

(No Model.)

J. A. MALONEY.

CONVERTIBLE TELEGRAPH KEY.

No. 343,469.

Patented June 8, 1886.

Fig. 1.

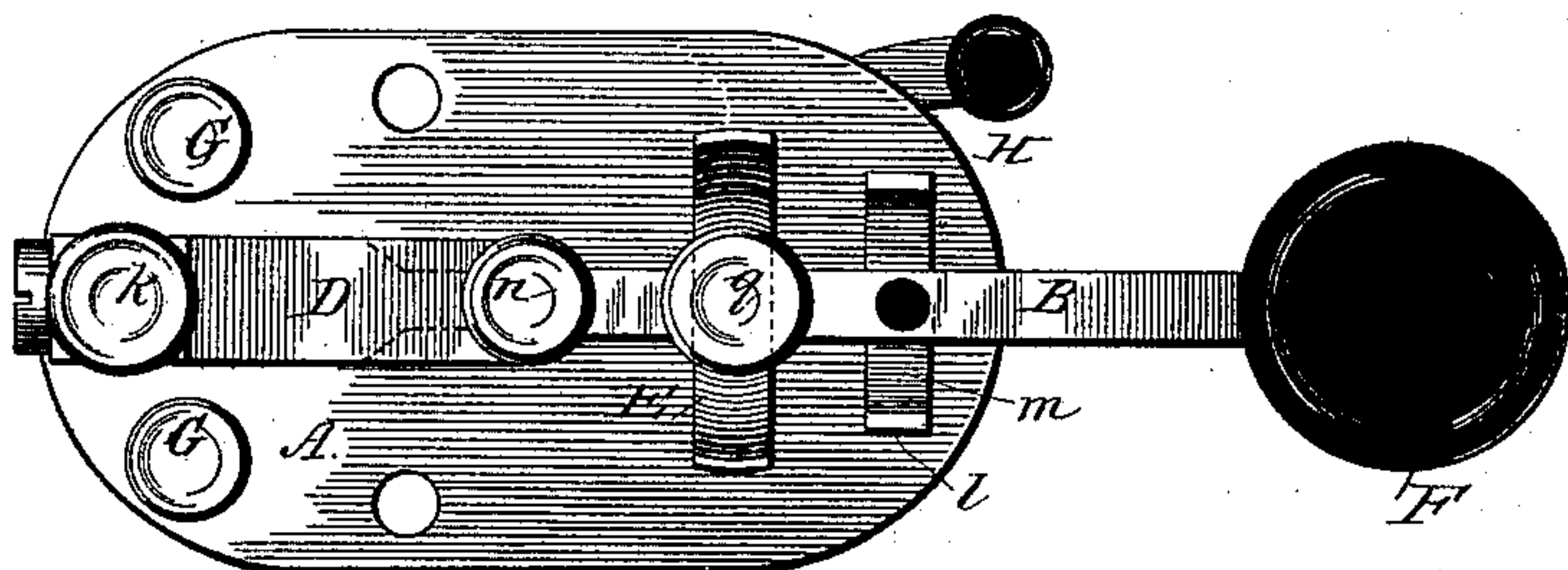


Fig. 2.

