

No. 699,056.

Patented Apr. 29, 1902.

J. A. ALBERTSON.
TELEGRAPH SOUNDER.
(Application filed June 20, 1901.)

(No Model.)

Fig. 1.

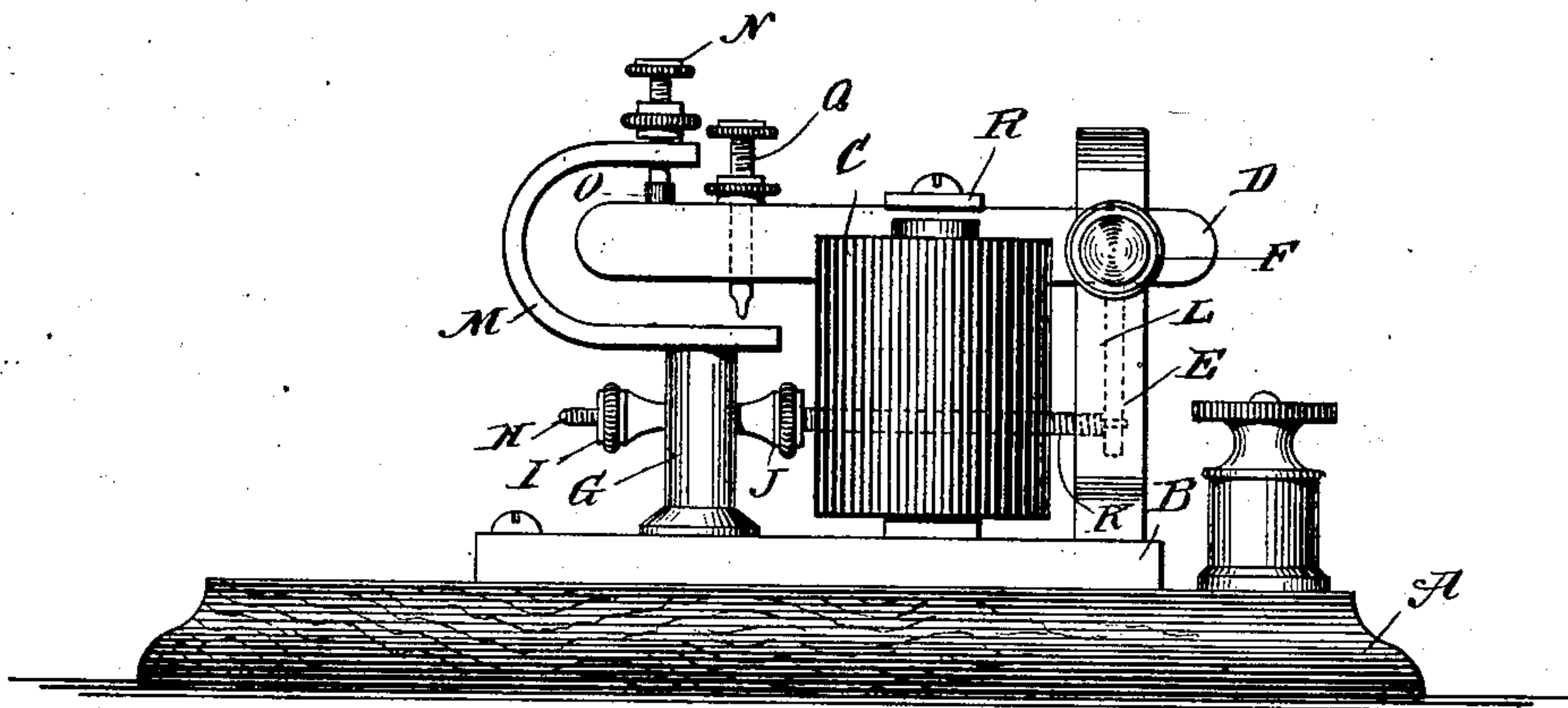


Fig. 2.

