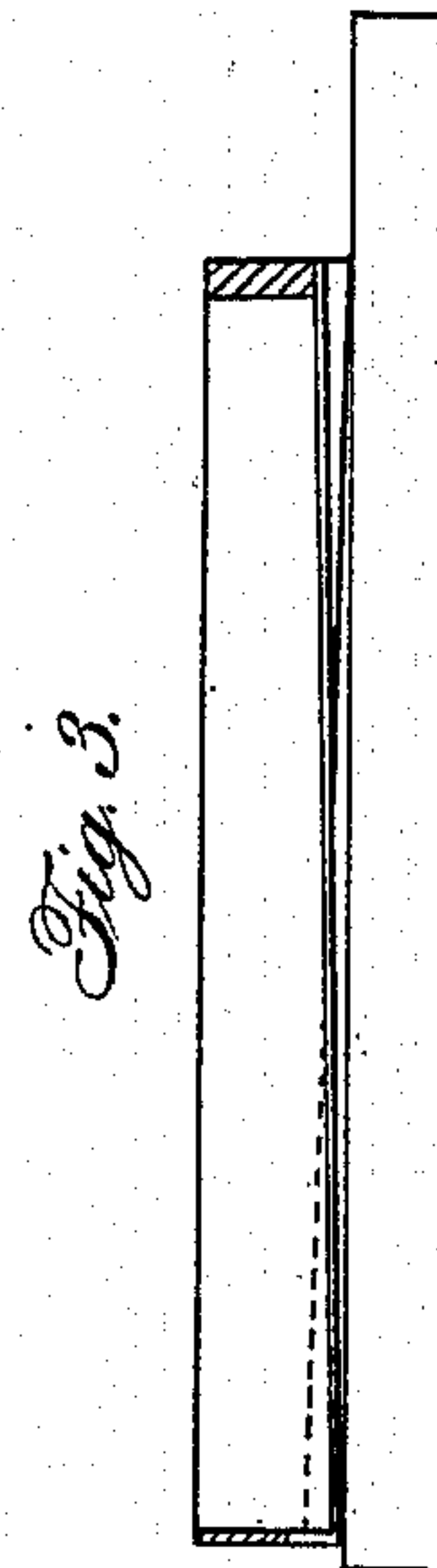
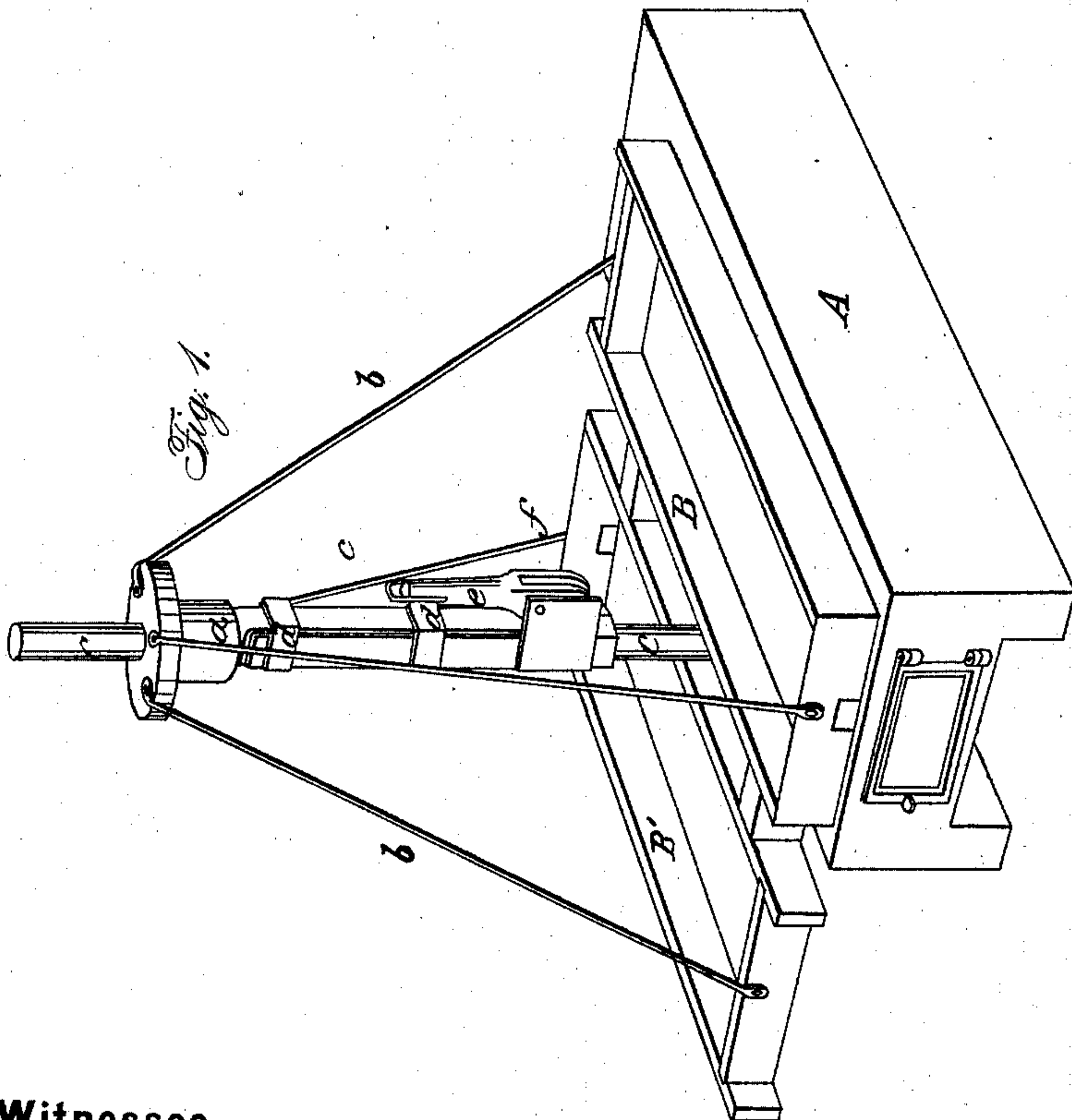
