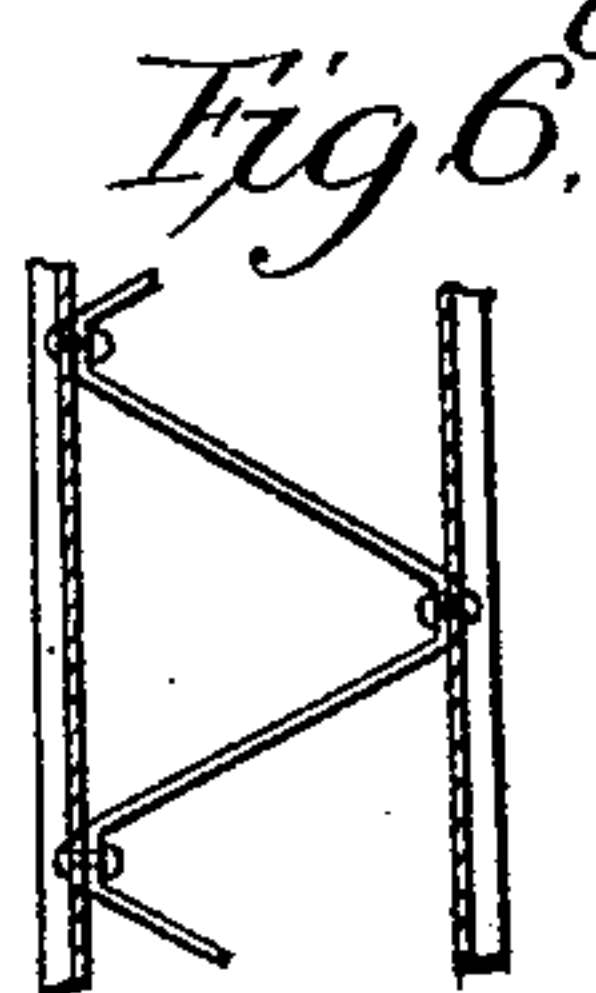
