

(No Model.)

2 Sheets—Sheet 1.

C. H. CROCKETT & L. C. DEDRICK.  
TELEGRAPH KEY.

No. 438,530.

Patented Oct. 14, 1890.

Fig. 1.

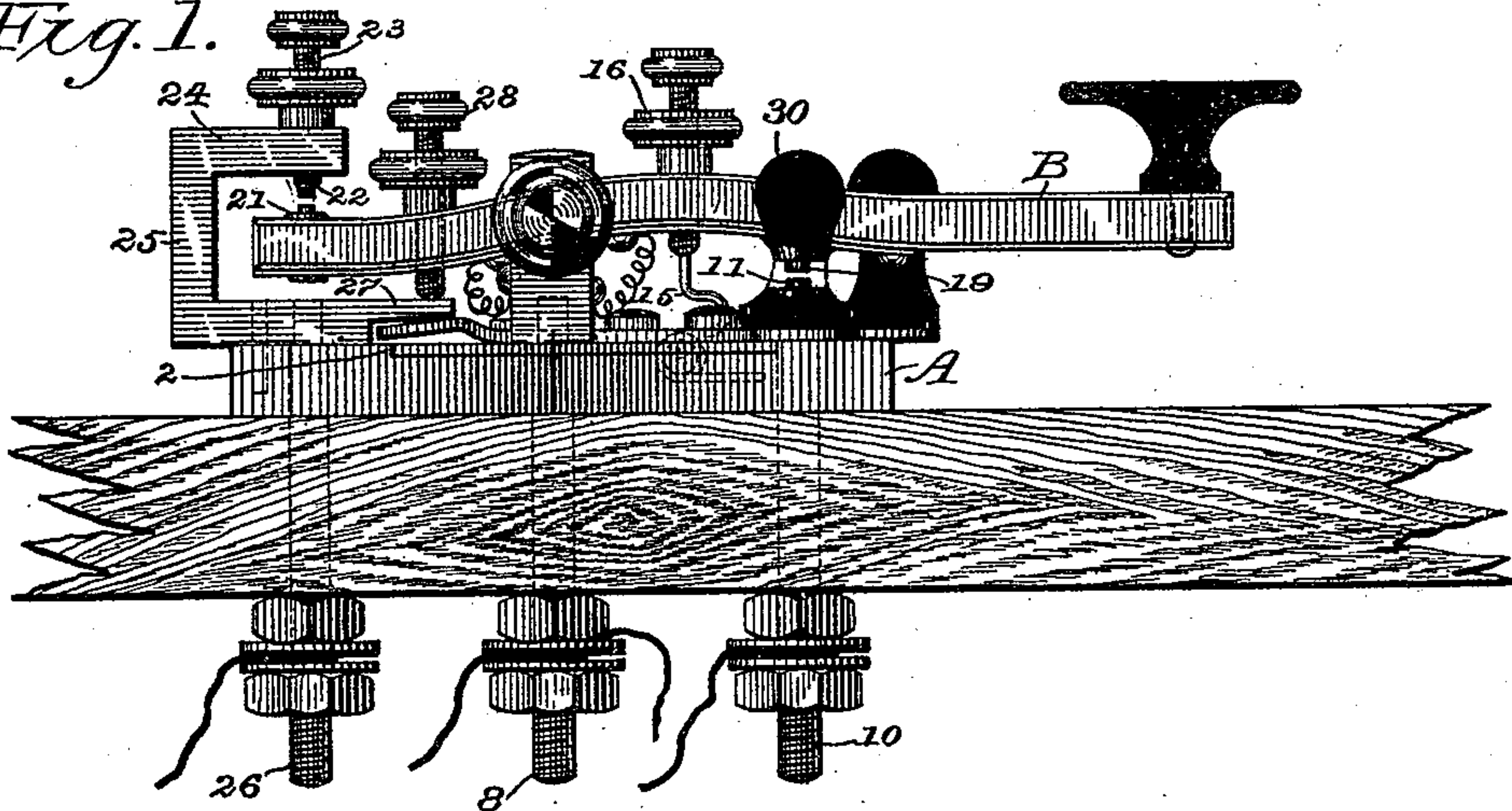
