(No Model.)

T. BIEDINGER & T. J. KANE.

ALARM CLOCK.

No. 529,103. Patented Nov. 13, 1894.

Fig. 1.

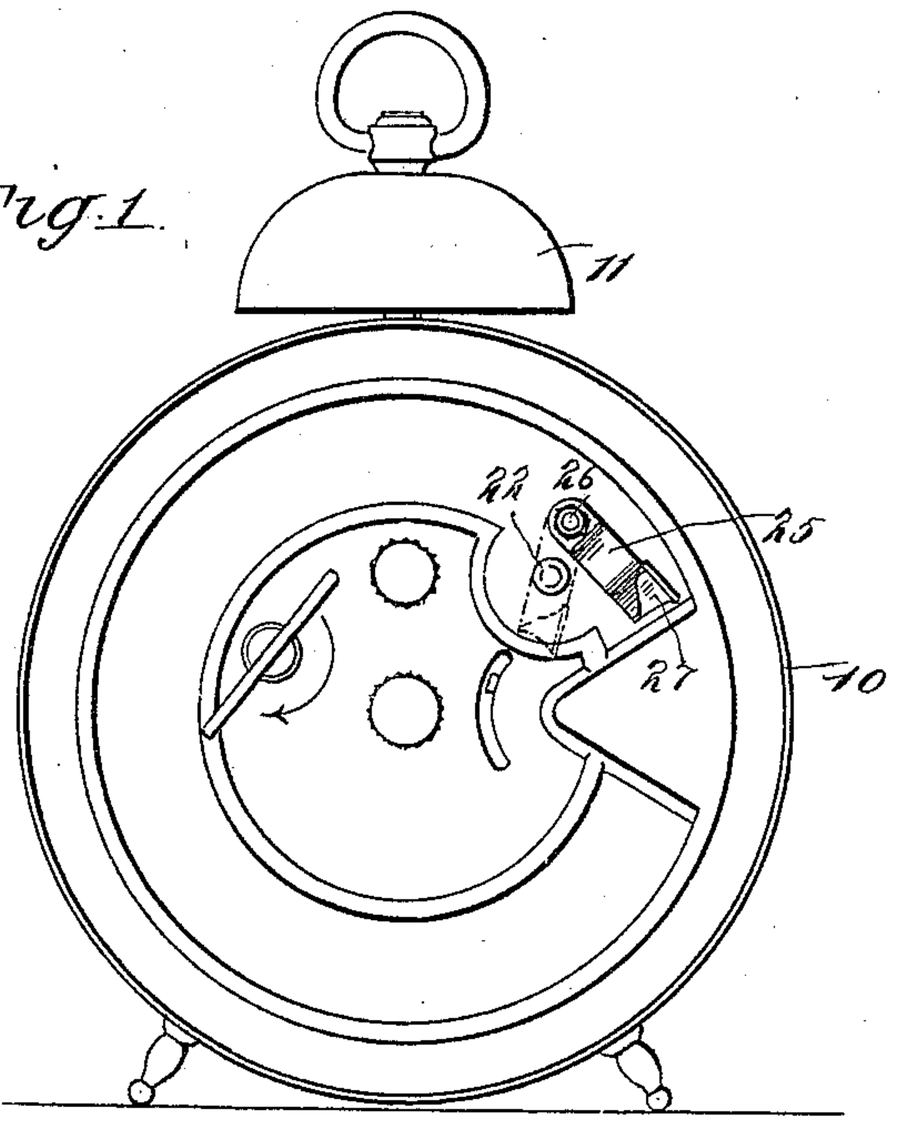


Fig. 2.

