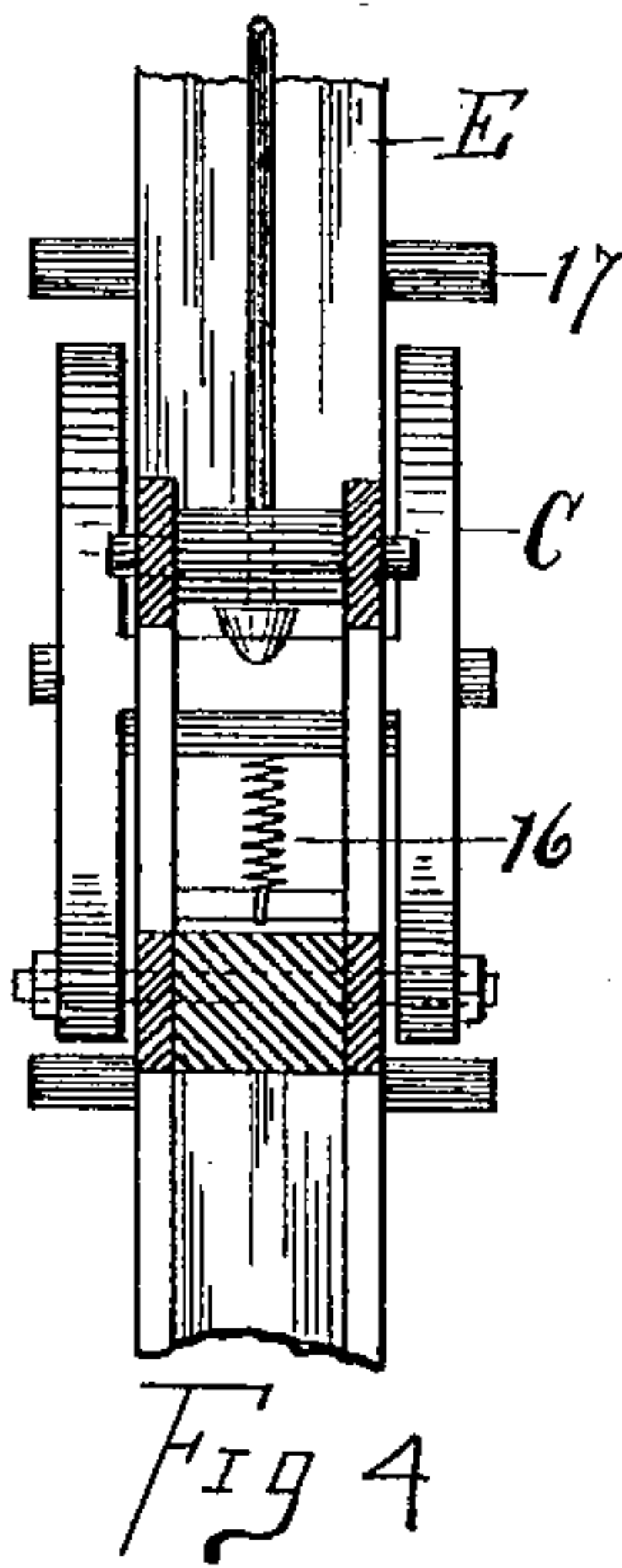
