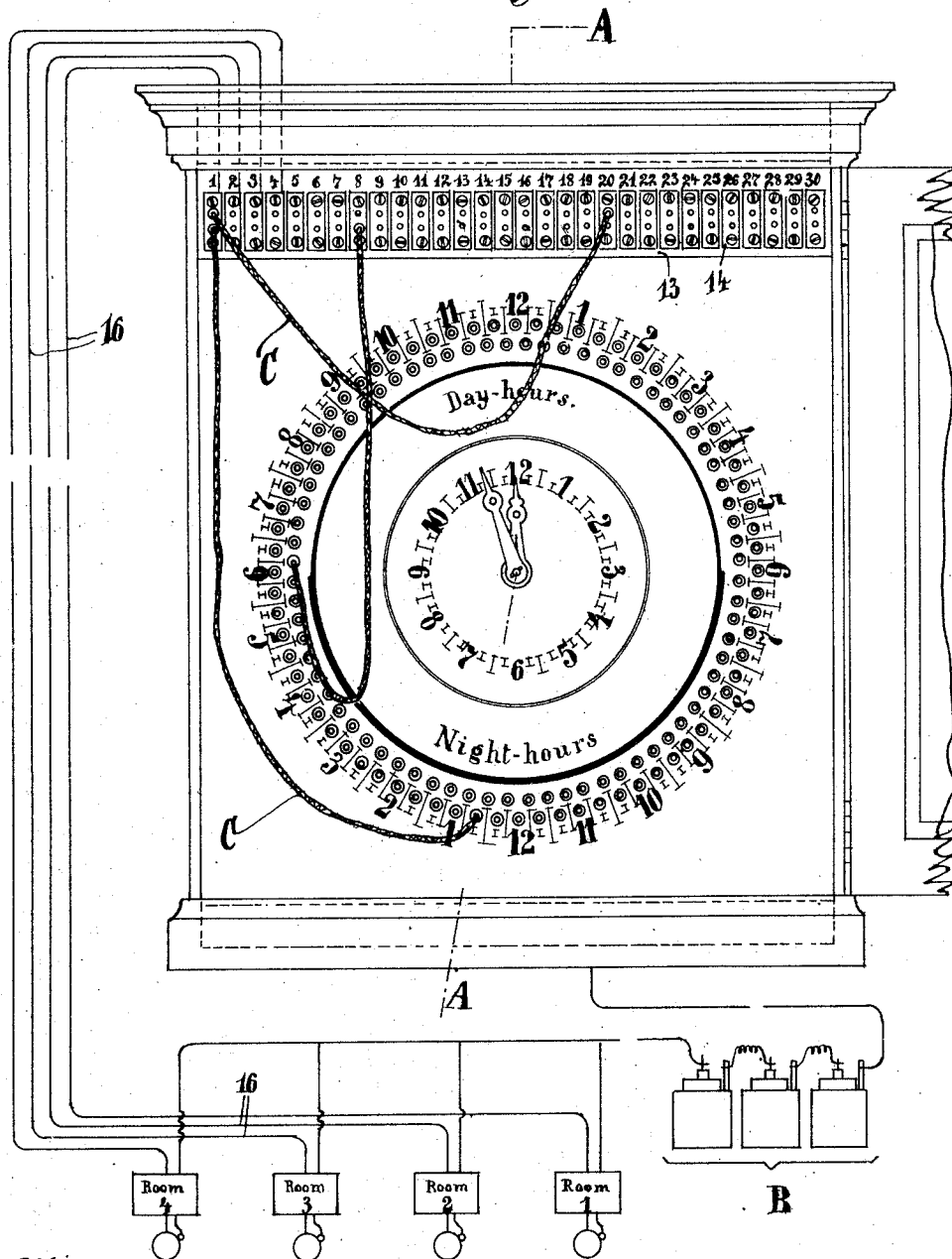


E. DUBS.
ELECTRIC TIME ALARM.
APPLICATION FILED AUG. 30, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

George Fredric Rayner
Frank William Pattison

Inventor

Edward Dubs
per Rayner & Co.
Attorneys

No. 875,698.

PATENTED JAN. 7, 1908.

