L. P. BERGSTROM.

Winding Alarm for Clocks.

No. 198,268. Patented Dec. 18, 1877.

Fig. 1.

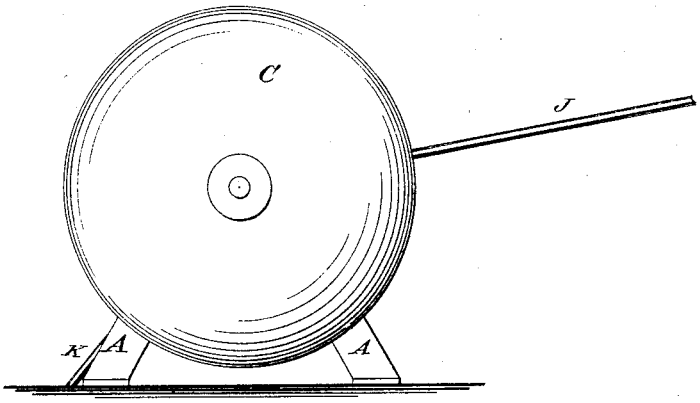


Fig. 2.

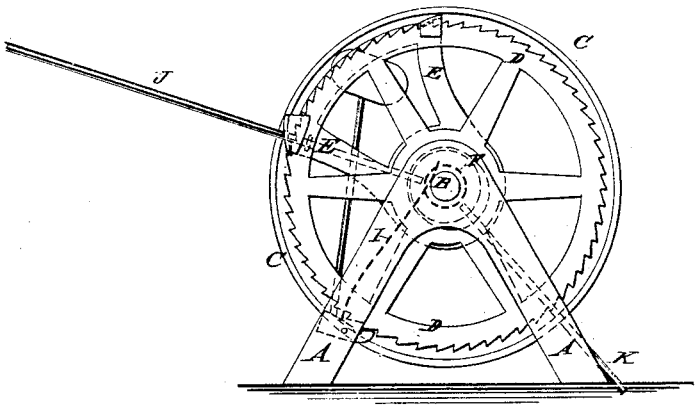
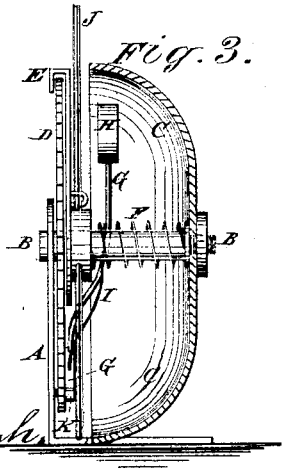


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LARS P. BERGSTROM, OF ROCK ISLAND, ILLINOIS.

IMPROVEMENT IN WINDING-ALARMS FOR CLOCKS.

Specification forming part of Letters Patent No. **198,268**, dated December 18, 1877; application filed October 27, 1877.

To all whom it may concern:

Be it known that I, LARS P. BERGSTROM, of the city and county of Rock Island, and State of Illinois, have invented a new and useful Improvement in Winding-Alarm for Clocks, of which the following is a specification:

Figure 1 is a front view of my improved device. Fig. 2 is a rear view of the same. Fig. 3 is a vertical section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved device for attachment to eight-day and thirty-day clocks run by weights, to cause them to give an alarm when about to run down, so that they may be again wound up, and thus prevented from stopping.

The invention consists in the combination of the bracket, the shaft, the gong, the ratchet-wheel, the pawl or pawls, the spiral spring, the hammer and spring, the lever, and the stop with each other, to adapt the device to be operated by a descending clock-weight, as hereinafter fully described.

A is a small bracket or frame, attached to the bottom of a clock-case or other suitable support near the lowest point of descent of the weight. To the bracket A is attached a short horizontal shaft, B, to the end of which is attached a gong, C. Upon the shaft B, at a little distance from the mouth of the gong C, is placed a ratchet-wheel, D, with the teeth of which engage one or two pawls, E, which ride upon the shaft B, and are held back by a spiral spring, F, one end of which is attached to the hub of the said pawls E, and its other end is attached to the said shaft B. G is a bent lever, which is pivoted, at or near its bend, to the frame or bracket A in such a position that the end of its short arm may rest upon the teeth of the ratchet-wheel D, and to the end of its long arm is attached the hammer-head H, so that the movement of the said ratchet-wheel may agitate the hammer G H and sound an alarm.

The hammer G H is thrown against the gong C, when released from each tooth of the ratchet-wheel D, by a spring, I, attached to the hammer handle or lever G, and which rests against the shaft B.

With the pawl or pawls E is rigidly connected a lever, J, which projects into such a position that the descending clock-weight may strike upon it and press it downward, turning the ratchet-wheel D and sounding an alarm as each ratchet-tooth passes the end of the hammer-lever, until the clock has run down, or is again wound up.

To the pawls E is attached a lever, K, which strikes against the bottom of the clock-case or the frame A, to prevent the lever J from being raised so high by the spring F that the clock-weight will not strike it.

By this construction an alarm will be given during the last thirty-six hours of the weight's descent, at a few hours interval, to insure the notice of at least one alarm before the clock fully runs down and stops.

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

The combination of the bracket A, the shaft B, the gong C, the ratchet-wheel D, the pawl or pawls E, the spiral spring F, the hammer and spring G H I, the lever J, and the stop K with each other, to adapt the device to be operated by a descending clock-weight, substantially as herein shown and described.

LARS PETER BERGSTROM.

Witnesses:
C. W. LAVINE,
OLIVER JOHNSON.