

V. J. NIELE.
ALARM DEVICE.
APPLICATION FILED FEB. 12, 1910.

988,732.

Patented Apr. 4, 1911.

Fig. 1

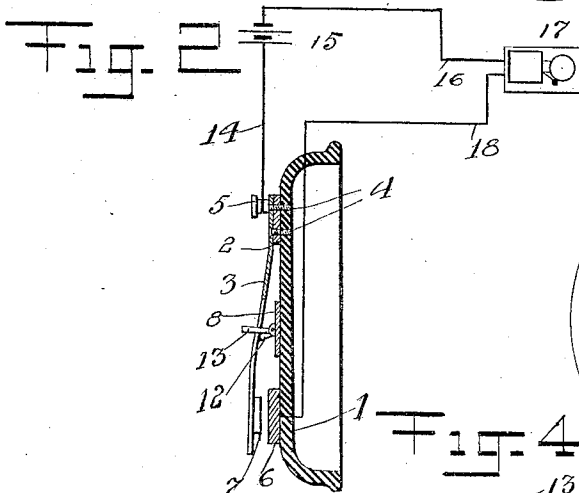
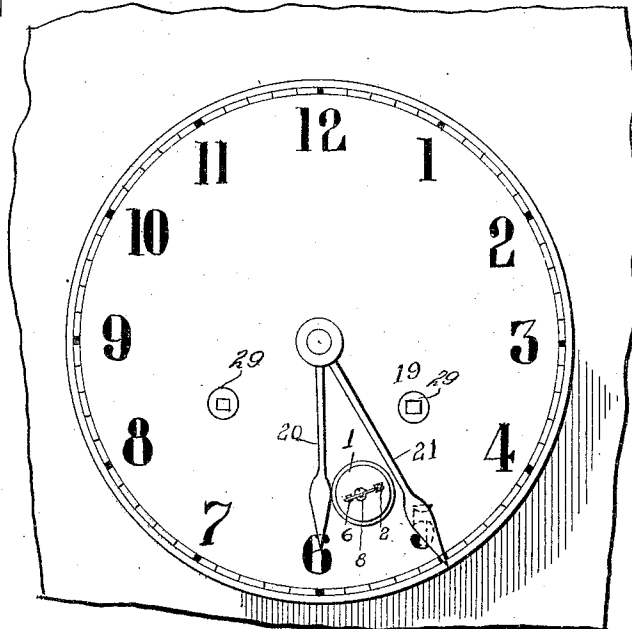


Fig. 3

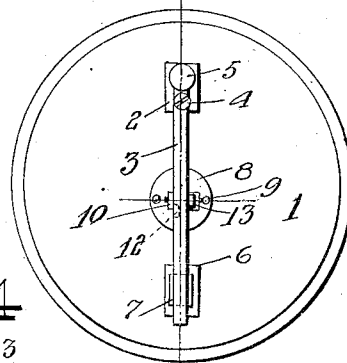
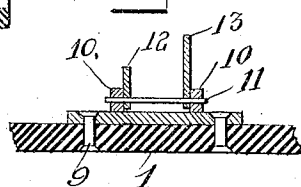


Fig. 4



Witnesses
Morris Lessin
R. C. Butler

Inventor
V. J. NIELE
By *H. C. Evans & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

VALENTINE J. NIELE, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO T. MORROW McLENAHAN AND ONE-THIRD TO FREDERICK W. ERTZMAN, OF PITTSBURG, PENNSYLVANIA.

ALARM DEVICE.

988,732.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, VALENTINE J. NIELE, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Alarm Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an alarm device, and the primary object of my invention is to provide a device for producing an audible signal at a predescribed time, somewhat similar to the ordinary and well-known type of alarm clock.

Another object of this invention is to provide a portable alarm device that can be attached to an ordinary clock and actuated by the movement of the hour-hand for producing an audible signal.

