

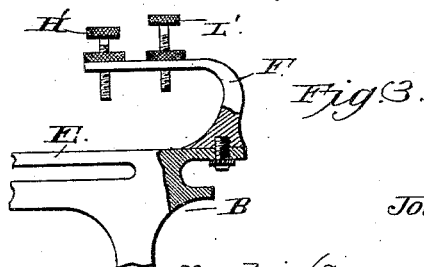
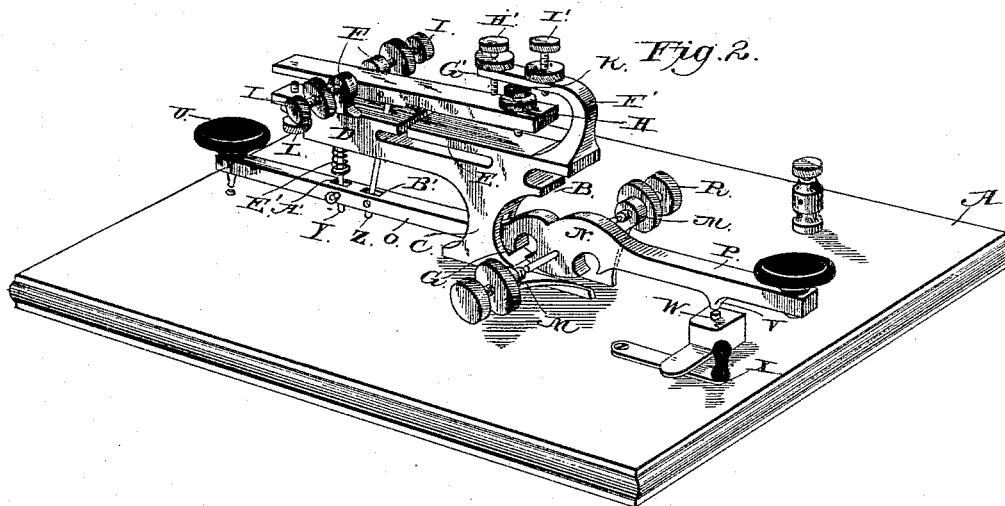
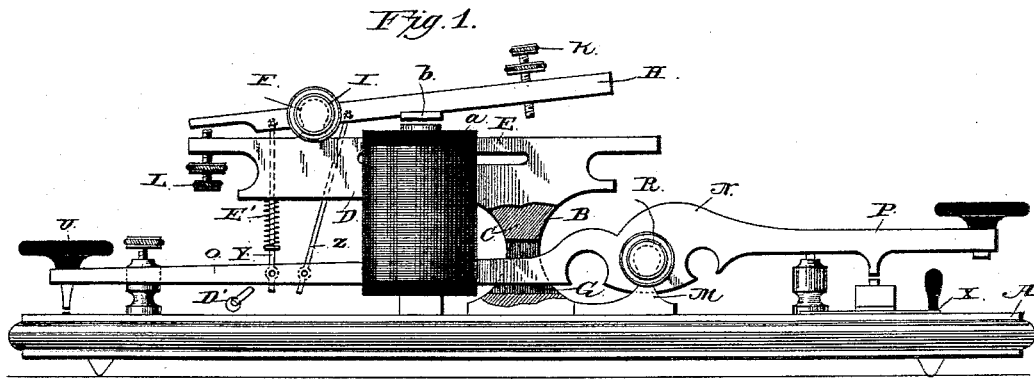
(No Model.)

J. DOGGETT.

COMBINED TELEGRAPH KEY AND SOUNDER.

No. 384,350.

Patented June 12, 1888.



Witnesses.

M. Fowler,
E. Y. Siggel.

Inventor.

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By *His Attorneys*

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UNITED STATES PATENT OFFICE.

JOHN DOGGETT, OF PLAIN CITY, OHIO, ASSIGNOR OF ONE HALF TO
LEONIDOUS J. KING, OF SAME PLACE.

COMBINED TELEGRAPH KEY AND SOUNDER.

SPECIFICATION forming part of Letters Patent No. 384,350, dated June 12, 1888.

Application filed November 30, 1887. Serial No. 256,531. (No model.)

To all whom it may concern:

Be it known that I, JOHN DOGGETT, a citizen of the United States, residing at Plain City, in the county of Madison and State of Ohio, have invented a new and useful Improvement in Combined Telegraph Keys and Sounders, of which the following is a specification.

My invention relates to an improvement in combined telegraph keys and sounders; 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.

In the accompanying drawings, Figure 1 is a side view of a combined key and sounder embodying my improvements. Fig. 2 is a similar view of the same, showing a different arrangement of the instrument. Fig. 3 is a detail view showing the manner of securing the detachable standard to the frame.