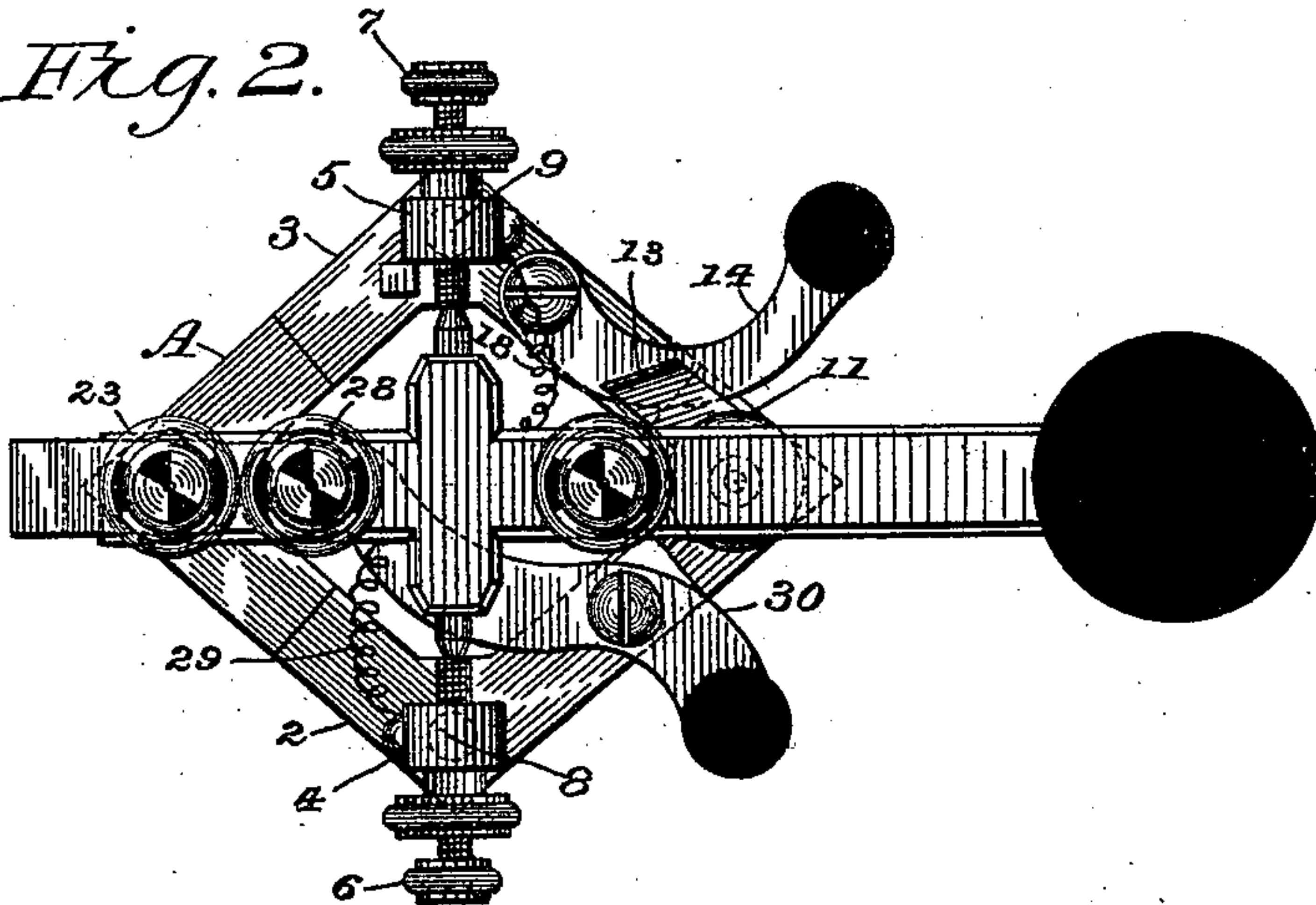


Fig. 2.



WITNESSES

*Wm. H. Bates*  
*Wm. H. Bates*

INVENTOR

*Charles H. Crockett.*  
*Lansing C. Dedrick.*

*by A. G. Heyman, Attorney.*

(No Model.)

