

W. RAUSCH.
DIAL TRAIN FOR DISTANT SIGNALING PURPOSES.
APPLICATION FILED JULY 15, 1910.

1,056,302.

Patented Mar. 18, 1913.

Fig. 1.

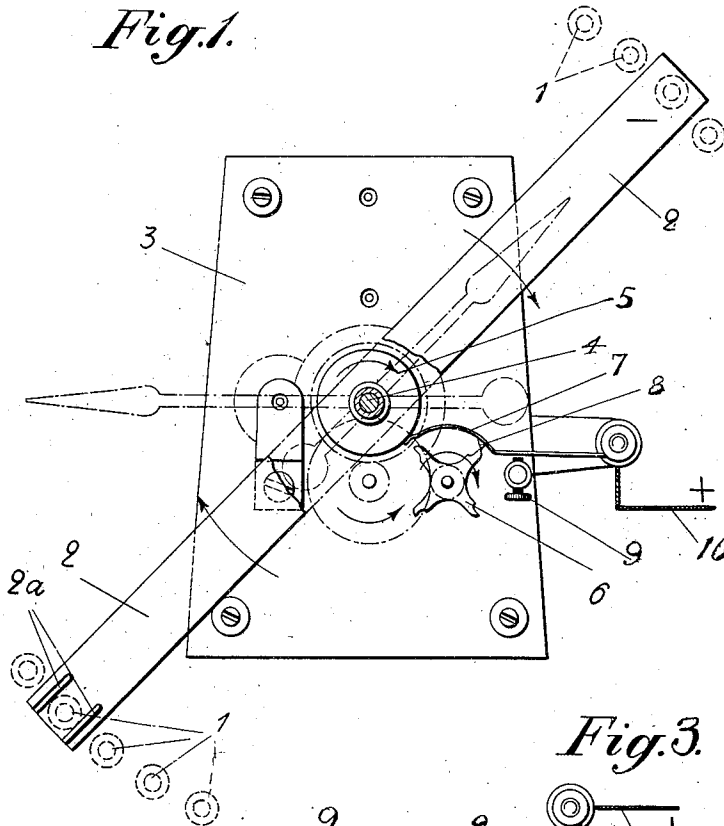


Fig. 2.

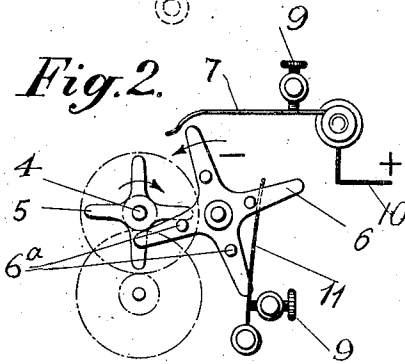
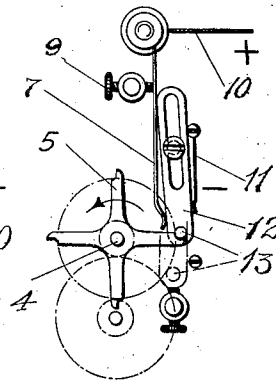


Fig. 3.



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UNITED STATES PATENT OFFICE.

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DIAL-TRAIN FOR DISTANT-SIGNALING PURPOSES.

1,056,302.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILHELM RAUSCH, a subject of the German Emperor, and resident of Dusseldorf, Germany, have invented certain new and useful Improvements in Dial-Trains for Distant-Signaling Purposes, of which the following is a specification.

This invention relates to improvements in electric clock signals, and more particularly to an improved device for shortly closing one or more electric circuits, which is shown on the accompanying drawing, in which—

Figure 1 is a front view thereof, while Figs. 2 and 3 show two modifications of part of same.

The device is to serve mainly for electric clock signals and controlling apparatus. The former are for instance day-clocks, which are wound up, or by which a gong or bell is actuated, through the medium of an electric current, whereas the controlling apparatus may be such with a coin insertion. Finally, the device can also be used for advertisement purposes, in which for instance electric illuminating bodies are periodically brought in connection with an electric power source.

As already mentioned, the closing of an electric circuit is to be effected in a short way by forming a sliding contact, by which always a safe closing of the circuit is obtained, as the formation of sparks, which act detrimentally on the contact members, is thereby avoided, while, as hereinafter explained, the electric power source is used up in a perfect way. By the sliding contact, the contact members are further prevented from sticking to each other in their contact position which often occurs with other contacts.

In the example shown in Fig. 1, the axle of an hour-hand of a day-clock is connected with a contact bar or disk, which upon its rotation comes in touch with correspondingly arranged contact points 1, which receive plugs connected with the leads of signaling devices. In all the three modifications shown, the going-work 3 or the contact bar 2 respectively carrying projections 2^a to move along the contact points, constitutes the current conductor, while the lead 10 is insulatingly arranged and connected with the former through the improved contact device.

As shown in Fig. 1, on the driving axle 4

a disk 5 is mounted, while through the medium of a toothed gearing a star wheel 6 is set in rotation by the former. Thereby, the disk 5 is periodically brought in contact with a contact spring 7, which is correspondingly raised by the wheel 6 and connected with the wire 10 and adapted to be regulated by means of a screw 9. The duration of the raising of the contact spring 7, which is effected by wheel 6 through the medium of a projection 8, depends on the width of the latter or of the arms of wheel 6.

Instead of using two uniformly moved disks or wheels, according to Fig. 2 the disk 5 may be provided with arms so as to form a cam disk and the wheel 6 may be loosely mounted and so acted upon by a spring 11 that, when advanced by the cam disk 5 through the medium of its pins 6^a, it is caused to rotate quicker by said spring, whereby contact spring 7 is shortly touched.

According to Fig. 3, the star wheel 6 is replaced by a slide 12, which is periodically lifted by disk 5 and which, owing to its lateral movement being limited, is finally liberated, whereupon it falls down and touches on this way the circuit closing spring 7 by means of its pin 13. When lifting slide 12, it is so kept and moved by disk 5, that the pin 13 does not come in touch with spring 7.

The improved contact device may also be advantageously used in connection with winding-up arrangements for clocks, in which a weight may be connected with an armature. To keep said weight always in equal action, the circuit closing device is at short periods operated from the clockwork, whereby the electromagnet with armature is set in action, the contact bar 2 being unnecessary in this case provided that one current lead is connected with the going-work.

I claim:—

1. In a contact device for electric clock signals, the combination of a plurality of contact points, a contact bar to move along same, a disk connected with said bar, a contact spring connected with an electric power source, a star wheel to periodically lift said spring and thus to bring same in connection with said disk, and a toothed gearing to connect said disk and star wheel, for the purpose set forth.

2. In a contact device for electric clock signals, the combination of a plurality of

contact points, a contact bar to move along
same, a cam disk connected with said bar, a
contact spring connected with an electric
power source, a loosely mounted spring-
5 pressed star wheel adapted to be operated
by said cam disk and to periodically lift said
spring, for the purpose set forth.

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

WILHELM RAUSCH.

Witnesses:

LOUIS VANDORY,
BESSIE F. DUNLAP.