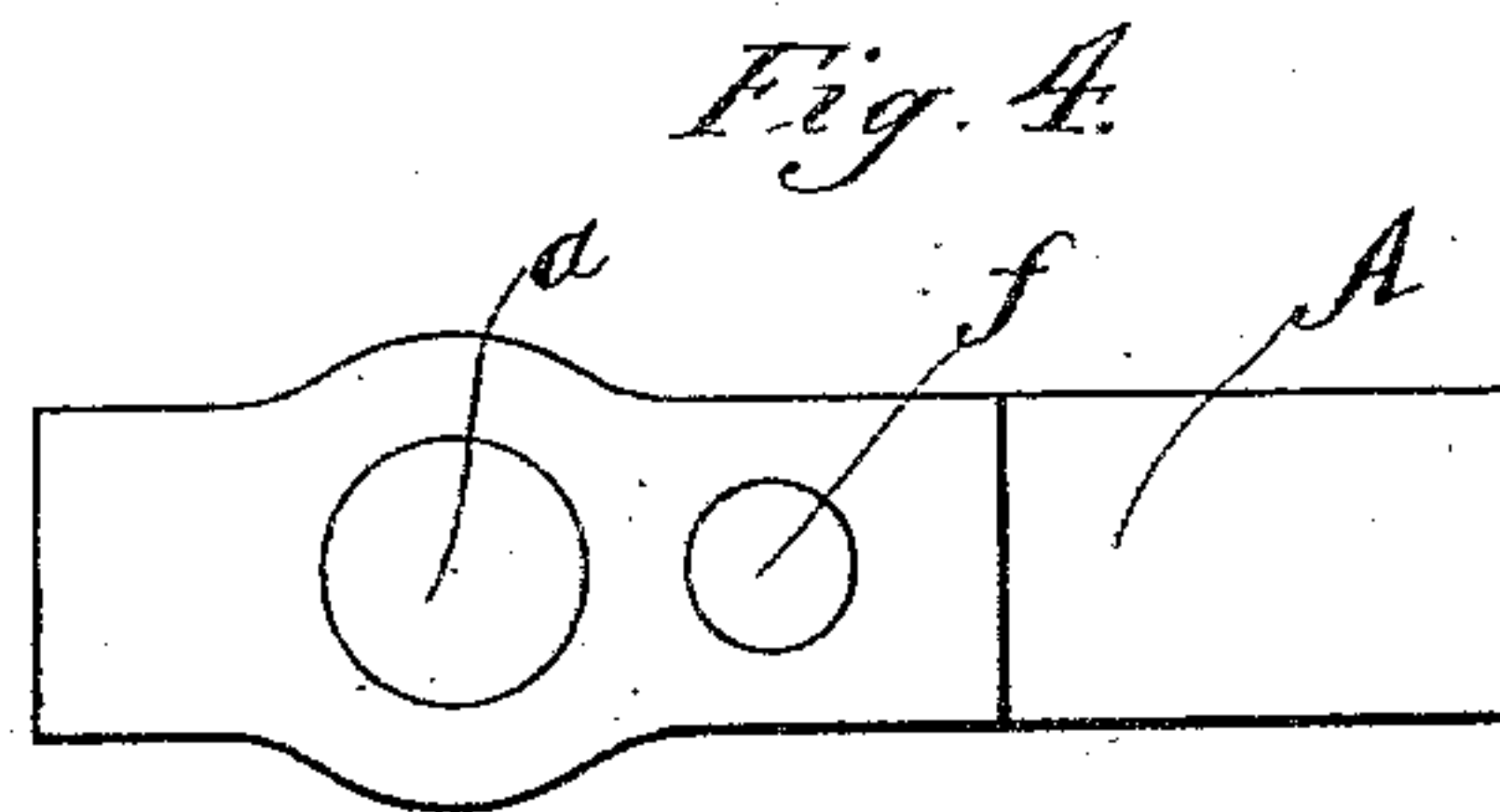
