

(No Model.)

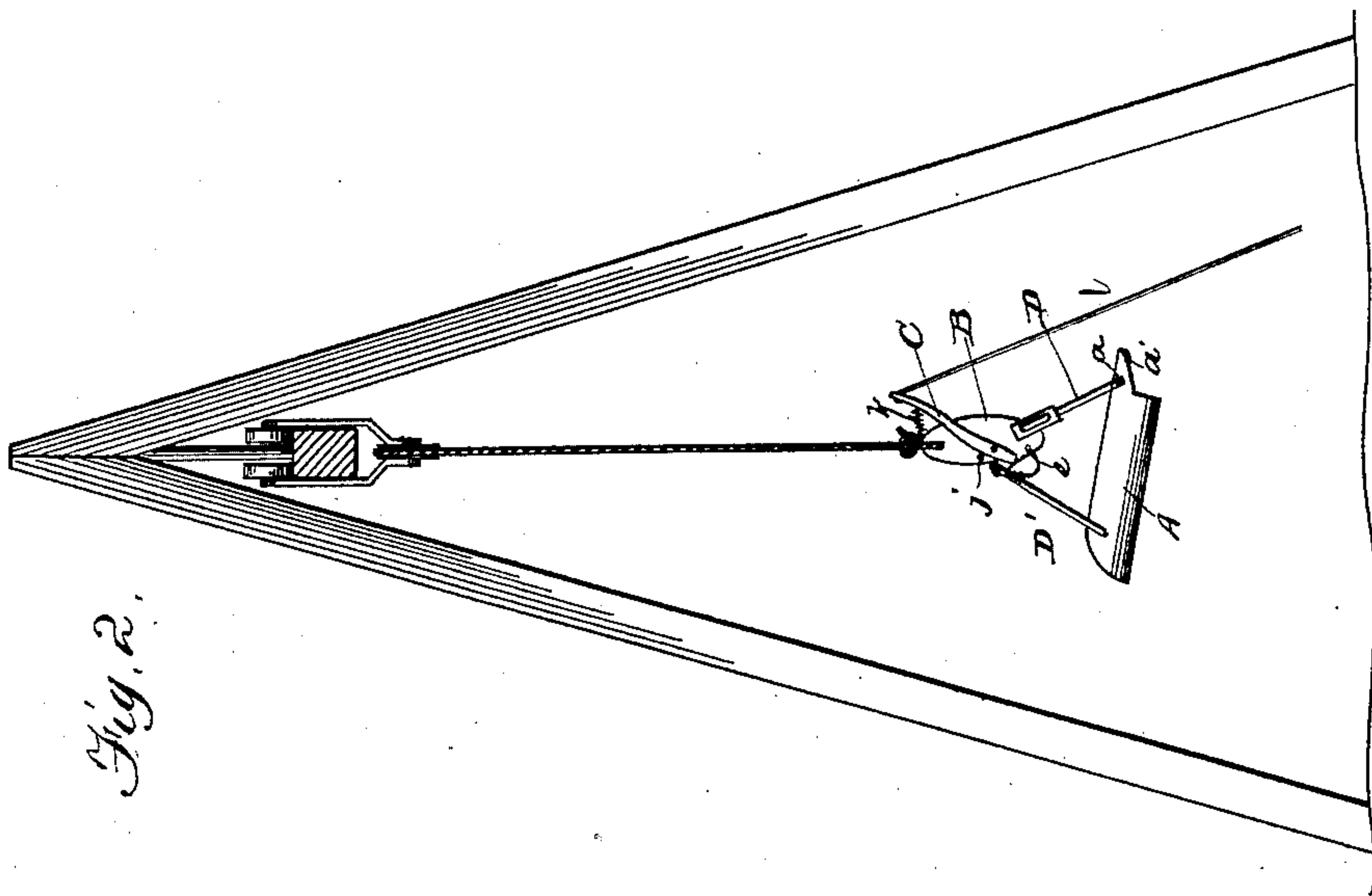
