(No Model.)

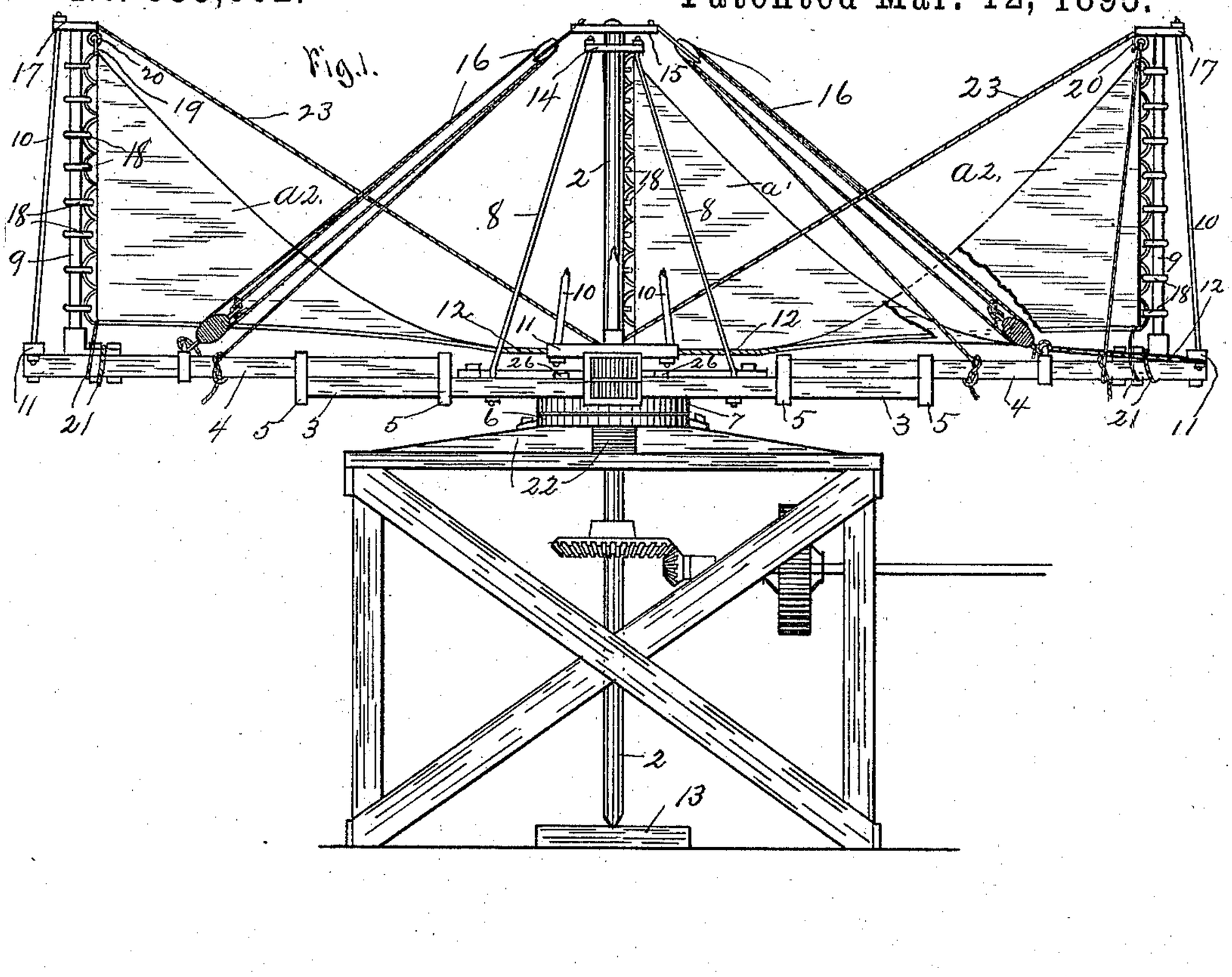
2 Sheets—Sheet 1.

H. T. SHERMAN.

WIND ENGINE.

