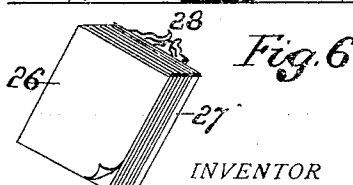
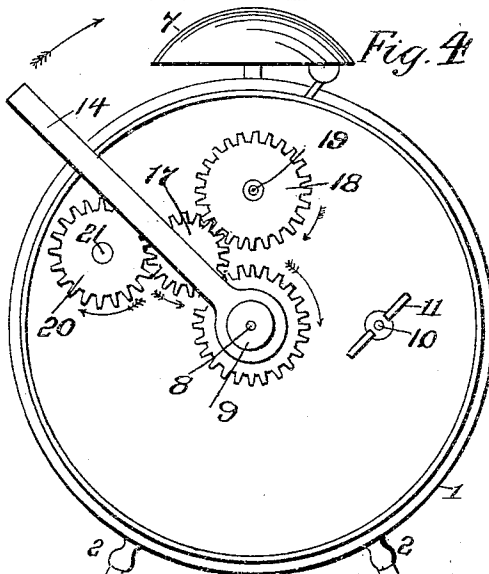
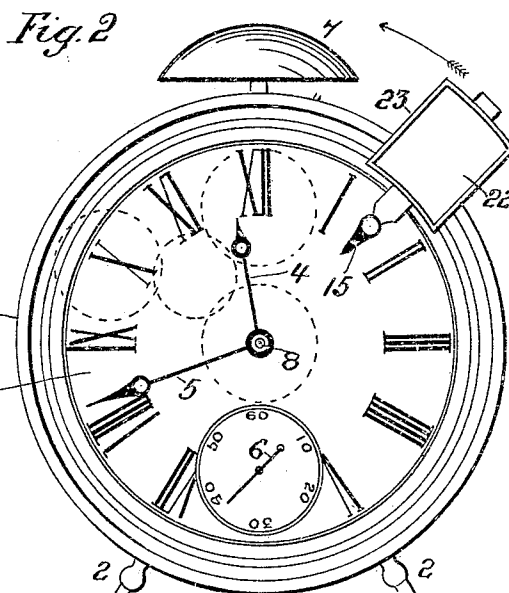


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2 SHEETS—SHEET 1.



INVENTOR

Joseph B. Connally

J. B. CONNOLLY.
ALARM CLOCK.

APPLICATION FILED FEB. 24, 1909.

930,939.

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2 SHEETS—SHEET 2.

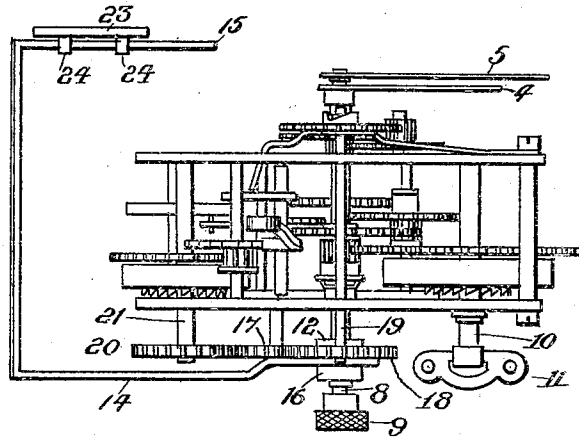


Fig. 7

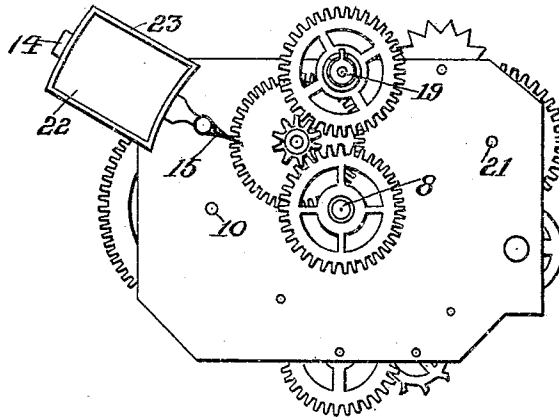


Fig. 8

WITNESSES

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UNITED STATES PATENT OFFICE.

