

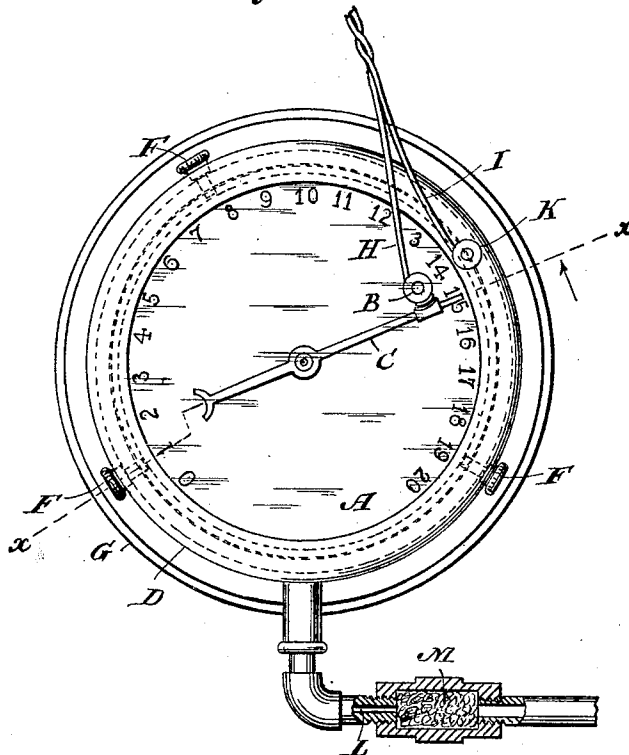
(No Model.)

J. F. BLAKE.  
ELECTRICAL CONTACT MECHANISM.

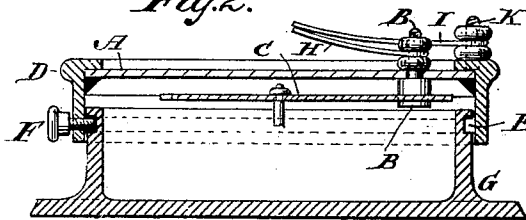
No. 520,351.

Patented May 22, 1894.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN FEGGETTER BLAKE, OF NEW HAVEN, CONNECTICUT.

## ELECTRICAL-CONTACT MECHANISM.

SPECIFICATION forming part of Letters Patent No. 520,351, dated May 22, 1894.

Application filed March 3, 1894. Serial No. 502,194. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN FEGGETTER BLAKE, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Electrical-Contact Mechanism, of which the following is a specification.

The object of this invention is to provide an electrical contact mechanism which is readily applicable to a pressure gage as set forth in the following specification and claim and illustrated in the annexed drawings, in which—

Figure 1 is a face view of the contact mechanism. Fig. 2 is a section along  $x x$  Fig. 1.

In the drawings the letter A indicates the well known glass plate or crystal covering of a pressure gage. The glass or transparent plate is set rotatably or adjustably in place and is provided with a contactor or post B. The glass plate A forms an insulating support or carrier for the contact B. This contact B is adapted to engage or strike the index or hand C and when the plate A is properly rotated the post B will carry the index C from say the zero point to indicate any suitable figure as for example fifteen. When the pressure acting on the gage rises above this point, the index C will be carried beyond the said figure, and the contact between index C and post B is then broken. Supposing the contact establishes a circuit operating a motor or pump (not shown) generating pressure indicated by the gage, then if such pressure rises above the desired point the contact is broken, and the circuit being interrupted the motor will stop until the pressure falls below the desired point, when the contact is restored and the action of the motor recommences.

The glass or crystal A is supported in any convenient manner as by a ring or bezel D adjustably engaging a groove or shoulder E by means of set screws F. The groove or shoulder E is formed in the gage case G and the ring D with glass A can be rotated to the required position on the case G, and subsequently rigidly fixed to the case in the position to which adjusted by tightening the set screws F. The ring D and glass A form a cover or lid.

By having the conductors H I respectively engaged by or connected to the contact B and to a binding post K on ring D the contact B and post K will be set or rotated together and the conductors H I will be kept in the same relative position. It is manifest however that the binding post K can be otherwise located if seen fit, as for example on the case G.

In my experiments I have found that a pumping action generating pressure in the gage is liable at times to cause the index C to make short breaks or jumps away from contact B, thus causing arcs. To avoid this objection I form the inlet to the gage with a diminished diameter as L and also provide a porous filling such as cotton M, whereby the pressure in the gage is caused to rise or fall steadily, the steadily rising pressure when sufficiently intense causing the index C to make a permanent or clean break from contact B, which break is not restored until the pressure steadily falling has passed below the required intensity.

It is manifest that the device would be efficient if the ring D were fixed and the glass A made movable or adjustable in ring D but I prefer to make an adjustable cover A D as shown.

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

A pressure gage consisting of a gage body provided with an annular groove or shoulder E, a cover composed of a ring or bezel rotatable on the gage body and having a glass plate or crystal, a set screw carried by the cover and engaging the groove or shoulder to rigidly clamp the cover in any required position on the gage body, and a contact carried by the cover and adapted to engage and set the index of the gage, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN FEGGETTER BLAKE.

Witnesses:

JAKOB HAHN,  
CHARLES F. BOLLMANN.