

(No Model.)

M. M. PORTER.
TELEGRAPH KEY.

No. 581,135.

Patented Apr. 20, 1897.

Fig. 1.

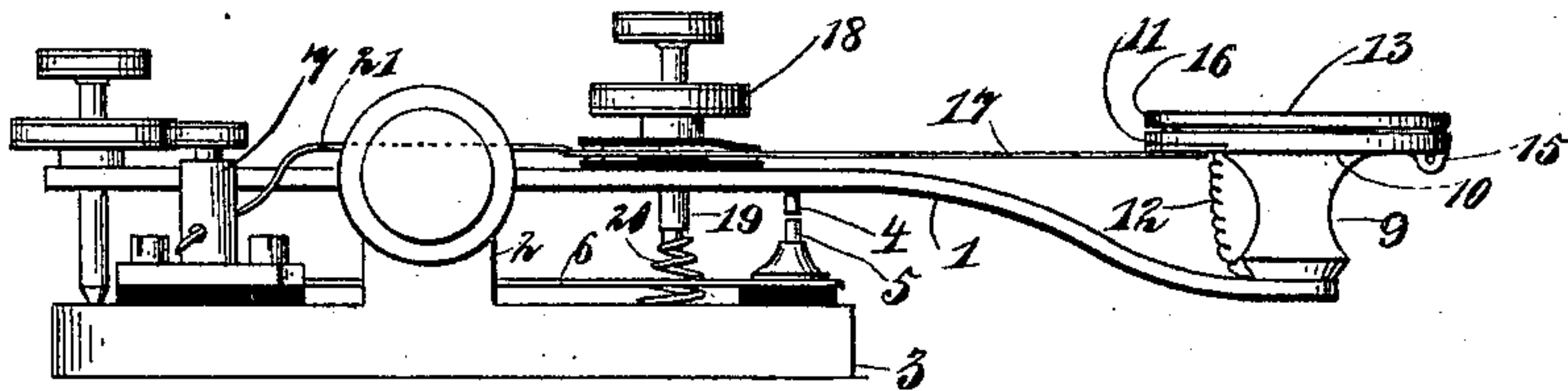


Fig. 2.

