W. C. BOWERS.

Telegraph Key.

No. 94,556.

Patented Sept. 7, 1869.

Fig. 2

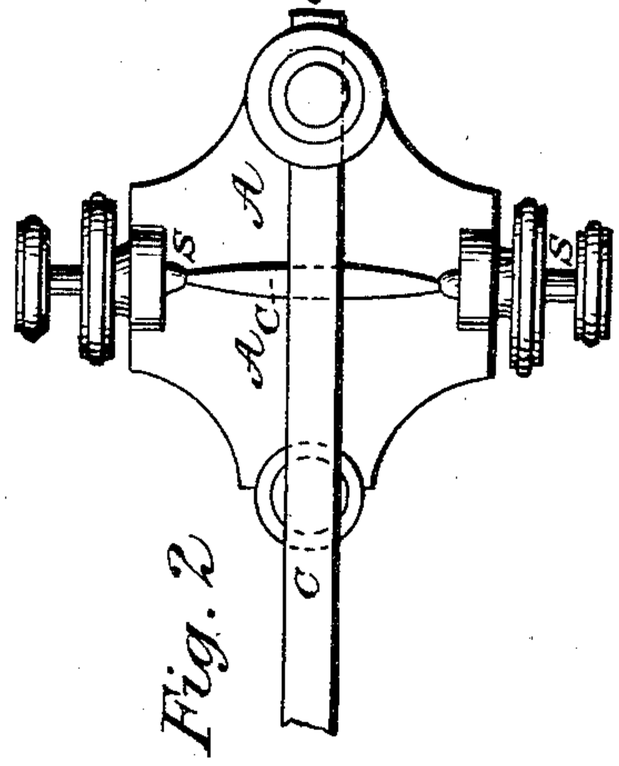


Fig. 1

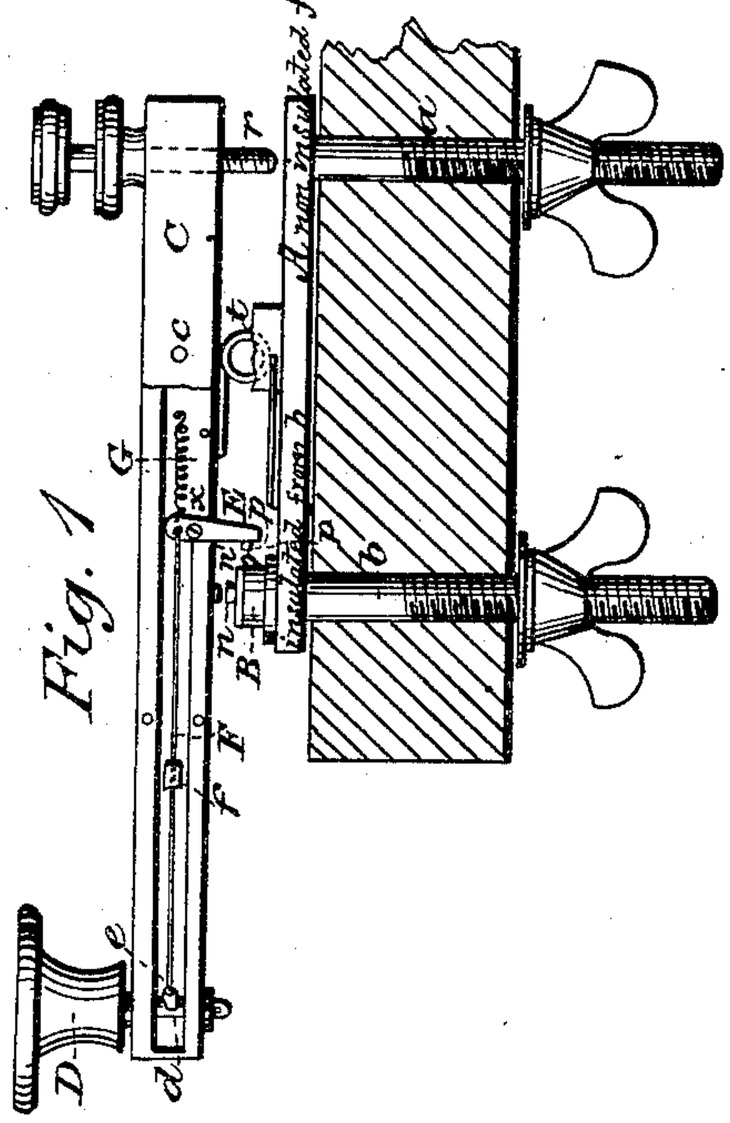
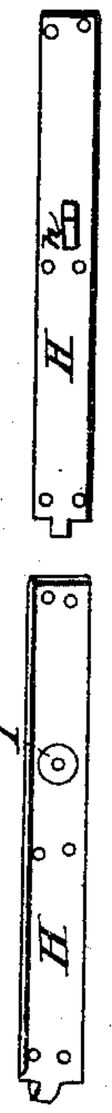


Fig. 3



Witnesses:

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W. CLAY BOWERS, OF WHEATLAND, IOWA.

