

No. 756,446.

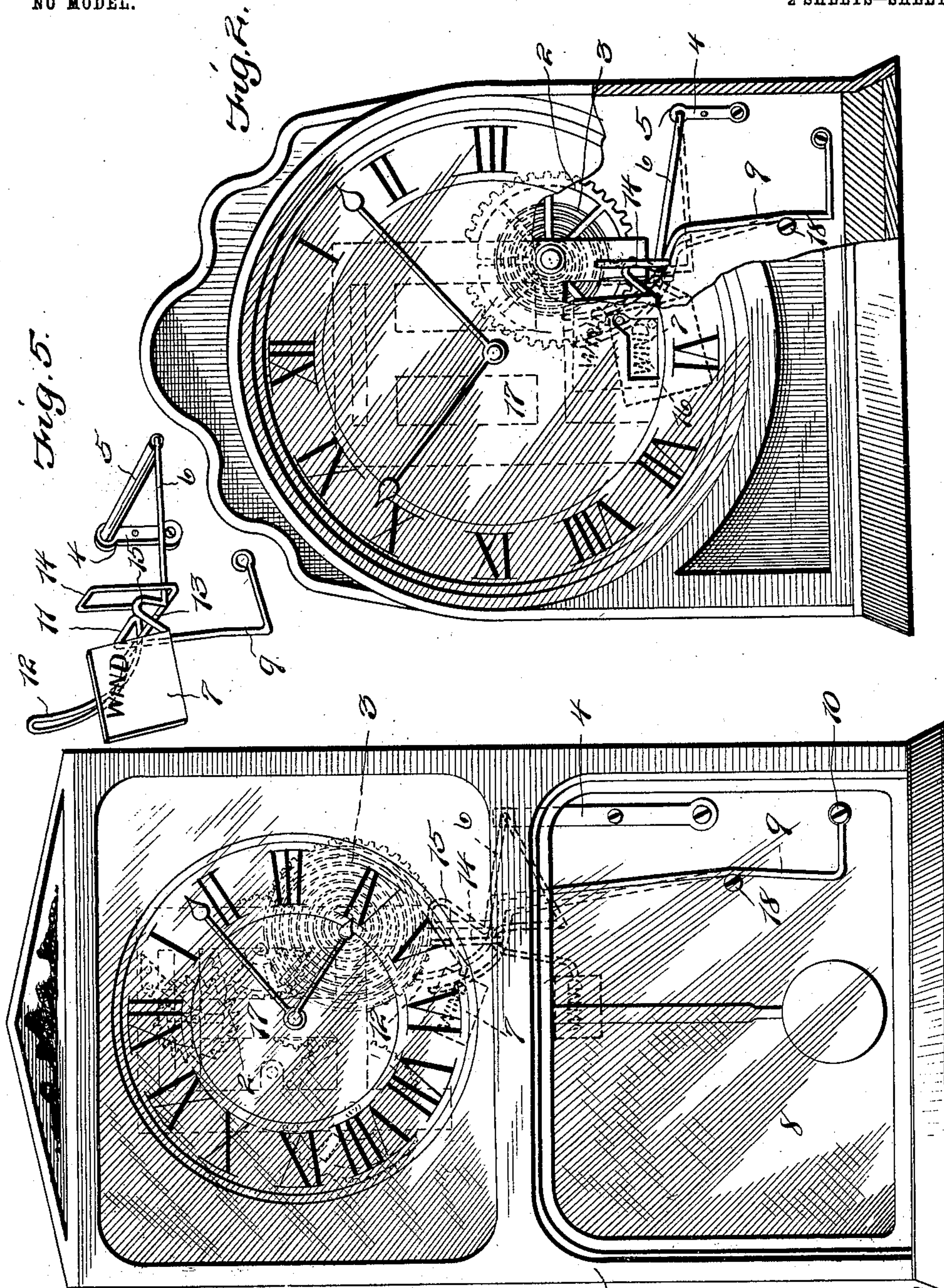
PATENTED APR. 5, 1904.

H. WILL.
WINDING INDICATOR FOR CLOCKS.

APPLICATION FILED JAN. 5, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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Fig. 1.

