

No. 886,983.

PATENTED MAY 5, 1908.

J. L. JONES.
COHERER AND DECOHERER.
APPLICATION FILED DEC. 26, 1906.

Fig. 1.

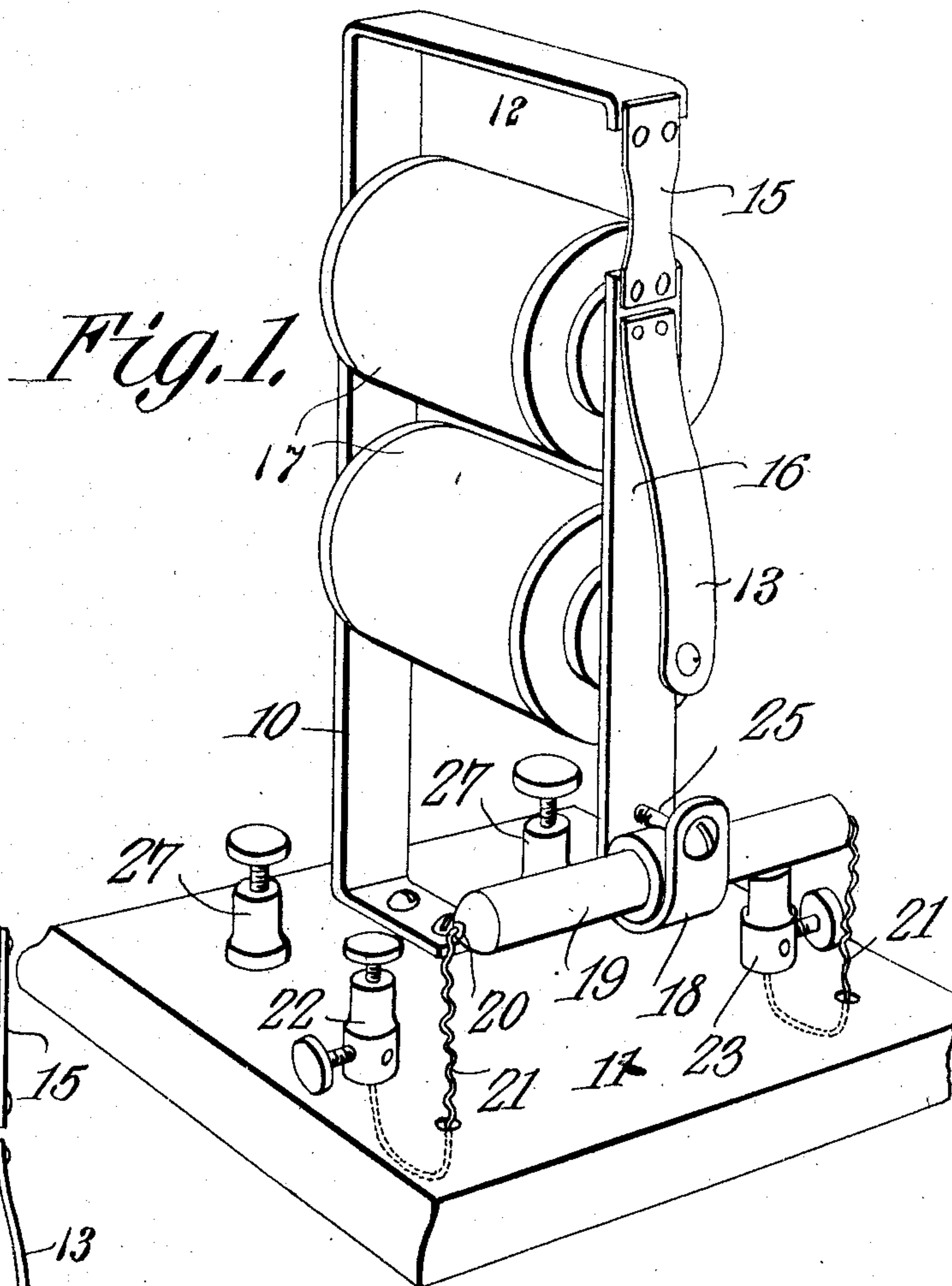
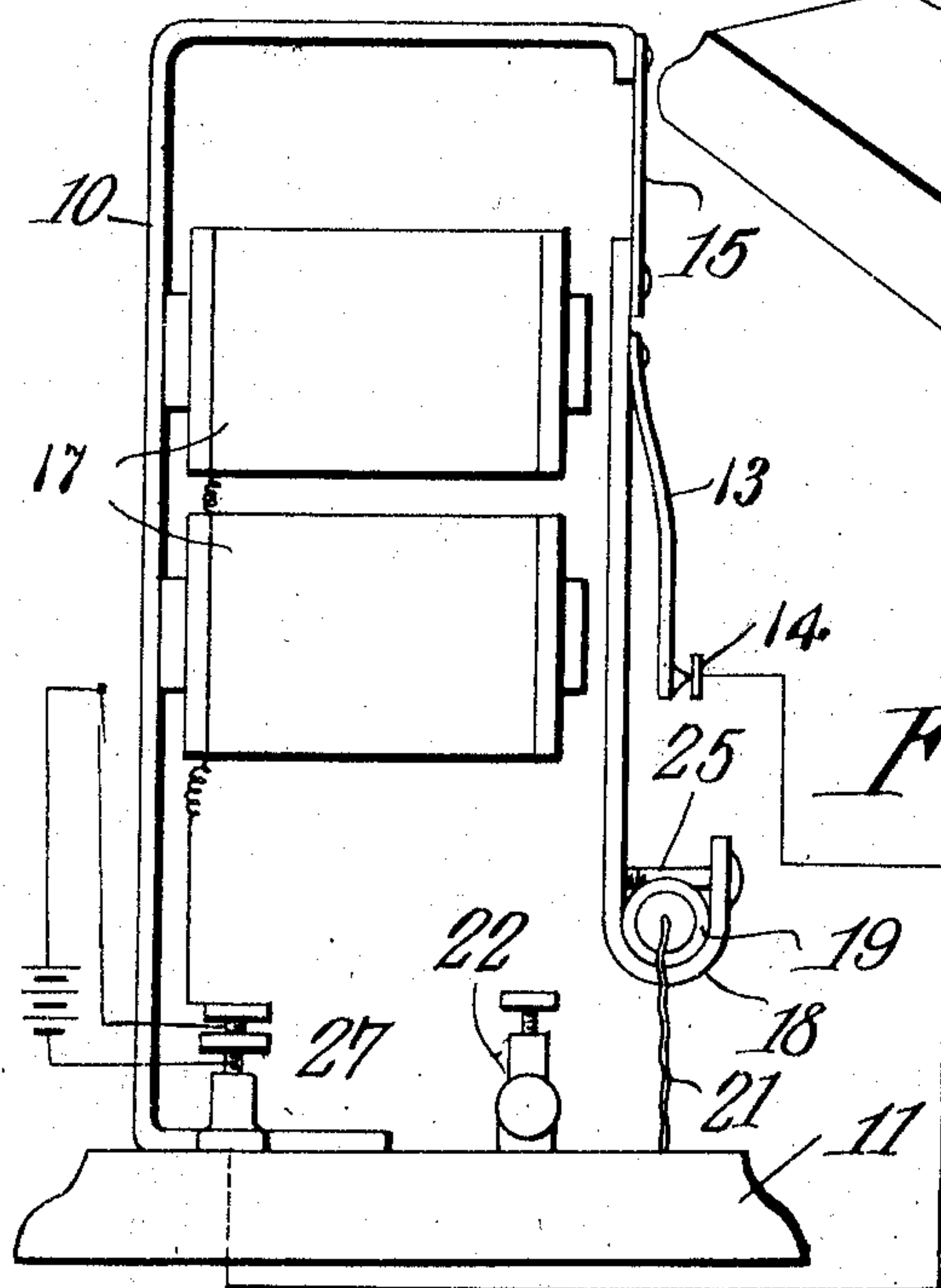


Fig. 2.



