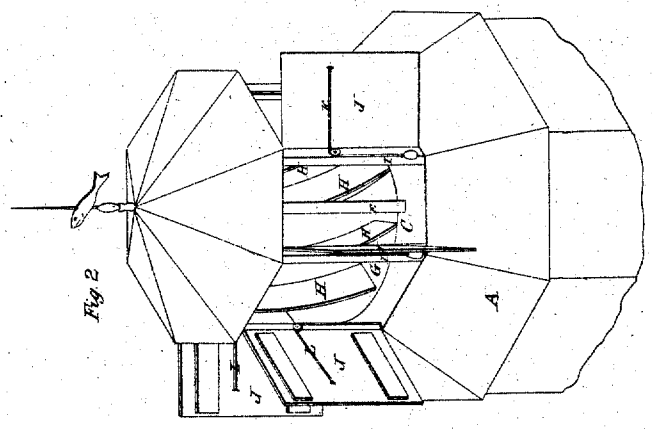
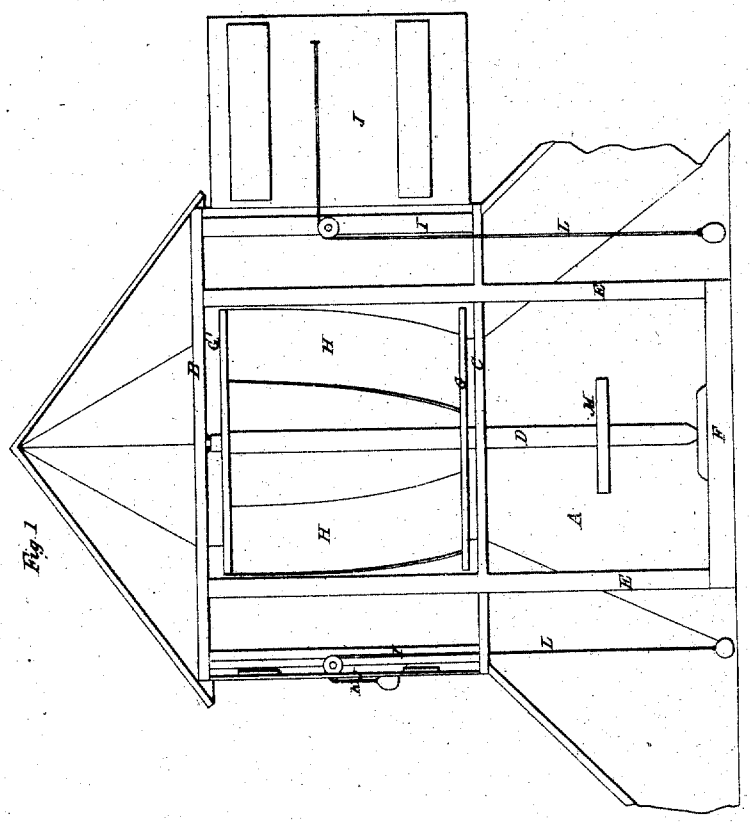
7470X

S. Deming,

Wind Wheel,

Patented Mar. 8, 1833.





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Solomon Deming of Brunswick. Ohio

Letters Patent.

The schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said Solomon Deming himself of his improvement—being a wind wheel or mill, turning in a horizontal direction

Be it known that I Solomon Deming of Brunswick in the County of Medina, and State of Ohio, have made an improvement in the mode of constructing a wind wheel or mill turning in a horizontal plane and which is described as follows,

This wind wheel consists of a vertical shaft with the wings or sails to receive the wind to turn the shaft. The upper and lower floors and posts or uprights forming a frame to support the works; the shutters pulleys &c. for admitting the wind upon the wings.

The vertical shaft is made of any suitable size for the mill intended to be built. it is placed vertically in the centre of the building, turning on gudgeons in steps or boxes. On the shaft, and rise at the proper distances below are framed into the shaft twelve arms more or less to receive the wings or sails. Or two circular platforms may be constructed of thick plank to answer the same purpose. The shaft passes through the first four posts passing through the centre of the mill framed together at the bottom by two strong beams, or cross pieces and fastened by keys or bolts on the upper platform or floor.

The upper gudgeon of the shaft turns in a box placed in a cross piece in the upper platform, and the lower gudgeon turns in a box or step on the cross piece below,

There are about twelve wings or sails more or less, placed round the shaft at equal distances apart, at an angle of about 45 degrees

Deming

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with the shaft: they receive their support from the arms or annular platforms attached to the vertical shaft before described. The shaft is turned by the wind striking upon these wings in a horizontal direction sufficient room being left for them to turn within the frame.

There are eight outward posts more or less placed at equal distances apart on a lower floor made of strong plank, and divided into as many sides as there are posts. they are supported at the top by an upper floor made of the same size, strength and figure as the lower floor. Openings are made in these floors for the vertical shaft and the four posts before mentioned, to pass: and also the cords with the weights to be hereafter described.—

There are eight shutters more or less turning on pivots, in the upper and lower floors and resting when closed against posts or beams near the shaft these shutters are to be opened and closed for letting the wind on or off the wings or sails—

To the back of each shutter is fastened a rope or cord which passes over a pulley in the post adjoining, for opening the shutter, a weight is attached to the end of the rope for keeping the shutters open and hangs on the outside of the post. another rope is fastened on the inside of the shutters and passes over a pulley in the post near the shaft, and through the lower floor, having a weight also attached to the end of it and is for closing the shutters to prevent the admission of wind when too strong.

On the vertical shaft is a cog wheel which gears into any other wheel required for giving motion to mills or machinery

Operation the shutters being opened on all sides the wind strikes the wings or sails attached to the shaft and causes it to turn in a horizontal direction and gives motion to the cog wheel with the machinery attached— The invention here claimed and desired to be secured by Letters Patent is the before described wind wheel particularly the wings or sails attached to the arms or heads, the shutters for letting on and off the wind, and the ropes, weights, and pulleys by which they are opened and shut.— For a further illustration of my invention

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I refer to the model and drawing of the same deposited in the Patent office. — In testimony whereof, I have subscribed my name this 20th. day of February. 1893.

Witnesses

Samuel I Hayslip
B. M. Treece
R. B. Grant

Solomon Deming.

Exa
W.J.C.