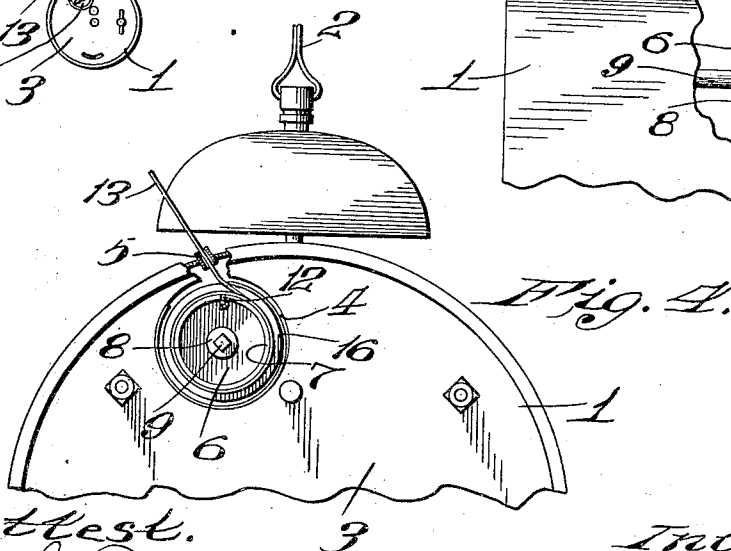
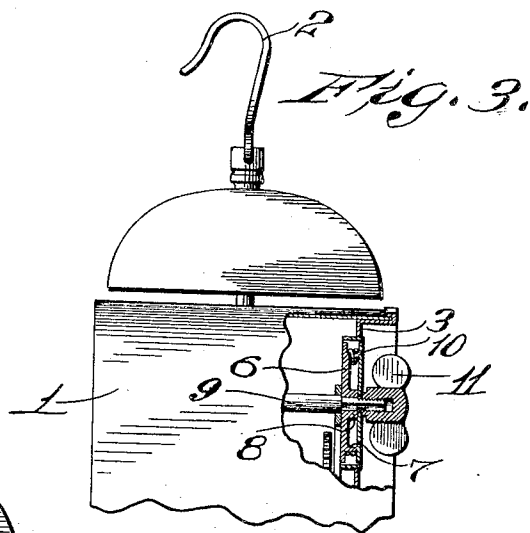
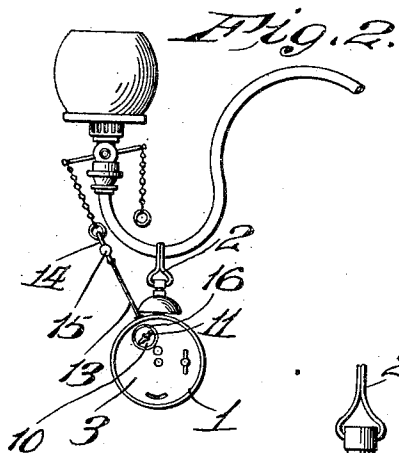
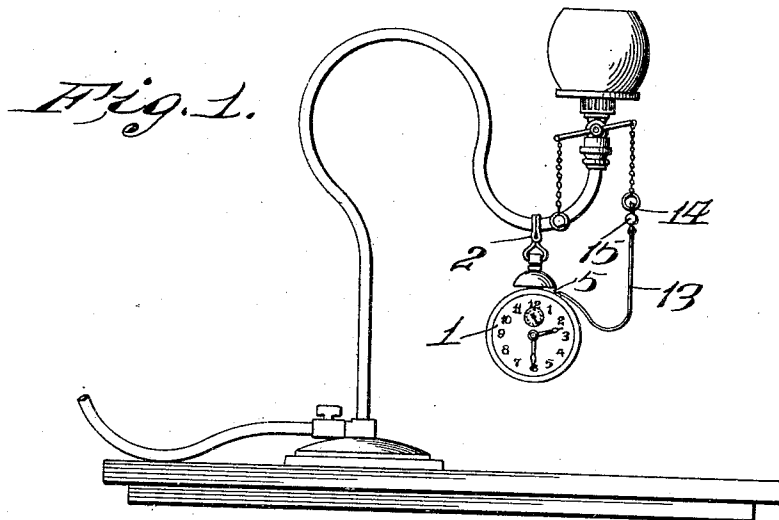


J. KRUSE.
ALARM CLOCK.
APPLICATION FILED JUNE 14, 1909.

952,677.

Patented Mar. 22, 1910.



attest.
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UNITED STATES PATENT OFFICE.

JOHN KRUSE, OF ST. LOUIS, MISSOURI.

