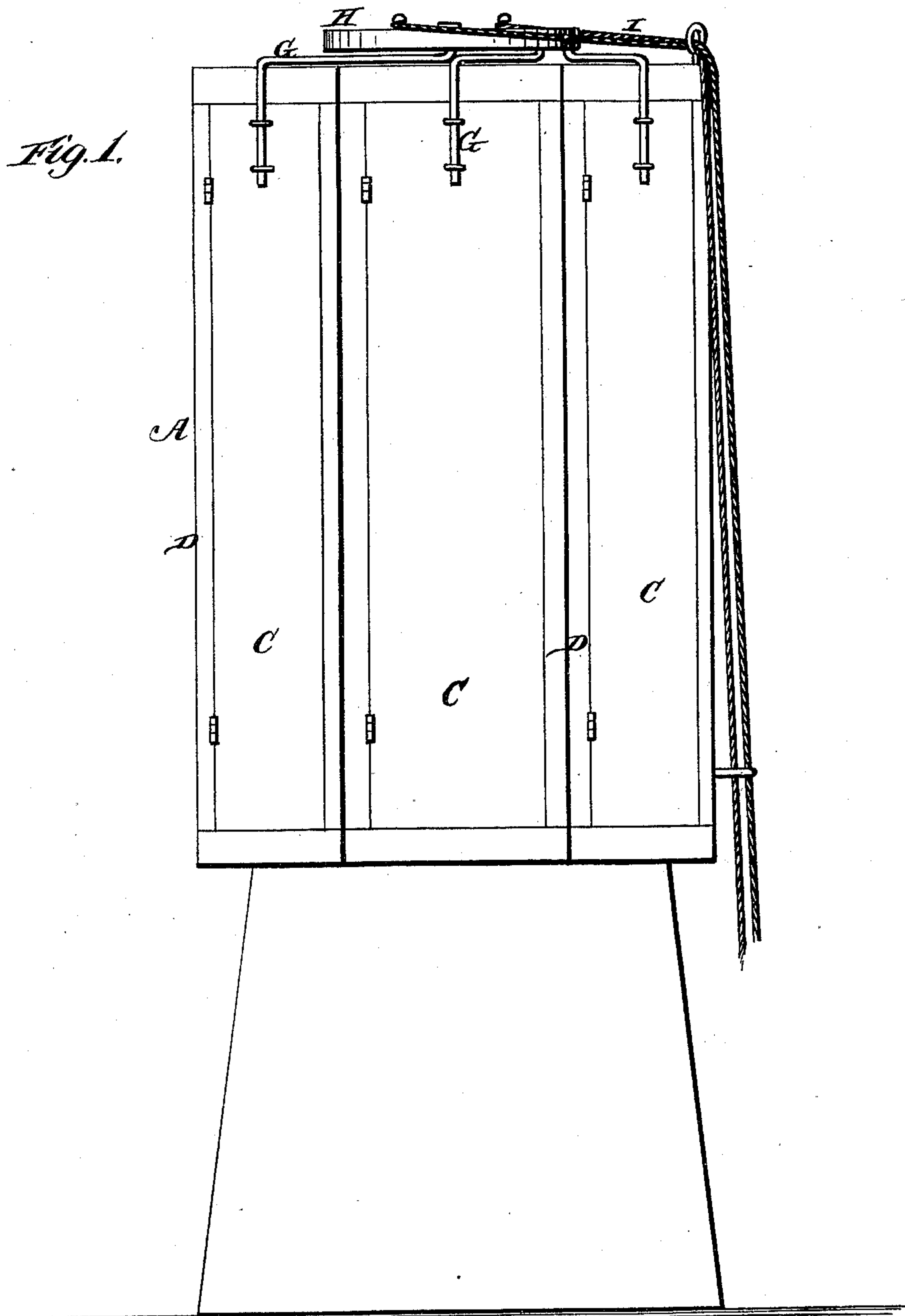


W. T. URIE.  
Wind-Engine.

No. 223,616.

Patented Jan. 13, 1880.



Witnesses:

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*James J. Shuey*

Inventor:

*William T. Urie.*  
*Gilmore, Smith & Co.*  
*Attorneys*

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Fig. 2.

