

R. I. LEEF.  
TELEGRAPH KEY.

APPLICATION FILED APR. 30, 1908.

916,727

Patented Mar. 30, 1909.

Fig. I.

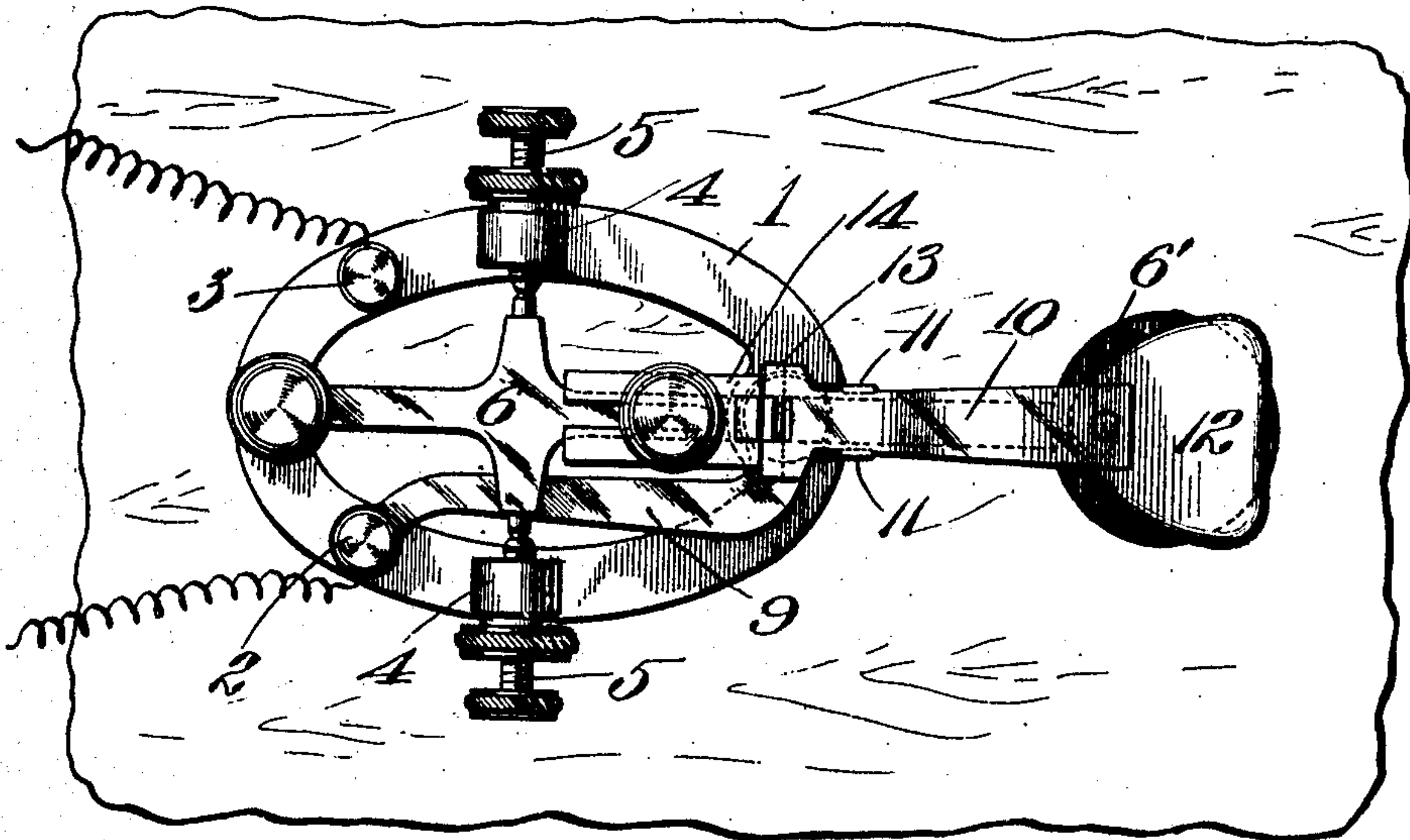


Fig. II.

