

No. 885,289.

PATENTED APR. 21, 1908.

H. B. PRESSER.

ALARM GAGE.

APPLICATION FILED FEB. 19, 1907.

Fig. 1.

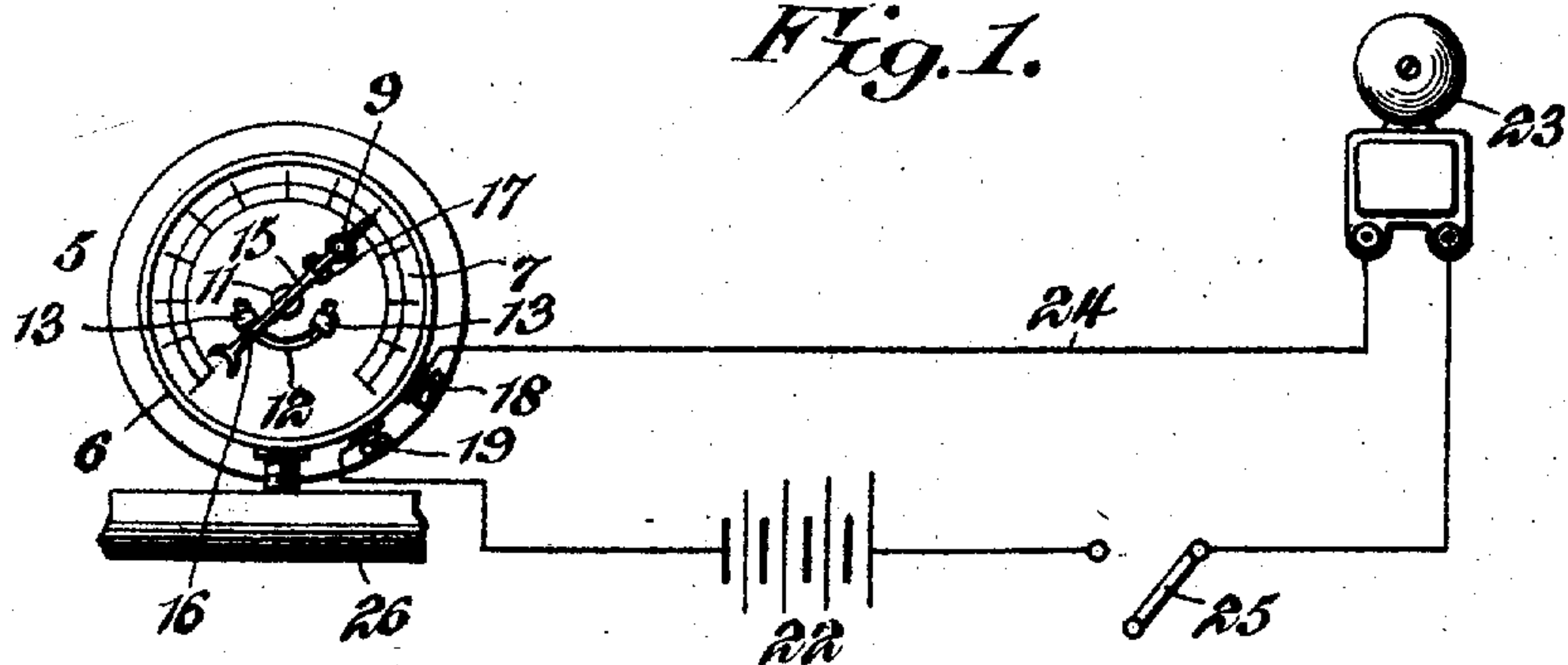


Fig. 2.