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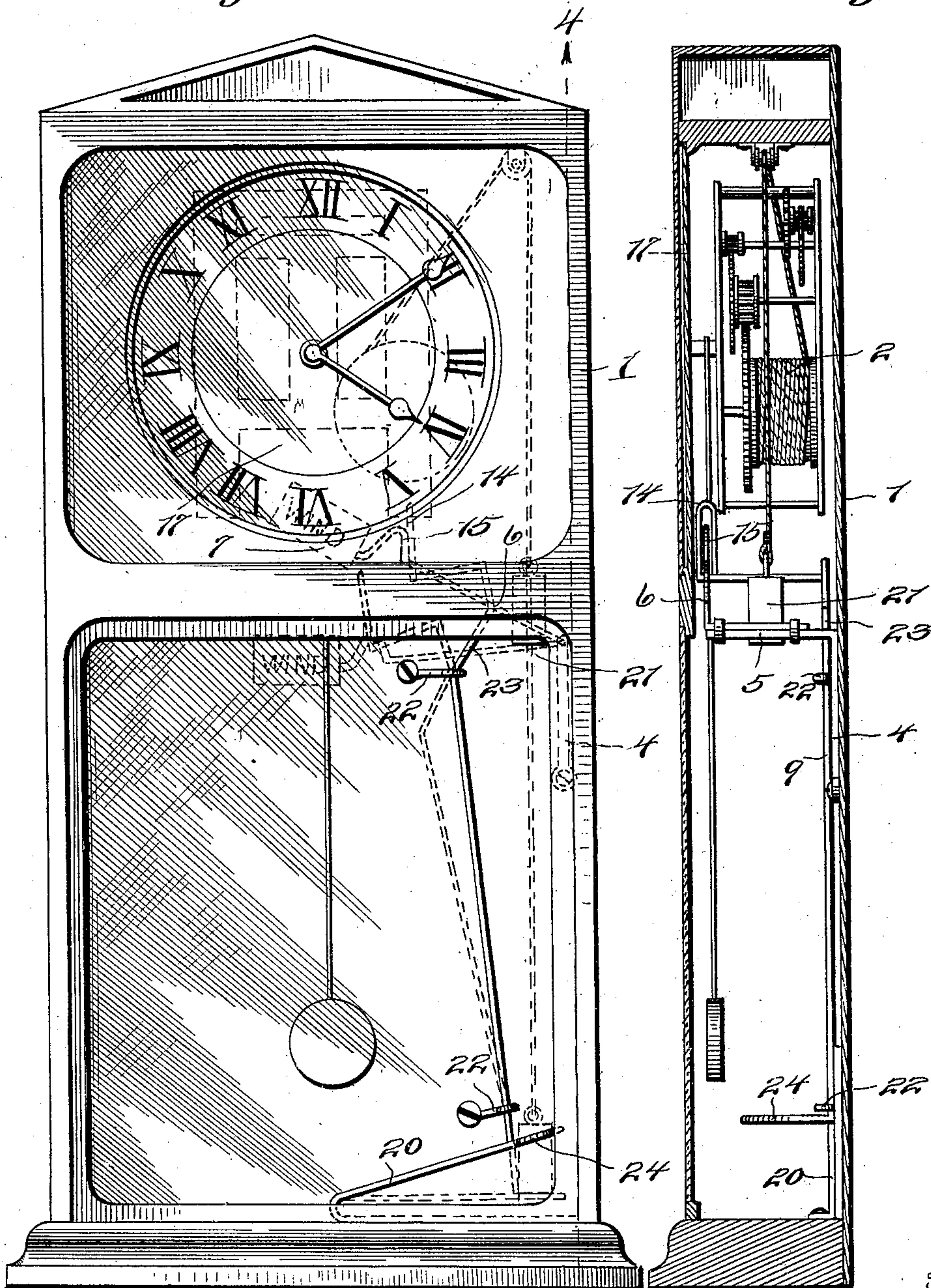
APPLICATION FILED JAN. 5, 1904.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 3.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

HUGH WILL, OF AVA, ILLINOIS.

WINDING-INDICATOR FOR CLOCKS.

SPECIFICATION forming part of Letters Patent No. 756,446, dated April 5, 1904.

Application filed January 5, 1904. Serial No. 187,829. (No model.)

To all whom it may concern:

Be it known that I, HUGH WILL, a citizen of the United States, residing at Ava, in the county of Jackson and State of Illinois, have
5 invented certain new and useful Improvements in Winding-Indicators for Clocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to
10 which it appertains to make and use the same.

My invention relates to certain new and useful improvements in automatic indicators, and adapted to be used more especially in connection with clocks; and my object is to provide
15 a cheap, durable, and inexpensive device that will automatically indicate when the clock needs to be rewound.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 is a plan view of a spring-operated clock having a long pendulum-hanger and
25 showing my device applied thereto. Fig. 2 is a similar view showing a mantel-clock or one having a short pendulum-hanger with the indicator attached thereto. Fig. 3 is a view similar to Fig. 1, but showing a weight-operated mechanism instead of a spring. Fig. 4
30 is a sectional view thereof as seen from the dotted line 4 4 in Fig. 3, and Fig. 5 is a detail perspective view of the indicator mechanism shown in Figs. 1 and 2.

Referring to the drawings, in which similar reference-numerals designate corresponding parts throughout the several views, 1 designates a clock frame or housing, which may be of the usual or any preferred form. In-
40 closed within the housing 1 is the usual class of clock mechanism 2 wherein a spring 3 is employed as motive power. Secured at a convenient point upon the rear wall of the housing 1 is a bracket 4, said bracket having a tubular arm 5 extending at right angles to the
45 body portion of the bracket proper.

