

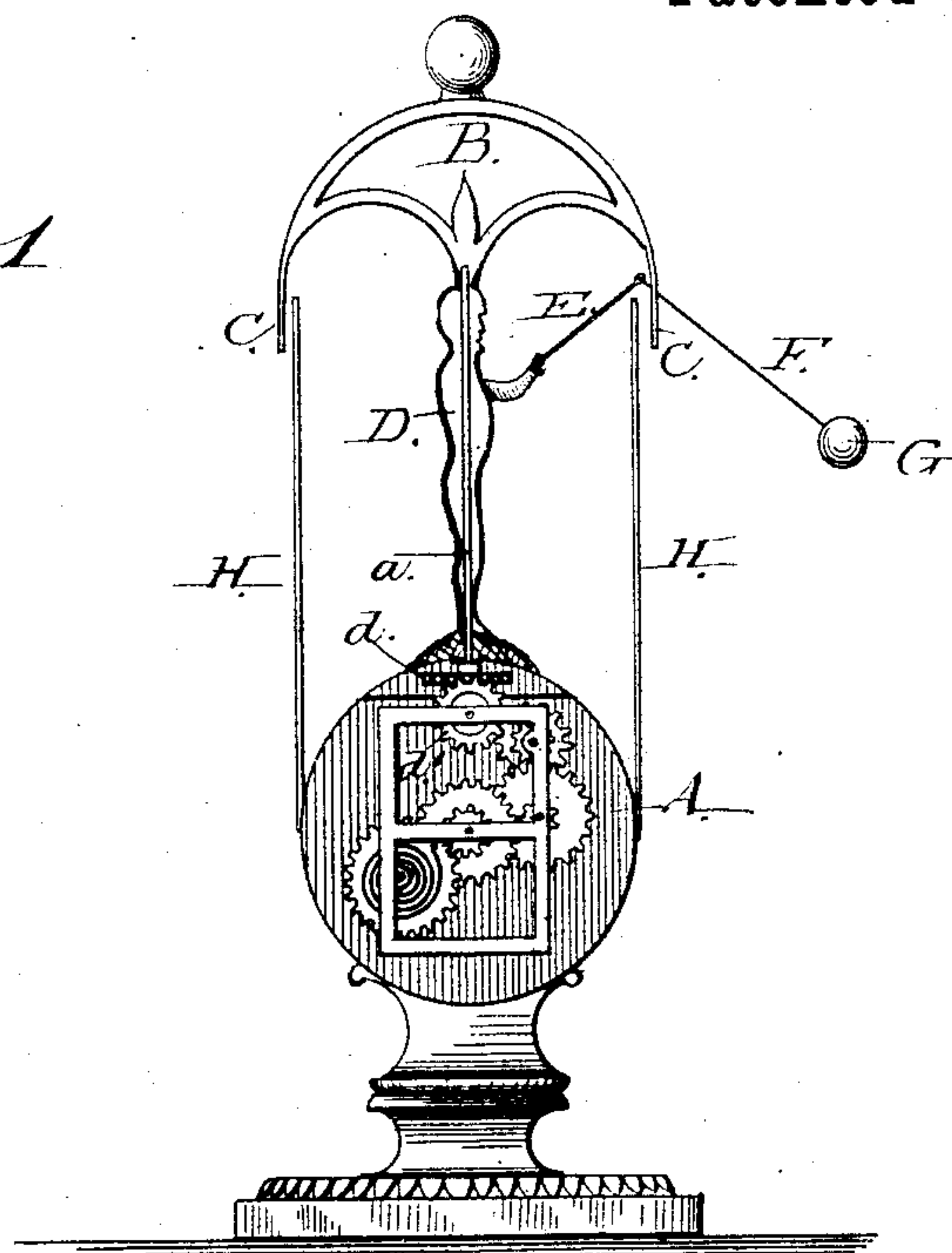
(No Model.)

