

(No Model.)

2 Sheets—Sheet 1.

E. BRÉGIER.
WIND WHEEL.

No. 483,098.

Patented Sept. 20, 1892.

FIG. 1.

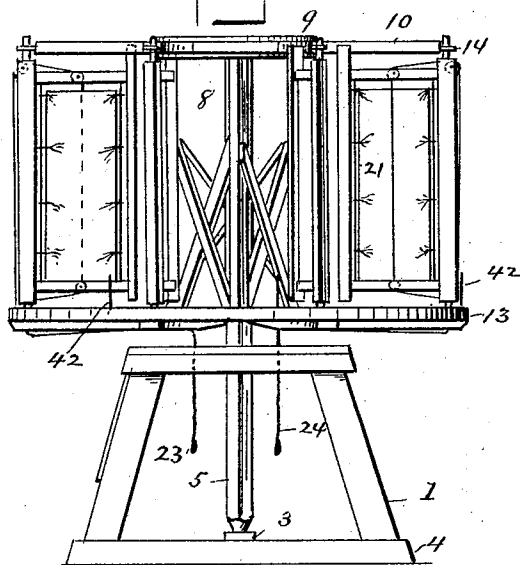
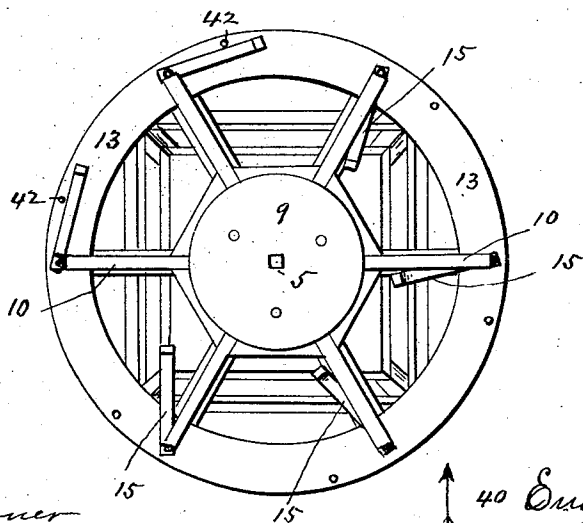


FIG. 2.



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INVENTOR

40 Eugene Bregier
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William, Michael & Doney
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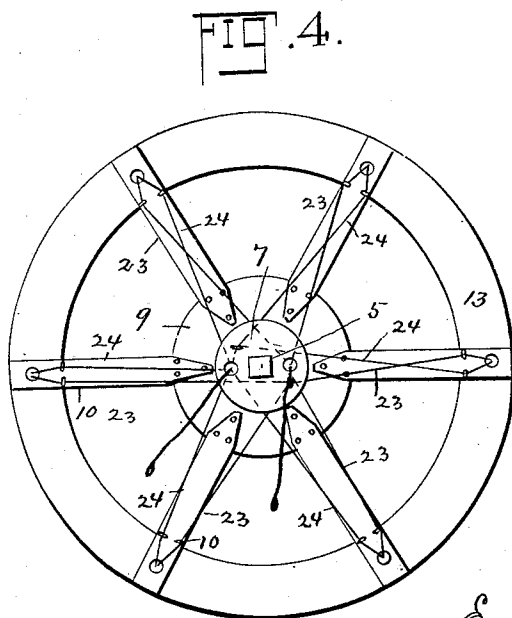
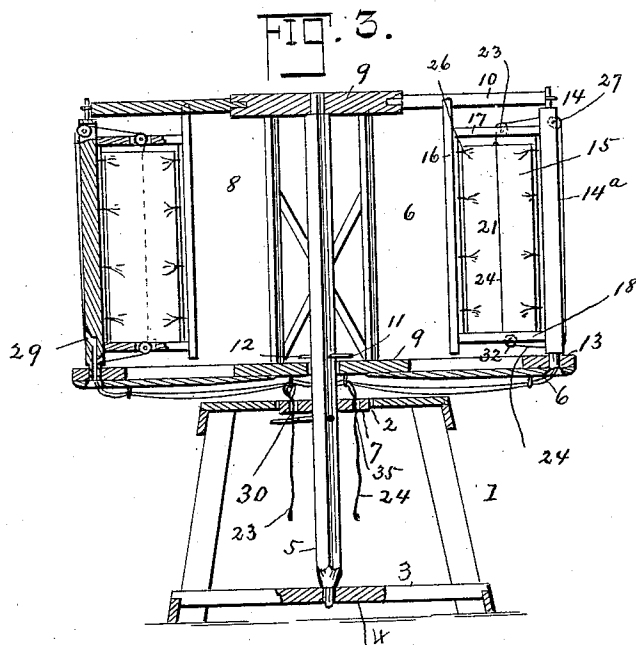
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WITNESSES:

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UNITED STATES PATENT OFFICE.

