

No. 629,370.

Patented July 25, 1899.

H. D. KEELER.

BEAT ADJUSTER FOR PENDULUMS.

(Application filed Apr. 25, 1898.)

(No Model.)

Fig. 1.

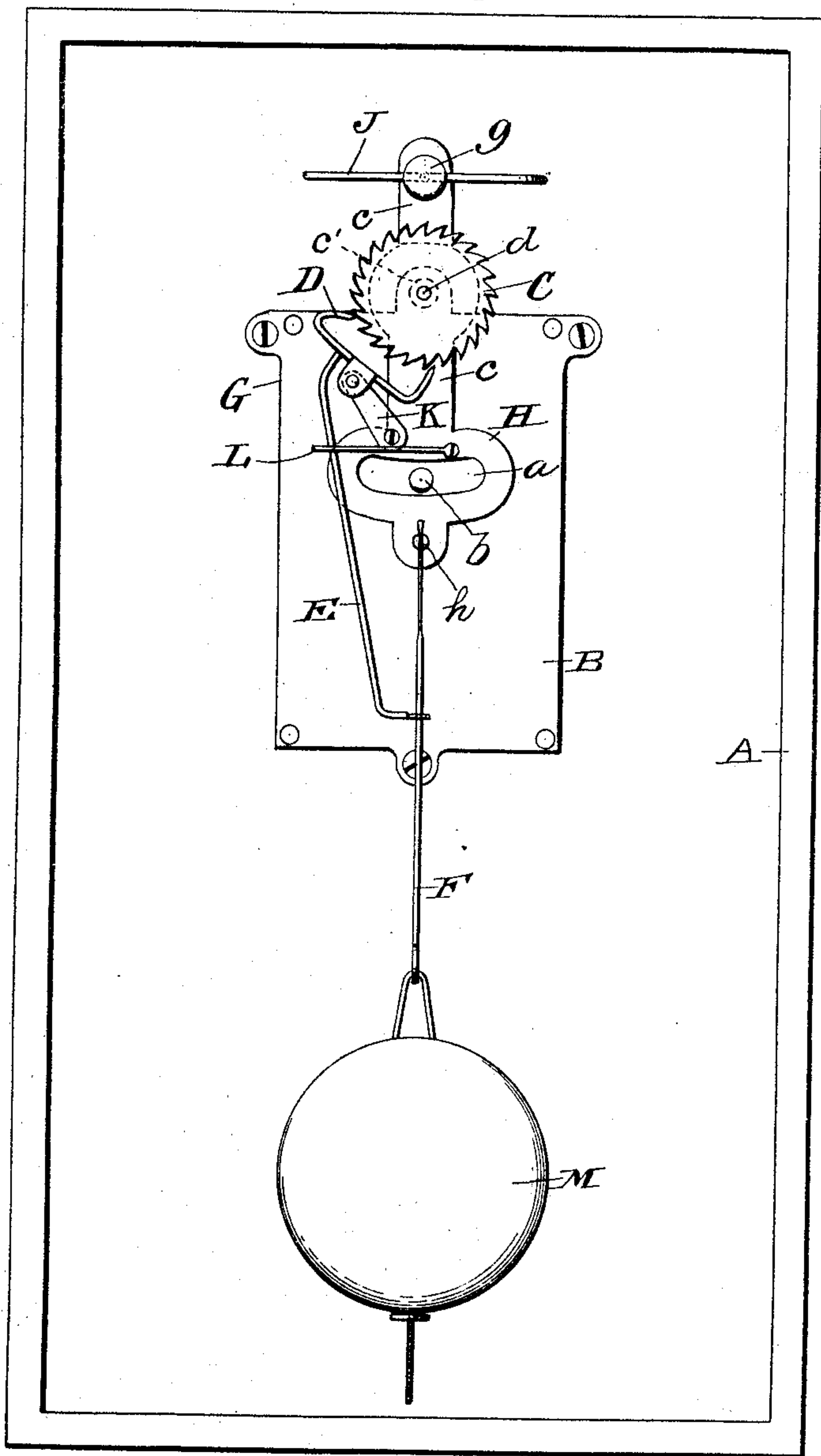


Fig. 3.