A. C. CLAUSEN.  
ESCAPEMENT AND REGULATOR.

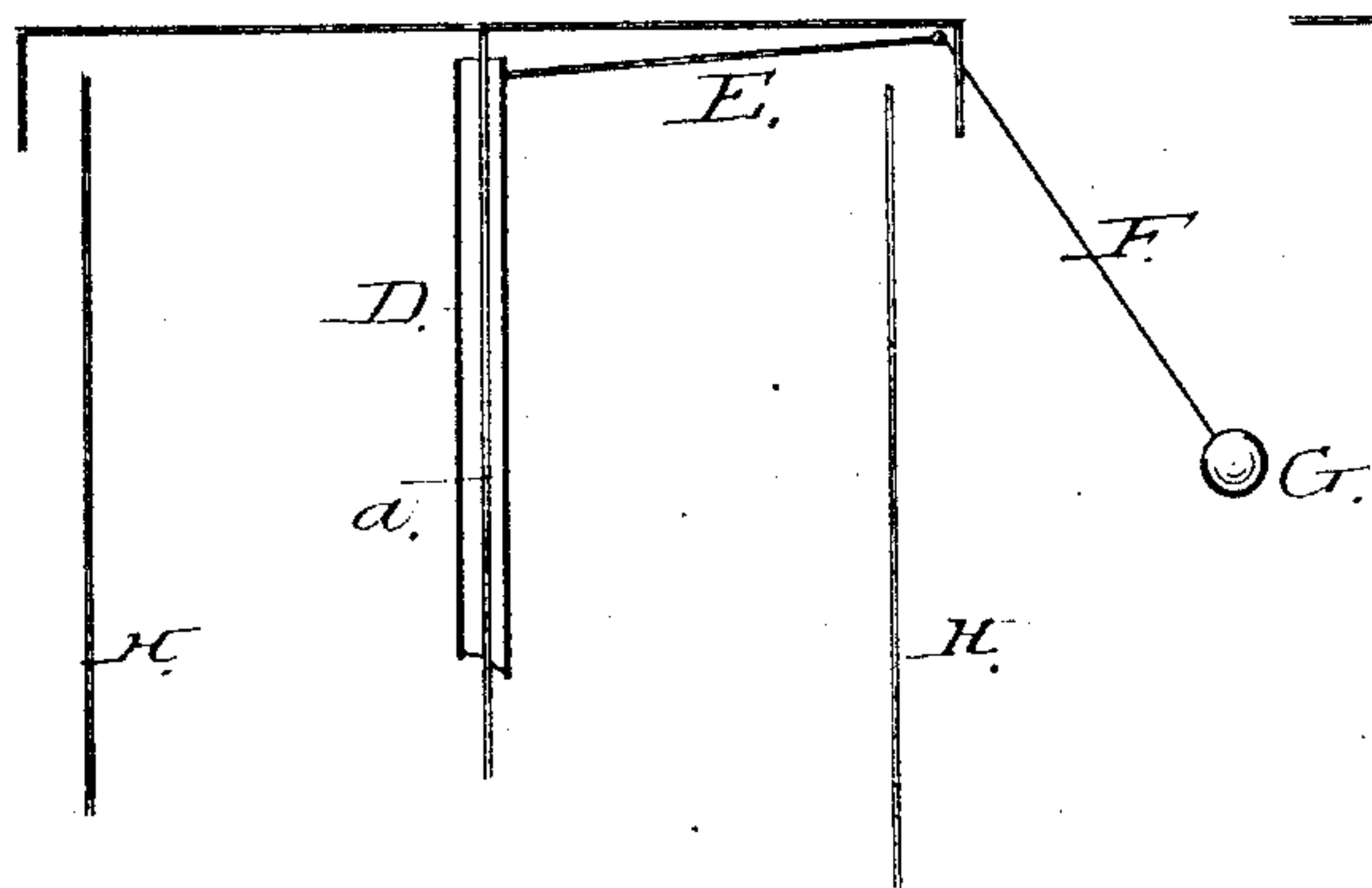
No. 286,531.

Patented Oct. 9, 1883.