EUGÈNE BRÉGIER, OF TERREBONNE, MINNESOTA.

WIND-WHEEL.

SPECIFICATION forming part of Letters Patent No. 483,098, dated September 20, 1892.

Application filed September 8, 1891. Serial No. 405,110. (No model.)

To all whom it may concern:

Be it known that I, EUGÈNE BRÉGIER, a citizen of the United States, residing at Terrebonne P. O., in the county of Polk and State of Minnesota, have invented certain new and useful Improvements in Wind-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a new and useful improvement in horizontal wind-wheels in which a series of pivoted revolving frames carrying extensible sails are used; and my invention consists in the construction, arrangement, and combination of the parts of which it is composed, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, in which corresponding parts are designated by similar numerals, Figure 1 is a side view of a wind-wheel constructed in accordance with this invention. Fig. 2 is a plan view of my invention. Fig. 3 is a central vertical section thereof. Fig. 4 is an inverted plan view of the revolving frame, showing the arrangement of the drawing-ropes.

1 is a suitable stand of any approved construction, having a circular opening 2 in its top and having a cross-bar 3 at its base, provided with a bearing 4, in which the base of the central post 5 of the revolving frame 6 is carried, the said post having thereon the disk 7, which is contained in the opening 2 in the stand, and which serves to steady the post.

The frame 8, consisting of the upper and lower hubs 9 and of the radial arms 10, is mounted on the upper portion of the shaft, the said shaft being angular and passing through an angular aperture 11 in the lower hub and receiving upon its upper end the upper hub and it will be thus seen that the frame 8 is removably mounted on the shaft, it being adapted to be secured thereon by the pin 12, passing through the latter above the lower hub.

The outer ends of the arms 10 of the radial hub are connected by the annular ring 13, in which and in staples 14 on the outer ends of the arms of the upper hub the pivotal post 14^a of the postal frame 15 is pivoted, the re-

maining upright 16 of the frame being extended beyond the horizontal top piece 17 thereof and being adapted by striking against the corresponding upper arm 10 to limit the movement of the postal-frame.

Guide-wires 26 are secured in the pivoted frames, on each side thereof, and are connected at their tops and bottoms, respectively, to the top and bottom horizontal pieces 17 and 18 of the frame, and sails 21 slide upon the said guide-wires, they being adapted to be raised or lowered by means of the ropes 23 and 24, the former of which is secured to the upper end of the sail 21, (which is of canvas, &c.,) passes over a pulley 26 in the piece 17, over a pulley 27 in the vertical pivotal post 14^a, and through the central bore 29 in the lower end of the said post to above the disk 7, where the corresponding ropes from the several frames are connected together and pass through the opening 30 in the disk. The rope 24 is also connected to the top of the sail and passes over a pulley 32 in the lower piece 18 and through the central bore 29 of the post to over the disk, where the corresponding ropes of the several frames are connected together and pass through the aperture or opening 35 in the disk.

My invention being thus constructed, the method of its use is as follows: The wind coming in the direction of the arrow 40 in Fig. 2 will cause the pivoted frames 15, that are shown against the arms 10, to bear thereon, thus turning the revoluble frame 8 until those pivoted frames that have been acted on by the wind by the rotation of the revoluble frame assume such a position that they move against the wind, when they will move on their pivotal posts 14^a to the position shown in Fig. 2, they being adapted to be stopped in that position by the pins 42, inserted in the annular ring for that purpose, and it will be seen that the area of the sails exposed to the action of the wind may be varied to suit the force thereof by means of the ropes 34 and 35. It will also be seen that by removing the pins 42 and swinging the pivoted frames around to the opposite sides of the arms 10 to that which they are shown as occupying in Fig. 2 a rotation of the revoluble frame in a direction opposite to that before mentioned may be caused,

and it will also be seen that by suitable mechanism the rotary motion of frame 8 and shaft 5 can be converted into a reciprocating one.

Having thus described my invention, what I claim is—

The combination, with a support having a central guide-aperture in its top, of a vertical revoluble angular shaft having an apertured disk thereon contained in the said guide-aperture, whereby the said shaft is steadied, a frame removably mounted on the said shaft above the said disk and consisting of an upper and lower hub through which the said shaft passes, the said hubs having radial arms, an annular ring connecting the outer ends of the lower arms, pins projecting upwardly from the said ring to serve as stops for the sail-

frames, posts having their upper and lower ends pivoted in the outer ends of the upper and lower arms, respectively, and a sail-frame carried by each of the said posts, having an upright adapted to be stopped by the upper arm, a sail mounted in each of the said frames, and two ropes attached to each of the said sails, the said ropes passing over the upper and lower arms, respectively, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EUGÈNE BRÉGIER.

Witnesses:

D. J. LENICEUS,
GEO. LA BISSENIÈRE.