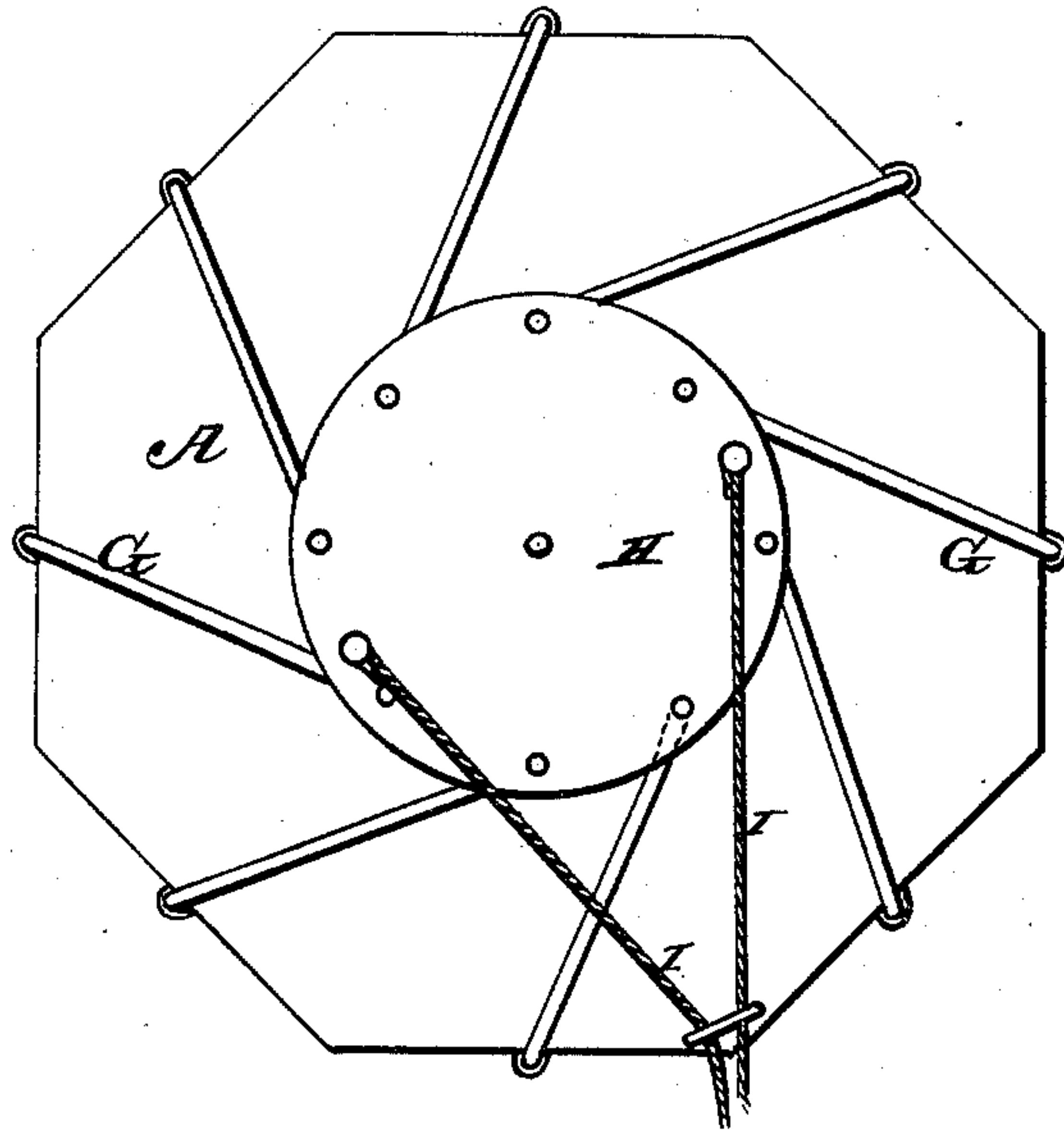
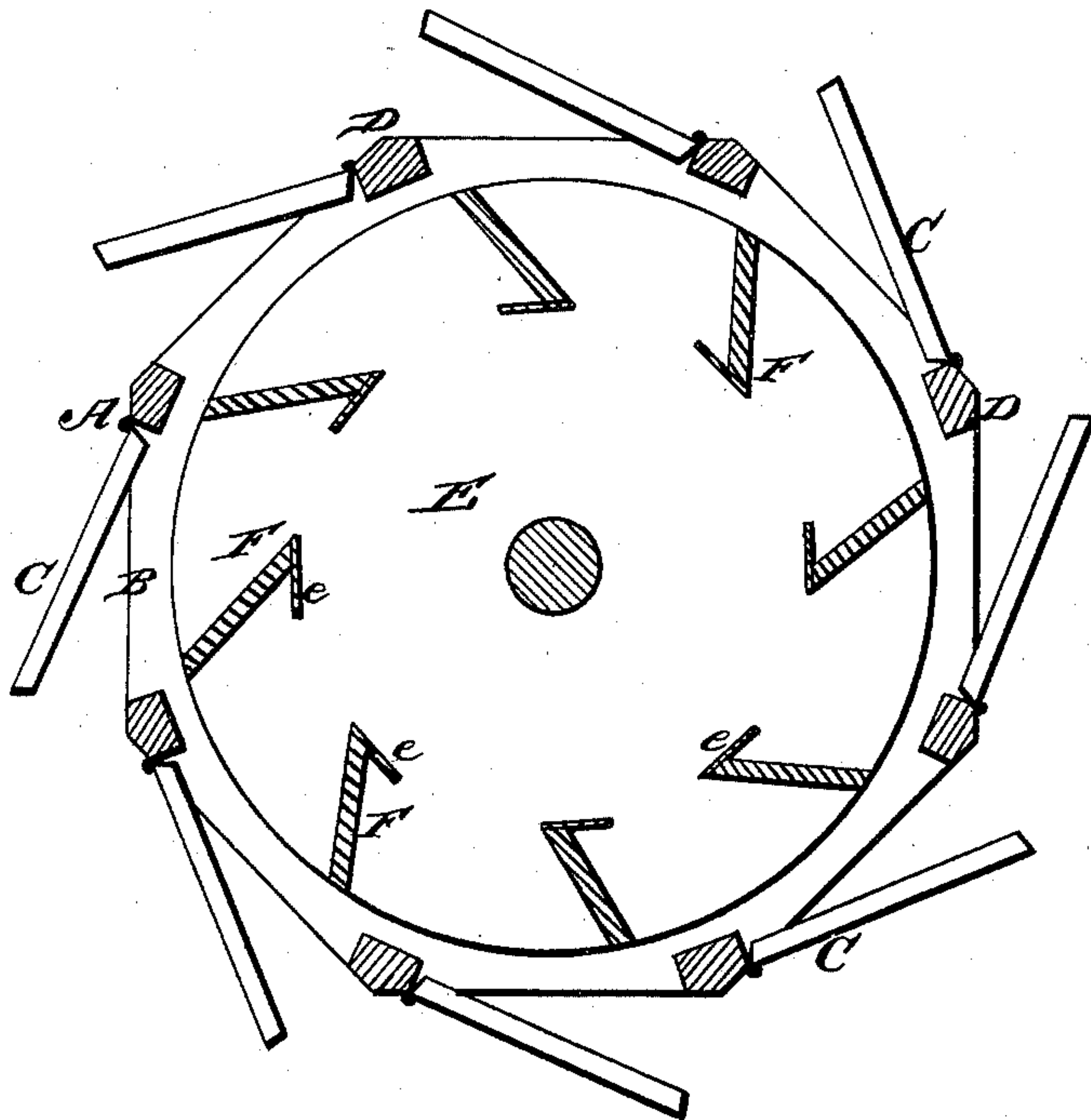