E. DUBS.
ELECTRIC TIME ALARM.
APPLICATION FILED AUG. 30, 1906.

2 SHEETS—SHEET 2.

Fig. 2.

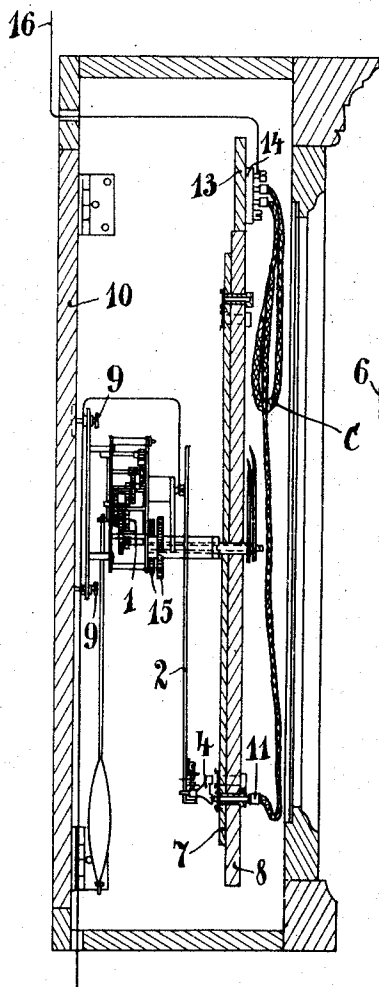


Fig. 3.

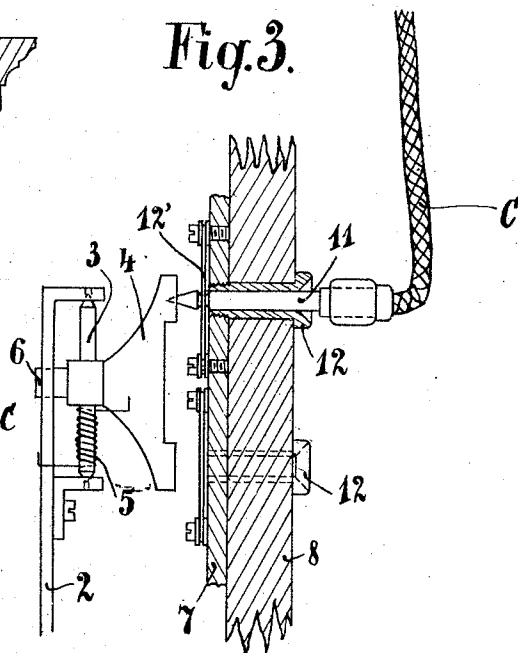
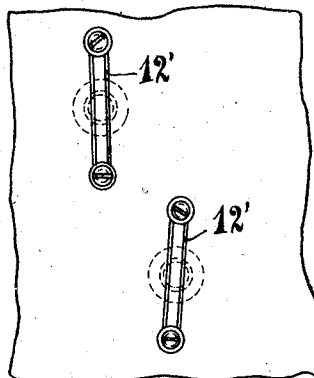


Fig. 4.



Witnesses
George Fredric Rayner
Frank William Pattison

Inventor
Eduard Dubs
per Rayner & Co.
Attorneys

UNITED STATES PATENT OFFICE.

EDUARD DUBS, OF OERLIKON, ZURICH, SWITZERLAND.

ELECTRIC TIME-ALARM.

No. 875,698.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed August 30, 1906. Serial No. 332,696.

To all whom it may concern:

Be it known that I, EDUARD DUBS, a citizen of the Swiss Republic, residing at Oerlikon, Zurich, Switzerland, have invented certain new and useful Improvements in Electrical Indicating-Clocks, of which the following is a specification.

This invention relates to a clock with electrical switch arrangement by means of which electrical apparatus, such as electric bells, electric lamps, relays, &c., can, at a previously determined hour, be switched on for a given time.

In the annexed drawings the invention is shown, as an example, combined with a set of bells.

Figure 1 is an elevation; Fig. 2 a cross section and Figs. 3 and 4 are detail views.

