(No Model.)

G. WALLENBECK.

WINDMILL TOWER.

No. 406,679. Patented July 9, 1889.

Fig. 2.

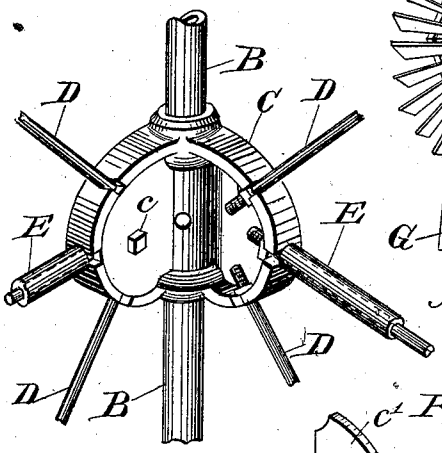


Fig. 1.

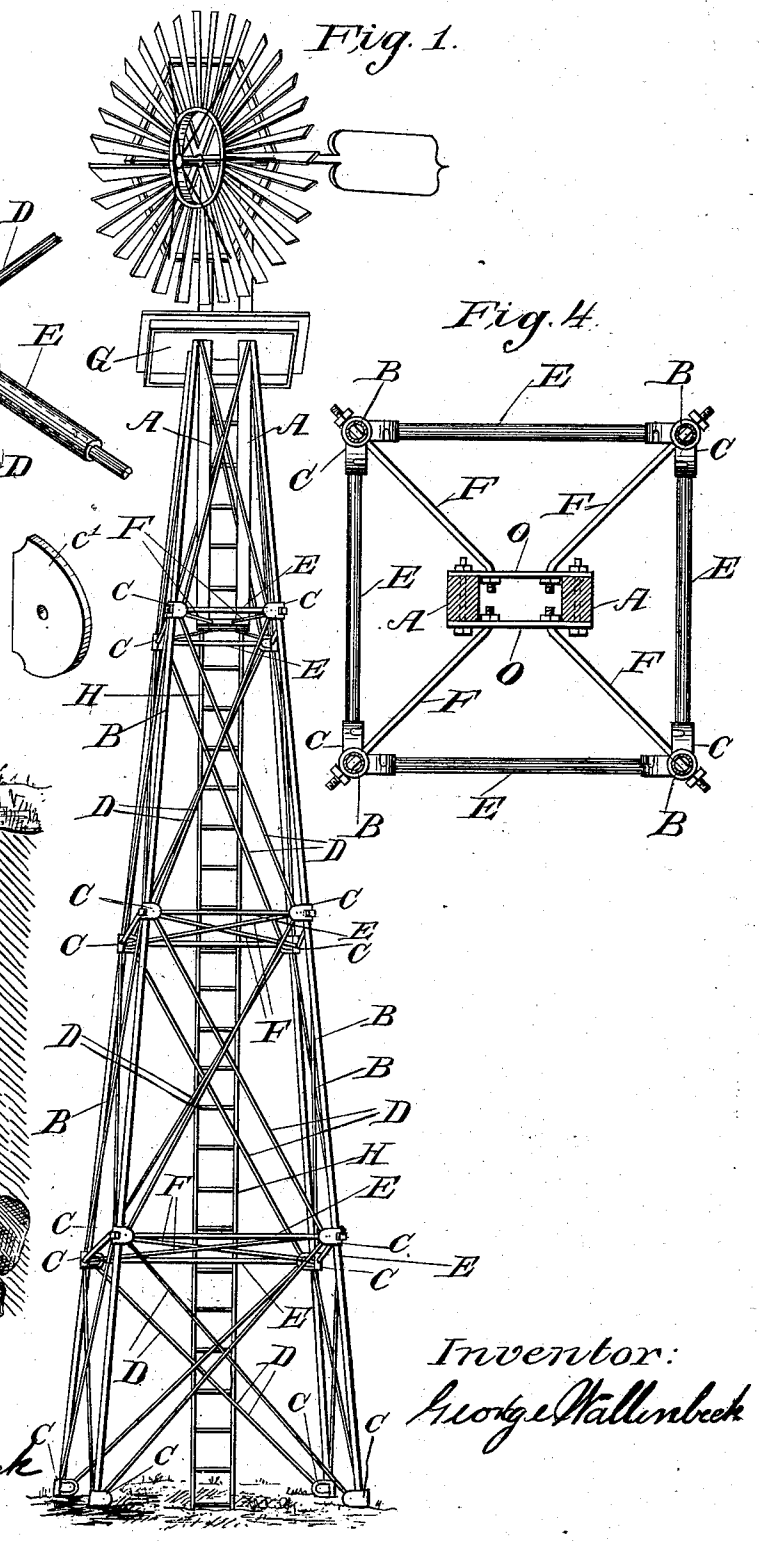
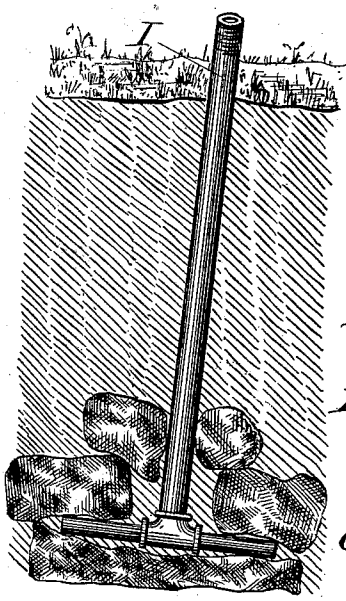


Fig. 4.

