F. KESSELMEIER.

Clock Pendulum.

No. 3,531. Patented April 10, 1844.

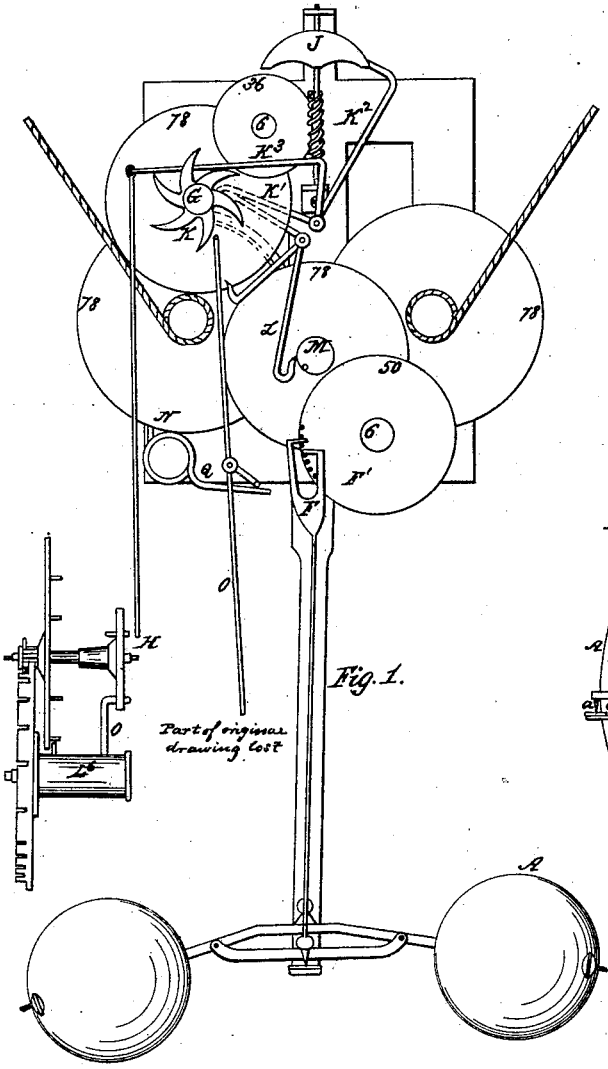
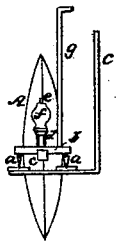


Fig. 1.

Fig. 3.



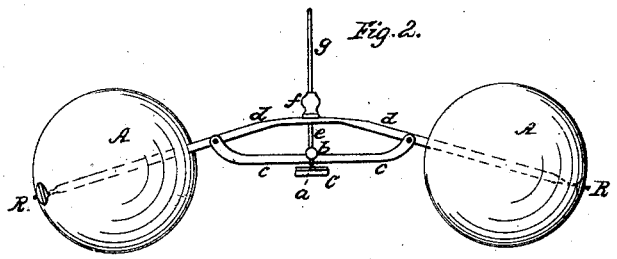


Fig. 2.

UNITED STATES PATENT OFFICE.

FREDK. KESSELMEIER, OF WOOSTER, OHIO.

CLOCK-PENDULUM.

Specification of Letters Patent No. 3,531, dated April 10, 1844.

To all whom it may concern:

Be it known that I, FREDERICK KESSELMEIER, of Wooster, in the county of Wayne and State of Ohio, have invented a new and useful Improvement in Clocks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification, in which—

Figure 1 is a front view of the clock. Fig. 2, is a side elevation of the balance or pendulum or arbor. Fig. 3, side elevation of striking part.

The nature of my invention consists in combining with a clock of common construction a balance pendulum or regulator and an improvement on the striking part.

In this construction any scapement may be used, but I prefer that known as the dead beat scapement in any of its modifications, one of which is shown in the drawing, F, being the verge, and F′, scape wheel. From the verge, a rod extends down and is forked on the end as shown at F^2.

From the frame of the clock, a bar C, extends downward its lower end being bent as shown in Fig. 3 at right angles and in a horizontal position; on this, two points (*a*) rest—on which a shaft (*b*) to which they are attached oscillates; from said shaft arms (*c*) project at right angles thereto which turn upward at their ends where they are each connected with a bar (*d*) that extends from a point over the center, out beyond the point that connects them with the arms (*c*) far enough to receive balls or weights at a proper distance from the center of oscillation; these weights are made adjustable by means of screws (R,) on the ends of the bars, (*d*), in a similar manner to common pendulum balls, by which the pendulum is balanced.

From the center of the shaft (*b*) a screw (*e*) extends up and receives a nut (*f*) on it against the under side of which the inner ends of the bars (*d*) rest; by raising or lowering this nut the inclination of the bars (*d*) are changed to make the clock go fast or slow; there is also a wire (*z*) inserted vertically into the shaft (*b*) the upper end of which has a turn at right angles backward, this catches into the notch of the rod F^2 (see Fig. 1) and moves the verge and receives its impulse before leaving the notch which it does before completing its vibration on its return the same operation is performed in the opposite direction thus keeping the balls vibrating.

The striking part has a cam wheel H, substituted for the ordinary pin wheel for lifting the hammer; this wheel is made with six cams or cogs more or less on it which bear against the tail of the hammer O, and forces it back; the hammer which hangs in a horizontal position, is started when the tail of it is nearest the center of the wheel, therefore it can be moved easier and a smaller weight is required to drive the striking parts—the other parts connected with this movement are like those in ordinary use.

The letter (*y*, Fig. 1,) designates the fly for regulating the motion, K′, K^2, are locks of ordinary construction. K^3, the lift for regulating the striking and L, the lift by which the clock is made to strike.

By this construction a pendulum may be made to beat as slow as one of the greatest length.

What I claim as my invention and desire to secure by Letters Patent is—

1. The balance pendulum or regulator, constructed in the manner substantially as herein specified.

2. I also claim the cam wheel H, for moving the hammer, combined with the striking parts of the clock.

FREDERICK KESSELMEIER.

Witnesses:
J. J. GRENOUGH,
LAFAYETTE CALDWELL.