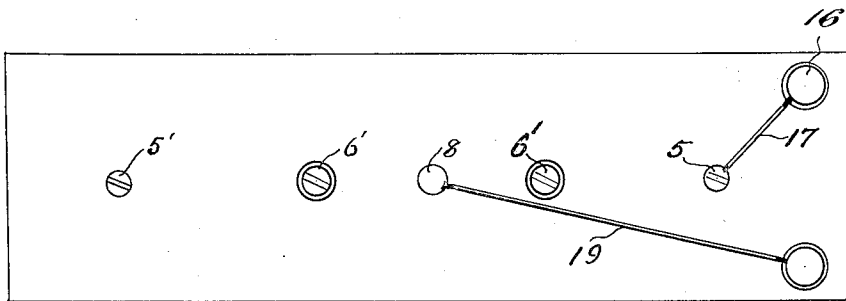
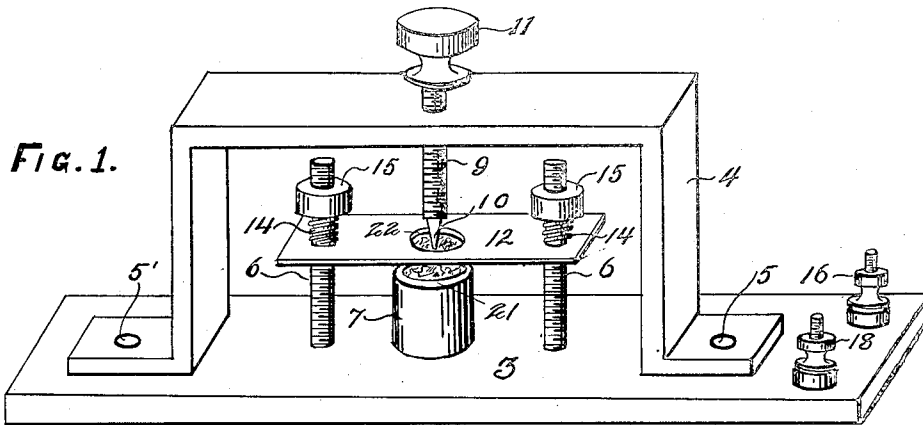


T. L. MANNING, JR.
 DETECTOR FOR WIRELESS TELEGRAPHY.
 APPLICATION FILED SEPT. 30, 1911.

1,052,355.

Patented Feb. 4, 1913.



WITNESSES:

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THOMAS L. MANNING, JR., OF WARREN, OHIO.

DETECTOR FOR WIRELESS TELEGRAPHY.

1,052,355.

Specification of Letters Patent.

Patented Feb. 4, 1913.

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To all whom it may concern:

Be it known that I, THOMAS L. MANNING, Jr., a citizen of the United States of America, residing at Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Detectors for Wireless Telegraphy, of which the following is a specification.

This invention relates to detectors adapted for use in wireless telegraphy, and has for its object to produce a device of this nature which will be simple in construction, and convenient to regulate the quantity of pressure on the granular material while making experiments of various kinds.

To these ends the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like characters designate like parts in all the views:—Figure 1 is a perspective view of an apparatus built in accordance with my invention; and, Fig. 2 is a bottom plan view of the parts shown in Fig. 1.

3 is a base of suitable non-conducting material carrying the frame 4, secured to said base by the screws 5, 5'. Screw-threaded posts 6, 6 rise from said base, and are suitably secured thereto by the screw heads 6', 6' (Fig. 2).

7 represents a container or cup, which may be lined with silver or other good conductor, and is filled with silicon, metallic fillings, or other materials usually employed in detectors of this nature. The cup is secured to the base 3, and has the extension 8 extending through said base to which the wire 19 is attached. A screw-threaded rod 9 extends through the frame 4, and is provided with a pointed tip 10, adapted to contact with the granular or other material, contained in the cup 7. The said tip may be moved up and down by turning the screw through the member 11. Above the cup 7, I provide a plate 12, through which the screw rods 6, 6 pass. Surrounding these rods or posts, above the plate 12, are the spiral springs 14, and above the springs, are the nuts 15.

16 represents a binding post connected by the wire 17 to the screw 5, and 18 repre-

sents a similar post connected by the wire 55 to the cup member 8 of the cup 7.

In operating my detector, the granular, or other material, is retained in the cup 7 by a ring 21 of solder, or other partial cover, and the pressure of the plate 12 on said material, and therefore, the sensitiveness of the detector, can be regulated by adjusting the nuts 15. Again, since the plate 12 is provided with the perforation 22, immediately above the granular material, it is evident that additional material may be quickly and easily added to the cup through said perforation when experimenting, and granular material may as quickly be taken from said cup after lifting said plate 70 against the pressure of the springs 14. Of course, said springs immediately restore the plate 12 to its normal position when released.

It will therefore be seen that my device provides a simple and ready means through the screw 9 of adjusting the sensitiveness of the detector, while the nuts 15, springs 14 and plate, provide a means of varying the pressure on the granular material, and the perforation provides a ready means of adding to said material or adding additional material without disturbing the other parts. Further, it will be seen that various materials may be conveniently experimented with or tried out in the cup 7, with a minimum loss of time.

It is obvious that those skilled in the art may vary the details of construction as well as the arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to the above disclosure except as may be required by the claims.

What I claim is:—

1. A detector for use in wireless telegraphy comprising a receptacle for wave responsive material; a loose plate above said receptacle provided with a central hole through which material may be added to said receptacle; springs to normally press said plate on to said receptacle or its contents; threaded means for adjusting said springs; an adjustable means adapted to contact with the said wave responsive material; and means for joining said material and contact in aerial circuit, substantially as described.

2. In a detector for wireless telegraphy, a receptacle adapted to contain a granular material having an open top; a ring partially closing said receptacle; a plate having a perforation registering with said open top
5 adjustably mounted over said receptacle; nut controlled springs for adjusting said plate; and an adjustable contact adapted to enter said receptacle through said perforation, substantially as described.
10

3. In a detector, the combination of a non-conducting base; binding posts thereon adapted for aerial and battery wire connections; a conductive frame attached to
15 said base electrically connected to one of said posts; a threaded rod carried by said frame; a receptacle for wave responsive material attached to said base into which said rod may dip; an electrical connection from
20 said receptacle to the other of said posts; threaded posts attached to said base; a perforated plate partially covering said receptacle, loosely supported by said rods; and

adjustably yielding means adapted to hold said plate down on said receptacle, substantially as described. 25

4. In a detector, the combination of a receptacle for holding granular material; a pointed threaded rod adapted to contact with said material; a ring for partially
30 holding said material in said cup; a plate having a perforation registering with said ring located above said cup; springs for pressing said plate toward said cup and material; threaded rods carrying said plate
35 and springs; nuts on said rods for regulating the compression of said springs; and connectors adapted to include said granular material and pointed rod in an electrical circuit, substantially as described. 40

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

THOMAS L. MANNING, JR.

Witnesses:

J. B. COLE,
A. S. PHELPS.