

(No Model.)

J. LUGER.
WINDMILL TOWER.

No. 484,103.

Patented Oct. 11, 1892.

Fig 1.

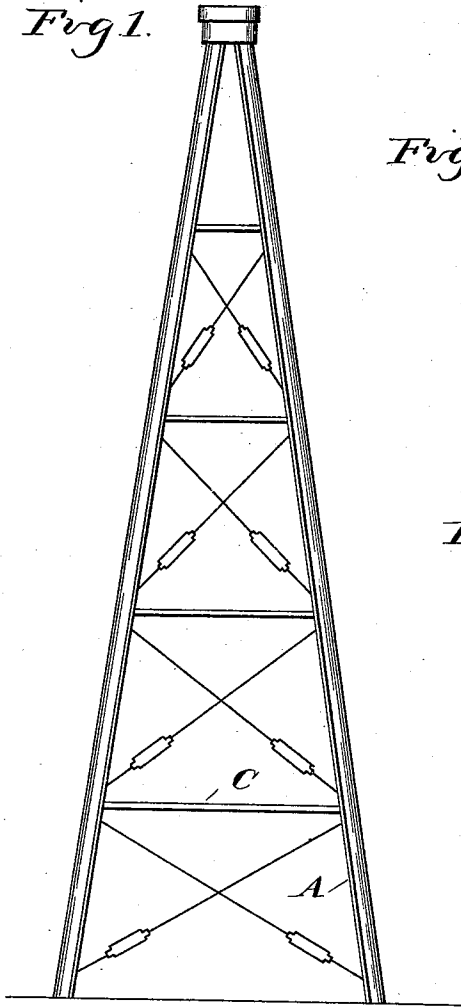


Fig 2.

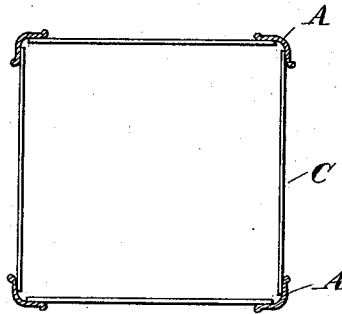
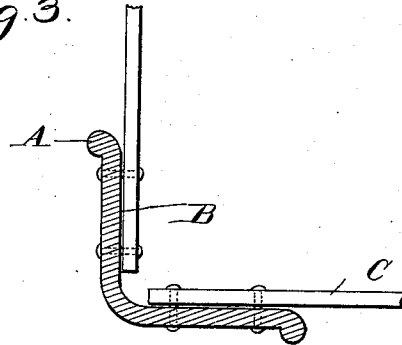


Fig 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH LUGER, OF LANSING, MICHIGAN.

WINDMILL-TOWER.

SPECIFICATION forming part of Letters Patent No. 484,103, dated October 11, 1892.

Application filed June 8, 1892. Serial No. 435,710. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LUGER, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Windmill-Towers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to new and useful improvements in windmill-towers; and the invention consists in the peculiar construction of a tower, and especially the construction of the corner-posts thereon, whereby without a
15 material increase in the metal employed I am enabled to get much better results in rigidity and strength, all as more fully hereinafter described.

20 In the drawings, Figure 1 is a side elevation of a tower embodying my invention. Fig. 2 is a cross-section thereof. Fig. 3 is an enlarged section of one of the corner-posts.

25 In the present state of the art metallic windmill-towers have been constructed with angle-iron corner-posts, such corner-posts being made from a single strip of metal bent in the middle with a rounded apex. Corner-posts thus constructed have numerous objections. In handling and shipping the edges of the
30 iron are liable to receive blows or strains which will bend or warp them. This also occurs in riveting on the braces or in boring the holes for the rivets and bolts. It is also a source of trouble in raising the tower and
35 cannot be avoided unless such heavy material be employed as to greatly increase the cost of manufacture as to make it impracticable. To overcome these objections, I employ an angle-iron, preferably with a rounded
40 apex, rolled from a single sheet of metal, and at each edge I form a longitudinal rib A, as

shown in Fig. 3, projecting entirely to the outside of the angle-iron and leaving an inner flat face B, against which the ends of braces or other connections C may snugly lie and be
45 secured in any desired manner. This rib I preferably make rounded in cross-section to better resist the strains to which it is subjected.

A tower as shown in Fig. 1 or in any other
50 construction employing corner-posts of this construction will be much stronger than the ordinary tower, and the corner-posts can be handled in manufacture, shipping, and raising the tower without danger of bending or
55 warping. By placing the flange upon the outside entirely a flat inner edge is left, to which may be secured the braces, &c.

What I claim as my invention is—

1. In a windmill-tower, corner-posts of angle-iron, having longitudinal ribs or flanges formed at the edges, substantially as described.

2. In a windmill-tower, corner-posts formed of angle-iron, having longitudinal flanges at
65 the edges thereof extending entirely beyond the outer face, forming an inner flat face B, in combination with braces C, secured to the said flat face B, substantially as described.

3. In a windmill-tower, the combination of
70 corner-posts of angle-iron rolled with a rounded apex and longitudinal rounded ribs or flanges at both edges extending entirely from the outer face thereof and having flat inner faces B with braces C, secured to said
75 flat faces, substantially as described.

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

JOSEPH LUGER.

Witnesses:

JAMES WHITTEMORE,
N. L. LINDOP.