

(No Model.)

W. E. PORTER.
CLOCK REGULATOR.

No. 482,985.

Patented Sept. 20, 1892.

Fig. 1

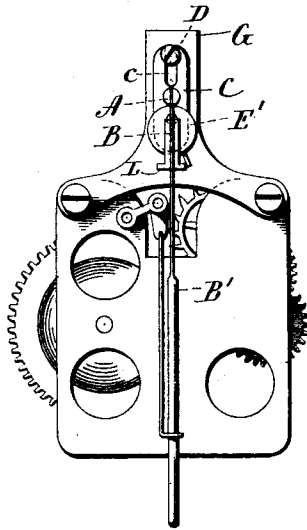


Fig. 2

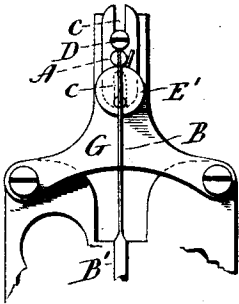


Fig. 3

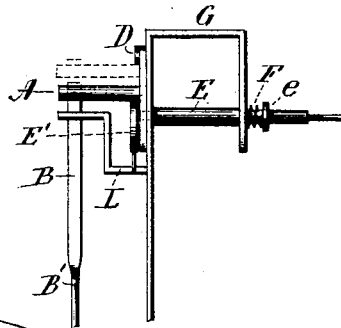
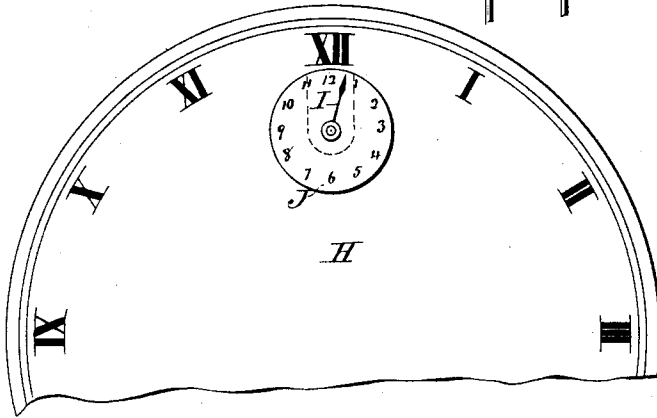


Fig. 4



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UNITED STATES PATENT OFFICE.

WILSON E. PORTER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
NEW HAVEN CLOCK COMPANY, OF SAME PLACE.

CLOCK-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 482,985, dated September 20, 1892.

Application filed May 23, 1892. Serial No. 434,043. (No model.)

To all whom it may concern:

Be it known that I, WILSON E. PORTER, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Regulators for Clocks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of
10 the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in rear elevation of a clock-movement provided with a regulating device constructed in accordance with my invention
15 and showing the suspension-stud in its lowest position; Fig. 2, a similar but less comprehensive view showing the suspension-stud in its highest position; Fig. 3, a view of the device in side elevation; Fig. 4, a broken view
20 of a portion of the dial of the clock, showing the forward end of the shaft of the regulating device with the scale provided for gaging the rotation thereof.

My invention relates to an improvement in
25 regulators for clocks, the object being to produce a simple, convenient, reliable, and durable device.

With these ends in view my invention consists in the combination, with a vertically-
30 movable suspension stud, of an eccentric located below the same and having its edge engaged therewith, means for rotating the said eccentric to vary the elevation of the stud, and a tension-spring for resisting the rotation
35 of the eccentric.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

40 As herein shown, a suspension-stud A, which is split to receive the flexible upper end B of the pendulum-rod B', is secured to a vertically-movable carrier having the form of an oblong plate C, constructed at its upper and
45 lower ends with open slots c c, the upper slot receiving a guiding-screw D, while the lower slot receives the projecting rear end of the shaft E, carrying the eccentric E', which is located below the stud A, which rests upon
50 its edge, so that when the shaft and hence

the eccentric are rotated the stud will be raised and lowered, the stud being always held in close contact with the shaft by the weight of the pendulum-rod and ball. A
spring F, encircling the forward end of the
said shaft E and interposed between a collar
e, mounted thereon, and the bent arm of the
frame G, is provided for resisting the rotation
of the shaft, so as to prevent any movement
thereof, except as it is turned manually. The
60 extreme forward end of the shaft is by preference projected through the dial H of the clock and provided with a hand I, arranged to sweep over a scale J thereon, whereby the
movement of the hand may be accurately
65 gaged to effect the amount of regulation desired. The said frame G is struck up from a single piece of metal and adapted to be attached to the upper edge of the back plate of
the clock-movement. It carries all the parts
70 that I have mentioned, which are preferably assembled with it before its attachment to the movement. As herein shown, it is also provided with a fixed crutch L.

It is apparent that in carrying out my invention I might make other provision for the
75 vertical movement and carriage of the suspension-stud and for the mounting of the eccentric-shaft and the restraint thereof from rotation, &c., and I would therefore have it
80 understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention. 85

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

1. In a clock, the combination, with a vertically-movable suspension-stud, of an eccentric
90 located below the same and having its edge engaged therewith, a shaft on which the eccentric is mounted and by which it is turned, and a spring applied to the shaft for resisting its rotation, substantially as set forth. 95

2. In a clock, the combination, with a suspension-stud, of a vertically-movable carrying-plate in which the stud is mounted, an
eccentric located below the stud and having
its edge engaged therewith, a shaft having 100

the eccentric mounted on its forward end, and a tension-spring applied to the shaft, substantially as described.

3. In a clock, the combination, with a frame
5 adapted to be attached to a clock-movement, of a vertically-movable carrier applied to the said frame, a stud attached to the said carrier and adapted to have a pendulum suspended from it, a shaft mounted horizontally
10 in the frame and projecting at its ends through the same, an eccentric mounted on the rear

end of the shaft and having its edge engaged with the stud, and a tension-spring applied to the shaft to resist its rotation, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILSON E. PORTER.

Witnesses:

FRED C. EARLE,
LILLIAN D. KELSEY.

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