

No. 663,263.

Patented Dec. 4, 1900.

A. ELENIUS.
WINDING INDICATOR FOR TIMEPIECES.

(Application filed Dec. 23, 1899.)

(No Model.)

Fig 1

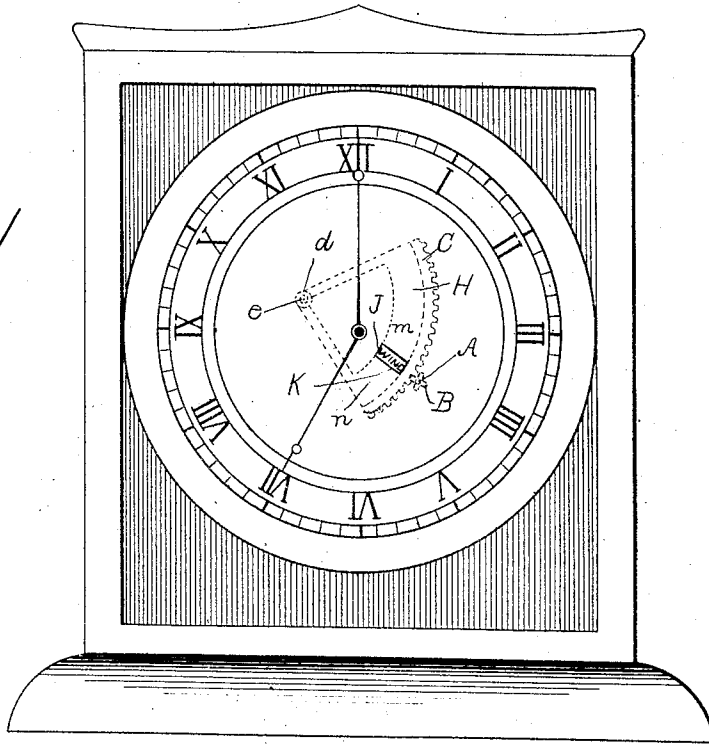
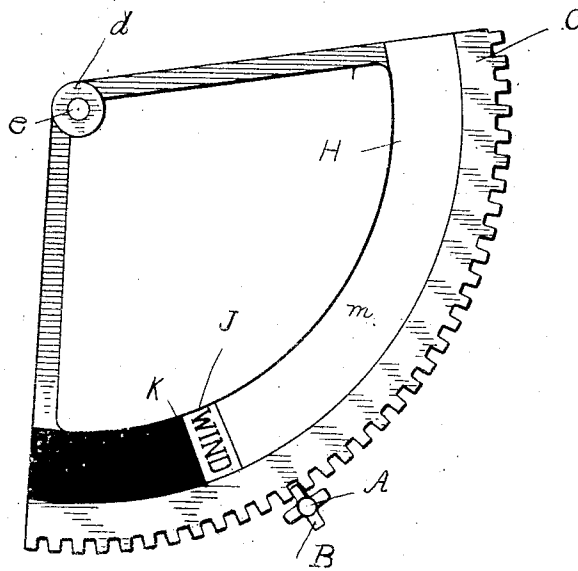


Fig 2



WITNESSES:

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WINDING-INDICATOR FOR TIMEPIECES.

SPECIFICATION forming part of Letters Patent No. 663,263, dated December 4, 1900.

Application filed December 23, 1899. Serial No. 741,431. (No model.)

To all whom it may concern:

Be it known that I, AUGUST ELENIUS, a subject of the Czar of Russia, (but having made oath of my intention to become a citizen of the United States,) and a resident of Calumet, in the county of Houghton and State of Michigan, have invented certain new and useful Improvements in Devices for Indicating when Clocks Should be Rewound; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front elevation of a clock having the invention applied thereto. Fig. 2 is a detail view of my device.

This invention has relation to means for indicating when a clock is nearly run down and should be wound; and it consists in the novel construction and combination of devices, as hereinafter set forth.

In the accompanying drawings the letter A designates the axis of the mainspring, and B an attachment thereto, consisting of a small pinion, which is located near the inner surface of the face-plate F of the clock.

C represents a large sector-gear, which is provided with a central bearing *d*, which engages a journal *e*, which may be secured to the face-plate of the clock. This gear-wheel is in the same plane with the pinion B and is engaged thereby. The sector-gear C carries a winding-sign, usually an arc-plate H, which is designed to register with a sight-aperture K made in the face-plate. This arc-plate is for the most part colored in accordance with the color of the clock-face, generally white, as indicated at *m*; but at the part marked J it is provided with the words "Wind me" or "Wind" or some like sign to call attention to the need of winding. For a short distance in rear of this wording or sign the arc-plate is colored black, as indicated at *n*, to indicate that the need of winding continues.

While the clock is running, the part *m* shows through the sight-aperture until in ordinary clocks the running has continued for twenty-four hours, when the signal to wind appears

at the opening. Then the clock should be wound, this action reversing the movements of the pinion and sector-gear and turning the arc-plate back, so that the part *m* again shows. If, however, the clock is neglected, the sector-gear continues to move and the black part of the arc-plate comes into view, showing that the clock still needs winding.

By properly-combined gearing the principle can be adapted to eight-day clocks as well as to others having even a longer period of running before winding is necessary.

In some cases an entire cog-wheel may be used to carry the arc-plate; but a sector-gear is preferred, as indicated, provided the number of teeth thereon is properly proportioned to the number of teeth of the small pinion on the axis of the mainspring, so that the arc-plate will show continuously at the sight-aperture in the face-plate.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In clock mechanism, the combination with the dial-plate having a sight-opening, and a pinion on the axis of a shaft in driving engagement with the clock-train, of a pivoted sector-gear driven by said pinion, and having an arcuate band registering with said sight-opening of the dial-plate, and divided into two arcuate portions, one preceding and of a contrasting color to the other, substantially as specified.

2. In clock mechanism, the combination with the dial-plate having a sight-opening, and a pinion on the axis of a shaft in driving engagement with the clock-train, of a pivoted sector-gear directly engaged and continuously driven by said pinion, and having an arcuate band registering with said sight-opening of the dial-plate, and divided into a long arcuate white-colored portion, and a short arcuate black-colored portion, the word "Wind" being marked between such white and black portions, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST ELENIUS.

Witnesses:

M. U. KOSTAMO,
FRED BIRCH.