The object in having the arm 5 hollow or tubular is to receive the free end of the signal-arm 6, said free end being bent at right
50 angles to the main portion of the arm and

adapted to take into the orifice in said arm 5, thus pivotally securing said signal to said bracket.

At the outer end of the arm 6 I secure the signal proper, 7, and in the clock construction shown in Fig. 1 said signal is designed to drop below the dial of the clock, so that it may be seen through the glass 8 in the lower section of the housing. Thus it will be seen that when the clock needs winding or is nearly
60 run down the signal 7 will be brought to view in a manner hereinafter set forth.

Secured to the rear wall of the housing 1 is a trip-lever 9, said lever having its lower end bent at right angles to the main upright portion and is provided with an eyelet, through which takes a screw 10 and by which means said lever is secured in the housing. The lever is again bent at right angles to itself near its upper end, as indicated at 11. The
70 arm is then curved upwardly and then downwardly to form the curved terminal 12, said lever being again bent at right angles, as shown at 13, the outer free end thereof being bent to form the oblong loop or retainer 14. 75

The arm 6 passes through the loop 14 and is bent up at or near where it passes through said loop to form the inverted-U-shaped portion 15, said U-shaped portion being designed to cooperate with the loop 14 to bring the signal
80 into view.

In Fig. 2 of the drawings the signal is shown in connection with a short pendulum or mantel clock, and instead of the signal being exhibited through the glass in the lower part of
85 the frame an opening 16 is provided in the dial, through which the signal is exhibited. In operation the spring 3 is wound up sufficiently and the signal 7 and arm 6 elevated until the lower edge of the loop 14 is freed from
90 the U-shaped portion 15, when said loop passes inwardly until the curved terminal comes in contact with the spring 3 and the loop 14 rests beneath the arm 6, as shown more clearly in Fig. 2. The trip-lever 9 is given a spring
95 tension by placing a stop 18 at one side of said lever and near the lower end thereof, by which means the terminal 12 will be caused to bear against the spring 3 at all times. As the spring 3 unwinds and expands the trip-lever 9 100

is moved laterally, or in this instance to the left, and when the spring has nearly reached its greatest expansion the loop 14 will have reached the inverted-U-shaped portion of the arm 6 and permitted the signal 7 to drop down into view, thus signifying that the clock is almost run down and that it is time to rewind the same.

In Figs. 3 and 4 of the drawings I have shown my improved indicator applied to use in connection with a clock whereby the motive power is supplied by means of a weight, and in this connection the trip-lever 9 is of a slightly different construction from that used in connection with a spring-actuated clock in that the lower end of said lever is so bent as to form a spring member or treadle 20, so located that the weight 21 in its descent comes in contact therewith for a purpose hereinafter stated. The lever 9 is slidably secured to the rear wall of the housing 1 by means of suitable bearings 22, one of which is near the upper and one near the lower end thereof. Immediately above the upper bearing 22 the lever 9 is bent to an oblique angle, as at 23, the extreme upper end thereof being formed into the loop 14 the same as in the previous construction, the signal 7 and its accessory parts being the same as that shown in the previous views. In operation when the weight descends and comes in contact with the upper arm 24 of the treadle 20 and presses it downwardly, and as the lever 9 is formed contiguous with said treadle it is also moved downwardly, causing the oblique portion 23 thereof to cooperate with the upper bearing 22 and move that part of the lever 9, carrying the loop 14, to the left until it encounters the inverted-U-shaped portion 15, when the signal 7 drops into view, as previously stated. As soon as the clock has been rewound the signal 7 may be raised until the loop 14 is freed from the U-shaped portion 15, when the spring tension of the treadle will raise the lever 9 to its normally upward position, bringing the loop 14 to the right of the

U-shaped portion 15, and thus hold the signal 7 out of view until the weight again depresses the treadle 20.

It will now be seen that I have provided a device that will automatically designate when the clock needs rewinding, and as practically all the parts may be constructed of wire it enables me to construct the same very cheaply and at the same time produce a strong and durable device that may be attached to any make of clock.

While I have described the preferred combination and construction of parts deemed necessary in materializing my invention, I wish to comprehend all substantial equivalents and substitutes which may be considered as falling fairly within the scope of my invention.

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

1. In an indicator, the combination with a clock mechanism and a housing therefor, of an indicator, an arm adapted to support said indicator, said arm being bent up to form the inverted-U-shaped member 15, a bracket having a tubular shaft adapted to receive one end of said arm, a trip-lever having a loop at its upper end and means to move said trip-lever and release the signal, as and for the purpose set forth.

2. As an article of manufacture, the herein-described signaling apparatus, comprising a signal proper 7, an arm having a bent-up portion 15, a bracket to support said arm, a trip-lever having a loop at its upper end adapted to receive said arm and also having a contact-point whereby when pressure is brought to bear upon said point said lever will be operated to release said signal, substantially as and for the purpose set forth.

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

HUGH WILL.

Witnesses:

P. S. WAGNER,
WALTER QUALLS.