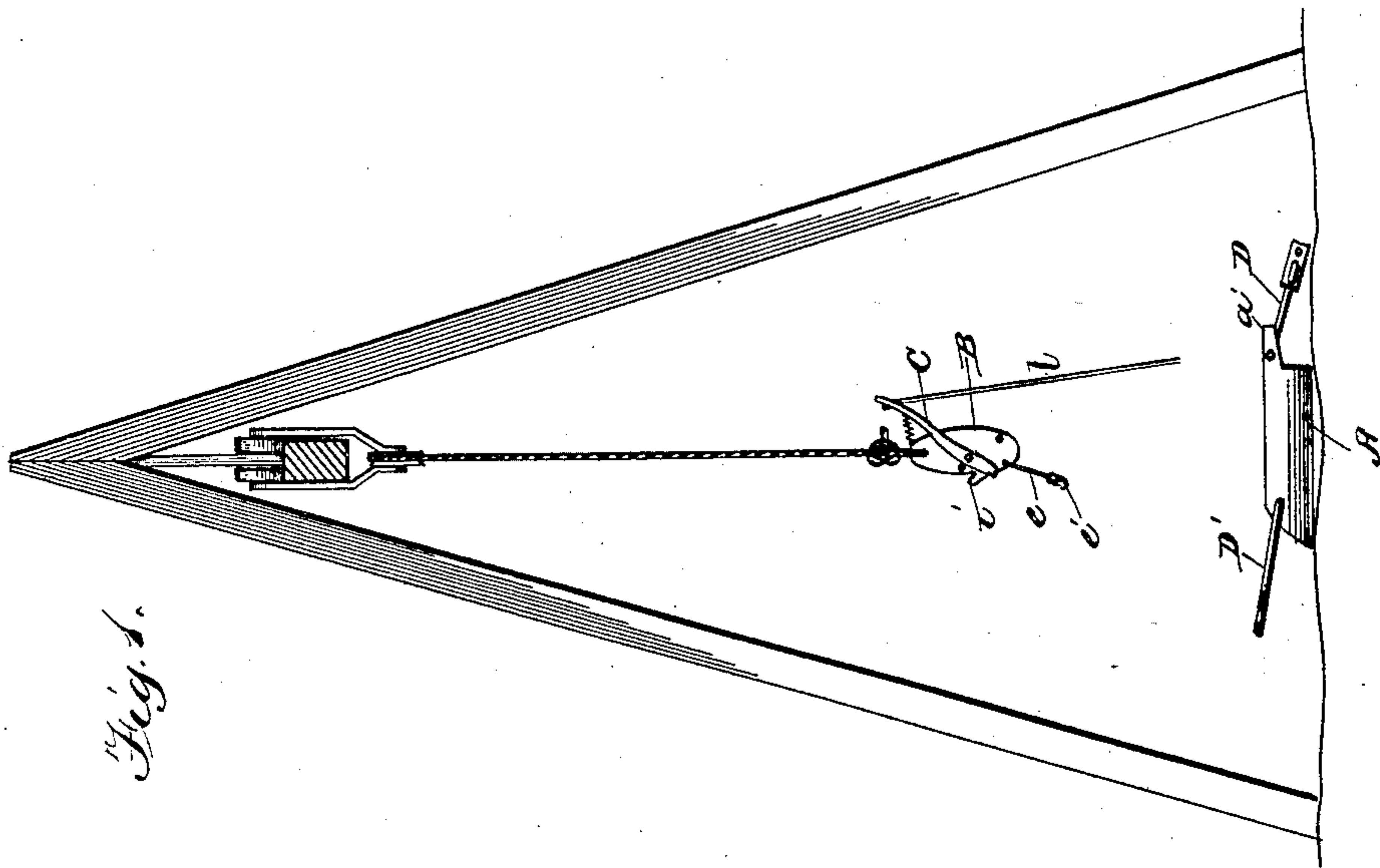
2 Sheets—Sheet 1.

