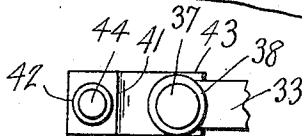
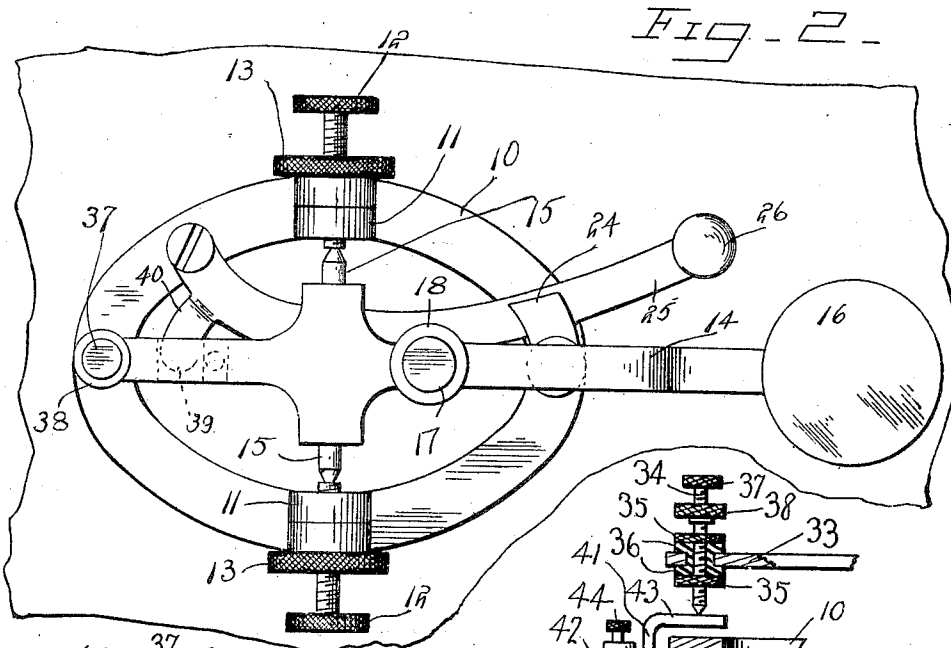
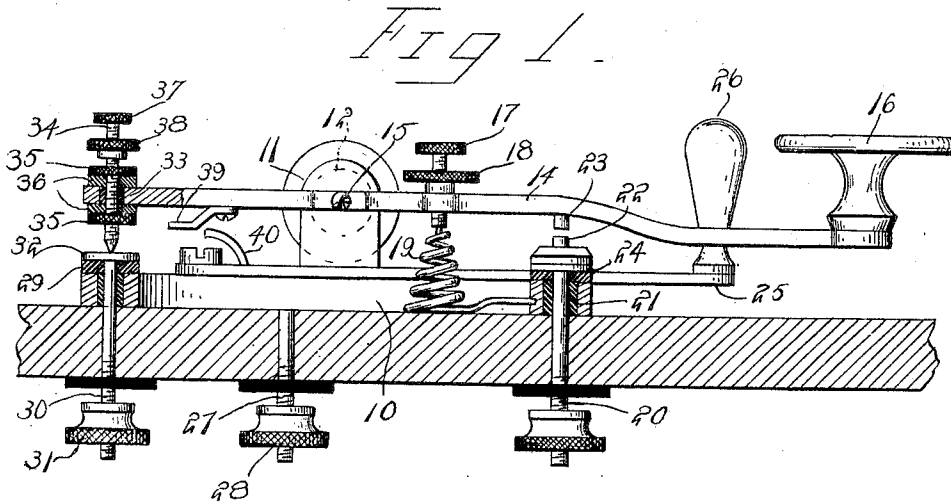


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TELEGRAPH KEY.
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971,572.

Patented Oct. 4, 1910.



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TELEGRAPH-KEY.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK G. SLEMMER, a citizen of the United States, residing at Goldsboro, in the county of Caroline, State of Maryland, have invented certain new and useful Improvements in Telegraph-Keys; 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.

This invention relates to telegraph instruments and has special reference to a form of telegraph key.

One object of the invention is to provide a telegraph key adapted to work two circuits, breaking one circuit as the other is made and making the first circuit as the second is broken.

Another object of the invention is to provide a form of telegraph instrument adapted to control a signaling circuit when in use and to open a second circuit and hold the same opened when not in use as a key.

With the above and other objects in view the invention consists in general of a form of telegraph key provided with contacts of the ordinary description and also with a second pair of contacts entirely insulated from the base and lever of the key.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a side elevation partly in section of one form of key constructed in accordance with this invention. Fig. 2 is a top plan view of this form of key. Fig. 3 is a partial side elevation partly in section of a second form of key. Fig. 4 is a partial top plan view of this second form of key.

