

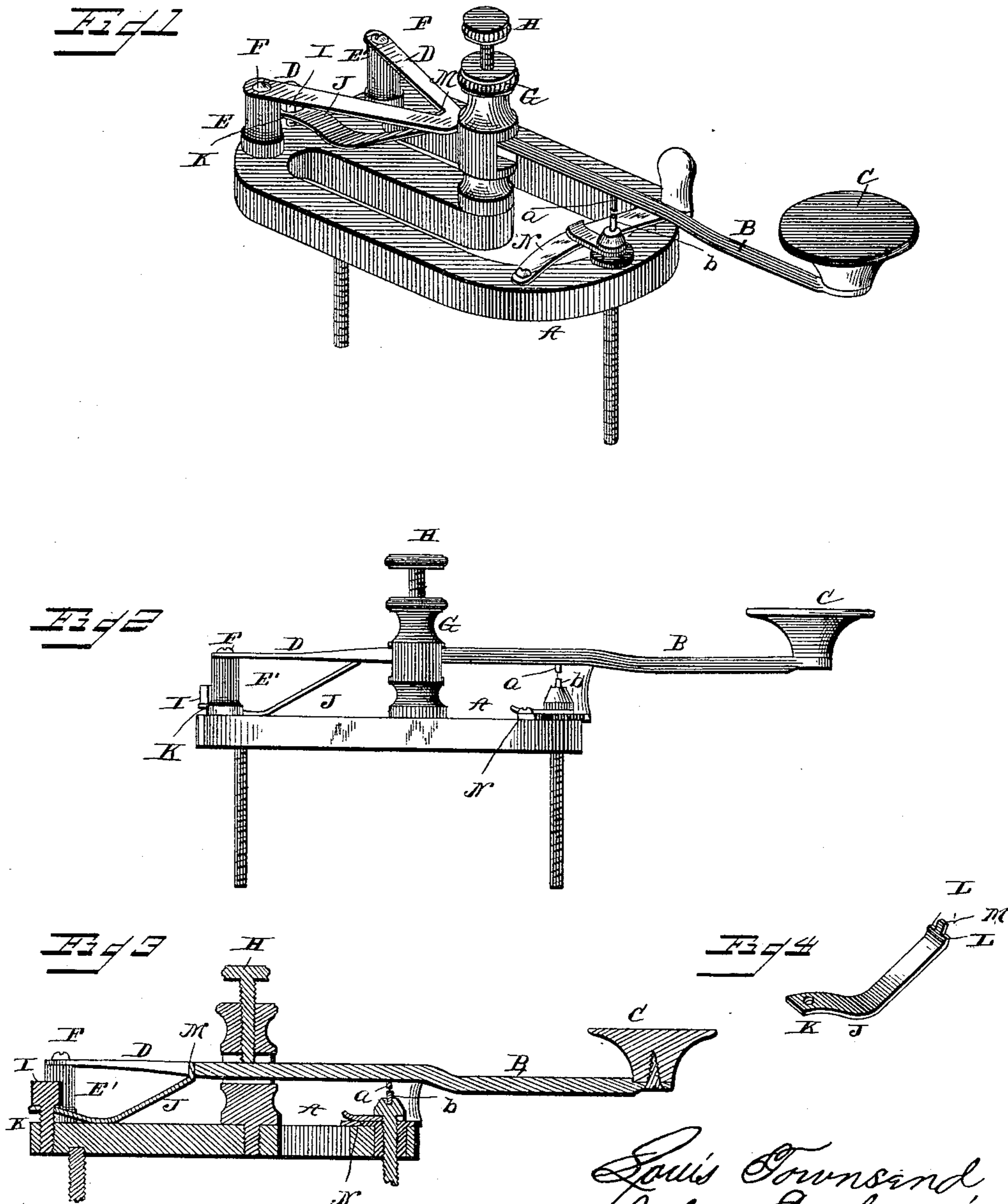
(No Model.)

L. TOWNSEND & J. E. AUTEN.

TELEGRAPH KEY.

No. 386,729.

Patented July 24, 1888.



WITNESSES

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UNITED STATES PATENT OFFICE.

