

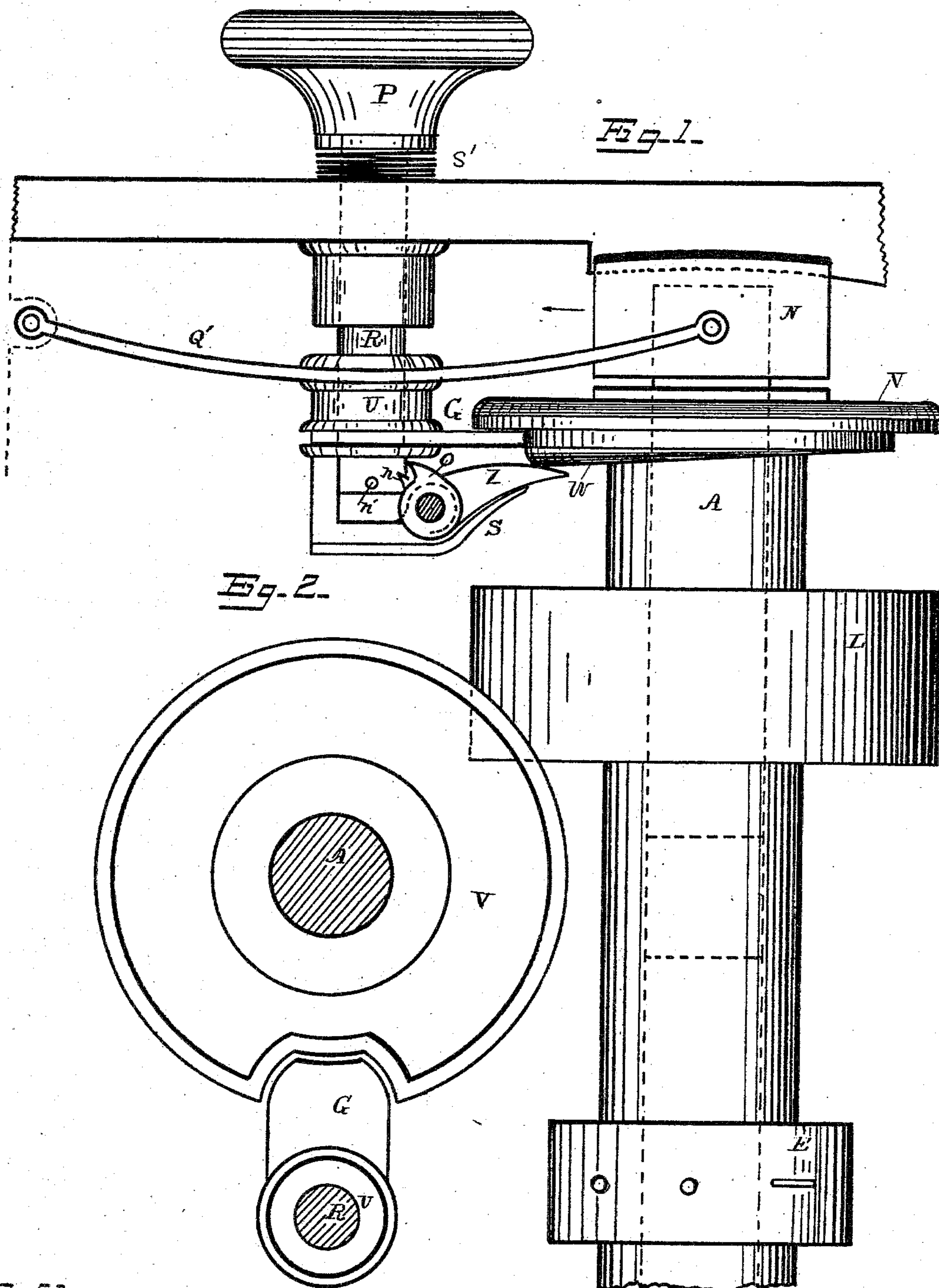
(No Model.)

R. C. STONE.

TELEGRAPHIC TRANSMITTER.

No. 295,075.

Patented Mar. 11, 1884.



WITNESSES
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UNITED STATES PATENT OFFICE.

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TELEGRAPHIC TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 295,075, dated March 11, 1884.

Application filed September 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROSS C. STONE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Telegraph-Instruments, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to my case filed August 23, 1883, having for its object the conversion of my alphabet into a corresponding telegraphic alphabet, which is represented by "dots," "dashes," and "spaces" or "signa-
15 tures," resulting from the opening and closing of an electrical circuit.

This application also closely relates to another application filed of even date herewith, which application is marked "Case B," in
20 which a revolving connector consisting of an insulated metallic bar or spindle is described, the rotation of which forms any desired letter or mark which can be formed in this manner, the rotation being caused by a friction-wheel located on the said revolving bar, which
25 is brought in contact with another friction-wheel, which is in constant motion through the instrumentality of clock-work or other suitable means.

30 The object of my present invention is to provide means for bringing the aforesaid wheel in contact with the latter-named wheel, and to keep them in contact long enough to cause one revolution of first-named wheel, and then separate them, so that the revolving bar cannot
35 make more than one revolution, which is sufficient to form in telegraphic character any desired letter, number, or mark by the means provided in said application.

40 In my drawings, Figure 1 represents a side outline view of my improved device. Fig. 2 is a plan of the cam and its locking device.