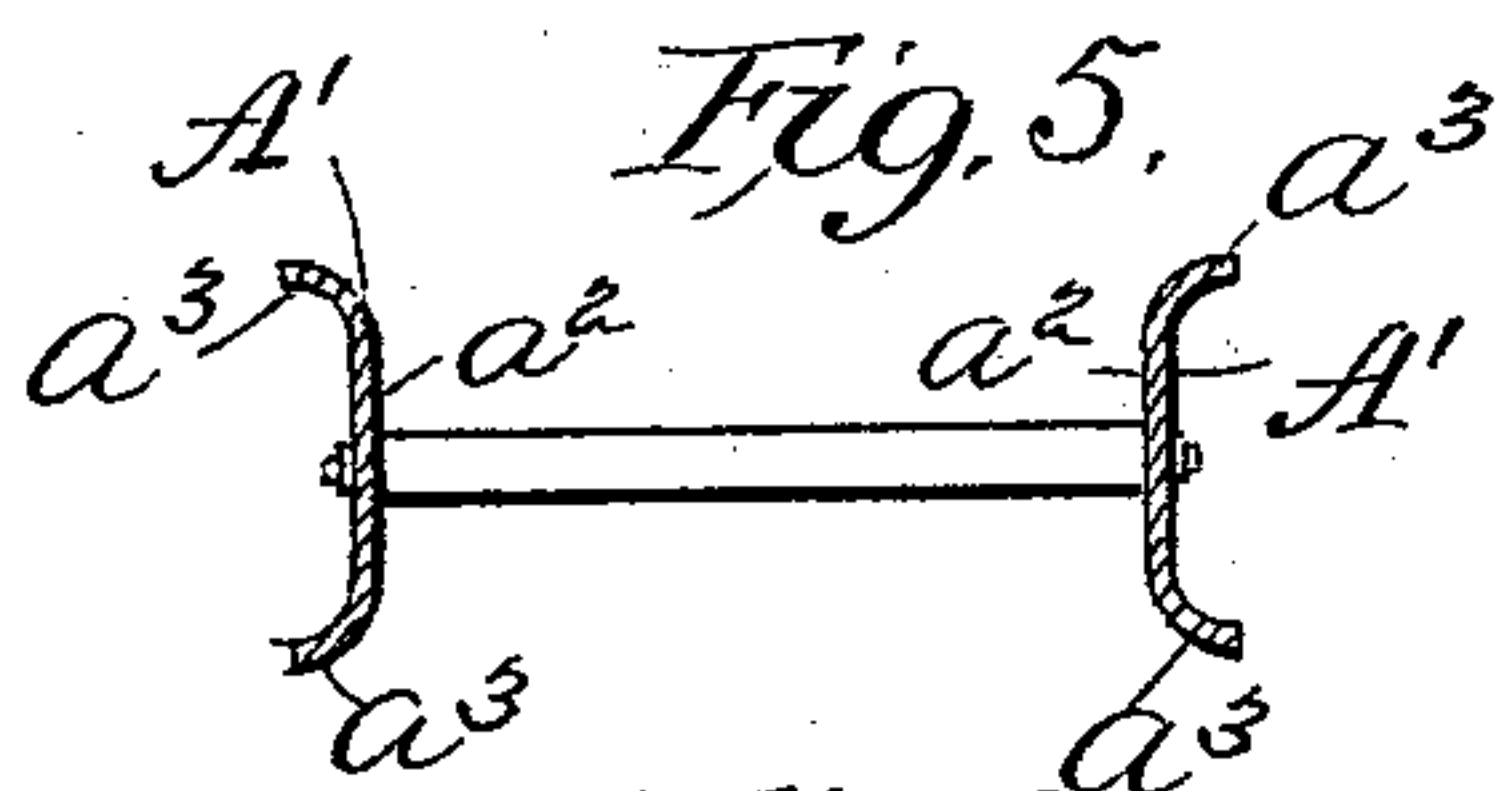