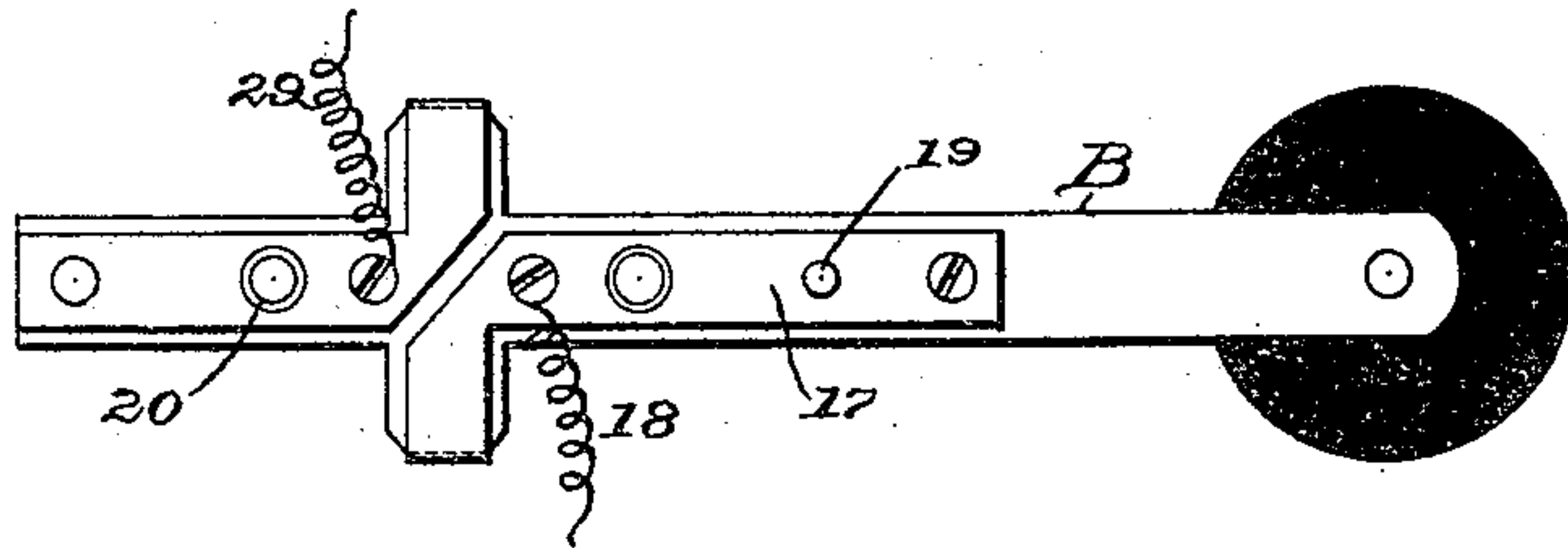
2 Sheets—Sheet 2.

