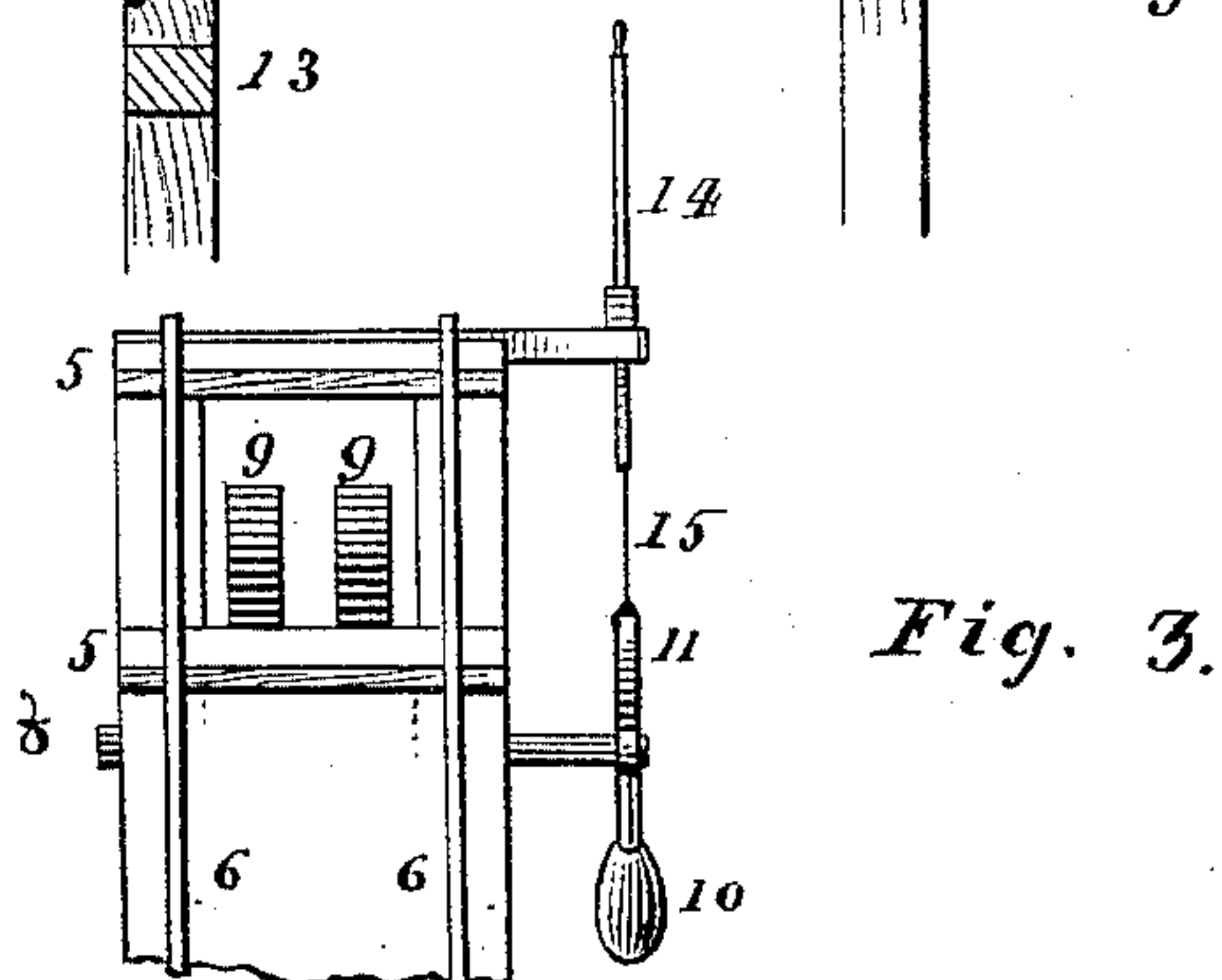