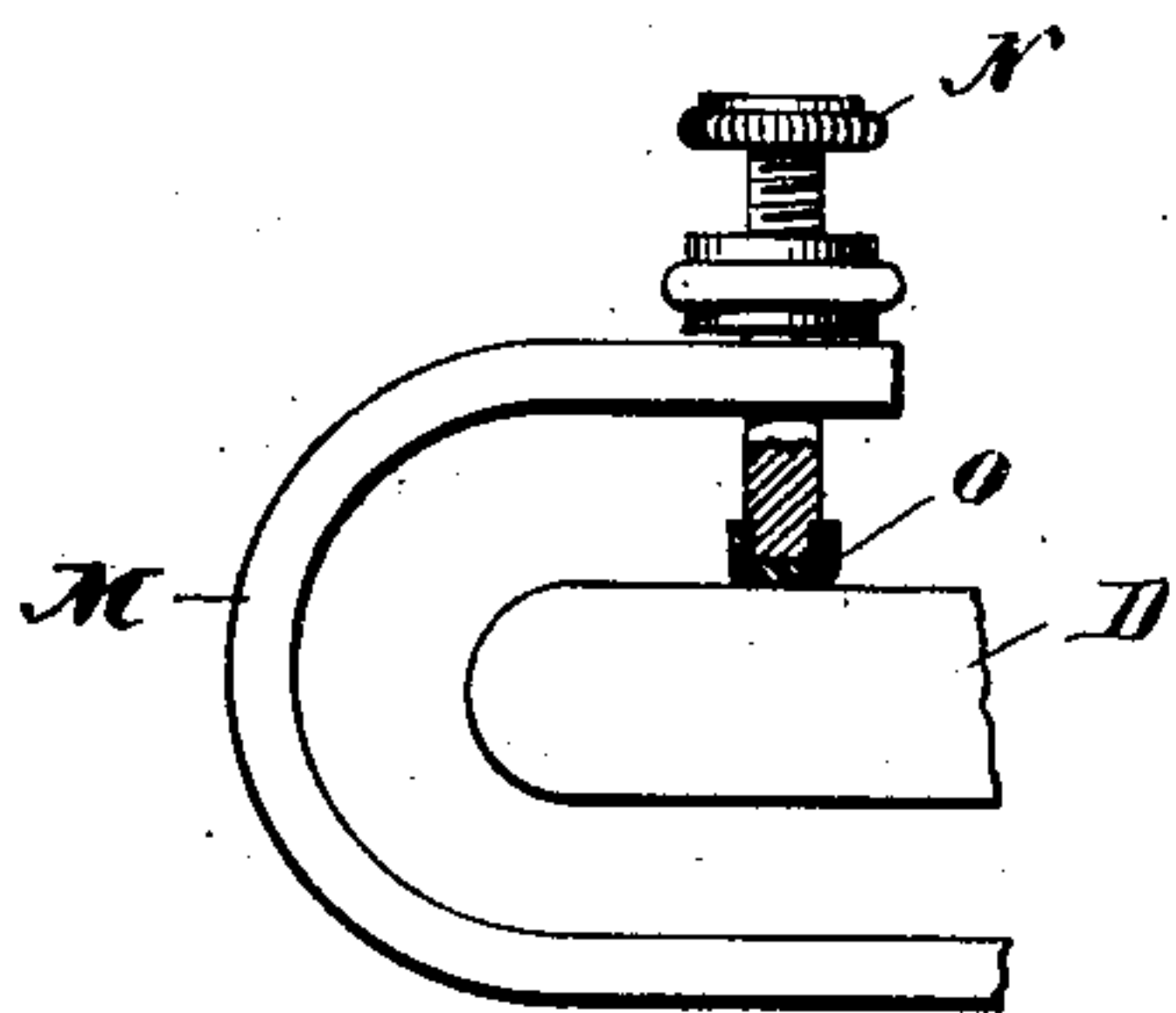
