

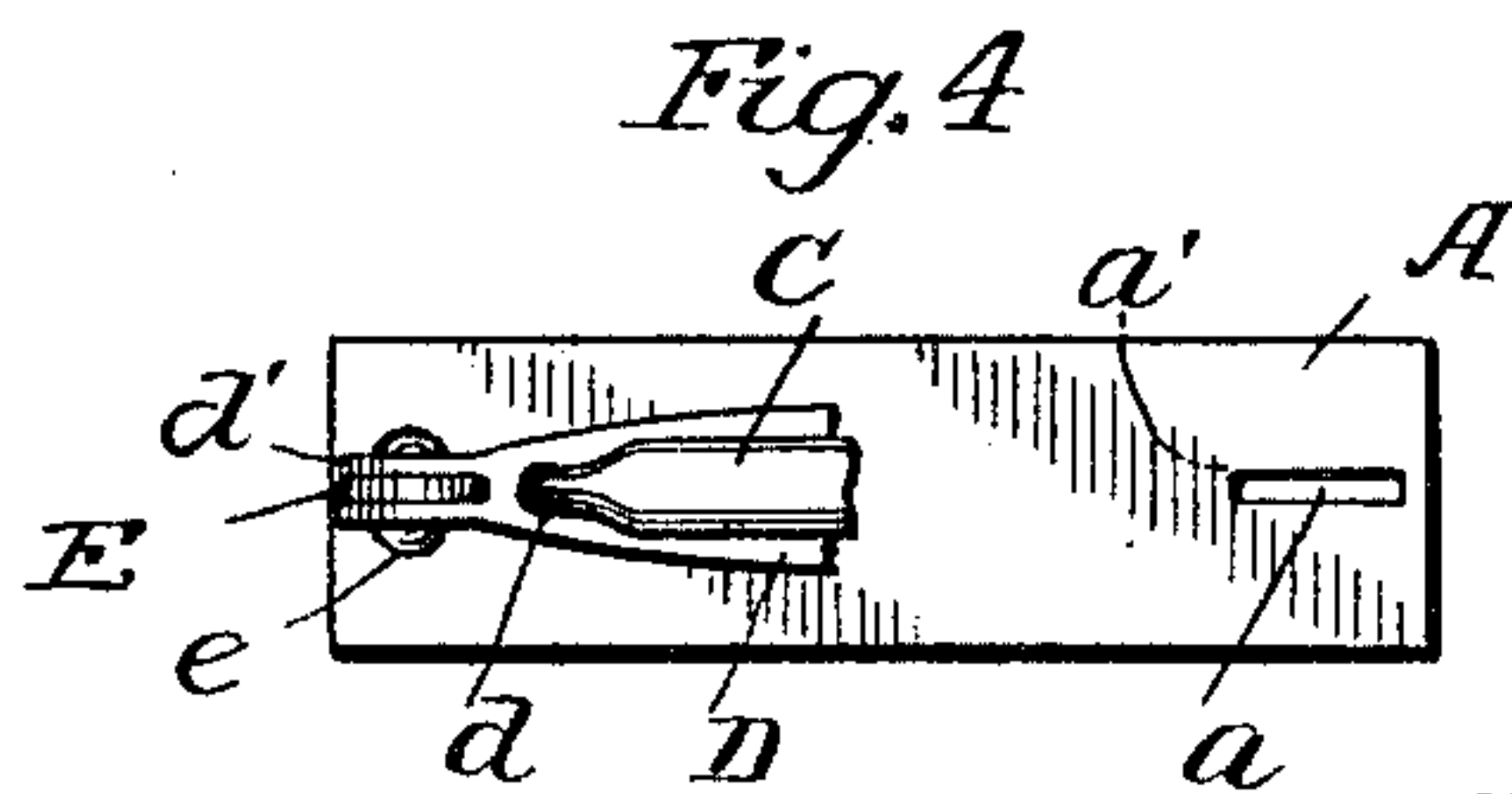