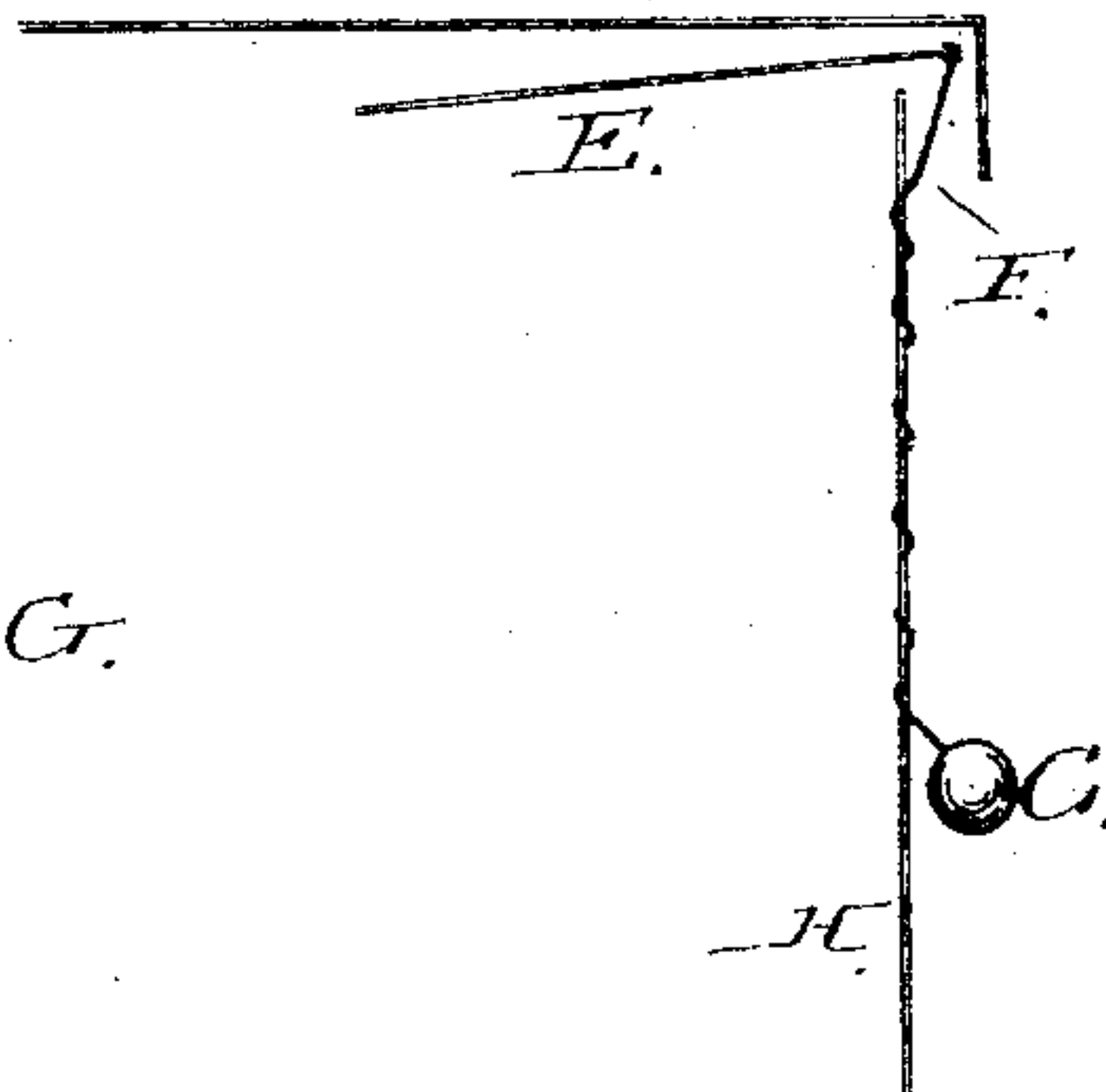
*Fig. 1*



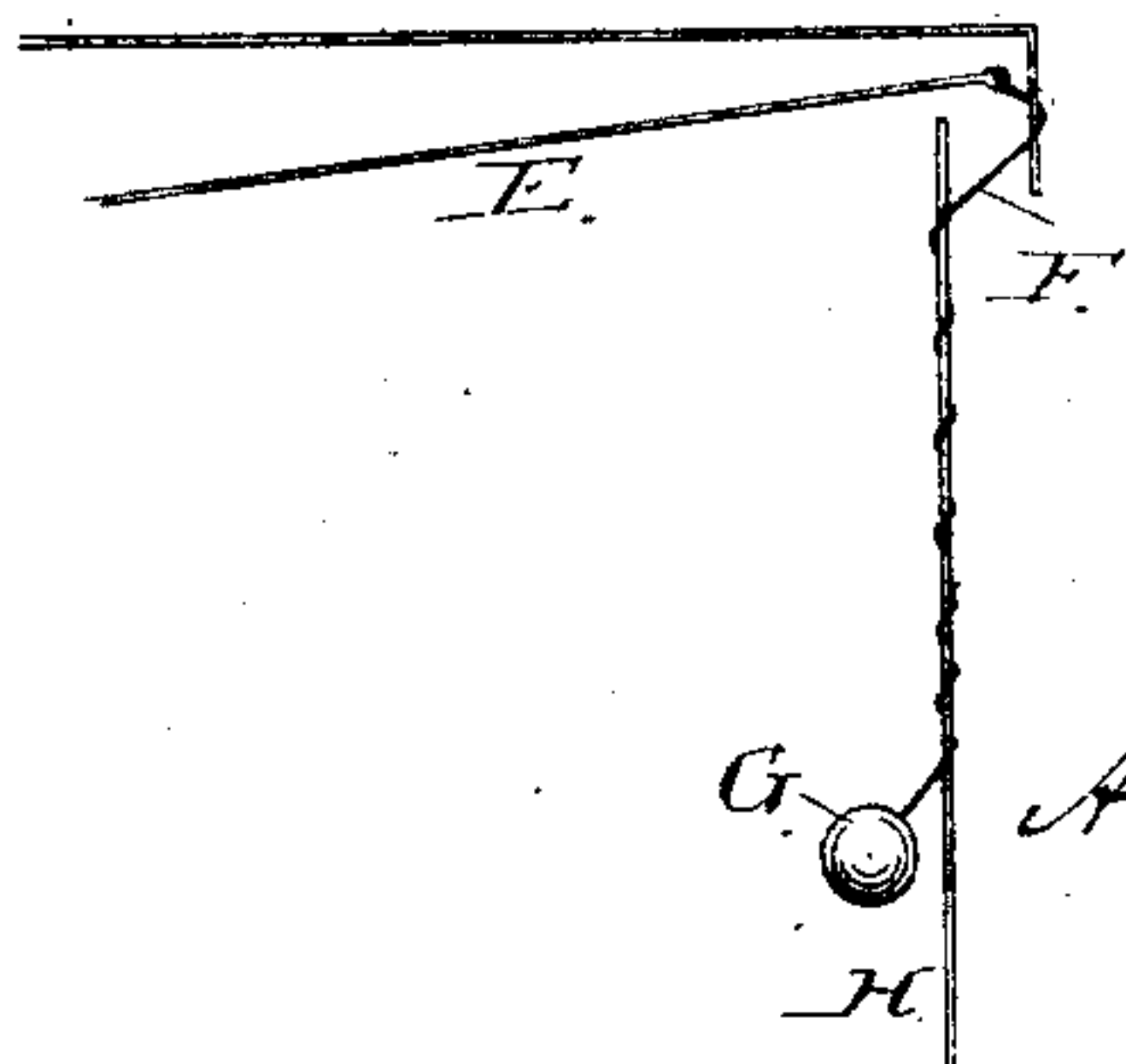
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



