

C. DURANT.  
Relay Magnet.

No. 79,331.

Patented June 30, 1868.

Fig. 1

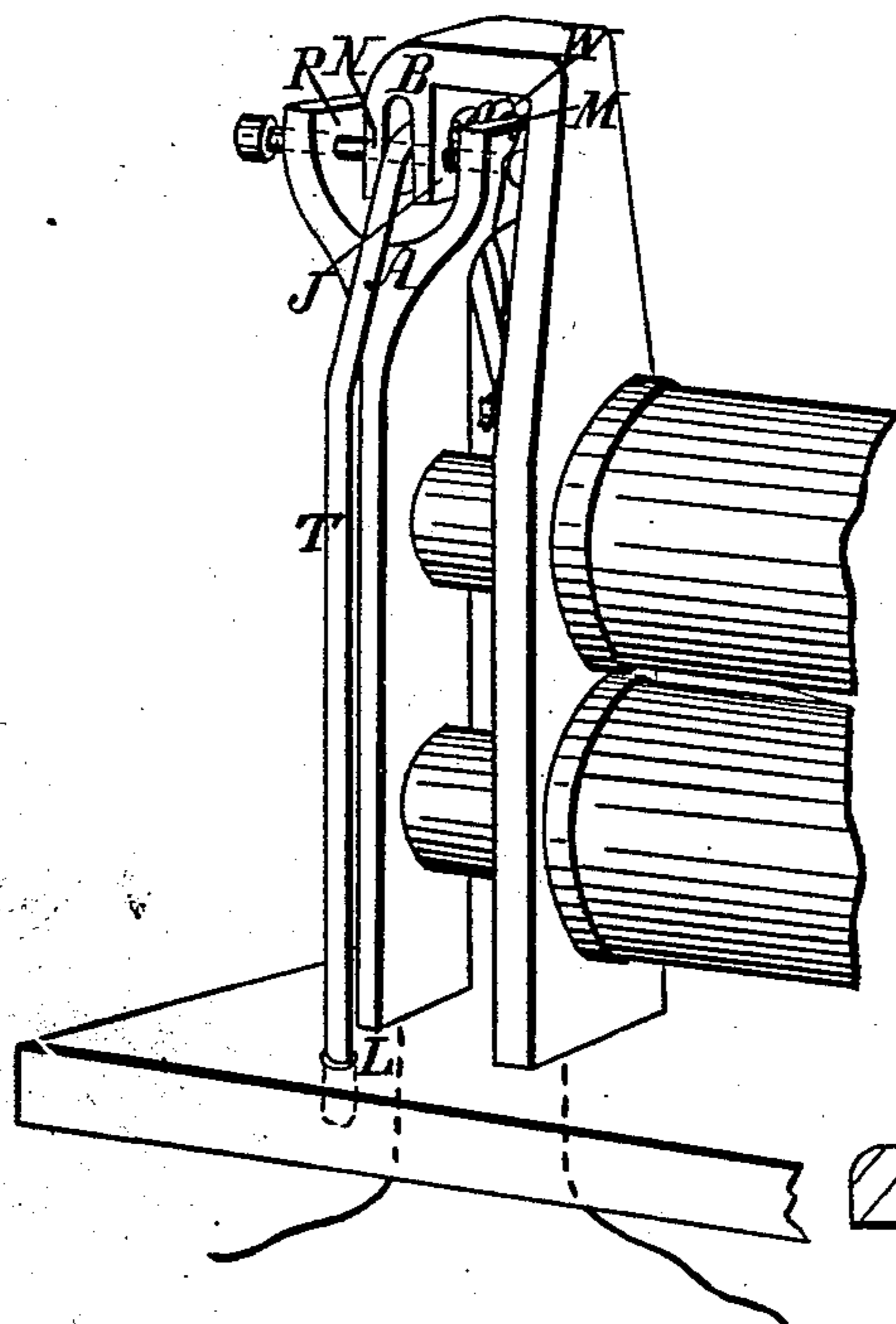
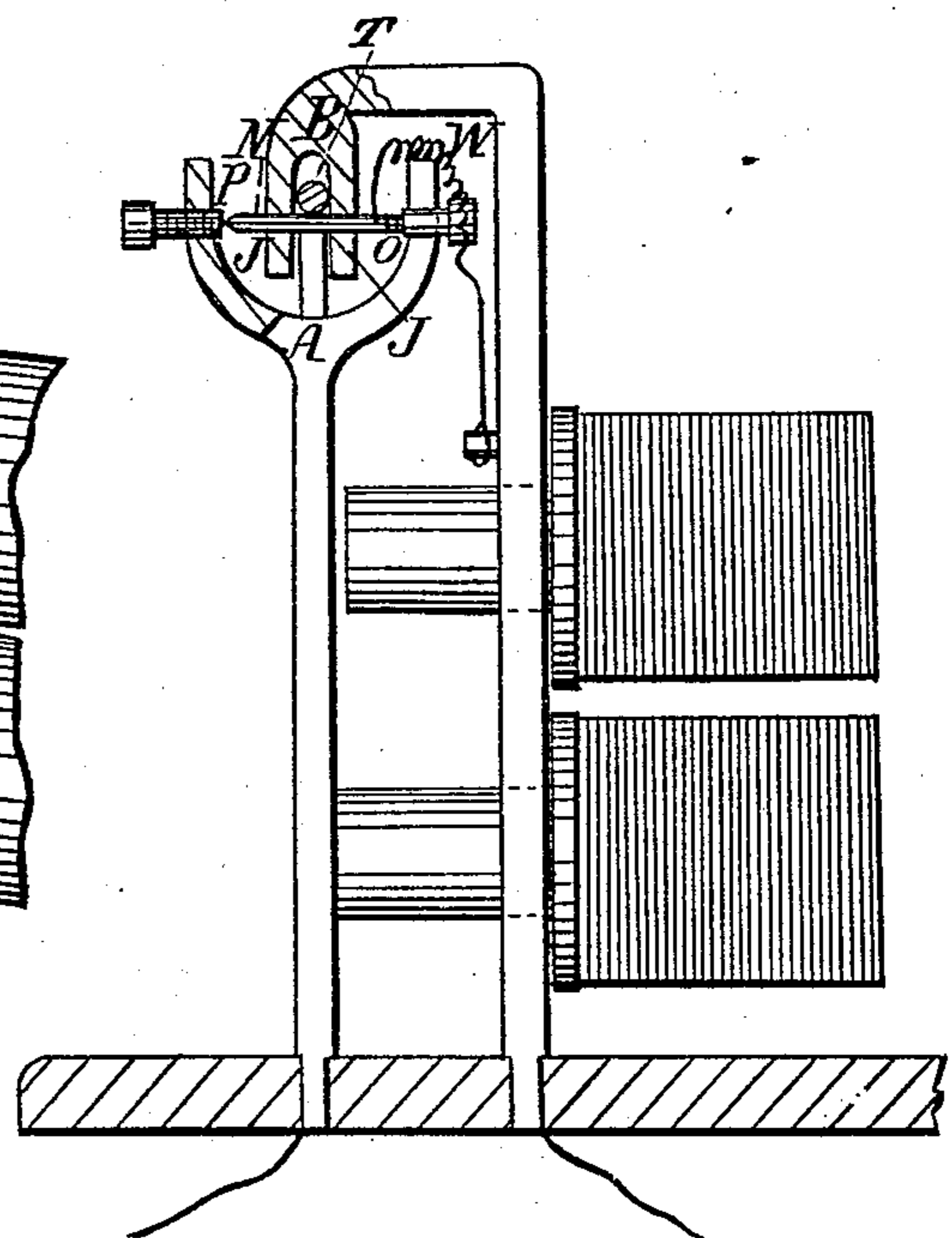


