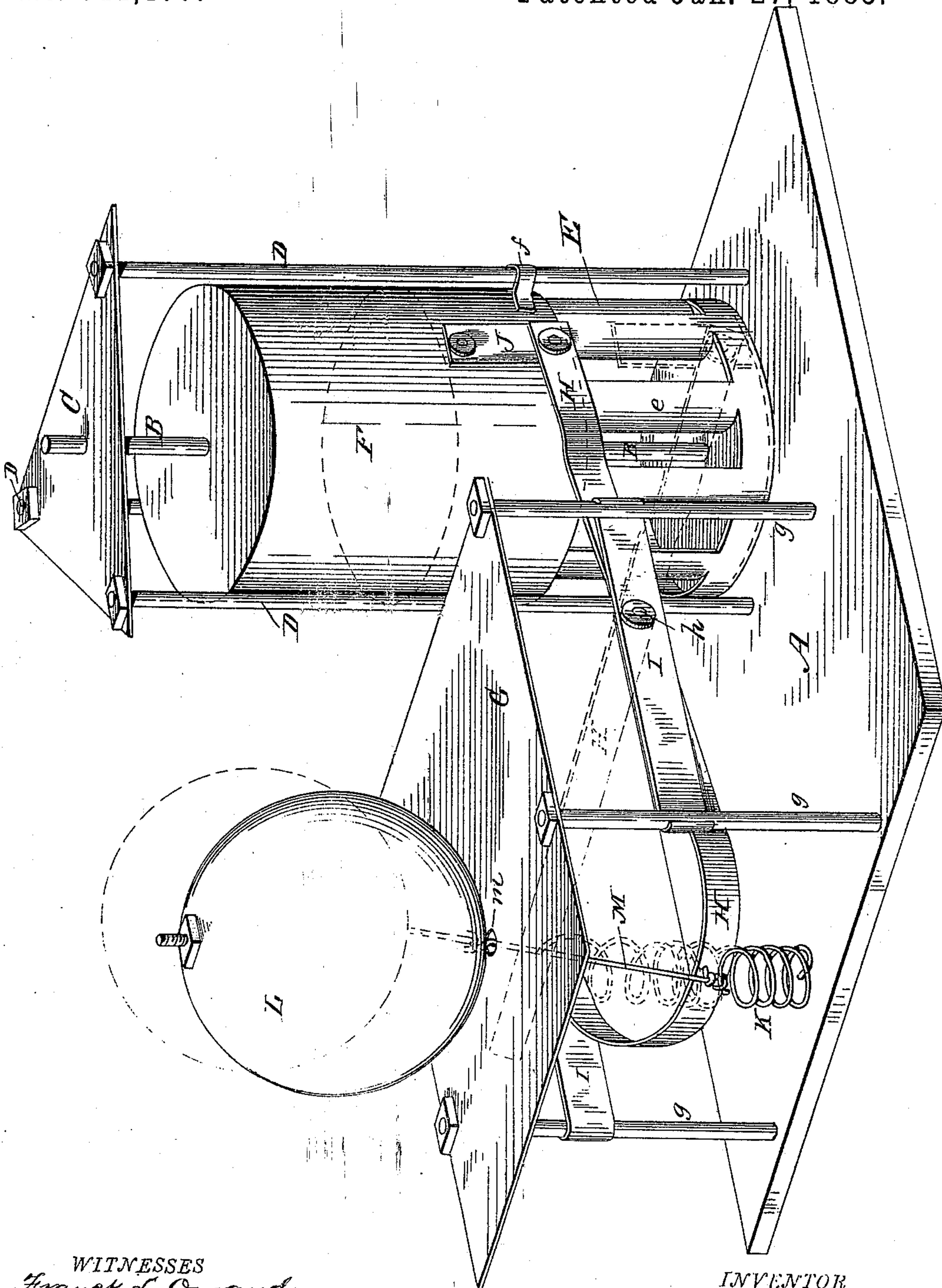


(No Model.)