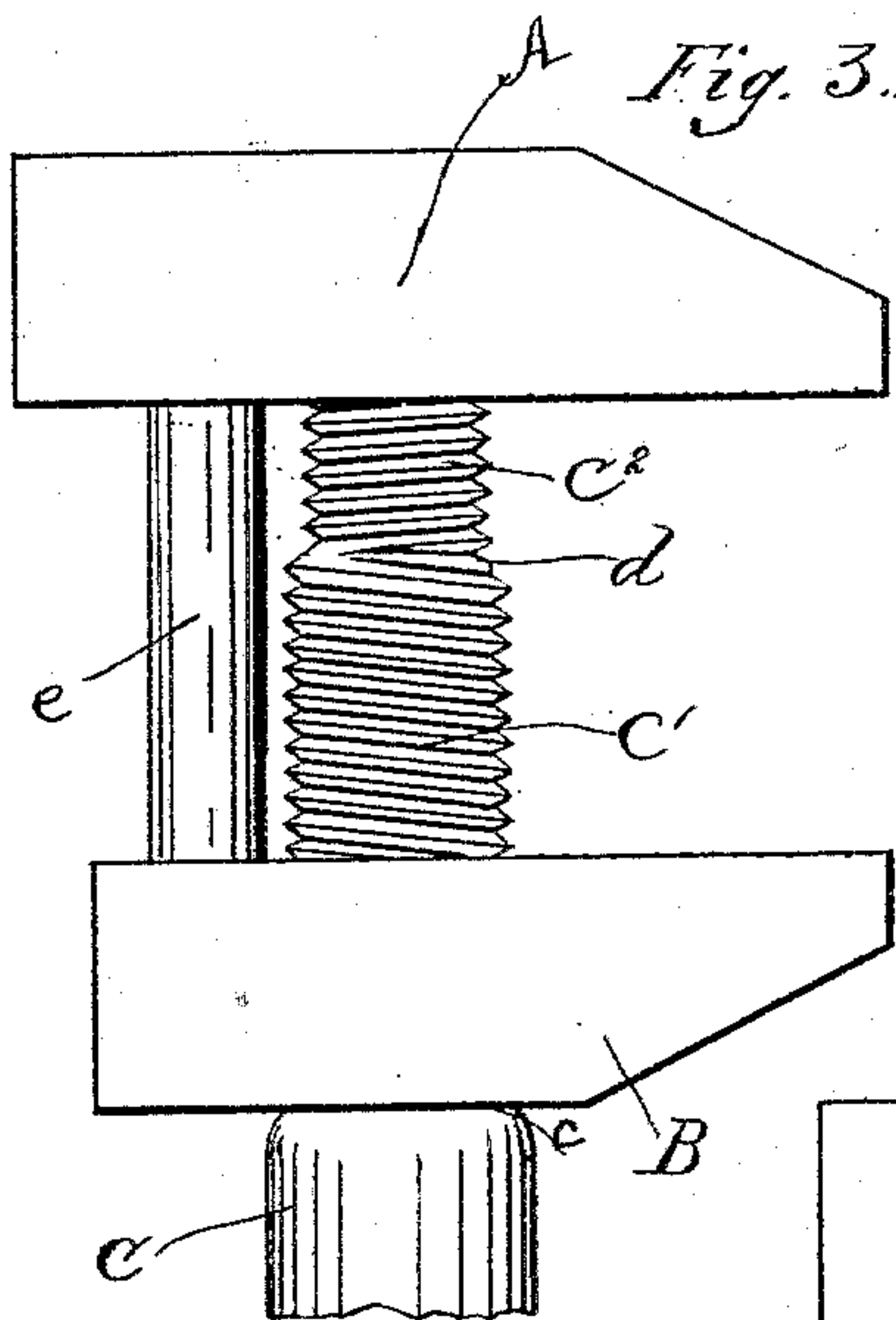