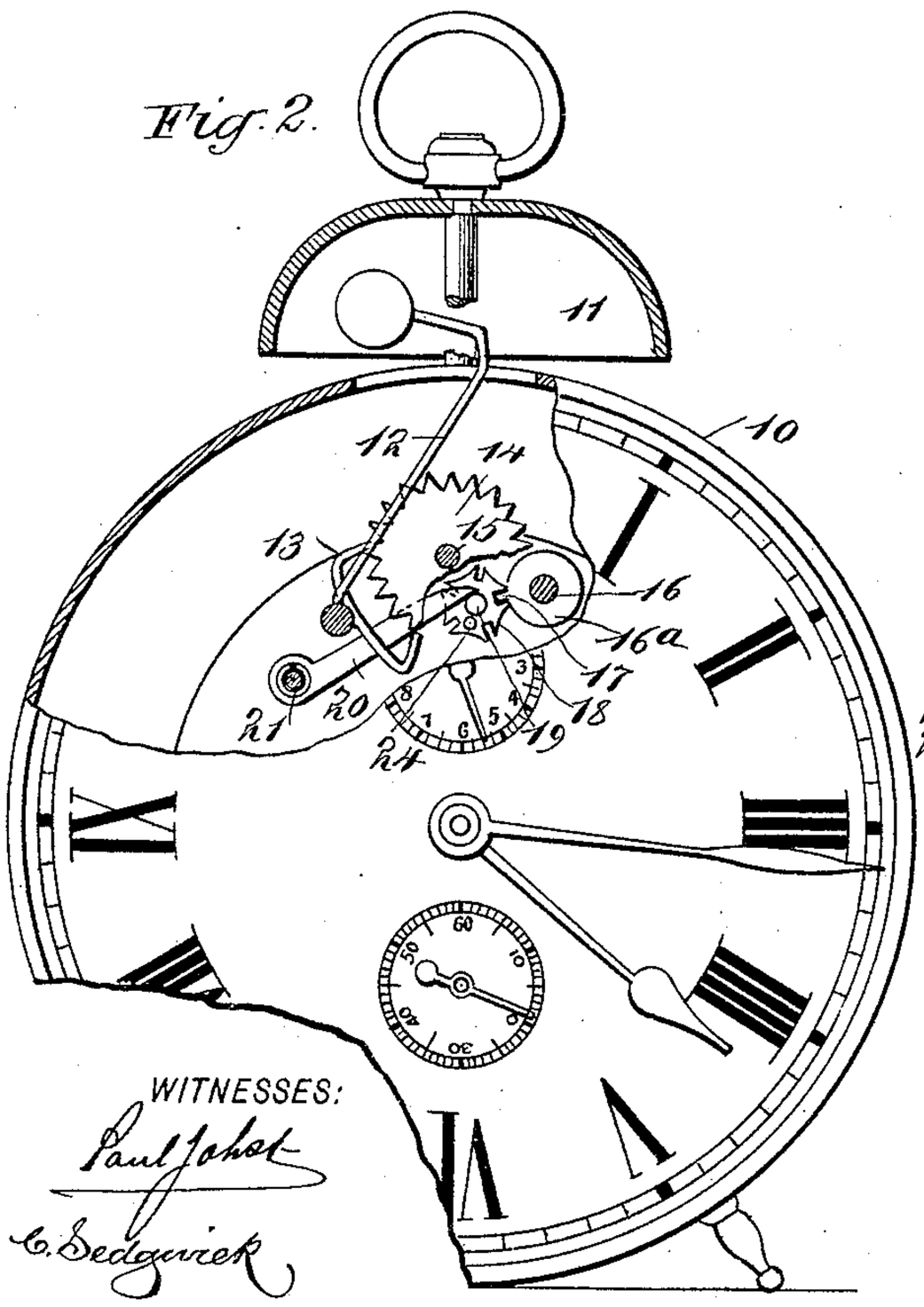