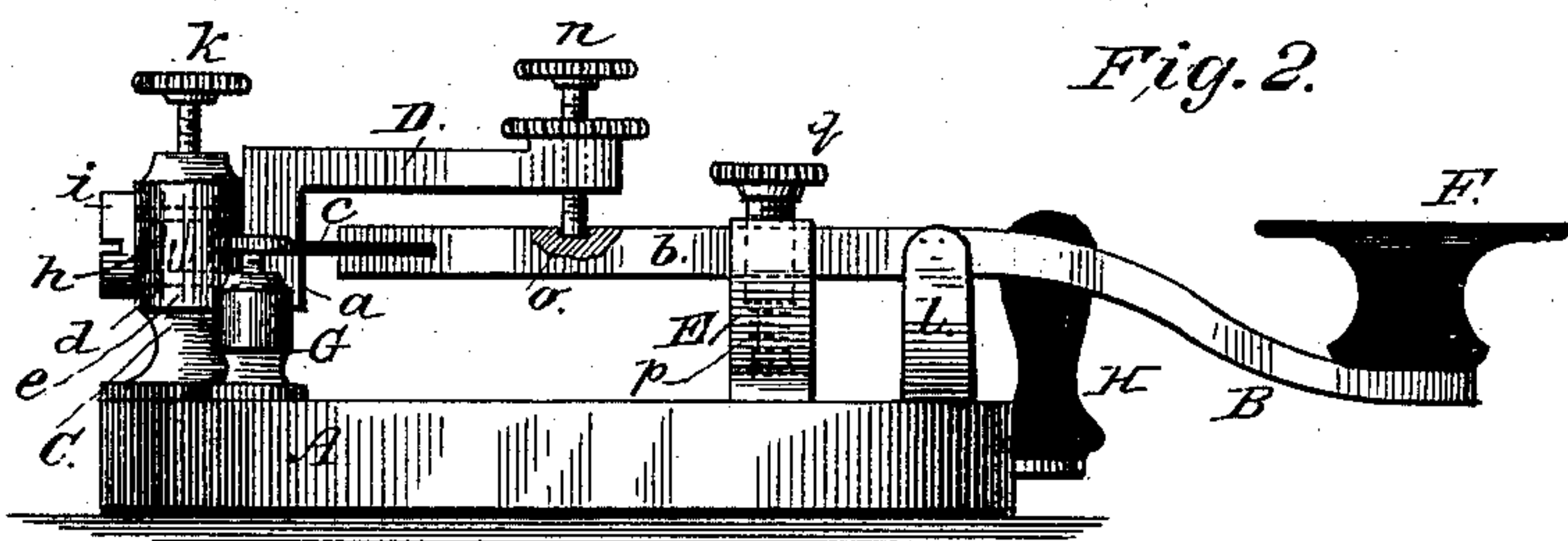
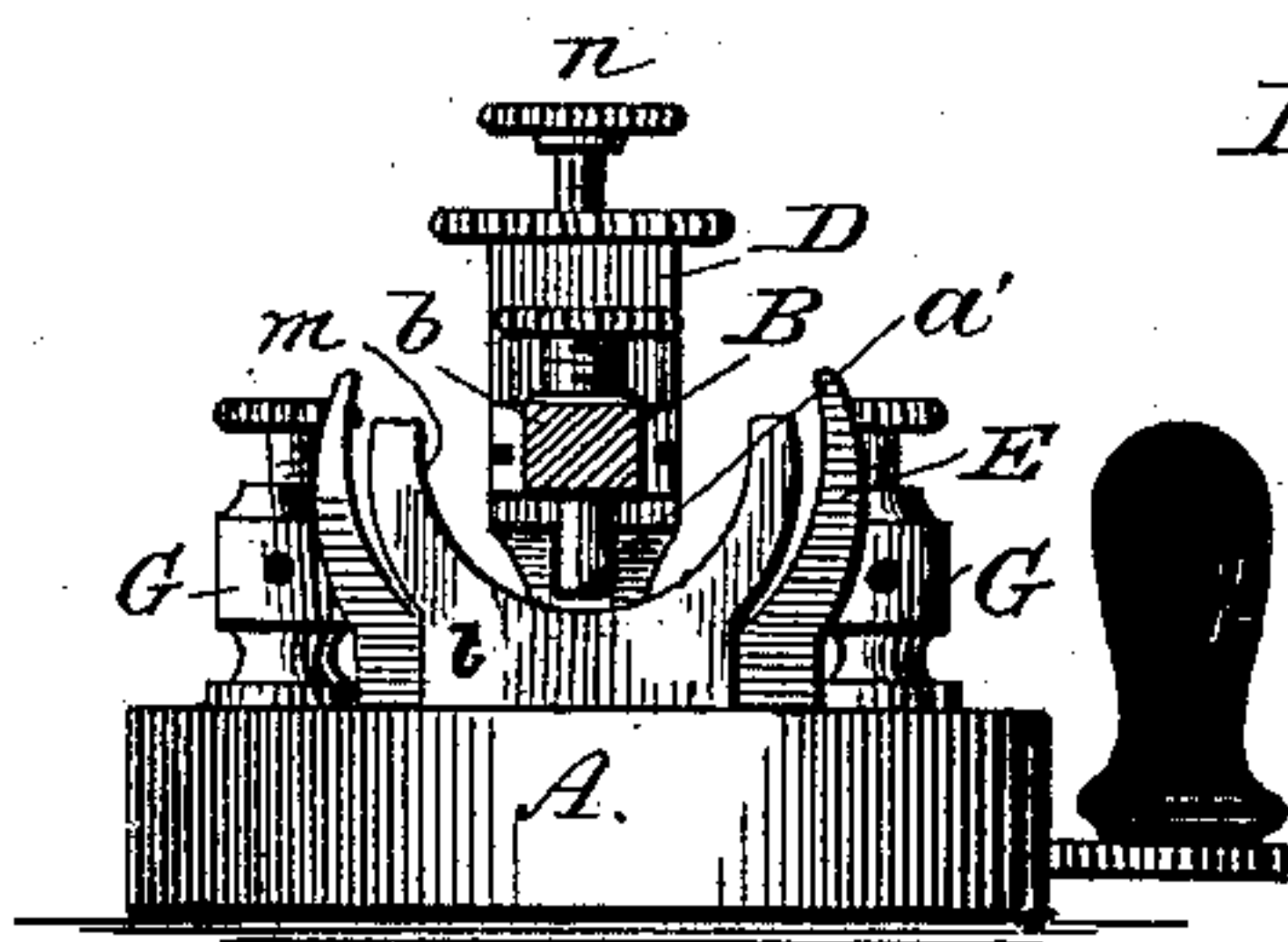


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES A. MALONEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

CONVERTIBLE TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 343,469, dated June 8, 1886.

