(No Model.) 2 Sheets—Sheet 1.

C. BRAAF.

PROPELLING MECHANISM FOR CAROUSELS OR LIKE MACHINES.

No. 523,879. Patented July 31, 1894.

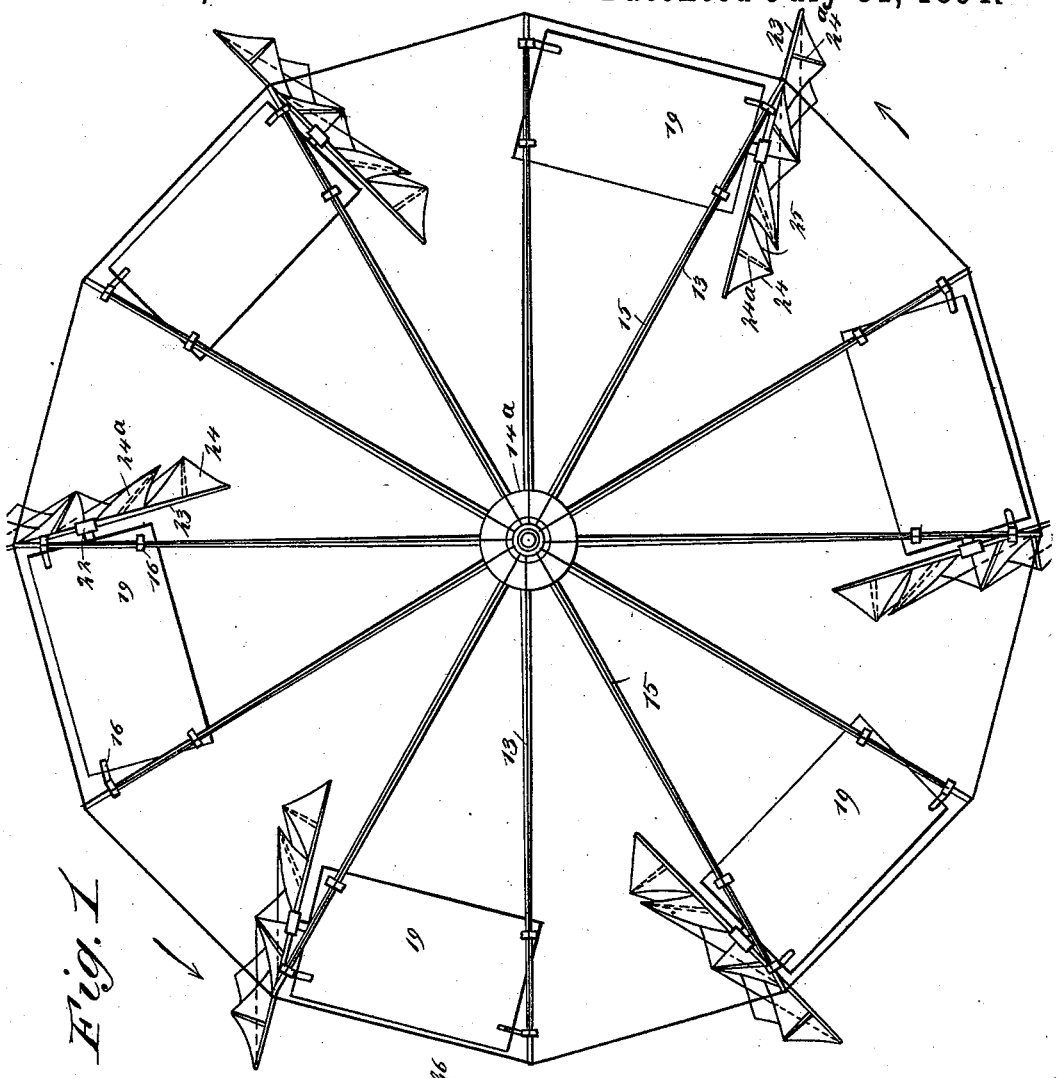

Fig. 1

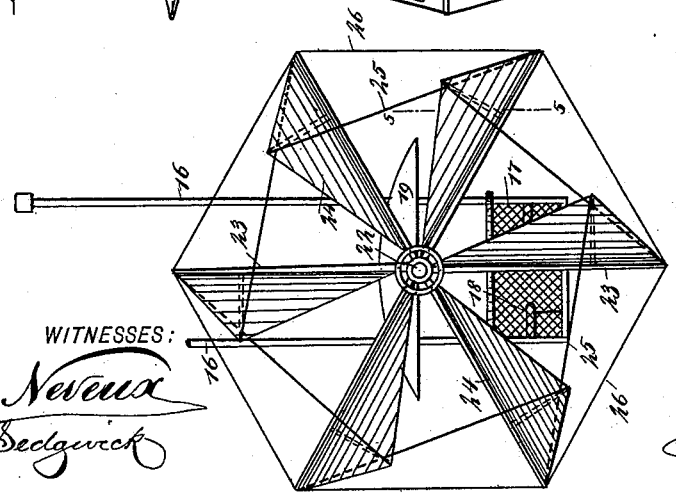

Fig. 2

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C. Sedgwick

INVENTOR

