

No. 847,555.

PATENTED MAR. 19, 1907.

E. B. CRAFT.
ADJUSTING DEVICE FOR RELAYS.
APPLICATION FILED FEB. 5, 1906.

Fig 1.

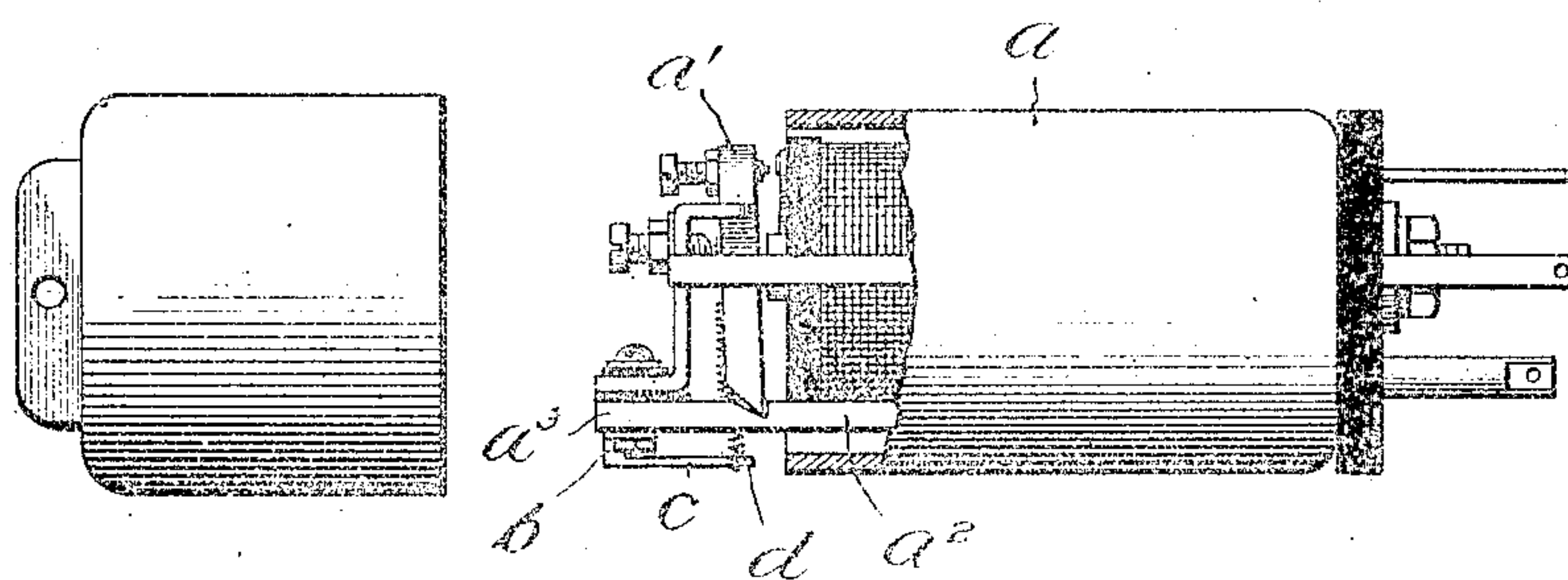
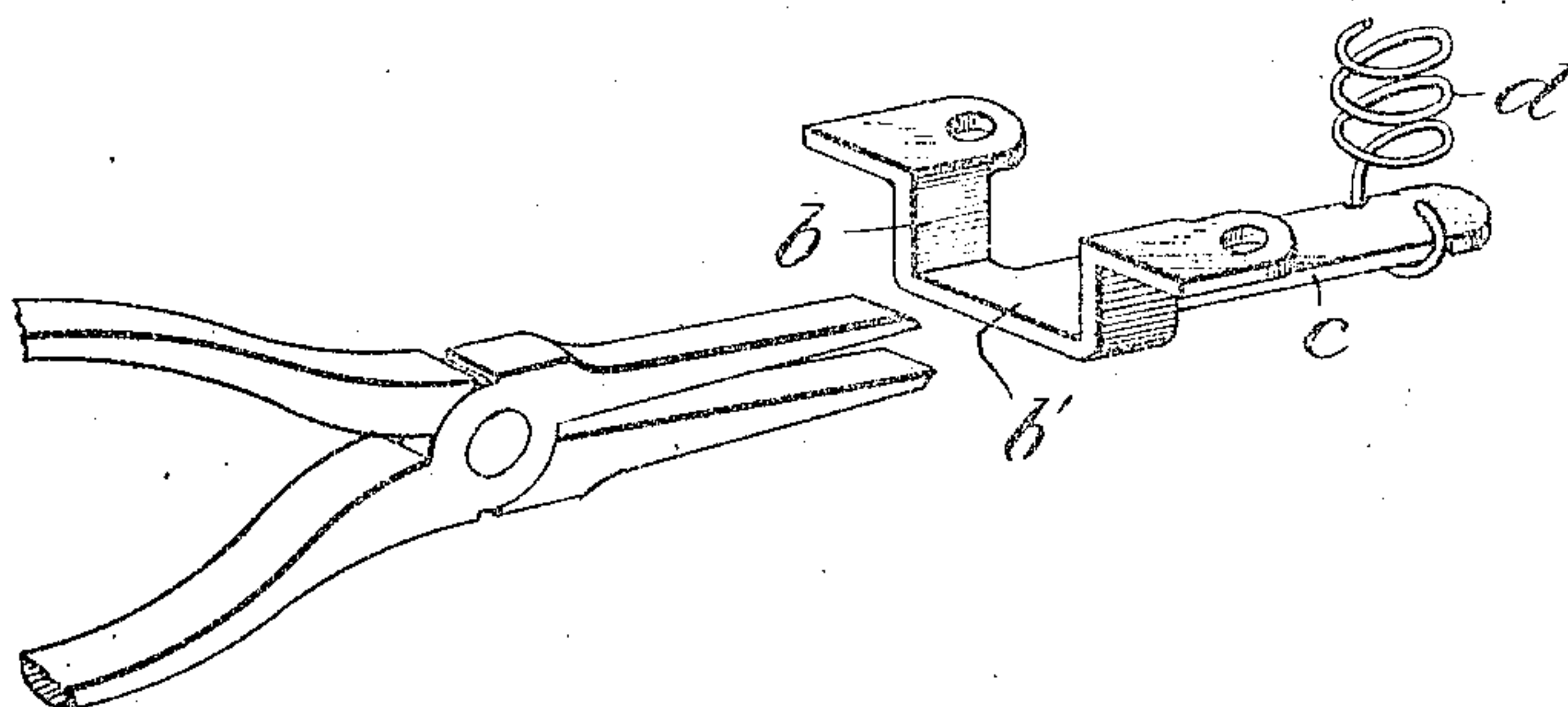