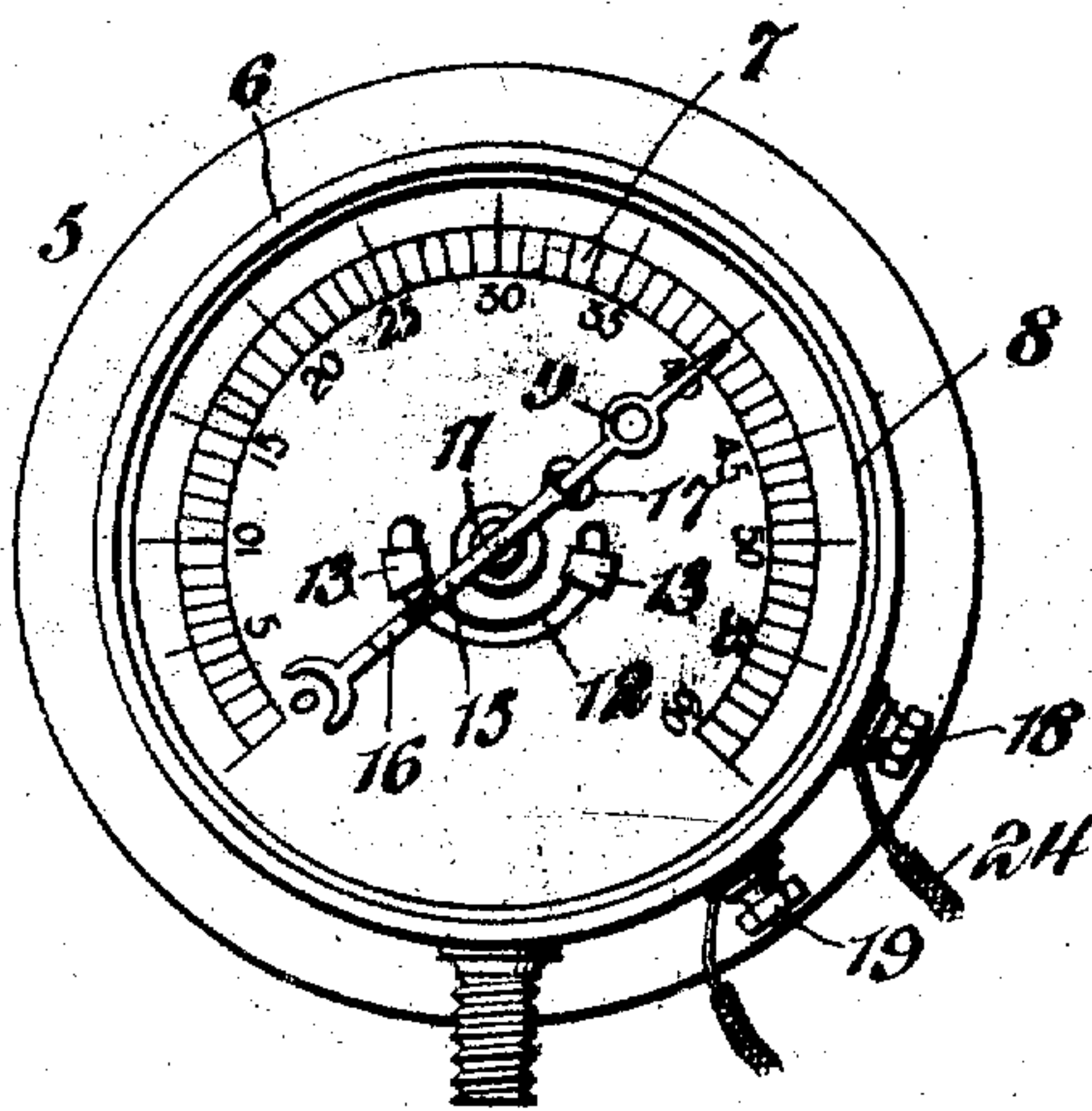


Fig. 3.