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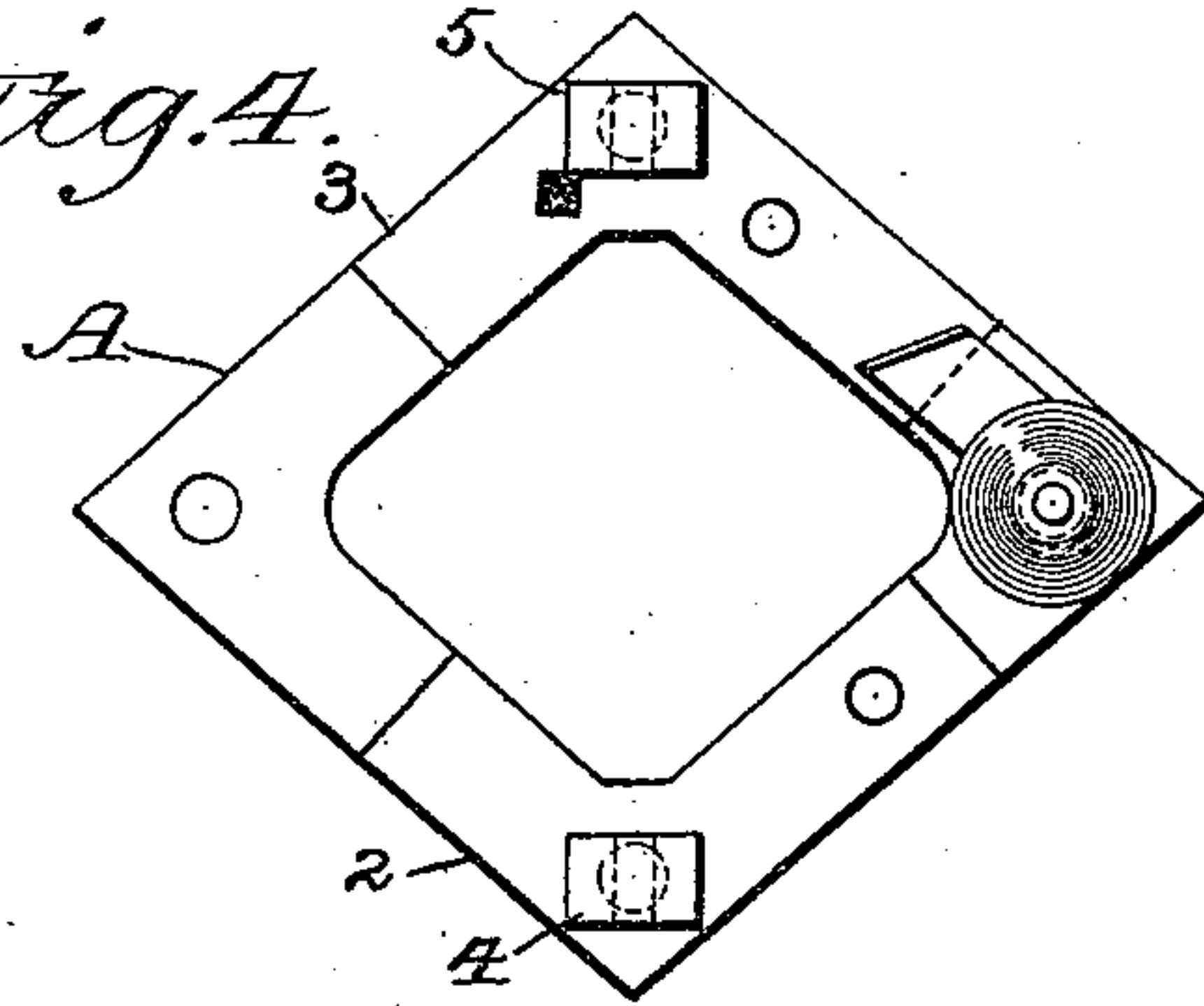
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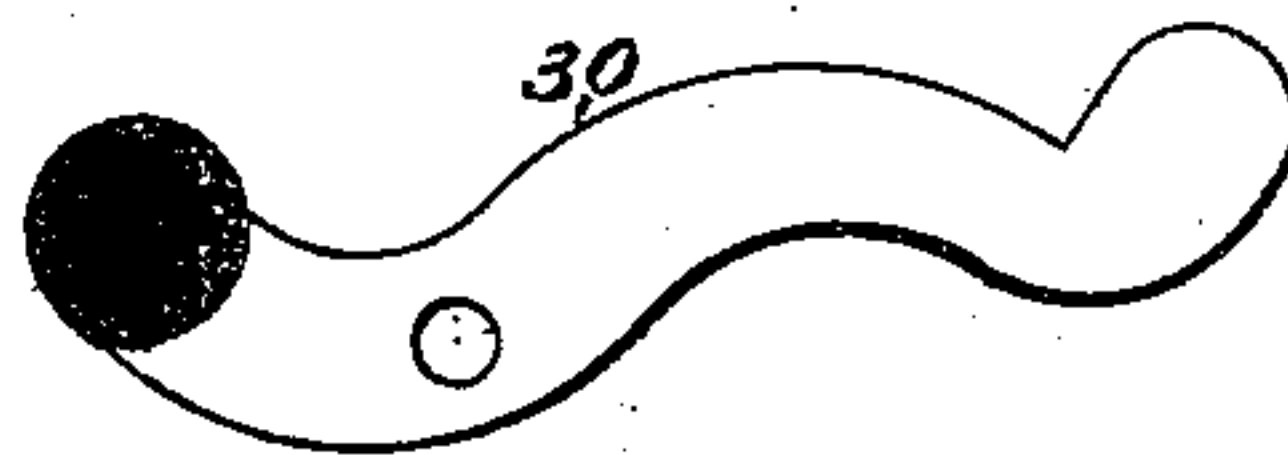
