No. 652,152. Patented June 19, 1900.

E. TREITSCHKE.

PHONOGRAPHIC CLOCK.

(Application filed July 15, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

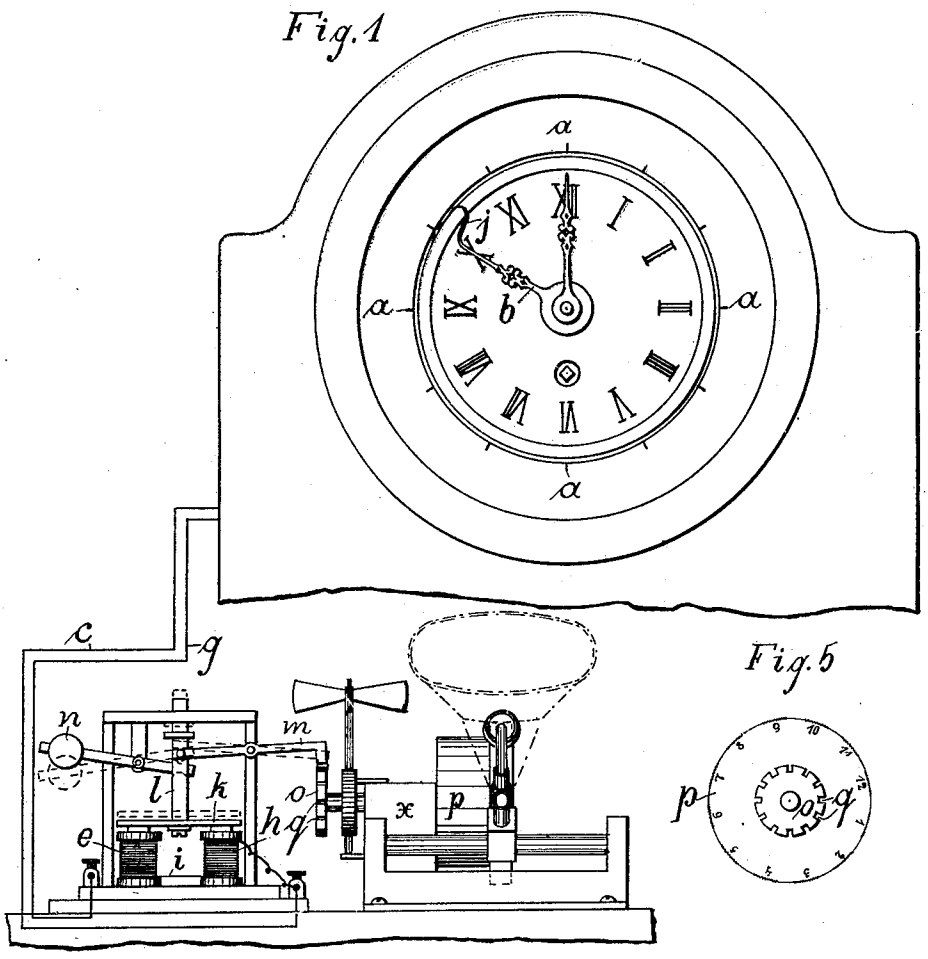
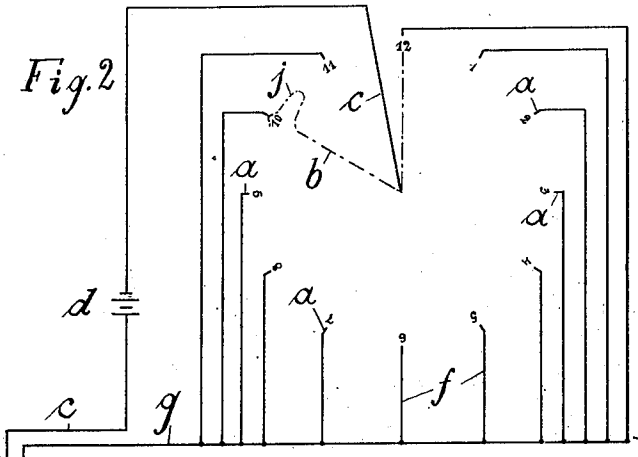


Fig. 5

Fig. 2



Witnesses.
Rosann Smith.
W. H. Reid.