ALARM-CLOCK.

952,677.

Specification of Letters Patent.

Patented Mar. 22, 1910.

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To all whom it may concern:

Be it known that I, JOHN KRUSE, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Alarm-Clocks, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in alarm clocks, the object of my invention being to construct an alarm clock, whereby a drum, carrying a flexible member, may be detachably fixed to the alarm shaft for the operation of a valve, damper, switch or the like and to provide a hook at the top of the clock for suspending it adjacent a valve, damper, switch or the like.

For the above purposes my invention consists in the novel construction and arrangement of parts as is hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which:

Figure 1 is an elevation of a gas, stand or table fixture, with my improved clock suspended therefrom and set in position to open the valve; Fig. 2 is a rear elevation of a portion of the fixture shown in Fig. 1 showing my improved clock fixed thereto and in a position after the alarm shaft has been operated; Fig. 3 is an enlarged side elevation of a portion of a clock showing my improved drum in position on an alarm shaft; and, Fig. 4 is a rear elevation of a portion of a clock showing my improved drum in position on the alarm shaft with the plate and alarm key removed therefrom.

Referring by numerals to the accompanying drawings; 1 designates an alarm clock having a hook 2 attached to the bell standard instead of the ordinary ring. The rear wall 3 of the clock is provided with an enlarged opening 4 surrounding the alarm shaft and an opening 5 formed in the cylindrical casing adjacent the outer end of the alarm shaft; otherwise the clock is of ordinary construction.

A drum, comprising a disk 6 having an integral laterally projecting flange 7 and a hub section 8 provided with a square opening, is positioned over the alarm shaft 9 and a plate 10, of the same diametrical dimension as the disk 6, is positioned over the shaft 9 and engaging with the hub section 8 and flange 7 and secured to the shaft by the alarm key

11; there being threads cut on the corners of the square ends of the alarm shaft engaging with threads on the alarm key.

A notch 12 is formed in the wall of the flange 7 and the knotted end of a flexible cord 13 is inserted in the notch, the cord being drawn to the inner face of the flange. The cord is then passed through the opening 5 and a hook 14 is secured to the free end of the cord. A button 15 is carried by the hook and is provided for the winding of the alarm spring by manual engagement to pull outwardly on the cord thus rotating the drum and alarm shaft.

To prevent the cord from riding over the flanges of the drum a yielding open-ended ring 16 is secured within the opening 4 in the rear wall of the clock. The flanges referred to are the portion of the disk 6 outside of the flange 7 and the portion of the plate 10 extending beyond the point where it engages the flange 7.

As shown in Fig. 1 the clock is suspended from the arm of the gas fixture at a point below and adjacent the burner by the hook 2 and as shown is set in position for opening a lever valve by attaching the hook 14 to a ring suspended from the lever of such valve. In this connection it would be obvious that the valves of the fixture may be opened or closed without interfering with the clock. It is obvious by this arrangement of the clock and attachments that in case it is desired to detach or remove any of the parts for purposes of repair that they may be easily and quickly gotten at by removing the alarm key, removing the plate 10 which presents the drum and flexible member to view and ready access.

I claim:

1. In combination with an alarm clock having an enlarged opening formed in its rear wall surrounding the alarm shaft, a disk having a flange detachably secured to said alarm shaft, a plate, means for holding the disk and plate in position and a flexible member carried by said flange.

2. In combination with an alarm clock having a hook at its top and an enlarged opening surrounding the alarm shaft, a detachable disk having a flange and a plate carried by the alarm shaft, a flexible member carried by said flange and means for securing the disk and plate to the shaft.

3. In combination with an alarm clock having an enlarged opening surrounding the

alarm shaft, a disk inserted through said opening and having a notched laterally projecting flange, a flexible member engaging said notch and arranged to wind upon said flange, a plate and means for securing the disk and plate to the alarm shaft.

4. In combination with an alarm clock having an enlarged opening surrounding the alarm shaft, a disk inserted through said opening and carried by the alarm shaft, a notched flange formed integral with said disk, a flexible member engaging said notch and arranged to wind upon said flange, a plate arranged to engage said flange and means for securing said plate to the shaft and an open-ended ring secured within the opening in the clock.

5. In combination with an alarm clock having a square ended alarm shaft and an enlarged opening surrounding the shaft, a disk inserted through said opening and having a notched lateral flange, a hub section having a square opening therein, a flexible cord engaging the notched flange and arranged to wind thereupon, a plate and an alarm key arranged to secure the plate to the shaft.

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

JOHN KRUSE.

Witnesses:

H. G. FLETCHER,
E. L. WALLACE.