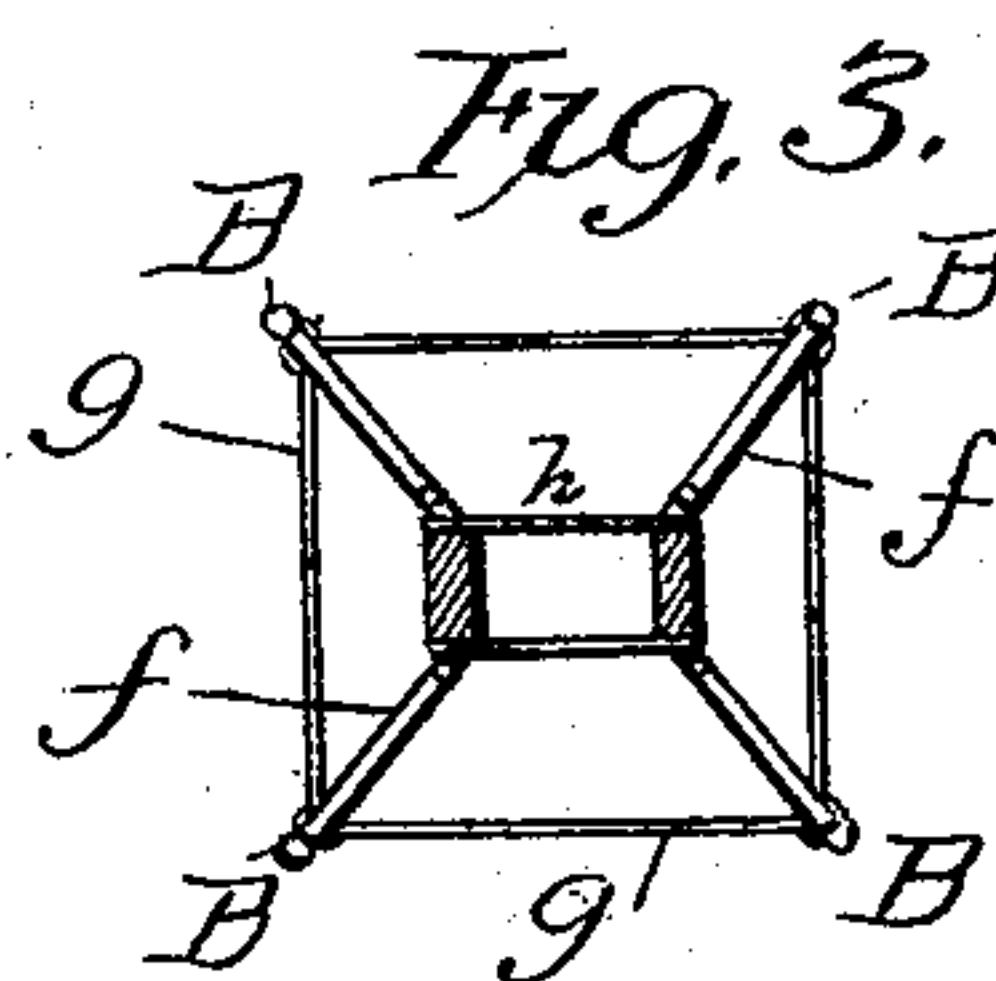
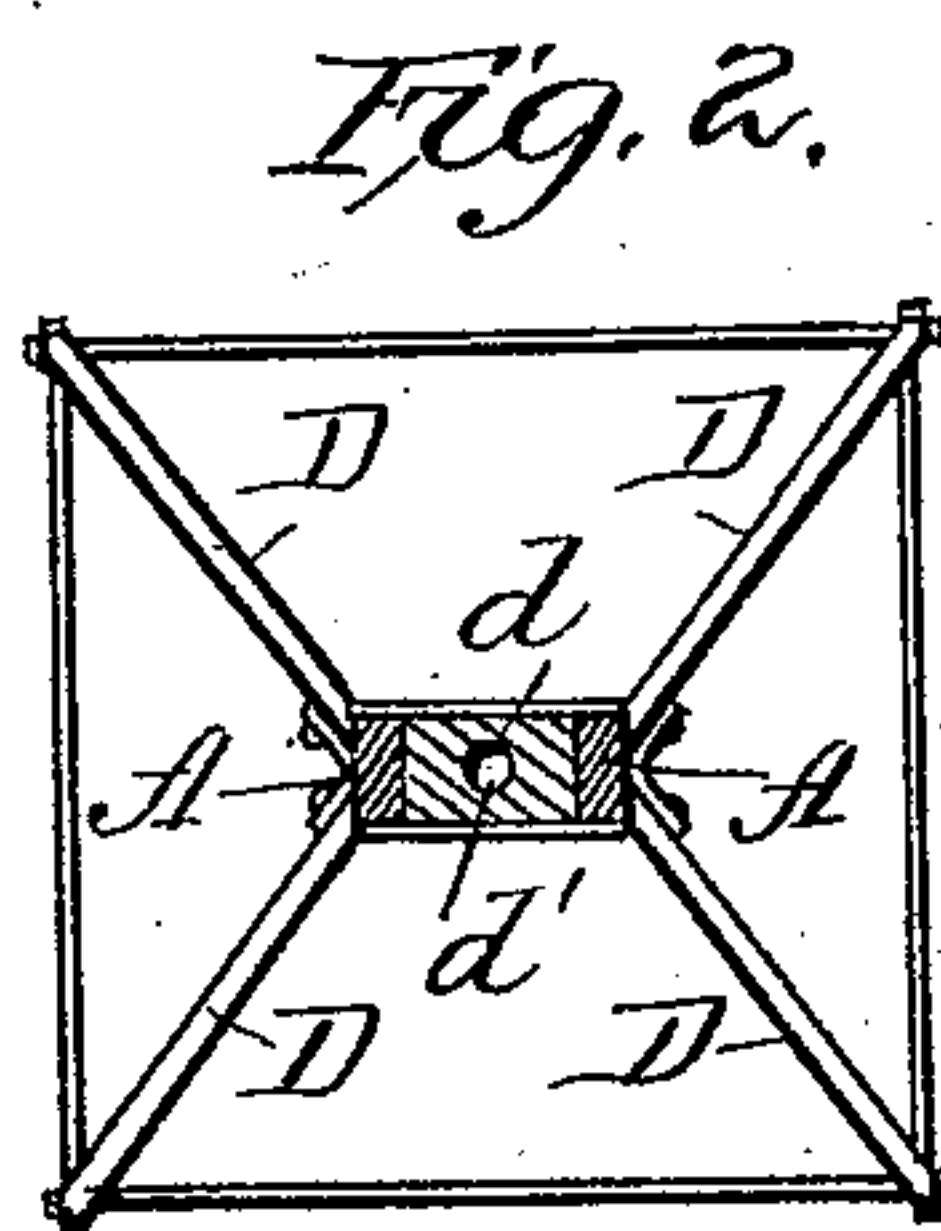