A is the revolving bar or spindle, which carries circuit-breaker E, and is supported at the
45 top by the sliding box N, which moves in the direction of the arrow when forced to do so, as hereinafter described. The said box N is connected with one end of the spring-plate Q', which is composed of a strip or strips of thin
50 steel or other suitable material, while the other end of said plate is secured to the frame at

some convenient point, (as shown by dotted lines,) thus forming a suspension-tie between the frame and the oscillating box N; hence when weight is placed upon the center of the
55 said spring Q' the effect is to draw the box in the direction of the arrow. I propose to apply this weight by the operating-key P through the medium of the rod R. The rod R has a notch, *n*, at one side. A pivoted latch or catch, O, is adapted to engage with this notch. This
60 catch is pivoted in an extension of a sleeve, U, which has a projection, G, at one side. The sleeve U is loosely connected, as by a pin, *n'*, with the rod R, so that the rod can have a length-
65 wise movement in the sleeve when not latched thereto by the engagement of catch O in notch *n*. An extension, Z, from said catch bears against face-cam W on shaft A. Thus, when the shaft or spindle A revolves, the cam W
70 will tend to throw the catch O out of the notch in rod R. A spring, S, tends to throw said catch into engagement with the rod. The object of this part of the invention is to liberate the operating-key after it has performed
75 its part of the work, so that no two letters can be formed by one operation of the key, or, in other words, after a letter has been produced, the key must be allowed to rise to its original position and be pressed again before another
80 operation can be performed to produce another letter or mark, while the accidental slacking of the key will not interfere with the formation of any mark or letter after the said key has been pressed; but in order to make
85 this perfectly plain I will continue the description of the devices.

In my drawings I show a revolving disk, V, which is located upon the bar A, and is provided with a face-cam, W, which operates the
90 arm Z, which in turn operates the latch O. The said disk is provided with a notch, (see Fig. 2,) in which moves one end of the plate G, the other end thereof being secured to or made a part of the attachment U, so that when
95 the key is pressed the end of the said plate is moved downward through the notch, as shown in Fig. 1; but this operation causes the box N to move in the direction of the arrow, bringing the friction-wheel L in contact with another
100 friction-wheel, as described in Case B. The disk or plate V, which is secured to said spin-

dle, is caused to revolve. This of course catches the plate G under the rim of the said disk and holds it there until the spindle has made one complete revolution, during which the cam W acts upon arm Z, forcing the latch O to liberate the key in the manner named, and as the said key is urged in an upward direction by a spring, S', the following result is obtained: The key being pressed, the revolving bar is started. This immediately locks the friction-wheels in contact, as shown in Case B, until one revolution of the friction-bar is made, (during which the key is liberated to prevent the same from interfering with the stop, which is necessary at the end of every revolution,) when the key is allowed to occupy its original position. The pawl at the end of each revolution reunites the key with the other parts, so as to repeat the operation, when desired, of revolving the bar A, which is so revolved for the purpose of opening and closing an electrical circuit to form letters or signs, as more fully described in Case B, above referred to. It will thus be seen that the plate G at the end of each revolution flies or springs up into the notch, as shown in Fig. 2, and thus prevents any further motion until the key is again pressed; hence it is impossible to make a mistake in transmission of a letter or sign if the right key is pressed to begin with.

What I claim here as my invention, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a spindle adapted by its rotation to open or close an electrical circuit, of a key and connecting mechanism adapted, as described, to unlock said spindle, and mechanism, substantially as described, adapted to lock the spindle when it has completed a single revolution, as set forth.

2. The combination, with a spindle adapted by its rotation to open and close an electrical circuit, of a locking-plate thereon, a locking device engaging with said plate, and a key adapted to disengage the locking device from the notch in the plate, as set forth.

3. The combination, with a spindle of the character described, of a notched disk thereon, a locking device engaging the notch in said disk, a key adapted to disengage the locking device from said disk, and mechanism, substantially as described, which holds the locking mechanism from the disk during one revolution of the spindle, but locks the spindle at the completion of the revolution, as set forth.

4. A spindle adapted by its rotation to open and close an electrical circuit, a notched disk on said spindle, a locking device adapted to engage the notch in said disk, a key for disengaging the locking device from the disk, and mechanism, substantially as described, which is adapted to release the key from the locking device and permit it to return to its normal position while the spindle is revolved, substantially as described, all the elements in combination, as set forth.

5. A spindle adapted by its rotation to open and close an electrical circuit, a notched disk on said spindle, a locking device adapted to engage the notch in said disk when in one position, but to be forced out of the notch and held out by the disk during one revolution of the spindle, a spring which tends to press the locking device into the notch of the disk, a key for forcing the locking device out of the notch in the disk, and mechanism, as described, for releasing the key from the locking device while the spindle rotates, all in combination, as set forth.

6. The spring-key, the locking device secured loosely thereto, a spring tending to draw the locking device into the notch in the disk, a spindle of the character described, which carries said disk and a cam, and a latch actuated by said cam to disconnect the key from the locking device, all in combination, substantially as stated.

7. A spindle of the character described, a notched disk thereon, provided with a face-cam, as set forth, a locking device adapted to engage the notch in the disk when forced into said notch by a spring, a spring-key adapted to force the locking device out of the notch in the disk, a latch which normally holds the locking device in position to move with the key, but is operated to release the key from the locking device by the action of the cam, and a spring which tends to force the latch into engagement with the key, the specified elements in combination, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ROSS C. STONE.

Witnesses:

S. H. WALKER,
ROBT. M. FRYER.