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ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

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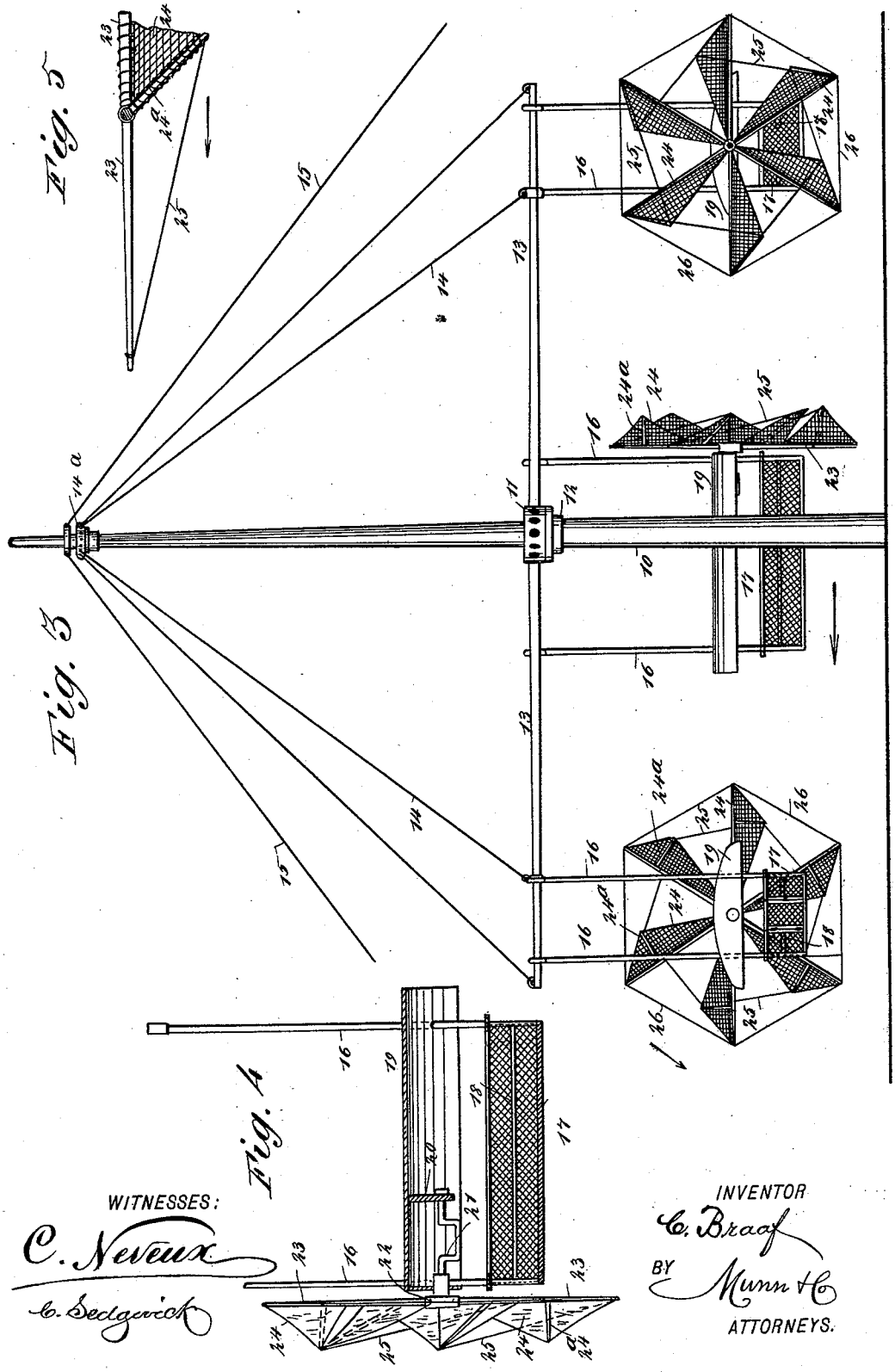

Fig. 5

Fig. 3

Fig. 4

WITNESSES:

C. Neveux

C. Sedgwick

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UNITED STATES PATENT OFFICE.

