(No Model.)

C. W. LEWIS.

TELEGRAPH KEY.

No. 297,819. Patented Apr. 29, 1884.

Fig. 3

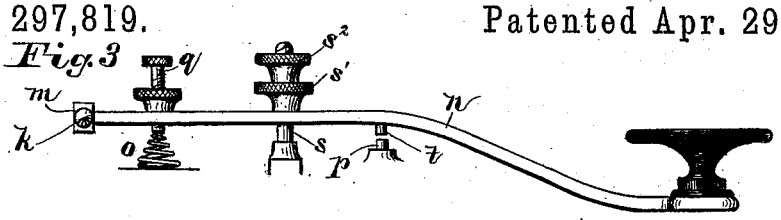


Fig. 1

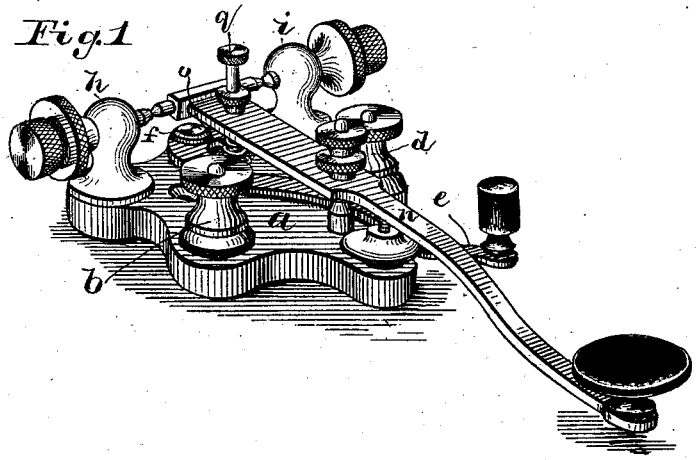


Fig. 4

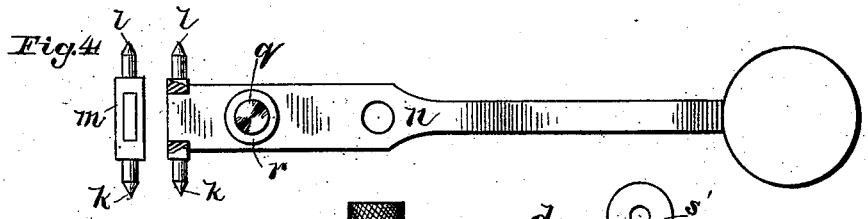
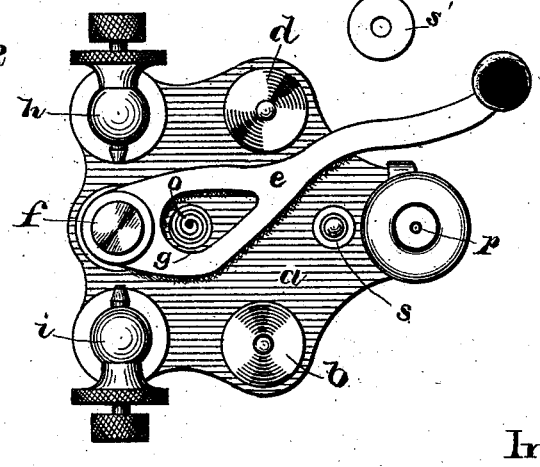


Fig. 2



Attest

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CHARLES W. LEWIS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

TELEGRAPH-KEY.

SPECIFICATION forming part of Letters Patent No. 297,819, dated April 29, 1884.

Application filed September 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. LEWIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Telegraph-Keys, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention consists in a spring-lever, in combination with the usual contact-points, said lever being pivoted or centered at its extreme end by a cross-bar mortised and shouldered thereon, and adapted to yield between the point where it is centered and the contact-point, whereby a slight rubbing is produced between the said points after they are brought together, thus insuring a better electrical contact than heretofore.

My invention further consists in constructions and combinations of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a telegraph-key embodying my invention. Fig. 2 is a plan view of the same with the lever removed. Fig. 3 is a side elevation of the lever, showing the relative positions of the centers and contact-points. Fig. 4 is a top and end view of the lever and centers.

Like parts are indicated by similar letters of reference in the different views.

In the drawings, *a* represents the base of the key, which may be cast, in the usual manner, of brass or iron.

b and *d* are the binding-posts to which the connections are made. One of the said posts, *b*, is insulated from the base and connected in the usual way with the lower contact-point, *p*. The other post, *d*, is secured directly to the base, and is therefore in direct electrical connection therewith.

c is the circuit-closing lever, pivoted to the base in the usual way at *f*. This circuit-closing lever I provide with a central opening, *g*, in which is placed the spring *o*, which serves to raise the lever *n*, which carries the upper contact-point, *t*, and thus separate said contact-point from the lower contact-point, *p*. By this arrangement I am enabled to use a longer circuit-closing lever, and at the same time secure compactness in the arrangement of the parts.

Secured to the base *a* at its extreme rear are the center posts, *h* and *i*. The posts are provided with the customary screws, in the ends of which are journaled the centers *k* and *l* of the cross-piece *m*, which is secured on the extreme end of the lever *n*. The lever *n* is made preferably of steel or other flexible material, and is made thin, so as to yield when the contact-points are brought together in use. The end of the lever *n* where it is secured to the cross-piece *m* is shouldered down, and is inserted through a mortise in the said cross-piece, as shown in Fig. 4, thus making a strong and durable connection. The adjustable stop which limits the vibrations of the lever is placed between the centers and contact-points, and consists of a screw-stud, *s*, which projects through an opening in the lever *n*, and is provided with a nut, *s'*, and check-nut s^2, by means of which the vibrations may be adjusted to the proper length.

It will be seen that in the operation of this key the lever, being centered at its extreme end, and being constructed of flexible material, will, when pressed down, yield or bend upward slightly between the point where it is centered and the contact-points after said contact-points are brought together. This upward yielding or bending of the lever at this point draws the upper contact-point, *t*, toward the centers *k l*, and thus produces a slight rubbing between the contact-points, which prevents "sticking" and insures a better electrical connection.

I am aware that yielding levers consisting substantially of a spring rigidly secured at its extreme end, and adapted to vibrate at its free end to make and break contact, have been used in telegraph-keys. I do not therefore claim yielding levers, broadly; but

I claim—

In a telegraph-key, a spring-lever pivoted or centered at its extreme end by a cross-bar mortised and shouldered thereon, in combination with the adjustable spring and contact-points, substantially as and for the purpose specified.

In witness whereof I hereunto subscribe my name this 5th day of September, A. D. 1882.

CHARLES W. LEWIS.

Witnesses:
GEORGE P. BARTON,
PAUL A. STALEY.