

(No Model.)

E. A. LOWE.

BINDING POST FOR ELECTRIC INSTRUMENTS.

No. 529,127.

Patented Nov. 13, 1894.

Fig. 2.

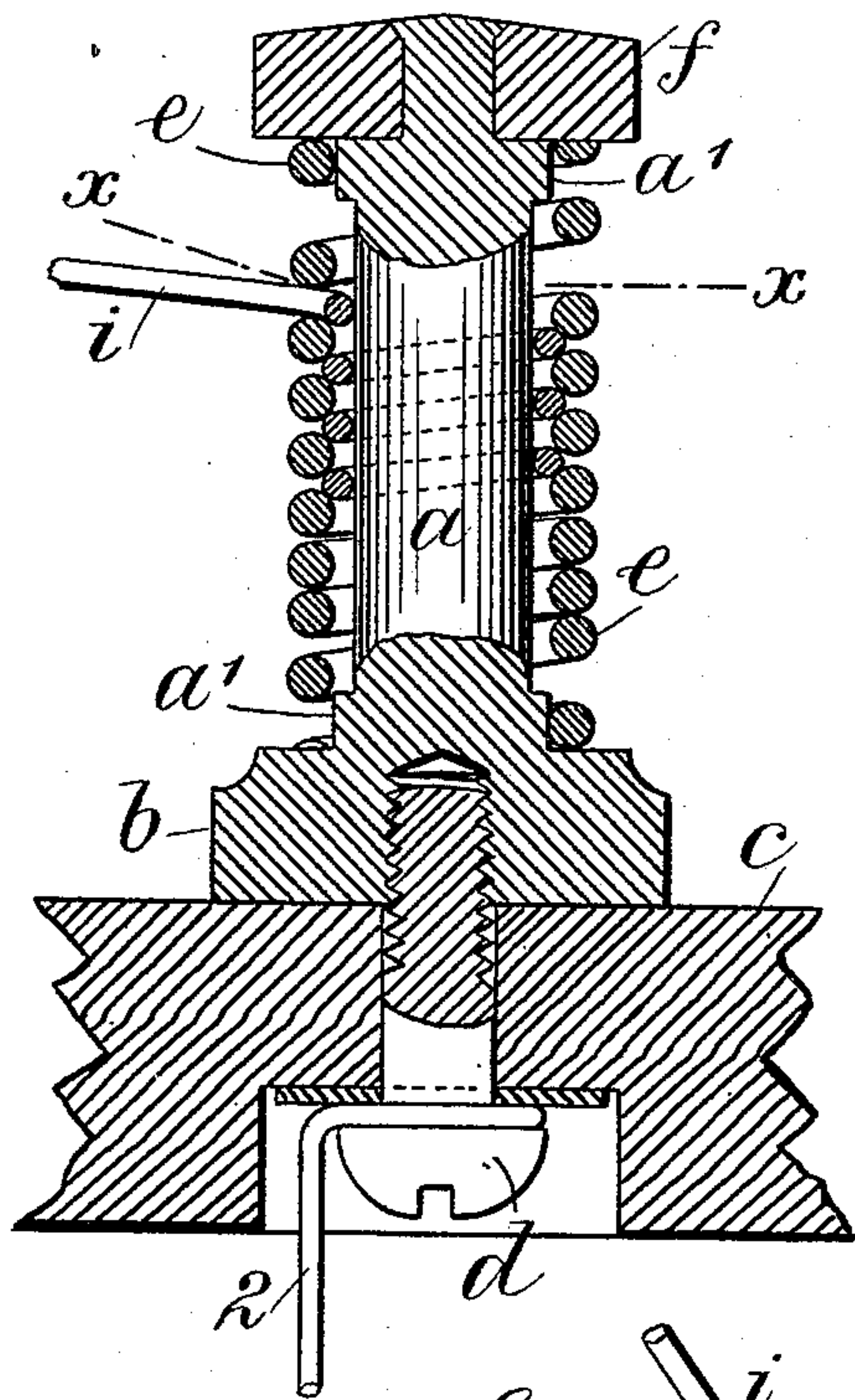


Fig. 1.