Considering first the novel form of key disclosed in Figs. 1 and 2. This key is provided with a base 10 of any preferred form and this base 10 has opposed upstanding lugs 11 wherethrough pass the usual trunnion screws 12 equipped with lock screws 13. At 14 is a lever provided with the usual trunnions 15 and finger grip 16. This lever is further provided with an adjusting screw 17 and lock nut 18 whereon is supported one

end of a coil spring 19, the other end bearing on the base or table to which the device is attached, and this end of the coil spring is received in a suitable aperture made in the key base 10 in order to prevent the unwinding thereof. At the front of the base 10 is provided the ordinary binding screw 20 held from contact with the base by insulation 21 and provided with a contact point 22. Upon the key is a contact point 23 which is adapted to strike the contact point 22 when the key is depressed. Secured beneath the fixed end of the binding screw 20 is the usual spring contact 24 and pivotally mounted on the frame 10 is a contact arm 25 which is so arranged as to be readily swung beneath the contact 24 by means of a handle 26.

The parts so far described are those common to the ordinary telegraph key but the key of the present invention is distinguished therefrom in certain particulars now to be described. Fixed upon the base 10 and preferably projecting downward therefrom is a post 27 which is threaded at the lower end and provided with a binding nut 28. Held in the rear end of the frame 10 is an insulating bushing 29 and passing through this bushing is a post 30 threaded at its lower end and provided with a binding screw 31. The post 30 further has an enlarged head 32 so that the construction at this end of the frame is somewhat similar to the construction at the front end thereof. Held in a suitable insulating bushing 33 at the rear end of the lever is a screw 34 provided on each side of the bushing with locking screws 35 which serve to hold in position insulating washers 36. This screw is provided with a head 37 by means of which it may be adjusted through the end of the lever and below the head 37 is mounted on the screw a binding screw 38.

Secured to the under side of the key between the trunnion 15 and the rear end thereof is a cam member 39 and formed upon the bar 25 is a projecting member 40 which is so arranged that when the key is closed by the bar being brought between the contact plate 24 and the frame 10 the member 40 will strike against the member 39 and raise the rear end of the key so that simultaneous with the closing of the key the lower end of the screw 34 will be lifted from the head 32 of the screw 30.

In the form of the device shown in Figs. 3 and 4 the key is in all respects similar to that just described with the exception that the parts 29, 30, 31 and 32 are omitted and in place thereof there is provided a plate comprising a central portion 41, a foot 42 and a contact portion 43. This plate is secured immediately to the rear of the key in such position that the portions 41 and 43 will be in spaced relation to the base 10 of said key, being thus insulated by air and by the table to which the base and the foot 42 are attached from said key. Upon the foot 42 is a binding post 44. In both of the forms just described the usual signaling circuit is provided and has its ends connected respectively to the binding posts 20 and 27. In the first form the other circuit, for whatever purpose used, has one end connected to the screw 34 and the other end to the binding post 30 while in the second form this circuit has the first end connected to the screw 34 and the other end to the binding post 44.

In the operation of the device the signaling circuit is connected as above noted and what may be termed the secondary circuit is also connected in like manner. Now, it will be noted that under ordinary circumstances the signaling circuit is kept closed by reason of the back end of the key being raised so that the contact points 22 and 23 are caused to meet. At the same time the secondary circuit is broken by reason of the contact points at the rear end of the key being opened. When it is desired to signal the lever 25 is opened in the usual manner and this allows the contact points at the rear end of the key to close and open the contact points at the front end thereof. Signaling may then be carried on in the usual manner. The secondary circuit may be utilized in combination with a circuit closing device as described in my application for

telegraph instrument filed May 12, 1909 and bearing the Serial No. 495,446.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:—

1. A telegraph key comprising a base, a lever pivoted thereto and in electrical contact therewith, a pair of electrically insulated signaling contacts supported on said base and lever, and a second pair of insulated contacts arranged to close when the signaling contacts are opened and open when the signaling contacts are closed; in combination with manually operable means to close the first mentioned contacts and hold them in closed position, the first pair of contacts being electrically insulated from the second pair of contacts.

2. A telegraph key comprising a base, a lever pivoted thereto and in electrical contact therewith, a pair of electrically insulated signaling contacts supported on said base and lever, and a second pair of insulated contacts arranged to close when the signaling contacts are opened and open when the signaling contacts are closed; in combination with manually operable means to lift one end of said lever and close the signaling contacts, said means being arranged to releasably hold said signal contacts closed.

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

FRANK G. SLEMMER.

Witnesses:

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