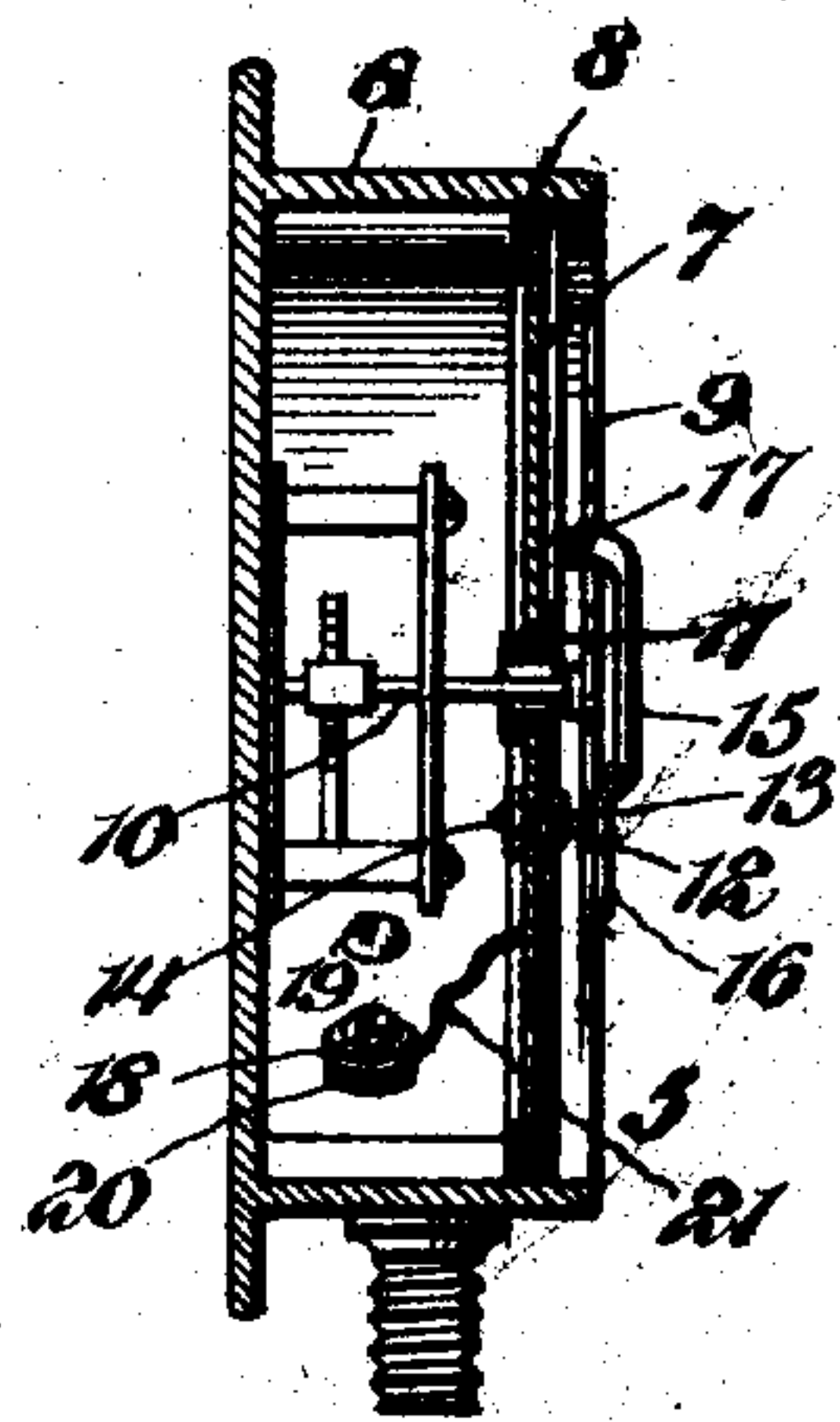
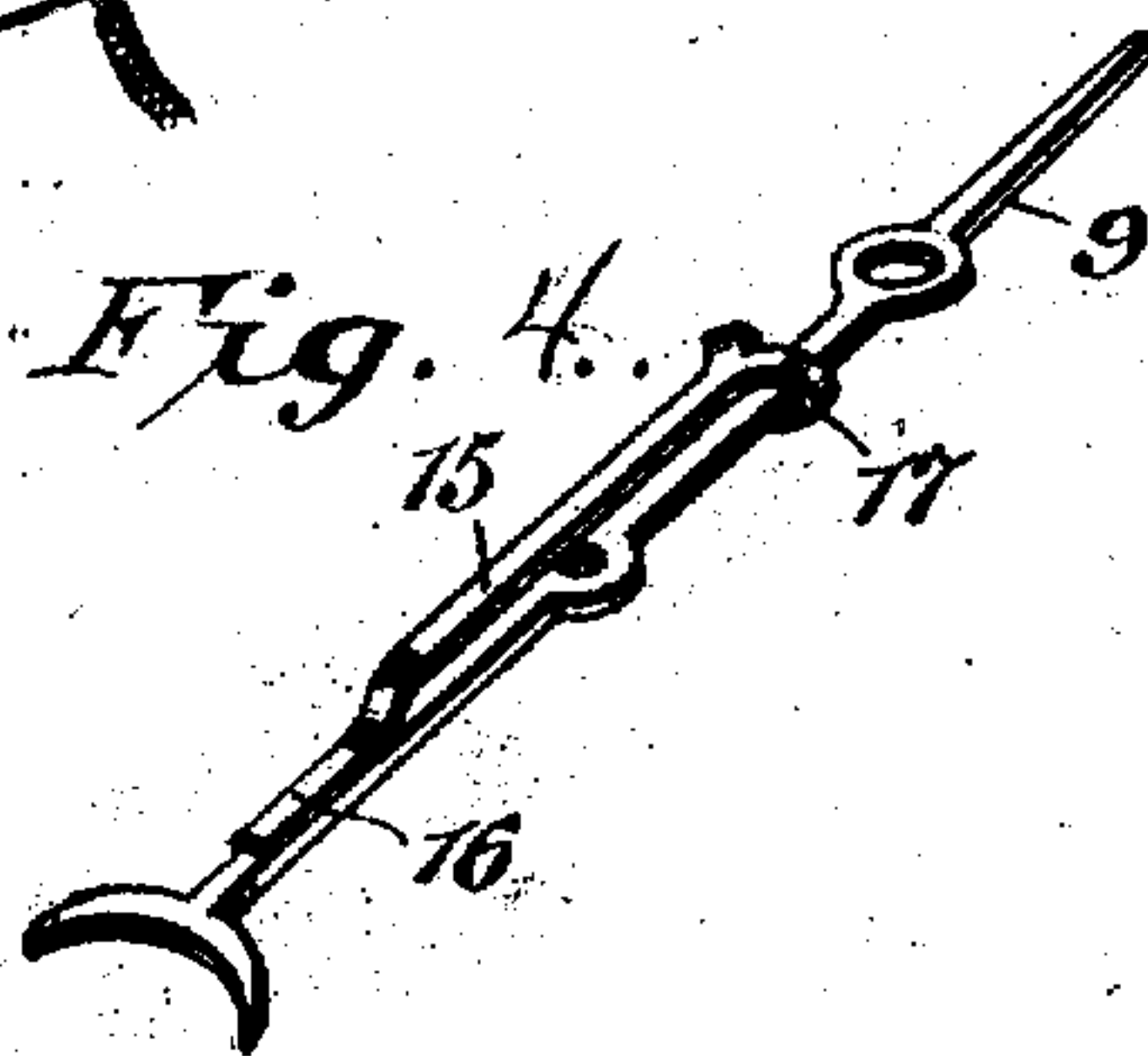


