March 17, 1925. 1,529,852

W. M. TANGLIN

ALARM WATCH

Filed Feb. 21, 1924

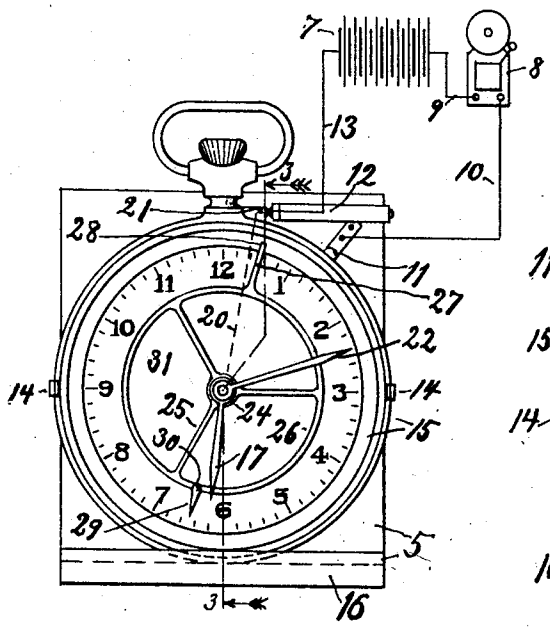


FIG. 1.

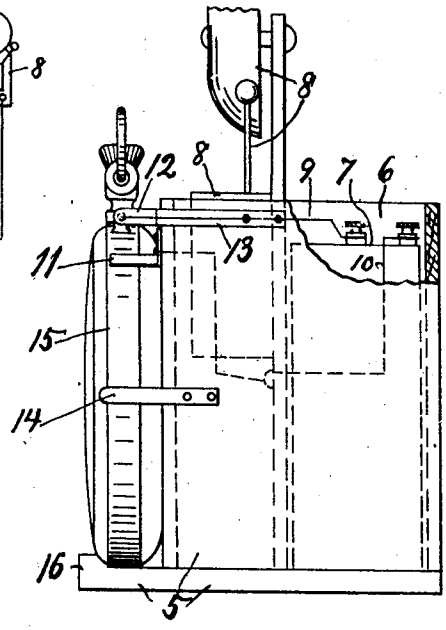


FIG. 2.

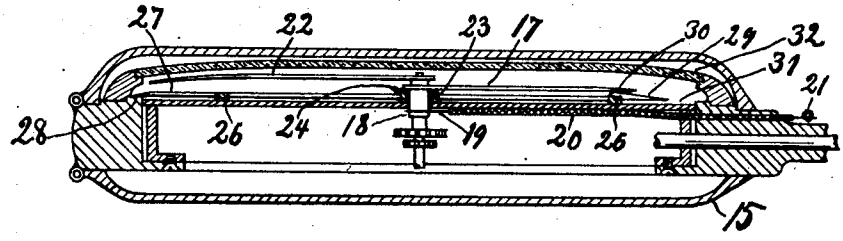


FIG. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM M. TANGLIN, OF HUGO, MINNESOTA.

ALARM WATCH.

Application filed February 21, 1924. Serial No. 694,317.

To all whom it may concern:

Be it known that I, WILLIAM M. TANGLIN, a citizen of the United States, residing at Hugo, in the county of Washington and State of Minnesota, have invented certain new and useful Improvements in Alarm Watches, of which the following is a specification.

My invention relates to alarm clocks and the object is to enable a watch or other time-piece to ring an electric bell at any desired hour or part of an hour. The device is adapted especially for causing a comparatively large bell to be rung by a watch or small clock, which is desirable where no mechanical spring-operated alarm clock is available or where it is desirable to let a clock cause the ringing of a large bell.

In the accompanying drawing Fig. 1 is a front elevation of a watch equipped with my invention, the electric bell and battery being shown in diagram only. Fig. 2 is a right hand side elevation of Fig. 1 with the bell and battery shown in more complete form. Fig. 3 is an enlarged section on the line 3—3 in Fig. 1 with many parts omitted but giving a fair idea of the relation of my device with the front of the watch.

Referring to the drawing by reference numerals, 5 designates a suitable frame or stand adapted to be placed upon a table or shelf.

In Fig. 2 is shown that the stand may have a space 6 for one or more batteries 7—7, and mounted on the stand is an electric bell 8 connected to the battery by a wire 9 and having a second wire 10 terminating in a contact post 11 fixed on the stand. Another contact post 12 is fixed on the stand and connected with the battery by a wire 13. The stand may also have two clasping spring arms 14 between which to steady or hold the watch case 15 when the latter is placed upon a projecting base 16 of the stand.

To make the watch a circuit closer between the contacts 11 and 12 at any desired time the following means are provided:

The hour hand 17 of the watch, or other time-piece, has its usual sleeve 18 (see Fig. 3) always in contact with a light spring arm 19, which is the inner end portion of an insulated wire 20 the outer end of which has a small head 21, which when the watch is properly placed on the stand contacts with the end of the contact post 12. The minute hand 22 is not involved in the operation.

On the sleeve 18 is frictionally fitted by insulation 23 the hub 24 of a spider 25 which may have a ring 26, and is formed with a contact finger 27 that contacts with the watch case, as at 28 in Figs. 1 and 3; and a pointer 29 having a hump 30 arranged to contact with the hour hand when the latter is passing over it. 31 is the dial and 32 the crystal of the watch.

In the operation, after the watch is placed as shown in Figs. 1 and 2, the pointer 29 is set to the hour or hour and a fraction at which the ringing is desired. When the hour hand reaches that point it contacts with the hump 30 and closes circuit, allowing the current to pass from the wire 20–19 to the sleeve 18 and thence through the hour hand, the bump 30, the ring 26 and its arm 27 to the watch case and thence through post 11, wire 10, the bell and the battery. If the ringing keeps up very long the operator may stop it by simply turning the watch slightly so as to break circuit between the wire end 21 and the contact post 12, or he may remove the watch from the stand.

It is obvious that the device is applicable to any time piece regardless of its size.

What I claim is:

1. The combination with an electric bell and its circuit wires, of a time piece inserted in the circuit and having adjustable means for closing the circuit when the hour hand of the time piece reaches a predetermined hour or fraction of an hour; said adjustable means comprising a member insulated and rotatable on the sleeve holding the hour hand and having an arm constantly in contact with the metal ring holding the clock dial, and a second arm arranged to be touched by the hour hand when the latter passes over it.

2. The structure specified in claim 1, in which the said second arm has a pointer arranged to point to the time on the clock dial at which the bell is to ring.

In testimony whereof I affix my signature.

WILLIAM M. TANGLIN.