

F. B. PERRY.
 SIGNALING DEVICE.
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1,238,937.

Patented Sept. 4, 1917.

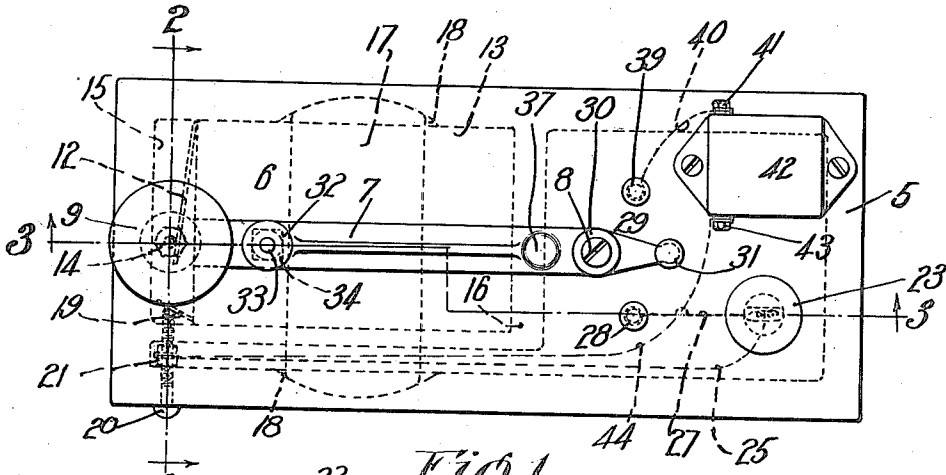


Fig. 1

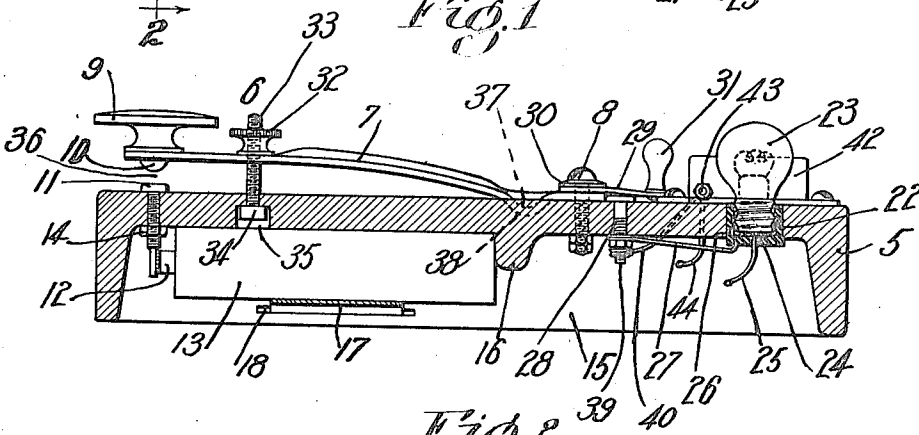


Fig. 2

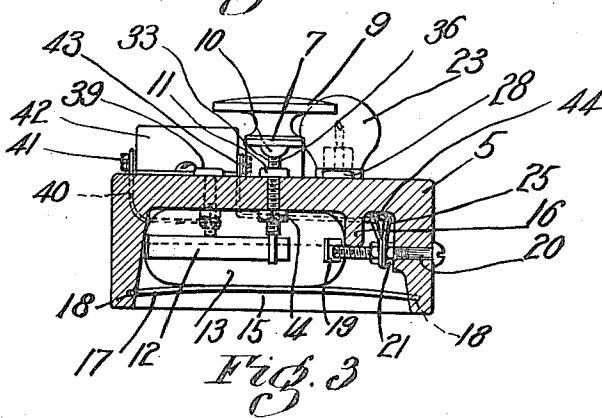


Fig. 3

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 by his attorney, Charles N. Gooding.

UNITED STATES PATENT OFFICE.

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SIGNALING DEVICE.

1,238,937.

Specification of Letters Patent.

Patented Sept. 4, 1917.

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To all whom it may concern:

Be it known that I, FRANK B. PERRY, a citizen of the United States, residing at Newton Center, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Signaling Devices, of which the following is a specification.

This invention relates to signaling instruments and has for its object to provide a simple, inexpensive instrument for signaling with the international Morse, or other codes, either by means of a light or by sound.

A further object of the invention is to provide an instrument of the nature above set forth which is especially adapted for instruction and practice in the art of signaling and of sending and receiving either radio or the usual telegraphic messages and is exceedingly small and compact to enable the same to be carried in the pocket or easily transferred from place to place.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings:

Figure 1 is a plan view of an instrument embodying my invention.

Fig. 2 is a longitudinal section taken on the line 3—3 of Fig. 1, certain parts in said figure being shown in elevation.

Fig. 3 is a transverse section taken on the line 2—2 of Fig. 1, certain parts in said figure being also shown in elevation.

Like numerals refer to like parts in all views of the drawings.

In the drawings, 5 is a base, preferably constructed of insulating material, such as vulcanite, porcelain or the like or, if desired, wood or metal may be employed. A key 6 is mounted upon said base 5, said key preferably embodying in its construction a resilient metallic member 7 secured at one end, preferably by a screw 8 to the base 5. The opposite end of said member 7 has a finger piece 9 of suitable insulating material attached thereto.