Fig. 4.



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ALARM-GAGE.

No. 885,289.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed February 19, 1907. Serial No. 358,316.

To all whom it may concern:

Be it known that I, HARRY BENJAMIN PRESSER, a citizen of the United States, residing at Memphis, in the county of Shelby, State of Tennessee, have invented a new and useful Alarm-Gage, of which the following is a specification.

This invention relates to electrical alarm mechanism made operable by the increase or decrease of pressure of air or other fluid above or below certain limits.

The principal object of the present invention is to provide novel means of a simple nature that is entirely effective and is capable of being employed for a wide variety of purposes. For instance it may be connected to a system of piping surrounding or associated with a jail cell, vault or the like, which piping holds air or other fluid under pressure. It may be used in connection with steam boilers, air reservoirs, water mains, and the like for automatically giving notice when the pressure thereof rises above or falls below predetermined limits.

The preferred form of construction is illustrated in the accompanying drawings, wherein:—

Figure 1 is a view of the mechanism partly diagrammatic in its character. Fig. 2 is a front elevation of the gage. Fig. 3 is a vertical sectional view therethrough. Fig. 4 is a detail perspective view of the indicator or pointer.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a presser gage 5 is employed, which consists of a casing 6 having a dial 7 in the front portion thereof. This dial is completely insulated from the casing by a ring 8 interposed between its periphery and the inner face of the annular wall of said casing. A rotary indicator or pointer 9 operates over the dial in spaced relation thereto, and has a shaft 10, which extends through the dial and is suitably mounted in the rear portion of the casing, being grounded on said casing. Insulation 11 is preferably located in the central portion of the dial around the shaft 10 in order to avoid any chance of contact between said dial and shaft.

The dial 7 is provided with a semi-circular slot 12 in which are adjustably mounted contact elements 13 comprising headed bolts that are normally held against movement by

suitable nuts 14. The pointer or indicator 9 carries a yielding contact, in the form of a leaf spring 15, one end of which is secured as shown at 16 to the outer side of the pointer, the other end being formed into a loop 17 surrounding said pointer. The inner side of this loop has its path of movement intersecting the heads of the contact elements 13. Two binding posts 18 and 19 are secured to the casing, one of which, as 18, being grounded directly thereon, the other, as 19, being insulated therefrom, as shown at 20. The binding post 20 is electrically connected to the dial 7 by a wire 21 located within the casing.

A suitable source of electrical energy shown diagrammatically at 22 in Fig. 1, has connections with one of the binding posts and also has connections with an alarm preferably in the form of an electric bell 23. This bell has an electrical connection 24 with the other binding post. A switch 25 is preferably located in the circuit thus formed. The gage is connected to any suitable conduit as 26 containing air, gas, water, steam or other fluid under pressure, and the heads 13 are adjusted in the slot 12 to determine the limits within which the pressure of said fluid can vary without sounding the alarm. If the switch 25 is closed, the circuit will still be open as long as the pointer 9 maintains a position so that the loop 17 is out of contact with either of the heads 13. As soon, however, as the pressure in the conduit rises or falls sufficiently to permit the pointer to move so that the loop 17 engages one of said heads, the circuit will be closed, and the alarm will immediately be sounded.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

In alarm mechanism of the character set forth, a gage comprising a casing, a dial carried by the casing, insulation separating the dial and casing, a rotary pointer operating over the dial and having a shaft extending

therethrough and separated therefrom, said shaft being grounded on the casing, a contact head mounted on the outer face of the dial, a contact spring comprising a leaf secured at
5 one end to the pointer and having its other end located beneath the same and coöperating with the head, binding posts secured to the casing, one of the posts being grounded

thereon, the other being insulated therefrom, and electrical connections between the insulated binding post and the dial. 10

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