Application filed April 20, 1886. Serial No. 199,537. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. MALONEY, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Convertible Telegraph-Keys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to telegraph-keys, and has for its object an improvement on the instrument shown in my Patents No. 336,653, of February 23, and No. 339,909, of April 13, 1886, and has special reference to the construction of the opposite contact or anvil.

In my former patents three separate opposite contact-points are shown for the lever to strike against, while the lever is adapted to operate at any angle of inclination, and would strike an opposite contact or anvil at any point of a circle described by its revolution. In practice with this key it has been discovered that the lever must be carefully adjusted to bring the hammer thereon in line with the separate opposite contacts or anvils on the frame against which it is intended to operate. This adjustment of the lever involves a loss of time in changing the instrument from a vertical to a right or left hand instrument, and to overcome this objection I have devised my present improvement.

The invention will hereinafter be described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a plan; Fig. 2, a side elevation, and Fig. 3 an end view.

Reference being had to the drawings and the letters marked thereon, A indicates the base upon which the several parts of the instrument are mounted.

B is the key or operating lever, made in two parts, *a b*, arranged in the same lineal plane and between which is interposed a leaf-spring, *c*, which renders the lever flexible and imparts to it a degree of resiliency capable of returning the lever to its normal position after each stroke produced by the hand of the operator. The section *a* of the lever B is provided with a journal, *d*, which is seated in a journal-bear-

ing, *e*, formed in the post C, which is secured to the base A. The journal *d* is securely held in its bearing *e* by means of a screw, *h*, which is provided with an enlarged head, *i*, which bears against the rear face of the post C while the screw engages with the end of the lever forming the journal.

The lever B is secured in any position in which it may be desired to operate it by a set-screw, *k*. It will be observed that by journaling the lever in the plane of its longitudinal axis it rotates thereon, and is capable of being operated vertically, right and left hand horizontally, or at any angle of inclination intermediate of its horizontal plane. To accommodate this adjustment of the lever B and to provide an opposite contact or anvil adapted to receive the impact of the hammer *a'* on said lever at any point in its revolution below its horizontal plane, I have devised the anvil *l*, which may be made of any material which is a good conductor and not liable to oxidation.

In the present instance the anvil *l* is provided with a continuous contact-surface, *m*, in the form of an arc of a circle corresponding with the sweep of the hammer or upper contact, *a'*, and is secured to the base-plate in the usual manner. By this construction of the anvil a continuous surface, without any break in its continuity, is presented to the hammer *a'* on the lever B of the instrument, whereby any adjustment of said lever will always find an opposite contact against which the hammer may operate below its horizontal plane. D is an arm which may be secured to or form an integral part of the section *a* of lever B and revolves therewith. The arm D projects out from said section *a* of the lever B immediately over the section *b*, and is provided with a screw, *n*, which projects through the arm, and at its lower end engages with the lever B to regulate the space through which said lever travels in signaling.

To prevent any possible lateral movement of the lever in signaling, an aperture or seat, *o*, is formed in the lever into which the end of the screw *n* projects.

E is an arc-shaped frame, race, or guide, which forms a bearing-surface for a cushioning-spring, *p*, which is adjusted by a screw, *q*, supported by the lever B. The lever is also provided

with the usual button, F, and to the base-plate A are secured binding-posts G G, and a switch-lever, H.

It is obvious that the contact-surface of the anvil can be extended to form a circle should it be found expedient.

Having thus fully described my invention, what I claim is—

1. A telegraph-key having a revoluble operating-lever, in combination with an anvil provided with a continuous contact-surface adapted to receive the impact of the lever at any angle at which it may be desired to operate the instrument, substantially as described.
2. A telegraph-key having a revoluble operating-lever, in combination with an anvil

provided with a continuous contact-surface in the form of an arc of a circle, substantially as described.

3. A telegraph-key having a revoluble operating-lever, a space-regulating device secured to and revolving with said lever, in combination with an anvil provided with a continuous opposite contact-surface, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. MALONEY.

Witnesses:

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R. C. TODHUNTER.