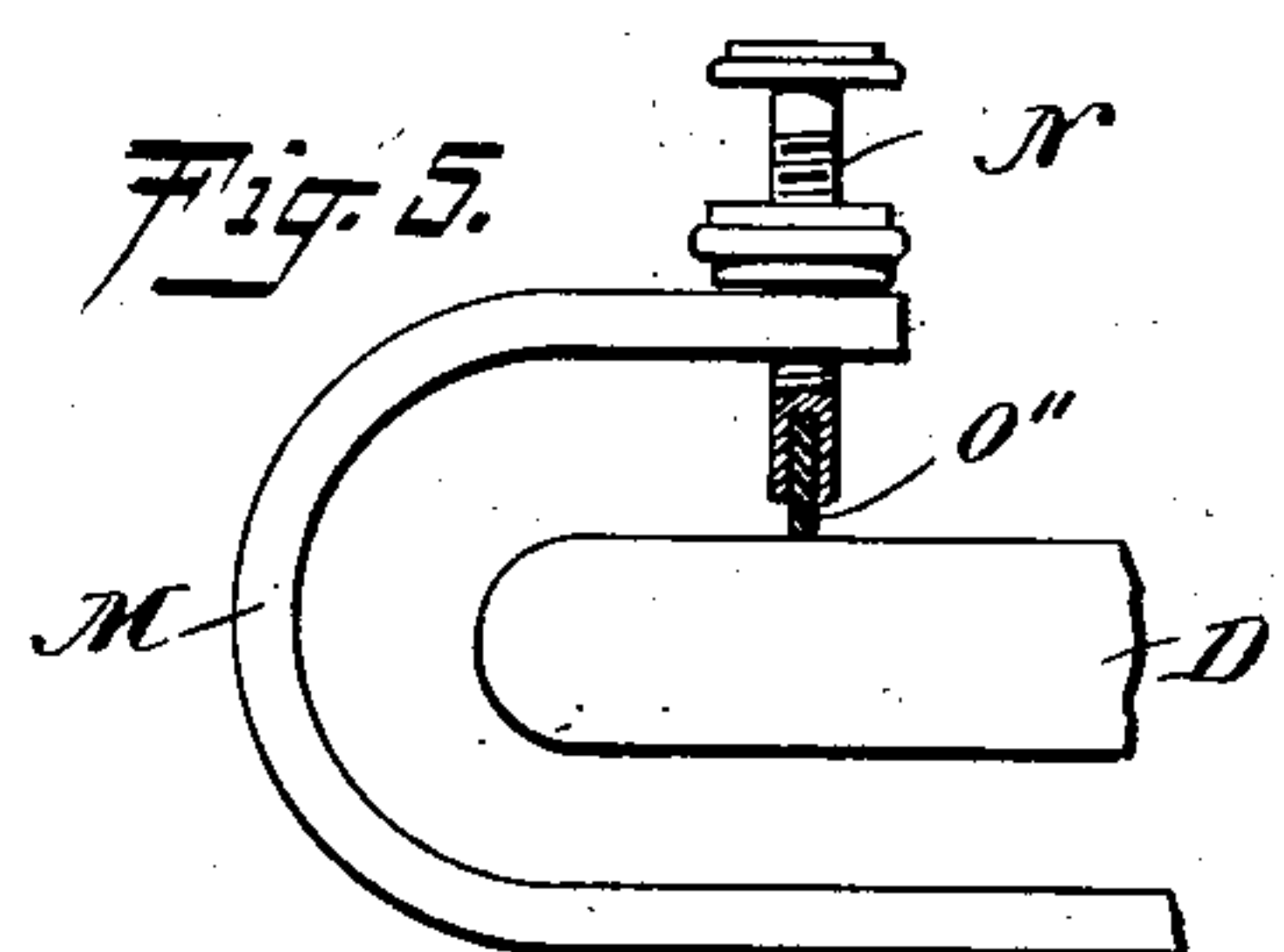