Attest;  
*L. M. Fowler,*  
*J. L. Collamer,*

Inventor;  
*Adler C. Clausen,*  
*per attys.,*  
*A. W. Evans & Co.*

# UNITED STATES PATENT OFFICE.

ADLER CHRISTIAN CLAUSEN, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF  
ONE-HALF TO J. C. SLAFTER, OF SAME PLACE.

## ESCAPEMENT AND REGULATOR.

SPECIFICATION forming part of Letters Patent No. 286,531, dated October 9, 1883.

Application filed August 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ADLER CHRISTIAN CLAUSEN, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Escapement Regulators; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a sectional view of my improvement as used in connection with clock mechanism. Figs. 2, 3, and 4 are detail views, showing, respectively, the first, second, and third movements of the escapement.

This invention relates to certain new and useful improvements in escapement mechanisms for controlling and regulating the release of power which is adapted to be applied to clock mechanism, time-keepers, and other gearing mechanism; and the invention consists in novel combination and arrangement of parts, all as will be hereinafter fully described, and set forth in the claims hereto annexed.

In the drawings, A represents the mechanism of a clock or time-keeper, to which my improvements are shown as applied.

*a* represents a stationary vertical shaft, having connected at its upper end a horizontal or curved bar, B, provided at its ends with downwardly-projecting catch-pins C C.

Upon the shaft *a* is mounted a tubular shaft or figure, D, surrounding the shaft *a* and thereby held in position, and said tubular shaft or figure has connected with or mounted upon its lower end a crown or gear wheel, *d*, meshing with a wheel, *d'*, operated in any suitable manner by the clock or other gearing mechanism A, and through the medium of which wheels *d* *d'* a revolving movement is imparted to the tubular shaft or figure D. This shaft or figure D is provided with a projecting arm, E, having a cord, F, connected to its end and carrying a ball or weight, G.

H H represent vertical stationary receiving-rods, arranged on opposite sides of the shaft *a*.

The operation of my improved escapement is as follows: The tubular shaft or figure D in its revolution raises the ball and string by centrifugal force until the string meets one of the catch-pins C, when the arm E is stopped thereby, (see Fig. 2,) and the string by the movement of the ball will coil around one of the receiving-rods H, as shown in Fig. 3, and the ball, then reversing in its movement by the force of gravity, will release the string from the catch-pin C and coil entirely upon the receiving-pin H, as shown in Fig. 4. From this latter position the ball again reverses its motion, but having exhausted its force, and therefore its height of swing, the cord passes between the catch-pin and the receiving-rod, and through the centrifugal force regains its motion, when the above operation will be repeated with the catch-pin and receiving-rod on the opposite side. These repeated stoppages of the revolution of the arm E are very effectual in controlling and regulating the release of power to the clock or other mechanism to which my improvements may be applied.

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

1. The combination of the stationary catch-pins C C, stationary receiving-rods H H, and a revolving shaft or figure carrying an arm provided with a cord and ball or weight, substantially as and for the purpose specified.

2. The combination, with clock or other gearing mechanism, of a shaft or figure connected with and revolved thereby, and carrying an arm provided with a cord and ball or weight, the catch pin or pins C, and the receiving rod or rods H, substantially as and for the purpose herein shown and described.

3. The escapement for controlling and regulating the release of power, substantially as herein shown and described.

ADLER CHRISTIAN CLAUSEN.

Witnesses:

L. E. KELLEY,  
A. E. HAMMOND.