LOUIS TOWNSEND AND JOHN E. AUTEN, OF EVANSVILLE, INDIANA.

TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 386,729, dated July 24, 1888.

Application filed March 15, 1888. Serial No. 267,239. (No model.)

To all whom it may concern:

Be it known that we, LOUIS TOWNSEND and JOHN E. AUTEN, citizens of the United States, and residents of Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Telegraph-Keys; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved telegraph-key. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal vertical sectional view; and Fig. 4 is a detail view of the spring-bearing, which engages the bifurcated ends of the lever.

Like letters of reference denote corresponding parts in all the figures.

Our invention has relation to an improved construction of telegraph-keys, whereby we dispense with trunnions or pivots on the lever of the key, substituting therefor a single spring-bearing, by the adjustment of which the stiffness of the key may be easily regulated, and in a moment of time, to suit the requirements of the operator, as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A designates the base or frame, which may be of any desired shape and construction, and is fastened to the table or key-board in the usual manner.

B is the lever or key proper, the outer end of which is provided with the usual finger-button, C, while its inner end, which is considerably reduced in thickness, is forked or bifurcated, so as to form two diverging arms, D D, the thin outer ends of which are fastened in the posts E E' by screws F F'.

The device is provided with the usual contact-points, *a* and *b*, the location and construction of which do not differ from the usual form and arrangement of these parts in other instruments.

The lever B passes through a slot in the adjusting-post G, which is provided with the usual adjusting-screw, H, by means of which the distance between the contact-points *a* and

b may be regulated in the well-understood manner.

To the rear part of the frame is fastened, by means of the thumb-screw I, a leaf spring, J, the lower end of which, where it is fastened upon the screw, is slightly bent in a V shape to form a shoulder or offset, K. The upper or free end of this spring is also shouldered, as shown at L L, so as to form a lip or tongue, M, which is bent upwardly, so as to bear against the inner end of the fork formed by the diverging arms D D, the inner or converging ends of said arms bearing with their under side against the shoulders L L. Thus it will be seen that the spring J operates to raise or lift the free end of the lever, so that the same will always bear against the lower end of the adjusting screw H; and it will also be seen that by tightening the thumb-screw I, which forms the means of attachment of the spring to the base, the tension of the free end of the spring against the bifurcated end of the lever may be increased at will whenever found necessary or desirable. The switch or cut-out, designated by the letter N, is the same as that ordinarily used and forms no part of our present improvement.

From the foregoing it will be seen that we dispense altogether with the use of trunnions or pivotal bearings, which are apt to wear out or become clogged, so as to sometimes seriously interfere with the satisfactory operation of the key. The bifurcated end also prevents the key-lever from tipping over to one side or the other, which would cause the small platinum contact-points to either miss each other entirely or only strike on one edge, and in course of time to become worn at that point so much as to permit the points to slip off on that side, while the bifurcated end makes them strike square upon each other. The sides of the slot in the adjusting-post also prevent the end of the key-lever from being forced so far to one side or the other as to cause the points to not come in contact with each other when the lever is depressed. It will also be seen that our improved key consists of but few parts, which may readily be replaced if lost or worn, while it admits of a more simple and instantaneous adjustment than other keys with which we are acquainted.

Having thus described our invention, we

claim and desire to secure by Letters Patent of the United States—

1. The combination of the bifurcated key-lever, the base-posts, and the spring bearing
5 with its free end against the bifurcated end of the lever, substantially as and for the purpose shown and set forth.

2. The combination of the bifurcated key-lever, the base-posts, the spring, the lower end
10 of which is slightly bent in a V shape to form a shoulder bearing with its free end against the bifurcated end of the lever, and the screw for fastening the spring upon the base, where-
15 by the tension of said spring may be regulated, substantially as and for the purpose shown and set forth.

3. The combination, with the bifurcated key-lever, of the adjustable spring shouldered at its upper end and provided with a lip or projection between said shoulders, said lip bearing
20 against the converging inner ends of the forked part of the lever, substantially as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures
25 in presence of two witnesses.

LOUIS TOWNSEND.
JOHN E. AUTEN.

Witnesses:

GEO. S. SONNTAG,
P. A. STEWART.