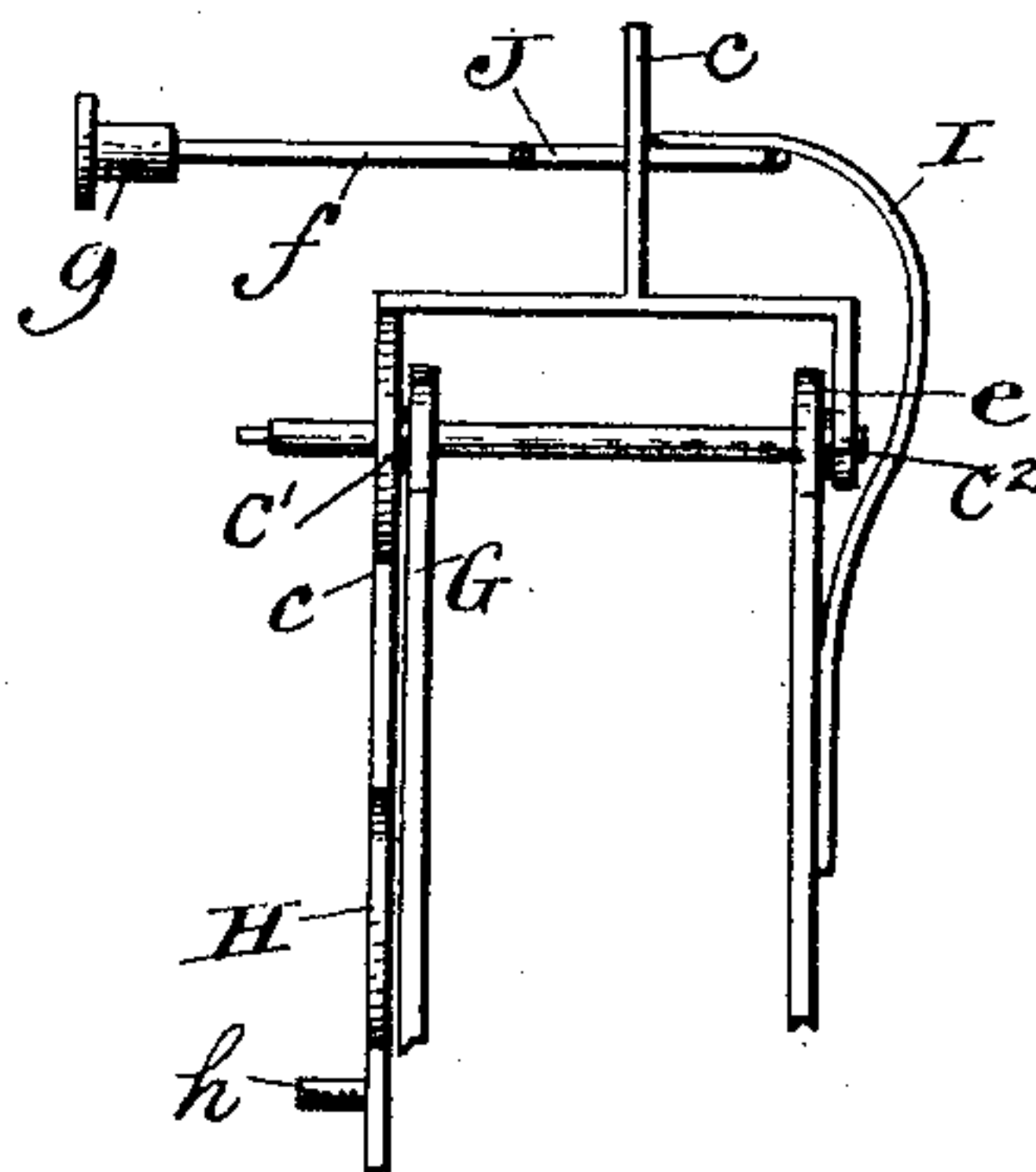


Fig. 4.

