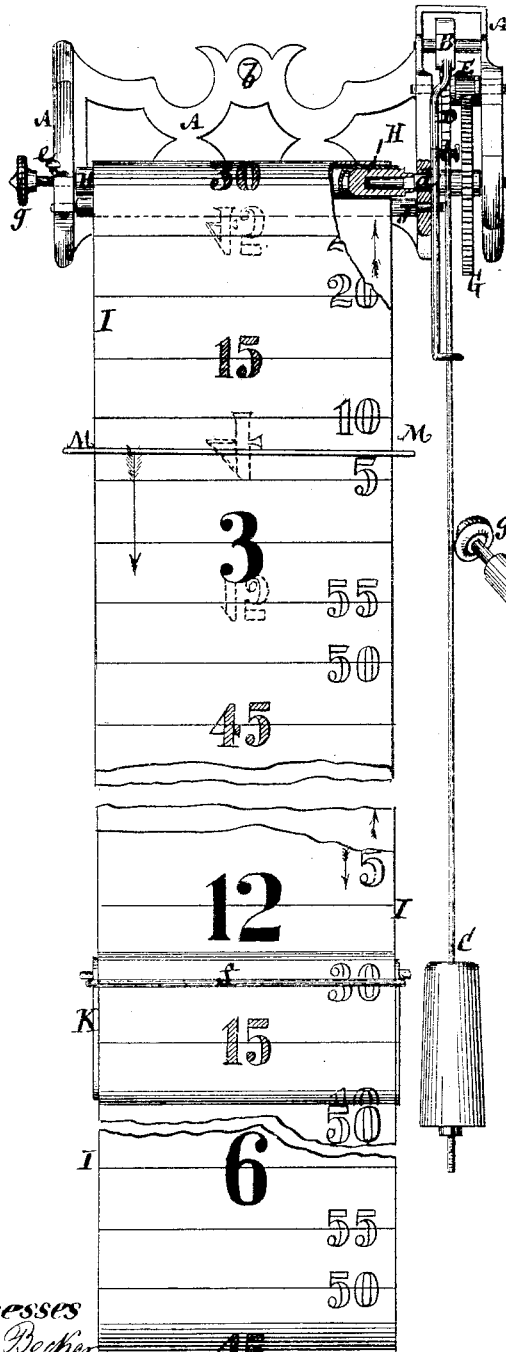


J. TREAT.
Clock.

No. 219,040.

Patented Aug. 26, 1879.

Fig. 1.



Witnesses
John Becker
Thomas E. Birch.

Fig. 2.

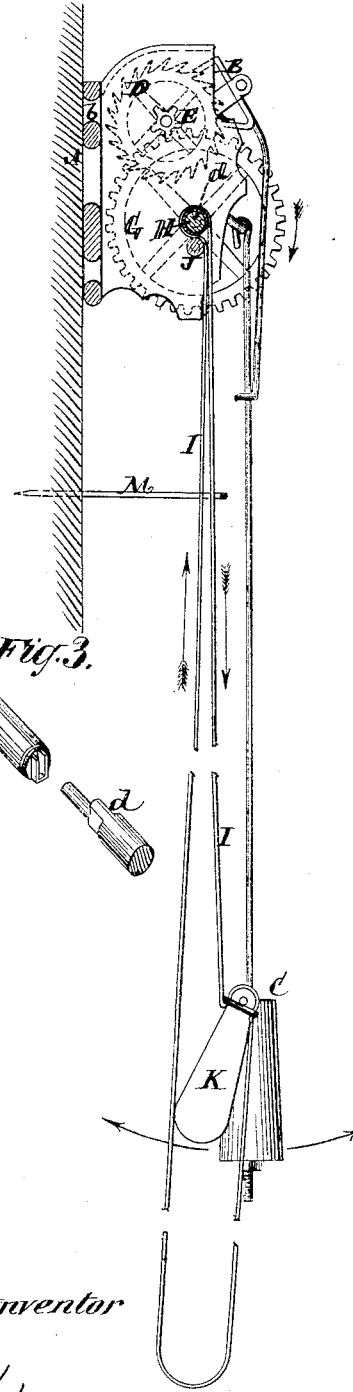
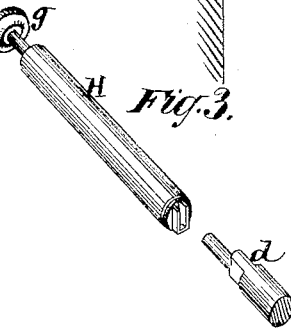


Fig. 3.