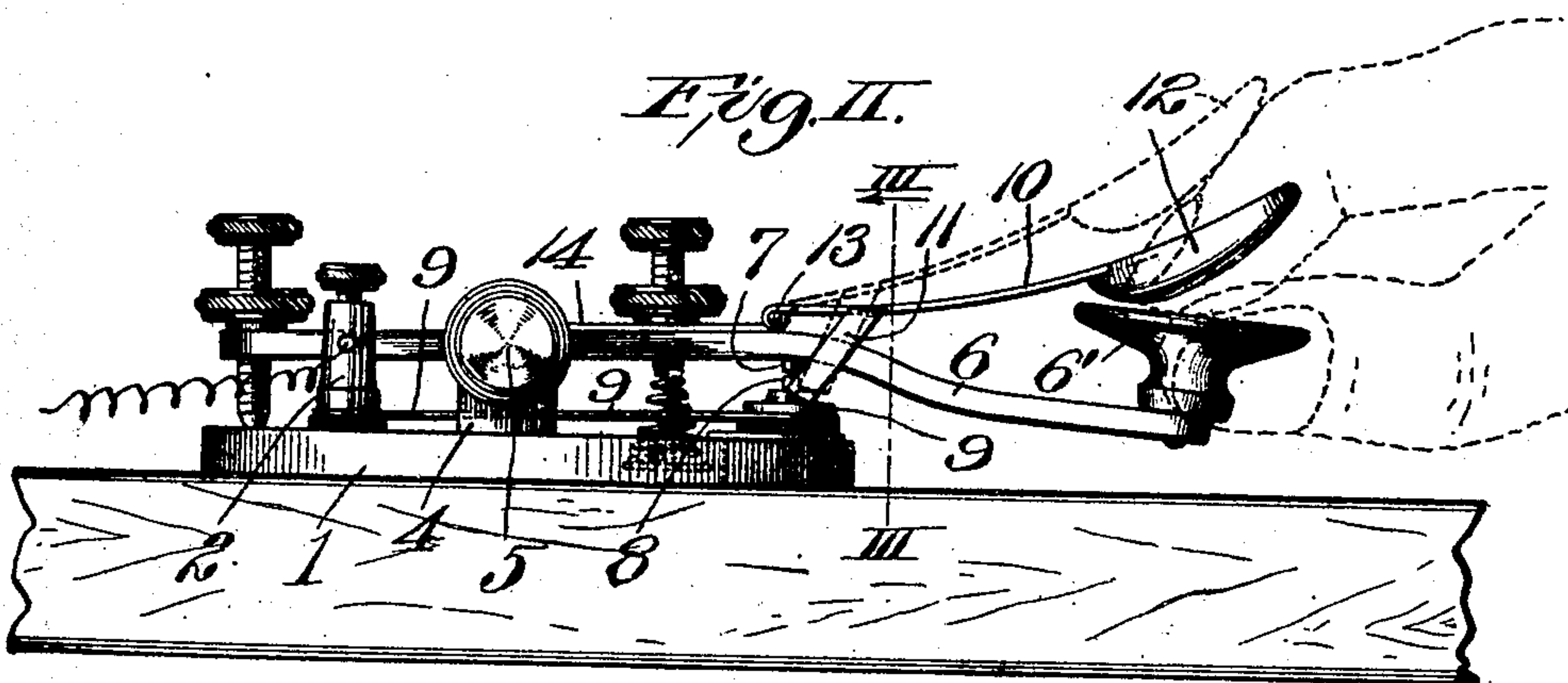
