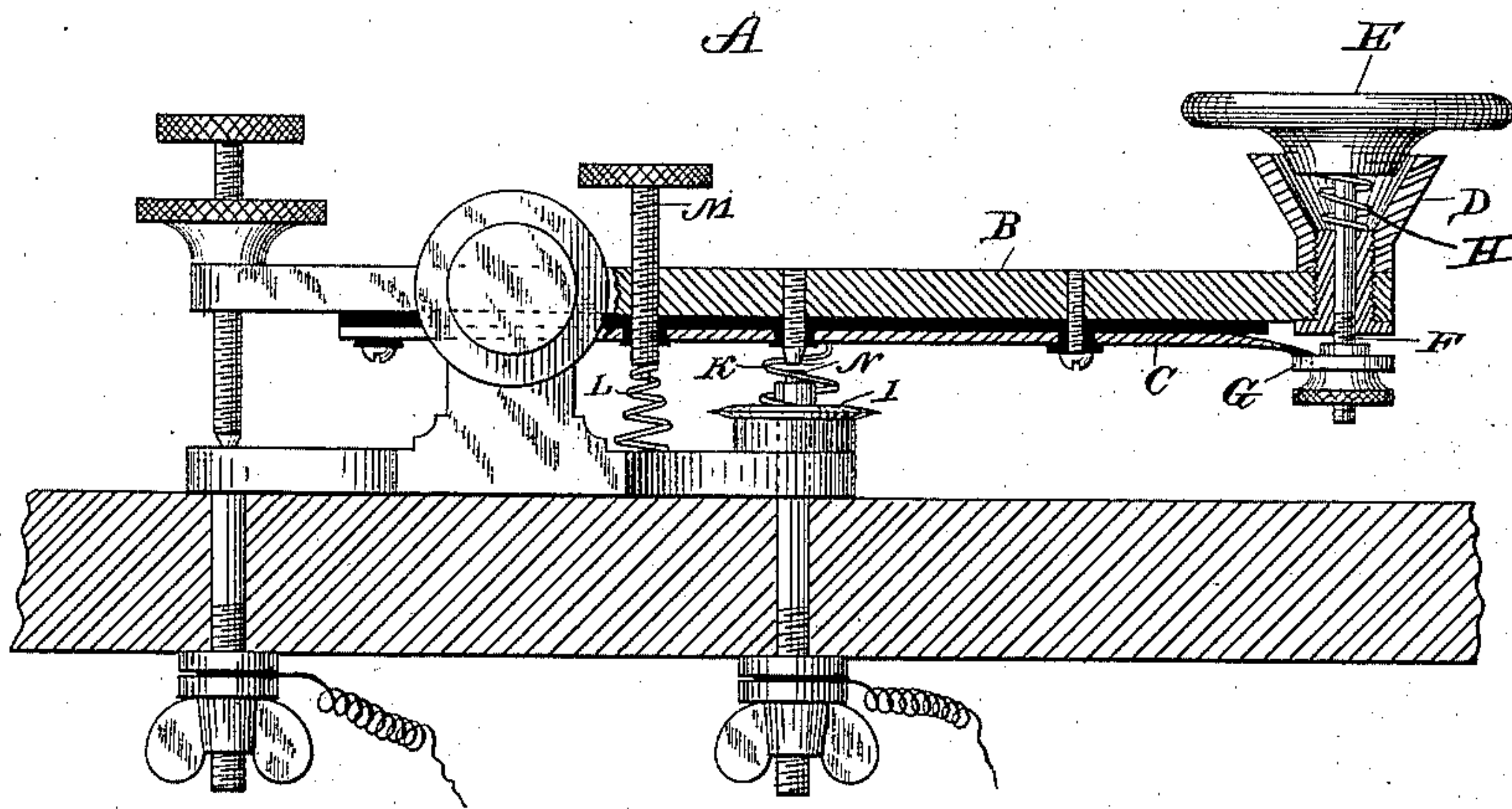


(No Model.)

J. W. McARTHUR.

AUTOMATIC CIRCUIT CLOSER FOR TELEGRAPH INSTRUMENTS.  
No. 331,148.

Patented Nov. 24, 1885.



WITNESSES

*Percy C. Bowen.*  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

JAMES W. McARTHUR, OF WALTON, KANSAS.

## AUTOMATIC CIRCUIT-CLOSER FOR TELEGRAPH-INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 331,143, dated November 24, 1885.

Application filed October 3, 1885. Serial No. 178,943. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. McARTHUR, a citizen of the United States, residing at Walton, in the county of Harvey and State of Kansas, have invented new and useful Improvements in Automatic Circuit-Closers for Telegraph-Instruments, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to an improvement in circuit-closers for telegraph-instruments; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The accompanying drawing is a side elevation of a telegraphic key with my improved circuit closer attached thereto, partly in section.

A represents a telegraphic key of the usual construction. On the under side of the lever B is secured a metallic strip, C, which is insulated from the lever and extends nearly the full length thereof. On the upper side of the outer end of the lever is secured a hollow knob, D, in which is placed a button, E, preferably made in the shape here shown, so as to be easily grasped by the operator. A shank, F, extends from the lower side of the button down through an opening in the knob and in the lever, and on the lower end of this shank is a metallic contact-disk, G. A coiled spring, H, on the upper portion of the shank bears between the button and the knob, so as to raise the button and keep the contact-disk in contact with the free end of the contact-strip C. On the anvil I of the key is placed a coiled metallic spring, K, that bears against the under side of the strip C and connects the anvil at all times with the strip C.

The usual spring, L, and bearing-screw M are provided for keeping the contact-points N of the key normally open.

When the key is not in use, the circuit is completed through the base, the lever, the contact-disk, springs, and strip, and the connecting-spring K, which latter forms substan-

tially a flexible connection between the strip C and the anvil.

When the button is grasped by the operator, the spring H yields, and the connection between the contact-disk and strip C is broken, to be again established as soon as the operator releases his grasp.

When the spring L is employed, the spring K will be made very light and flexible, so as not to offer too great resistance to the downward movement of the lever; but the spring L may be dispensed with altogether by making the spring K of sufficient strength.

I do not desire to limit myself to the precise construction hereinbefore described, as it is evident that many modifications may be made therein without departing from the spirit of my invention.

Having thus described my invention, I claim—

1. The key having the contact-strip secured to the lever and insulated therefrom, the flexible connection between the strip and the anvil, and the movable button having the contact disk or point in contact with the strip when the key is not in use, and adapted to automatically break connection with the strip when the button is depressed, substantially as described.

2. The combination, in a telegraph-key, of the strip C, secured to the lever and insulated therefrom, the spring connecting said strip with the anvil, and the vertically-movable button having the contact disk or point for connecting the strip C and the lever when the key is not in use, and breaking the said connection when the button is depressed, and the spring H, bearing under the button, substantially as described.

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

JAMES W. McARTHUR.

Witnesses:

W. H. COLE,  
L. H. STRATTAN.