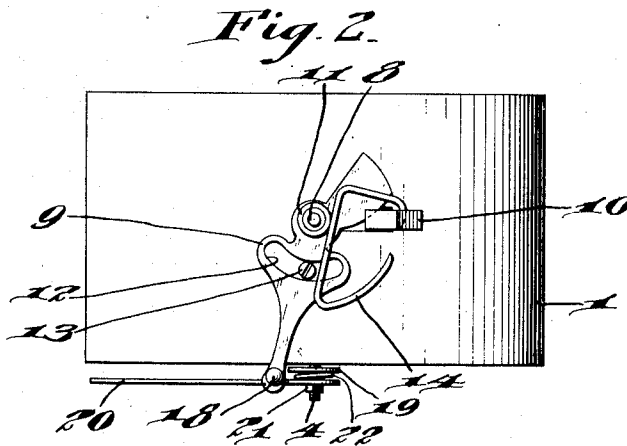
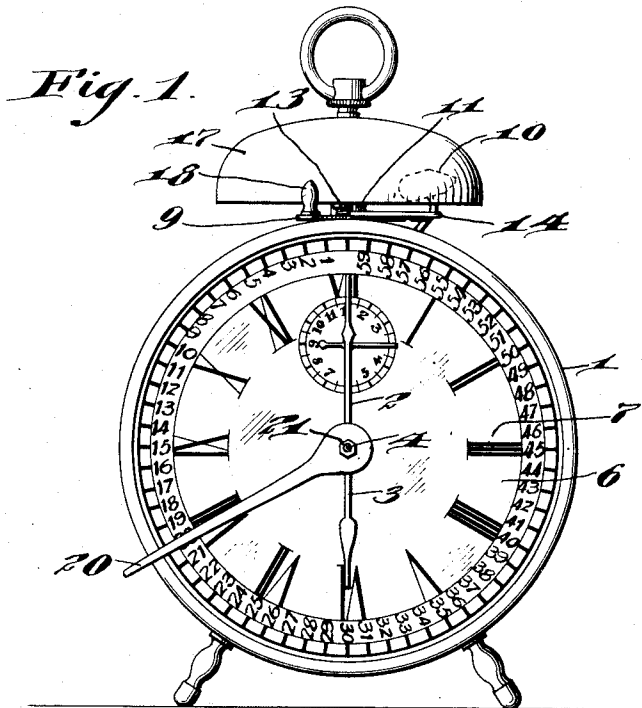


T. LASSEN.
ALARM CLOCK.
APPLICATION FILED AUG. 12, 1910.

984,573.

Patented Feb. 21, 1911.

2 SHEETS—SHEET 1.



Inventor

Theodore Lassen.

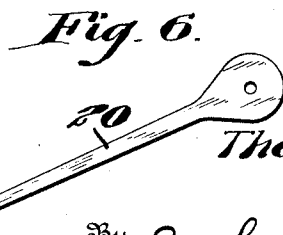
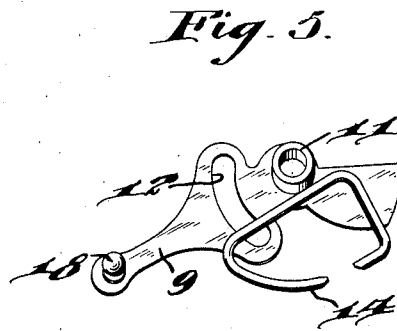
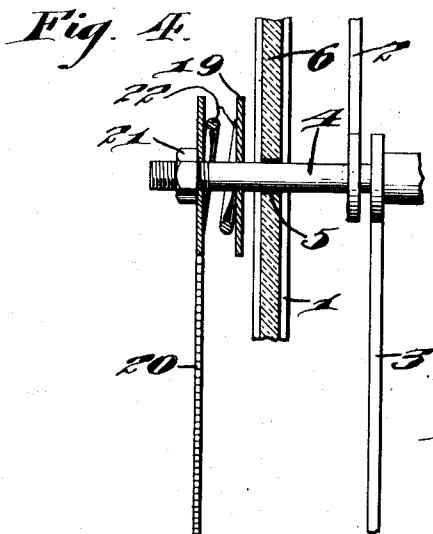
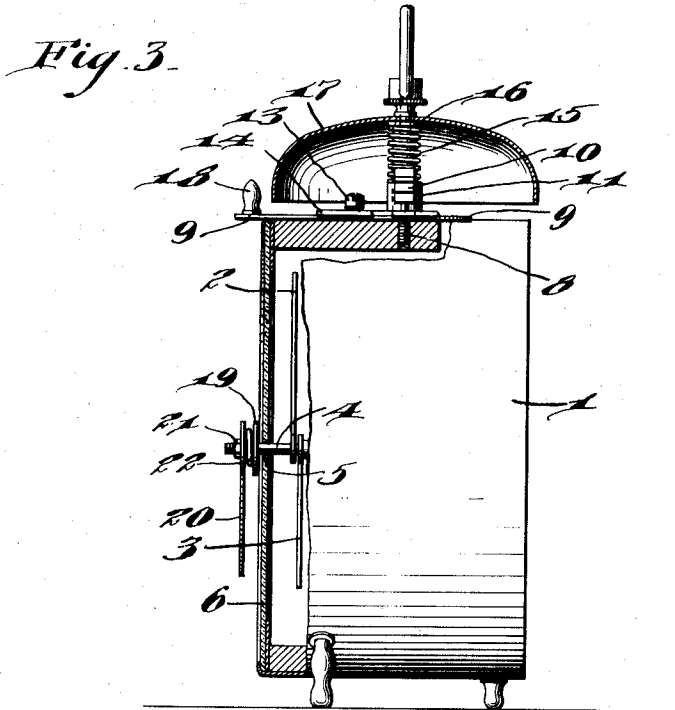
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

THEODORE LASSEN, OF PHILADELPHIA, PENNSYLVANIA.

