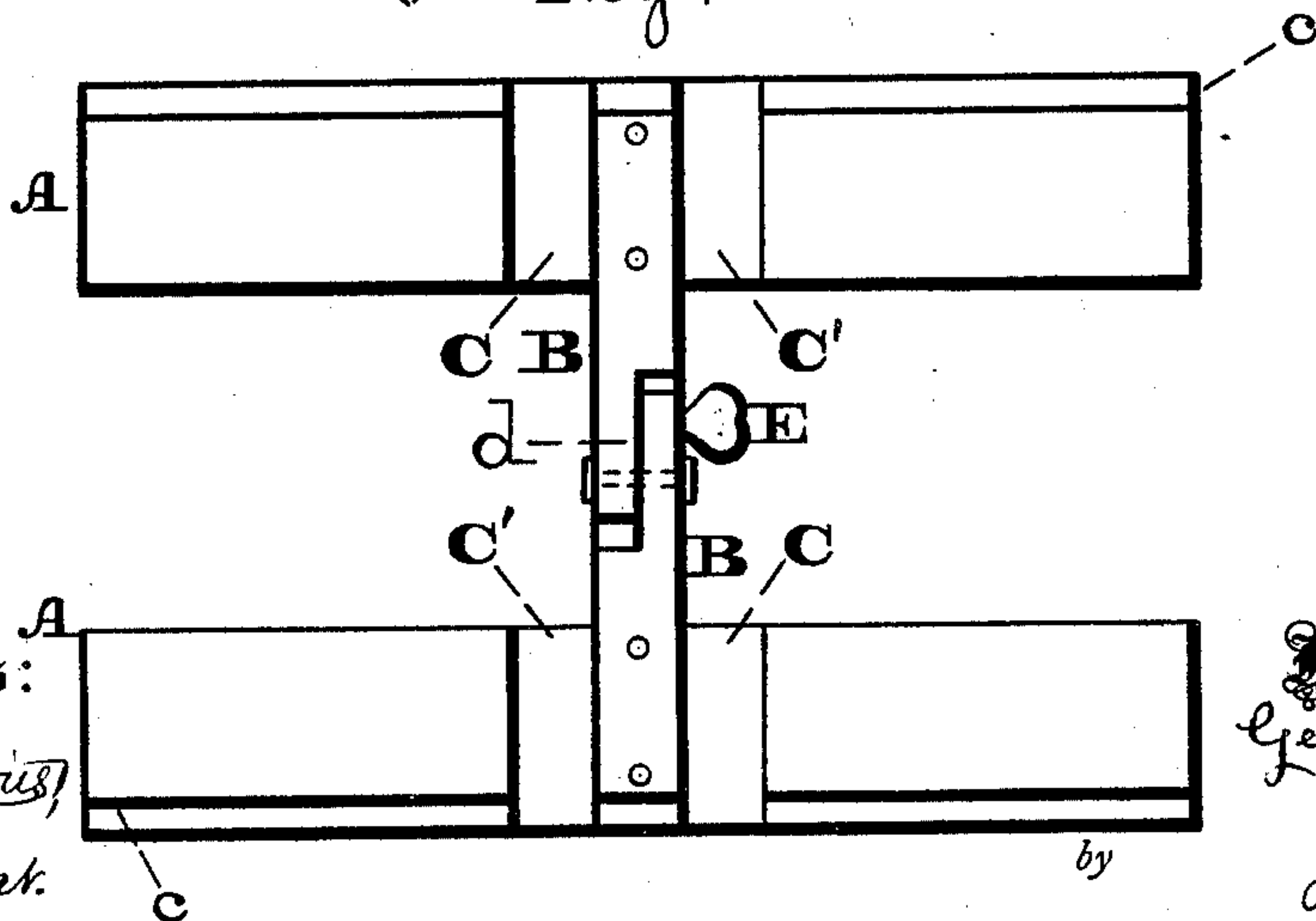