A. DE ST. AUBIN.
HORIZONTAL WINDMILL.

No. 311,177.

Patented Jan. 27, 1885.



WITNESSES
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UNITED STATES PATENT OFFICE.

AUGUST DE ST. AUBIN, OF CONCORDIA, KANSAS.

HORIZONTAL WINDMILL.

SPECIFICATION forming part of Letters Patent No. 311,177, dated January 27, 1885.

Application filed April 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, AUGUST DE ST. AUBIN, a citizen of the United States, residing at Concordia, in the county of Cloud and State of Kansas, have invented certain new and useful Improvements in Horizontal Windmills; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

My invention relates to windmills of the class known as "horizontal," and has for its object to provide means whereby the force of the wind will automatically regulate the admission of wind to the wheel, and thereby prevent damage to the machinery during a gale.

To this end it consists in the novel construction, combination, and arrangement of the several parts, as will be described and claimed.

In the drawing I have shown my machine in perspective.

For the purposes of illustration I have shown the several parts mounted on a base, A. The drive-shaft B is journaled at its lower end in said base, and may be journaled at its upper end in a plate, C, supported on suitable standards, D, which are also mounted on the base-piece. This drive-shaft may be connected by gearing, belts and pulleys, or in any other suitable manner, with the mill, pumping, or other machinery to which it is desired to give motion. The wind-wheel E is keyed or otherwise fixed on the lower end of the shaft B, and is provided or formed with suitable fans, e, to catch the wind.

The specific construction of this wheel is not material to the desired operation of my invention, and may be varied at the will of the maker.

A cylindrical or other suitable form of bonnet or shield, F, is suspended over the wheel E, and is provided with loops or keepers f, fitting around and sliding vertically on standards D. This bonnet is held normally in the position shown by the devices presently described.

The platform G, having suitable supports or standards, g, is arranged alongside the

wind-wheel. A lever, H, is pivoted at h, below the platform, preferably to bars I, extended between legs g, as shown. This lever is formed with two side arms, the inner ends of which embrace the bonnet F and are pivotally connected therewith. By preference I form this connection by straps or links J, pivoted at one end to the bonnet or shield, and at their other ends to the lever, so as to permit the easy vertical movement of the shield with the lever, turning on a pivot, as shown. The outer end of the lever is arranged under the platform G, and is connected with base A by a spring, as K, which serves to hold said end down, as shown, except in a very strong wind, as will be described hereinafter.

I provide a hollow wind sail or regulator, L, preferably a hollow globe made of light sheet metal or other suitable material, which is supported on platform G, and is provided with a rod, M, which extends down through an opening, m, in the platform G, and has its lower end connected to the outer end of the lever. It will be seen that as the outer end of the lever is raised the bonnet or shield is drawn down over the wind-wheel, and the extent to which it is so drawn is proportionate to the height to which the outer end of the lever is raised. In operation during a moderate wind the sail or regulator L rests on the platform. As the wind increases to a gale, the sail or regulator is gradually raised thereby, according to its intensity, and raises the outer end of the lever, reducing the exposed surface of the wheel, as will be understood, thereby preventing same from being driven so fast as to cause damage to the machinery.

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

1. A horizontal wind-wheel and a vertically-movable shield encircling the same, in combination with a hollow wind sail or regulator and a lever connecting it with the shield, substantially as and for the purpose set forth.

2. The combination herein described of the wheel, the shield adjustable over the wheel, the platform arranged alongside the wheel, the lever having its inner end connected with

the shield and its outer end extended under
the platform and pivoted thereto, a spring
connected with and adapted to depress the
outer end of the lever, and a device adapted
5 to be operated by the wind, and supported on
the platform and connected with the outer
end of the lever substantially as set forth.

In testimony that I claim the above I have
hereunto subscribed my name in the presence
of two witnesses.

AUGUST DE ST. AUBIN.

Witnesses:

M. V. B. SHEAFOR,
GEO. A. GOULET.