

No. 725,308.

PATENTED APR. 14, 1903.

H. C. WILL.  
TOWER FOR WINDMILLS.  
APPLICATION FILED JAN. 5, 1903.

NO MODEL.

FIG. 1.

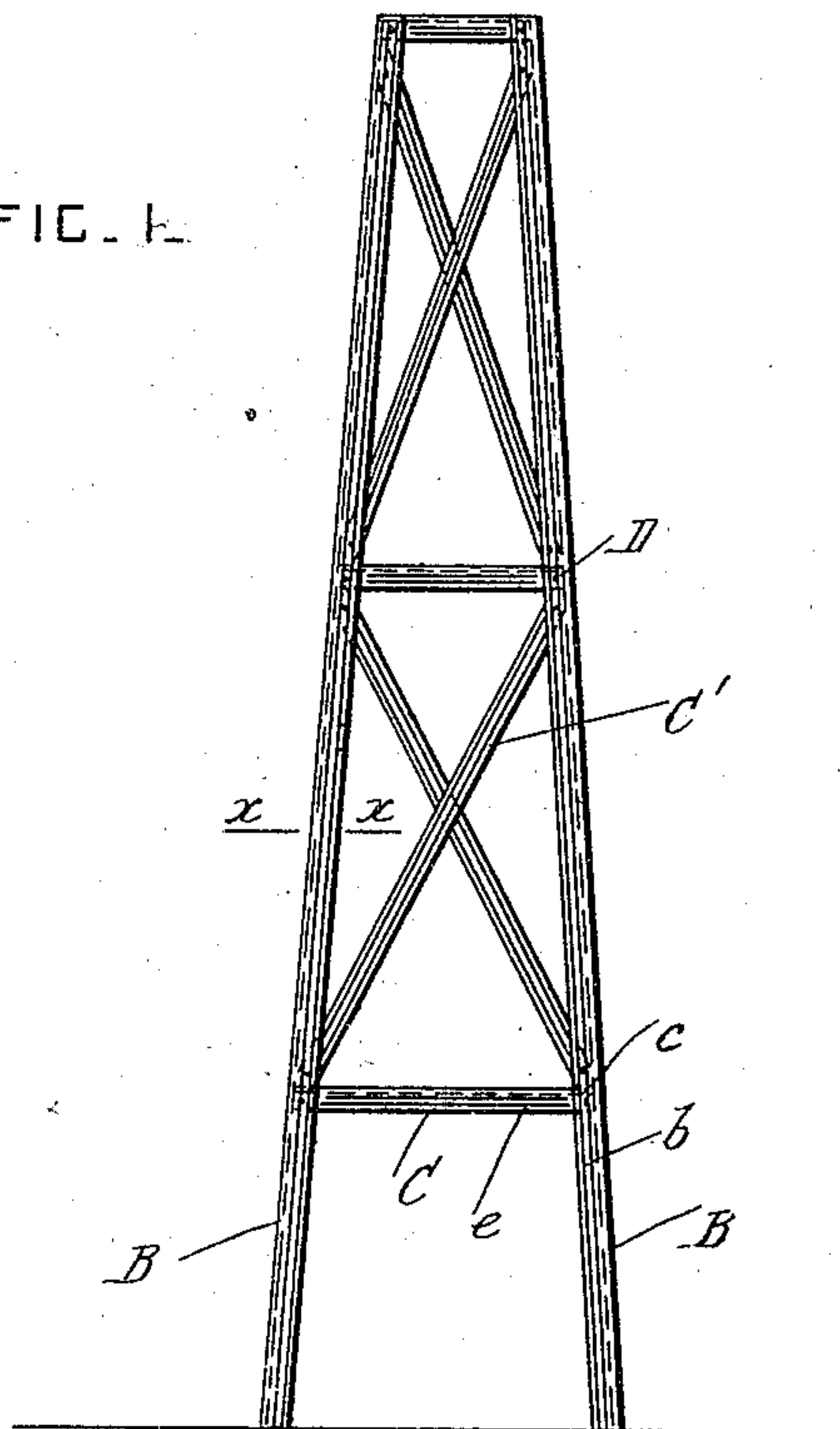
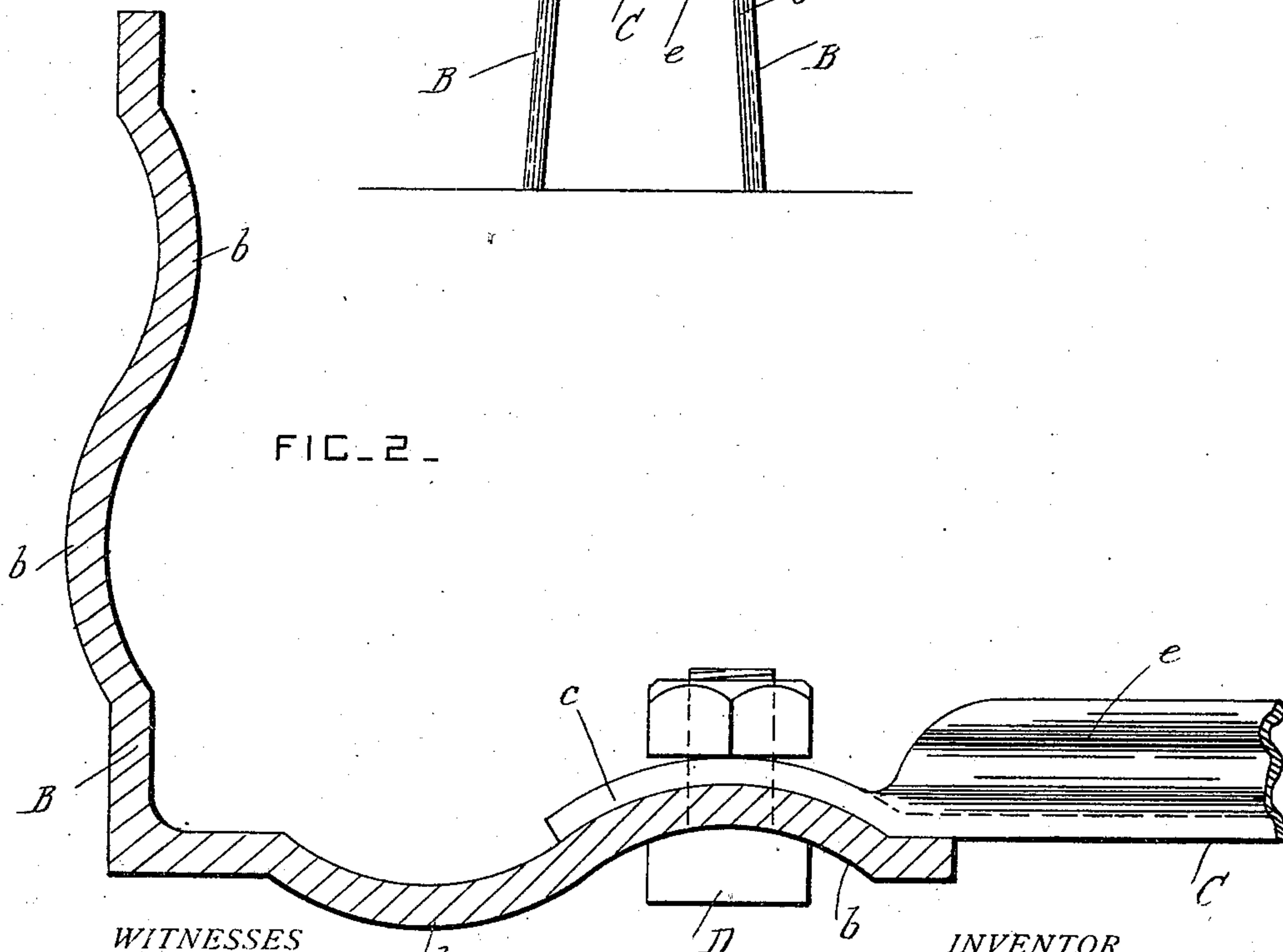