On the hour hand spindle of the gearing 1 is fitted a single armed lever 2, the free end of which is provided with a spring contact. The latter consists of a pin 3 pivoted on the lever 2, and a contact piece 4 attached to the pin and provided with two projecting lips directed towards the dial plate 8. By the action of the spring 5 limited by the projection 6 the contact piece is pressed towards the dial plate 8. On the inside of the latter is fastened the insulating plate 7. The gearing 1 with the lever 2 can, by means of the set screws 9 fixed thereon, be brought nearer to, or removed further from, the wall 10. It is thus possible to determine the duration of the contact between the contact piece 4 and a contact pin 11 inserted in the dial plate. The contact pins inserted in the dial plate are held tight by the wire loops 12 (Fig. 4) screwed on to the insulating plate 7. In two circular rows concentric with the hour hand spindle of the gearing holes are bored through the dial plate 8 and the insulating plate 7. In these holes are screwed sockets 12 for the better guidance of the contact pins 11. The arrangement of the holes shown corresponds to a 10 minute division for twenty four hours. In order that this division shall not take up too much space on the dial plate the holes are arranged in two circular rows and the inner one displaced with regard to the outer. The upper half circle corresponds to the hours of the day from 6 a. m. to 6 p. m., while the lower half circle corresponds to the hours of the night from 6 p. m. to 6 a. m. This means that the lever 2 must only complete one revolution each 24 hours and this is effected in the driving of the

lever 2 from the hour hand by means of transmission gear wheels 15. By the subdivision mentioned it is possible to set the arrangement 24 hours before the signal is required to be given. The inside division of the dial plate is the ordinary hourly division (1—12) and is adapted to the hands of the clock. Above the dial plate are screwed on an insulating plate 13 a row of contact pieces 14, each provided with a number, and having two holes for contact pins.

The gearing of the clock is connected with a source of electrical energy, for example, with a battery B. The conductors 16 run from the contact pieces for instance the numbered rooms of a hotel, and thence back to the battery. The number of the room corresponds to the number of the contact piece 14. If now for example a guest in a room No. 1 wishes to be awakened at night at 12.40 and at the same time also a guest in room No. 20, then a contact pin is inserted in the lower semi-circle at the proper contact hole (Fig. 1) and a second contact pin, connected to the first by a conductor C, is inserted in the contact piece 14 numbered 1. The contact piece No. 1 is now also connected to the contact piece 20 by a conductor C. In the same manner other connections could be made.

When the clock is going one of the two lips of the contact piece 4 strikes against the contact pin which projects somewhat beyond the surface of the insulating plate 7 and is pointed at the end, and the electrical circuit is established, until the lip has passed over the contact pin. During this time the alarm bells in the rooms 1 and 20 are ringing. The outside row of contact holes corresponds to the outside lip and the inner row of contact holes to the inner lip of the contact piece 4.

Instead of a system of bells other apparatus as for example electrical ventilators, relays &c; can be operated, the drawings serving to illustrate diagrammatically any such application. The invention is particularly applicable to hotels, manufactories, hospitals and other large establishments.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an electrical indicating clock, a clock plate having two concentric sets of holes arranged alternately, loose contact pins fitting the said holes and arranged to project internally, the clock spindle, a contact lever mounted on the said spindle, gearing turning the lever once every twenty four hours, brack-

ets at the end of the lever, a pin parallel with the lever turning in the said brackets, a spring and stop controlling the movement of the pin and a contact wing on the said pin, projecting from the front of the lever to meet the contact pins, substantially as herein described.

2. In an electrical indicating clock, a clock plate having two concentric sets of holes, loose contact pins adapted to fit in the said holes and project internally, the pins having a conical end and an annular groove, wire loops secured behind each of the plate holes, adapted to receive the ends of the pins and engaged in their grooves, the clock spindle, and a contact lever on the said spindle

adapted to make contact with the projecting pins, substantially as herein described.

3. In an electrical indicating clock the combination of a contact making lever on the clock hand, a spring contact piece on the lever, contact pins in a fixed clock plate, a parallel fixed plate carrying the clock gearing and adjusting screws regulating the distance of the gearing and contact arm from the contact pins to determine the length of contact.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EDUARD DUBS.

Witnesses:

FRITZ LAUENER,
A. LIEBERKNECHT.