Inventor

J. Treat

UNITED STATES PATENT OFFICE.

JOHN TREAT, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT
TO JOHN KARST, OF SAME PLACE.

IMPROVEMENT IN CLOCKS.

Specification forming part of Letters Patent No. **219,040**, dated August 26, 1879; application filed
June 21, 1879.

To all whom it may concern:

Be it known that I, JOHN TREAT, of the city and State of New York, have invented certain new and useful Improvements in Time-Pieces, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification.

This invention consists in a clock or time-piece having a standing, pendent, or fixed position, of cheap and novel construction, in which a traveling strip or band of paper, or other suitable material, having the periods of time to be indicated inscribed or otherwise delineated upon it, and controlled by the mechanism of the clock, is substituted for the ordinary clock-dial, and whereby moving hands or indexes liable to stick are dispensed with, the operating mechanism is greatly simplified, a prolonged run may be obtained for the time-piece by each adjustment of the weight or power which operates it, and numerous other advantages are obtained.

In the accompanying drawings, Figure 1 represents a broken front view of a pendulum time-piece constructed in accordance with my invention; Fig. 2, a partly-sectional side view of the same; and Fig. 3, a view in perspective of a roller used to support or carry the traveling time band or strip, showing also the connecting-arbor by which said roller is actuated.

A is the bracket or frame, through a hole, *b*, in which a screw may be inserted to suspend the time-piece from the wall. This frame is constructed to carry the whole working mechanism of the clock, including the escapement B, with its attached pendulum C, the escapement-wheel D having a pinion, E, on its arbor, and a wheel, G, in gear with said pinion. The arbor *d* of this wheel G is constructed to engage, by a round and angular shank or otherwise, with a speed-controlling roller, H, in the frame A, in such manner that said roller, on releasing a catch, *e*, on the opposite end of the frame to that which carries the escapement may be readily removed to provide for removing or replacing a straight strip or band, I, of paper or other suitable material, having the hours and other subdivisions of time inscribed at proper distances apart in

direction of its length upon it. This strip or band, which is controlled by said roller as the latter is governed by the escapement mechanism, is preferably of an endless construction, and passes not only over or around the roller H, which may be rosined or roughened to give bite, and be turned or adjusted by a nut, *g*, to regulate the position of the strip or band, but also passes over or partly around a clamping-roller, J; and attached to said strip or band by any suitable clamp, *f*, is a weight, K, by the descent of which the clock is kept running. After the clock has run down, said weight is shifted by the clamp *f* from the lower end of the time strip or band I to the upper end thereof.

A fixed index, M, which may be in the form of a long cross-staple straddling the strip or band, and which may be secured by driving it into the wall, serves to denote the time as the strip or band I descends under the influence of the weight K and as controlled by the escapement.

The strip or band I may be readily renewed when required, and may be made of any desired length which will provide room for the actuating-weight K to drop, thus allowing for a prolonged run of the clock by each adjustment of said weight, the time strip or band I having, if desired, two or more successive series of twelve-hour indications upon it.

As it is only necessary to give motion to and control the movement of the strip or band I, the operating gear and escapement mechanism of the clock may, as shown and described, be composed of a greatly-reduced number of parts, and the time-piece combines economy with efficiency.

I claim—

1. The combination, in a clock, of a traveling strip or band having the periods of time to be indicated inscribed or otherwise delineated upon it, a fixed index, a weight or actuating power applied to said band operating to keep the latter in motion, and mechanism for controlling and regulating the movement of said band or strip, substantially as specified.
2. The combination, in a pendulum clock or time-piece, of a traveling time strip or band,

a weight applied to said strip or band for actuating it, a fixed index, a drum or roller supporting said band and moving with the latter, and an escapement mechanism for controlling the motion of said roller, essentially as described.

3. The combination, with the time strip or band I, of the stationary index M, the actuating-weight K, the speed-controlling roller H, the clamping-roller J, and an escapement mechanism applied to control the movement of the roller H, substantially as specified.

4. The combination, with the traveling time

strip or band I, of the adjustable weight K, provided with a clamp or means for adjusting it to different positions on said strip or band, essentially as described.

5. The combination, with the traveling time strip or band I and its speed-controlling roller H, of the pendulum C, the escapement B, the escapement-wheel D, the pinion E, and the wheel G, substantially as specified.

JOHN TREAT.

Witnesses:

FREDCK. HAYNES,
E. P. JESSUP.