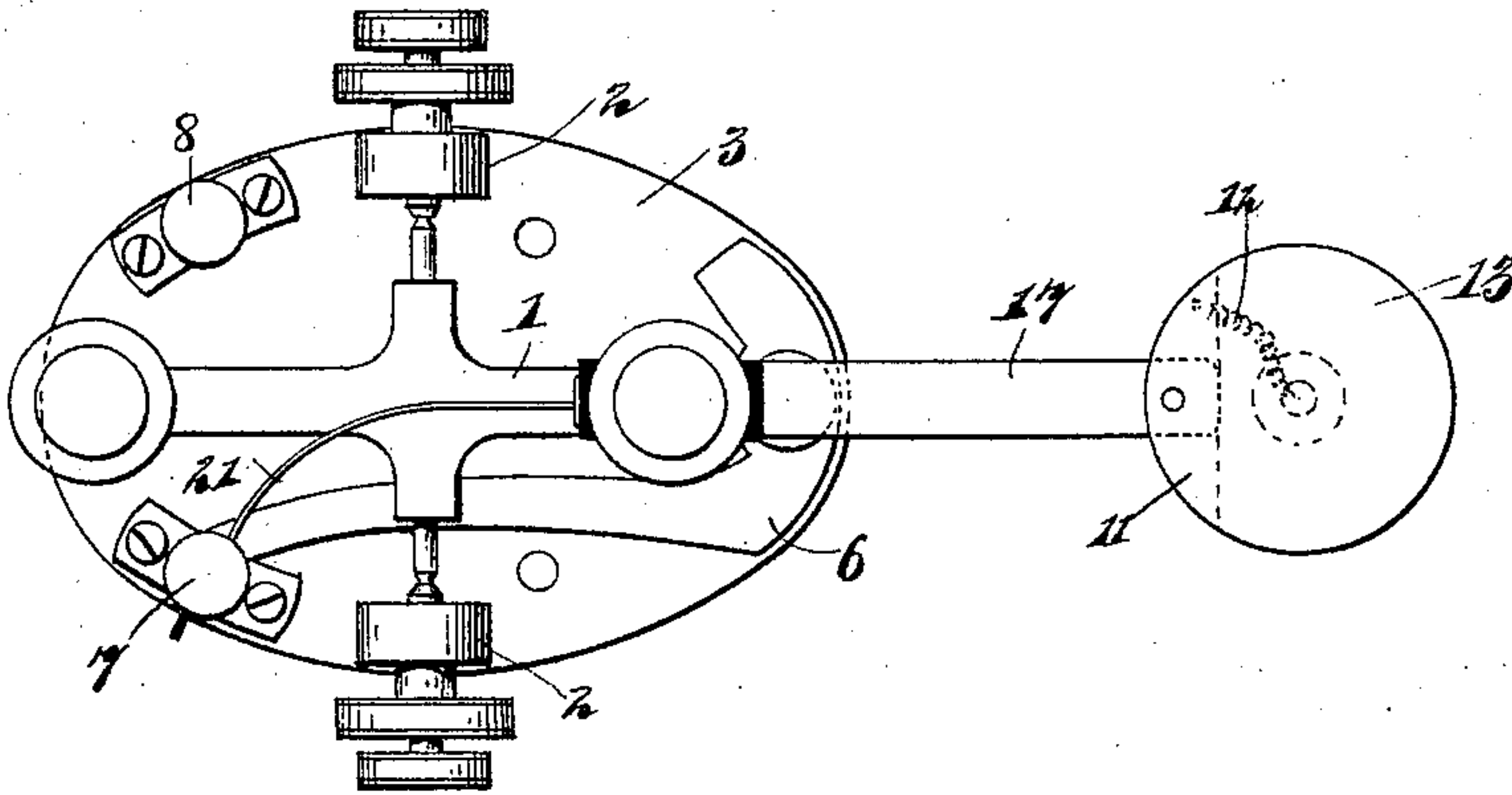
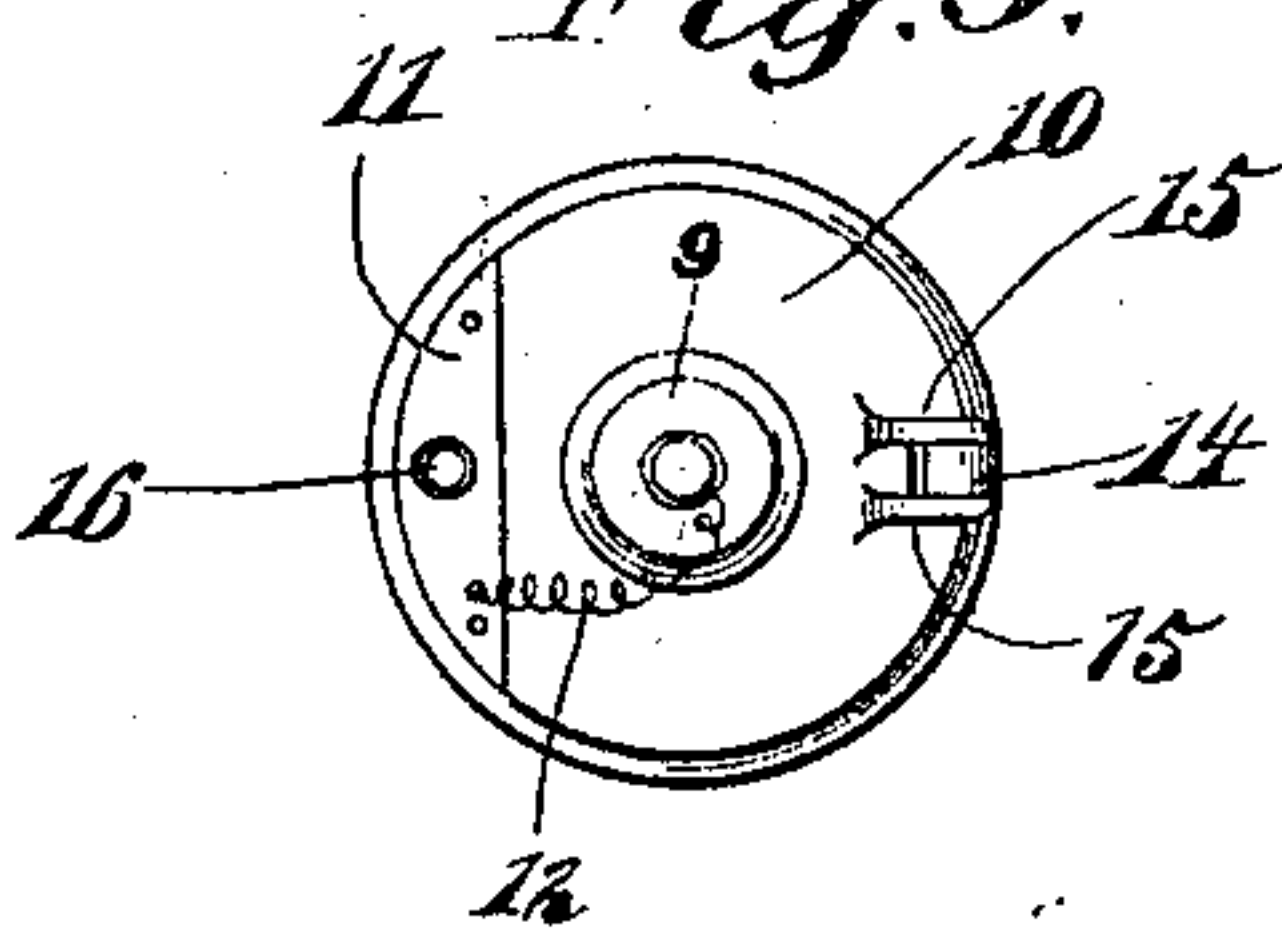