Letters Patent No. 94,556, *dated September* 7, 1869.

IMPROVEMENT IN SELF-CLOSING TELEGRAPH-KEYS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. CLAY BOWERS, of Wheatland, in the county of Clinton, and State of Iowa, have invented a new and useful Improvement in Self-Closing Telegraph-Keys; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 represents a front elevation of the key, showing the interior arrangement of the key-lever, the covering-plate being removed;

Figure 2 represents a plan view; and

Figure 3, views of the plate, with sliding button, which covers the groove in the key-lever.

Like letters denote like parts in the several figures of the drawings.

The nature of my invention consists in providing a self-closing telegraph-key lever with an auxiliary lever, which keeps the circuit closed until the operator disconnects it, as hereinafter more fully described.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the frame, made of brass. It is secured to a table by the screws *a* and *b*, and thumb-nuts. The ends of the wires are wound around the screws.

The screw *a* is in direct contact with the frame, while *b* penetrates it through a non-conducting collar inserted in the frame.

B represents the head of screw *b*. It is provided with two platinum nipples, *n* and *n'*, and forms the anvil of the lever.

C represents the key-lever, with its axle, *c*, which turns in the sockets of the set-screws *s s*. It has a long groove on one side, wherein the mechanism for working the auxiliary lever is placed.

Its platinum nipple, *o*, forms the hammer.

The distance between the anvil and hammer is regulated by the standard screw *r* of the lever.

t is a bent spring between the frame and the lever, which holds the knob-end of the lever up when not operated on.

D represents the knob, made of non-conducting material.

It has a pin, *d*, which fits and turns in an eye in the end of the lever.

That part of this pin which is exposed in the groove of the lever has a lug, *e*.

E represents the auxiliary lever, which is hinged, at *x*, to the main lever, its long arm hanging down, the end of which is provided with a platinum nipple, *p*, which is in contact with the nipple *n'* of the anvil when the key is not operated on.

F represents the connecting-rod, which connects the short arm of the auxiliary lever with the lug of the pin of the knob.

f is a square protuberance of the connecting-rod.

G represents a spiral spring, one end of which is fastened to the short arm of the auxiliary lever, and the other end to the main lever.

It serves to hold the platinum nipple of the auxiliary lever in contact with the nipple *n'* of the anvil.

H represents the plate, which is screwed to the lever, covering the groove. It has a slot, *h*.

I represents a button, which slides in the slot of the plate.

It serves to hold the platinum nipple of the auxiliary lever from the nipple *n'* of the anvil, while the key is operated on by pressing against the protuberance of the connecting-rod holding it to the side of the groove tight enough to overcome the action of the spiral spring G.

The operation is as follows:

The circuit is opened by turning the lever-knob, which throws the long end of the auxiliary lever back and removes its platinum nipple from the side nipple of the anvil. The button on the plate is then slid over the protuberance of the connecting-rod, holding the auxiliary lever in the required position. The key may then be operated on in the usual manner.

At the conclusion of the operation, the button on the plate is slid from the protuberance of the connecting-rod, when the platinum nipple of the auxiliary lever is at once brought in contact with the side nipple of the anvil by the action of the spring, and the circuit closed.

Some of the advantages of this key over all other self-closing telegraph-keys are, that it will not open line by dropping light articles on the lever-knob; that the circuit can be held open by a sliding button; and that the connecting works between the lever-knob and the auxiliary lever are inside of main lever, which protects them from being broken or disarranged by accidental knocks of books or message-clips.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

1. Revolving knob D, with pin *d* and lug *e*, in combination with connecting-rod F, spiral spring G, and auxiliary lever E, with platinum nipple *p*, to operate substantially as described and for the purposes set forth.

2. Platinum nipple *n'* on the side of anvil, substantially as and for the purposes set forth.

3. Sliding button I, to operate substantially as described and for the purpose set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

W. CLAY BOWERS.

Witnesses:

A. RUPPERT,

WM. H. BAYLIS.