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM T. URIE, OF WARRENSBURG, MISSOURI.

## WIND-ENGINE.

SPECIFICATION forming part of Letters Patent No. 223,616, dated January 13, 1880.

Application filed October 25, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM T. URIE, of Warrensburg, in the county of Johnson and State of Missouri, have invented certain new and useful Improvements in Wind-Engines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my wind-engine. Fig. 2 is a plan view, and Fig. 3 is a horizontal sectional view.

This invention relates to wind-engines; and it consists in the improvements in the construction of the same hereinafter fully described, and particularly pointed out in the claim.

Referring by letter to the drawings, A designates the frame or casing, formed with the wind-passages B, and provided with the shutters or wind-deflectors C, which are hinged to the vertical bars D of the casing. E designates the wind-wheel, which is arranged to revolve about a vertical axis within the casing A.

The buckets or wings F of the wind-wheel are of an angular shape in cross or horizontal section, so that they resemble, in this respect, V-shaped troughs, having, however, one side narrower than the other. The narrow side *e* of these wings will be the nearest to the axis of the wheel, as shown, and by this construction and arrangement they will catch and hold the wind more effectively than where only the plain flat wing is employed.

The shutters C, which are designed to be

simultaneously opened or closed and set at such angle as will not only best deflect the wind into the passages, but also regulate the amount of air which enters the same, are operated by means of rods G, pivoted to the hinged shutters and to a disk, H, adapted to be rotated upon the casing. These rods will lie tangentially to the periphery of the disk when the shutters are closed, and when the same are opened will approximate the position of lines radiating from the center of the said disk.

Cords or ropes I are employed for the purpose of turning the disk, and any suitable arrangement of guides, rolls, or pulleys may be used in this connection.

In practice, the usual gearing is employed for the purpose of driving a pump, mill, or other machine which it may be found desirable to operate by wind-power.

As herein shown, one of the ropes I is employed to rotate the disk so as to open the shutters, and the other rope to turn the disk back and close the same.

What I claim is—

In a wind-wheel, the fixed wings F, having the short angular sides *e*, in combination with the shutters C, hinged to the frame, and the rods G, connecting the shutters C and the disk H, all constructed and operating as and for the purposes set forth.

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

WILLIAM T. URIE.

Witnesses:

J. D. EADS,

M. STILLWELL.