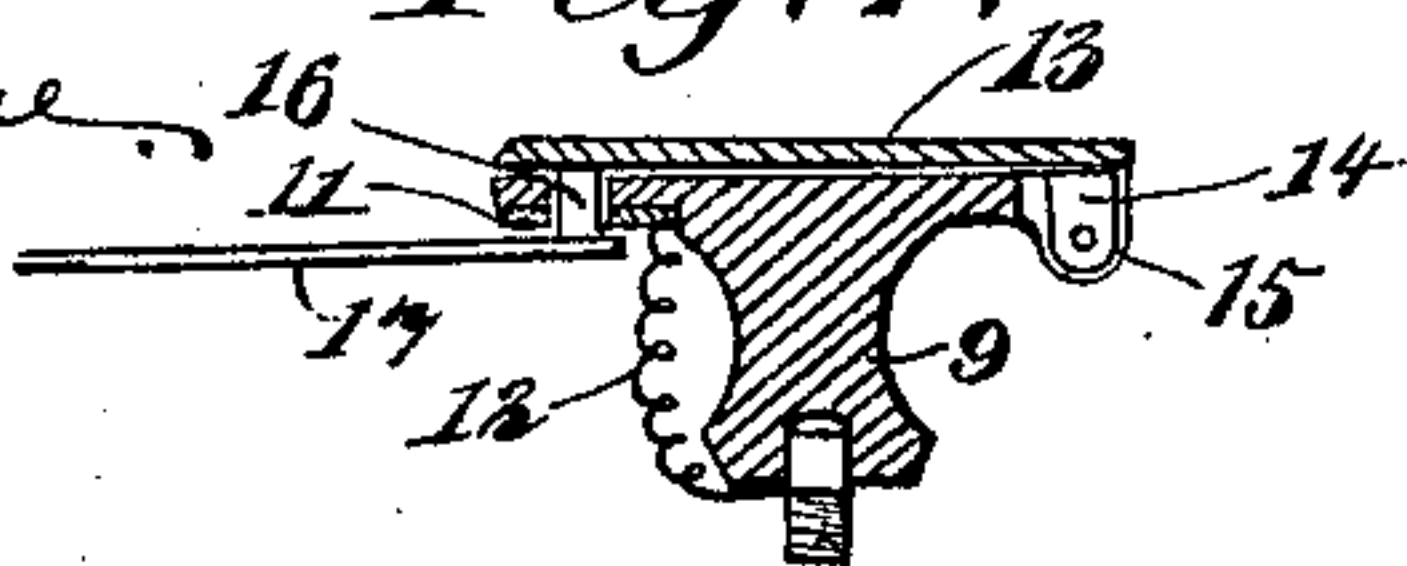
Fig. 3.



WITNESSES:

L. A. Legendre
C. R. Ferguson

Fig. 4.



INVENTOR

M. M. Porter

BY

manly

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MARTIN M. PORTER, OF MALONE, NEW YORK, ASSIGNOR OF ONE-HALF TO
GEORGE H. HALE, OF SAME PLACE.

TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 581,135, dated April 20, 1897.

Application filed May 13, 1896. Serial No. 591,324. (No model.)

To all whom it may concern:

Be it known that I, MARTIN M. PORTER, of Malone, in the county of Franklin and State of New York, have invented a new and Improved Telegraph-Key, of which the following is a full, clear, and exact description.

This invention relates to transmitting-keys for telegraphic circuits; and the object is to provide, in connection with the key, a simple and positive means for automatically closing the circuit through the instrument after the key shall have been released by an operator, thus avoiding the delay and inconvenience that frequently arise by neglecting to close the circuit.

