

M. Dejew,

Wind Wheel,

N^o 55,250.

Patented June 5, 1866.

Fig. 2

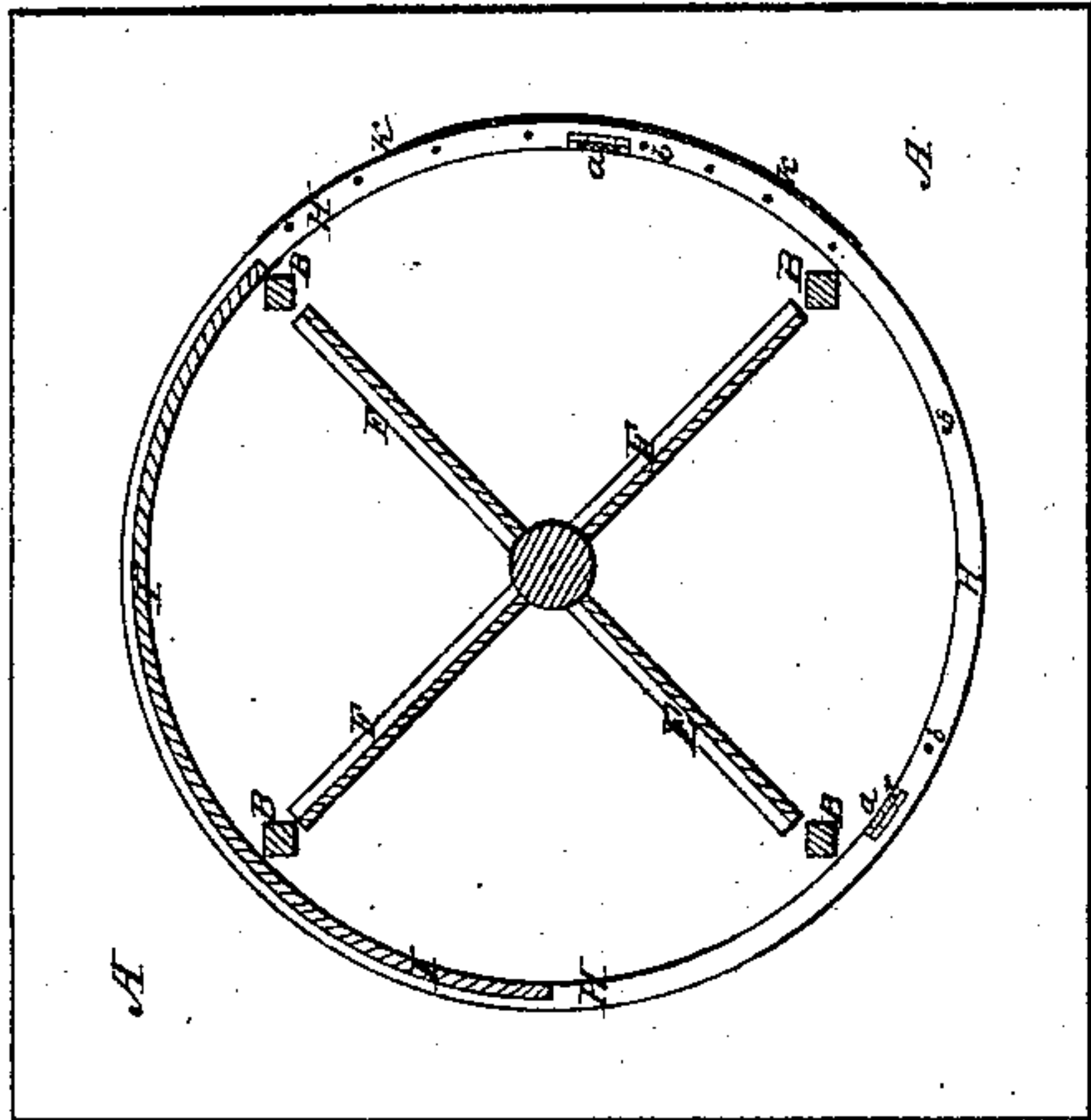


