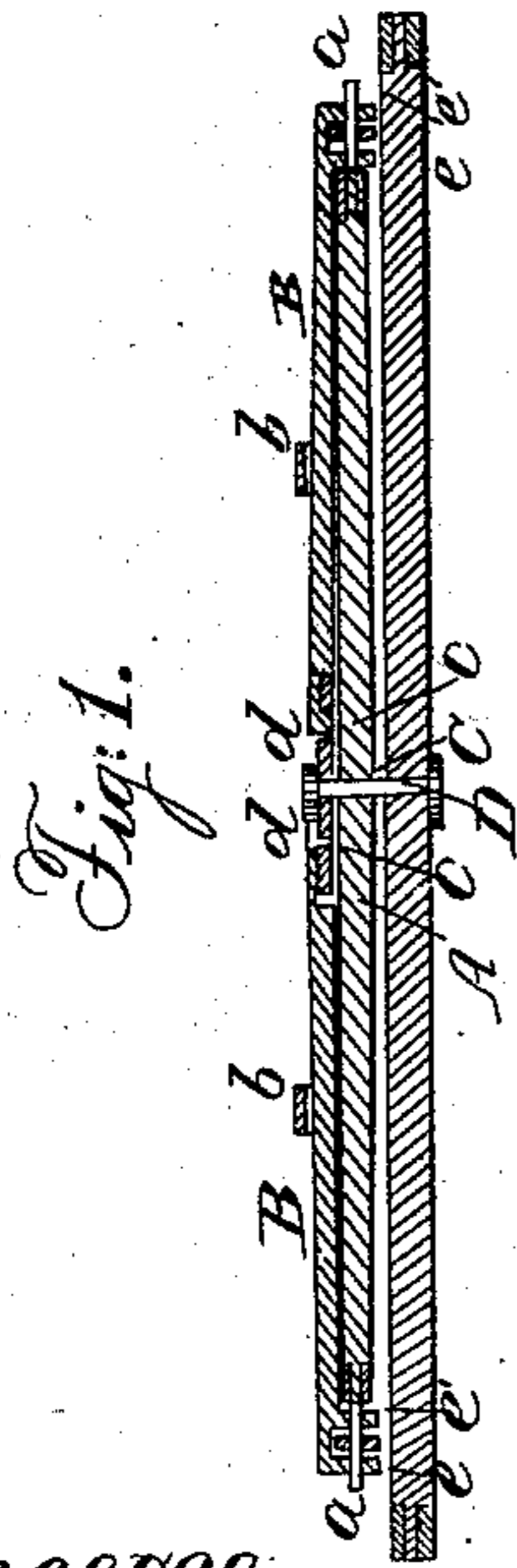
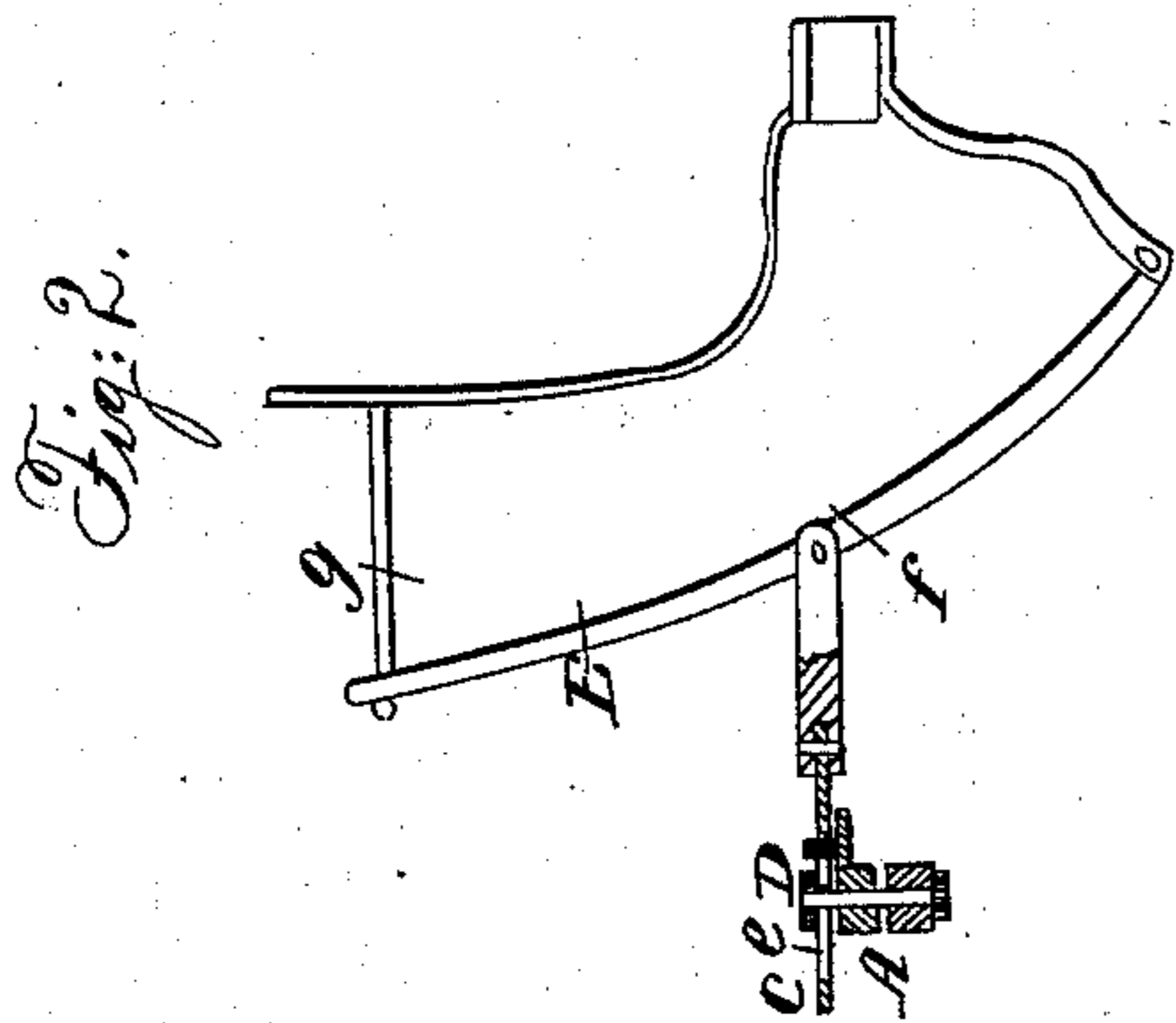


