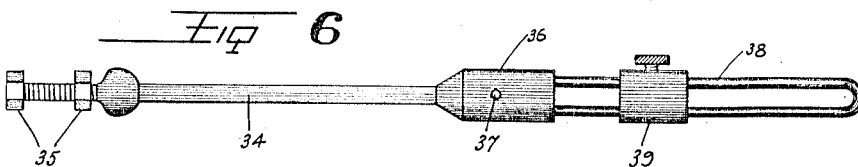
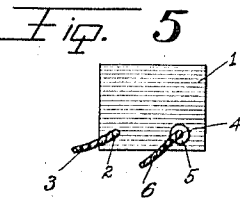
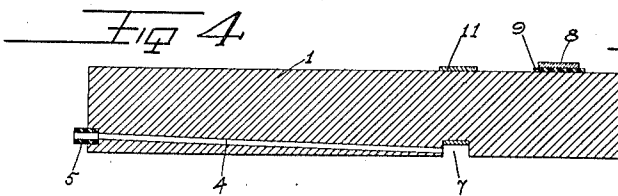
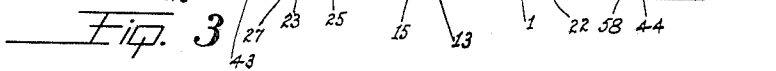
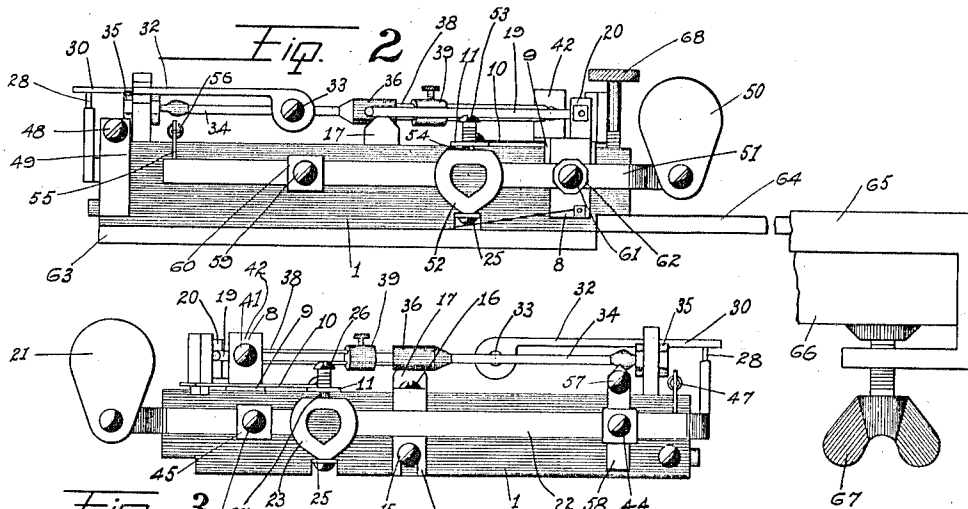
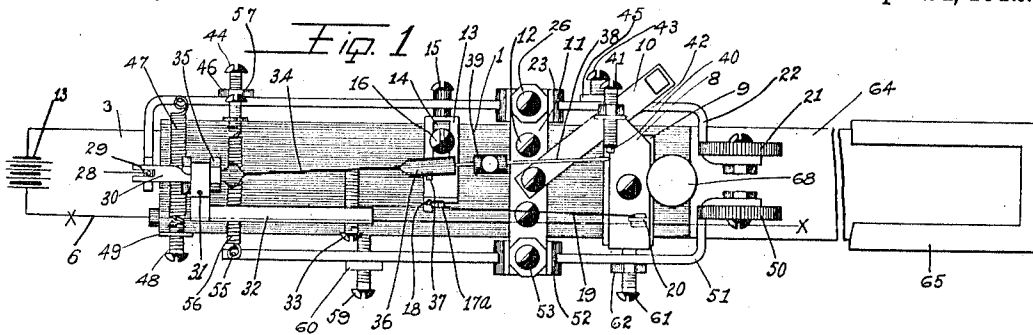


L. H. JERNIGAN:
TELEGRAPHIC INSTRUMENT.
APPLICATION FILED FEB. 23, 1912.

1,039,410.

Patented Sept. 24, 1912.



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UNITED STATES PATENT OFFICE.