FIG. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## TOWER FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 725,308, dated April 14, 1903.

Application filed January 5, 1903. Serial No. 137,801. (No model.)

*To all whom it may concern:*

Be it known that I, HUGO C. WILL, a citizen of the United States, residing at Williamsburg, in the county of Grand Traverse and State of Michigan, have invented certain new and useful Improvements in Towers for Windmills; and I do hereby 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.

This invention relates to towers for windmills and other similar structures; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of a tower constructed according to this invention. Fig. 2 is a cross-section through one of the corner-posts of the tower, drawn to a larger scale and taken on the line *xx* in Fig. 1.

The main posts *B* of the tower are angle-shaped in cross-section and are provided with longitudinal corrugations *b*. These corrugations increase the strength and stiffness of the post with the same amount of metal, or they permit less metal to be used to obtain the same strength.

*C* represents the cross pieces or braces, which extend between the main posts. These braces have cross-grooves or cross-corrugations *c* at their end portions for engaging with the corrugations *b*.

*D* represents the bolts or rivets, which secure the braces to the posts. When these bolts are screwed up tightly, the corrugations *b* and *c* engage positively with each other and cannot slip or slide. In this manner the bolts or rivets are relieved from shearing strain and cannot be cut off by the force of the wind when it rocks the tower. The cross-

pieces also have longitudinal corrugations *e*. The horizontal cross-pieces are preferably angle-shaped in cross-section, and the diagonal cross-pieces *C'* are preferably formed without angles.

What I claim is—

1. In a tower, the combination, with main posts angle-shaped in cross-section and provided with longitudinal corrugations, of means for holding the said posts in position, substantially as set forth.

2. In a tower, the combination, with main posts angle-shaped in cross-section and provided with longitudinal corrugations, of braces secured to the said posts and provided with cross-corrugations which engage with the said longitudinal corrugations, substantially as set forth.

3. In a tower, the combination, with main posts angle-shaped in cross-section and provided with longitudinal corrugations, of braces having cross-corrugations at their end portions, and bolts which hold the said longitudinal and cross corrugations in engagement, substantially as set forth.

4. In a tower, the combination, with main posts angle-shaped in cross-section and provided with longitudinal corrugations, of cross-pieces provided with longitudinal corrugations and having cross-corrugations at their end portions which engage with the longitudinal corrugations of the main posts, and means for securing the said parts together, substantially as set forth.

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

HUGO C. WILL.

Witnesses:

RALPH D. WHITE,  
GEORGE G. WHITE.