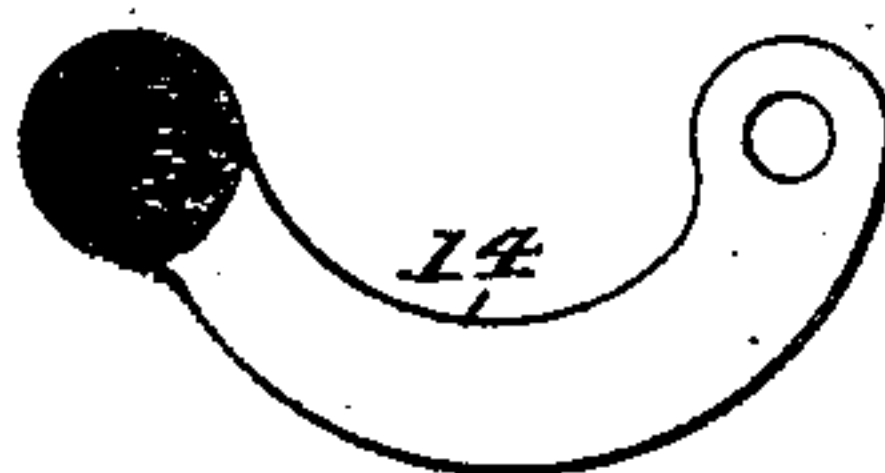
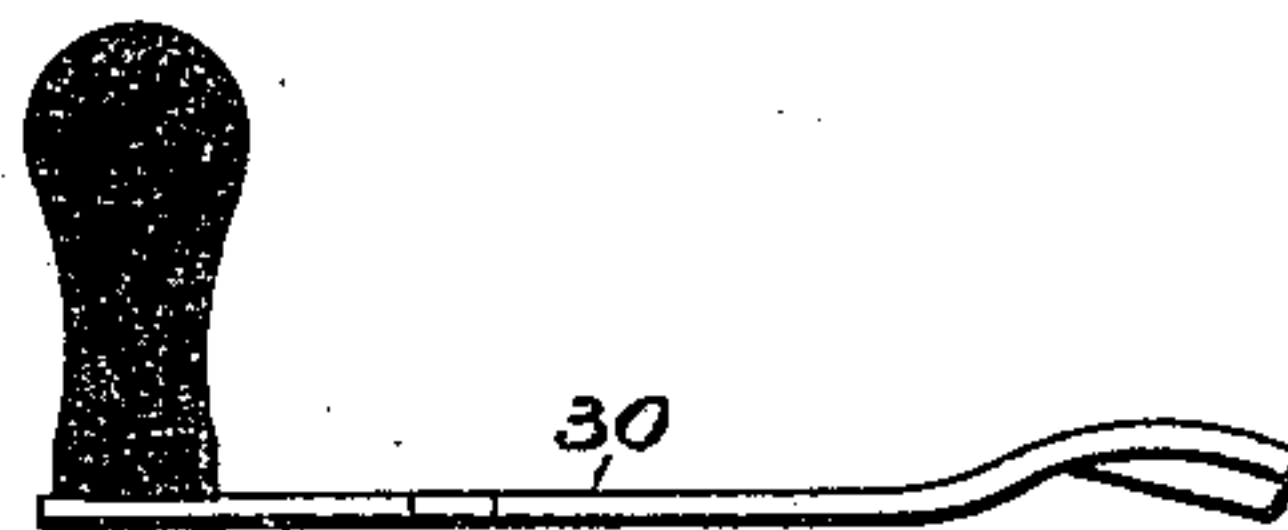
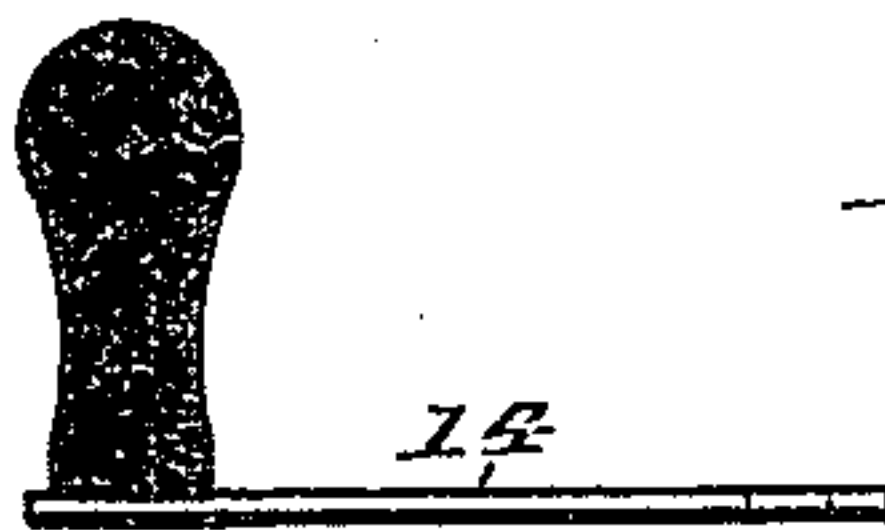
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



