M. HAYNES.

CLOCK ATTACHMENT.

APPLICATION FILED AUG. 18, 1908.

910,378. Patented Jan. 19, 1909.

Fig. 1.

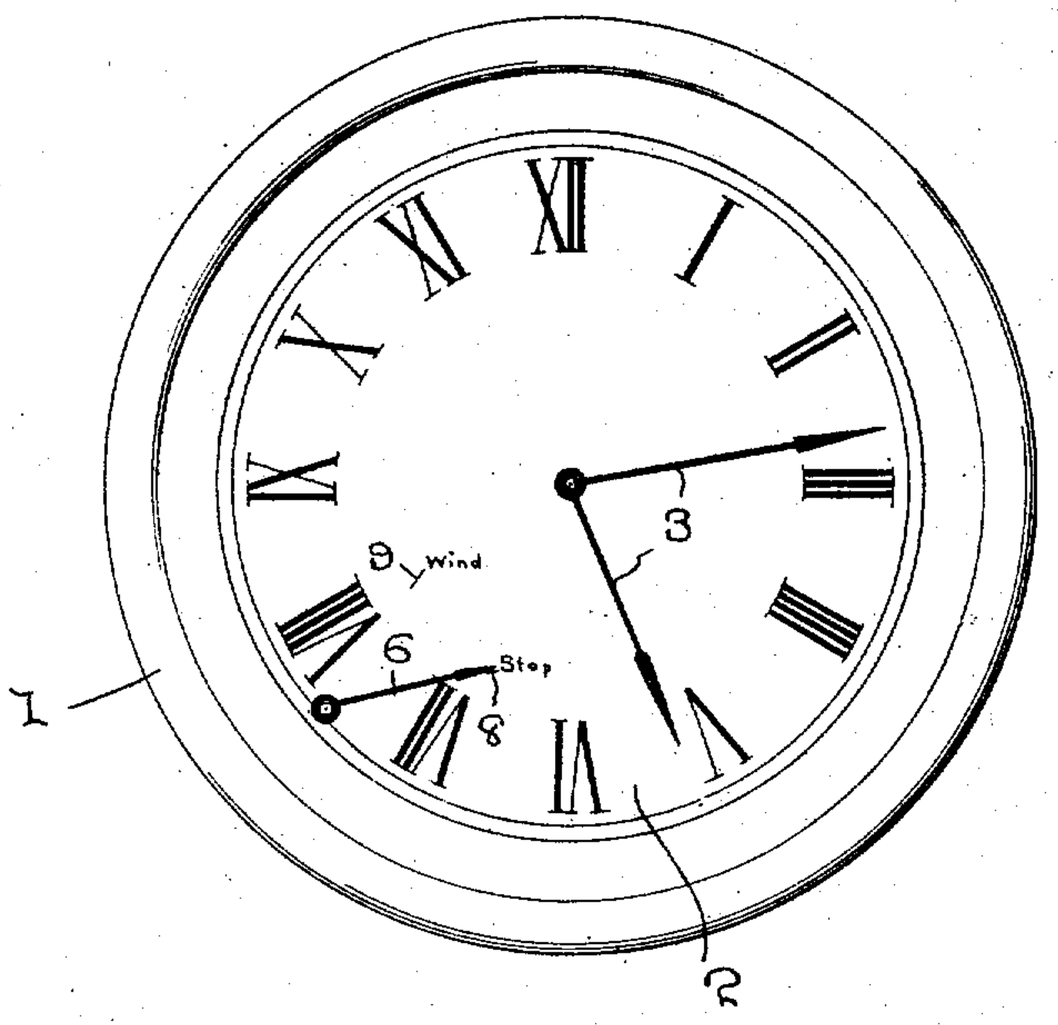


Fig. 2.