B. F. THOMAS.

EXCAVATOR.

No. 318,326.

Patented May 19, 1885.



attest:

W. H. Knight—

H. J. Bernhard

Inventor:

Benjamin F. Thomas

By his Attorneys

Edson Bros.

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2 Sheets—Sheet 2.

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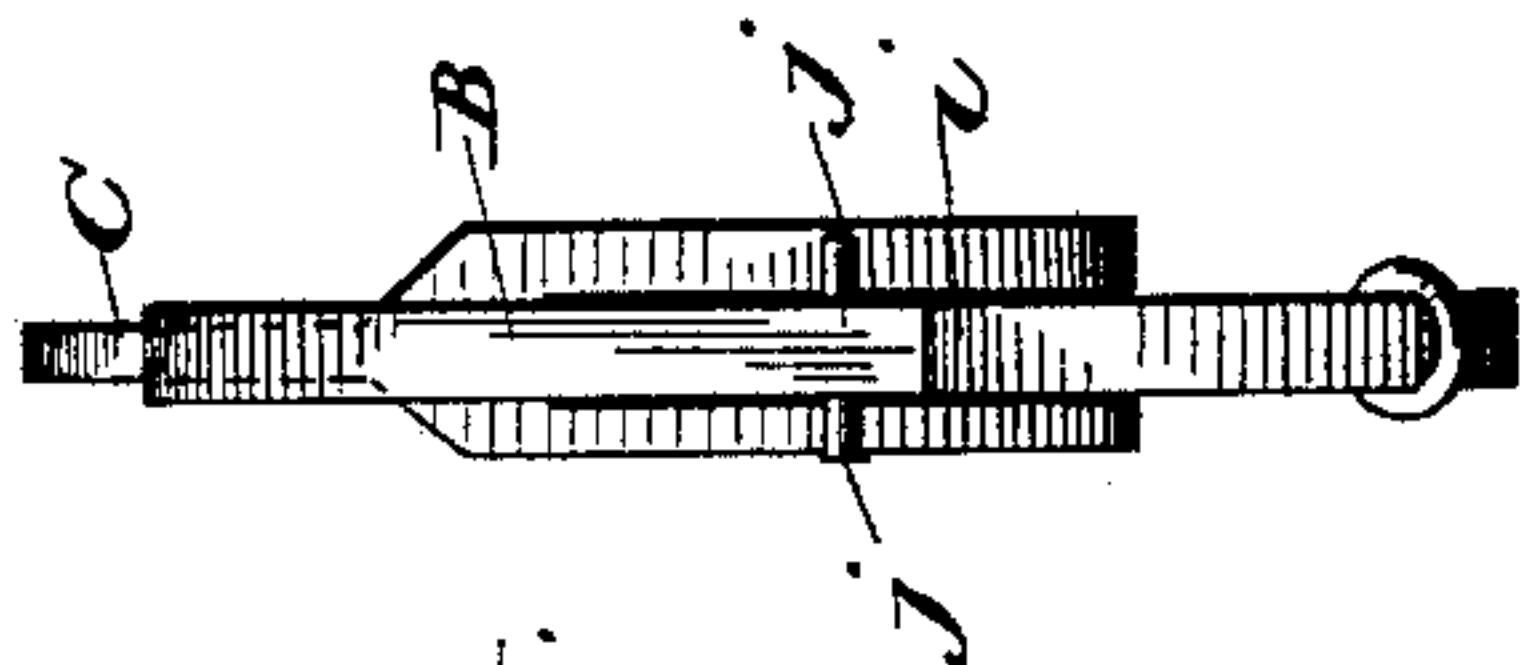
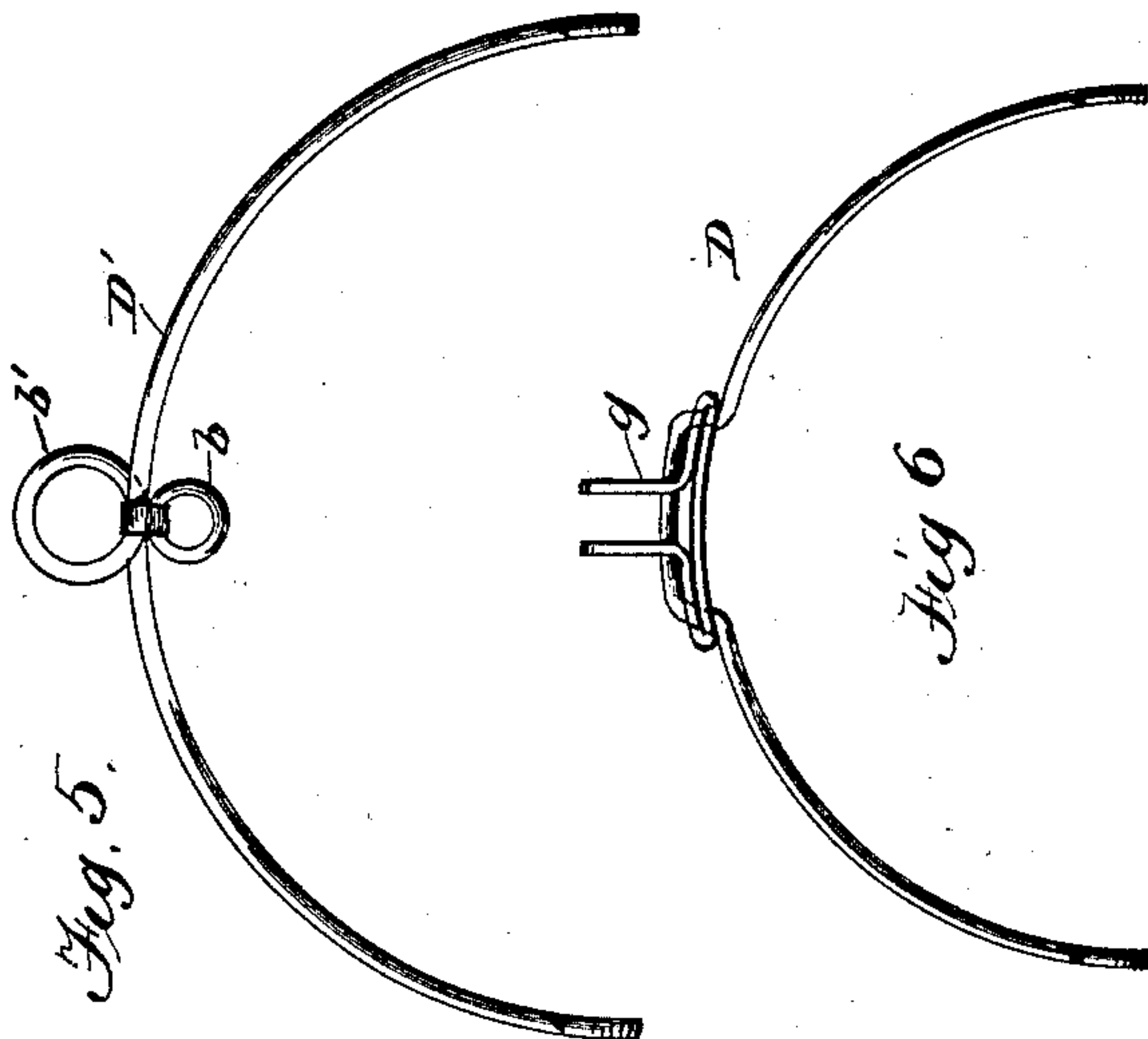