Fig. 3.



Witnesses:
Lucy H. Rauskolb.
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UNITED STATES PATENT OFFICE.

GEORGE WALLENBECK, OF ITHACA, NEW YORK.

WINDMILL-TOWER.

SPECIFICATION forming part of Letters Patent No. 406,679, dated July 9, 1889.

Application filed September 25, 1888. Serial No. 286,378. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WALLENBECK, a citizen of the United States, residing at Ithaca, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Windmill-Towers; and I do declare the following to be a full, clear, and exact description of my 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 letters and figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a view in perspective Fig. 2 is a view of the section-castings with connecting-rods and pipes. Fig. 3 is a view of the anchor-posts as anchored in the ground to secure the tower. Fig. 4 is a section taken through the upper part of the tower.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to windmill-towers, and it contemplates certain new and useful improvements therein; and it consists to that end in the improved construction and combination in parts of the same, as hereinafter more fully described and claimed.

A A are masts, either wood or metal, which stand vertical. At the top is secured the mill. Near the center they are bolted to the platform G, and at their base are secured by two plates of iron O O, one on each side of the masts, which rigidly secure them to the tower.

B B B B are four corner-posts, made of wrought-iron pipe, which extend from the platform G to the ground, and are supplied with holes large enough to allow the rods F to pass through them at the castings C.

C are castings, which consist of a body and two wings forming a part of the casting, one wing running at right angles to the other. Each wing forms a semicircle supplied with a rim that is at right angles to the face of the wings, which are slotted to admit of the girts and stay-rods, while the bodies of the castings are cored large enough to slide over the pipes B, and said castings are supplied with holes corresponding in size with the holes in the corner-posts B for the admission of the rods F to pass through them.

c' are metal plates that set inside of the rim of the wings on castings C and are bolted to them and securely hold in place the nuts that are on the girts and stay-rods inside the rim.

D are stay-rods, which enter the slots in casting C and run diagonally from top to bottom of a section and are furnished with right and left hand threads and nuts on same, that are held in the slots, and the nuts prevented from turning by the metal plates *c'*, and by turning the rods will level and stiffen the tower.

E are girts that extend horizontally from castings C to C and are made of iron pipe, through which pass rods that enter slots in castings C and act as bolts to hold the castings C C close to the ends of the pipe that forms a part of the girt.

F F are horizontal stay-rods, acting as bolts, that pass diagonally from corner-post B to post B and through the castings C and C and corresponding hole in the post, which holds the casting C from slipping on the corner-post B, and hold the sides of the tower at right angles to each other.

G is the platform, to which the upper ends of the pipes B and ladder H are rigidly secured.

H is a ladder whose sides are of pipe and whose rounds are rods that only pass part way through the pipe, except a few, which pass clear through and act as bolts to draw the sides together.

I I are galvanized pipe, which are the same size as the posts B and screw on them at the base of the tower. At the lower end of said pipe is a T, through which passes a cross-bar which acts as an anchor in the ground.

Having described my invention, I claim—

1. The combination, in a windmill-tower, of the castings C with the girts E and stay-rods D, said castings being provided with circular openings through which the four corner-posts B are passed, substantially as shown.

2. The combination, in a windmill-tower, of the four corner-posts B and the castings C with the stay-rods D and the girts E, for the support of the corner-posts B, substantially as and for the purpose set forth.

3. The combination, in a windmill-tower, of

the four corner-posts B and the castings C, provided with the slots, the stay-rods D, and the girts E, and the metal plates c', which hold said rods in the slots and prevent the nuts from turning in the castings C, substantially as set forth.

4. The combination, in a windmill-tower, of the post B and the castings C, the stay-rods D, and the girts E with the diagonal rods F, which hold the sides of the tower at right angles to each other and secure castings C to posts B, substantially as shown and described.

5. The combination, in a windmill-tower, of an anchor I, secured to the tower as a part of the tower, consisting of pipe securely fastened to it, at the base of which is fastened a T, through which runs a bar to secure anchorage of the tower in the ground, substantially as shown.

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

GEORGE WALLENBECK.

Witnesses:

MERRITT M. DAYTON,

FREMONT SCHRYRER.