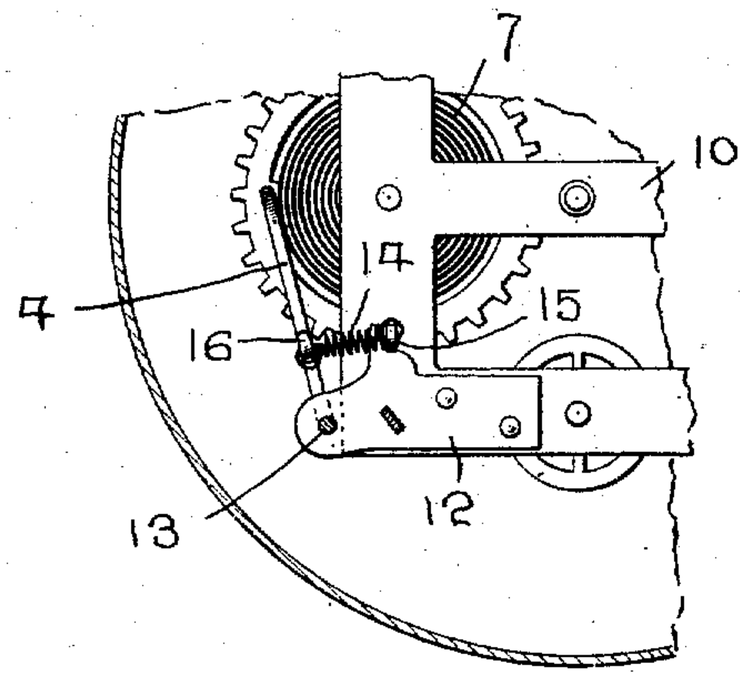
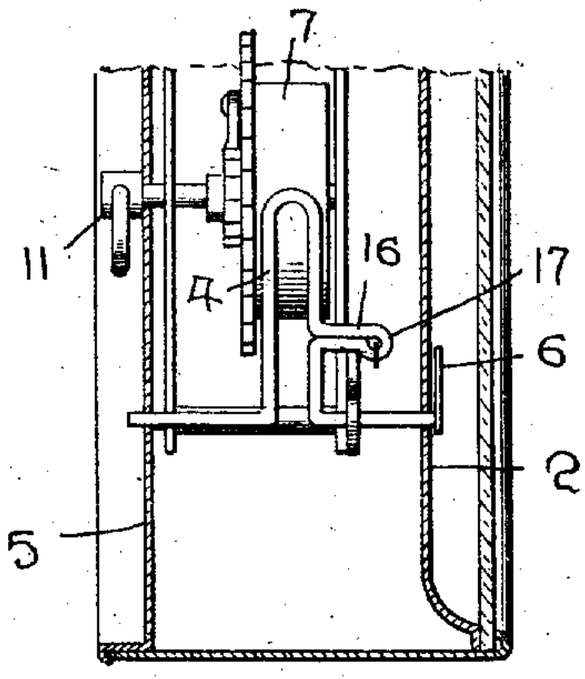


Fig. 3.



WITNESSES:

Thos. W. Riley

M. A. Newcomb

INVENTOR

M. Haynes

BY

W. J. Fitzgerald & Co

Attorneys

UNITED STATES PATENT OFFICE.

MARVIN HAYNES, OF NUTTERVILLE, WEST VIRGINIA.

CLOCK ATTACHMENT.

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Application filed August 18, 1908. Serial No. 449,096.

To all whom it may concern:

Be it known that I, MARVIN HAYNES, a citizen of the United States, residing at Nutterville, in the county of Greenbrier and State of West Virginia, have invented certain new and useful Improvements in Clock Attachments; 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 which it appertains to make and use the same.

My invention relates to new and useful improvements in clock attachments and my object is to provide means to coöperate with the operating spring of the clock to indicate when the clock should be re-wound.

A further object is to provide a device of this class which may be applied to any clock employing a spring for operating the same.

A further object is to provide means for holding parts of the device in engagement with the spring under tension.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is an elevation of a clock showing the indicating hand of my improved clock attachment disposed in position over the face thereof. Fig. 2 is a transverse sectional view through the clock case showing my improved device applied to use in connection with the spring of the clock, and, Fig. 3 is a vertical sectional view through the clock case showing the works of the clock and my improved device in elevation.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the case of the clock, which may be constructed in any preferred manner and 2 indicates the dial thereof, which dial is provided with the usual form of characters for indicating the hours and minutes, with which are adapted to coöperate the usual form of hands 3.