Fig. 4.



Aug. 5.

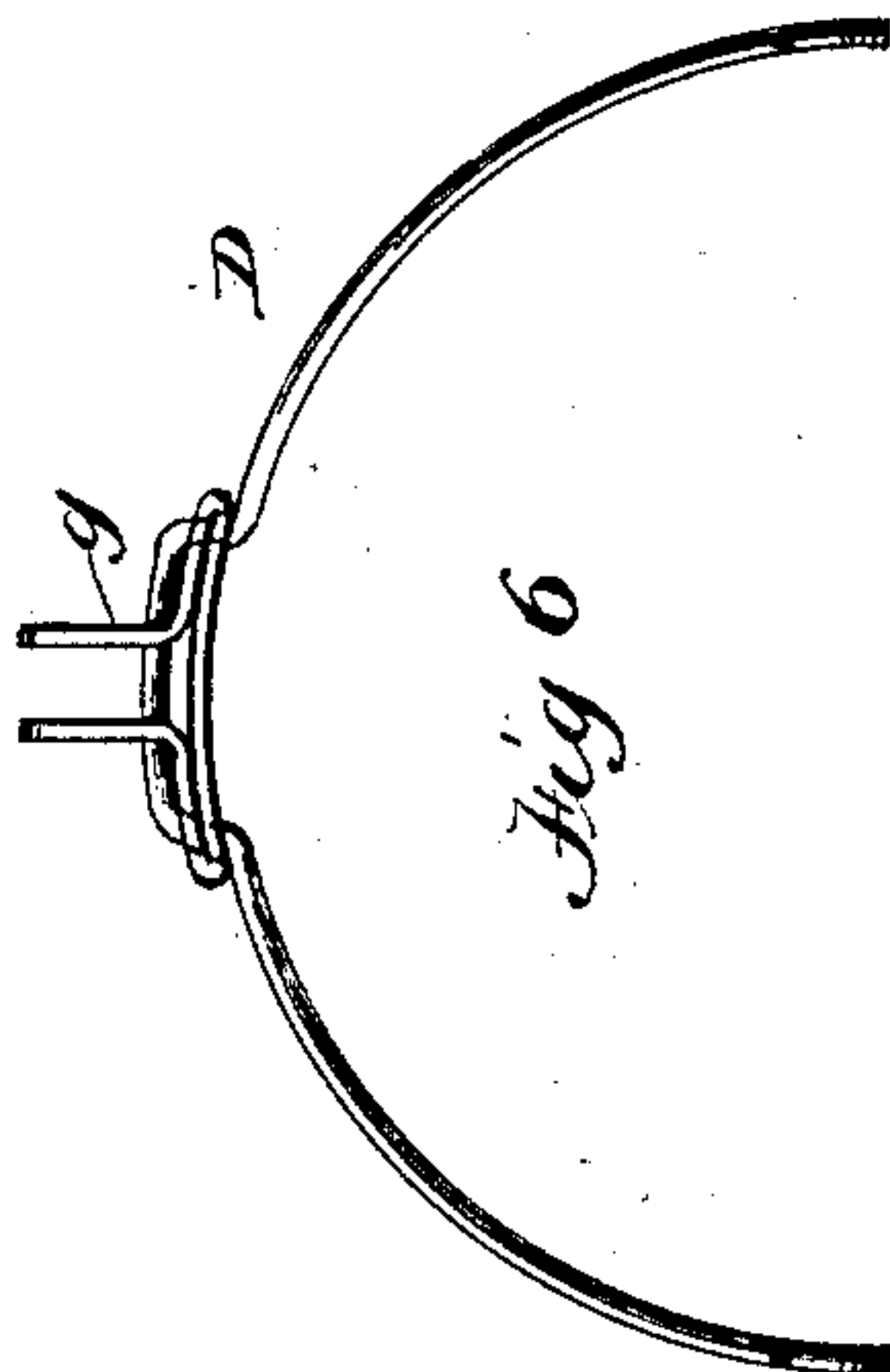


Fig 6

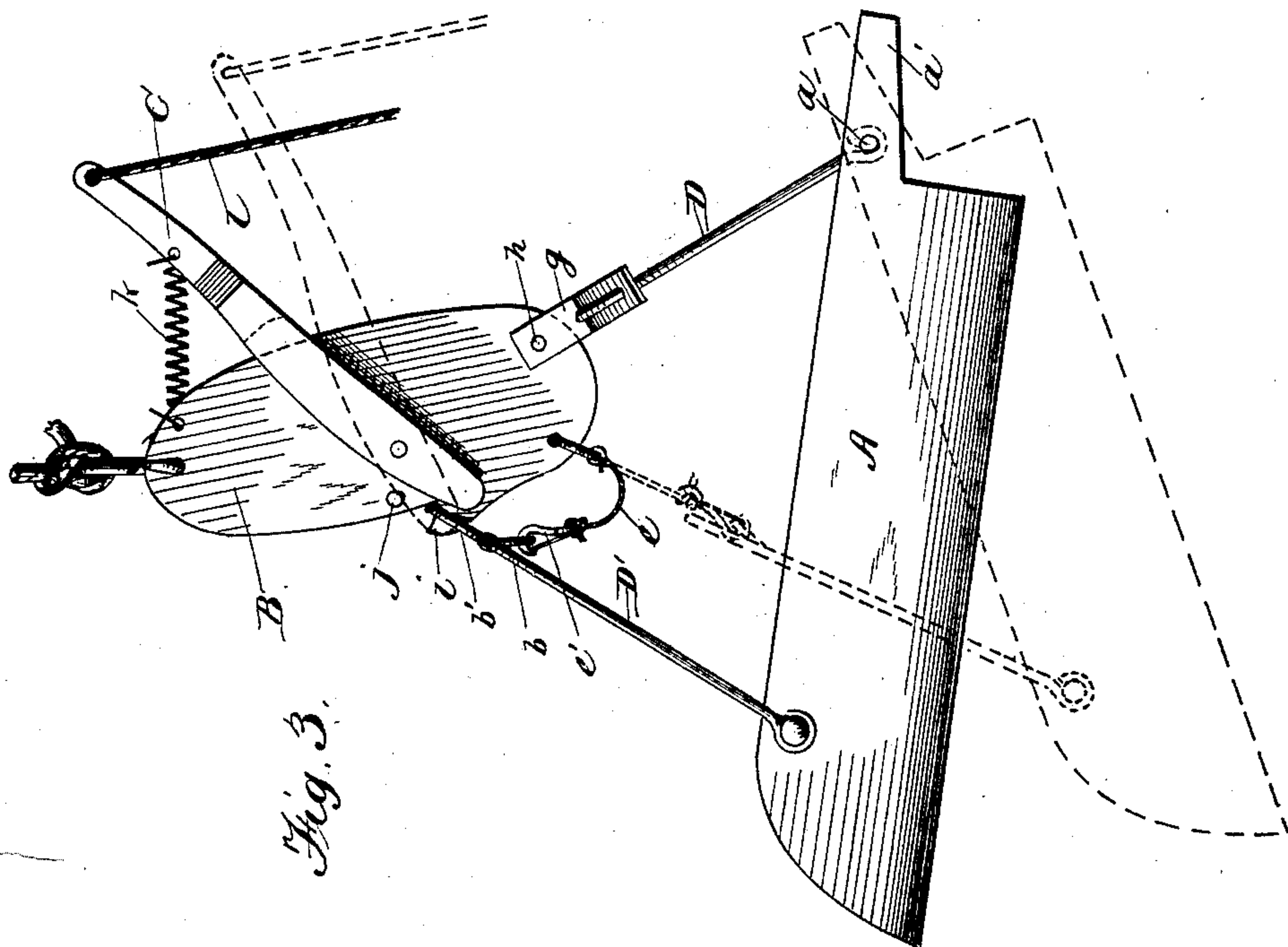


Fig. 3.

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UNITED STATES PATENT OFFICE.

BENJAMIN F. THOMAS, OF CAMDEN, INDIANA.

EXCAVATOR.

SPECIFICATION forming part of Letters Patent No. 318,326, dated May 19, 1885.

Application filed February 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. THOMAS, a citizen of the United States, residing at Camden, in the county of Carroll and State of Indiana, have invented certain new and useful Improvements in Excavators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention embodies means for forming trenches or ditches in the earth, and whereby the excavated earth can be readily and conveniently removed and deposited at one side out of the way, the same contrivance for scooping or excavating the earth being adapted to contain the latter while being elevated or removed; and the invention therefore consists of peculiarly-contrived means to carry out the aforesaid objects, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a view showing my contrivance suspended in position, with the scoop or excavator detached ready to be drawn through the ground in forming a ditch or trench. Fig. 2 is a view showing the scoop suspended from or elevated by the contrivance. Fig. 3 represents in full lines an enlarged detail view of the scoop attached to the suspending-bar in position for removing earth, the dotted lines showing the scoop in the act of dumping the earth. Fig. 4 represents an edge view of suspending-bar. Figs. 5 and 6 represent detail views of the front and rear bails, respectively.

In the organization of my invention I employ, in connection with a scoop, A, which may be of the form shown or other suitable construction, the suspending-bar B and the dumping-lever C, together with the bails D and D', the former bail, D, being connected, it may be, to a rod, *a*, supported in the rear projections or arms, *a'*, of the scoop A, while the latter bail, D', is connected to the front end of the scoop at its sides.

The front bail, D', is formed or provided at about its center with two loops or rings, *b b'*, the ring *b* being disposed at the bottom of the ring *b'*. The ring or loop *b'* (besides serving the purpose hereinafter ascribed to it) constitutes the hitching-point for the team or horse in applying the draft to the scoop to pull or

draw it through the ground or earth in forming the ditch or trench. The function of the ring or loop *b* will be seen further on.