A further object of this invention is to provide an alarm device that can be advantageously used by travelers in lieu of the present type of alarm clock, the device being portable in connection with the ordinary electric alarm or bell circuit of a residence or hotel, or in connection with an electric circuit provided by a small dry battery.

A still further object of this invention is to provide an alarm device that can be easily and quickly attached to the face of an ordinary clock, to be actuated by one of the hands thereof at a predescribed time determined by the position of a portion of the device upon the face of the clock.

A still further object of the invention is to accomplish the above results by a mechanical construction that is simple, durable, easily installed, and highly efficient for the purposes for which it is intended.

With these and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination, and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements thereof can be varied or changed without departing from the spirit and scope of the invention.

In the drawings: Figure 1 is a front elevation of the dial of a clock, showing my de-

vice attached thereto. Fig. 2 is an enlarged vertical sectional view of the device showing it connected to a bell and suitable source of electrical energy. Fig. 3 is a front elevation of the device. Fig. 4 is a cross sectional view of a portion of the same.

In the accompanying drawings the reference numeral 1 denotes a suction disk preferably made of rubber or other flexible and resilient insulating material capable of being mounted upon a surface by creating a vacuum between the disk and the surface. The disk adjacent to the edge thereof is provided with a bearing plate 2 for a resilient contract arm 3, said arm of the plate 2 being retained in engagement with the disk 1 by screws 4 or other fastening means, one of the screws being provided with a binding post 5. The opposite edge of the disk 1 is provided with a contact plate 6 and adapted to engage said plate is a contact block 7 carried by the free end of the arm 3.

Mounted upon the disk 1 intermediate the plates 2 and 6 is a plate 8 said plate being secured in position by rivets 9 or other fastening means. The plate 8 is provided with diametrically opposed bearings 10 supporting a movable shaft 11 and upon said shaft are mounted a projection 12 and a trip-lever 13. The projection 12 is adapted to extend upwardly under the arm 3 and hold the same in an elevated position, while the trip-lever 13 extends upwardly upon one side of the arm 3, for a purpose that will presently appear.

The binding post 5 is connected by a wire 14 to a suitable source of electrical energy 15, as a dry cell battery, and this battery is connected by a wire 16 to an electric bell 17, said bell being connected by a wire 18 to the contact plate 6. The wire 18 is adapted to extend through the side wall of the disk 1 and then through the body of said disk and connect with the plate 6.

The application of the alarm device to a clock is shown in Fig. 1 of the drawings, where it will be observed that the vacuum or suction disk 1 has been secured to the dial 19 of the clock and in position to have the trip-lever 13 thereof impinged by the hour-hand 20 of the clock. With the hour-hand 20 located beneath the minute-hand 21, the minute-hand can freely travel over the face of the clock without actuating the device, but immediately upon the hour-hand 20 im-

pinging the trip-lever 13, the projection 12 will release the resilient arm 3 and allow the block 7 to engage the contact plate 6, and thereby establish a circuit through the
5 source of electrical energy 15 and the bell 17, to sound an audible signal until the device is removed from the dial of the clock, or if a dry cell battery is used, until the cell is exhausted.

10 From the foregoing it will be observed that I have devised a simple alarm device in connection with which a very small electric bell and battery can be used, and the disk secured to most any clock dial to be
15 actuated at a pre-determined time. Such a device can be advantageously used by traveling salesmen, professional hunters and parties desiring to rise in the early hours of the morning without the services
20 of a "call-boy" or another party.

I am aware that vacuum or suction disks have been used for other purposes, but believe that its use for supporting a contact arm in connection with an alarm has never been used before.

Having now described my invention what I claim as new, is:—

In an alarm device, the combination with an electrical circuit a bell adapted to be operated thereby, of a suction disk, and a resilient contact arm carried by said disk and adapted to establish a circuit through said bell.

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

VALENTINE J. NIELE.

Witnesses:

EVA A. MILNE,
KARL H. BUTLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