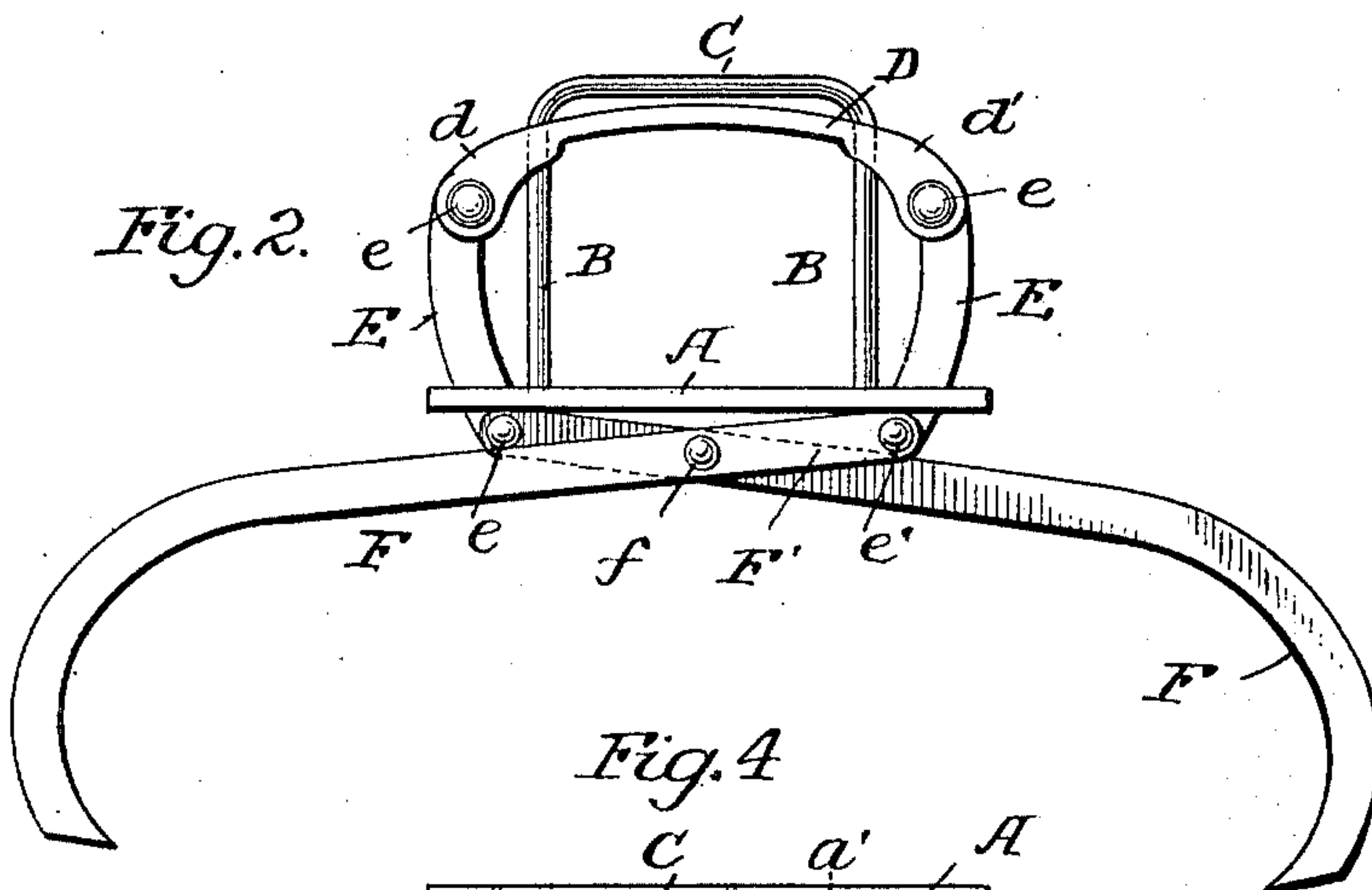
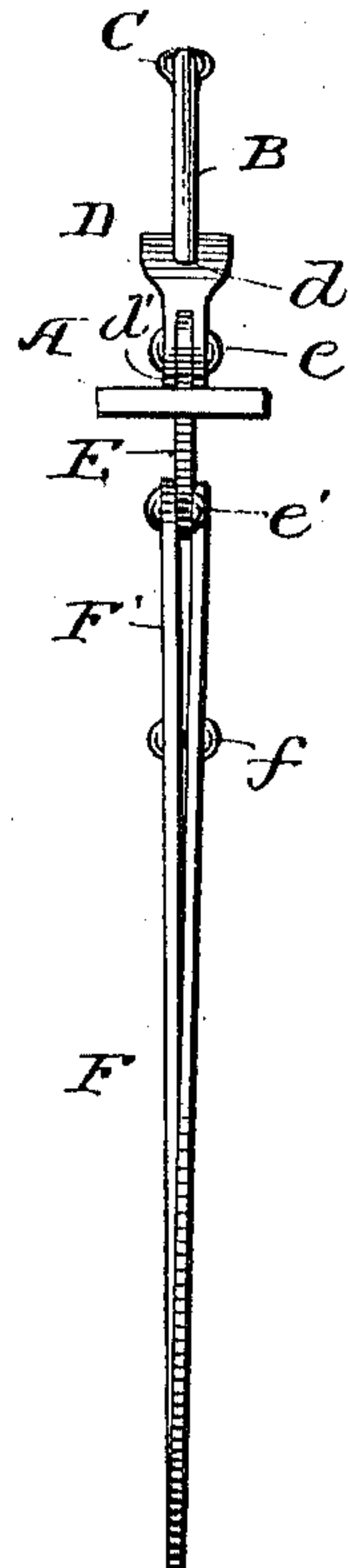