As a convenient means to aid in carrying out my invention the suspending-bar B is itself suspended by a hook or other suitable means from a traveling block or carrier. It may be such as is commonly used in hay-elevating contrivances, the application of which carrier to a beam or track supported upon suitable trestle-work erected at the point where the ditch or trench is to be formed or dug, as is designed to be practiced in the use of this invention, is too well understood to need here further explanation.

The lower end of the bar B is provided at its front edge with means to effect its connection with the ring *b* of the scoop-bail D', as is required in elevating or suspending the scoop A, which means of connection may comprise a chain, *e*, linked to the said bar and provided with a snap-hook, *e'*, at its free end to readily connect it to and disconnect it from the said bail-ring.

The bar B is pivotally connected at the same end, at its opposite or rear edge, to the rear scoop-bail, D, said edge of bar being let into a clip or socket, *g*, fastened or fixed to said bail and having apertured ears, through whose apertures and a coincident aperture in the said bar is inserted a pin, *h*, which may, to prevent its displacement and for convenience, be connected by a cord or chain to said bail. Both the pin *h* and the snap-hook *e* can readily be detached, respectively, from the rear and front bails of the scoop to wholly disconnect the scoop in using it, as aforesaid. The bar B is also provided upon or at its front edge, a short distance above its point of connection with the chain *e*, with a hook or upwardly-inclined projection, *i*, upon which the ring or loop *b'* is slipped and held as the scoop is elevated and removed with its contents for the disposal of the latter.

The dumping-lever C is pivoted to the bar B, being bifurcated, with the arms or prongs thus formed disposed one upon each side of said bar, and extending forward alongside of the hook or projection *i* of the latter to enable said lever upon being pulled or moved down-

ward at its rear end to trip the ring *b'* when in position upon said hook or projection, and thus effect the dumping or tilting of the scoop and the discharge of its contents.

5 The upward movement of the forward end of the lever *C*, as it is acted upon as last described, is limited or controlled by stops *j*, formed by a pin passed through the bar *B*, with its ends projecting from the sides of the latter.

o To automatically return the lever *C* to its original position or cause the elevation of its rear end when released after having been depressed, as above stated, I connect said end of lever by a spring, *k*, to the upper or other convenient portion of the bar *B*. A cord, *l*, or other suitable medium is connected to and depends from the rear end of the lever *C* within easy reach of the operator, (the scoop being elevated when said cord is to be grasped,) to permit the actuation of the said lever so as to trip and dump or tilt, as already stated, the scoop.

It will be understood that I do not restrict myself to the particular means herein described whereby the scoop is elevated and removed when elevated, nor to the precise details of construction, as these may be varied without violating the intent of my invention.

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

1. The appliance for elevating and dumping purposes, comprising a suspending-bar having a projection or hook on its forward edge and a dumping or tilting lever with its forward end disposed alongside of said projection or hook, in combination with a receptacle suspended from said bar and with its suspending medium adapted to connect with the projec-

tion or hook of said bar, substantially as and for the purpose set forth. 40

2. The suspending-bar having a projection or hook and a dumping or tilting lever with its forward end disposed alongside of said projection or hook, said lever being connected by a spring at one end to said bar, in combination with a receptacle suspended from said bar, the suspending medium being adapted to be connected to the hook or projection of said bar, substantially as and for the purpose set forth. 50

3. The suspending-bar having the hook or projection and stops at its forward edge and the dumping or tilting lever connected by a spring to the said bar, in combination with a receptacle suspended by bails from said bar, one of said bails having a loop or ring adapted to be held upon the hook or projection of said bar, substantially as and for the purpose specified. 55

4. The suspending-bar having the hook or projection upon its front edge and a hook at its upper end and the lever with its forward end disposed alongside of the front edge of the hook or projection and connected at one end by a spring to said bar, said lever also having an operating-cord, in combination with the scoop suspended by bails from said bar, the forward bail being connected by a chain and link to said bar and having a ring or loop adapted to be held upon forward edge projection or hook of the said bar, substantially as and for the purpose set forth. 60 65 70

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN F. THOMAS.

Witnesses:

D. C. RICE,
C. C. ORAHOOD.