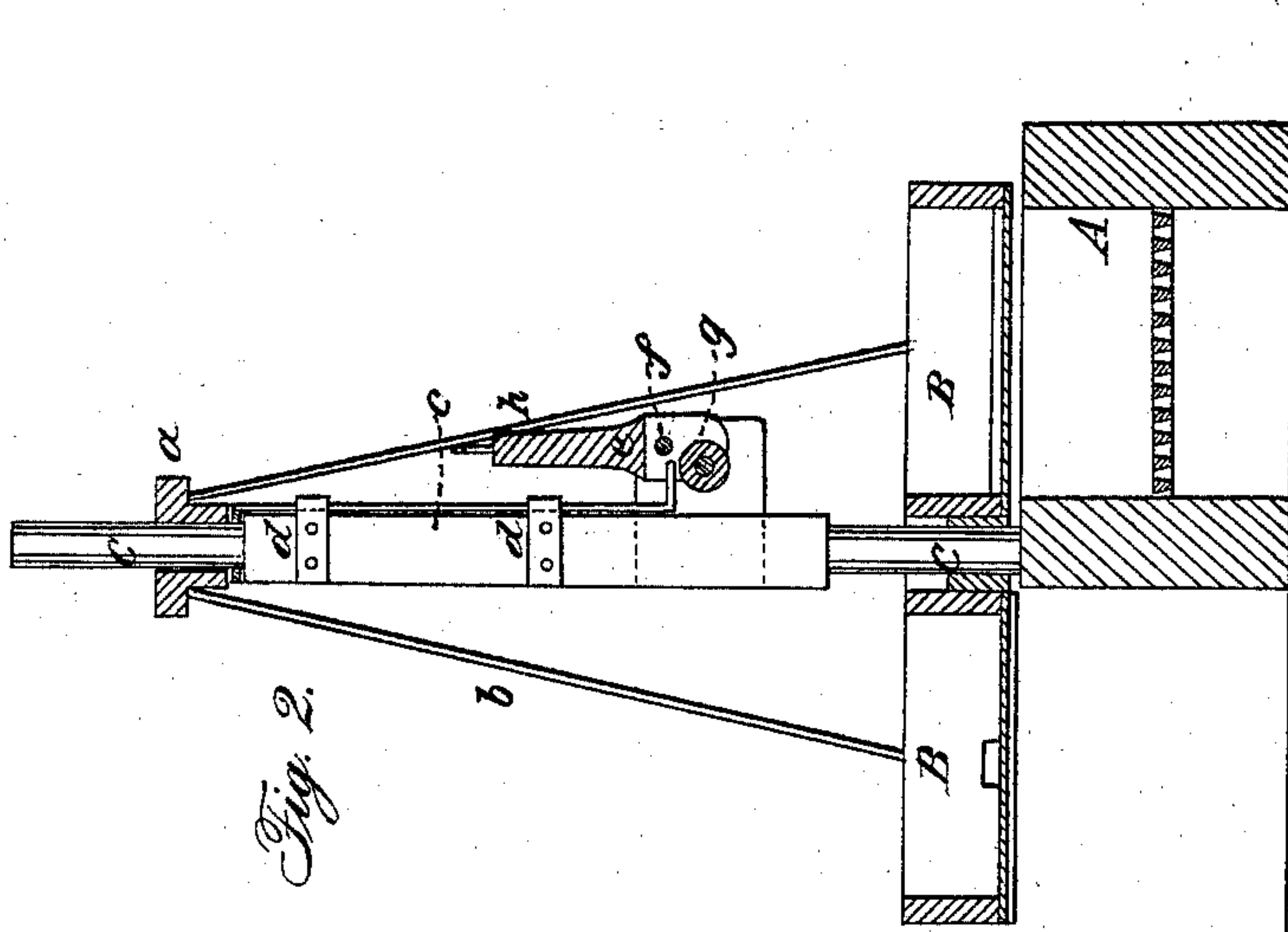