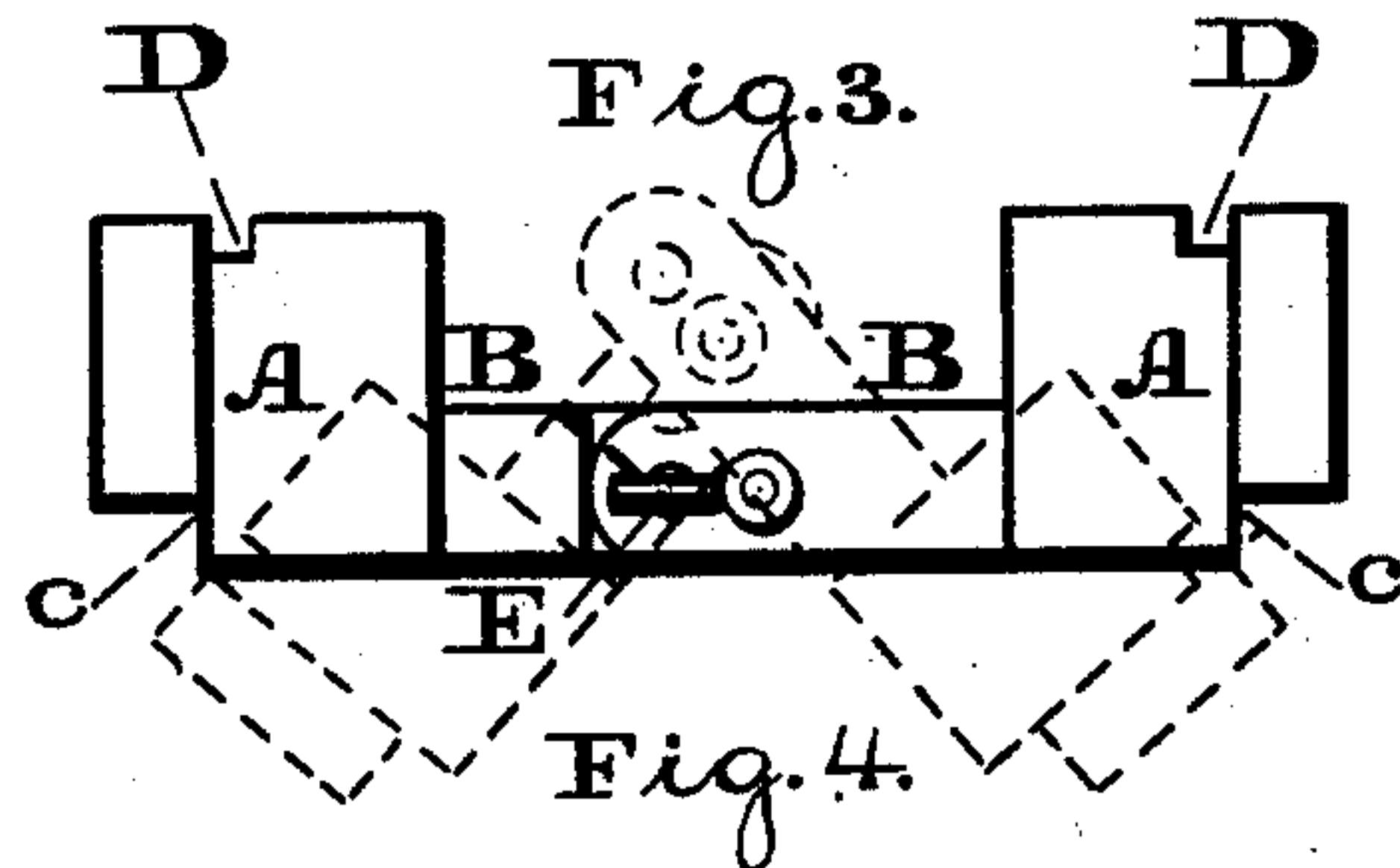
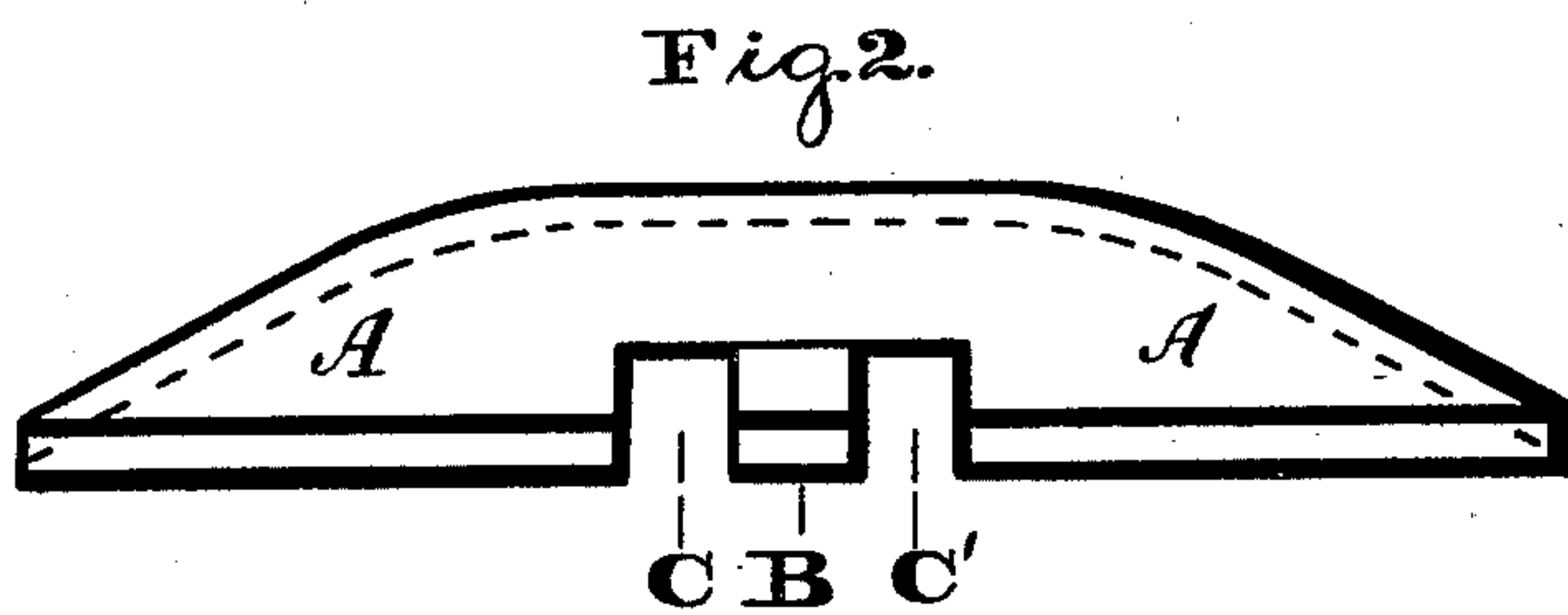
