No. 780,791. PATENTED JAN. 24, 1905.

J. H. GERRER.

HYGROMETER ATTACHMENT.

APPLICATION FILED OCT. 18, 1904.

Fig. 1.

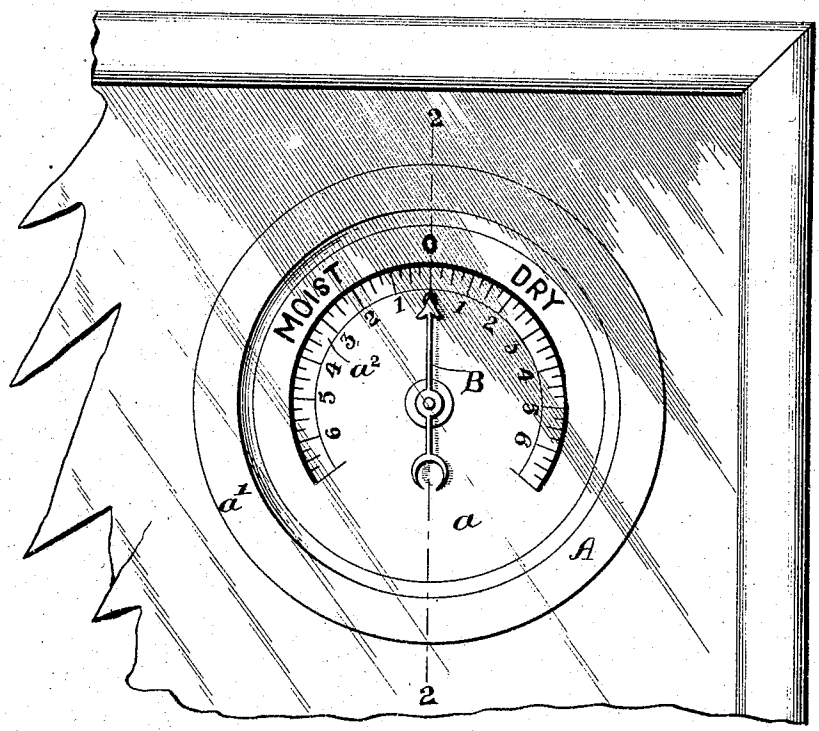
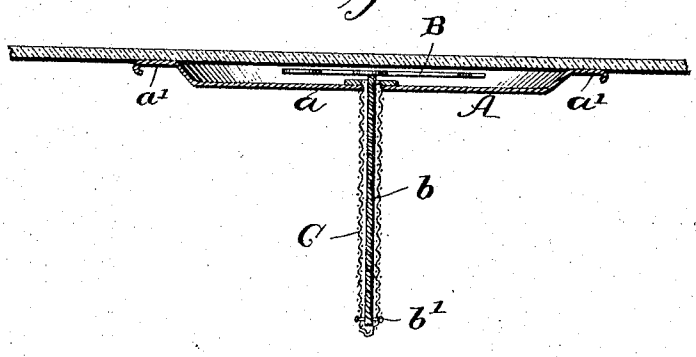


Fig. 2.



WITNESSES:

H. S. Rockwell

Edw. W. Byrn.

INVENTOR

John H. Gerrer

BY Munn & Co.

ATTORNEYS

PHOTO-LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 780,791. Patented January 24, 1905.

UNITED STATES PATENT OFFICE.

JOHN H. GERRER, OF ELRENO, OKLAHOMA TERRITORY.

HYGROMETER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 780,791, dated January 24, 1905.

Application filed October 18, 1904. Serial No. 228,980.

To all whom it may concern:

Be it known that I, JOHN H. GERRER, a citizen of the United States, residing at Elreno, in the county of Canadian, Oklahoma Territory, have invented a new and useful Improvement in Hygrometer Attachments, of which the following is a specification.

The object of my invention is to provide a hygrometer attachment to be applied to glass inclosures in such a way as to indicate the degree of moisture inside the inclosure without having to open the inclosure—that is to say, the hygrometer is so formed as to be attached directly to the inside surface of the glass and to show the hygrometric scale through the glass, so that it may be conveniently read from outside of the case or inclosure and without taking up any valuable space within the case.

The invention is designed to be applied more especially to cigar-cases for indicating the degree of moisture or dryness within the case, so that the cigars may be kept at a uniform degree of moisture without drying out and deteriorating. It is also applicable to various other uses. Thus, for instance, it may be applied to the interior surface of the glass window of an incubator, a hothouse, or in any other situation where it is desirable to know and to regulate the degree of moisture.

This invention consists in the construction of the dial and in the means for giving to the index-hand a motion over the same from the variations of the moisture in the air, which I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a face view of the hygrometer attachment shown applied to the interior surface of the glass top of a cigar-case, and Fig. 2 is a central section through the same on line 2 2 of Fig. 1.

A is a dial formed of a plate of any suitable material in dished form—that is to say, the central portions *a* are offset from the marginal portion *a'*, which latter is formed with a flat face, annular rim, or flange adapted to snugly fit against the flat surface of the glass plate inside the case. This flange is designed to be stuck to the glass by any suitable cement, preferably of waterproof character. On the face of the dished portion *a* is a graduated scale a^2, whose opposite ranges indicate "moist" or "dry."

In the center of the dial is formed a hole, and around the hole there is soldered a stiff tube C, which is made either of gauze wire, as shown, or of perforated metal, so as to let the moisture of the air penetrate to the interior thereof. To the extreme end of the tube there is firmly attached at *b'* one end of a cat-gut cord *b*, which is formed by spiral windings of the gut filaments. The other end of this twisted gut cord is extended through the central hole of the dial and is firmly attached to an index-hand B. The more or less stiff and twisted gut cord forms an axial shaft for the index-hand, with which the said hand may rotate as the twisted gut cord turns in one direction or the other as moisture is absorbed by or evaporated from the same.

The rotation of the twisted gut cord is effected according to well-known principles of all spirally-twisted cord to rotate as moisture is absorbed or evaporated, being due to the thickening of the twisted filaments as they expand from the absorption of moisture, which gives a corresponding rotation of the cord about its longitudinal axis.

The gauze-wire tube C not only holds the twisted cord at one end, but protects it from injury.

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

1. A hygrometer made of a dished plate bearing graduated readings, an index-hand arranged in the dished portion of the plate, a twisted absorbent cord fixed at one end to the index-hand and a rearwardly-extending holder mounted centrally on the plate and attached at its free end to and firmly holding the outer end of the cord substantially as shown and described.

2. A hygrometer made of a dished plate having graduated readings, an index-hand arranged in the dished portion of the plate, a twisted absorbent cord fixed at one end to the

index-hand, and extending through the plate, an open tube surrounding the absorbent cord and fixed to the plate at one end and to the cord at the other substantially as described.

3. A hygrometer composed of a dished plate having a flat-faced annular rim adapted to be stuck onto a smooth surface and bearing an index-hand and a twisted absorbent cord substantially as shown and described.

JOHN H GERRER.

Witnesses:
EARL BEEBE,
CLYDE MATTHEWS.