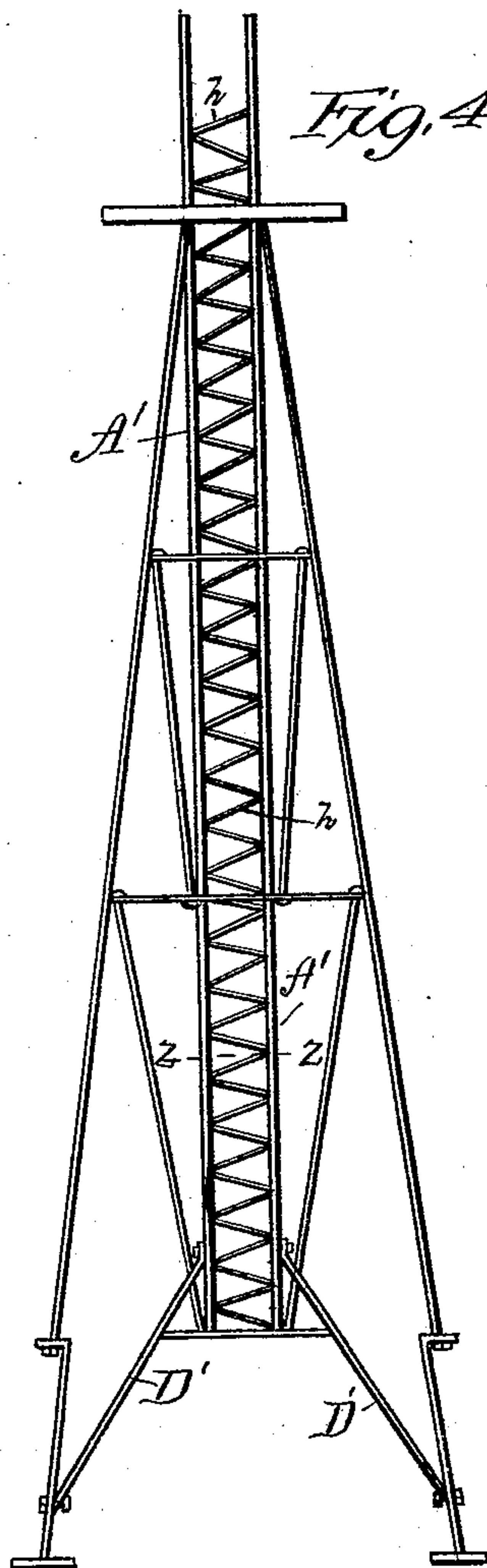