No. 535,602. Patented Mar. 12, 1895.

Fig. 1.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

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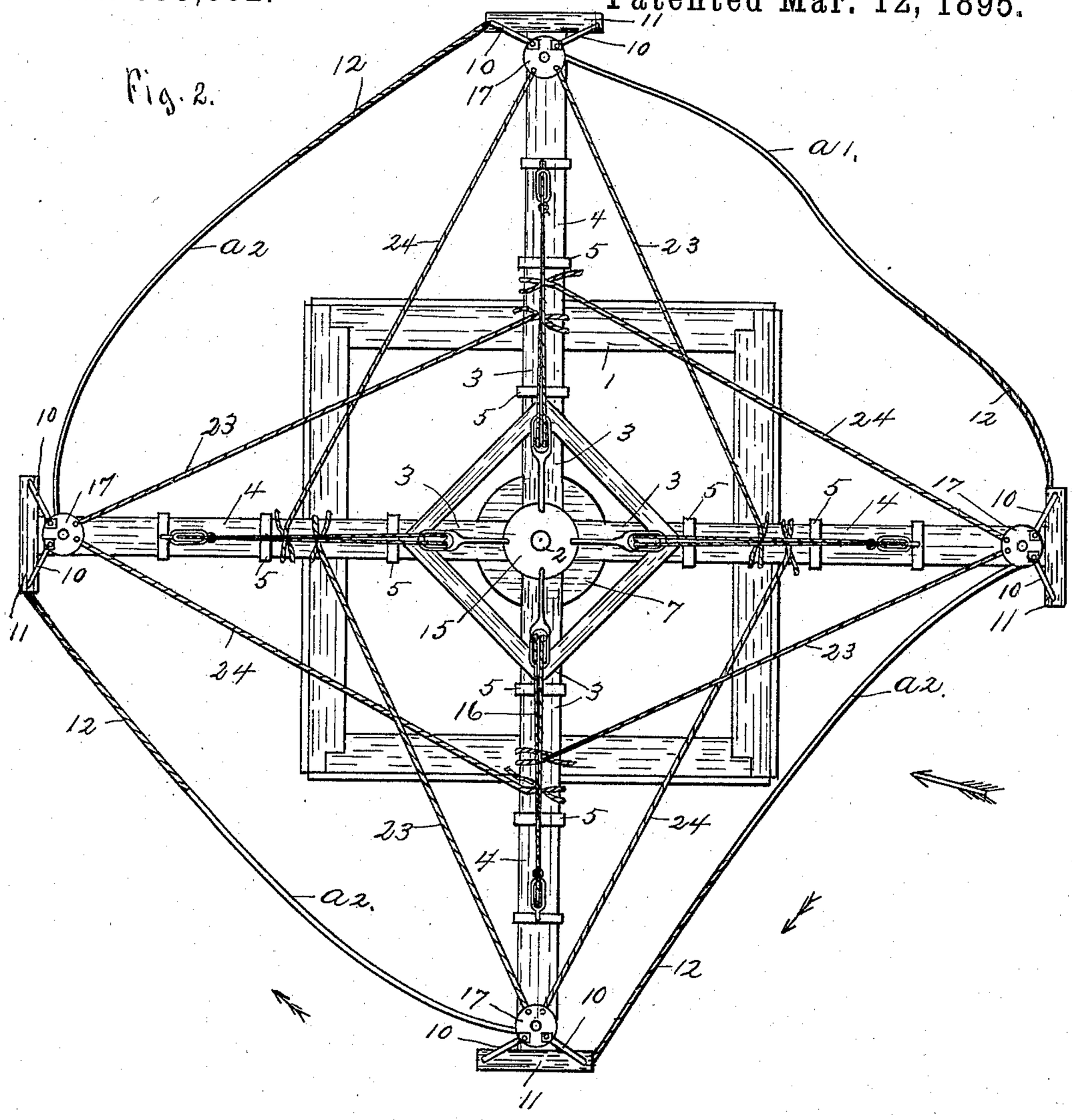
Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY T. SHERMAN, OF WICHITA, KANSAS.

