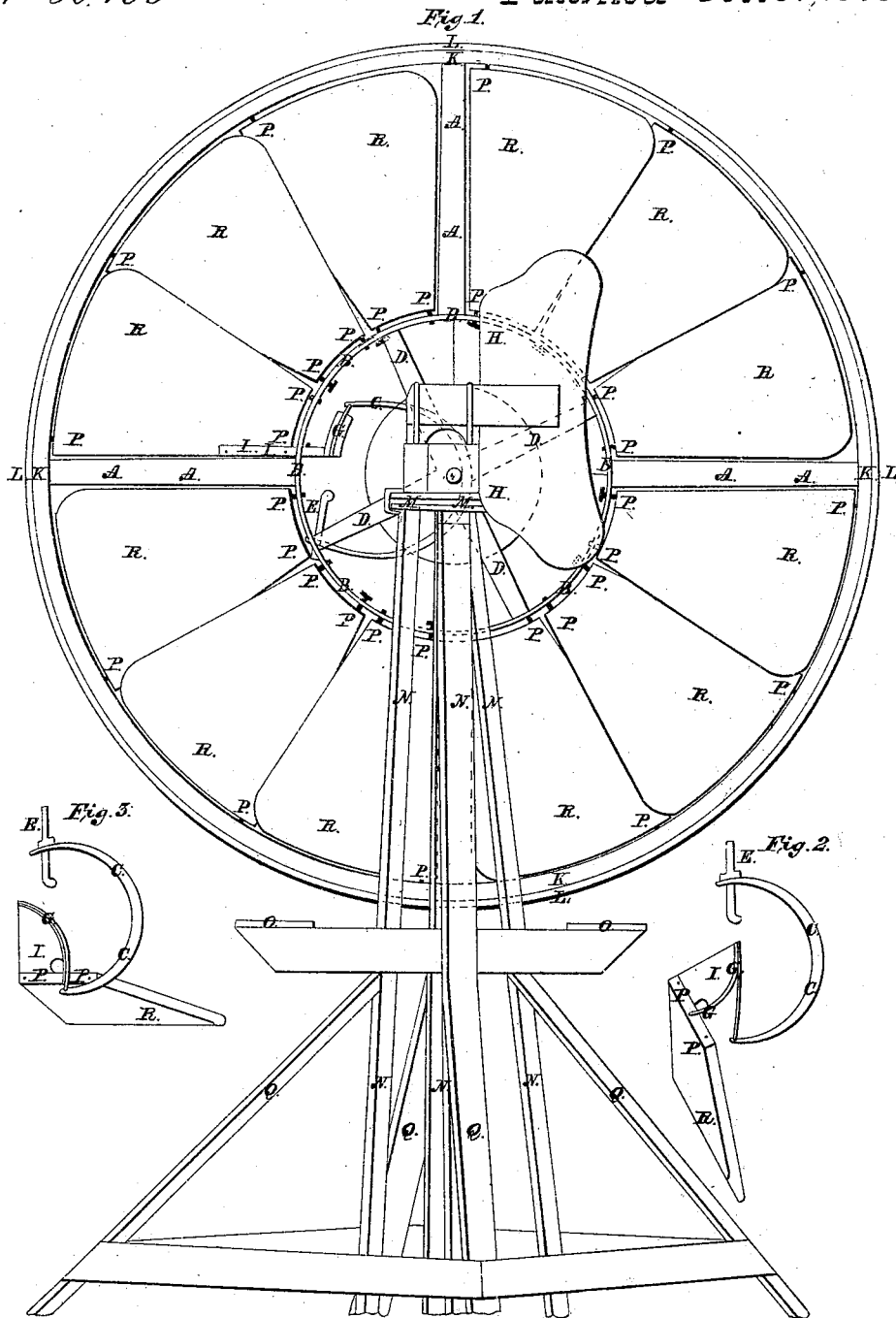


A. M. Hansen,

Wind Wheel,

N<sup>o</sup> 50,705

Patented Oct. 31, 1865.