LEE H. JERNIGAN, OF SACRAMENTO, CALIFORNIA, ASSIGNOR OF SEVEN ONE-HUNDREDTHS TO EUGENE H. CARPENTER, SEVEN ONE-HUNDREDTHS TO WILLIAM H. BOST, SEVEN ONE-HUNDREDTHS TO WILLIS E. WEAVER, SEVEN ONE-HUNDREDTHS TO ALBERT M. CABLER, SEVEN ONE-HUNDREDTHS TO ROLAND R. FLETCHER, SEVEN ONE-HUNDREDTHS TO DON E. GILMAN, AND SEVEN ONE-HUNDREDTHS TO RALPH E. TRICKLE, ALL OF SACRAMENTO, CALIFORNIA.

TELEGRAPHIC INSTRUMENT.

1,039,410.

Specification of Letters Patent.

Patented Sept. 24, 1912.

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To all whom it may concern:

Be it known that I, LEE H. JERNIGAN, a citizen of the United States, residing at Sacramento, in the county of Sacramento, State of California, have invented certain new and useful Improvements in Telegraphic Instruments; and I do declare the following to be a clear, full, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in telegraphic instruments and particularly to that class commonly designated as sending instruments, the object of the invention being to produce a sending instrument which will be exceedingly simple in construction and small and compact in size and one in which the wiring will be entirely covered up in the body of the instrument, such body also being in itself one of the necessary contact elements to complete the electrical circuit necessary to the operation of the instrument.

The invention further embodies certain adjustments regulating the strength of the sounds to be transmitted by the instrument and certain other adjustments to add to its efficiency.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects, I accomplish by means of such structure and relative arrangement of the parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a top plan view of the complete instrument. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation showing the side opposite to that shown in Fig. 2. Fig. 4 is a sectional view of the body of the instrument taken on a line X—X of Fig. 1. Fig. 5 is an end view of the body of

the instrument. Fig. 6 is a side elevation of the vibrating lever.

Referring now more particularly to the characters of reference on the drawings, 1 designates the body of the instrument which is made of brass or other similar adaptable material, which member 1 has in its rear end a hole 2 to which the outgoing wire 3 may be directly connected with the body 1. The numeral 4 designates another hole having an insulated entrance 5 through which hole may extend the incoming wire 6 which is insulated from the body 1 and projects through a slot 7 and connects with a plate 8 bolted to the body 1, the body being insulated therefrom by suitable insulation 9.

The numeral 10 designates a switch member pivoted to and contacting with a plate 11 secured to the body 1 by screws 12, such switch member adapted to be projected under and contacted with the plate 8 to complete the circuit from the source of electrical energy 13 through the wire 6, plate 8 and body 1 and wire 3. This closes the wire and when in this position the remaining parts of the mechanism are inoperative on said wire. Then when it is desired to operate the instrument, this switch is disengaged from the plate 8 and permits of the operation of the remaining mechanism which is constructed as follows. A plate 13 provided with a slot 14 is secured on an adjustment screw 15 which impinges against the body 1 and by the movement of which the plate 13 may be adjusted along the top of the body 1, any desired position of said plate 13 being fixed by a set screw 16 which projects through the slot 14 and screws into the body 1. On said plate 13 is an upwardly projecting lip 17 having an insulated point 17^a against which rests a spring wire 19 having a platinum point 18 connected by said wire 19 with the plate 8 as at 20.

The numeral 21 designates a finger key having a lever 22 extending around the side of the body 1 and having a pivotal member 23 projecting between the plate 11 and the plate 25 and pivoted therein, there being a set screw 26 through the plate 11 carrying a pivotal point 27 whereby the pivotal member 23 may be adjusted to a nicety for giv-

ing perfect operation. The lever 22 then continues along the side of the member 1 and bends around the rear end thereof and is provided with a pin 28 which fits in a slotted guide 29 on the end of the bell crank 30 pivoted at 31 and having a projecting bar 32 on its other end provided with an adjustment screw 33.

The numeral 34 designates a vibrating spring anchored to the body 1 as at 35 and projecting across the top of said body and normally held against the adjustment screw 33 and being thence provided with a lug 36 provided with a platinum point 37 aligned with the point 18.

Projecting from the lug 36 is a double wire point 38 having a weight 31 adjustable along its length, which point 38 normally contacts with an insulated point 40 on the end of an adjustment screw 41 projecting through a frame 42 secured to the member 8. Projecting through the member 22 are adjustable screws 43 and 44 having tightening nuts 45 and 46 for fixing said set screws in any desired position. These screws 43 and 44 impinge against the side of the body 1 and hence determine the movement of the lever 22 on its pivotal point. The normal position of said member 22 is held by a close wound spring 47 secured to an adjustment screw 48 projecting through a frame 49 which screw can be operated to fix the tension of the spring 47.