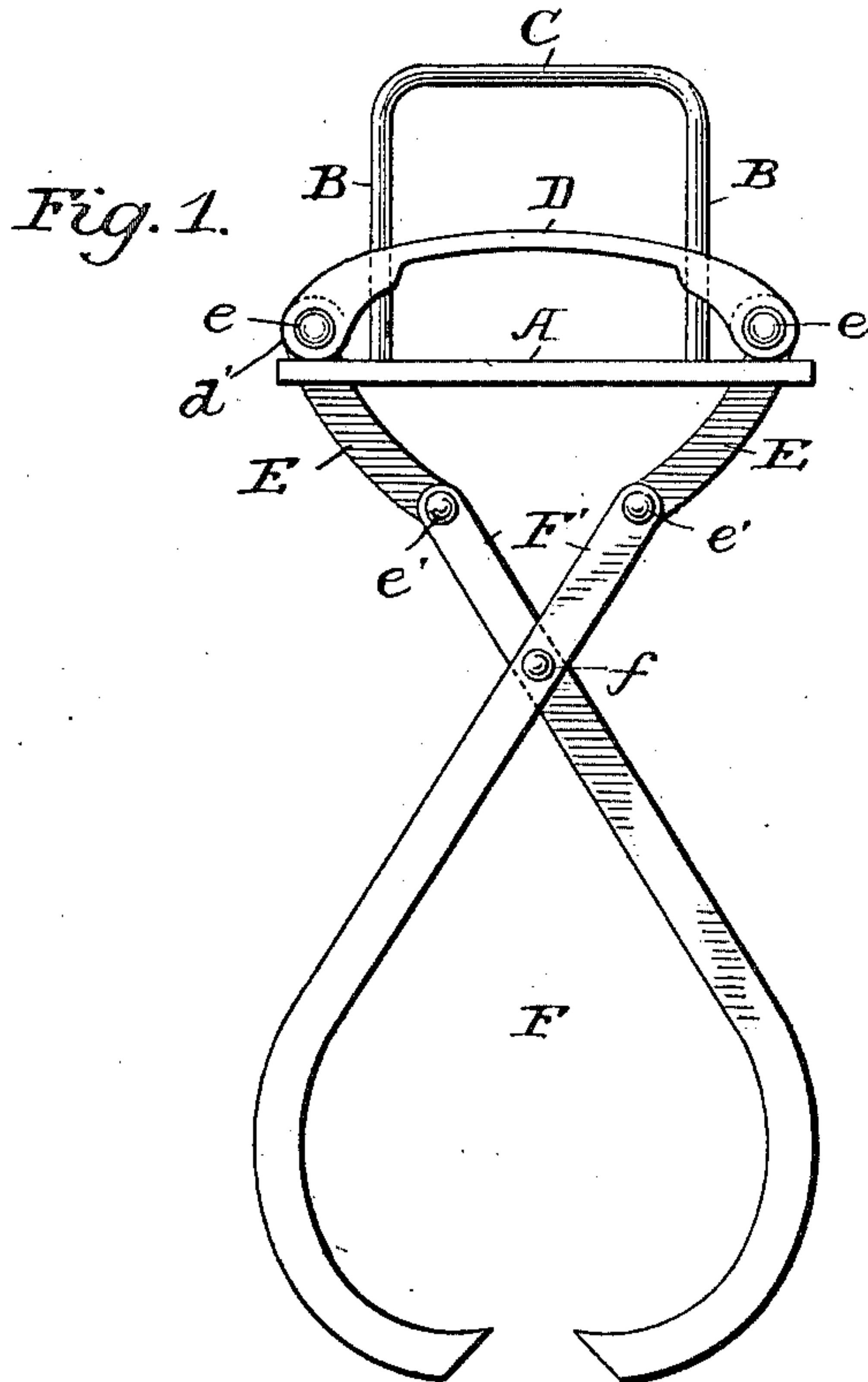
No. 674,944.