JOSEPH B. CONNOLLY, OF WASHINGTON, DISTRICT OF COLUMBIA.

ALARM-CLOCK.

No. 930,939.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed February 24, 1909. Serial No. 479,747.

To all whom it may concern:

Be it known that I, JOSEPH B. CONNOLLY, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Alarm-Clocks, of which the following is a specification.

This invention has relation to alarm clocks and has for its object the provision of novel means for giving an audible signal at any predetermined time, as is customary with alarm clocks of the usual character, and also for visually indicating the particular purpose for which the alarm has been caused to sound at a particular time.

A further object of the invention is to provide novel means whereby the alarm actuating and alarm setting devices are simultaneously operated by the manual movement of a single actuating part, such as a lever or wheel operatively connected to the alarm actuating and the alarm setting devices.

In carrying my invention into effect, I preferably employ an alarm clock of well known construction having the usual parts and apply thereto the mechanism herein-after described in detail and adapted to accomplish the objects of this invention.

As the construction and operation of alarm clocks of the ordinary character are well understood I will not specifically describe all the parts of the same, but confine the description of the clock to such parts as coact with my present improvements, and specifically describe the latter.

In the accompanying drawing: Figure 1 is a side elevation of an alarm clock with my improvements applied thereto. Fig. 2 is a front elevation of the clock shown in Fig. 1. Fig. 3 is a front elevation of a clock of modified construction also embodying my improvements. Fig. 4 is a rear elevation of the clock shown in Fig. 3. Fig. 5 is a fragmentary sectional view on an enlarged scale of a portion of the mechanism common to both of the clocks shown in the other figures. Fig. 6 is a perspective view of a modified form of memorandum tablet to be used with the clock shown in Figs. 1 and 2. Fig. 7 is a plan view of the clock with the dial and case removed. Fig. 8 is a front elevation of the same with the case, the dial and the hands removed.

The clock works are contained in a casing 1 supported by legs 2 and having the dial 3 the hour hand 4, minute hand 5, seconds hand 6.

An alarm bell 7 is mounted on casing 1 and the hour hand arbor 8 is provided on its rear end with the usual button or thumb-nut 9 for setting the hands, while the shaft 10 of the main spring is provided with a key 11, and the time keeping mechanism is operably connected with the alarm let-off mechanism in the usual manner and as shown in Figs. 7 and 8, all these parts being of the usual or any desired construction.

Upon the back of the clock a hollow boss 12 is mounted and secured, this boss having a central opening through which the hour hand shaft or arbor 8 passes loosely, and upon this boss is loosely mounted a gear wheel 13 which carries an arm 14 that is attached to the wheel 13 and is bent around the side of the clock and terminates at the front of the clock where it carries a hand or pointer 15 adapted to point to the figures at the edge of the dial. A nut 16 serves to sustain the wheel 13 at its proper position on the boss while permitting it to be turned freely thereon through the medium of arm 14. The gear wheel 13 meshes with an idler 17 mounted on the back of the clock and said idler 17 meshes with a gear wheel 18, carried on and rigidly attached to the alarm setting shaft 19, the gear wheels 13 and 18 being of exactly the same diameter so that the wheel 18 will complete a revolution at each complete revolution of the wheel 13, and will, of course, make a partial revolution of equal extent with each partial revolution of wheel 13. A third gear wheel 20 is rigidly attached to the alarm winding shaft 21, and meshes with the idler 17, the wheel 20 being of any desired size relatively to the wheel 13. The alarm operating mechanism of which the shaft 21 is a part, is so constructed that the shaft 21 is permitted to turn in one direction only and does not rotate reversely to the winding movement when the alarm goes off, but as this is a common and well known construction, the alarm mechanism need not be more particularly described.

In Figs. 1 and 2 of the drawing a small plate or tablet 22 is carried by the arm 14, this tablet being made of some material that will readily receive slate pencil, lead pencil, or other marks that can be easily erased, such material, for instance, as slate, ground glass, or roughened celluloid or the like. The tablet is supported in a frame 23 which is attached to the arm 14 by clips 24 so that

the frame and tablet can be readily removed and replaced when it is desired to write on the tablet or erase the writing from the same.