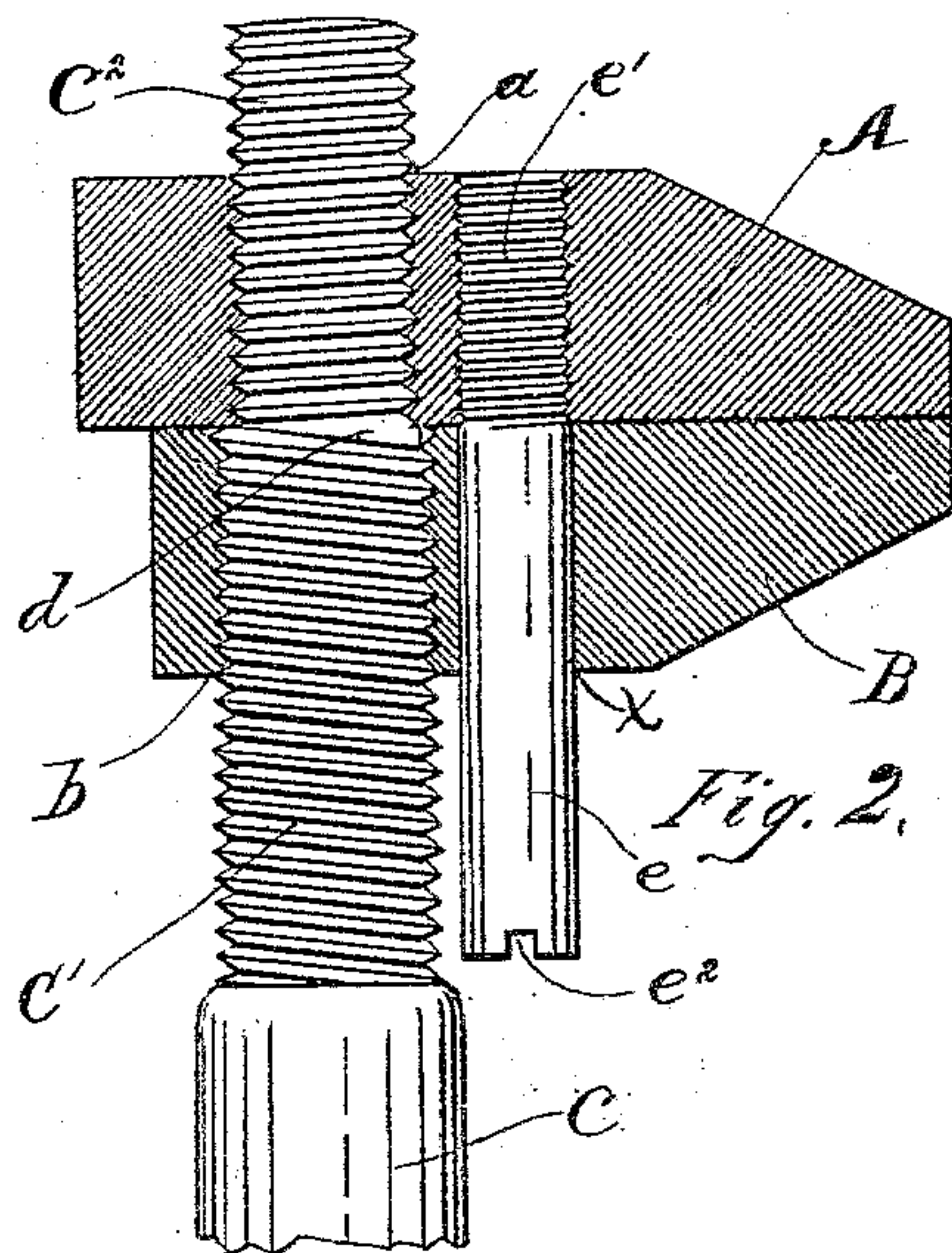