Attest:  
R. W. Munsie  
W. D. Hooker

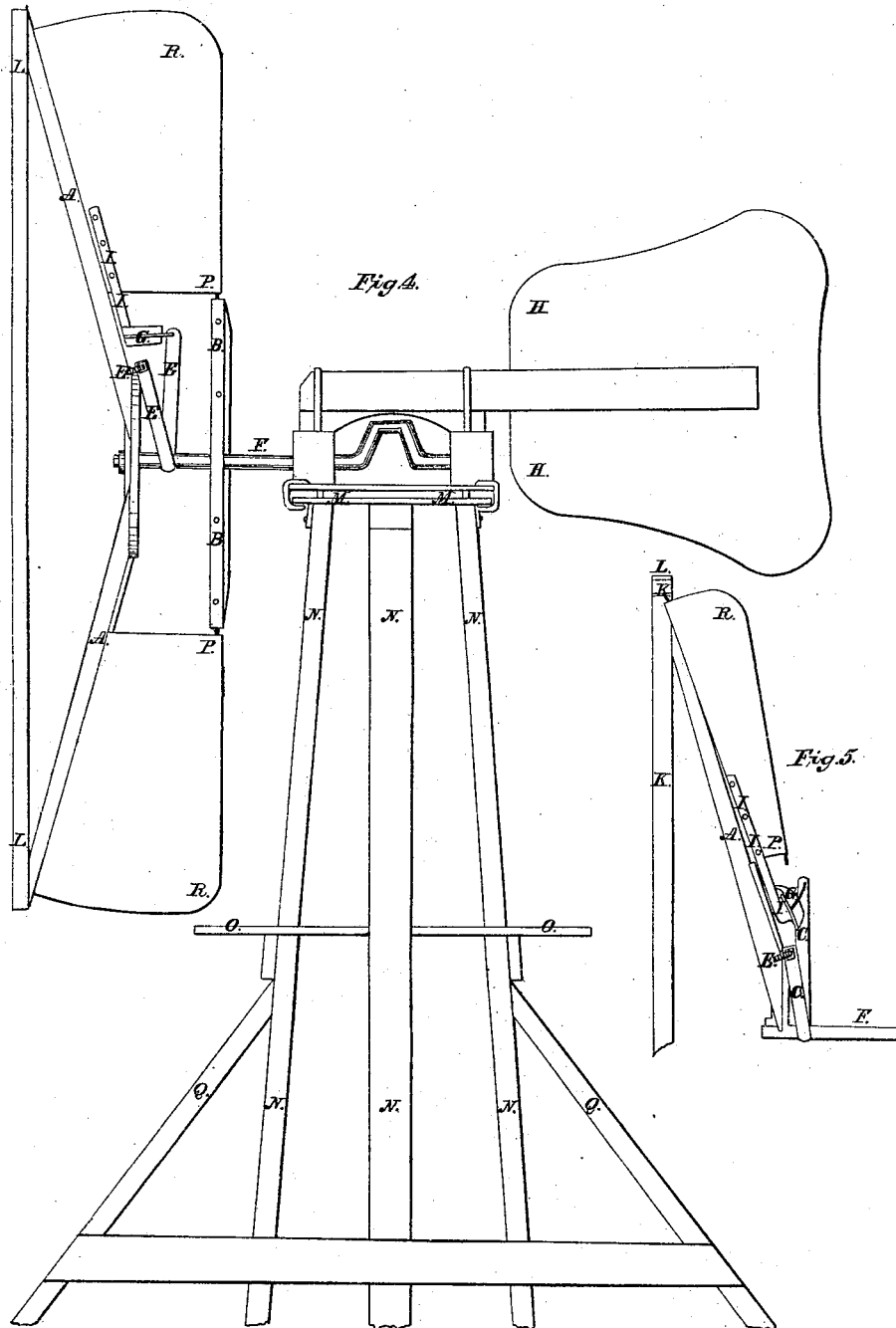
Inventor:  
A. M. Hansen

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Wind Wheel,

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Attest:  
R. M. Drake  
Wm. D. H. Weber

Inventor:  
A. M. Hansen.

# UNITED STATES PATENT OFFICE.

A. M. HANSEN, OF STOCKTON, CALIFORNIA.

## IMPROVEMENT IN WIND-WHEELS.

Specification forming part of Letters Patent No. 50,705, dated October 31, 1865.

*To all whom it may concern:*

Be it known that I, A. M. HANSEN, of Stockton, in the county of San Joaquin and State of California, have invented a new and useful Improvement in Self-Regulating Wind-Mills; 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, in which—

Figure 1 is a perspective view of the wind-mill; Fig. 2, view of vane R half open; Fig. 3, view of vane R open or in line with the wind; Fig. 4, side view of vane R open and attached to B; Fig. 5, view of vane R closed or shut.

Letter A represents the wheel-arm; B, band holding all the vanes R in a like position; C, spring attached to G with a rod or chain; D, arm of B; E, screw-rod on which C is regulated; F, wheel-shaft; G, guide fastened to I. Said G is cam-shaped, guiding the connecting rod or chain. H, tale for turning the wheel toward the wind; I, crank or arm fastened to R; K, wooden rim; L, iron band surrounding K; M, turning-table; N, frame; O, foot-board; T, pivot; Q, braces; R, vane having three pivots, two fastened on one edge, one at each end

on which R is turning to or from, the third pivot fastened to R on the other corner, at the inside end, next to the center of the wheel, connected to B in where it is held.

The spring C, connecting to G, I, and R, holding the vanes R toward the wind, when the wind increases the vane R opens or turns from the wind. The connecting rod or chain is admitted by G nearer to the center of vane R, turning point, thereby subduing the increased stiffness of C, being the same when vane R is open or closed.

Operation: The wind acting on the vanes R, causing the wheel to revolve, when the wind increases the vane R opens, and can only resist the wind with the power C is regulated for; therefore the mill-wheel can receive no more driving force or run any faster.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The combination and arrangement of G, C, and R, for the purpose as herein described.

A. M. HANSEN.

In presence of—

S. WILLIAMS,  
G. S. PERRY.