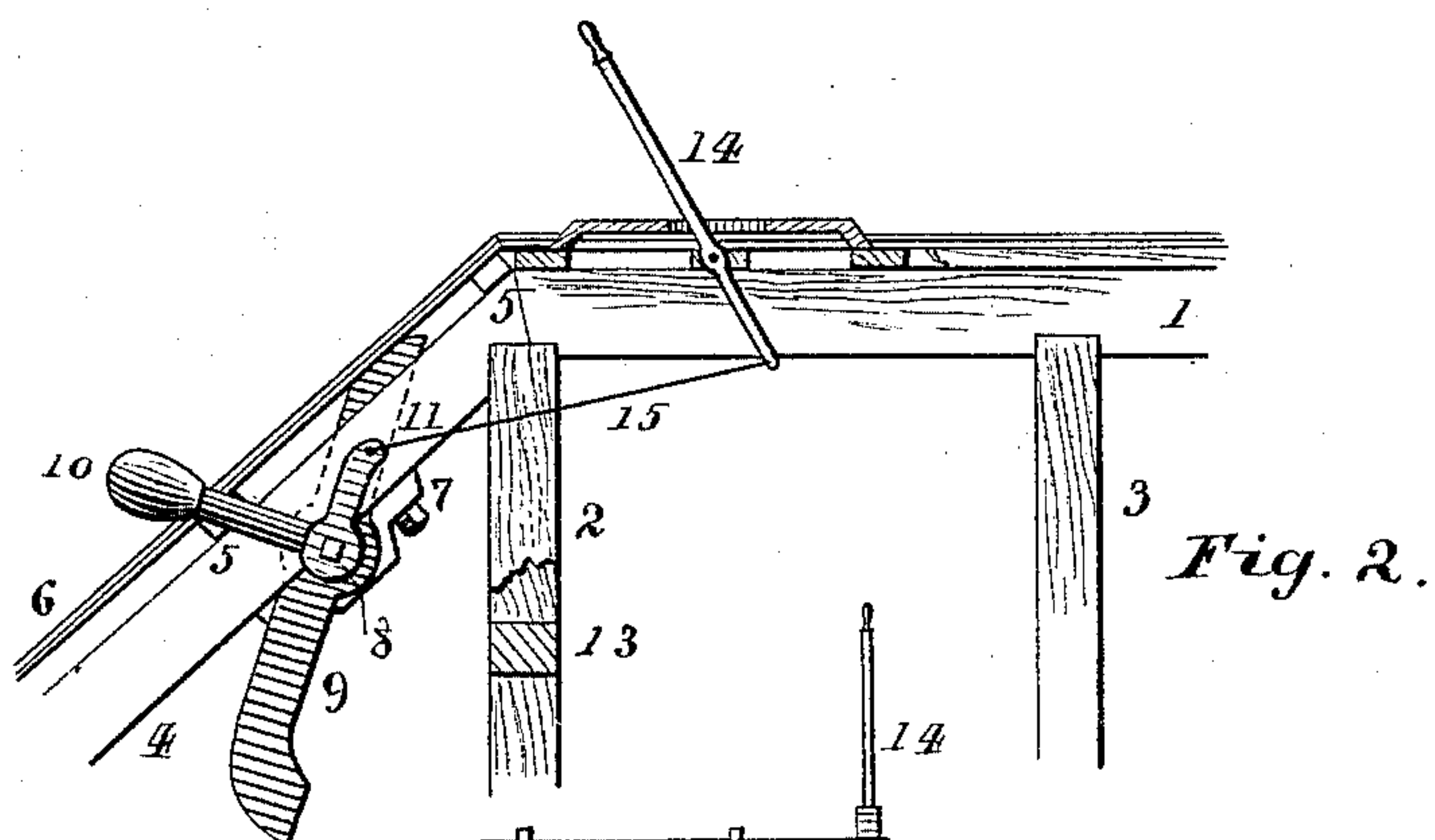
