BOARDMAN & WELLS.

Clock.

No. 4,914. Patented Jan. 1, 1847.

Fig. 2.

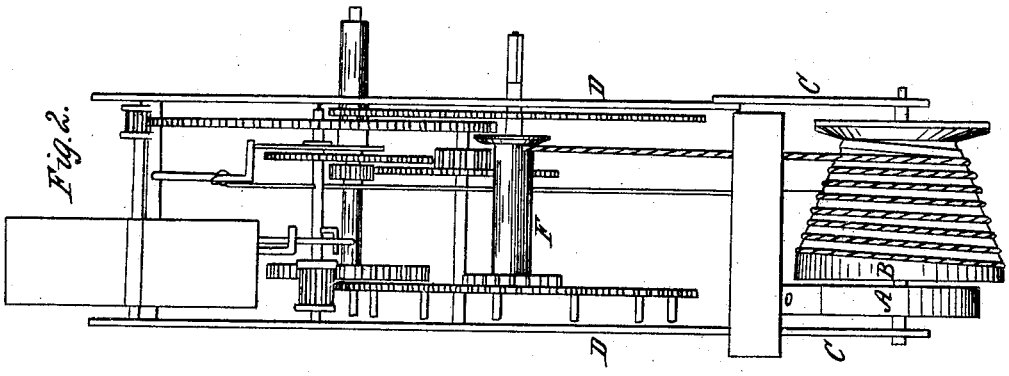
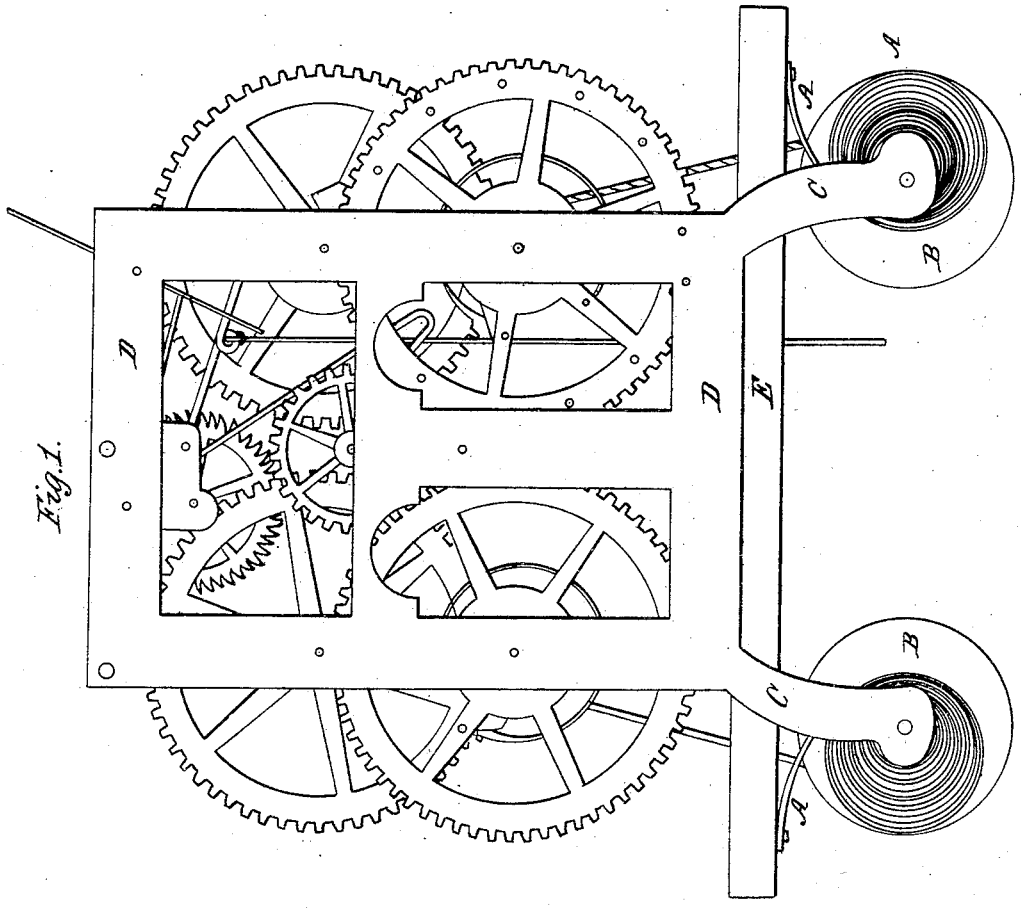


Fig. 1.



UNITED STATES PATENT OFFICE.

C. BOARDMAN AND JOS. A. WELLS, OF BRISTOL, CONNECTICUT.

CLOCK.

Specification of Letters Patent No. 4,914, dated January 1, 1847.

To all whom it may concern:

Be it known that we, CHAUNCEY BOARDMAN and JOSEPH A. WELLS, of Bristol, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Clocks and Timepieces; and we do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature of our invention consists in the placing the driving spring upon the same shaft with the fusee, connecting the shaft of the combined fusee and spring to the frame of the clock movements, and attaching one end of the spring to the frame of the clock movement as herein set forth.

In the accompanying drawings Figure 1 is a side elevation of the movement and frame of a clock, and Fig. 2, is an edge view of the same.

The same letters refer to corresponding parts in both figures.

B, is a conical pulley or fusee, constructed of wood or other cheap material—a shaft passes through its center, the journals or pivots on the ends of which are secured in and work in bearings in the arms C, C, extending from, and forming a part of the frame D, of the clock movement.

A, is the driving spring inclosing one end of the shaft of the fusee—the inner end of the spring being made fast to the same, and its outer end secured to the seat board E, or some other convenient part of the movement frame. The diminishing pulley or fusee has a spiral groove cut in its periphery in the usual manner: its position is such as to receive a cord from the barrel F, (of the movement) into said groove in a direct line, so as to obviate friction or wear of cord. The arms C, C, which sustain the shaft of the combined spring and fusee may project from the side or top of the movement frame D, as may be found most convenient.

The following are some of the advantages of our arrangement of the spring and fusee on the same shaft, and the combination of the same with the frame of the clock movement. First, its simplicity—rendering the clock less liable to get out of repair. Second. It graduates and equalizes the power of the spring at all times upon the moving parts of the clock—thereby rendering the moving parts more durable, and capable of being regulated to keep perfect time through one day or eight days. Third. Our improvement enables us to construct a complete spring clock; all parts combined, all performing their respective offices; all the power being within itself, there is no straining of one part to the injury of another. It enables us also to put a clock or time piece into a small compass to be hung up in a hall or public building, without a case. Our improved clocks can also be transported without risk of mislaying or loosening parts of the movements. In point of economy and durability also, we think our improved clocks surpass everything heretofore constructed, as they can be made cheaper, in consequence of the combination of the spring and fusee upon the same shaft saving a wheel and pinion—thereby obviating friction, and at the same time equalizing the power at all times upon the barrel and moving parts and consequently rendering them more durable.

What we claim as our invention and desire to secure by Letters Patent, is—

The placing of the driving spring and fusee on the same shaft, connecting the same to the movement frame of the clock, and the combination of the same with the barrel F, and movement of the clock, substantially in the manner and for the purpose herein set forth.

CHAUNCEY BOARDMAN.
JOSEPH A. WELLS.

Witnesses:
TRACY PECK,
JOSIAH T. PECK.