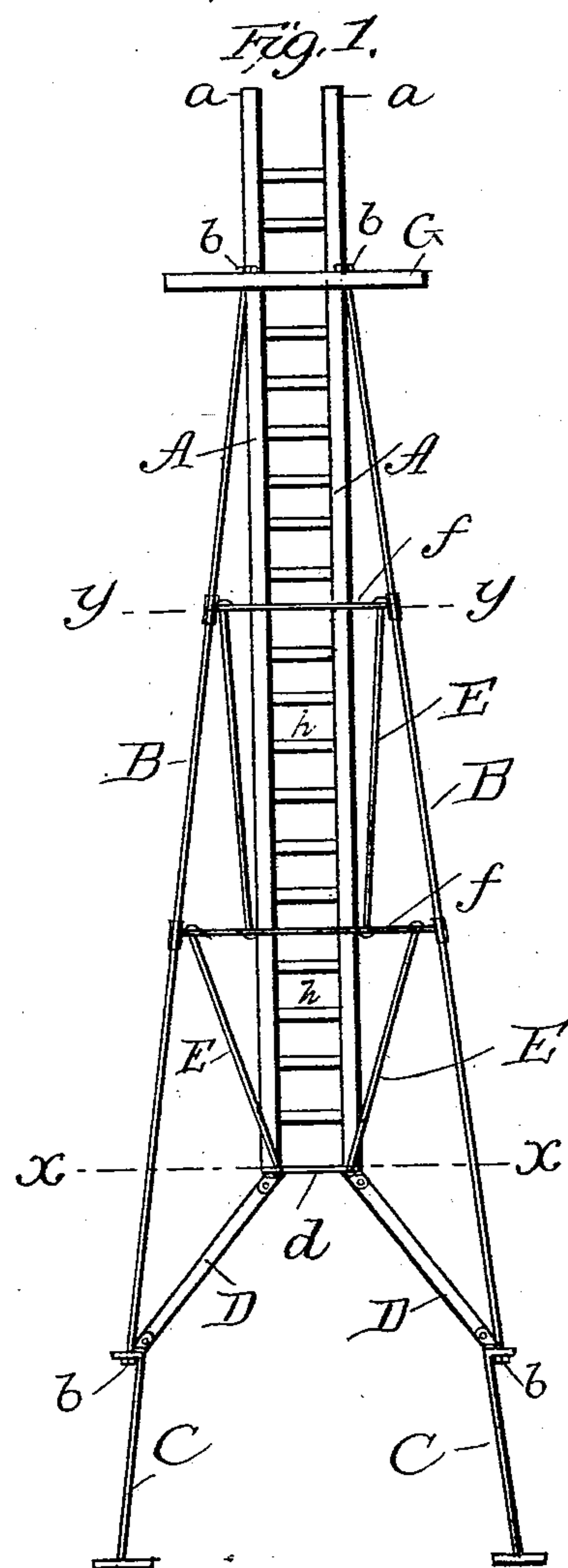