E. CALDERWOOD.

Whiffletree.

No. 48,364.

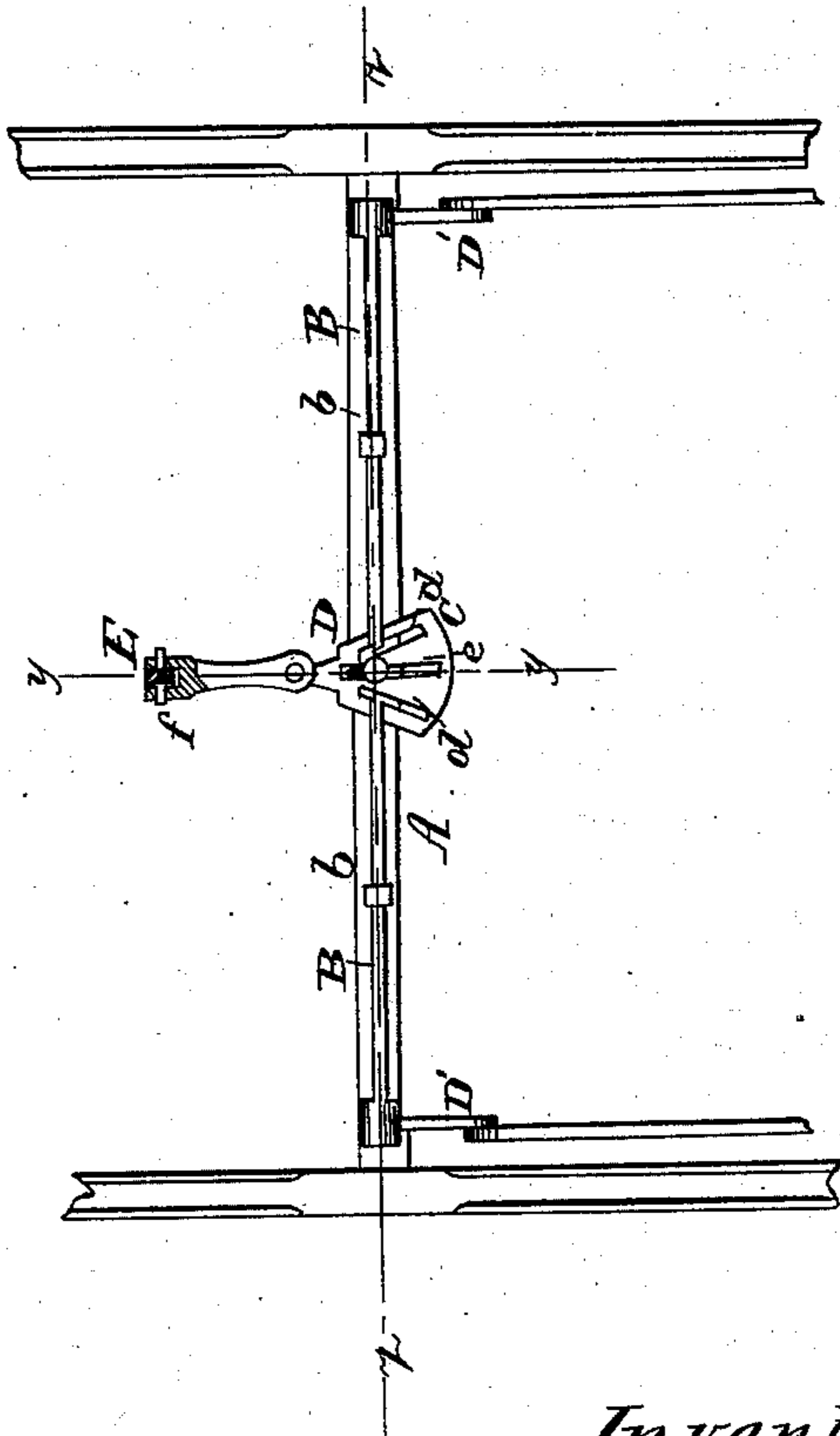
Patented June 27. 1865.