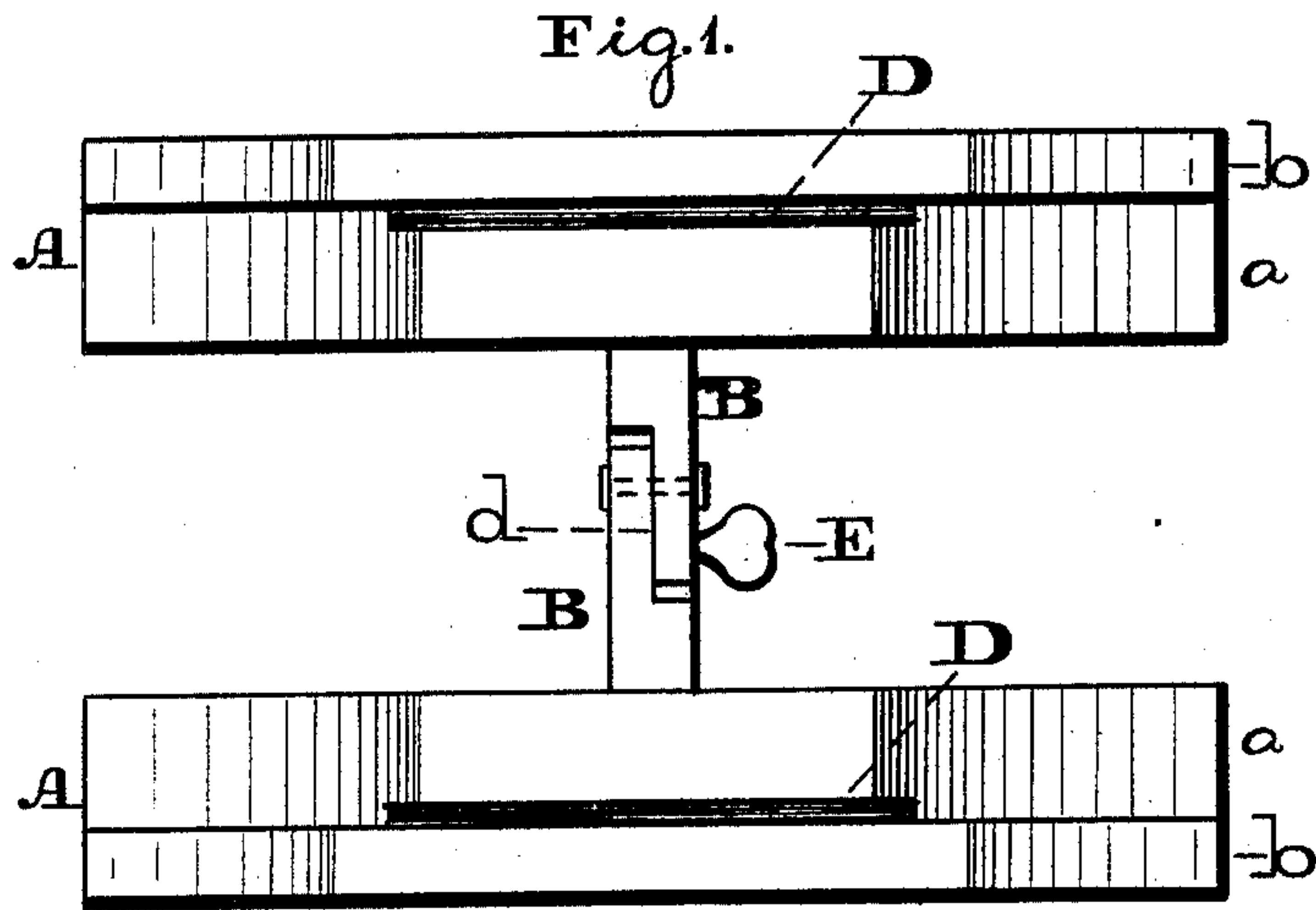


