(No Model.)

A. E. McCLAREN.

TELEGRAPH KEY.

No. 480,475. Patented Aug. 9, 1892.

FIG. 1.

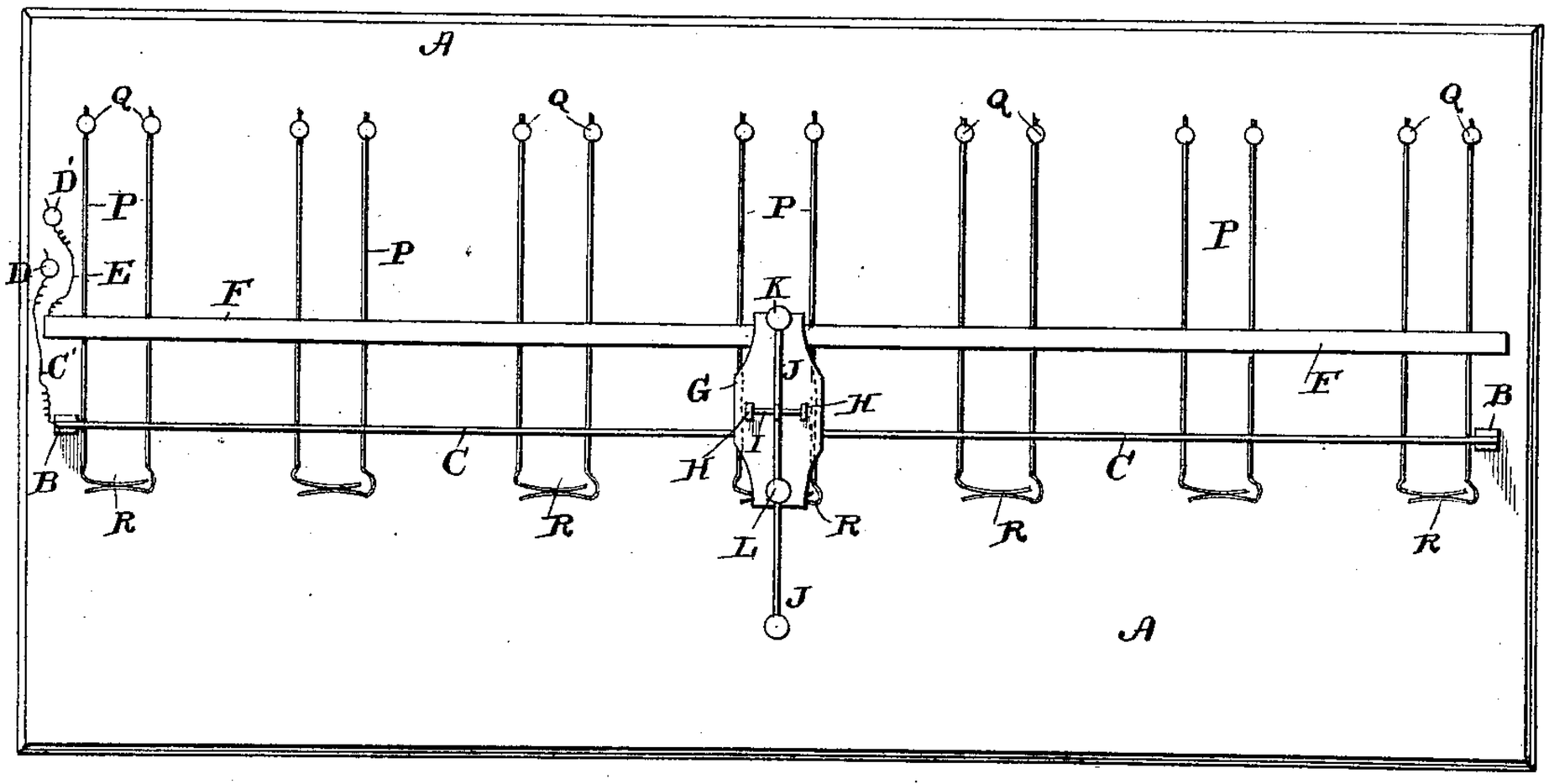
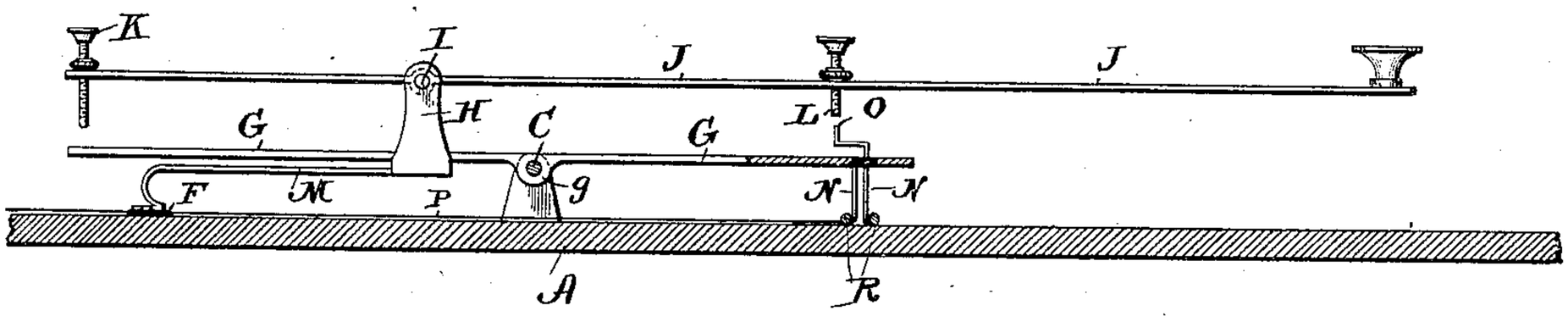