(No Model.)

M. R. MARTIN.
WINDMILL TOWER.

No. 492,690.

Patented Feb. 28, 1893.



Attest
Myron R. Martin
J. L. Middleton

Inventor
Myron R. Martin
by *Elis Spear*
Att'y.

UNITED STATES PATENT OFFICE.

MYRON R. MARTIN, OF BROOKLYN, WISCONSIN.

WINDMILL-TOWER.

SPECIFICATION forming part of Letters Patent No. 492,690, dated February 28, 1893.

Application filed November 8, 1892. Serial No. 451,297. (No model.)

To all whom it may concern:

Be it known that I, MYRON R. MARTIN, a citizen of the United States of America, residing at Brooklyn, in the county of Green and State of Wisconsin, have invented certain new and useful Improvements in Windmill-Towers, of which the following is a specification.

My invention is an improvement in windmill towers which are constructed principally or wholly of iron, the object of the invention being to give increased strength, rigidity, and at the same time simplicity, to the structure, and the invention consists broadly in the use of two vertical posts suitably supported at or near the base of the tower, and supporting the wind wheel upon their upper ends, these posts being braced by suitable corner and brace rods.

The invention is illustrated in the accompanying drawings in which—

Figure 1 represents a side elevation of a tower embodying my invention. Fig. 2 is a section on line $x-x$ of Fig. 1, and Fig. 3 is a section on line $y-y$ of Fig. 1. Fig. 4 is a side elevation of an all metal tower constructed in accordance with my invention. Fig. 5 is a cross section on line $z-z$ of Fig. 4. Fig. 6 is a detail view.

Referring to the first three figures A, A, are two vertical posts of wood which are formed of sufficient size and strength to support the weight of the wind wheel and its accompanying parts and connections. These two posts are connected at the lower ends by a plate d , and are supported by four inclined posts or supports D, also of wood, which rest upon the anchor posts C, these anchor posts being of the ordinary or any desired construction. The posts A, extend up through the platform G, to permit of the wind wheel being journaled between their upper ends a, a .

B, B, are iron or steel rods which extend from the anchor posts C, to the vertical posts A, at or near the platform G, and serve to hold the tower rigidly in a vertical position, these brace rods being provided with adjusting means, such as the nuts b , screw threaded thereon, by means of which the said rods may be drawn tight and held rigidly in place. At suitable intervals I connect the vertical posts

with the brace rods B, by means of the diagonal rods f , and I also connect the ends of these rods f , by the rods g , as shown in Fig. 3. I provide a series of rods E, to aid in further bracing the structure, the lower ends of these rods being secured to the inner ends of one set of rods or braces f , and having their upper ends secured to the outer ends of the next set of rods f , above.

Connecting the edges of the vertical posts A, are a series of cross bars h , as shown in Figs. 1, and 3, and these rods extend from the base all the way to the platform, and these rods or bars serve as a ladder upon which to mount the tower.

In the base plate d , is a suitable opening as at d' through which the pump rod may extend, though the wheel and its connections with a pump are not herein shown.

In Figs. 4, 5, and 6, I have illustrated my invention as embodied in a tower formed completely of iron or steel, the only differences between a tower of this form and that just described being those due to the differences of the material of the posts. The posts A' in this form are made of iron or steel, and are preferably formed with a straight or flat central portion a^2 , with outwardly turned flanges a^3 . In this form also, instead of having the posts at the bottom rest upon a plate to which the inclined supporting posts are secured, I prefer to bolt the inclined supporting posts D' to the sides of the posts A' near the lower ends thereof as shown. The rounds of the ladder are formed by inclined or zig-zag rods with their ends bolted to the posts A, as shown more clearly in Fig. 6, these zig-zag rods serving as additional bracing means. In other respects the all metal tower is practically the same as that just described in which the vertical posts are formed of wood.

I claim as my invention—

1. A wind mill tower comprising the vertical parallel posts, inclined posts connected with the anchor posts and supporting said vertical posts, and suitable brace rods connected with the vertical posts for holding them rigidly in a vertical position, substantially as described.

2. A wind mill tower comprising a pair of vertical posts, inclined base posts connected

with the anchor posts and supporting said vertical posts, brace rods extending from the anchor posts to the upper ends of the vertical posts, and intermediate bracing, substantially as described.

3. A wind mill tower comprising a pair of vertical posts, inclined base posts connected with the anchor posts and supporting the vertical posts, brace rods extending from the anchor posts to the upper ends of the vertical posts with intermediate bracing, and cross rods extending between the vertical posts adapted to form a ladder, substantially as described.

4. In combination the anchor posts, the inclined base posts secured thereto, a pair of vertical posts mounted on said inclined posts, brace rods extending from the anchor posts to the upper ends of the vertical posts, and a series of zigzag brace rods extending between the vertical posts, substantially as described.

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

MYRON R. MARTIN.

Witnesses:

F. R. MELVIN,
M. L. PAULSON.