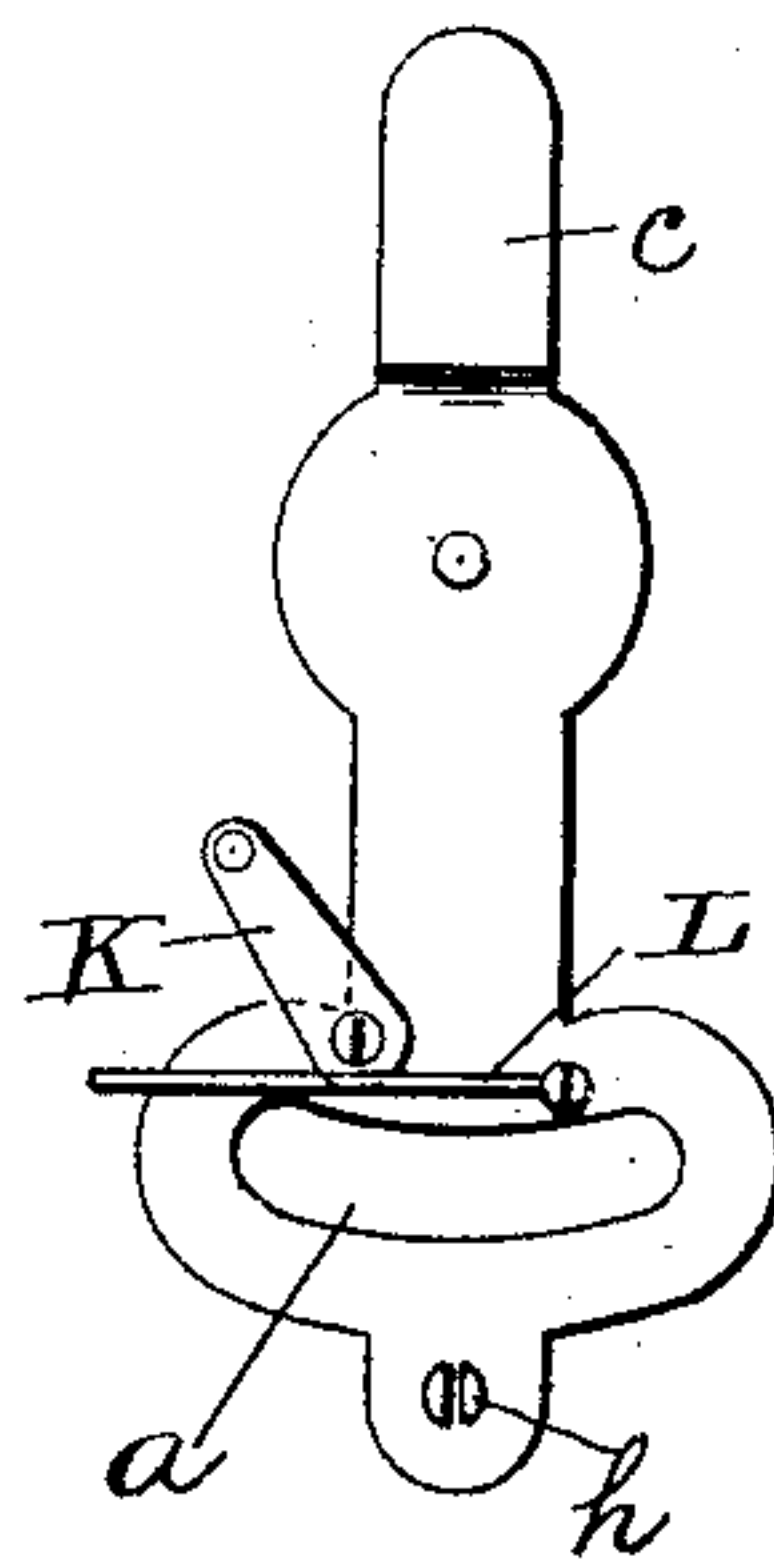
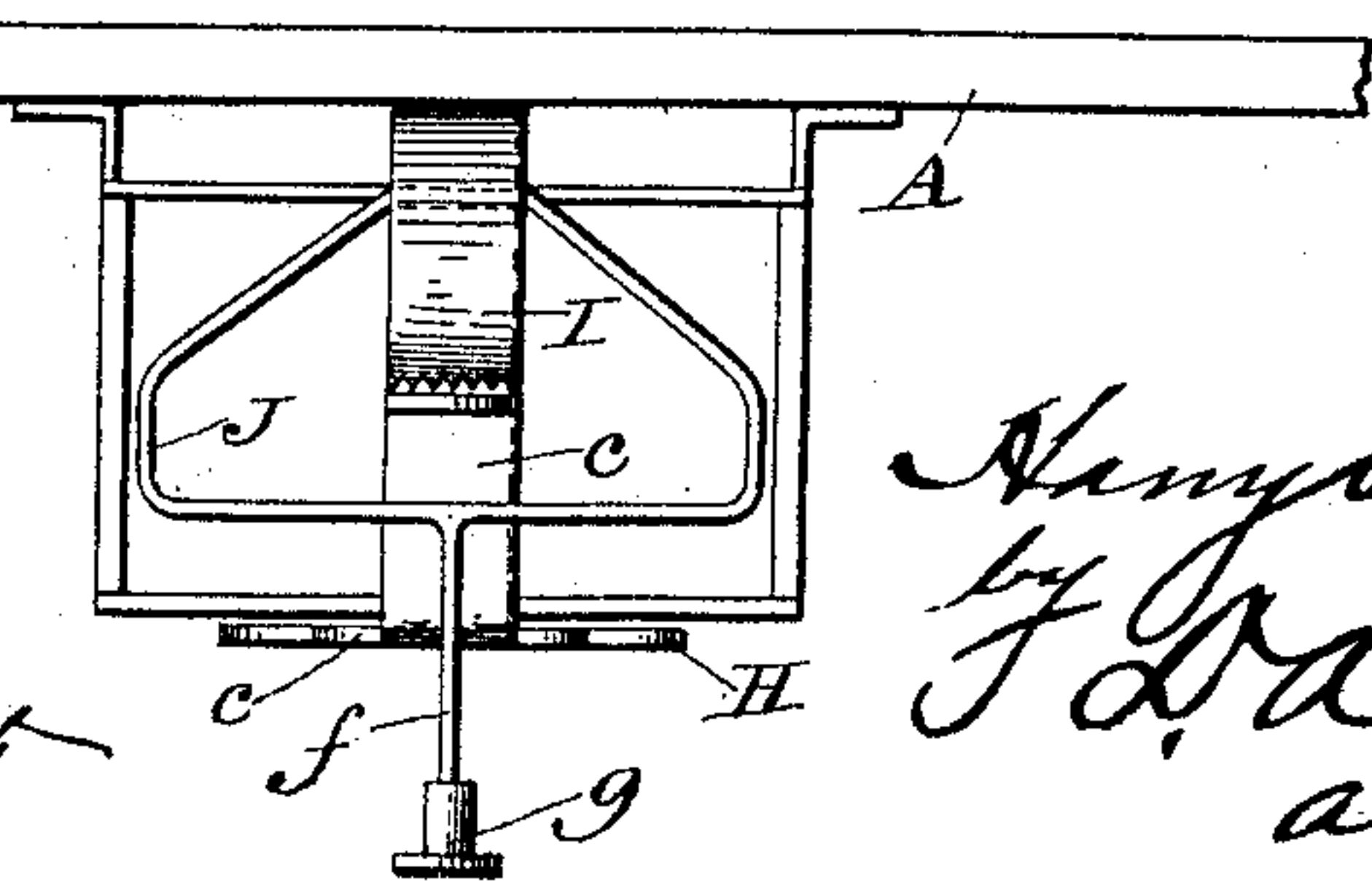