In practice the operation of the key 21 moves the member 22 on its pivotal point and pulls the bell crank 30 which throws the screw 33 away from contact with the vibrating spring 34 which causes the two points 37 and 18 to strike each other in quick succession which makes and breaks the circuit in quick succession from the source of electrical energy 13 through the wire 6, plate 8, wire 19, points 18 and 37, thence through the spring 34 and its anchored point 35 to the body 1 and through the wire 3 which making and breaking of the circuit would sound the dots on any sounding instrument connected on the wire. By adjusting the position of the plate 13 as described hereinbefore, it will increase or decrease the volume of sound on the sounding instrument by increasing or decreasing the scope of the vibration of the spring 39. Similarly the speed at which the dots all sound may be adjusted by moving the member 39. Also a further adjustment can be had by means of the screw 41.

The numeral 50 designates another finger key having a lever 51 which projects along the side of the member 1 and has a pivotal member 52 pivoted between the plate 11 and the plate 25 which projects clear across the underside of the member 1 there being a screw 53 projecting through the plate 11 and having a pivotal point 54 whereby the

pivotable movement of said lever 51 can be adjusted to a nicety. At the inner end on the lever 51 is an upwardly projecting pin 55 connected to which is a spring 56 secured to a screw 57 projecting through a frame 58 which screw can be used to fix the tension of the spring 56. This spring 56 holds the lever 51 in its normal position, which normal position is determined by a screw 59 screwed through the lever 51 and having a fixing nut 60, such screw being adapted to impinge against the body 1.

The numeral 61 designates a screw projecting through the lever 51 and having a fixing nut 62. This screw 61 is adapted to touch the plate 8 as the lever 51 is operated and every time it touches such plate 8 the circuit is complete from the source of electrical energy 13, wire 6, plate 8, screw 61, body 1 and wire 3 and thus this lever could be used to sound the dashes in the sounding machine which might be connected with the wire.

A strip of rubber 63 is disposed along the bottom of the member 1 to cause the same to stay stationary wherever it is placed on the operating table and at the forward end of the body 1 is secured a plate 64 slidable in a guide plate 65 secured to said table 66 by a wing nut 67. A screw 68 connects the member 1 with the member 64 and hence permits said member 1 to be turned in any position desired while the members 64 and 65 permit to be extended further from or closer to the operator as may be desired and when not in use the entire mechanism may be folded into a compact position.

From the foregoing description it will be readily seen that I have invented such a device as substantially fulfils the object of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

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

1. A device of the character described comprising a base member, a pivotal member on said base member, an adjustment screw mounted independently on said base member, a spring connecting said adjustment screw and said pivotal member, adjustment screws disposed through the sides of said pivotal member on each side of its pivotal point and adapted to engage the side of said base member to limit the movement of said pivotal member, a vibrating wire, means connected between said pivotal member and said vibrating wire for holding said vibrating wire normally quiet, means for releasing said holding means to cause said

wire to vibrate, a contact point, said vibrating wire being adapted to strike such contact point as it vibrates, and means electrically connecting said vibrating wire and said contact point with opposite terminals of the same telegraphic circuit, as described.

2. A device of the character described comprising a base member, a pivotal member mounted on said base member, a bell crank connected with said pivotal member, a projecting arm on said bell crank, a vibrating wire, an adjustment screw projecting through said arm and normally engaging said vibrating wire, a contact point, said vibrating wire being adapted to strike said contact point as it vibrates, and means for electrically connecting said vibrating wire and said contact point with opposite terminals of the same telegraphic circuit, as described.

3. A device of the character described comprising a base, a lever pivoted to the side of said base and provided with an operating key, two adjustment screws projecting through said lever and adapted to engage the side of said base to limit the movement of said lever, a spring pulling on said lever to hold it in normal position, a vibrating wire mechanism, means connected between

lever and said vibrating wire mechanism to hold said vibrating wire mechanism still when the said lever is in normal position and to move said holding mechanism when said lever is moved to permit said vibrating wire mechanism to vibrate and means for making and breaking an electrical circuit with the vibration of said wire mechanism, as described.

4. A device of the character described comprising a base, a plate insulated from said base, a lever pivoted at one side of said base and being held in normal position by a spring, an adjustment screw projecting through said lever and adapted to engage said base to limit the movement of said lever, an adjustable contact point on said lever adapted to engage said plate when said lever is moved out of normal position and means for connecting a source of electrical energy to said plate and to said base, as described.

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

LEE H. JERNIGAN.

Witnesses:

STEPHEN M. BLEWETT,
CLARENCE SMITH.