Patented May 28, 1901.

W. A. STINCHCOMB & G. R. STEWART.
GRAPPLE.

(Application filed Jan. 14, 1901.)

(No Model.)



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WALTER A. STINCHCOMB AND GEORGE R. STEWART, OF CALUMET,
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GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 674,944, dated May 28, 1901.

Application filed January 14, 1901. Serial No. 43,231. (No model.)

To all whom it may concern:

Be it known that we, WALTER A. STINCHCOMB and GEORGE R. STEWART, citizens of the United States, residing at Calumet, in the
5 county of Houghton and State of Michigan, have invented certain new and useful Improvements in Grapples, of which the following is a specification.

Our invention relates to ice tongs or grapples; and it consists in the improvements hereinafter shown and described.

In the accompanying drawings, Figure 1 is a side view of our improved ice tongs or grapples, showing the grapple-jaws in a closed position. Fig. 2 is a like view showing the grapple-jaws opened to their fullest extent. Fig. 3 is an end view; and Fig. 4, a plan of the grapple, partly broken away.

Referring to the drawings, A represents a
20 suitable frame, which may consist of a rectangular metal plate, to which is rigidly secured a handle, consisting of side pieces B and a cross-piece C, which is preferably enlarged to form a grip for the hand. Before the side pieces
25 B are secured to the frame they are passed through perforations *d*, adapted to receive them, near the ends of a curved lifting-bar D, so that the lifting-bar may slide up and down on the side pieces. While the side pieces B
30 are shown within the ends of the lifting-bar and passing through it, which is the preferable arrangement for mechanical reasons, still this handle may be arranged in any suitable manner upon the frame compatible with the
35 desired operation of the device to be described.

The lifting-bar D is forked at its ends *d'* to receive the ends of the links E, which are passed through slots *a* in the frame A. The
40 links abut against the edges of the inner ends *a'* of the slots and are pivoted, by means of bolts *e*, within the forks of the lifting-bar. To the lower ends of the links E are pivoted, by means of bolts *e'*, the upper ends of the
45 shanks *F'* of the grapple-jaws F, the jaws being suitably pivoted to each other at *f*.

The handle B C is shown extending some-

what above lifting-bar D in order that the latter may have a certain vertical play.

It is readily seen that upon grasping cross-
bar C and lifting-bar B in the hand, while the
jaws are in the position of Fig. 1, by exerting
an upward pull with the fingers on the lift-
ing-bar, raising it, the grapple-jaws F will be
raised and extended to the position of Fig. 2, 55
links E sliding through slots *a*. The grapple-jaws will return to their former position by their own weight.

Without limiting ourselves to the precise details of construction herein shown and de- 60
scribed, we claim and desire to secure by Letters Patent—

1. In a grapple, the combination with the frame having a handle, of a lifting-bar, grapple-jaws, link connections between the lift- 65
ing-bar and grapple-jaws, and bearings for the links whereby to open the jaws when the lifting-bar is raised, substantially as described.

2. In a grapple, the combination with the 70
frame having a handle, of a lifting-bar, grapple-jaws, and links passing through the frame operatively connecting the lifting-bar and grapple-jaws for opening the jaws when the lifting-bar is raised, substantially as de- 75
scribed.

3. In a grapple, the combination with the frame having a handle, of a lifting-bar, grapple-jaws pivoted to each other, and links passing through the frame pivoted to the lifting- 80
bar and pivoted to the grapple-jaws for opening the jaws when the lifting-bar is raised, substantially as described.

4. In a grapple, the combination with the frame having a handle, of a curved lifting- 85
bar with forked ends, grapple-jaws pivoted to each other, slots in the frame, and links passing through the slots pivoted within the forks of the lifting-bar and pivoted to the ends of the grapple-jaws for opening the jaws 90
when the lifting-bar is raised, substantially as described.

5. In a grapple, the combination with the frame, of a handle comprising uprights fixed

to the frame and a cross-bar, a lifting-bar through which said uprights pass, slots in the frame, and links passing through the slots pivoted to the ends of the lifting-bar and pivoted to the ends of the grapple-jaws for opening the jaws when the lifting-bar is raised, substantially as described.

5

In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

WALTER A. STINCHCOMB.
GEORGE R. STEWART.

Witnesses:

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