WITNESSES

*Wm. H. Bates*  
*Wm. H. Bates*

INVENTOR

*Charles H. Crockett.*  
*Lansing C. Dedrick.*  
by *A. G. Heyman*, Attorney.



# UNITED STATES PATENT OFFICE.

CHARLES H. CROCKETT AND LANSING C. DEDRICK, OF SCHENECTADY,  
NEW YORK.

## TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 438,530, dated October 14, 1890.

Application filed April 2, 1890. Serial No. 346,362. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES H. CROCKETT and LANSING C. DEDRICK, citizens of the United States of America, residing at Schenectady, in the county of Schenectady and State of New York, have jointly invented a new and useful Telegraph-Key, of which the following is a specification.

Our invention relates to telegraph-keys used for indicating the signals of telegraphic communication; and the object of our invention is to provide improved means for transmitting telegraphic communications over two independent circuits at one time through a single key. This we accomplish by the constructions and arrangement of the elements described hereinafter, and which are illustrated in the accompanying drawings.

Our invention consists in the non-conducting base-plate, the non-conducting key with the conducting elements fixed thereto, and the particular arrangement of the circuits in combination with the other elements, as will be fully described, as particularly pointed out in the claims.

In the drawings, Figure 1 is a side view in elevation of our improved telegraph-key. Fig. 2 is a top plan view of the same. Fig. 3 is a detail of the key-lever, showing it from the under side. Fig. 4 is a plan view of the non-conducting base. Fig. 5 is a detail of the switch-levers.

A designates a non-conducting base plate or frame made of a non-conducting composition and of such shape as to adapt it for the purpose of having the means for securing it to a support and to adapt it for the purpose of carrying our improved means for operating two independent lines at the same time. On the non-conducting base-frame are secured two conducting-plates 2 3, oppositely arranged, through which the independent currents are made, as hereinafter fully specified. These conducting-plates 2 and 3 have projected from them vertical studs or standards 4 5, provided with bearing-screws 6 7, as usual, and projected downward from them through the non-conducting material are fastening-screws 8 9, by which the frame, in connection with similar screws hereinafter described, is

secured to the table or other proper support. At the front end of the frame is a screw 10, and on the frame over the screw is the anvil 11, insulated, as usual, by an insulating-washer 12, and in connection with the anvil 11 is the circuit-making leaf 13. On the plate 3 is pivoted the circuit-closing switch 14, which may be moved in and out of contact with the leaf 13 to make and break the circuit. On the screw 10 are binding-nuts, as shown, holding the wire in connection with the battery, and on the screw 9 are binding-nuts holding the wire leading to the line through the receiving-instrument.