A represents the base or platform, on which is supported a frame, B. The said frame comprises a vertical standard, C, that has its lower end secured to the center of the base, and an arm, D, that extends horizontally from the upper end of the standard; also, formed integrally with the frame is a resonant tongue or arm, E, which is arranged over the standard and extends for a suitable distance over the arm D. The said arm D has near its outer end, on opposite sides, vertical ears F, and near the lower end of the standard is a vertical opening, G, which extends through the standard in a direction parallel with the axis of the frame.

H represents the sounding arm, which has its trunnions pointed in the usual manner and engaging recesses in the opposing ends of set-screws I, that are secured in the ears F. This sounding-arm is provided near one end with a percussion-screw, K, that is adapted to strike the resonant tongue or arm E and throw it into vibration, and at the outer end of arm D is an upwardly-extending percussion-screw, L, which is adapted to strike the under side of the short outer end of the sounding-arm.

M represents a pair of ears or standards, which may be either formed integrally with the base of the standard C or separately therefrom. The said ears or standards are arranged on the base or platform immediately on one side of the standard C.

N represents a key-lever having a long arm,

O, and a shorter arm, P, which arms extend in opposite directions. The trunnions of this key-lever are pointed and have their bearings in the opposing ends of set screw R, that are secured in the ears of standards M. The long arm of the key-lever extends through the opening in the standard C, as shown. To the outer end of the long arm O is secured a press-button, U. The said arm P is provided near its outer end, on its lower side, with a contact-point, V, adapted to make and break connection with the usual contact-point, W, on the base or platform. X represents the usual switch-lever to open the circuit when using the instrument for sending messages and to close the circuit when using the instrument for receiving messages.

Y and Z represent a pair of rods which have their upper ends pivotally connected to the sounding-arm on opposite sides of the pivot thereof. These rods extend downward through suitable points in the long arm of the key-lever. Transverse openings A' and B' are made in the long arm of the key-lever and intersect the vertical openings therein, and are adapted to register with openings which are made through the rods Y and Z, respectively. On the rod Y is a coiled extensible spring, E', which has its lower end secured firmly to the said rod and its upper end bearing under the arm D.

D' represents a pin which is adapted to be passed through either of the transverse openings in the long arm of the key-lever and through the opening of either of the rods Y and Z, so as to secure the lower end of one of the said rods to the key-lever.

When the instrument is provided with helices *a* and an armature, *b*, secured to the sounding arm, and is adapted to be operated by electricity, as shown in Fig. 1, both of the rods Y and Z are disconnected from the key-lever; but when the said helices and armature are discarded and the instrument designed to be used mechanically—as for the use of learners—one of the rods will be connected to the key-lever, as before described, and as shown in Fig. 2. When the key-lever is operated by the long arm, the rod Z is connected thereto; but when the key-lever is operated by its short arm the rod Y is connected, as will be readily understood.

F' represents a supplemental standard, which

is adapted to be secured to or disconnected from the outer end of the resonant tongue or arm, as shown in Fig. 2, and is provided with an arm, G', that extends over the sounding-arm.

5 This arm G' has percussion-screws H' and I' arranged at different points of its length and adapted to strike the sounding-arm at different distances from its outer end, so as to adapt the instrument to give forth sounds varying in
10 pitch.

It will be understood that when either of the screws H' and I' are used the screw L is adjusted so as not to strike the outer end of the sounding-arm.

15 A combined key and sounder thus constructed is adapted to be secured on a table between two persons and operated from either side, may be operated either mechanically or by means of electricity, and is adapted to give
20 forth sounds of great volume.

Having thus described my invention, I claim—

1. The combination, in a telegraph-instrument, of the sounding-arm, the key-lever having a long arm and a short arm extending in
25 opposite directions and each provided at its outer end with a press-button, and the rod connecting the sounding-arm and the key-lever, substantially as described.

30 2. The combination, in a telegraph-instrument, of the sounding-arm, the key-lever adapted to be operated from either end, the

rods Y and Z, attached at their upper ends to the sounding-arm on opposite sides of its pivot, and the device to attach the lower end of either
35 of the said rods to the key-lever, substantially as described.

3. The combination, in a telegraph-instrument, of the sounding-arm, the key-lever adapted to be operated from either end, the
40 rods Y and Z, attached at their upper ends to the sounding-arm on opposite sides of the pivot, the device to attach the lower end of either of the said rods to the key-lever, and the spring bearing downward on the rod Y, substantially
45 as described.

4. In a telegraph-sounder, the frame having the arm D and the resonant tongue or arm, the percussion screw L at the outer end of arm D, the sounding-arm pivoted above arm D and
50 having the percussion-screw K, adapted to strike the resonant arm, and the standard F', detachably secured to the frame and having the arm G', provided with the percussion-screws H' and I', to engage the sounding-arm
55 on its upstroke, all in combination, substantially as described.

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

JOHN DOGGETT.

Witnesses:

JAMES H. STEWART,
CHARLIE MARTIN.