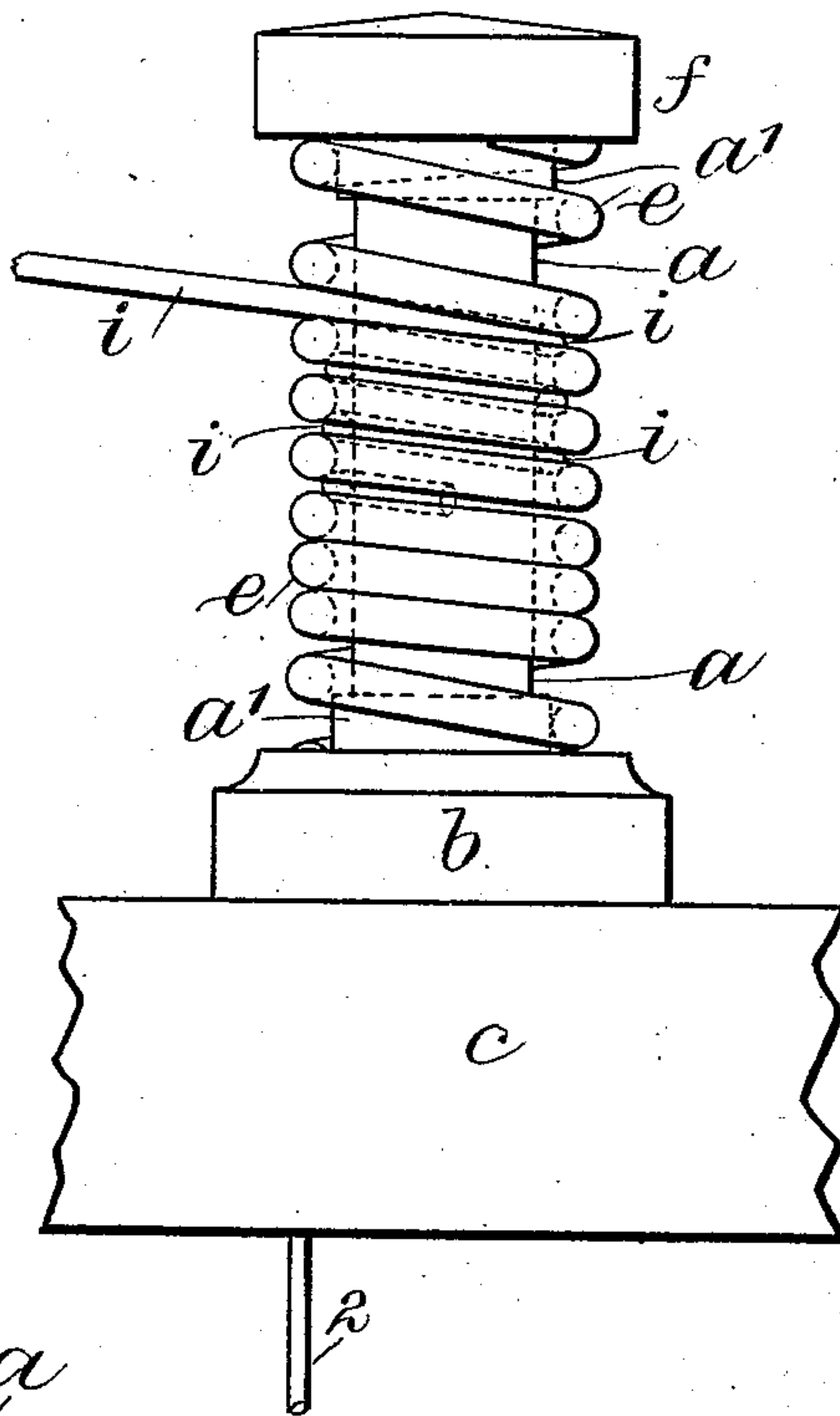
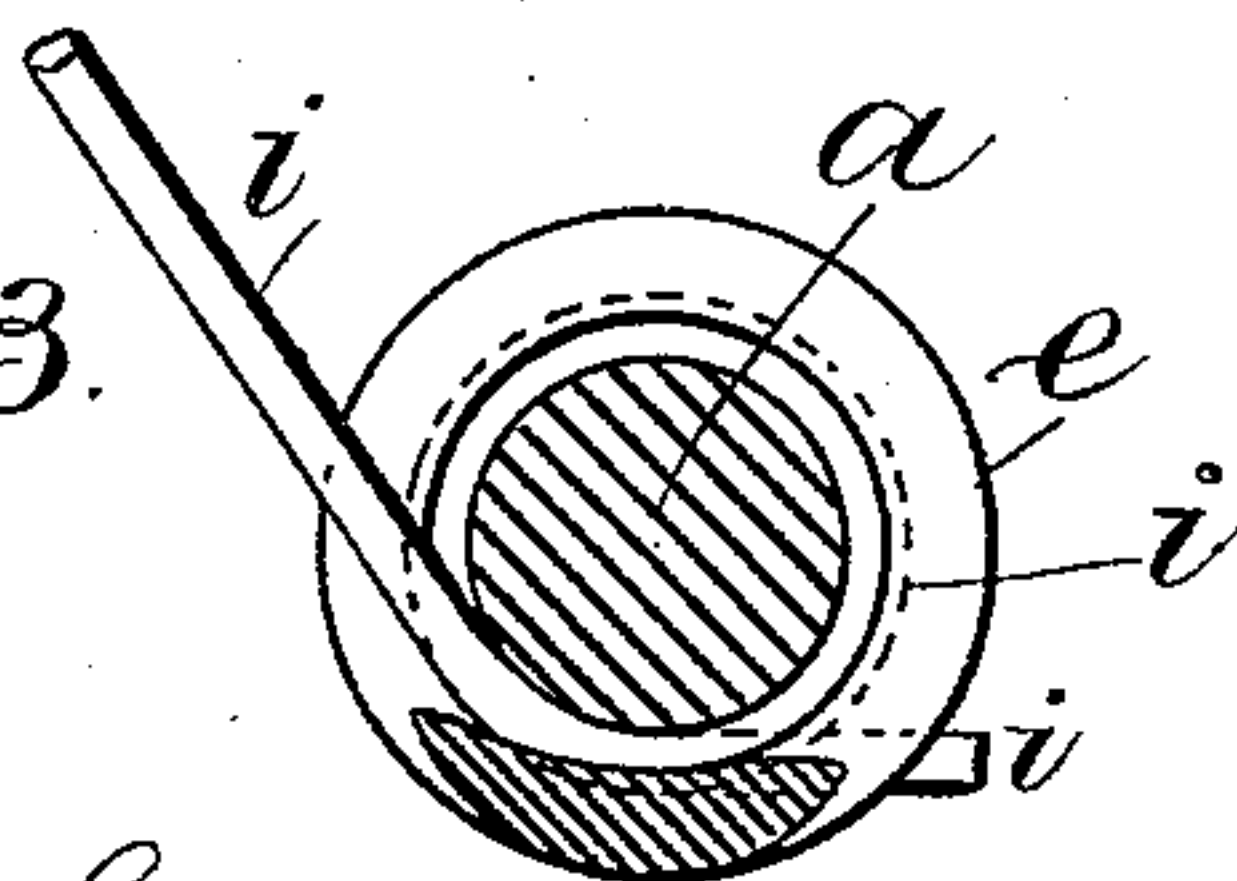