Fig. 1

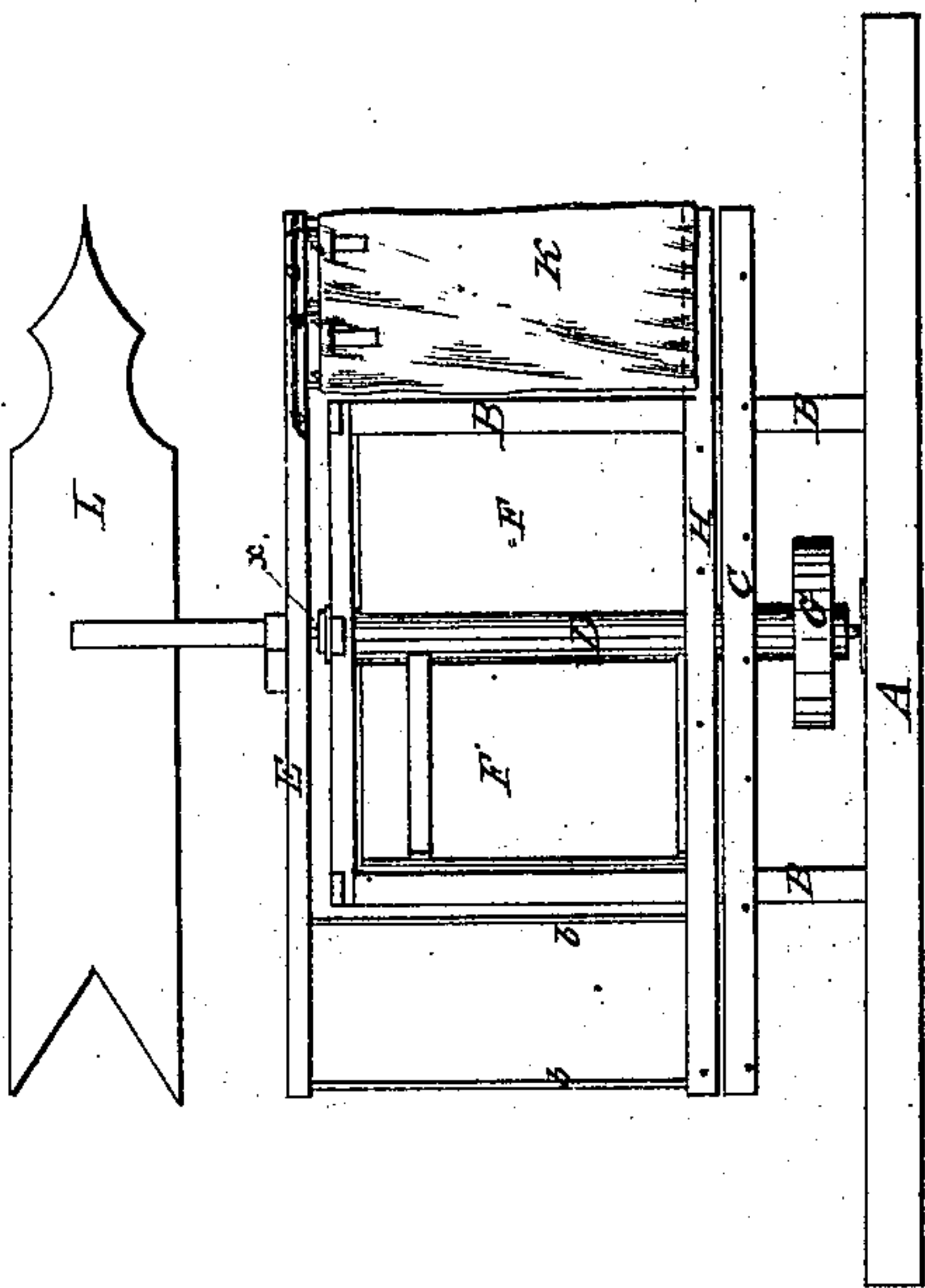
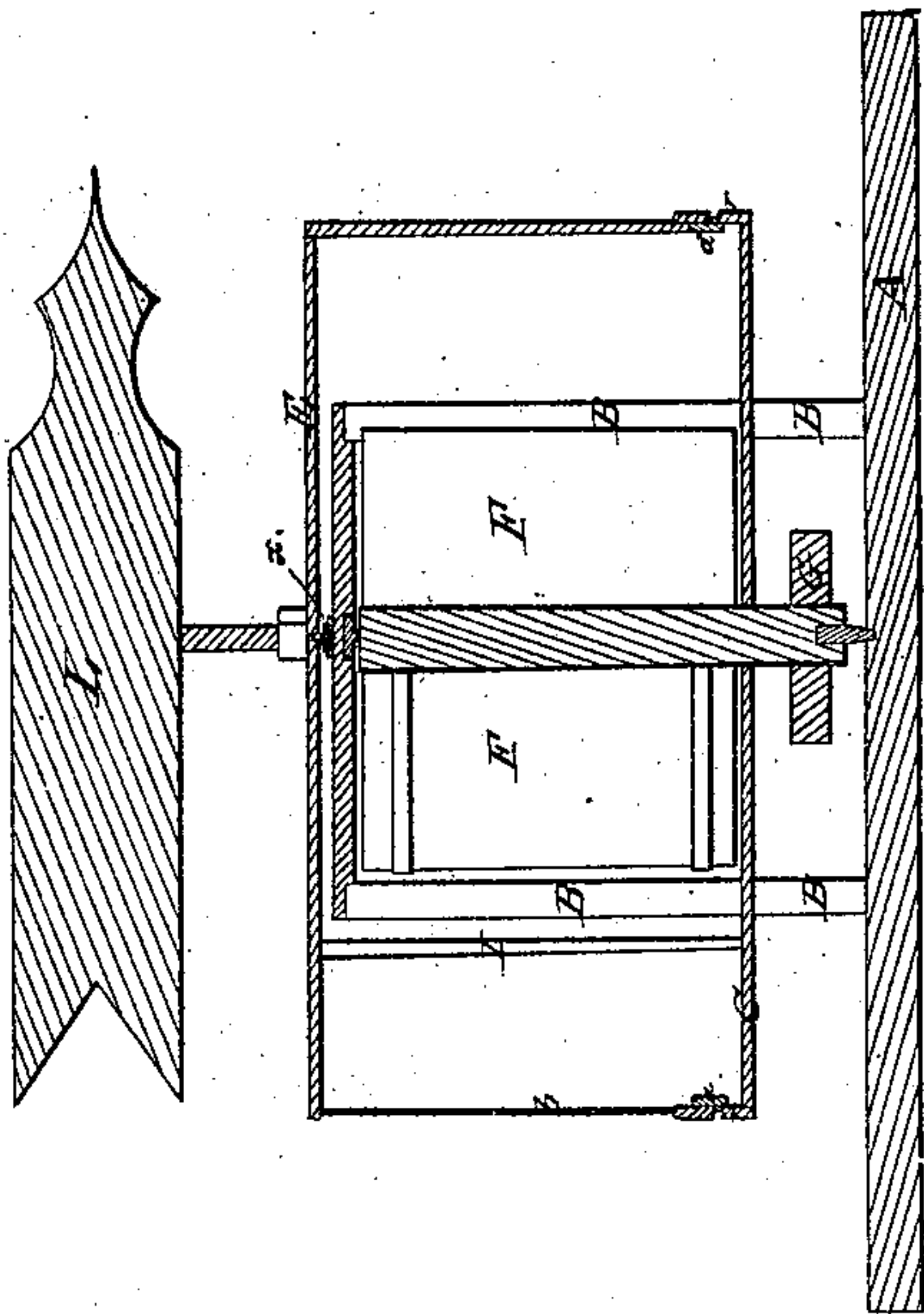


Fig. 3



Witnesses:

S. M. Randolph
A. Wagner

Inventor:

Michael Dejew
By his Attorney
M. Randolph

UNITED STATES PATENT OFFICE.