My invention is more particularly adaptable in connection with a clock employing a spring for operating the same and in order to indicate when the clock should be wound and likewise when the spring has been sufficiently re-wound, I provide a lever 4, the central portion of which is substantially U-shaped and the ends thereof extended at right angles to the axial plane of the U-shaped member, one of the ends being extended through the rear wall 5 of the clock case, while the opposite end thereof is extended through the dial 2 and has secured thereto an indicator hand 6, which hand is adapted to move back and forth over the face of the dial as the spring of the clock is wound or unwound and in order to indicate the condition of the spring 7 employed for operating the clock works, I provide registering points 8 and 9 on the face of the dial, the point 8 being employed for indicating when the spring 7 is fully re-wound, while the point 9 is to indicate when the spring is unwound and by placing the hand 6 in position to coöperate with the points 8 and 9, a casual glance at the face of the clock will indicate when the clock should be wound.

The spring 7 and parts coöperating therewith are secured in the usual or any preferred form of frame 10 and is provided with a winding key 11, whereby the spring may be readily rewound when desired and by placing the U-shaped portion of the lever 4 in position to engage the face of the spring 7, it will be readily seen that as the spring is unwound and expands, the lever 4 will be swung outwardly and the indicator hand 6 moved from the point 8 to the point 9, the position of the hand between the two points indicating the wound condition of the spring.

In applying my improved device to the forms of clocks already in use, a bearing plate 12 is fixed to one portion of the frame 10 and extends beyond the edge thereof, that portion of the plate extending beyond the frame being provided with an opening 13, through which the end section carrying the indicator hand 6, extends, the object in providing the bearing at this point being to reinforce the U-shaped portion of the lever 4.

When the indicating attachment is secured to clocks in course of construction, instead of making the bearing plate 12 a separate attachment and extending one end of the lever through the rear wall 5, the frame 10 is provided with integral ears through which the ends of the lever 4 extend and find bearings therein.

The U-shaped portion of the lever 4 is yieldingly held in engagement with the face of the spring 7 by means of a spiral spring 14, one end of the spring 14 being secured to a

post 15 on the plate 12, while the opposite end thereof is secured to an extension 16 on one portion of the U-shaped section of the lever 4, said extension being formed by bending outwardly a section of one arm of the U-shaped member and bringing the two portions of the bent-out portion together, the closed end of the extension 16 being formed into an eye 17 with which engages one end of the spring 14 and it will be readily seen that as the spring 7 expands, the spring 14 will permit the lever 4 to move outwardly and likewise when the spring 7 is re-wound, the spring 14 will move the lever 4 inwardly and maintain the same in engagement with the face of the spring 7, this operation causing the hand 6 to move back and forth over the dial.

As clearly shown in Fig. 3 of the drawings, the several parts of the lever 4 are made from one piece of material, thereby enabling me to very cheaply construct the device and by forming the body of the lever substantially U-shaped as shown, the paralleling portions thereof may be pressed together so that the ends of the lever may be readily introduced into their bearings, the spring tension of the U-shaped member being sufficient to hold the ends seated in their bearings. It will further be seen that by providing one of the paralleling portions of the U-shaped member of greater length than the other, the extension 16 may be readily formed, the length of the extension being such as to make both paralleling portions of the U-shaped member of the same length when the extension is properly constructed. It will likewise be seen that my invention may be attached to any form of clock using a spring for operating the same and that said device may be attached to the clock in the manner shown or by providing suitable bearings on the frame of the clock at the time it is constructed.

What I claim is:

1. An attachment for clocks comprising the combination with a frame, a spring carried by the frame and a dial; of a lever having a U-shaped section, an extension on said lever, means to pivotally mount said lever to the frame, means to engage said extension and normally hold the U-shaped portion of the lever in engagement with the spring and an indicator hand controlled by said lever.

2. A clock attachment comprising the combination with a frame, a driving spring carried by said frame and a dial having registering points thereon; of a lever having a U-shaped portion adapted to engage said spring, bearings for the ends of said lever, an extension on the lever, said lever and extension being formed from one piece of material, an indicator hand on one end of said extension adapted to move over one end of the dial and register with the points thereon and means to yieldingly hold the U-shaped portion of the lever in engagement with the driving spring.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARVIN HAYNES.

Witnesses:
J. W. Deitz,
K. W. Haynes.