

G. VIVES.
BAROMETER ALARM.
APPLICATION FILED DEC. 3, 1902.

NO MODEL.

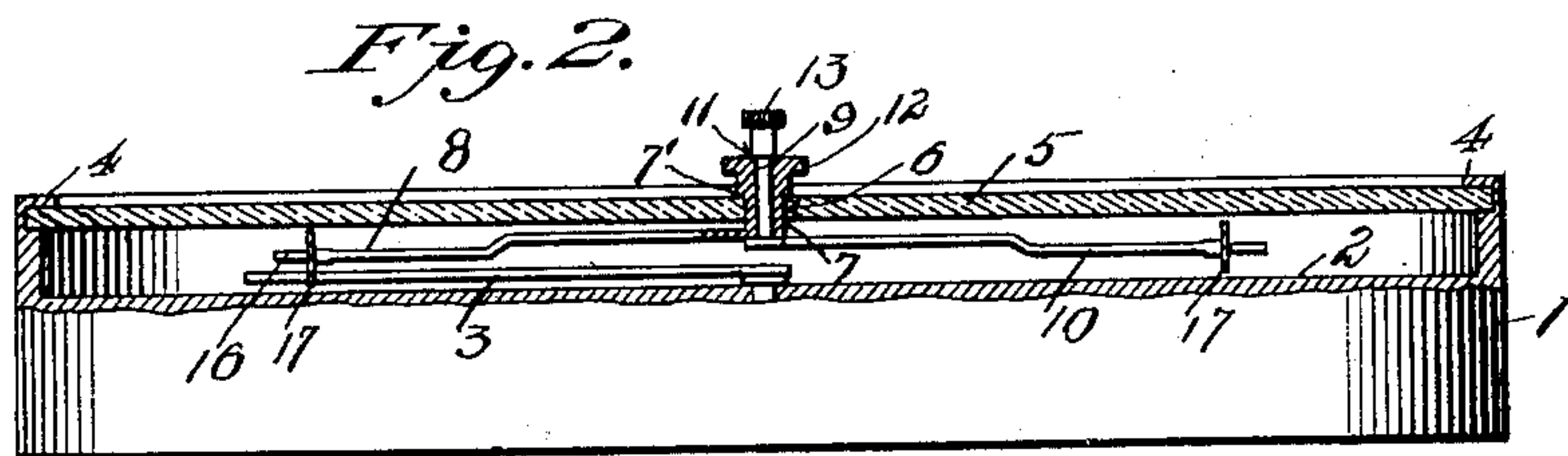