WIND-ENGINE.

SPECIFICATION forming part of Letters Patent No. 535,602, dated March 12, 1895.

Application filed December 26, 1894. Serial No. 533,016. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. SHERMAN, a citizen of the United States of America, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvement in Wind-Engines, of which the following is a specification, reference being had therein to the accompanying drawings, and the letters and figures of reference thereon, forming a part of this specification, in which—

Figure 1, is a side view of my improved wind engine, with one of the masts and sails omitted. Fig. 2, is a top plan of the wind engine.

This invention relates to certain improvements in wind engines having a horizontal rotary motion, and consists of extension arms secured to a turn table which is secured to a center shaft, the arms being provided with masts on their outer ends which carry sails for engaging the wind.

Referring to the drawings 1 represents the tower, on which the wind engine rests.

2 is a shaft pivotally resting on the foot 13.

3 represents the inner arms which are secured to the upper section of the turn table 7 by the bolts 26. Said turn table is secured to the shaft 2. The lower half 6 of said turn table is secured to the cross pieces 22 of the frame. Said upper half 7 rests on said lower half 6 and is adapted to turn on said lower half. 4 represents the extension arms, held to slide on said arms 3 through the medium of the clamps 5. Said inner arms are provided with the braces 8 leading to the collar 14 near the top of the shaft 2. The sliding arms 4 are kept from sliding by the blocks and tackles 16 so that when the said arms are set farther out or in, the ropes in said blocks and tackles 16 are either taken up or let out to hold said sliding arms in position, and to prevent the outer end from sagging, said arms are made in this way for the purpose of giving the wind engine greater or less power by placing the sails farther from or nearer to the center.

9 represents masts secured to the outer end of said arms 4. Each of said masts is braced by two shrouds 10 by passing from the collar 17 down to the cross braces 11.

A′, and A^2, represent sails secured to said masts by the hanks 18 which are adapted to slide up and down on said masts 9. Said sails are drawn up and held by the halyards 19 which are secured to the upper corner of said sails passing through the eye 20 and down to the arm 4 where it is tied. The foot of said sails are held down by the tag lashing 21 and the lower loose ends of said sails are held by the sheet ropes 12 one end being secured to the outer or loose end of said sails, and the other end to the outer end of the extension arms 4 which stand at a right angle to the arm 4 which carries the sail. 23 represents four stays for said masts 9, and 24 represents back stays for said masts.

The shaft 2 is provided with gearing as represented in Fig. 1, or pulleys for transmitting power to any desired place.

The frame 1 is designed to be built from six to eight feet high so that a person can stand on the ground and reach the several ropes for operating the several parts.

25 in Fig. 2, represents the direction from which the wind is coming, which will fill the sails A^2, while the sail A′, will flutter in the wind while the engine is turning in the direction indicated by the arrows 26.

When it is desired to stop the engine, the sails are furled by loosening the halyards from the outer arm 4 and the sails are unfurled by drawing said sails up through the medium of said halyards 19.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is as follows:

1. In the herein described wind engine, the combination of the tower 1, provided with the under portion 6 of the turntable, the shaft 2 provided with the upper portion 7 of said turntable, the arms 3 secured to said portion 7 of the turn table, the arms 4 held to slide on said arms 3, the masts 9 secured to the outer ends of said arms 4, the sails held on said masts, and the ropes, and braces for holding the several parts, substantially as shown and described.

2. In the herein described wind engine, in combination with the tower 1 the turntable on which the wind engine turns, the arms 3 permanently secured to the upper part of

said turn table, the arms 4 held to slide on said arms 3 by the clips 5, the masts secured to the outer ends of said arms 4, sails held to slide up and down on said masts, the braces 10, and the fore stays and back stays, for holding said masts and the block and tackle for holding said arms 4 from sagging, substantially as shown, and for the purpose specified.

HENRY T. SHERMAN.

Witnesses:
J. R. H. KING,
A. A. GLENN.