In the modified form shown in Fig. 3 of the drawing the plate or tablet 22 is dispensed with and instead of the same I provide a stationary annular writing surface 25 which surrounds and partially covers the numerals on the dial and which can be easily formed by roughening or grinding the outer portion of the glass face which usually covers the dial, although I prefer to make this writing surface of somewhat larger diameter than the dial so as to give ample writing space to receive the desired memoranda.

In the modified form of memorandum tablet shown in Fig. 6 a block or pad of sheets of paper 26 is secured to a backing 27 and the latter is provided with spring clips 28 by means of which the tablet can be readily attached to the arm 14. Each sheet can bear numbers indicating the day of the month and each sheet after being used can be torn off and preserved thus serving as a record of the day's engagements.

The alarm winding and setting mechanism of the clock shown in Figs. 1 and 2 is exactly the same as that of the clock shown in Figs. 3 and 4, such mechanism being illustrated in Figs. 4 and 5 and having been hereinbefore described.

The operation is as follows: The memoranda of various matters requiring attention at particular times is written either on the tablet 22 or on the surface 25 or on one of the sheets of the block or pad 26, and the arm 14 is moved from right to left, that is in a reverse direction to the movement of the hands of the clock until the hand or pointer 15 points to the hour and minute of the first memorandum. When the hour hand reaches a point opposite the hand or pointer 15, the alarm will be sounded and a glance at the tablet 22 or the writing surface 25 or the outer sheet or pad 26 will show what particular matter requires attention. After the alarm has gone off the arm 14 is moved in the direction of the arrow until the hand or pointer 15 points to another hour, this movement simultaneously winding and setting the alarm and thus making ready for the sounding of the alarm without further attention or manipulation. The arm 14, it is to be noted, is always moved in a direction opposite to the movement of the hands, and thus if, for instance, the first alarm sounds at two o'clock and it is desired to have the next alarm sound at three o'clock, the arm 14 is turned through eleven twelfths of a circle, thus bringing the hand or pointer 15 opposite the numeral III on the dial.

I claim:

1. The combination with an alarm clock,

of a movable arm connected to and adapted to simultaneously operate the alarm winding and alarm setting mechanism and a memorandum tablet carried by said arm.

2. The combination with an alarm clock, of a movable arm having a pointer adapted to successively point to the figures on the dial of the clock, and a memorandum tablet carried by said arm.

3. The combination in an alarm clock of time keeping mechanism and time indicating means for keeping and indicating the time of day and alarm mechanism adapted to be let off by the progressive and uninterrupted movement of the time keeping mechanism, with a movable arm and means controlled by the movement of said arm for simultaneously winding and setting the alarm mechanism.

4. In an alarm clock embodying time keeping mechanism and time indicating means adapted to keep and indicate the time of day and alarm mechanism adapted to be let off by the progressive and uninterrupted movement of the time keeping mechanism, said alarm mechanism including the alarm operating and alarm setting mechanism, and means for simultaneously winding and setting the alarm.

5. In an alarm clock embodying time keeping mechanism and time indicating means for keeping and indicating the time of day and alarm mechanism adapted to be let off by the time keeping mechanism while the latter continues in operation, said alarm mechanism including the alarm operating and alarm setting mechanisms, means for simultaneously winding and setting the alarm and a pointer adapted to indicate the time at which the alarm will sound.

6. In an alarm clock embodying time keeping mechanism and alarm mechanism adapted to be let off by the time keeping mechanism, the combination with the dial and a movable pointer to indicate the time at which the alarm will sound, of a memorandum tablet carried by the clock arranged in proximity to the dial of the clock.

7. The combination with time keeping mechanism and time indicating means adapted to keep and indicate the time of day and alarm mechanism adapted to be let off by the progressive uninterrupted movement of the time keeping mechanism, of means whereby the actuating spring of the alarm mechanism will be wound by the movement of the alarm setting mechanism.

In testimony whereof I have affixed my signature, in presence of two witnesses.

JOSEPH B. CONNOLLY.

Witnesses:

CLYDE B. WEIKERT,
THOMAS A. CONNOLLY.