MICHAEL DEPUE, OF MATTOON, ILLINOIS.

IMPROVEMENT IN WIND-POWERS.

Specification forming part of Letters Patent No. 55,250, dated June 5, 1866.

To all whom it may concern:

Be it known that I, MICHAEL DEPUE, of Mattoon, of the county of Coles and State of Illinois, have invented a new Wind-Power; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 of the annexed drawings represents a side elevation of the improved wind-power. Fig. 2 is a horizontal transverse section of the same. Fig. 3 is a vertical section through the axis of the machine.

This invention consists in inclosing the fan-wheel upon which the wind acts within a revolving drum, a portion of the circumference of which is left entirely open, another portion of the same is permanently closed, and still another portion—that through which the wind is admitted to the inner wheel—is provided with a canvas door, which can be wholly closed or left partially or wholly open. The drum which encompasses the fan-wheel is surmounted by a vane which is so arranged as to turn the drum around and present that portion of its periphery which has the canvas door and permanently-closed side to the windward. The canvas door may then be opened more or less, according to the strength of the breeze which is blowing, and the wind will strike the fans of the inner wheel and cause it to revolve, and finally pass out of the opposite side of the drum, through that portion of its periphery which is left permanently open. A portion of the periphery of the drum is left permanently closed, so as to protect the fans of the inner wheel from coming in contact with the wind during that part of their revolution in which they are advancing toward the wind.

To enable those skilled in the art to make and use my wind-power, I will proceed to describe its construction and operation.

A represents a platform, upon which the whole arrangement is built. B is a frame which supports the bottom head, C, of the drum, the upper end of the shaft D, and the upper head, E, of the drum. The shaft D, besides the fan-wheel F, carries the counter-pulley G, from which power may be transmitted to any

machine where work is to be done by the wind-power.

The upper head, E, of the drum may be made entirely closed up, or it may be simply a rim of a wheel with a large opening in the center, over which a single beam is thrown to give support to the center gudgeon, *x*, upon which it rests and around which it revolves.

There will be a circular rim, H, the exterior diameter of which will be the same as the diameter of the head E, placed just above the lower head, C, around the periphery of which there will be a track, *r*, on which the wheels or sheaves *a* will run. The sheaves *a* will be attached to the rim H, and will support the whole weight of the drum. The rim H will be attached to the head E by means of the iron rods *b* and the material of the permanently-closed side I, which will form about three-eighths of the periphery of the drum, more or less.

The canvas door K will slide up and down on the rods *b*, to which it will be fastened by means of loops. When closed it will cover about one-quarter of the periphery of the drum. The door is made to slide down by means of weights attached to its upper edge, and it is closed up again by pulling the cord *c*, which is fastened to several points along the upper edge, and passes thence up over several hooks or wheels fastened to the edge of the head E, and thence down in some location convenient to the operator.

The lower edge of the canvas door is fastened to the rim H. It may be opened more or less, as may be required, according to the strength of the breeze blowing.

The vane L is erected on top of the head E, and is so arranged as to turn that side of the drum to which the canvas door is fastened toward the wind. The door K being open, the wind will strike the fan-wheel F and cause it to revolve, and the vane will always hold the door side of the drum to the wind. The closed side I of the drum will prevent the wind from striking against the fan-wheel while the fans on said wheel are performing that part of their revolution in which they are advancing toward the wind.

It is the intention to apply this wind-power

to the propulsion of sailing-vessels, land conveyances, and stationary machinery, to all of which purposes it can be readily adapted without any material changes in its form of construction.

Having thus described my invention, what I claim is—

The combination and arrangement of the sliding canvas door K with the drum C I B, substantially as and for the purpose set forth.
MICHAEL DEPUE.

Witnesses:

W. M. SCOTT,
R. V. REED.