

(No Model.)

C. MOREHOUSE.
WINDMILL.

2 Sheets—Sheet 1.

No. 303,585.

Patented Aug. 12, 1884.

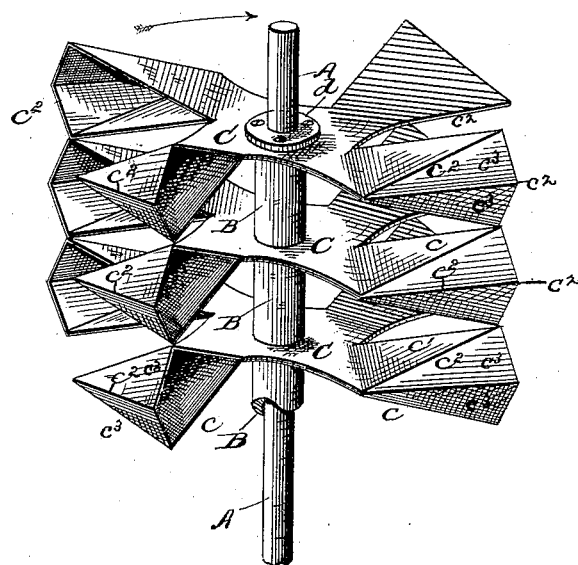


Fig. 1.

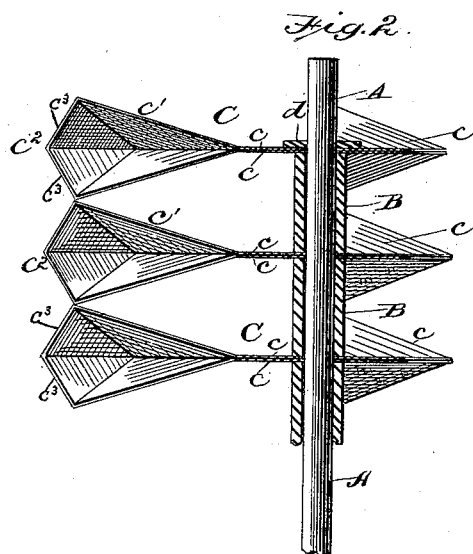


Fig. 2.

Attest,
W. H. N. Knight
Wm. F. Durall

Inventor,
Clark Morehouse

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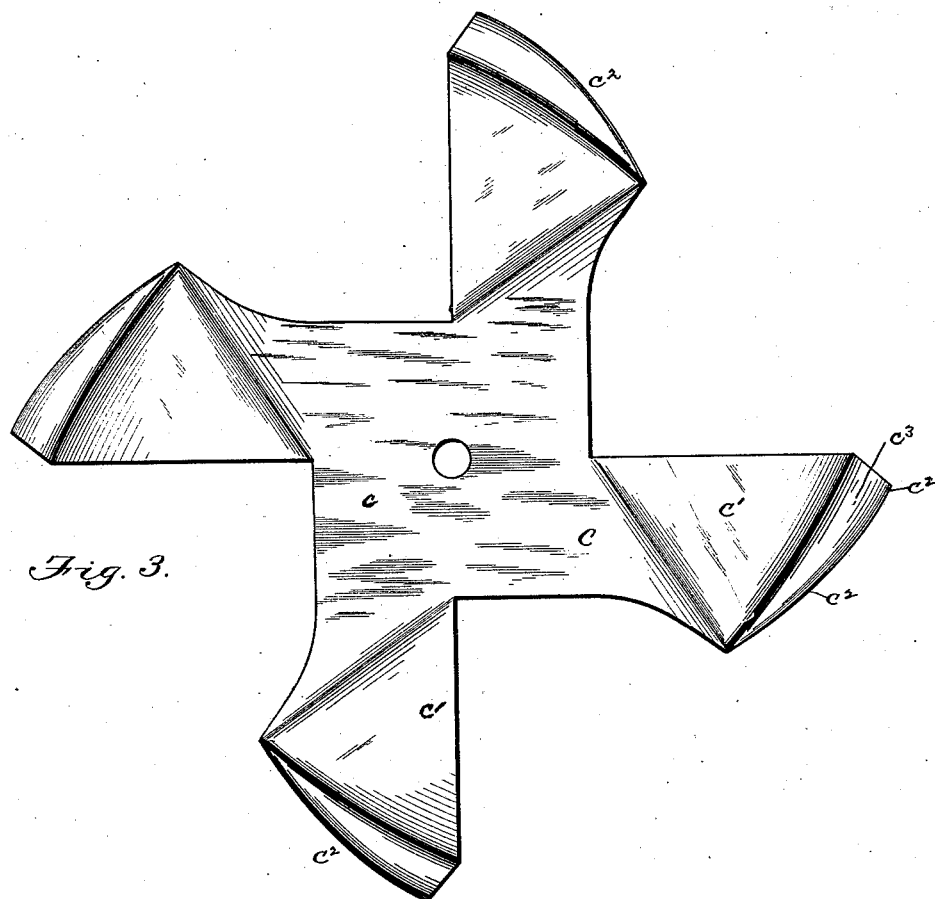