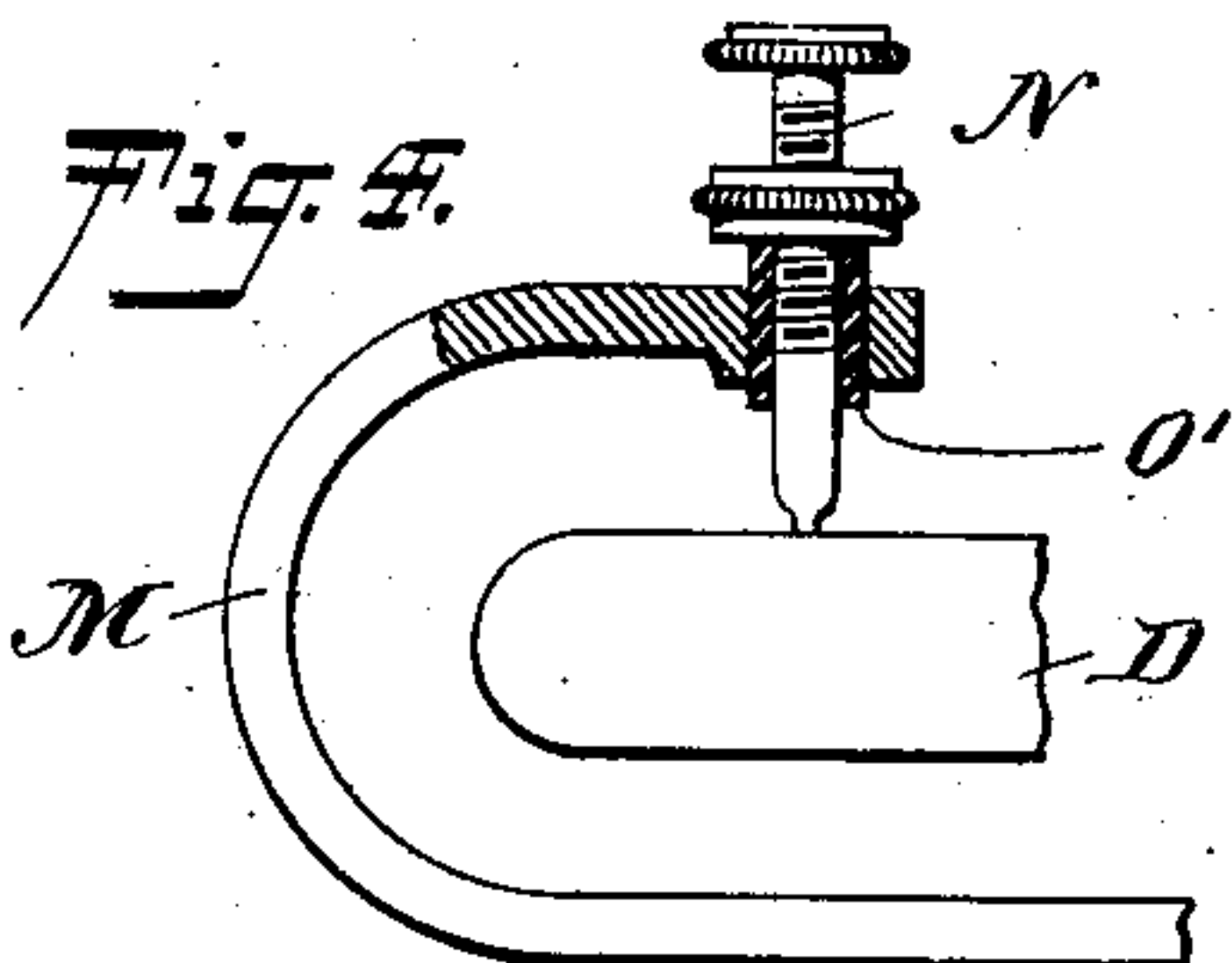