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED E. McCLAREN, OF JOPLIN, MISSOURI.

TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 480,475, dated August 9, 1892.

Application filed April 9, 1892. Serial No. 428,510. (No model.)

To all whom it may concern:

Be it known that I, ALFRED E. MCCLAREN, a citizen of the United States, residing at Joplin, in the county of Jasper and State of Missouri, have invented a new and useful Telegraph-Key, of which the following is a specification.

This invention relates to telegraphy; and it has for its object to provide an improved telegraph-key, which is designed to be used in connection with all the wires that one operator can handle, so that he can instantly cut his instrument onto any wire when called without moving from his seat. This dispenses with a multiplicity of instruments for each wire and greatly facilitates the work of the operator.

To this end it is the main object of this invention to provide certain improvements in telegraph-keys.

With these and many other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a plan view of a telegraph-key constructed in accordance with this invention. Fig. 2 is a vertical transverse sectional view of the same.

Referring to the accompanying drawings, A represents the wooden key board or base, upon which are mounted near each end thereof the supports B, to which are secured the horizontal supporting-rod C, extending longitudinally the entire length of the key base or board A, and which is connected by the wire C′ to the binding-post D, to which is connected one of the wires of the ordinary relay and sounder. The other wire from the relay is connected to the adjacent binding-post D′, which receives the wire E, connecting in the circuit the longitudinally-arranged contact strip or plate F, secured to the top of the key base or board directly back of the horizontal rod D, supported above said base and in circuit with the relay.

Mounted to slide and rock upon the horizontal rod C is the key-plate G, which plate is provided with depending perforated lugs *g*, loosely engaging said rod, so that the said plate may be slid back and forth upon the same and oscillated thereon to make the connections, as will be presently noted.

Mounted upon the metallic key-plate and insulated therefrom are the opposite uprights H, in which are journaled the ends of the key or lever axis I, to which is secured the vibrating key or lever J. The said key or lever J is provided at one end thereof with the ordinary regulating-screw K to adjust the movement of the same and with the contact screw or point L, passing therethrough and adapted to close and break the circuit while the instrument is in use.

It will be noted that the key-plate G and the lever thereon are entirely insulated from each other. The key-plate G is placed in circuit with the relay by means of the wire C′ and the rod C, upon which the same is mounted and slides, while the lever J thereon is placed in the circuit through the wire E and the longitudinal contact strip or plate F by means of the contact-spring M, connected with the key or lever supporting uprights H and normally contacting with said contact-plate in whatever position the key or lever may be placed upon the board or base A.