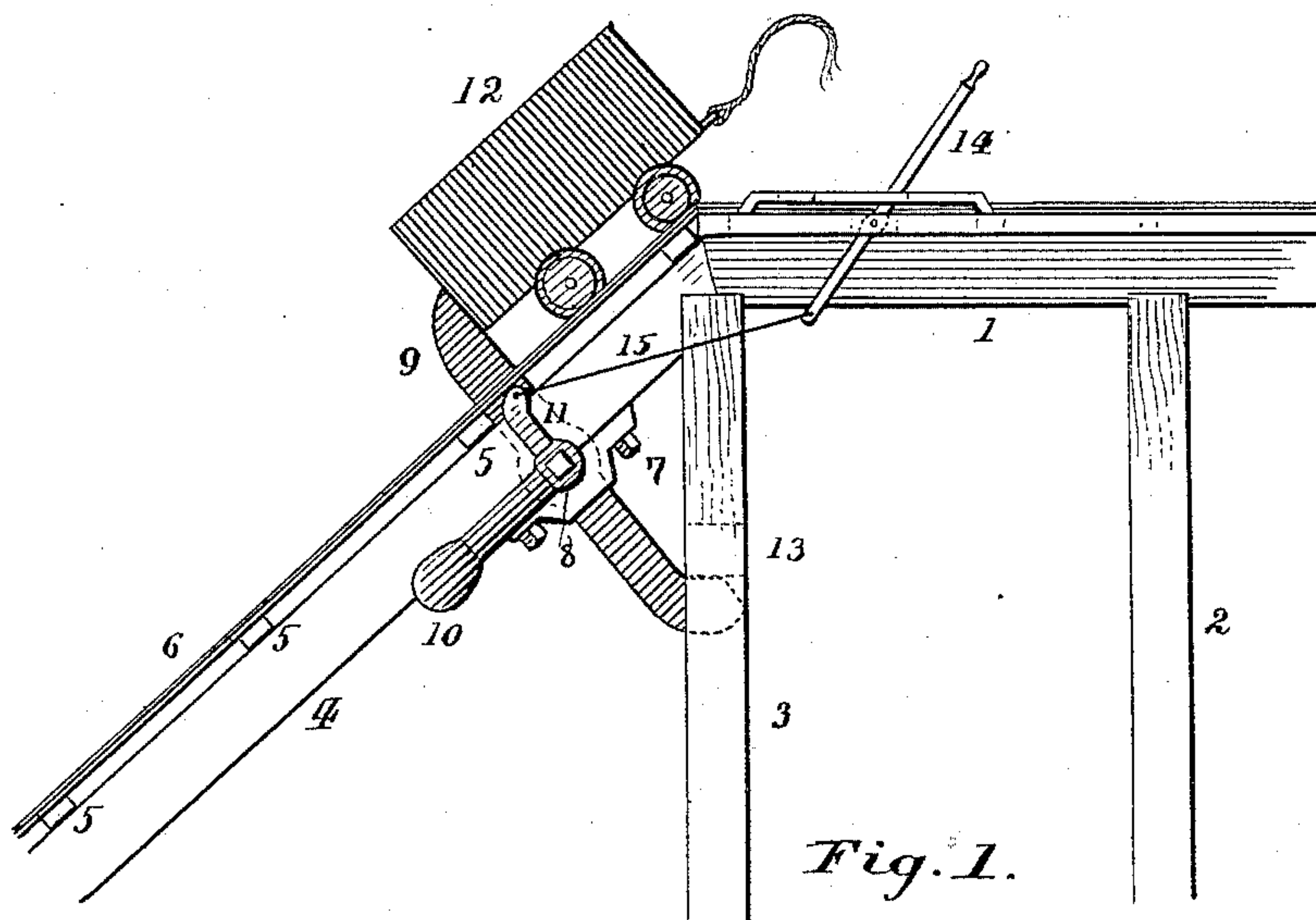


