

(No Model)

J. HACKNEY.
ELECTRICAL ALARM GAGE.

No. 600,866.

Patented Mar. 22, 1898.

Fig. 1

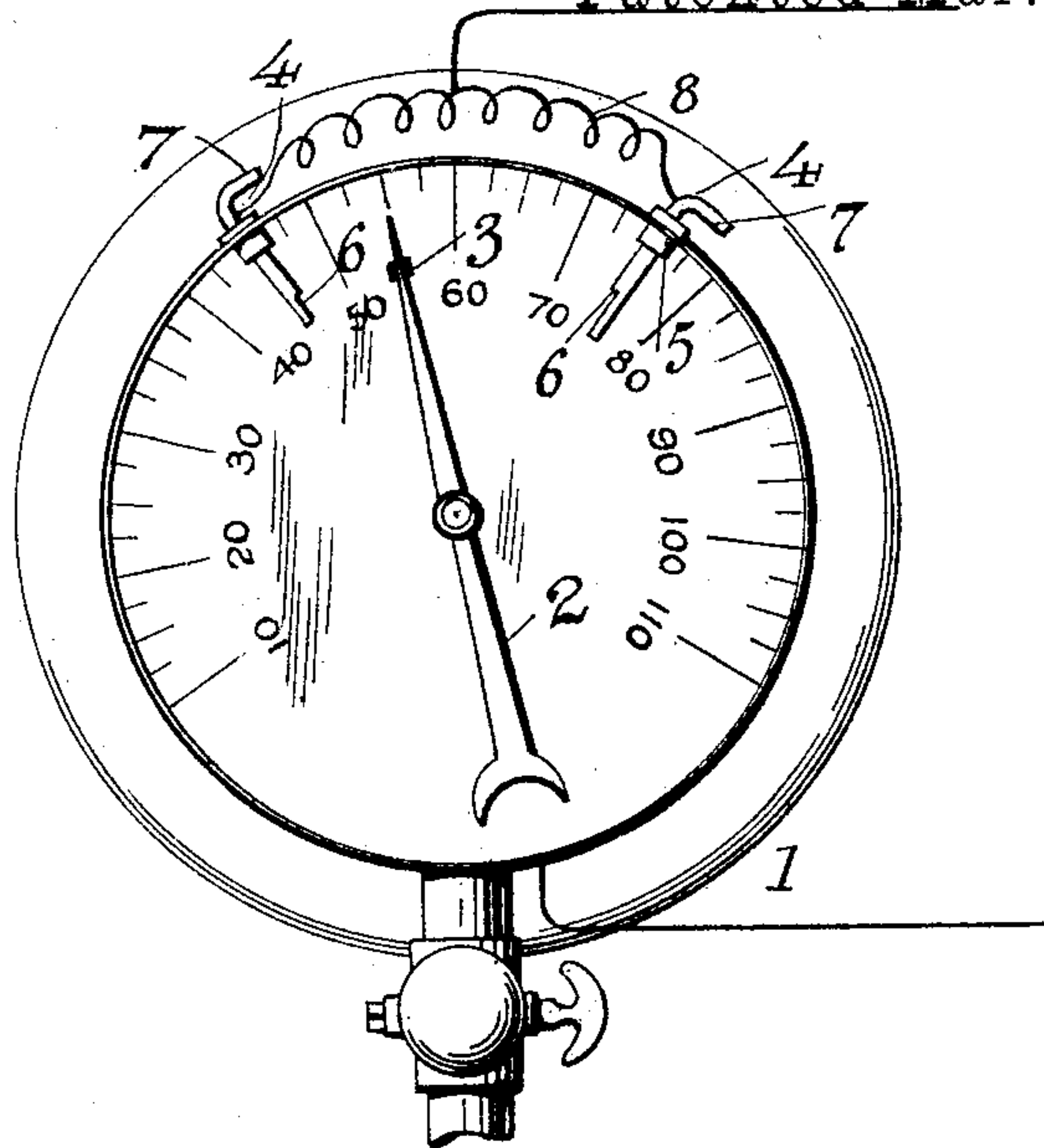


Fig. 2.