I will describe an instrument embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a telegraph-key embodying my invention. Fig. 2 is a plan view thereof. Fig. 3 is a bottom view of the finger-piece employed, and Fig. 4 is a section thereof.

Referring to the drawings, 1 designates the key-lever, having the usual pivotal connections with posts 2, extended upward from the base-plate 3. The under side of the lever is provided with a contact-point 4, adapted to make and break connection with a contact-point 5 on a plate 6, having electrical connection with a binding-post 7. The binding-post 7 is mounted on but insulated from the base-plate 3 and is designed to receive one of the line-wires, the other line-wire connecting with a binding-post 8 in electrical connection with the base-plate. When the points 4 and 5 are in contact, the current will be through the base, the key-lever, the plate 6, the binding-post 7, and out through its lead-wire.

On the outer end of the key-lever is mounted the finger-piece 9, of suitable insulating material—such, for instance, as hard rubber. The finger-piece as here shown has a disk or flange top 10, to the under side of which is secured a metal plate 11, in electrical connection with the key-lever 1 by means here shown

as a wire 12. Hinged to extend over the entire surface of the finger-piece top is a plate or disk 13 of insulating material. This plate or disk 13 at one edge is provided with a lug 14, extended downward through a notch formed in the edge of the disk 10 and pivotally connected to lugs 15, depending from said disk 10. The disk 13 at its edge opposite its hinged edge is provided with a pin 16, adapted to pass through an opening formed through the disk 10 and through the plate 11. This pin 16 may be of insulating material, or the hole through the disk and plate may be sufficiently large to prevent any possible contact between the pin 16 and plate 11.

Secured to the key-lever, but insulated therefrom, is a spring-plate 17, adapted for engagement at its free end with the plate 11. As here shown, the plate 17 is secured to the key-lever by means of a jam-nut 18 on the screw 19, which passes through the key-lever and engages with the spring 20. Insulating material is placed between the nut and plate and between the plate and key-lever, and the plate 17 is in electrical engagement with the binding-post 7 through the medium of a wire 21.

An operator in sending a message will grasp the finger-piece in the usual way and at the same time press down on the disk 13, so that the pin 16 will force the plate 17 out of contact with the plate 11, thus breaking the connection through said plate 17. Upon releasing the key the plate 17 will spring back to its engagement with the plate 11 and thus automatically close the circuit.

By making the plate or disk 13 of sufficient size to completely cover the top of the finger-piece the operator cannot fail to engage it and force it down. This would not be so easily accomplished were the plate smaller than the top of the finger-piece or in the form of a small push-pin.

I am aware that telegraph-keys have been made in which the breaking of the circuit is made by a plate operating vertically with relation to the finger-piece, but such construction is objectionable, inasmuch as such a plate must at all times be in its operative position, and therefore the circuit is liable to be accidentally opened by pressure on the plate from

papers thrown upon the operator's table and engaging with the key, and thus the circuit might remain open for a considerable length of time. This difficulty may be wholly avoided with my invention, as the part 13 may be swung out of operative position.

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

10 1. A telegraph-key, comprising a spring-plate adapted for electrical connection with a line-wire, a key-lever, a finger-piece of insulating material, a metal contact attached to said finger-piece and having electrical con-
15 nection with the key-lever, a plate hinged to swing vertically on said finger-piece, and a projection on said plate adapted to engage with the spring-plate to force it out of engagement with the contact on the finger-piece,
20 substantially as specified.

2. A telegraph-key, comprising a key-lever, a finger-piece having connection therewith, a contact-plate on the finger-piece in electrical connection with the lever, a plate having hinge
25 connection with the finger-piece and covering the entire top surface thereof, a spring-plate

connected to the lever and to a post for a line-wire, and a pin on the hinged plate for engaging with the spring-plate, substantially as specified.

3. A telegraph-key, comprising a key-lever, a finger-piece on said lever, a contact-plate at one side of said finger-piece and having electrical engagement with the key-lever, a finger-plate hinged at one edge to one edge of
35 the finger-piece, the said plate being adapted to cover the entire upper surface of the finger-piece, a spring mounted on the upper side of the key-lever and adapted for electrical engagement with the contact-plate on the fin-
40 ger-piece, the said spring-plate having connection with a line-wire, and a lug on the swinging plate adapted to pass through an opening in the finger-piece and in the con-
45 tact-plate to force the spring-plate out of engagement with the contact-plate, substantially as specified.

MARTIN M. PORTER.

Witnesses:

GEO. W. SHEARS, Jr.,
GEO. M. LINCOLN.