G. W. KREAMER.  
HOSE-BRIDGE.

No. 176,012.

Patented April 11, 1876.



Witnesses:  
Lewis F. Brown,  
A. P. Grant.

Inventor:  
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# UNITED STATES PATENT OFFICE.

GEORGE W. KREAMER, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN HOSE-BRIDGES.

Specification forming part of Letters Patent No. **176,012**, dated April 11, 1876; application filed March 16, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE W. KREAMER, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Hose-Protectors; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top or plan view of the protector embodying my invention. Fig. 2 is a side view thereof. Fig. 3 is an end view thereof. Fig. 4 is a bottom view.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of two inclined pieces under which the hose passes, and on which the cars will be run, said inclined pieces being connected by bars hinged together, so that when the protector is not required it may be readily folded, and when required the pieces may be fitted to the inner sides of the tracks, and locked thereagainst with what may be termed a "snap," a pin preventing their disengagement. It also consists in so constructing the connecting-bars that provision is made for the passage of two lengths of hose under each piece. It also consists of grooves for the flanges of the wheels, so that the car will not run off the treads of the inclined pieces during the uncertain hold of the wheels on said treads.

Referring to the drawings, A A represent two pieces, which are inclined at both ends, so that cars may ascend at one end and descend at the other end. The under side of each piece at the middle thereof is cut away, and the two pieces A A are connected by bars B B, which are hinged at their inner ends and central of the two pieces. The outer ends of said bars B project into the cut-away portions of the pieces at the bottom thereof, so as to form two channels, C C', in each piece. On the upper face of each piece A there is a groove, D, which extends longitudinally between the base *a* and tread *b* of the pieces for a portion of the length thereof; and the lower outer corners of the pieces have longitudinally-extending shoulders *c*.

The operation is as follows: The folded pro-

teCTOR is carried to the place where the lengths of hose are likely to be laid, or where they are laid. The shoulders *c* are placed adjacent to the track-rails, and the jointed portions of the bars B forced down, so as to assume a horizontal position with what may be termed a snap, thus causing the pieces to take firm hold of the track-rails. A pin, E, is now passed through the two bars B, for which portion the joint thereof is lapped, as at *d*. The bars are thus rendered immovable, and the inclined pieces are consequently bound to the track. The hose will pass through the channels C C', and they are protected from the injurious effects of the wheels of the cars. As one set of wheels are on the inclined pieces there is an uncertain hold of the wheels thereon, and the car has a tendency to run off the treads *b* of the pieces, but at this time the flanges of the wheels enter the grooves D, and thus the wheels are confined on the inclined pieces, so that the passage of the cars thereon is insured. When the protector is not required, the pin E is withdrawn, and the two pieces A A may be folded so as to be conveniently carried or compactly stowed.

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

1. The inclined pieces A A, connected by hinged bars having lap-joints *d*, in combination with the pin E passing through both laps, substantially as and for the purpose set forth.

2. The inclined pieces A A, in combination with the connecting-bars B hinged together, and projecting from side to side of the pieces A A, so as to form the two channels C C' in each piece, substantially as and for the purpose set forth.

3. The inclined pieces A formed with grooves D D intermediate of the bases and treads of said pieces, substantially as and for the purpose set forth.

4. The inclined pieces A A with grooves D on their upper faces, the connecting-bars B, hinged together, and the securing-pin E, combined and operating as set forth, and forming an improvement in hose-protectors, as specified.

GEORGE W. KREAMER.

Witnesses:

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