W. EDGERTON.
Evaporating Pan.

No. 49,392.

Patented Aug. 15, 1865.



Witnesses:

Walter Edgerton
By J. M. Longhatty

Inventor:

William S. Blough.
D. L. Reid.

UNITED STATES PATENT OFFICE.

WALTER EDGERTON, OF SPICELAND, INDIANA.

IMPROVED CANE-JUICE EVAPORATOR.

Specification forming part of Letters Patent No. 49,392, dated August 15, 1865.

To all whom it may concern:

Be it known that I, WALTER EDGERTON, of Spiceland, in the county of Henry and State of Indiana, have invented a new and useful Improvement in Cane-Juice Evaporators; and I do hereby declare the following to be a full, clear, and exact description of my invention, reference being had to the accompanying drawings and letters of reference marked thereon, forming part of this specification.

My invention relates to the means of removing the pans or evaporators from the furnace, also to the manner of coupling two pans together, as hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a furnace and two pans coupled together in the manner proposed in my improvement; also showing the device for elevating and supporting them above the furnace, in which position they are rotated around, removing one pan from over the fire and bringing the other into the place of the same above the furnace. Fig. 2 is a vertical transverse section. Fig. 3 is an elevation in section, showing the inclination of the bottom of the pans to the horizontal line.

In the description which follows like letters indicate like parts so far as used in the different drawings.

A is the furnace. B B' are the pans.

C is a standard which rests on the furnace-wall. Its upper end may be supported, if necessary, by braces.

a is a flanged sleeve, made to rotate freely on the standard C. From the flanges of a four rods, b, descend obliquely and are secured to the end pieces of pans B B'.

c is a slide working in clamp-guides d d and against the face of C. The upper end of slide c acts upon the sleeve a to elevate it and thereby raise the pans B B' a short distance above the level of the top of the furnace, permitting them to be freely rotated around the standard C.

e is a hand-lever pivoted at f and having a small friction-roller, g, which acts upon the lower end of slide c to elevate it and thereby raise the pans above the level of the furnace.

In coupling the pans B B' together they are placed with a slight inclination in opposite directions relatively to each other—that is, one

end of each is slightly lower than the corresponding end of the other, and the top of the furnace is made with a corresponding inclination toward the forward end. The effect of this arrangement is to cause the greatest depth of juice over the front end of furnace, and also to cause the pans, when removed and rotated from over the furnace, to incline toward the discharge end, thereby facilitating the discharge of finished sirup from the pans.

In evaporating cane-juice it is desirable to operate upon but small quantities at a time for the purpose of avoiding prolonged exposure to the fire. When thus treated in very shallow bodies it is necessary to remove it from the fire as soon as sufficiently concentrated. It is, moreover, important to clean the pans frequently. Some operators cleanse their pans thoroughly after each charge. The design of my invention is to facilitate the operation in these respects. While one pan is over the fire the other may be emptied, cleaned, and recharged, ready to take its place over the fire as soon as the first is ready to come off. The pans are easily raised by one person, and when supported a short distance above the furnace they are easily rotated around without rubbing or disturbing the masonry, and also without making a large opening in the furnace for the escape of smoke and light ashes.

I do not confine myself to the specific construction herein shown and described, as it is obvious that the arrangement of parts may be varied indefinitely; but,

Having explained my improvement in evaporators, what I claim as new, and desire to secure by Letters Patent of the United States, is the following:

1. Supporting the coupled pans B B' by the flanged sleeve or center a, or its equivalent, carried by the standard C, and operated to raise the pans by the hand-lever e, substantially as and for the purpose set forth.

2. Coupling the pans B B' together with an inclination relatively to each other, in the manner and for the purpose described.

WALTER EDGERTON.

Witnesses:

J. P. ANTRIM,
THOMAS A. WILSON.