Fig. 3.

Witnesses:

Wm Duvall
Harry Bernhard.

Inventor:

Clara E. Morehouse
per Edmond B. H.
Attorney

UNITED STATES PATENT OFFICE.

CLARK MOREHOUSE, OF WAYLAND, NEW YORK, ASSIGNOR TO FRANK H. WOOD, OF SAME PLACE.

WINDMILL.

SPECIFICATION forming part of Letters Patent No. 303,585, dated August 12, 1884.

Application filed May 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, CLARK MOREHOUSE, a citizen of the United States, residing at Wayland, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Windmills; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved windmill. Fig. 2 is a sectional view of the same, and Fig. 3 is a plan view.

In windmills or engines it is obvious that, among other considerations, one is to augment the power of the wheel without offering undue resistance which would, in a measure, draw upon its propelling capacity. To secure the former and overcome or avoid the latter are objects of my invention.

It therefore consists of a shaft having sleeve-sections applied thereto, and a wheel, light and peculiar in construction, capable of attachment to and removable from the said shaft by said sleeves, substantially as hereinafter more fully set forth and claimed.

In carrying out my invention I employ, as observed by reference to the accompanying drawings, the shaft A, preferably metal, and which in practice is journaled upon suitable elevated supports or a tower, after the manner of mounting wind-wheel shafts generally. To it, of course, is applied an eccentric or crank, which is embraced by the upper ringed end of the pitman, connecting with the pump-plunger or other machinery to be operated. The other appendages for shifting the wheel or wheels and controlling its velocity are also applied to said shaft. Upon the shaft A are inserted sleeve-sections or hubs B, also preferably made of metal, which will be more

fully referred to presently, said sleeves being secured upon said shafts by pins being inserted transversely through them.

C C are wheels which are varied in number according to the power required, or by the addition of one or more the power will be accordingly increased. The wheels C C are each constructed of a series of arms or cups projecting radially from shaft A. Each blade has its inner portions folded flatly upon each other with their front and back edges gradually flared outward, while its outer portions are separated and diverge at their front edges from each other for a suitable distance, thence converging to an edge, c^2 . The outer ends of said outer portions are formed with a double laterally-inclined surface, c^3 , also sloped rearwardly, the apex thereof being the point where the aforesaid-mentioned ends of the single piece of metal are united and soldered together. This construction of arms or buckets presents a broad surface at its outer extremity and a narrow tapering surface at its inner extremity, from which it will be noticed that where the greatest leverage is required for the action of the wind—namely, at the outer ends of the arms of the wheel—such is obtained, while the area of surface is reduced where the less force is required to propel the wind-wheel.

From what has been previously stated, it will be seen that, by sliding or inserting a sleeve on the shaft against the wheel in use, a second wheel can be placed on the shaft, (it being moved against the sleeve,) and by inserting a second sleeve on the shaft a third wheel may be used, and so on, according to the increase of power wanted.

An apertured plate, d , may be bolted to the upper section of the wheel, as shown in Fig. 1, to strengthen said section and prevent it from being bent. This permits also of the removal of any one or more of the wheels, if it is desired to lessen the power of the wheel. It will be further noticed that these are ex-

ceedingly light and at the same time adapted to present the least possible resistance to the action of the wind.

The gist of my invention consists in the peculiar construction of the buckets.

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

A windmill constructed with a series of buckets, each bucket having the front edges of the plates c' separated and diverging from

each other, and thence abruptly converging to an edge, c^2 , forming two rearwardly-sloping inclined surfaces, c^3 , as and for the purpose set forth.

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

CLARK MOREHOUSE.

Witnesses:

CHRISTIAN C. BILS,

FRANK G. PATCHIN.