WITNESSES:

E. J. Stewart
Geo. E. Parker

Joseph L. Jones,
INVENTOR.

By *C. A. Snow & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH L. JONES, OF KIZER, TENNESSEE.

COHERER AND DECOHERER.

No. 886,983.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH L. JONES, a citizen of the United States, residing at Kizer, in the county of Blount and State of Tennessee, have invented a new and useful Coherer and Decoherer, of which the following is a specification.

This invention relates to coherers and decoherers for use in connection with wireless telegraphy and signaling systems, and has for its principal object to provide a coherer that is mounted for free movement, so that when agitated the particles of metal in the coherer tube will be loosened.

A further object of the invention is to provide a device of this class in which the decohering operation is accomplished by shaking the coherer instead of agitating the same by tappers as usual.

A still further object of the invention is to provide a device of this class in which the coherer is carried directly by the decohering mechanism.

A still further object of the invention is to provide a device of this class in which the decoherer is in the form of an armature or armature lever arranged within the field of force of an electro-magnet, and is provided with means for supporting the coherer tube.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a perspective view of a coherer and decoherer constructed in accordance with the invention. Fig. 2 is a side elevation of the same.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In carrying out the invention, a standard 10 formed of metal or other suitable material is mounted on a suitable base 11, of wood or other insulating material. The upper end of the standard is bent over and downward forming an arm 12 to which is attached a small spring strip 15, and to the lower end of

this spring is rigidly secured an armature 16. The armature is arranged immediately in front of a pair of electro-magnets 17, and is provided with a suitable make and break device for vibrating the coherer tube 19. The make and break device preferably consists of a spring contact member 13 one end of which is secured to the armature 17 while the opposite end thereof is adapted to engage a stationary contact 14 and thus make and break the circuit when the electro magnets are energized, the spring 15 serving to hold the contacts 13 and 14 normally in engagement with each other, as shown.

The lower end of the armature is curved to form a hook 18 for the reception of the coherer tube 19, said tube being formed, as usual, of glass and containing metal filings. At the opposite ends of the tube are arranged small metal blocks 20 which are connected by loose wires 21 to binding posts 22 and 23, respectively, that are carried by the base 11, one of the binding posts being arranged for connection to the aerial conductor, and the other being grounded. The glass tube is preferably inclosed within a small tube 24 formed of rubber or other insulating material, and the upper portion of the tube 24 is provided with a slot or notch for the passage of a securing screw 25 which passes through the hooked portion 18 of the armature and serves to firmly secure the coherer in place. It will thus be seen that when the electro magnets are energized the make and break device will vibrate the coherer until the metal filings are shaken up and the current broken or interrupted, it being of course understood that a switch or similar device will be included in the battery circuit for controlling the same. The base is further provided with a pair of binding posts 27 for connection to the decoherer battery, although the connections with the decoherer magnets may, of course, be made in any suitable manner.

The operation of the coherer proper is in the usual manner, the flow of current from the aerial conductor causing the particles of metal in the coherer to cling together for the purpose of closing a local circuit, and as the current is made and broken in the usual manner through the electro-magnets of the decoherer, the armature will be attracted and released, and the coherer tube will be shaken or agitated for the purpose of causing the particles of metal to separate and thus prevent the passage of the current. The wires

21 are, of course, mounted loosely, so that they will not in any manner interfere with the vibratory movement of the coherer.

The device is of simple and inexpensive construction and may be readily installed in existing systems of wireless telegraphy.

I claim:—

1. A decoherer electro-magnet, an armature arranged within the field of force of the magnet and having a hooked end, a make and break device, and a coherer supported by the hook.

2. In combination, a base, a standard carried thereby, an armature, a spring connecting the armature to the standard, the lower portion of said armature being turned to

form a hook, an electro-magnet supported by the standard, a coherer tube, binding posts arranged on the base, loose wires connecting the binding posts to the ends of the coherer, an insulating tube surrounding the coherer tube and provided with a notch, and a securing screw extending through the notch and across the hooked portion of the armature.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH L. JONES.

Witnesses:

J. H. BRIENT, Jr.,

B. H. BORING.