Fig 2.



Witnesses:
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Att'ys.

UNITED STATES PATENT OFFICE.

EDWARD B. CRAFT, OF CHICAGO, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ADJUSTING DEVICE FOR RELAYS.

No. 847,555.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed February 5, 1906. Serial No. 299,415.

To all whom it may concern:

Be it known that I, EDWARD B. CRAFT, 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 Adjusting Devices for Relays, of which the following is a full, clear, concise, and exact description.

My invention relates to an adjusting device especially adapted for use with relays, and has for its object to provide an improved and simple device for varying or adjusting the tension upon a retractile spring of a relay-armature or other device.

I will describe my invention particularly by reference to the accompanying drawing, which illustrates the application of my invention to the armature of an electromagnet, reserving for the appended claims a statement of the parts, improvements, and combinations which I consider novel with me.

In the drawings, Figure 1 is a side elevation of a relay with a portion of its containing-case broken away, the armature being equipped with an adjusting device embodying my invention, and Fig. 2 is a detail perspective view of the adjusting device.

The same letters of reference *a* *e* used to designate like parts wherever they are shown.

The armature *a'* of the magnet *a* is pivoted upon the pole-piece *a²* of the magnet and is provided with the adjusting device of my invention. A U-shaped bridge-piece *b* is secured to the under side of an extension *a³* of said pole-piece and a pliable tongue *c* is secured at one end to the yoke portion *b'* of said bridge-piece, the other end of said tongue being connected by a coiled retractile spring *d* with the armature *a'*, said spring passing through an opening in the extension *a³*. With this arrangement the tension on said spring may be adjusted to vary the retract-

ive force acting on said armature by simply bending the tongue *c* and the adjustment may be made from the front of the relay by inserting the nose of a pair of pliers through the bridge *b* and bending the tongue *c*.

I claim—

1. The combination with a retractile spring, of a pliable tongue to which said spring is secured, and a bridge-piece to which one end of said tongue is rigidly secured; whereby said tongue may be conveniently bent to adjust the tension on said spring.

2. The combination with an electromagnet, of an armature therefor, a bridge-piece, a pliable tongue having one end rigidly secured to said bridge-piece, and a spring connecting said tongue with said armature; whereby the tongue may be bent to vary the retractive force of said spring.

3. The combination with an electromagnet, of an armature therefor, a U-shaped bridge-piece, a pliable tongue secured at one end to the yoke portion of said bridge-piece, and a coiled retractile spring connecting said armature with the other end of said tongue.

4. The combination with an electromagnet, of an armature therefor, an extension from the pole-piece of said magnet; a U-shaped bridge-piece secured to the under side of said extension, a pliable tongue secured at one end to said bridge-piece, and a coiled retractile spring connecting the other end of said tongue with said armature, said spring passing through an opening in said extension.

In witness whereof I hereunto subscribe my name this 26th day of January, A. D. 1906.

EDWARD B. CRAFT.

Witnesses:

ROY TALLOWAY,
RALPH W. INGERSOLL.