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ERNEST A. LOWE, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JAMES JONES, JR., OF SAME PLACE.

BINDING-POST FOR ELECTRIC INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 529,127, dated November 13, 1894.

Application filed February 9, 1894. Serial No. 499,586. (No model.)

To all whom it may concern:

Be it known that I, ERNEST A. LOWE, a citizen of the United States, residing in the city, county, and State of New York, have invented
5 an Improvement in Binding-Posts for Electric Instruments, of which the following is a specification.

Heretofore in binding posts for electric instruments the end of the conducting wire has
10 been received in a hole through the post or wrapped around the same and clamped by the longitudinal movement of a portion of the post. These posts although extensively employed are not economical to manufacture and
15 only a minimum amount of wire is firmly clamped in forming the electric contact. The object of my invention is to simplify the construction and provide for quickly connecting and securely holding various sizes of wire and
20 at the same time providing an ample electric contact by the extent of wire acted upon.

In carrying out my invention the binding post is provided with a base and an upright or stem, and around said stem is a spring wire
25 helix. The upper end of the stem or post is surmounted by a head and the wire helix is between the base and head. The end of the electric wire to be connected to the post is pressed against and forced between the con-
30 volutions of the wire helix and is wound around the post between the post and the convolutions and is readily attached and detached.

My improved binding post is particularly
35 available for use in testing electric instruments, as the wires can be connected and disconnected with rapidity.

In the drawings, Figure 1 is an elevation; Fig. 2, a vertical section, and Fig. 3 is a sectional plan at the line $x x$ of Fig. 2, all the said
40 figures being of enlarged size.