(No Model.)

D. & T. JAMES.
SAFETY CATCH FOR INCLINED RAILWAYS.

No. 473,842.

Patented Apr. 26, 1892.



Witnesses
 Oron Peterson
 C. E. Humphrey

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Index

DAVID JAMES
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UNITED STATES PATENT OFFICE.

DAVID JAMES AND THOMAS JAMES, OF WADSWORTH, OHIO, ASSIGNORS OF
ONE-THIRD TO ORLANDO V. DIBBLE, OF SAME PLACE.

SAFETY-CATCH FOR INCLINED RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 473,842, dated April 26, 1892.

Application filed June 27, 1891. Serial No. 397,683. (No model.)

To all whom it may concern:

Be it known that we, DAVID JAMES and THOMAS JAMES, citizens of the United States, residing at Wadsworth, in the county of Medina and State of Ohio, have invented a certain new and useful Improvement in Safety-Catches for Inclined Railways, of which the following is a specification.

Our invention has relation to improvements to be applied to inclined railways for the purpose of arresting cars in descending the railway which from any reason having escaped from the person in charge or from the breaking or giving way of some part would, unless arrested, run down the inclined track by gravitation and produce serious and perhaps fatal results. It has especial relation to railways used in underground mining and in the class known as "slope-openings;" and its object is to provide a simple and effective device by which a car or cars that escape over or upon the inclined portion of the railway may be arrested.

To the above purpose our invention consists of the peculiar and novel construction, arrangement, and combination of parts hereinafter described, and then specifically pointed out in the claims, reference being had to the accompanying drawings, forming a part of this specification.

In the accompanying drawings, in which similar reference-numerals indicate like parts, Figure 1 is a side elevation of a single form of our invention, showing its operation in arresting a car; Fig. 2, a similar view showing the arrester swung down to permit the passage of the car, and Fig. 3 a plan of so much of the mechanism shown in Figs. 1 and 2 as exhibits the operative parts of our invention.

Referring to the drawings, 1 represents a frame-work or staging supported on posts or uprights 2 3, from which the inclined beams 4 descend, and on which inclined beams are ties 5, supporting the track-rails 6, which connect with similar rails on the staging 1. Journalled in suitable bearings 7, connected with the beams 4, is a rocking shaft 8, on which are mounted two arms 9 9, a weighted lever 10, and a crank-arm 11. The arms 9 9 consist of rigid bars, preferably of iron, and are arranged when rocked upward, as shown in Fig.

1, to project above the track-rails 6 high enough to engage and arrest the car 12 and when rocked downward, as shown in Fig. 2, to sink below the track and allow the free passage of the car in either direction. The arms 9 preferably extend in each direction from the supporting-journal 7 and are arranged when swung upward, as shown in Fig. 1, to have the upper end encounter a part of the frame-work, as the tie 5, and the lower end to simultaneously encounter another part of the frame-work, as the cross-beam 13, to constitute buttresses to resist the shock or force of the descending car. The weighted lever 10 is so graduated as to constantly maintain the arms 9 above the surface of the track, except when drawn down by the hand-lever 14, as hereinafter described, or pushed down by the ascending car. The hand-lever 14 is connected by the rod 15 with the crank-arm 11 and may be situated at any desired or approved distance from the inclined part of the railway.

In operation the bars 9, overbalanced by the weighted arm 10, normally extend above the track, and thus arrest any car that may by accident or otherwise escape onto the inclined portion of the track, and at the same time yield and rock downward by contact with any ascending car to permit its upward passage. When it is desired to permit the descent of a car, these arms are by means of the lever 14 and link 15 swung down, as shown in Fig. 2, below the surface of the track. It is not intended by this construction to limit the invention to one set of the bars 9, as a multiple of these may be arranged at determined intervals along the inclined track and connected with the lever 14 by means of the rod 15.

We claim as our invention—

1. A safety-catch for inclined railways, consisting of rocking bars arranged to project above the inclined track sufficiently to engage the body of the car and to rock downward to permit the passage of a car and a device, as a weighted lever, to constantly hold said bars projecting above the inclined track, substantially as shown and described.

2. A safety-catch for inclined railways, consisting of rocking bars arranged to project above the inclined track sufficiently to engage the car and to rock down and permit the

passage of the car, said bars being arranged when extending above the track to encounter buttresses to resist the shock from the descending car, substantially as shown and described.

3. In a safety-catch for inclined railways, rocking bars arranged to extend above the inclined track sufficiently to engage the car and to rock down to permit the passage of the car, in combination with a counter-weight to constantly rock said bars upward and a lever to rock them down, substantially as shown and described.

4. In a safety-catch for inclined railways, rocking bars arranged to extend above the

track sufficiently to engage the car and to rock down sufficiently to permit the passage of the car and a counter-weight to constantly rock said bars above the track, in combination with buttresses arranged to be simultaneously engaged by opposite ends of the said bars, substantially as shown and described.

In testimony that we claim the above we hereunto set our hands.

DAVID JAMES.
THOMAS JAMES.

In presence of—

C. P. HUMPHREY,
C. E. HUMPHREY.