Witnesses:

Wm. Treurn  
Thos. Fusch

Fig: 3.



Inventor:

E. Calderwood  
By *Wm. R. Byrd*  
attys.

# UNITED STATES PATENT OFFICE.

EZRA CALDERWOOD, OF PORTLAND, MAINE.

## IMPROVEMENT IN ATTACHING TRACES TO WHIFFLETREES.

Specification forming part of Letters Patent No. 48,364, dated June 27, 1865.

*To all whom it may concern:*

Be it known that I, E. CALDERWOOD, of Portland, in the county of Cumberland and State of Maine, have invented a new and Improved Mode of Attaching Traces to Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *xx*, Fig. 3; Fig. 2, a transverse section of the same, taken in the line *yy*, Fig. 3; Fig. 3, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to obtain a means for attaching traces to whiffletrees, whereby the horse, in case of necessity—as, for instance, in running away—may be instantly disconnected from the vehicle, and many accidents which now occur from that and similar causes avoided.

A represents a whiffletree, which may be attached to the thills of a vehicle in the usual or in any proper way, and *aa* represent pins or rods which project out from the ends of the whiffletree and are permanently secured thereto.

On the upper side of the whiffletree there are placed two sliding bars, B B, which work in guides *b*, and have their inner ends notched to form a hook, *c*. These hooks are fitted in slots *d d* made in a sliding plate, C, placed over the center of the whiffletree and secured thereto by the bolt D, which attaches the whiffletree to the cross-bar of the thills, said bolt passing through an oblong slot, *e*, in the plate C, which slot admits of said plate having a certain degree of play, as will be fully understood by referring to Fig. 3.

The slots *d d* in the plate C, and in which slots the hooks *c* of the sliding bars B B are fitted, have an oblique position relatively with each other, the rear ends of the slots being nearer to each other than the front ends, and hence it will be seen that by sliding or mov-

ing said plate forward and backward the bars B B may be drawn inward toward the center of the whiffletree or shoved outward from it. The outer ends of the sliding bars B B have each two pendent lips, *e' e'*, through which a hole is made to receive the pins or rods *a* at the ends of the whiffletree. (See Fig. 1.)

D D represent the traces, the ends of which are provided with eyes for the pins or rods *a* of the whiffletree to pass through, the ends of the traces being fitted between the pendent lips *e' e'* of the sliding bars B B. (See Fig. 1.)

It will be seen from the above description that the lips *e' e'* of the bars B B, when the latter are drawn inward on the pins or rods *aa* of the whiffletree, retain or hold the traces on said pins or rods, and that by shoving the sliding bars B B outward the traces will be moved off from the pins or rods and the traces disconnected from the whiffletree, and the horse consequently detached from the vehicle.

The plate C is operated by means of a lever, E, having its fulcrum at *f*, (see Fig. 2,) said lever extending upward through a slotted plate, *g*, attached to the dash-board of the vehicle. This lever may be readily reached by the driver, and by drawing its upper end inward toward the dash the plate C will be moved forward and the bars B B shoved outward, so as to free the traces from the pins or rods *aa* of the whiffletree.

Thus by this simple arrangement a horse may be instantly detached from a vehicle, and accidents which now frequently occur in consequence of horses running away avoided.

I claim as new and desire to secure by Letters Patent—

The sliding bars B B, provided with the pendent lips *e' e'*, to receive pins or rods *aa* at the ends of the whiffletree, in connection with the sliding slotted plate C, operated by a lever, E, all being arranged and applied substantially in the manner as and for the purpose specified.

EZRA CALDERWOOD.

Witnesses:

JONA. NORTON,  
H. A. LAMB.