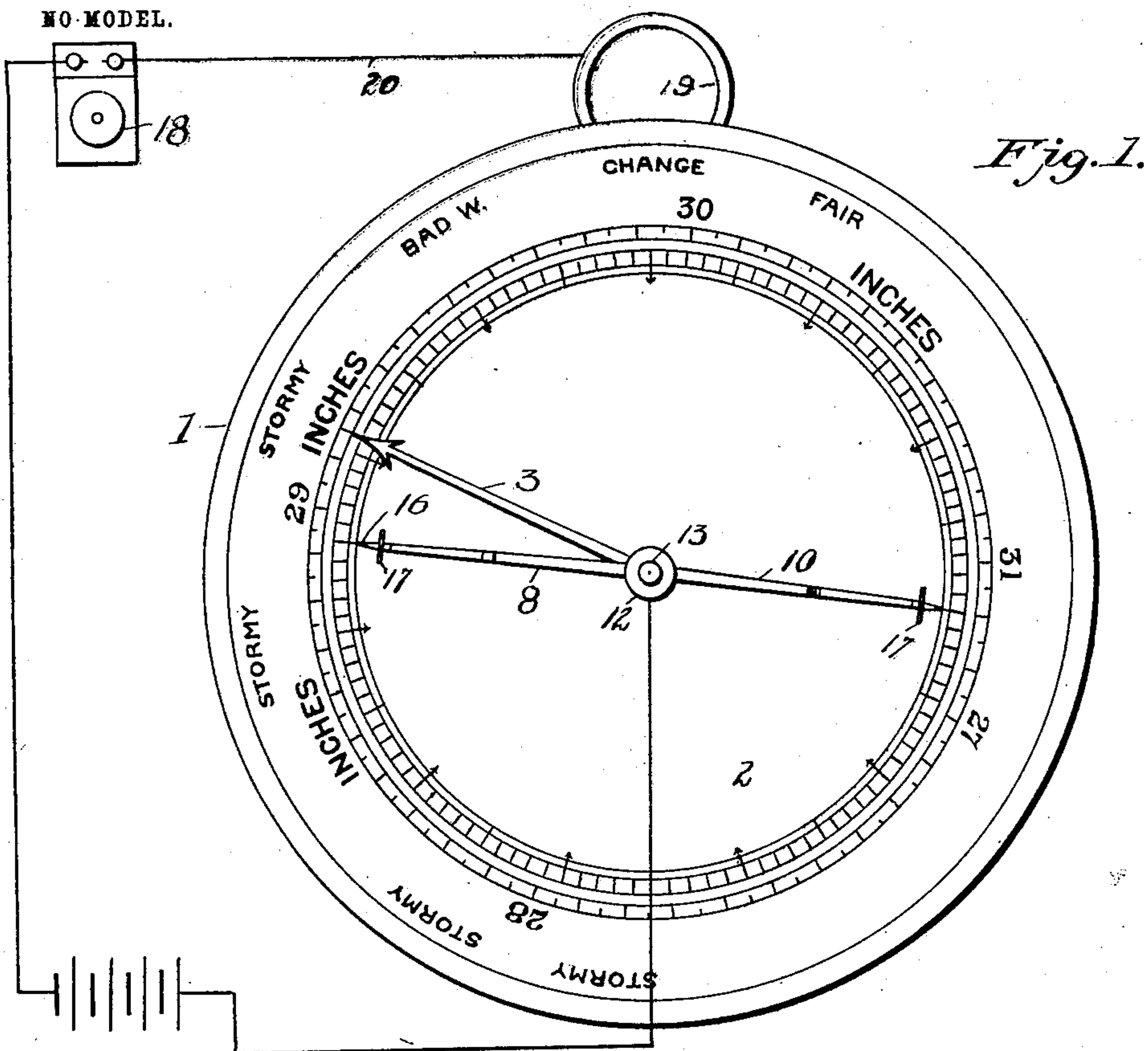
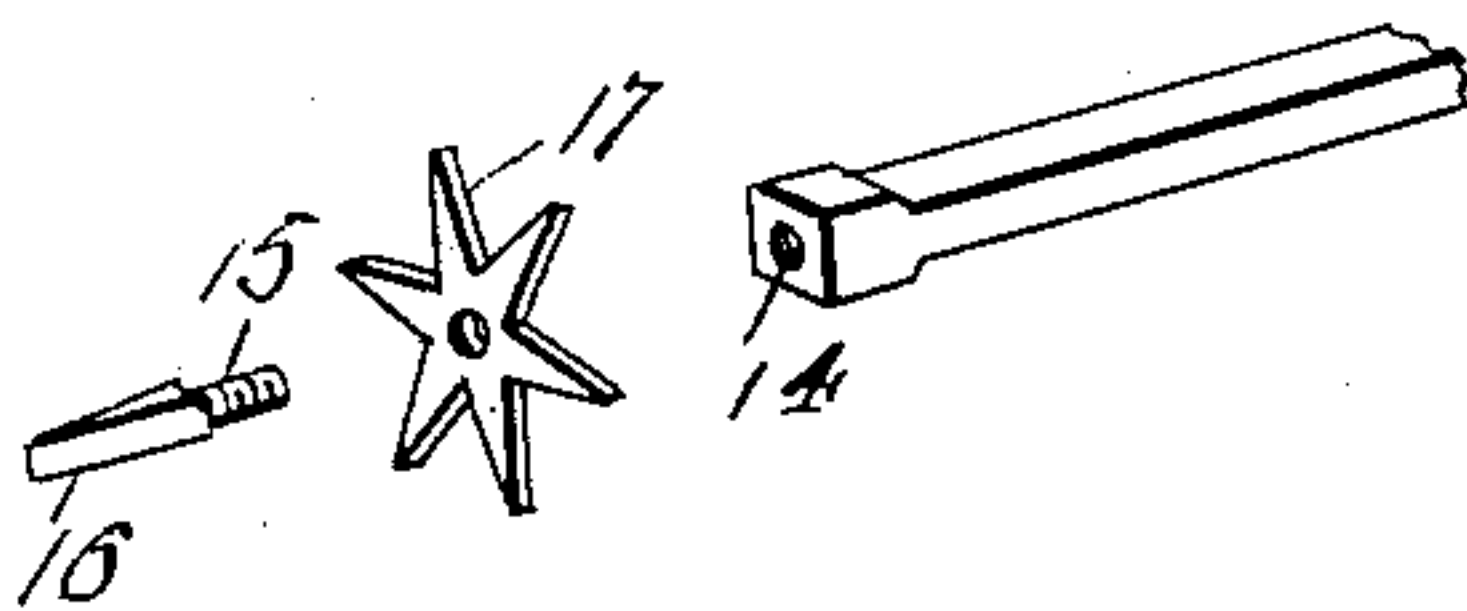


Fig. 3.



