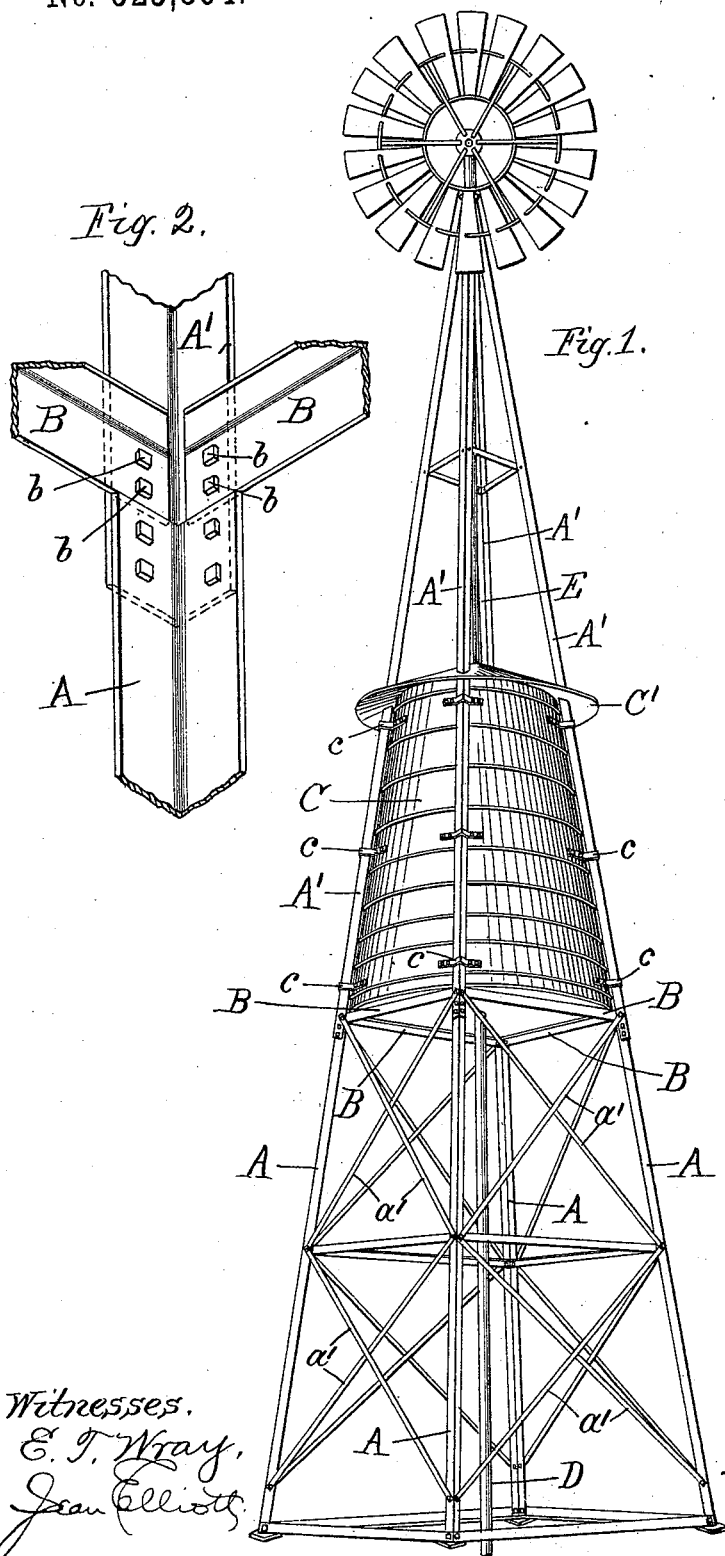


(No Model.)

LA VERNE W. NOYES.
WINDMILL TANK TOWER.

No. 523,864.

Patented July 31, 1894.



Witnesses.

E. T. Wray,

Jean Elliott.

Inventor,
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UNITED STATES PATENT OFFICE.

LA VERNE W. NOYES, OF CHICAGO, ILLINOIS.

WINDMILL TANK TOWER.

SPECIFICATION forming part of Letters Patent No. 523,864, dated July 31, 1894.

Application filed April 30, 1894. Serial No. 509,603. (No model.)

To all whom it may concern.

Be it known that I, LA VERNE W. NOYES, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Windmill and Tank Towers, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to towers which support a windmill designed to operate a pump which supplies a tank also supported by the tower in elevated position.

It consists in the detail construction of the tower and the supports for the tank therein or thereon with a view to supporting the weight of the tank and its contents directly upon the ends of the tower posts rather than on bolts upon which the weight would operate with a tendency to shear them off, and also details of construction by which the tank is made to brace and stiffen the tower. It also comprises a fitting which serves both as an inlet and drainage device.

In the drawings,—Figure 1 is a side elevation of a tower and mill and tank thereon embodying my invention. Fig. 2 is a detail perspective of a joint in the tower corner post, showing the tank-supporting beams lodged upon the end of the lower section of the tower corner post.

The tower corner posts are made of angle-iron, the lower sections A, having upper sections A' lapped outside of them. B B B B are angle-iron beams which tie the corner posts together, and being located all in the same horizontal plane, serve as direct supports for the tank C. These beams have the vertical lip lodged at its lower edge upon the upper end of the lower section A of the corner iron, as seen in Fig. 2, being retained in position by the bolts *b b* which secure said horizontal bars to the upper section A' of the corner post.

It will be observed that with this construction no shearing strain is put upon the bolts by reason of the weight of the tank and its contents, the only function which the bolts perform being to retain the said horizontal

beams from accidental displacement from off the upper ends of the lower section A of the posts.

The tower is suitably stiffened by oblique braces *a' a'*, &c., below the tank. The section of the tower occupied by the tank, however, is stiffened much more effectually, even, than it could be by such braces, by means of the tank, through the medium of the straps *c c c c*, &c., which stride the corner posts, and are bolted to the tank as illustrated. In order to further stiffen the tower, the cover C' of the tank is apertured so that the corner posts pass through it, and being conical in shape and thereby very stiff, it has the effect of staying the tower and rendering it rigid at the horizontal plane at which the corner posts penetrate the cover.

D D' is the pipe leading from the well or cistern below to the tank.

E is the pump rod which extends down within such pipe and up above it through the top of the tank at the center to the wind-wheel which operates it.

I claim—

1. In a tower, in combination with the corner posts, each made of two sections of angle-iron, one of which is lapped outside of the other, the horizontal joists lodged upon the upper ends of the lower sections of the corner posts, and the tank supported upon such corner joists within the corner posts: substantially as set forth.

2. In a tower, in combination with the corner posts each made of two sections of angle-iron, the upper of which is lapped outside of the lower; the horizontal joists lodged upon the upper ends of the lower sections of the corner posts and within the upper sections, and the tank supported upon such horizontal joists within the corner posts: substantially as set forth.

3. In combination with the tower having corner posts and the horizontal beams connecting them, the tank lodged upon such beams within the corner posts, and extending to the latter, and said corner posts being secured against lateral movement with respect to the tank, whereby the tank becomes a

means of bracing the corner post: substantially as set forth.

4. In combination with the tower having the corner posts and the horizontal beams
5 which bind them together and support the tank within the posts; the tank cover pierced by the corner posts: substantially as set forth.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, this 16th day of April, 1894.

LA VERNE W. NOYES.

Witnesses:

CHAS. S. BURTON,

I. J. GIFFEN.