Fig. 2



Witnesses  
H. C. Ashkutoz  
J. A. Fraser

Inventor  
Chas. Durant  
per Mumf &  
Attorney

# United States Patent Office.

CHARLES DURANT, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO GEORGE F. DURANT, OF SAME PLACE.

*Letters Patent No. 79,331, dated June 30, 1868.*

## IMPROVEMENT IN RELAY-MAGNETS.

*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, CHARLES DURANT, of Jersey City, in the county of Hudson, and State of New Jersey, have invented a new and useful Improvement in the Electro-Magnetic-Relay Machine used in operating the electro-magnetic telegraph; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The invention is a modification of and possesses several advantages over the electro-magnetic-relay machine for which Letters Patent have been allowed me by the United States of America, but not yet issued.

It consists, first, in constructing a jaw or fork in the top of the armature or armature-lever, wherewith to move the shifting or sliding-bolt upon and through the bent post, and thereby accomplishing the same good purpose of opening and closing the local circuit under all the variable weak and strong electric currents and escapes, the armature or armature-lever in this machine being held firmly at the base, and being without the flexible joint, and without the axle or pivots shown in the original device; second, in constructing a jaw or fork in the end of the bent post, to acquire steadiness through wider bearings in the movement of the shifting or sliding-bolt through and upon said post; and, third, in producing friction on the sliding-bolt by means of a weight hanging or pressing thereon, whereby firmer writing is secured.

In the accompanying sheet of drawings—

Figure 1 is a perspective view of a portion of an electro-magnetic-relay machine, showing my invention.

Figure 2 is a side view of the same, partly in section.

Similar letters of reference indicate corresponding parts.

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

Figs. 1 and 2 show the armature A, or armature-lever, held firmly at the base, its own elasticity constituting the only recoil-spring required, and forked or spread into jaws at the top, whereby to move the shifting or sliding-bolt N through and upon the jaws in post B, at the openings J J, whilst operating the local circuit at point P.

The wire W connects the bent post B with the shifting or sliding-bolt, on which bolt hangs or presses the weight T, for producing friction thereon, let loosely into openings, L, in the base of the machine, or passing through any reliable guides, to keep it in place. The sliding-bolt is insulated from the armature or armature-lever at point O, and its movement is regulated at point P.

I do not herein claim the shifting or sliding-bolt N, nor the adaptation of the armature or armature-lever to constitute a spring for recoil.

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

1. The jaws or fork in the armature or armature-lever of an electro-magnetic-relay machine, substantially as and for the purpose herein shown and described.
2. The jaws or fork in the post B, substantially as and for the purpose herein shown and described.
3. The weight T, applied substantially as and for the purpose herein shown and described.

CHARLES DURANT.

Witnesses:

W. F. McNAMARA,  
ALEX. F. ROBERTS.