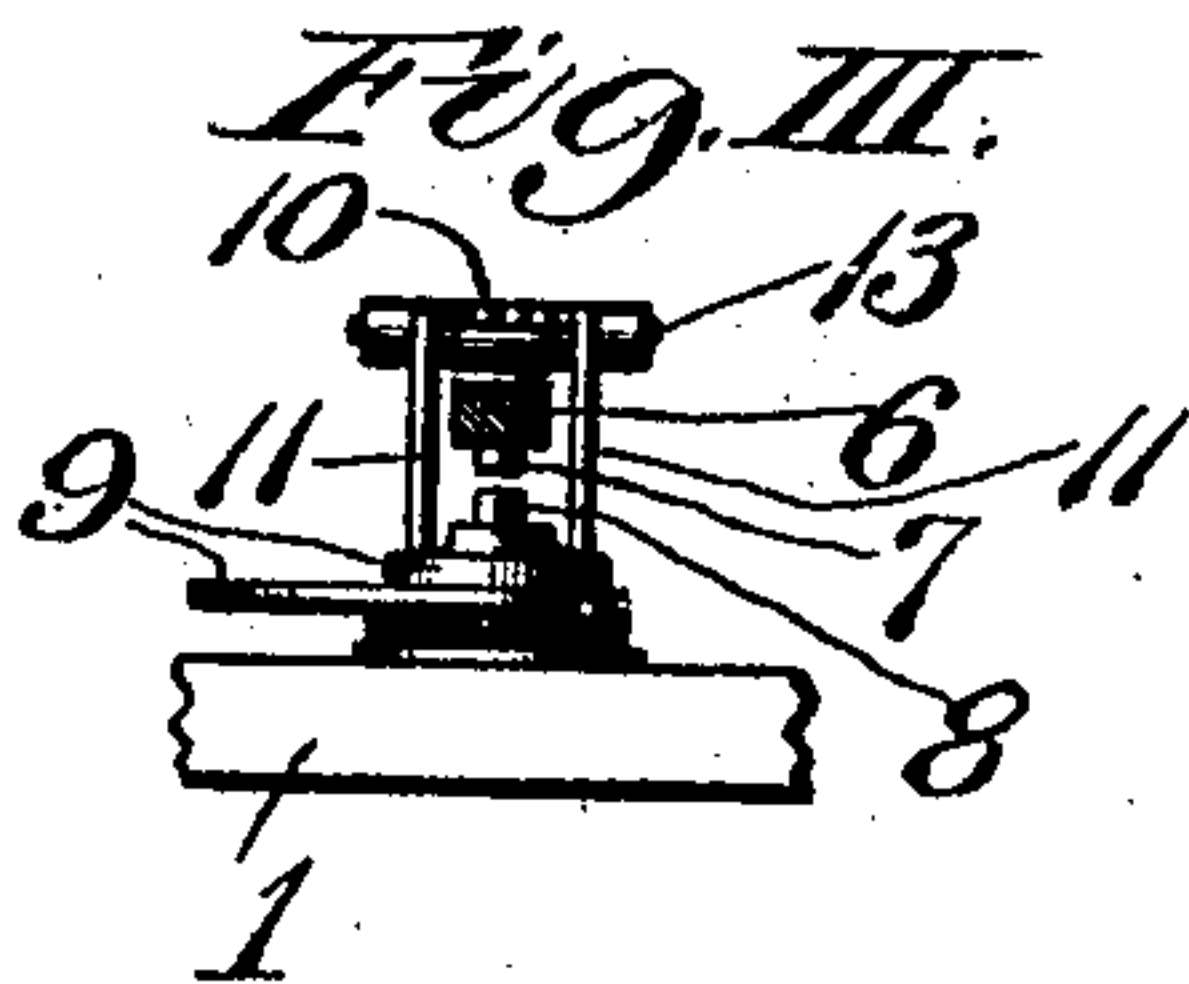