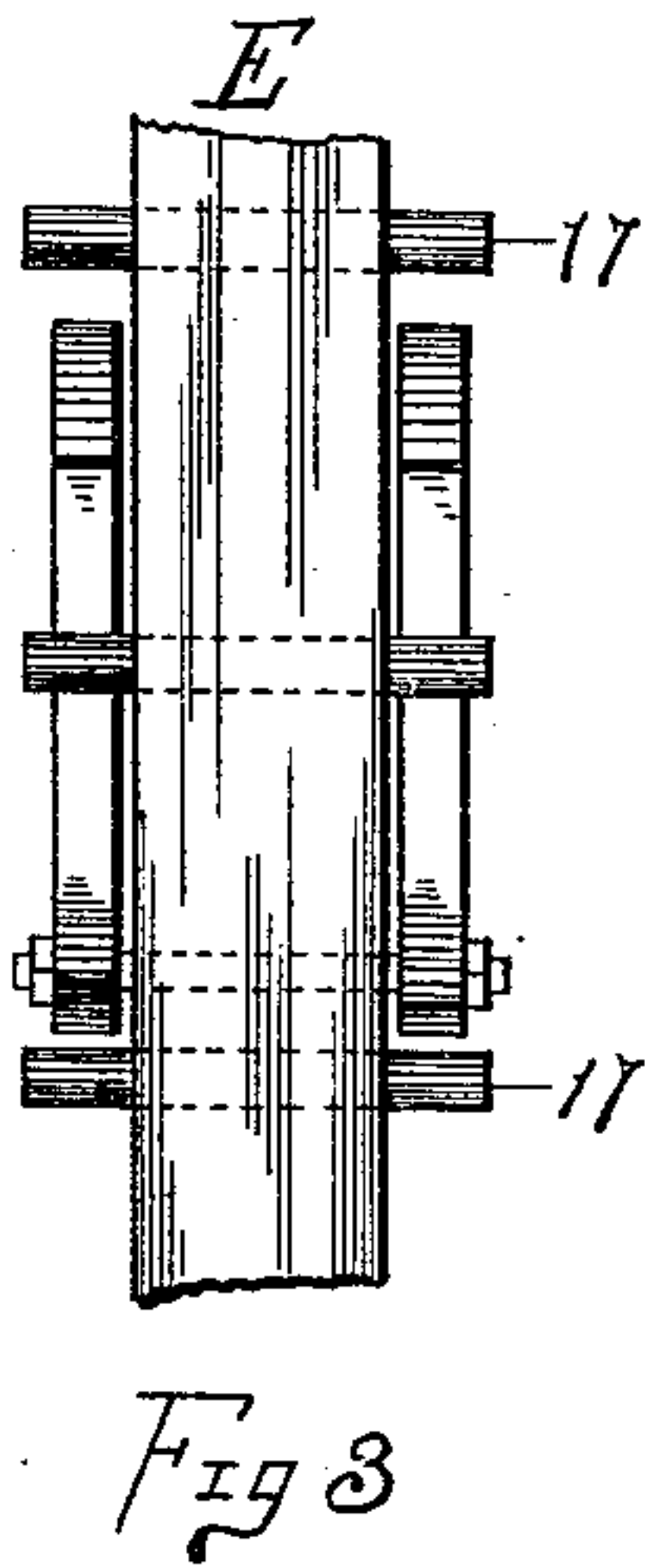
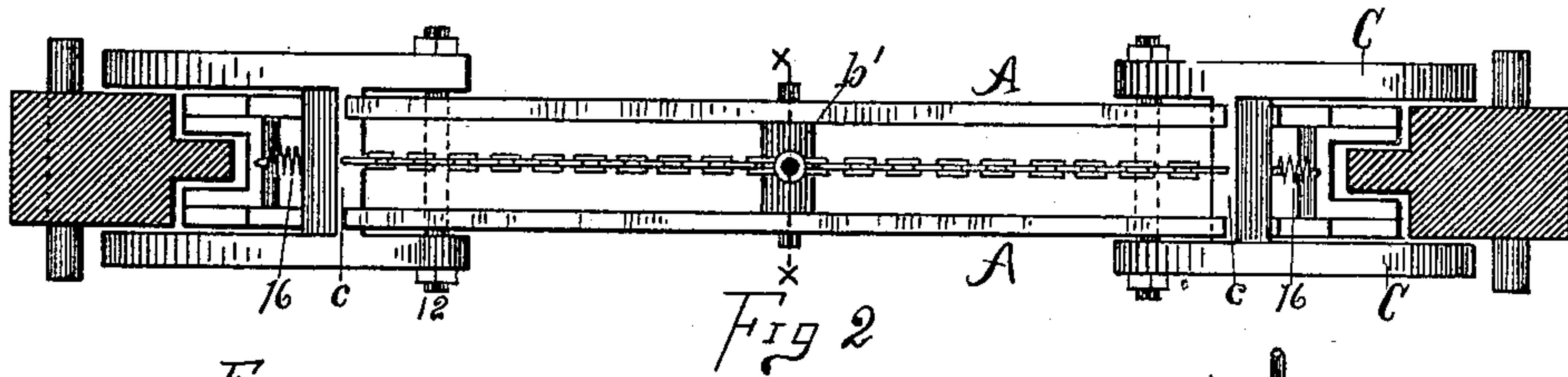