ALARM-CLOCK.

984,573.

Specification of Letters Patent. Patented Feb. 21, 1911.

Application filed August 12, 1910. Serial No. 576,860.

To all whom it may concern:

Be it known that I, THEODORE LASSEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Alarm-Clocks, of which the following is a specification.

My invention relates to improvements in alarm clocks, the object of the invention being to provide a clock of this character which will operate as a reminder at the expiration of any given time within an hour.

A further object is to provide a clock of this character of extremely simple inexpensive construction, and which may be set and reset as often as desired without interfering with the ordinary operation of the clock.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in front elevation illustrating my improvements. Fig. 2, is a view partly in elevation and partly in vertical longitudinal section. Fig. 3, is a plan view with the bell removed. Fig. 4, is a fragmentary detail view in cross section. Fig. 5, is a detail perspective view of lever 9, and Fig. 6, is a detail perspective view of the pointer 20.

1, represents the clock proper having ordinary hands 2, and 3, mounted on the spindle 4 which projects through an opening 5 in the glass cover 6 over the face 7 of a clock, and supported in the ordinary metallic clock casing.

8, represents a screw-threaded post projecting upward from the top of the clock case, and on this post a clapper controlling lever 9 is mounted to control the clapper 10. This lever 9 is provided with a bearing 11 to turn on the post 8, and with a slot 12 concentric with the bearing to receive a screw 13 screwed into the clock case and limiting the pivotal movement of the lever. A wire 14 bent into the particular shape shown is fixed to the lever and its ends are spaced apart forming an opening, so that when the lever is moved to a position where this opening registers with the clapper, the latter is free to vibrate, but at any of its other positions the clapper is held by the lever. A coiled spring 15 is provided on post 8, and

holds the lever frictionally against accidental movement.

A nut 16 is screwed on the post against the upper end of the spring to regulate the tension of the latter, and a bell 17 is screwed onto the upper end of the post and is adapted to be struck by the clapper. The free end of lever 9 projects out over the face of the clock and is provided with a knob or a finger hold 18, so that the lever may be readily moved by the fingers of the operator. A disk 19 is fixed to the spindle 4 outside of the glass 6, and a pointer 20 is mounted loosely on the spindle 4 and is held by a nut 21 screwed onto the outer end of the spindle.

Between the pointer 20 and the disk 19, a coiled spring 22 is provided and its tension is regulated by the nut 21. This permits the pointer 20 to be readily turned on the spindle 4 without turning the spindle, but exerts sufficient friction to compel the pointer to turn when the spindle turns in the ordinary operation of the clock. This pointer 20 registers with a ring dial located around the outer face of the clock, and containing indicating marks and numerals from one to fifty-nine corresponding with minutes of the hour. The pointer 20 not only registers with this ring dial, but also projects beyond the outer face of the clock sufficiently far to engage lever 9 and move the lever so as to permit the alarm to be sounded when the pointer reaches an upright position.

The operation is as follows: Regardless of the position of the clock hands, if the operator wishes to sound the alarm at any time within the next hour, he moves the pointer 20 to register with the numeral on the ring dial corresponding to the number of minutes he desires to elapse before the alarm sounds.

As the spindle 4 turns with the clock hands, it will move the pointer toward the lever 9, and when the desired length of time has elapsed, the pointer will engage the lever and move the latter so as to permit the clapper to operate and sound the alarm. The lever 9 is so mounted that it may be swung to the extreme right, out of the way of the pointer 20, so that the clock may operate without sounding the alarm, but when it is desired to sound the alarm at a predetermined time, the lever is swung to the left and projects over the face of the dial in the path of movement of the pointer.

Various slight changes might be made in

the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. The combination with a clock, a bell on the clock, a clapper, a lever normally holding the clapper against movement and projecting over the face of the clock, a spindle on the clock projecting outside of the face of the clock, and a pointer frictionally held on said spindle and adapted to engage the lever and release the clapper, substantially as described.

2. The combination with a clock, a bell on the clock, a clapper, a lever normally holding the clapper against movement and projecting over the face of the clock, a spindle on the clock projecting outside of the face of the clock, a ring dial around the face of said clock containing numerals to correspond with the minutes of the face of the clock,

and a pointer frictionally held on said spindle adapted to register with the ring dial and projecting beyond the face of the clock in the path of the lever, whereby said pointer engages said lever to release the clapper, substantially as described.

3. The combination with a clock, an alarm on the clock, a lever controlling said alarm and projecting over the face of the clock, a spindle on the clock projecting outside of the face of the clock, a ring dial around the face of said clock containing numerals to correspond with the minutes of the face of the clock, a pointer on said spindle to register with said ring dial, a fixed disk on the spindle, a spring between said disk and said pointer, a nut screwed on the outer end of said spindle regulating the tension of said spring, and said pointer adapted to engage the lever, substantially as described.

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

THEODORE LASSEN.

Witnesses:

R. H. KRENKEL,
C. E. POTTS.