

T. SHAW.
STROKE REGISTER ATTACHMENT.

No. 46,309.

Patented Feb. 7, 1865.

Fig. 1.

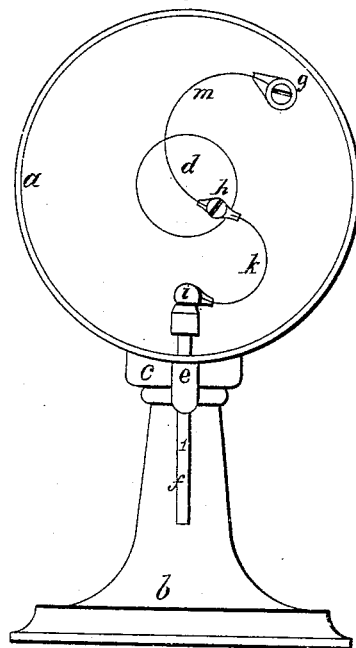
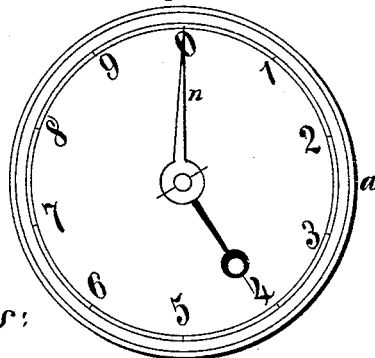


Fig. 2.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HIMSELF AND PHILIP S. JUSTICE.

IMPROVEMENT IN MODE OF COMPENSATION FOR LOSS OF MOTION.

Specification forming part of Letters Patent No. 46,309, dated February 7, 1865.

To all whom it may concern:

Be it known that I, THOMAS SHAW, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and improved mode of compensating for loss of motion when operating engine-counters or other apparatuses requiring a regular measured stroke; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in the employment and adaptation of a spring to receive surplus motion, in the manner and for the purpose as hereinafter described.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 represents the back view of the apparatus as applied to an engine counter; Fig. 2, the front or dial part of same.

a is a metallic case surrounding an ordinary recording-movement, *n*. On the bottom of said case *a* is a brass boss, *c*, into which is screwed brass pillar *b*, for supporting the same. *d* is a crank-wheel secured on the end of the shaft that propels hand *n*. *h* is a screw which serves as a crank-pin. *g* is a jointed bearing for spring *m*. *f* is a small rod sliding through a bearing, *e*. Spring *k* is jointed to crank-pin *h* and to the top of rod *f* at *i*, all for the purpose as hereinafter described.

The object of spring *m* is to pull and push crank-wheel *d* off the dead-centers when said wheel *d* is operated by the reciprocation of rod *f*.

It will be observed that where an apparatus of this kind is operated by a rod of considerable length, or where there are a number of joints intervening the expansion and contraction of the rod by heat and cold and any loss of motion in the joints will seriously affect the operation of the movement, and often cause it to cease operating. It is for this object that spring *k* is provided, as motion can be given to rod *f* greater than is necessary for the operation of crank-wheel *d*, the surplus of motion being received by spring *k*, which arrangement will allow considerable loss of motion in rod *f* without affecting the movement.

What I claim, and desire to secure by Letters Patent, is—

The combination of springs *k* and *m*, crank-wheel *d*, and rod *f*, when connected with the recording-movement *n*, in order to operate engine-counters requiring a regular measured stroke, in the manner and for the purpose herein described.

THOMAS SHAW. [L. s.]

Witnesses:

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