No. 700,708. Patented May 20, 1902.

H. SHOEMAKER.

COHERER.

(Application filed Oct. 16, 1901.)

(No Model.)

Fig. 1.

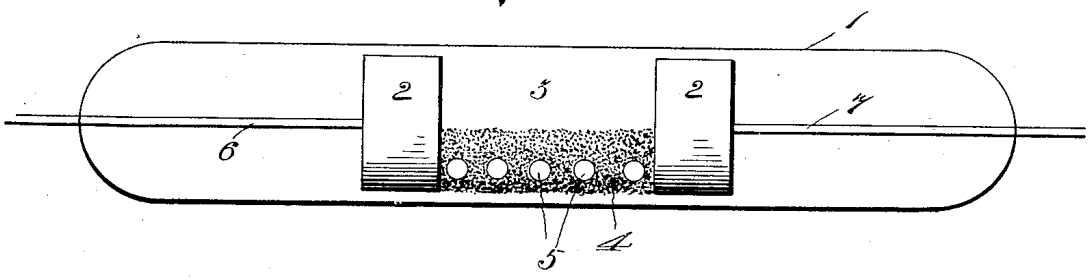
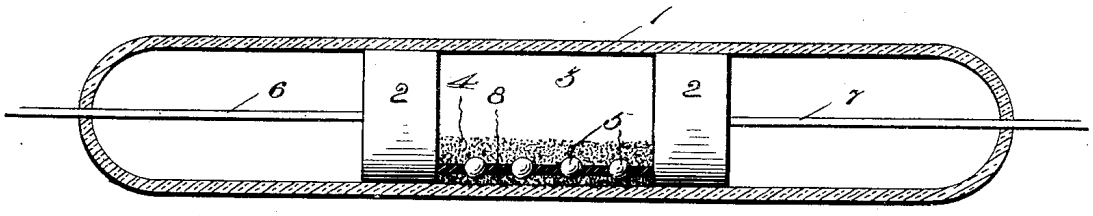


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY SHOEMAKER, OF PHILADELPHIA, PENNSYLVANIA.

COHERER.

SPECIFICATION forming part of Letters Patent No. 700,708, dated May 20, 1902.

Original application filed February 12, 1901, Serial No. 46,985. Divided and this application filed October 16, 1901. Serial No. 78,872. (No model.)

To all whom it may concern:

Be it known that I, HARRY SHOEMAKER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Coherers, of which the following is a specification.

My invention relates to improvements in coherers for wireless-telegraph systems.

The main object of the invention is the provision of a coherer which dispenses with a decoherer and has the power of self-restoration.

To attain the desired objects, my invention consists of a coherer embodying novel features of construction and arrangement of parts substantially as disclosed herein.

I would also state that this application is a divisional application, having originally been a part of my application filed February 12, 1901, Serial No. 46,985.

In the drawings, Figure 1 is a side elevation of the coherer embodying my invention, and Fig. 2 is a sectional view of a modified form.

Referring by numeral to the drawings, the numeral 1 designates the coherer-tube, which is made of non-conducting material, such as glass, and has mounted therein carbon or silver plugs 2, whose ends are parallel with each other and form a straight-walled pocket 3 to receive the granulated particles 4 of carbon and the steel balls 5. By the employment of the carbon particles and the steel balls no decoherer is necessary, as the carbon and steel contacts have the property of restoring themselves without the use of a tapping or shaking device, as is the common and general practice. These steel balls must be placed so as not to contact each other, but to contact the carbon particles, this being done by making the balls stationary and allowing the carbon to be loose.

In the modified form I use the plate 8 to support the balls and keep them apart.

Adapted to enter the tube from each end and be connected to the plugs 2 are the wires 6 and 7, which are generally connected to the air and ground wires of a system.

It is evident that I provide a very simple coherer which dispenses with the decohering device so common and generally used, as I employ devices which have the power of self-restoration.

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

1. A coherer consisting of a non-conducting surrounding, wires passing therein from opposite ends, plugs connected to said wires and incased by the surrounding, and particles of carbon and a series of steel balls located in the space between the plugs.

2. A coherer consisting of a non-conducting surrounding, conducting-wires entering therein, plugs mounted therein and connected to said wires and forming a pocket therebetween, and particles of granulated carbon and steel balls located in said pocket.

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

HARRY SHOEMAKER.

Witnesses:
E. B. HUME,
R. LEAMAN.