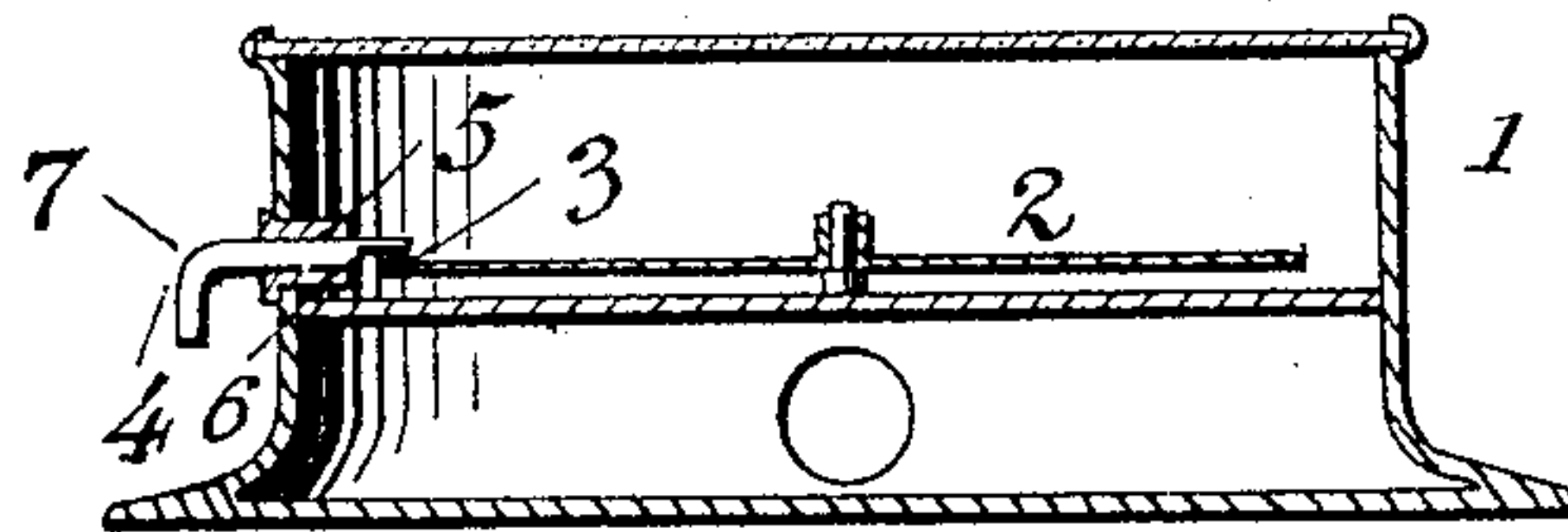
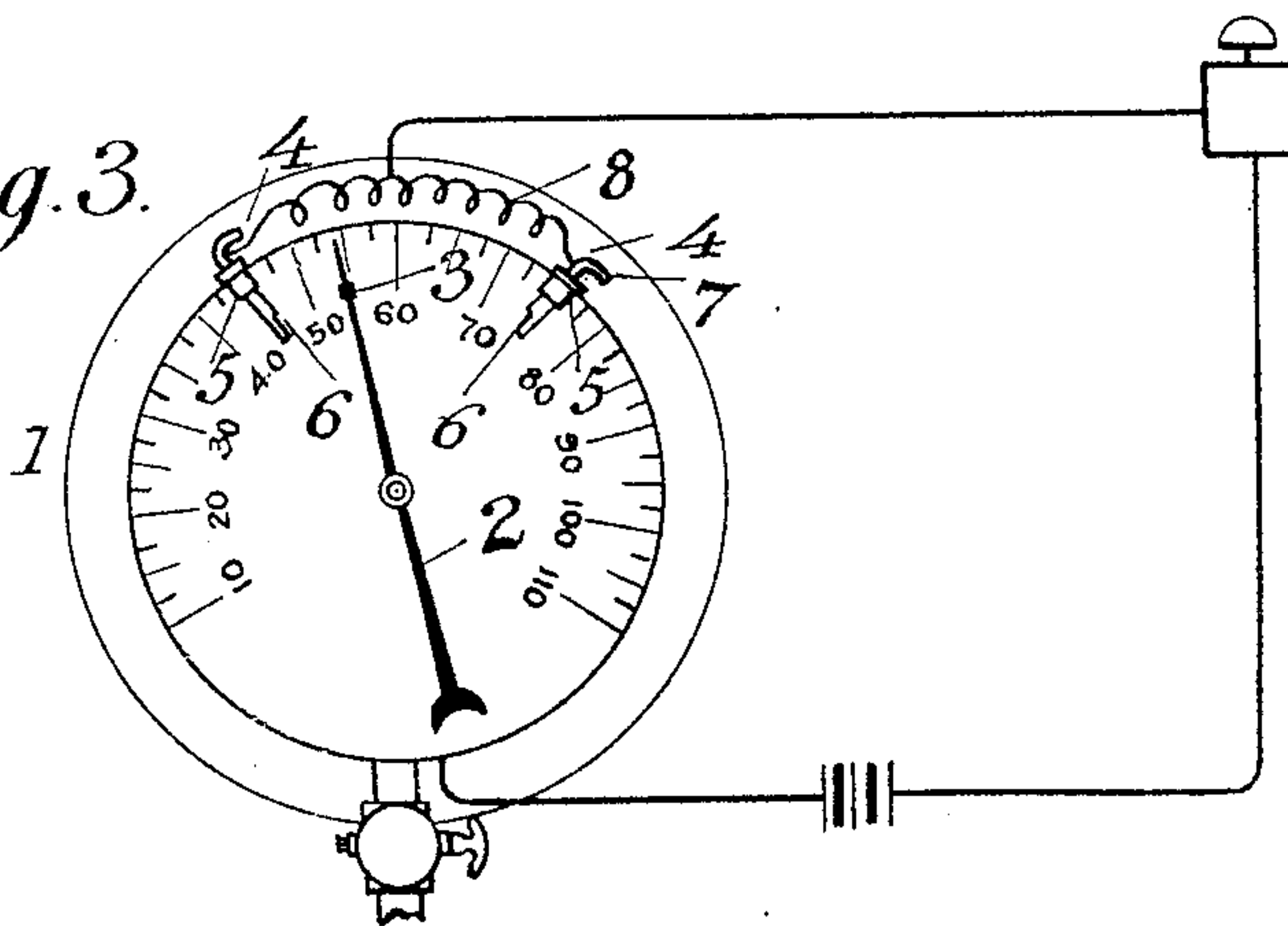