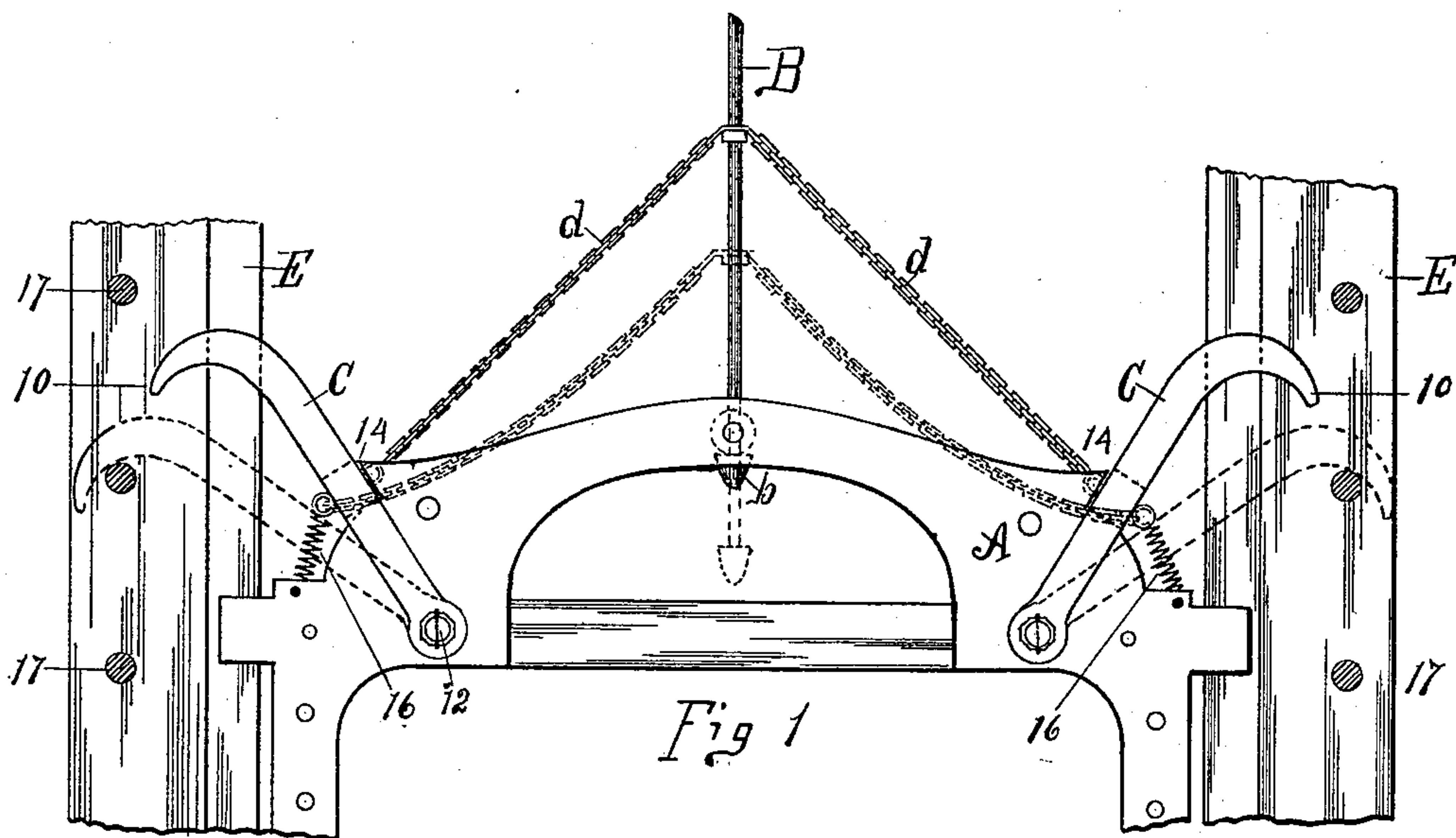