Beneath the finger piece 9 and attached to the resilient member 7 is a contact member 10 adapted to cooperate with a contact member 11 secured to the base 5 to make and break the electric circuit including said contact members. The contact member 11 is preferably a screw which extends through the top of the base 5 into engagement with

a spring 12 which is one pole of a dry cell battery 13.

A nut 14 retains the screw 11 in place in said base. The under side of the base 5 is recessed at 15, a portion of said recess being separated from the rest by a rib 16 forming a receptacle adapted to position the battery 13 in one corner of said recess so as to retain the spring 12 in contact with the screw 11.

A spring 17 constructed of suitable resilient material, such as fiber or metal, is adapted to be arranged with its opposite ends in slots 18, 18 adjacent opposite sides of the base with the central portion of said spring engaging the battery and thus retaining said battery in place within the recess, said spring being readily detachable so that the battery may be removed when exhausted and replaced by a charged battery.

The other pole 19 of the battery 13 is at the same end of said battery as is the pole 12, and is adapted to be held in engagement with the end of a screw 20 secured in the side of the base 5 by a nut 21. A lamp socket 22 is mounted upon the base 5 and adapted to receive a lamp 23. One terminal 24 of said lamp is connected by an electrical conductor 25 with the screw 20. The other terminal 26 of said lamp is connected by an electrical conductor 27 with a binding post 28 attached to said base 5 with the upper end thereof projecting through to the upper surface of said base.

The binding post 28 constitutes one of the contacts of a two-way switch 29 which is preferably pivoted upon the screw 8 and yieldingly held in contact with the end of the resilient member 7 by a spring washer 30, said washer and said screw being arranged to maintain a perfect electrical contact between the switch 29 and said spring but permitting said switch to pivot thereon.

A handle 31 is attached to the outer free end of the switch 29, by means of which said switch may be operated. When the free end of the switch 29 is in contact with the binding post 28 the electric circuit, including the key 6, switch 29, lamp 23 and battery 13, may be closed by depressing the finger piece 9 so as to cause the contact member 10 to engage the member 11, thus sending the electric current from the battery through the lamp.

A continued making and breaking of said electric circuit, by means of the key 6 being depressed and released and the length of

contact for the members 10 and 11 corresponding with the telegraphic code, will produce flashes of predetermined lengths which indicate the letters and numbers of the alphabet in the telegraphic system.

The resiliency of the member 7 causes the contact to be broken when pressure upon the key 6 is removed, said key being moved upwardly by said member 7 until stopped by an adjusting nut 32 having screw threaded engagement with a screw 33 projecting upwardly through the base 5.

The head 34 of the screw 33 is preferably square and fits a correspondingly shaped recess 35 in the underside of the top of the base 5, thus preventing said screw from rotating when the nut 32 is rotated. The nut 32 may be adjusted relatively to the screw 33 to vary the gap 36 between the contact members 10 and 11.

To insure a proper alinement between the contact members 10 and 11 at all times the resilient member 7 is preferably depressed at 37 and the depression thereof placed in a recess 38 formed to receive the same in the upper surface of the base 5, said depression being in close proximity to the screw 8.

If it is desired that the message be transmitted audibly rather than by means of the flashes from the lamp 23, the switch 29 may be swung upon its pivot 8 so as to be disconnected from the binding post 28 and moved into contact with a binding post 39, similar to the binding post 28, and connected by means of an electrical conductor 40 within the recess 15 with one pole 41 of a buzzer 42, preferably mounted upon the top of the base 5.

The other pole 43 of said buzzer is connected by an electrical conductor 44 with the screw 20, thus completing the circuit to the battery 13 and upon the closing of said circuit by means of the key 6 messages may be clicked off by means of said buzzer 42 in the usual manner.

By means of the instrument hereinbefore described, students may be instructed in the art of receiving and transmitting messages either by means of flashes or by sounds, and at a very small expense, the device being simple and inexpensive to construct and economical to operate.

Having thus described my invention what I claim and desire by Letters Patent to secure is:

1. A portable signaling instrument having, in combination, a base, a key mounted upon said base, an electric circuit adapted to be opened and closed by said key, a visible signaling member connected with said circuit, an audible signaling member connected with said circuit, and a switch pivotally arranged in electrical contact with said key, adapted to be operated to connect in circuit with said key either said visible member or said audible member.

2. A signaling instrument having, in combination, a base, a key constructed of resilient material and mounted upon said base, an electric circuit adapted to be opened and closed by said key, a screw adapted to secure said key to said base, a switch pivotally secured by said screw in electrical contact with said key, a pair of contact members adapted to be engaged by said switch, a visible signaling member electrically connected with one of said contact members and said circuit, and an audible signal member having electrical connection with the other contact member and said circuit whereby either an audible or visible signal may be transmitted by said key.

3. A signaling instrument having, in combination, a base, a contact on said base, an electric circuit connected with said contact, a key constructed of resilient material adapted to cooperate with said contact to open and close said electric circuit, means formed integral with said key adapted to position said key relatively to said contact, a screw adapted to secure said key to said base, a pair of contact members each independently connected with said electric circuit, and a switch pivotally arranged on said screw having electrical contact with said key, adapted to be moved to engage one or the other of said contact members.

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

FRANK B. PERRY.

Witnesses:

CHARLES S. GOODING,
SYDNEY E. TAFT.