

E. C. WAGNER.
BAROMETER.

No. 182,779.

Patented Oct. 3, 1876.

Fig. 1.

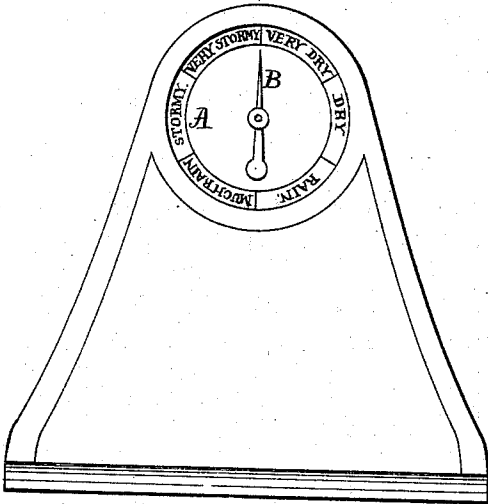


Fig. 2.

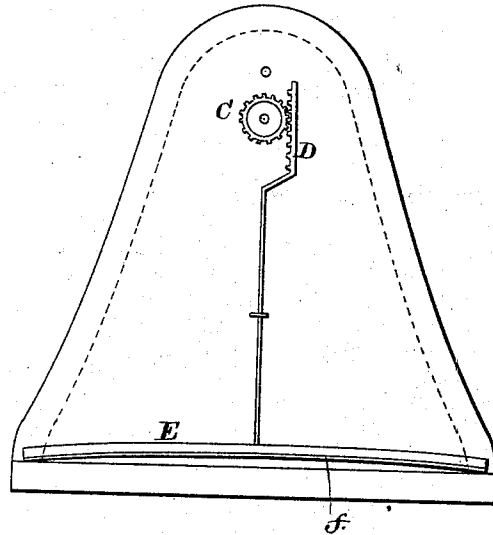


Fig. 3.

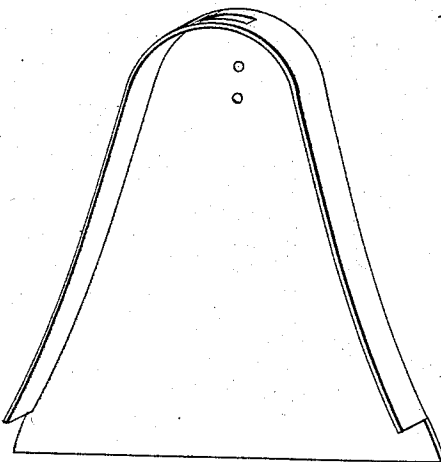
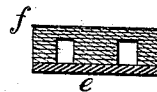


Fig. 4.



Witnesses:

Jno W. Hagens
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Edmund C. Wagner

UNITED STATES PATENT OFFICE.

EDMUND C. WAGNER, OF FORT SENECA, OHIO.

IMPROVEMENT IN BAROMETERS.

Specification forming part of Letters Patent No. **182,779**, dated October 3, 1876; application filed February 23, 1876.

To all whom it may concern:

Be it known that I, EDMUND C. WAGNER, of Fort Seneca, in the county of Seneca and State of Ohio, have invented a new and useful machine for telling the probable future state of the weather in regard to dry, rain, &c., and consequently a new barometer; and I do hereby declare that the following is a full, clear, and exact description of the construction, principle, and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a back view, with cap removed, showing the entire working parts of the machine; Fig. 3, cap removed; Fig. 4, end view of section of spring E E. (Shown in Fig. 2.)

A, Fig. 1, is a dial, with "dry," "very dry," &c., marked in margin. B is a hand or indicator made to revolve by the gearing C and D. (Shown in Fig. 2.) The under part of the spring E, Fig. 4, is some close-grained, hard wood, not susceptible to dampness or moisture, and laid lengthwise with the grain, and very thin. The upper part *f* is composed of some soft, spongy wood, very susceptible to dampness or moisture, and about three times as thick as the under part, laid crosswise with the grain—that is, the grain of the under part and the upper part forming right angles—with two or more slots or grooves running through the upper part *f* of the spring lengthwise to admit the atmosphere freely, as shown

in Fig. 4. Now, in the presence of moisture in the atmosphere, which precedes all rains, the upper part of the spring immediately absorbs the moisture, thus causing it to swell or stretch, while the under part will remain comparatively the same, and the spring will commence to bulge or raise up in the middle, thus moving the gearing C and D, which moves the hand around on the dial toward "rain," &c. In the absence of moisture, the upper part will begin to contract or shrink, and the hand will move backward toward "dry," &c.

It is a well-known fact that moisture penetrates wood much more rapidly from the ends than from the sides; hence the slots or grooves *g*, cut lengthwise through the spring and across the grain of the soft or porous part *f*, by this means exposing to the action of the atmosphere more surface than could be done in any other way.

I claim as my invention—

A barometer constructed of two pieces of wood, E and *f*, suitably connected together, mounted in a suitable frame, and provided with gearing D C, dial A, and indicator B, substantially as described, and for the purposes set forth.

EDMUND C. WAGNER.

Witnesses:

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