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## BEAT-ADJUSTER FOR PENDULUMS.

SPECIFICATION forming part of Letters Patent No. 629,370, dated July 25, 1899.

Application filed April 25, 1898. Serial No. 678,785. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY D. KEELER, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have  
5 invented certain new and useful Improvements in Adjustable Pendulums for Clocks, of which the following is a specification.

My invention relates to adjustable pendulums for clocks, and has for one of its objects  
10 to provide a pendulum which can quickly, easily, and simply be adjusted when the clock-case is not plumb.

Another object of my invention is to provide a means of adjusting the pendulum  
15 which is at once simple, strong, easily used, and applicable to any clock.

These objects I accomplish in the manner and by the means hereinafter fully described in detail, and particularly pointed out in the  
20 claims, reference being had to the accompanying drawings, in which like reference-letters indicate like parts in all the figures.

Figure 1 is a front elevation of my invention on a clock with face removed. Fig. 2 is  
25 a top plan view of my invention. Fig. 3 is a detail view of spring and arm. Fig. 4 is a detail view of plate and arm.

In the drawings accompanying this specification, A represents the clock-case; B, the  
30 front of clock, face removed; C, the escapement-wheel; D, the escapement-lever; E, the verge-rod; F, the pendulum-rod, which is hung in the usual manner by a flat spring at its upper end, and G the clock-frame.