B designates the key-lever, held in normal position by a spring 15 and adjusting-screw 16. On the under face of the key-lever is secured a metallic conducting-plate (copper) 17, having connection with the line and battery through the wire 18, connected to the plate 17, and standard 5, and contact-point 19, to impinge on the point of the anvil. The continuity of this circuit is made by the switch, as usual.

The circuit made by the foregoing-described arrangement of elements is accomplished through battery-post 9, contacts on key-lever plate 17, wire 18, and standard 5 and screw 10 to line, and except in the interposition of the non-conducting key-lever and conducting-plate thereon is the same as now used in the well-known single-current Morse key.

Our invention heretofore specified has for its object the adaptation of a single key-lever to the purpose of transmitting duplicate signals over different lines without interfering or disturbing its usefulness as a single-current-transmitting signal, and we now proceed to describe the means for accomplishing this. On the under face of the non-conducting key-lever is secured a metallic conducting-plate 20, extending under the inner end of the key-lever, as shown, and electrically separated from the conducting-plate of the other circuit, as shown. Both of the conducting-plates are carried outward on the supporting-arms of the key-lever, and struck up over the ends and provided with pivotal points centered in the bearing-screws, forming the points on which the key-lever is pivoted. On the upper face of the



key-lever at its inner end is a contact-piece 21, which contacts with a similar point 22, in the end of the adjusting-screw 23, in the overhanging arm 24 of the standard 25, having a screw 26, projecting down through the base-frame and connected to the battery of this circuit. The standard also has an arm 27, extending toward the middle of the base-frame, on which contacts a screw 28, let through the key-lever. The standard 4, through its depending screw is connected to line by means of the wire and clamping-nuts, and the circuit from battery to line is completed through the wire 29, connected at its ends to the standard 4 and conducting-plate 20. On the conducting-plate 2 is pivoted a circuit-closing switch 30, the inner end of which engages with the end of the arm 27, to make the circuit continuous, when desired. This independent circuit, as indicated, is made from battery to screw and standard, through plate on key to post and line, and is entirely free and independent from the other circuit, yet one of the circuits through the adjustments of the contacts may be used without the other, or both may be used at the same time. If it is desired to dispense with the additional circuit directly above described, the contact-screw on the ends of the lever is screwed up out of reach of the point below and the object is accomplished. By forming the key-lever of a non-conducting material having the conducting-plates secured thereto, the lever does not in itself constitute the medium of the current, since that passes on the conducting-plates on the lever, so that the lever may be manipulated without the least danger. The manual operation of the apparatus is identical with this of the single-circuit-key in use, and since the electrical operation has necessarily been explained in the specification that need not be here repeated.

Having thus described our invention, what we claim is—

1. In a telegraph-key, the combination of a non-conducting base-frame, oppositely-ar-

anged bearing-posts on the frame having connections to independent lines, a key-lever made of non-conducting material pivoted between bearing-posts and provided with conducting-plates on its under side separated from each other and having independent connections to opposite bearing-posts through the pivots of the lever, and oppositely-arranged contact-points on the lever and base-frame having connections with independent batteries, whereby duplicate signals may be transmitted over two lines by a single key, as specified.

2. The combination, with the non-conducting base-frame and a key-lever of non-conducting material, of the line-standard 5, with fastening-screw, the battery-screw 10, with anvil, the conducting-plate 17 on the non-conducting key-lever having a contact-point constituting a complete circuit, and the line-standard 4, with fastening-screw, the battery-connection standard 25, and the conducting-plate 20 on the key-lever having a contact-point constituting an independent circuit, substantially as and for the purpose specified.

3. In a telegraph-key, the combination, with a non-conducting base, of two independent line-standards, a key-lever of non-conducting material pivoted between the standards, independent battery-posts having contact-points, and electrically-separated conducting-plates on the under surface of the key-lever having contact-points to engage the contact-points of the independent battery-connections and in electric connection with the respective line-standards, whereby two messages are transmitted through the medium of a single key, as specified.

In witness whereof we have hereunto set our hands in the presence of two attesting witnesses.

CHARLES H. CROCKETT.  
LANSING C. DEDRICK.

Witnesses:

WM. H. YOUNG,  
F. BUSCHMANN.