Secured in the outer end of the sliding key-plate G are the connecting terminals or legs N, depending from said plate and designed to connect the key with any one of the series of lines which terminate in the key base or board A. One of said connecting legs or terminals is insulated from the metallic key-plate and, passing through the same, is provided with a projecting contact-point O, lying directly under the lower end of the contact screw or point L in the key or lever J. When the key or lever J is depressed so that the screw L and the contact-point O contact with each other, or, in other words, when the key is closed, it will be readily seen that the two connecting-legs N, side by side and insulated from each other, form the termini of the wires from the ordinary relay and sounder, which is connected with the binding-posts D and D′, owing to the connection with the key-lever and key-plate, respectively, with which the two contact legs or terminals are designed to be connected.

According to the size of the key base or board, any number of line-wires B may be run thereon. The said base or board A is pro-

vided near the back end thereof with a series of binding-posts Q, through one of which each wire passes onto the board and off at the adjacent post. The line-wires extend upon the base or board A from their respective binding-posts slightly beyond the horizontal rod C and are provided with the sprung bared contact ends R, arranged in a line below and parallel with the horizontal rod C and normally contacting with each other, so that the circuit on the wire will always be normally closed; but said contact ends are so disposed as to receive the short depending legs or terminals N, which are designed to be forced between the contact ends of any line by simply pressing the key-plate slightly downward to place the instrument in circuit with the line desired.

By shifting the sliding key upon the key board or base the same can be easily and rapidly placed in circuit with any of the lines thereon by simply bearing the key-plate down or slightly rocking the same upon its supporting-rod until the two connecting links or termini pass between the bared contact ends of the line-wire. This operation greatly simplifies the work of the operator and allows him to operate a number of wires from the same table and by single instrument.

The construction, operation, and many advantages of the herein-described shifting telegraph-key are now thought to be apparent without further description.

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

1. In a telegraph-key, a key base or board, the series of line-wires terminating upon said base or board and arranged in a line thereon, and a shifting key mounted to slide over said base or board from end to end thereof and adapted to be pressed directly in circuit independently with any of the line-wires terminating thereon, substantially as set forth.

2. In a telegraph-key, a key base or board receiving the line-wires, a supporting-rod mounted horizontally upon and over said board, and a telegraph-key mounted to slide and rock upon said rod, said key being in circuit with and carrying the termini of the relay to be thrown in circuit with any of the line-wires upon said base or board, substantially as set forth.

3. In a telegraph-key, a key base or board receiving the line-wires, a metallic supporting-rod mounted horizontally upon and over said board, a horizontal contact plate or strip mounted upon said board parallel with said rod, wires connecting said contact-plate and said rod with the relay, and a shifting key loosely mounted upon said rod and carrying the termini of the wires connected with said plate and rod, which termini are adapted to be thrown in connection with any of the line-wires upon the base, substantially as set forth.

4. In a telegraph-key, the combination, with the separate line-wires, of a metallic supporting-rod connected with one wire of the relay, an adjacent parallel contact-plate connected with the other relay-wire, a metallic key-plate mounted to slide upon said rod, the key or lever mounted upon said plate and insulated therefrom, said key being normally in electrical connection with said contact-plate and the wire terminals or legs depending from said key-plate and in circuit with the key-plate and key, respectively, substantially as set forth.

5. In a telegraph-key, the base or board, the line-wires connected with said board and having contact ends, a horizontal supporting-rod mounted upon said board, an adjacent parallel contact-plate, wires connecting said contact-plate and rod with the relay, a sliding and rocking key-plate mounted upon said rod, the key-supports insulated from said key-plate, a contact-spring connected with said supports and normally contacting with said contact-plate, the key or lever mounted in said supports and having the contact-screw, and the depending connecting terminals or legs connected with said key-plate, one of said legs or terminals being insulated from said plate and having a projecting contact-point directly under said contact-screw, said legs or terminals being designed to be pressed in connection with the contact ends of the line-wires, substantially as set forth.

6. In a telegraph-key, the base or board, the line-wires connected with said base or board and provided with bared contact ends normally sprung together and arranged in a line upon said base, and a shifting key mounted to slide over said base or board and provided with the relay termini or connecting-legs adapted to be forced between said bared contact ends, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALFRED E. McCLAREN.

Witnesses:
J. M. BECKER,
W. R. FLETCHER.