Fig. III.



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# UNITED STATES PATENT OFFICE.

ROBERT I. LEEF, OF ALHAMBRA, ILLINOIS.

## TELEGRAPH-KEY.

No. 916,727.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed April 30, 1908. Serial No. 430,213.

*To all whom it may concern:*

Be it known that I, ROBERT I. LEEF, a citizen of the United States of America, residing at Alhambra, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Telegraph-Keys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that character of telegraph keys at present in common use and it has for its object to provide improved means whereby the electrical circuits in the keys may be completed in the keys and remain completed while the keys are not being used as transmitters.

Telegraph keys as heretofore made, have had incorporated therein a circuit make and break member and which has commonly been in the form of a shiftable bar adapted to make and break the connections between the two line-wire binding posts of the key. The use of a circuit make and break member of the kind referred to is objectionable for the reason that telegraph operators not infrequently neglect to close the circuit through telegraph keys when they have completed the transmission of messages by the use of the keys, thereby leaving the key in a condition that renders it impossible for the operator to receive a message from another operator.

By the use of the device to which my present invention relates, I dispense with the use of the make and break member heretofore in use and provide for the electrical circuit through the telegraph key being completed automatically immediately upon the operator releasing the button of the key by the withdrawal of his fingers therefrom.

Figure I is a top or plan view of my telegraph key. Fig. II is a side elevation of the key. Fig. III is a vertical cross section taken on line III—III, Fig. II.

1 designates the base of my key and 2 and 3 are the line-wire receiving binding posts fixed to said base. The former of these binding posts is insulated from the base. The base is provided with the usual side posts 4 that receive the bearing screws 5 in which the spring controlled key bar 6 is pivotally mounted. The key bar is provided with the usual contact point 7

located at its lower side and opposing the contact point 8 located above and insulated from the base 1. The contact point 8 is placed in electrical connection with the binding post 2 by a conductor 9. During the use of the telegraph key for the transmission of messages, an electrical circuit is completed each time the key bar is depressed from the binding post 2 through the conductor 9, the contact point 8, the contact point 7 of the key bar and through the key bar to the base 1 and the binding post 3, as is usual in telegraph keys.

To provide for the automatic closing of the electrical circuit when the use of the key is discontinued as a transmitting instrument, I employ the device to be now described and to which my invention relates. This device consists of an arm 10 that is located above the key bar 6 and is provided with one or more depending fingers 11 that are adapted to seat upon the conductor 9 or a part associated with it when the arm 10 is in a lowered position, thereby providing for the completion of the electrical circuit from said conductor to the key bar when the contact points 7 and 8 of the key are separated from each other and the key is not being used as a transmitter. The arm 10 is provided with a lift piece 12 located at its forward end over the button 6' of the key bar and it has included in it a hinge 13 that permits of the arm being elevated when the key bar button is to be grasped by the fingers of the operator to transmit a message. The arm also is preferably secured to the key bar 6 by a slotted leaf or attachment member 14 extending rearwardly from the hinge 13 which is preferably engaged by the adjustment screw mounted in the key bar and which is of service in regulating the degree of tension in the spring that controls the key bar.

In the practical use of my telegraph key the operator grasps the button of the key bar between the fingers of a hand in the usual manner to manipulate the key and in so doing introduces the finger that rests upon the key bar button beneath the lift piece of the arm 10 so that the fingers 11 of said arm are withdrawn from the conductor 9. The key may then be used for the transmission of a message during the sending of which the operator's finger beneath the finger piece of the arm 10 acts to sustain said arm. When the operator completes the message and with-



draws his fingers from the key bar button the arm 10 descends by gravity and his fingers 11, by descending into contact with the conductor 9 act to complete the electrical circuit through the key and a current will pass from the binding post 2, through the conductor 9, the fingers 11 to the key bar 6 and from said key to the base 1 and binding post 3.

10 I claim:

1. The combination with a telegraph key having a conductor and a pivotally mounted key bar above said conductor and an adjustment screw for said key bar; of an arm located above said key and bar and having a finger piece at its outer end, means held by said adjustment screw to which said arm is

hinged, and a finger depending from said arm for contact with said conductor.

2. The combination with a telegraph key having a conductor and a pivotally mounted key bar above said conductor and an adjustment screw for said key bar; of an arm located above said key bar and having a finger piece at its outer end, a slotted leaf clamped between said adjustment screw and key bar to which said arm is hinged, and a finger depending from said arm for contact with said conductor.

ROBERT I. LEEF.

In presence of—

BLANCHE HOGAN,  
WM. H. SCOTT.