Inventor:
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Fig. 3

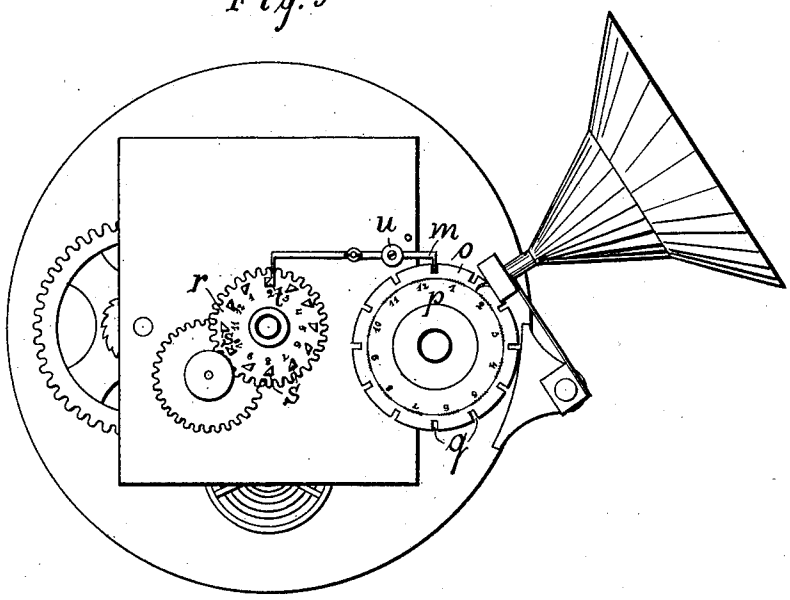
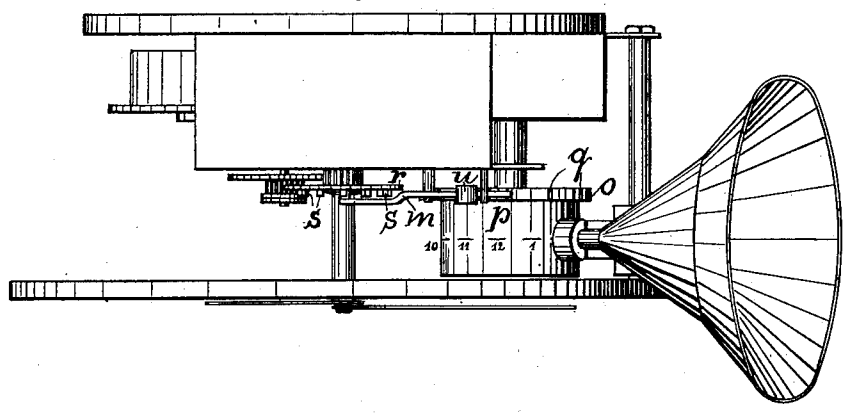


Fig. 4



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per
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Atty.

UNITED STATES PATENT OFFICE.

ERWIN TREITSCHKE, OF DRESDEN-BLASEWITZ, GERMANY.

PHONOGRAPHIC CLOCK.

SPECIFICATION forming part of Letters Patent No. 652,152, dated June 19, 1900.

Application filed July 15, 1899. Serial No. 723,953. (No model.)

To all whom it may concern:

Be it known that I, ERWIN TREITSCHKE, a citizen of the Kingdom of Saxony, residing at Dresden-Blasewitz, in the Kingdom of Saxony, German Empire, have invented certain new and useful Improvements in Clocks Combined with a Phonograph or the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

With the great demands to which at the present day people are individually subject if they would compete with their fellows and by reason of the corporeal and mental strain thereby occasioned nervousness has greatly increased, so much so that it may even be observed in children. To such as suffer from nervousness many kinds of noises are very distressing, as the striking of a clock, which to many sufferers seems to sound against the head. Many cannot follow their employment during the time of striking, because of inability to concentrate their thoughts, and often many cannot follow the number of strokes with certainty.

The object of the invention is to provide a clock or time-measurer generally with an arrangement or device for indicating the conclusion of given intervals of time for the benefit of nervous persons in a very gentle as distinguished from a distressing way and without the strokes of the clock sounding in an uncertain manner, as hitherto.