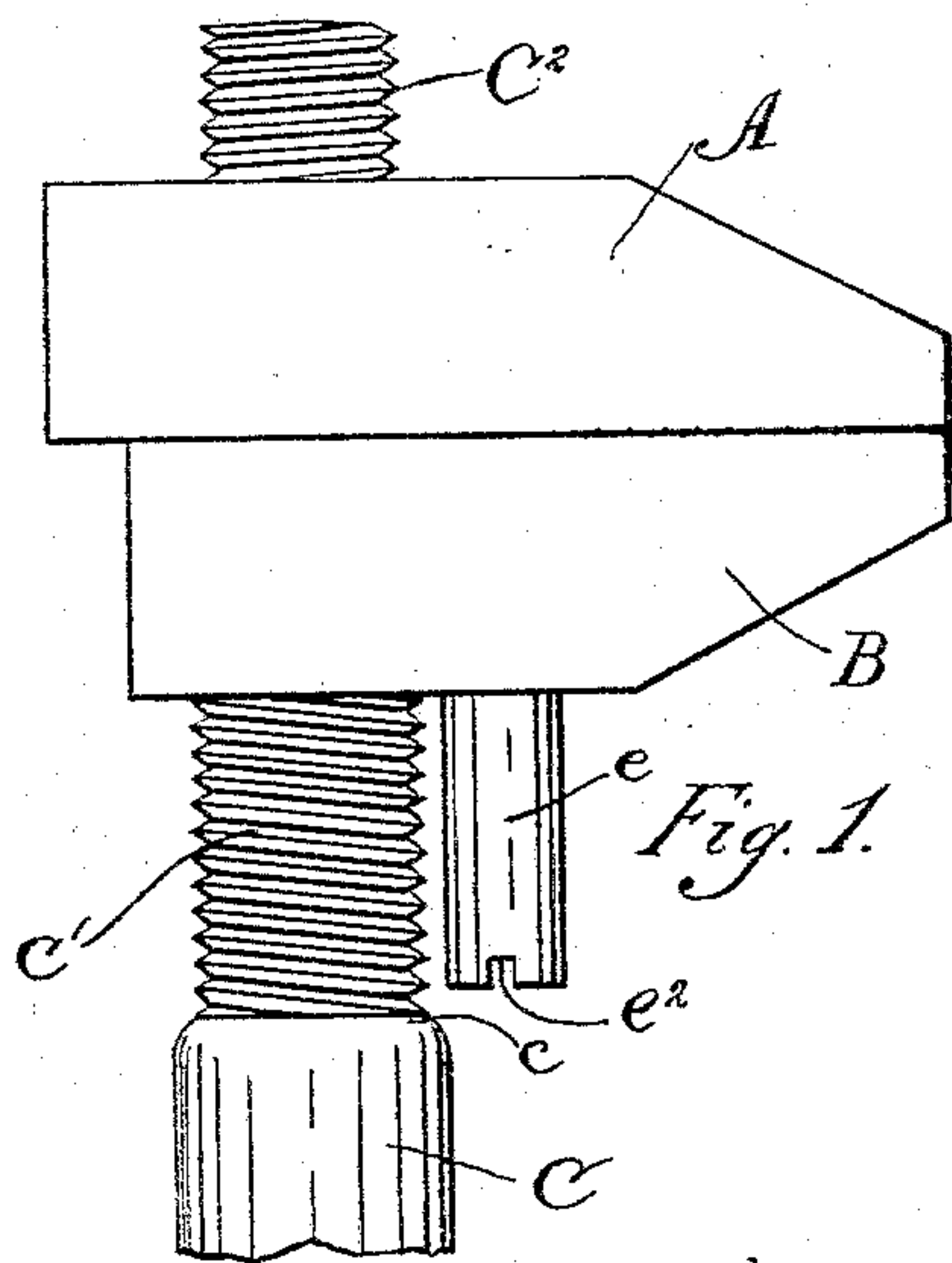


