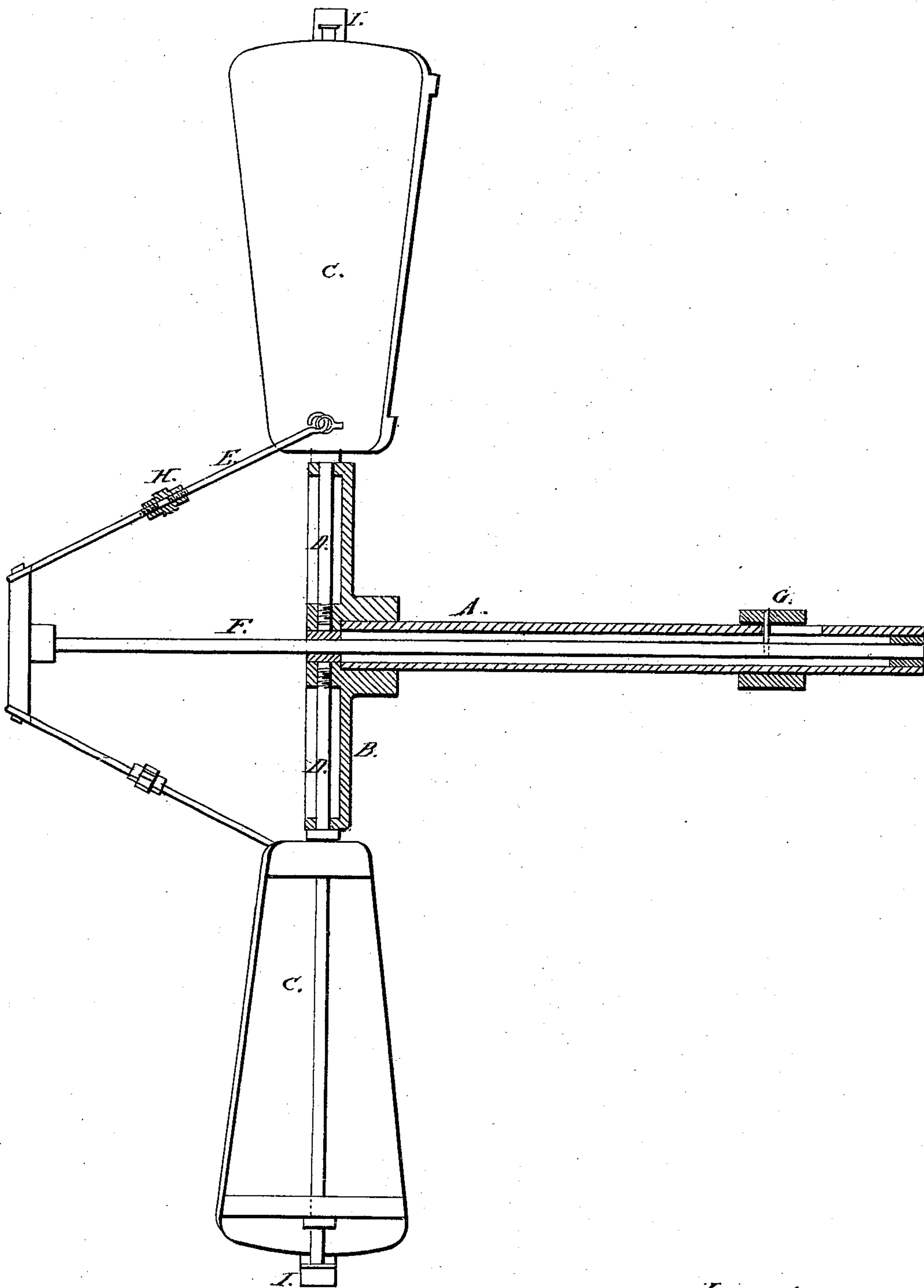


*H. C. Briggs,*  
*Wind-Wheel.*

*Nº 92,697.*

*Patented Jul. 20. 1869.*



*Attest:*

*Albenneisen dorf*  
*Jno F. Doores*

*Inventor:*

*H. C. Briggs.*

*per Munn & Co.*  
*attys.*

# United States Patent Office.

HENRY C. BRIGGS, OF FISHERSVILLE, NEW HAMPSHIRE, ASSIGNOR TO D. ARTHUR BROWN AND COMPANY, OF SAME PLACE.

*Letters Patent No. 92,697, dated July 20, 1869.*

## IMPROVEMENT IN WIND-WHEELS.

The Schedule referred to in these Letters Patent and making part of the same

*To all whom it may concern :*

Be it known that I, HENRY C. BRIGGS, of Fishersville, in the county of Merrimack, and State of New Hampshire, have invented a new and useful Improvement in Wind-Wheel; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements on the wind-mill heretofore patented to Nehemiah Trull, on the 4th day of October, 1864; and consists in an improved arrangement of means for supporting and adjusting the vanes, as will be hereinafter described.

The drawing represents an elevation of my improvement, partly in section.

A represents the supporting-shaft, which may be either horizontal or vertical.

It is made tubular, and provided with a flanged end, B, preferably made of cast-metal.

C represents the vanes, supported on shafts or arms D, rigidly secured in the flange.

The said vanes are capable of oscillation on the said arms, to be adjusted to the wind for operation, or to be stopped, and also for regulating the speed.

They are connected, by arms E, to the projecting end of a sliding rod, working through the shaft A, by which they are adjusted, and the said rod F is connected in the working-machine described in the aforesaid patent, by a sleeve, G, to a governor.

The said arms are made in two parts, and connected by sleeves H, having right and left-hand threads, whereby either vane may be adjusted, independently of the other.

The outer ends of the arms D are connected by a hoop or rim, I, for strengthening them.

In the machine described by the aforesaid patent, the vanes are rigidly connected to the arms, and the oscillation is effected by circular teeth on the end of the sliding rod F, and pinions on the inner ends of the vane-arms.

This arrangement is objectionable, as the arms of the vanes spring under the action of the wind, creating great friction, and it also requires greater power, as the leverage is greatly in favor of the resistance. Moreover, the number of vanes is limited to four, as the ends of the arms must pass across the shaft to gear with it; whereas, by this arrangement, the fans may be arranged in greater numbers, are much more easily adjusted, and, each being adjusted by its separate connecting-rod, admits of their being adjusted with great exactness with reference to each other.

In the other machine, to adjust the vanes required the un gearing of the pinion with the shaft, and slipping it around one or more teeth.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The wings, connected with the governor, through the medium of the sliding shaft F, arranged within the shaft A, and connected to the vanes by the adjustable rods E, substantially as and for the purpose specified.

2. The combination, with the shaft F and vanes, of the adjustable rods E, substantially as specified.

3. The arrangement of the vanes C, arms D, flanged head B, and hoop I, substantially as specified.

HENRY C. BRIGGS.

Witnesses:

SAMUEL N. BROWN,  
D. ARTHUR BROWN.