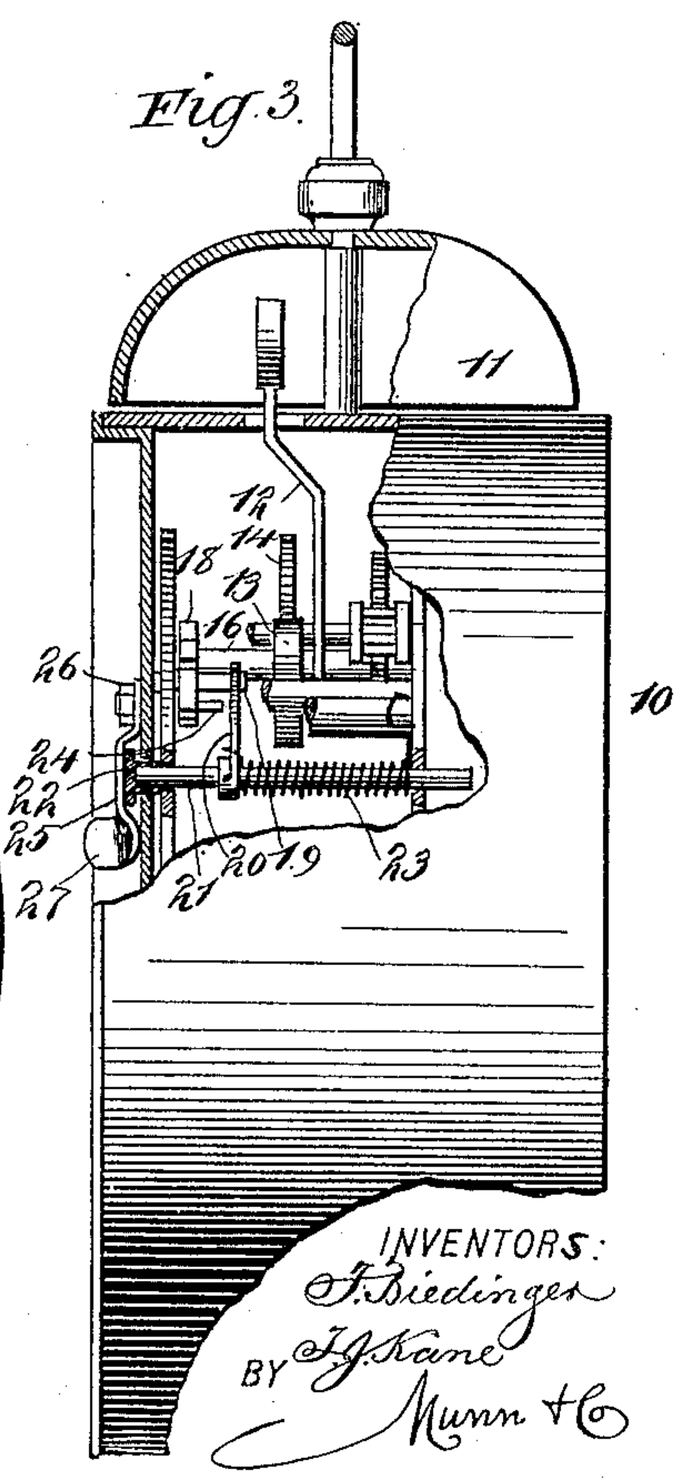