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UNITED STATES PATENT OFFICE.

GUILLERMO VIVES, OF PONCE, PORTO RICO.

BAROMETER-ALARM.

SPECIFICATION forming part of Letters Patent No. 739,126, dated September 15, 1903.

Application filed December 3, 1902. Serial No. 133,755. (No model.)

To all whom it may concern:

Be it known that I, GUILLERMO VIVES, a citizen of the United States, residing at Ponce, Porto Rico, have invented certain new and useful Improvements in Barometer-Alarms, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to new and useful improvements in barometer-alarms; and its object is to provide novel means whereby a suitable alarm or signal may be sounded or displayed when the index of the barometer reaches predetermined points upon the dial of the device.

With the above and other objects in view the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a face view of a barometer having my improved alarm mechanism connected thereto. Fig. 2 is a section through the face of the barometer and showing the relating positions of the index and the contact-arms, and Fig. 3 is a view showing the parts of a contact-arm disengaged from each other.

Referring to the figures by numerals of reference, 1 is a casing of metal or other material capable of conducting electricity, and a graduated face 2 is arranged therein at a point removed from the edge of the casing. An index 3 is pivoted to the center of this face and is adapted to be operated by any of the well-known means employed in devices of this character. The edge of the casing 2 is flanged, as at 4, or arranged in any other suitable manner whereby a glass face 5 may be held over the dial or face 2. This glass face 5 has a central aperture 6, within which is revolubly mounted a sleeve 7. A shoulder 7' is arranged about this sleeve and bears upon the face 5 and serves to hold the end of the sleeve out of contact with the index 3, and an arm 8 extends laterally from the inner end of sleeve 6 in a plane out of the path of the index. A revoluble spindle 9 is arranged in the sleeve and extends therethrough, and it is also provided at its lower end with an arm 10, similar to arm 8, and located in a plane

out of the paths of both the index and said arm 8. A shoulder 11 upon the spindle bears on the head 12 of the sleeve and prevents said spindle from moving inward. The head 12 of the sleeve, as well as the head 13 of the spindle, is preferably milled, so as to permit them to be readily turned by hand.

The arms 8 and 10 are similar in construction, and each is provided at its outer or free end with a screw-threaded socket 14, adapted to receive a threaded stem 15, extending from a V-shaped head 16. A star-wheel 17 is revolubly mounted upon the stem 15 and is of such size as to extend into the path of the index 3.

A suitable alarm, such as an electric bell 18, is connected to the ring 19 or other portion of the casing of the barometer by a wire 20, while another wire extends from a battery 21 to the bell and to the sleeve 7. When the arms 8 and 10 are arranged to indicate certain graduations upon the dial of the barometer, they will remain in such positions of their own accord; but when the index 3 comes into contact with either of the star-wheels 17 a circuit is formed from the battery to the sleeve and spindle through the arm 8 or 10 and its wheel 17, through the index and the frame or casing of the barometer, and to the bell and back to the battery. As the wheels 17 merely extend into the path of the index, it will be understood that they will not hinder the further revolution of said index after it contacts therewith, and one point of each wheel always rests in position within the path of the index. The glass face 5 not only serves to protect the working parts of the barometer from dust, &c., but also insulates the sleeve and spindle from the casing.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

1. In a barometer the combination with a casing having a transparent face of insulat-

ing material; of an index pivoted within and electrically connected to the casing, an arm pivoted in the face, and a revoluble contact upon the arm and lying in the path of the
5 index and an alarm in circuit with the casing and arm.

2. In a barometer the combination with a casing and an index therein electrically connected thereto; of a transparent face of insulating material in said casing, a spindle
10 journaled in said face, an arm extending therefrom, a star-wheel journaled on the arm and extending into the path of the index, and an alarm electrically connected to the casing
15 and to the spindle.

3. In a barometer the combination with a

casing and an index pivoted within and electrically connected to said casing; of a transparent face of insulating material in said casing, a sleeve journaled therein, a spindle journaled
20 in the sleeve, arms extending from the sleeve and spindle, rotary star-wheels mounted upon said arms and extending into the path of the index, an alarm electrically connected to the spindle and sleeve and to the casing.

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

GUILLERMO VIVES.

Witnesses:

ROQUE RODRIGUEZ.

PEDRO HERNANDEZ.