Fig. 3.



Witnesses:
J. S. Corcoran
J. A. Wilson

Inventor:
John Hackney,

By *A. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

JOHN HACKNEY, OF NORFOLK, VIRGINIA.

ELECTRICAL ALARM-GAGE.

SPECIFICATION forming part of Letters Patent No. 600,866, dated March 22, 1898.

Application filed June 24, 1897. Serial No. 642,128. (No model.)

To all whom it may concern:

Be it known that I, JOHN HACKNEY, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Electrical Alarm-Gages for Steam-Boilers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to electrical alarm-gages for steam-boilers; and the object is to provide a simple, effective, and reliable gage which will sound an alarm which may be at a distant point whenever the pressure rises above or falls below a predetermined pressure in the boiler.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a front elevation of a pressure-gage embodying my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a diagrammatic view of the electrical connections.

1 represents an ordinary pressure or vacuum gage, and its indicator-hand 2 is provided with a platina contact-point 3.

4 represents one of a series of contact-points mounted in a non-conducting sleeve 5, fixed in the cylindrical casing of the gage 1. The inner end 6 of each contact-point 4 is recessed, so as to allow the spring-contact point 3 on the hand 2 to pass said contact-point 4 without making an electrical connection when the recessed end 6 is turned so as to lie in the same plane with the hand. If, however, the contact-point 4 be turned by means of its arm 7, so as to project the recessed end 6 into the path of the spring-contact 3 on the hand, the circuit is closed at this point, and by

means of the ordinary battery and bell an audible alarm is sounded. The contact-points 4 are preferably cylindrical in form, so as to be freely turned in their non-conducting bushings or sleeve, and they are connected by a flexible conductor 8, which forms one terminal of the circuit. The steam-gage itself may form the other terminal, and consequently whenever the contact-point 3 on the hand closes the circuit through any particular one of the points 4 the alarm is sounded, as above indicated. By this arrangement any one of the points 4 may be set to sound an alarm when the pressure falls below a given point, also when it exceeds a given point, or they may be all so adjusted as to allow a free movement of the hand without closing the contact-point whenever it is desirable to use the gage without the alarm operating.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

The combination with a pressure-gage, its movable hand, and an electrically-actuated alarm-circuit, one pole of which is in electrical connection with said hand, of the contact-point 4, forming the opposite pole of said circuit, mounted in the non-conducting sleeve 5, fixed in said gage-case, so as to be rotated on its own axis and having its recessed end 6, arranged to be projected into or withdrawn from the path of the indicator end of said hand, substantially as shown and described.

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

JOHN HACKNEY.

Witnesses:

TAZEWELL TAYLOR,
C. C. PALMER.