(No Model.)

J. W. & B. A. TAYLOR.  
SAFETY CATCH FOR ELEVATORS.

No. 366,745.

Patented July 19, 1887.



WITNESSES:

Geo. Oliver Hogg.  
W. B. Goodwin

INVENTOR

James W. Taylor  
Benj. A. Taylor  
BY J. Higdon

ATTORNEY.



# UNITED STATES PATENT OFFICE.

JAMES W. TAYLOR AND BENJAMIN A. TAYLOR, OF KANSAS CITY, MISSOURI.

## SAFETY-CATCH FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 366,745, dated July 19, 1887.

Application filed February 28, 1887. Serial No. 229,124. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES W. TAYLOR and BENJAMIN A. TAYLOR, of Kansas City, Jackson county, Missouri, have invented a new and useful Improvement in Safety-Catches for Elevators and Inclined Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to devices for controlling the cars, cages, or platforms of elevators or inclined railways when the lifting-cable breaks; and it may be said to consist in the devices and the combination and arrangement of devices hereinafter set forth, and pointed out in the claim.

In the drawings, which illustrate the manner of carrying out our invention when applied to an elevator cage or platform, Figure 1 is a sectional side elevation of an elevator hoisting frame or gate and the guide-posts therefor, having our safety devices applied thereto. Fig. 2 is a sectional plan view of the same. Fig. 3 is a broken detail view of one of the guide-posts and the safety-hooks which engage same when the lifting-cable breaks, looking toward the right hand in the two previous figures; and Fig. 4 is a section through Fig. 2 on line *x x*.

A represents a pair of iron plates, forming a portion of the hoisting frame or gate of the cage, and which may be of the ordinary construction.

B is the supporting-cable, having an enlargement, *b*, of any kind, which may engage the cross-bar *b'*, to prevent the cable from pulling from position between said plates.

C represents the clutch-bars, which are pivoted to plates A, and which have a hook, 10, formed upon their free ends. A pair of these clutch-bars are pivoted to the plates of the gate opposite each other by means of the bolt 12, which passes through the respective plates, as shown. Two clutch-bars are provided for each guide-post of the elevator. The respective pairs of clutch-bars are entirely independent of each other, and should one fail to operate, the other will be in no way impaired. The two bars making up a pair are connected together at their pivotal end by bolt 12, and they are also rigidly connected at some distance above the pivotal point by means of cross-bar *c*.

A short chain or cable, *d*, attached near the middle of its length to the lifting-cable B, and having its respective ends securely attached to the cross-bars of the clutch-bars, holds the said clutch-bars out of operative position, the cross-bars *c* of the clutch-bars resting normally in contact with a shoulder, 14, or a projection of some sort located on the hoisting frame or gate A. Spiral springs 16, having one end secured to said cross-bar of the clutch-bar and having the opposite end attached to some portion of the gate A, tend to draw said clutch-bars out of their normal position, before described, at all times.

A series of steel pins, 17, are located transversely in the guide-posts E, so as to project a suitable distance upon either side thereof to be engaged by the clutch-bars should the hoisting-cable break at any time. These pins can be of steel, iron, or any suitable material. If so desired, plates of metal having teeth of suitable form to be engaged by the hooks of the clutch-bars can be substituted for the series of pins in the guide-posts, in which case said plates would of course be located on opposite sides of said posts.

The operation of the invention is as follows: Should the hoisting-cable B break from any cause, the springs 16 will instantly cause the hooks 10 on the outer ends of the clutch-bars C to drop upon and engage the nearest ones of the series of pins in the guide-posts, and the car, cage, or platform will thereby be prevented from falling.

It should be evident that by slight changes in details of construction this invention can readily be adapted to inclined railways. For instance, the track-stringers of such railway could be provided with the series of pins, as described, and the clutch-bars with the hooks upon their free ends could be pivoted to the car-framing, so as to engage said pins when the hoisting-cable parts.

We do not broadly claim a safety hook or catch which is adapted to be held out of engagement with a stop by connection with the hoisting-rope; but,

Having thus described our invention, what we claim is—

The combination of a car or cage provided with cross-plates A, having shoulders 14 formed on each side thereof, two pair of clutch-bars

pivoted to the cross-plates and rigidly connected by cross-bars *c*, springs 16, connected at one end to the cross-bars *c* and at the other end to the frame of the cage or car, a chain or  
5 cable, *d*, attached to the clutch-bars and to the hoisting-cable, and the guide-post *E*, carrying the pins 17, all substantially as described.

In testimony whereof we affix our signatures  
in presence of two witnesses.

JAMES W. TAYLOR.  
BENJ. A. TAYLOR.

Witnesses:

PATRICK MURPHY,  
JNO. T. WILSON.