(No Model.)

F. E. LODETTI.
WRENCH.

No. 553,008.

Patented Jan. 14, 1896.



Witnesses
John J. Kiffick
A. M. Sussack

Inventor.
Frank E. Lodetti
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Attorneys

UNITED STATES PATENT OFFICE.

FRANK EMILIUS LODETTI, OF RONDOUT, NEW YORK.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 553,008, dated January 14, 1896.

Application filed February 28, 1895. Serial No. 539,969. (No model.)

To all whom it may concern:

Be it known that I, FRANK EMILIUS LO-
DETTI, a citizen of Italy, and a resident of
Rondout, county of Ulster, and State of New
York, have invented certain new and useful
Improvements in Monkey - Wrenches, of
which the following is a specification, refer-
ence being had to the accompanying draw-
ings, forming a part thereof, in which simi-
lar letters of reference indicate correspond-
ing parts in all the figures.

This invention relates to monkey-wrenches,
and has for its object, first, to provide a de-
vice of simple construction, strength and du-
rability; second, to produce an extremely
cheap device, and, lastly, to provide a com-
bined monkey-wrench and pipe-wrench.

The invention consists in the novel con-
struction and arrangement of parts whereby
the above-mentioned and other desirable re-
sults are attained and hereinafter more fully
described.

Referring to the drawings, Figure 1 is a
side elevation of the upper portion of a wrench
embodying my invention. Fig. 2 is a similar
view with the jaws in vertical section. Fig.
3 is a side elevation of the device opened out.
Fig. 4 is a plan view of the upper jaw. Fig.
5 is an elevation of the combination-wrench.

In the practice of my invention I construct
the upper jaw, A, with a threaded or tapped
aperture or bearing *a* at or rearward of the
center thereof and the lower jaw, B, with an
aligning aperture *b* of greater diameter and
reversely threaded for a left-hand screw.
These jaws are mounted upon the end of the
handle C, which is reduced to form a shank
C', reversely threaded to coincide with and
enter the aperture *b* in the lower jaw, B.
Above the shank C', which is of suitable
length, is a preferably integral shank C² of
further reduced diameter and threaded to
register with the right-hand thread of the
aperture *a* of the upper jaw.

The handle C forms, at its junction with
the shank C', a shoulder *c*, which limits the
rearward or downward movement of the lower
jaw, and the said shank C', at its junction
with its shank C², forms a shoulder *d* to simi-
larly limit the movement of the upper jaw.

The jaws are secured together in align-
ment and the opening or closing thereof

guided by a rod or spindle *e*, having a thread-
ed end *e'*, which is screwed into an aperture
f in the jaw A immediately forward of the
aperture *a*, the remainder of said spindle
projecting through an aperture *x* in the lower
jaw, B, which slides thereon, said portion be-
ing cylindrical or peripherally smooth to be
capable of being turned for insertion, re-
moval, or tightening, which turning is effect-
ed by hand, and also by an ordinary screw-
driver inserted in a groove *e*² formed in the
lower end thereof.

In Fig. 5 I have shown the jaws projected
rearwardly, and the upper jaw, A, serrated or
provided with beveled teeth A' upon the un-
der face thereof at the rear and the lower
jaw, B, being similarly projected and beveled
or tapered upon its upper face, whereby the
grasping of a cylindrical object is facilitated;
and in Fig. 3 I have shown the spindle *e* at
the rear of the wrench.

The operation of the device will be read-
ily understood from the foregoing descrip-
tion, taken in connection with the accompa-
nying drawings. The wrench being closed,
as shown in Fig. 1, and the handle turned to
the left, the screw-shank C' is forced farther
into the lower jaw, B, and the latter therefore
opened or depressed, and the shank C² is at
the same time withdrawn and the upper jaw
correspondingly raised thereon.

The wrench being placed over the object
to be manipulated, the handle is turned to
the right and the jaws thereby brought as
nearly together as possible to rigidly and
tightly grasp the object. The jaw B slides
on the rod or spindle *e*, and the reverse tend-
ency of the jaws is prevented from causing
the same to depart from their usual align-
ment, the said spindle being screwed up by
a driver from time to time, as required. The
shoulder *c* defines and limits the downward
movement of the jaw B, and as such limita-
tion of the movement of the jaw prevented
further turning of the handle to the left the
upper jaw, A, is thereby prevented from leav-
ing the shank C². Consequently the spindle
e is necessarily withdrawn to remove either
or both jaws. The shoulder *d* limits the
downward movement of said upper jaw, A,
and the latter acts as a stop to prevent fur-
ther movement of the jaw B.

The advantages resultant from the use of my invention will be manifest to all who are conversant with the general class of devices to which the same appertains.

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

10 In a monkey wrench, the combination of an upper jaw A, having a threaded aperture *a*, a lower jaw B having a reversely threaded aperture *b* of greater diameter than the aperture *a*, a handle C having a shank C' reduced to fit in the aperture *b*, and a further

reduced shank C² to enter the aperture *a*, a shoulder *c* to limit the downward movement of the lower jaw and a shoulder *d* to limit the downward movement of the upper jaw, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 26th day of February, 1895.

FRANK EMILIUS LODETTI.

Witnesses:

ARTEMAS S. WALKER,

JENNIE HYDE.