This invention consists in the combination of a clock or other chronometer with a phonograph, graphophone, gramophone, or the like, which speaks out the words at the conclusion of given time intervals—for instance, on the hours and half-hours.

The construction of the invention is shown in the accompanying drawings in two forms.

Figures 1 and 2 are respectively an elevation thereof and a diagram of the conductors for electric working; and Figs. 3 and 4, respectively, an elevation and a plan of the device for purely mechanical working. Fig. 5 is a detail of the roller and notched wheel.

In Figs. 1 and 2 are very light spring-contacts *a*, arranged around the clock-face near the figures, and *b* is the small hand of the clock, provided with a fine yielding spring *j*, by which it comes into electric communication with the spring-contacts *a*. The hand *b* is connected through a wire *c*, communicating with a source of electricity *d*, with a magnet-bobbin *e*, and likewise the spring-contacts *a* are connected through wires *f* and a main wire *g* with a magnet-bobbin *h*, which is connected with the other bobbin by a conductor *i*. The magnet-armature *k* carries by a rod *l* a pawl *m*, which by the action of a counterweight *n* is adapted to lock a wheel *o* of a phonograph-roller *p*, having on its periphery successive impressions or indentations corresponding to the twelve figures of the clock. The phonograph style can touch into the impressions. The wheel *o* is provided with notches *q*, Fig. 5, corresponding in number to the time intervals to be called out, into which the pawl *m* can fall. At the end of an hour, when the hand *b* comes into electrical communication with one of the spring-contacts *a*, Fig. 1, the pawl *m* is thereby released by reason of the bobbins *e h* attracting the armature *k*, the clockwork *x* of the phonograph sets the roller *p* of the same in rotation, the phonograph speaks out the corresponding number, and this being done the pawl *m* engages in the next notch of the wheel *o* and holds it and the phonograph-roller fixed until the next contact takes place, and so on.

In Figs. 3 and 4 the arrangement of the phonograph-roller *p* and the notched wheel *o* is as in the preceding example; but in this case the counterweight *n* is actuated from a wheel *r* of the clock, said wheel being for this purpose furnished with triangular projections *s*, which when the wheel turns engage the bent end *t* of the pawl *m* and press it downward to release the pawl from the wheel *o* at the given time intervals, thus permitting the movement of the phonograph-roller. When in this way the number of the hour has been spoken out, the pawl *m* in this case also falls into the next notch and locks the wheel *o* with the phonograph-roller and its driving mechanism until the lapse of another hour. The counterweight *n* is sufficiently heavy to cause the end of the pawl to drop into the next succeeding notch *q* in the

wheel *o*, and thus there is no danger that the wheel *o* will ever revolve sufficiently far for the end of the lever *m* to skip one of the notches *q*. The moment the current is broken or interrupted the counterweight *n* instantly raises the rod, and thereby forces the lever *m* forcibly against the periphery of the wheel, and the end of the lever catches in the next succeeding notch without fail.

While in the example of Figs. 3 and 4 the calling of the hour is accomplished directly at the clock, in that of the electric working the phonograph for calling out the hours can be located where desired, or several phonographs may be located each in a different place to call out the time from one clock with which they are connected.

In both examples the phonograph-roller may be provided with sounding-lines, for example, for giving off one or more call or alarm sounds preliminary to the call of the hour.

As in the example of Figs. 1 and 2, the contacts may be removed to different parts of the clock; so, also, in that of Figs. 3 and 4 may the phonograph-roller be locked from any other suitable part of the clock and also by other means than projections, such as *s*, without affecting the invention.

Having thus fully described my invention, I claim and desire to secure by Letters Patent—

In a phonograph-clock, the magnets, the armature, the vertical rod secured to and moving with the armature, the counterweight connected at its inner end to the vertically-moving rod, and the pivoted lever also having its inner end connected to the rod, combined with a phonographic cylinder provided with a toothed wheel upon one end, with which the said pivoted lever engages; the clock, one of the hands of which is provided with a suitably-shaped end for passing over the contact-points arranged around the dial, and the contact-points, suitable wires extending therefrom connecting with the battery, and the magnets, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

ERWIN TREITSCHKE.

Witnesses:
EMIL REICHELT,
HERNANDO DE SOTO.