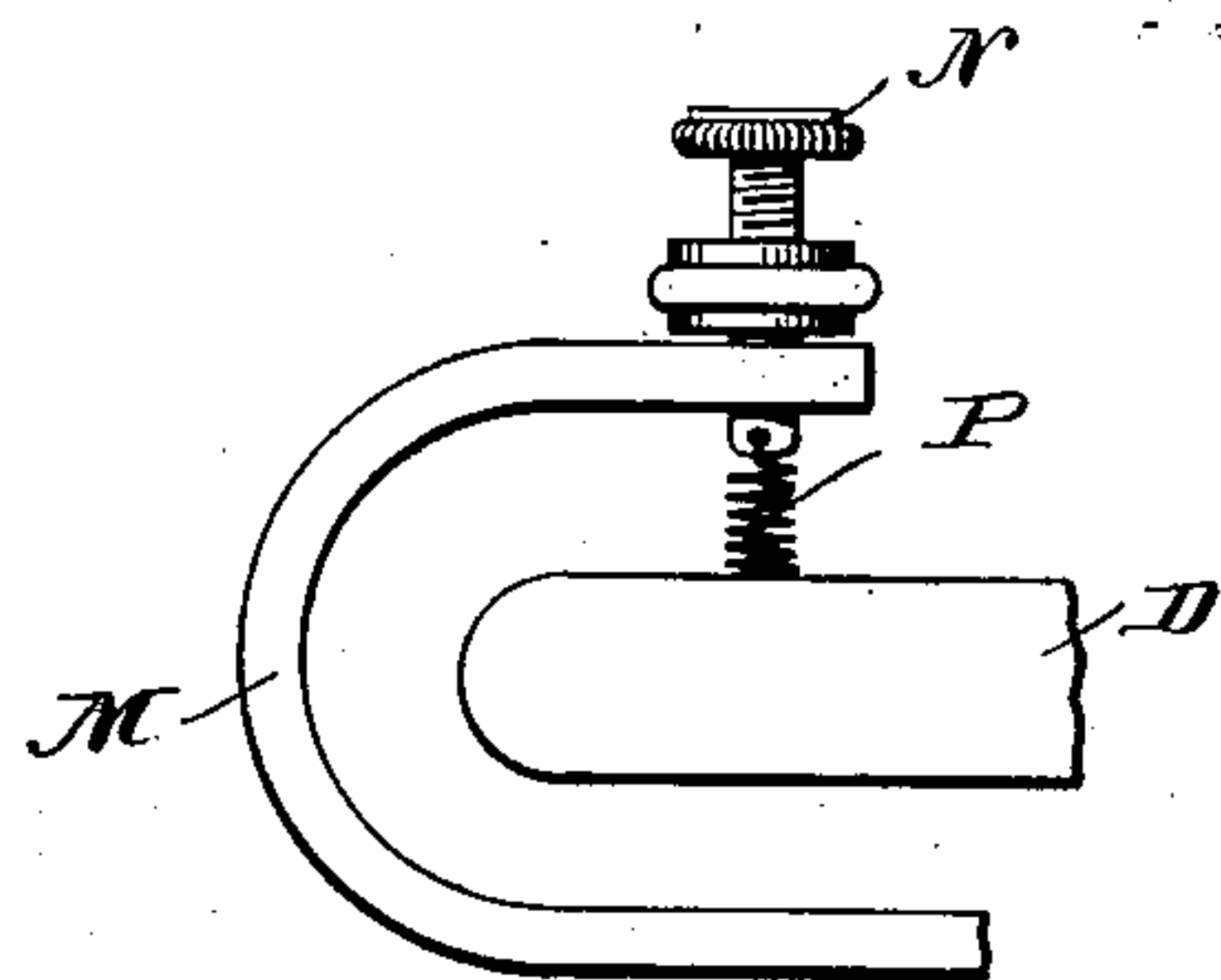