The stem or post a is provided with a base b , and the base b and stem are secured to a suitable support c preferably by a screw d passing
45 up through the support into the base and stem and to which screw one of the electric wires 2 is connected. The outer end of the stem or post a is reduced and a head f is secured thereon. The respective ends of the stem a
50 are preferably provided with shoulders a'

which are of slightly greater diameter than the stem a .

A spring wire helix e surrounds the stem or post a and the tapering ends of said helix rest
upon the top of the base b and the under face 55 of the head f and closely surround and grip the shoulders a' . The helix agrees in internal diameter with the shoulders a' . Consequently the helix e does not touch the stem a and thus there is a space between the stem and helix. 60 The convolutions of the helix e touch each other in the middle of the coil but are preferably separated at either one or both ends for the reasons hereinafter named.

The head f may be secured to the post a in 65 any desired manner. I have shown the same riveted thereto as this is the most convenient as well as the cheapest way of fastening.

The stem a and base b are shown as made in one piece. They may be constructed in this 70 manner or in separate pieces connected as may be desired or found advantageous.

The electric wire i is connected to the binding post by being brought up to and sprung in through between the central touching con- 75 volutions as it is wound around the post a , and it separates the convolutions as the winding proceeds according to the number of turns.

The convolutions of the helix are free to yield because of the space between the coils 80 near the ends of the helix. When even a very fine wire is connected to the binding post, electric contact is secured where said wire is wound around the post and also where the wire passes in and out through between the 85 convolutions of the helix. This is the case where the wire is of less diameter than the width of the space between the post and the helix and in cases where the wire is of greater diameter than the width of this space then 90 the said wire touches the under side of the convolutions of the helix and makes electric contact both there and with the stem a which the wire surrounds, and also with the helix where the wire passes in and out through the 95 convolutions.

It is essential that the internal diameter of the helix be greater than the diameter of the post in order to provide a space into which the electric wire is received as wound around 100

the post. The end of the electric wire *i* may be tucked in beneath the convolutions of the helix or be left projecting, as shown in the drawings Figs. 1 and 3.

5 It is obvious that the respective ends of the helix *e* may be reduced in diameter so as to grip the stem *a* and leave the center part of the helix out of contact with the post and thereby dispense with the shoulders *a'*.

10 The end of the electric wire may be wound around any number of times, the same being quickly connected by this winding to the binding post and quickly disconnected, and an ample electric contact is thus secured and a
15 firm hold of the wire is obtained which is not always the case where the contact is dependent upon a longitudinally movable part of the post.

I claim as my invention—

20 1. In a binding post, a spring wire helix surrounding and larger than the stem of the post and adapted to receive a connecting wire passed through between its convolutions and around the post, substantially as set forth.

25 2. The combination in a binding post with the stem *a*, base *b* and a head, of a wire helix surrounding the stem between the base and head and adapted to receive a conductor wire passed through between its convolutions and
30 around the post, substantially as and for the purposes set forth.

3. The combination in a binding post with the support *c* and the attaching screw *d*, of the stem *a* and its base *b*, the wire helix *e* surrounding the stem *a*, the head *f* securely fastened upon the reduced end of the stem *a* and
35 between which head *f* and base *b* the wire helix

extends and is adapted to receive a conductor wire passed through between its convolutions and around the post, substantially as and for 40 the purposes set forth.

4. The combination in a binding post with the support *c*, the stem *a*, the base *b* and a head at the opposite end of the stem, of a wire helix surrounding the stem between the base 45 and head and of larger diameter than said stem so as to provide a space between the helix and stem for the electric conductor, substantially as and for the purposes set forth.

5. The combination in a binding post with 50 the support *c*, the stem *a*, the base *b* and the head *f*, of a wire helix surrounding the stem between the base and head and of larger diameter than said stem so as to provide a space between the helix and stem, with the central 55 convolutions of the helix close together and the convolutions near one or both ends separated, substantially as and for the purposes set forth.

6. The combination in a binding post with 60 the support *c*, of the base *b*, the stem *a*, the shoulders *a'* at the respective ends of the stem and the head *f* secured upon the end of the stem, the helix *e* surrounding and larger than 65 the stem with its respective ends surrounding and engaging the said shoulders, substantially as and for the purposes set forth.

Signed by me this 5th day of February, A. D. 1894.

ERNEST A. LOWE.

Witnesses:

HAROLD SERRELL,
GEO. T. PINCKNEY.