35 My invention consists of a plate H, in which a slot *a* is cut horizontally for the arbor *b*, carrying the hands of the clock, to move. From the top of the plate H an arm *c*, made integral therewith or secured thereto, extends  
40 upward and is pivotally mounted on a collar *c'*, rising from the frame G, around the spindle *d* of the escapement-wheel C, between said escapement-wheel C and the clock-frame G. The arm *c* extends above the clock-frame  
45 G and is then bent backward at right angles and extends to midway the front and back of the clock-frame G, where the end of said arm *c* is bent upward. Pivoted at the back of the clock-frame G on a collar *c''*, rising from the  
50 frame G around the end of the escapement-wheel spindle *d*, is an arm *e*, which rises above the clock-frame G and is then bent

forward at right angles toward said arm *c*, to which it is secured above the center of the top of the clock-frame G, or the arm *c* may  
55 be bent upward over the center of the clock-frame G and then carried back along such bent-up portion and then to the back of the clock-frame G, where it is bent down and pivotally mounted on a collar *c''*, rising from the  
60 frame G, around the escapement-wheel spindle *d*. A spring I has one end securely attached to the back of the clock-frame G, above which it rises, and is bent forward and the other end provided with saw-teeth and en-  
65 gaging the back of the upward-bent portion of the arm *c*. A loop J is soldered to said spring I and has an arm *f* projecting through the clock-face near the top and provided with a thumb-piece *g*. At the center of the plate  
70 H, at the bottom, is a split post *h*, in which the flat spring at the upper end of the pendulum-rod F is placed. To the plate H, above the slot *a* on the left, one end of an arm K is  
75 secured, said arm K projecting upward to the left, having the escapement-lever D pivotally secured on its other end. To the plate H, above the slot *a* on the right, is secured a steel spring L, which prevents the verge-rod  
80 E from swinging outward.

The operation of my invention is as follows: If the clock-case is for any reason out of plumb, the thumb-piece *g* is pressed, removing the saw-teeth of the spring I from contact with  
85 the arm *c*. The pendulum M, being hung from the center of the plate H at the bottom, and the plate H suspended by the arm *c* from the collar *c'*, surrounding the escapement-wheel spindle *d*, will adjust itself as soon as  
90 the spring I is released and carry the arm K and escapement-lever D with it in proper relative position.

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

1. In a pendulum-clock, a forked arm astride the top of the clock-frame and pivotally mounted on collars rising from clock-frame around the escapement-wheel spindle, said  
100 arm having an upright projection from the center of the crown of the fork, an oval plate made integral with one end of said arm and provided with a horizontal curved slot, adapted to receive the arbor carrying the



hands of the clock, and a split post near its lower part adapted to receive the flat spring at the upper end of the pendulum-rod, a spring secured to the back of the clock-frame and  
5 provided at one end with saw-teeth adapted to engage said upright projection of said forked arm, an arm secured to the upper part of said plate and carrying the escapement-lever and a spring secured to the upper part of  
10 said plate, said spring adapted to prevent the verge-rod from swinging outward, substantially as shown and described.

2. In a pendulum-clock provided with a plate pivotally mounted on a collar rising  
15 from the clock-frame around the escapement-wheel spindle, said plate carrying the arm on which the escapement-lever is mounted and having the pendulum suspended from it, a spring secured at one end to said clock-frame  
20 and provided with saw-teeth adapted to engage and hold said plate, substantially as shown and described.

3. In a pendulum-clock provided with a plate pivotally mounted on a collar rising  
25 from the clock-frame around the escapement-wheel spindle, said plate carrying the arm on which the escapement-lever is mounted and

having the pendulum suspended from it, a spring secured at one end to said clock-frame and provided with saw-teeth adapted to en- 30  
gage and hold said plate, and means for operating the same, substantially as shown and described.

4. In a pendulum-clock provided with a plate pivotally mounted on a collar rising 35  
from the clock-frame around the escapement-wheel spindle, said plate carrying the arm on which the escapement-lever is mounted and having the pendulum suspended from it, a spring secured at one end to said clock-frame 40  
and provided with saw-teeth adapted to engage and hold said plate, a loop attached to said spring, said loop provided with an arm having a thumb-piece on its end, adapted to project through the clock-face and to control 45  
said spring, substantially as shown and described.

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

HARRY D. KEELER.

Witnesses:

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J. B. VIRDEN.