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN ALBERT ALBERTSON, OF LANSFORD, PENNSYLVANIA.

TELEGRAPH-SOUNDER.

SPECIFICATION forming part of Letters Patent No. 699,056, dated April 29, 1902.

Application filed June 20, 1901. Serial No. 65,265. (No model.)

To all whom it may concern:

Be it known that I, JOHN ALBERT ALBERTSON, a citizen of the United States, and a resident of Lansford, in the county of Carbon and State of Pennsylvania, have invented new and useful Improvements in Telegraph-Sounders, of which the following is a full, clear, and exact description.

This invention has for its object an improvement in sounders used in the art of telegraphy, and provides a means whereby a receiving stroke of the sounder may be heard and readily recognized by being more prominent than the sound produced by the return stroke. This avoids any confusion that may arise due to similar strokes or sounds produced by the forward-and-back movement of the vibrating arm.

Another advantage of my invention is in the fact that it may be applied to any sounder without material alterations thereof.

I will describe a telegraph-sounder embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 illustrates my invention in one form as applied to a sounding instrument. Fig. 2 is a sectional view of my invention indicated in Fig. 1, and Figs. 3, 4, and 5 illustrate modifications of the invention.

On the base A is supported by the frame B a well-known form of sounder having an electromagnet C and a vibrating arm D, supported in proximity to said electromagnet on an upright E by means of adjustable pivots F. Also on the frame is a contact-support G, carrying a screw-threaded rod H, upon which are arranged thumb-nuts I J, whereby the tension of the spring K, connecting the threaded rod H with the arm L of the vibrator D, may be adjusted. Mounted on the support G is the sounder M, in the upper member of which is an adjustable limiting point or screw N. In the example of my improvement shown in Figs. 1 and 2 I apply to the lower end of

the adjustable limiting-point a cushion made of suitable material—such, for instance, as soft rubber, felt, or the like—which is designed to receive the impact of the back stroke of the vibrating arm, whereby there will be but a faint or practically no sound or click, as desired, and thus it will be seen that the sound produced for signaling or for receiving a message will be readily recognized, this receiving sound being made by the impact of the limiting-point Q, carried by the arm and which may be adjusted as desired.

In the example of my improvement shown in Fig. 3 the impact-receiving cushion consists of a coiled spring P, attached to the limiting-point N, and in Fig. 4 the cushion consists of a sleeve O', of yielding material, passing through the upper member of the sounder M, and in this sleeve the limiting-point N engages. Obviously in this construction when the arm D strikes the lower end of the limiting-point N the shock will be broken and the sound materially decreased by an upward movement of the limiting-point permitted by the sleeve-like cushion.

In Fig. 5 the cushion O'' consists of a length of material—such as soft rubber, felt, or the like—inserted in a longitudinal recess formed in the limiting-point and of course projecting beyond the end of the same to be engaged by the arm D upon its return movement.

When an impulse passes through the electromagnet, said electromagnet draws the armature R toward it and causes the vibratory arm D to strike the limiting-point Q against the sounder M, and thus the impulse is sounded, and when the current is broken the spring K throws the vibratory arm against the cushion limiting device O, thus producing a faint or practically no sound. These cushion devices may be used on all sound-telegraph instruments, not only so-called "sounders," but on relays or other instruments that may be employed instead of the sounder shown in the drawings.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a telegraph instrument, the combination of a vibratory arm, a sounding-point located on said arm, a sounder, and a spring-yielding back-stroke-limiting point on said
5 sounder, substantially as specified.

2. In a telegraph instrument, a sounder, a vibratory arm carrying a sounding-point, a sleeve of yielding material arranged in an opening in said sounder, and a back-stop point

for the arm supported in said sleeve, substantially as specified. 10

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

JOHN ALBERT ALBERTSON.

Witnesses:

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FRANK E. RAGEN.