Fig. 3.



WITNESSES:
Paul Jabel
C. Sedgwick

INVENTORS:
T. Biedinger
BY T. J. Kane
Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEODORE BIEDINGER AND THOMAS J. KANE, OF NEW YORK, N. Y.

ALARM-CLOCK.

SPECIFICATION forming part of Letters Patent No. 529,103, dated November 13, 1894.

Application filed November 3, 1893. Serial No. 489,898. (No model.)

To all whom it may concern:

Be it known that we, THEODORE BIEDINGER and THOMAS J. KANE, both of the city, county, and State of New York, have invented a new and Improved Alarm-Clock Attachment, of which the following is a full, clear, and exact description.

Our invention relates to improvements in that class of alarm clocks which are provided with a setting spindle which when the alarm is sounded springs out and after a little stops the alarm and which, when pushed in, permits the alarm to ring until the clock is run down.

The object of our invention is to produce a very simple attachment for clocks of this kind, which attachment costs comparatively nothing, and which may be arranged to hold the spindle in so that when the alarm goes off the spindle cannot be thrown out except by releasing it by hand, and consequently the alarm rings until some person moves the attachment and releases the spindle.

People who are habitually roused by an alarm clock soon get accustomed to the sound and, while hearing it indistinctly, go to sleep again, and the object of the above arrangement is to cause the alarm to ring continuously so as to prevent the person who should be awakened from again going asleep, and to stop the noise he is compelled to get up and release the spindle.

To these ends our invention relates to an attachment for alarm clocks, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a rear elevation of a clock provided with our improved attachment. Fig. 2 is a front elevation of the clock with a portion broken away to show the alarm mechanism; and Fig. 3 is a broken side elevation of the clock and illustrates the application of our improved attachment.

The clock 10 is an ordinary alarm clock having the usual gong 11 thereon and the customary hammer 12 which is operated by means of the pallet 13 and escapement wheel 14 on the shaft 15, the latter connecting by the usual gear mechanism with the shaft 16, and this has a collar 16^a thereon with a projecting tooth 17 adapted to engage the notches of the spur wheel 18 which is journaled on a stud 19 in the usual manner. On the stud 19 rests the arm 20 of the setting spindle 21 which slides in the frame of the clock mechanism and projects through the clock back where it terminates in a button 22. The spindle is normally pressed outward by a spring 23, and this holds the arm 20 in the path of a stud 24 on the spur wheel 18. The spindle is pushed in when the alarm is set and when the alarm goes off, the spindle is pushed out by the spring 23, and the arm 20 is carried in the path of the stud 24, and when the stud strikes the arm the wheel 18 and the connected mechanism is stopped, thus stopping the alarm.

The mechanism above alluded to has not been described with great detail, because it is exactly of the usual kind and forms no part of our invention, and neither is our invention limited to any particular mechanism for actuating the spindle 21, as our attachment, which will be described presently, may be used in connection with any alarm clock having a spindle which is thrown out to stop the alarm.

Our improved attachment is applied to the clock back to hold the spindle 21 in, so that when the alarm is sprung it will ring until the spring is released. To effect this result we use a latch 25 which is curved outward in the center to enable it to slip readily over the button 22, the latch being pivoted at one end, as shown at 26 and having at its free end a thumb piece 27 by which it may be turned. The latch 25 is preferably made of sheet metal, which is turned up at the end to form the thumb piece 27, but it may be made of any suitable material and of any convenient shape without affecting the principle of our invention. When the latch is turned over the button on the spindle it holds the spindle pushed in, with the arm 20 out of the path of the stud 24, and when the alarm goes off, the person roused swings the latch from off the button, thus permitting the spindle 21 to act in the usual way to stop the alarm.

Having thus described our invention, we

claim as new and desire to secure by Letters Patent—

1. The combination, with an alarm clock having the usual setting or controlling spindle adapted to move in and out in the clock case, and means for automatically pushing the spindle outward on the sounding of an alarm of an external fastening device on the back of the case arranged to hold in the spindle, substantially as described.

2. The combination, with the alarm clock and its regulating or controlling spindle and means for automatically pushing the spindle outward on the sounding of an alarm, of the swinging latch pivoted on the clock case and adapted to swing over the outer end of the spindle, substantially as described.

3. The combination, with the alarm clock and its controlling spindle and means for automatically pushing the spindle outward on the sounding of an alarm, of a latch pivoted on the clock case to swing opposite the spindle end, said latch having its free end turned up to form a thumb piece, substantially as described.

THEODORE BIEDINGER.
THOMAS J. KANE.

Witnesses:
GRACE B. HOFFMAN,
OSCAR KENT.