CHARLES BRAAF, OF NEW YORK, N. Y.

PROPELLING MECHANISM FOR CAROUSELS OR LIKE MACHINES.

SPECIFICATION forming part of Letters Patent No. 523,879, dated July 31, 1894.

Application filed May 12, 1893. Serial No. 473,926. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BRAAF, of New York city, in the county and State of New York, have invented a new and Improved Propelling Mechanism for Carousels and Like Machines, of which the following is a full, clear, and exact description.

My invention relates to an improvement in carousels and like machines, and relates especially to the propelling mechanism thereof.

The object of the invention is to provide a propelling mechanism for each car of the carousel, whereby the occupant or occupants of a car or carriage, may cause the supports from which the carriages are suspended, and to which they are attached, to revolve, thus dispensing with the usual motor which serves to drive all the arms of the carousel, and thereby also dispensing with the expense attached to the purchasing and running of the motor, since the occupants of a carriage will supply the necessary power.

A further object of the invention is to provide a wind motor for each carriage, which motor will be in the shape of a series of sails or a winged wheel.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improved carousel. Fig. 2 is an enlarged rear elevation of one of the motors and the car connected therewith. Fig. 3 is a side elevation of the carousel, some of the arms, cars and motors being removed. Fig. 4 is a vertical longitudinal section through one of the cars, illustrating the motor in side elevation; and Fig. 5 is a section taken practically on the line 5—5 of Fig. 2 through a portion of one of the sails of the motor, and likewise illustrating a boom of a following sail or wing with the sail removed.

In carrying out the invention a mast 10, is planted in the ground, or is permanently secured in an upright position in any suitable or approved manner. A sleeve 11, is held to revolve upon the mast at a predetermined height from the ground, being supported by a collar 12, or its equivalent, and the inner ends of a series of horizontal arms 13, are permanently secured in the sleeve. Any desired number of arms may be employed.

The arms are supported at their outer ends by guy ropes or chains 14, connected at one end with the arms and at their other ends with a second sleeve 14^a, held to revolve around the upper portion of the mast, and the mast is stayed in position by guys 15, secured to the ground at one end and attached to the upper portion of the mast at their opposite ends, the point of attachment being preferably above the upper sleeve 14^a.

The arms are preferably adapted to support and carry cars 17, of any suitable or approved construction. A car or carriage may be suspended from each arm, but preferably two opposing arms are employed in connection with each car, the arms being connected with the ends of the car through the medium of hangers 16.

The car may be given any shape that fancy may dictate, and it is usually provided with seats 18, extending longitudinally thereof on each side. The car is further provided with a canopy 19, extending over it from end to end, and near the rear portion of each canopy a hanger 20 is located, and a shaft 21, is journaled in suitable bearings in the rear end of each canopy and in the hangers 20; but the shafts may be otherwise supported if in practice it is found desirable, and preferably the shafts are provided with crank arms through the medium of which they are revolved by an occupant of the car.

Each shaft 21, has secured upon its outer end a motor, and each motor consists of a hub 22. The hub is firmly secured to the shaft, and from the hub a series of booms 23 are made to radiate; each boom carries a wing or sail 24, constructed of metal, canvas, or any approved material, and the said sails are preferably made somewhat triangular or jib-shaped, the straight side of the sail being attached to the boom. Each sail is held in an expanded position by means of gaffs 24^a, the gaffs being located in contact with the forward faces of the sails or wings; and the gaffs

have pivotal connection with the booms at one of their ends, and are secured to the angles of the sails or wings at their opposite ends, and the sails or wings together with the gaffs are free to turn upon their booms. The movement of each sail is limited in a certain direction, however, through the medium of stay ropes 25, which ropes extend from the outer extremity of one boom to a connection with the outer end of the gaff of the next sail or wing, as is shown in Figs. 2, 3 and 5. The stay ropes extend over the rear faces of the sails or wings, as is best shown in Fig. 2; and in order that the winged wheel may be braced properly so as to hold the booms in a predetermined position as the booms are not intended to move, tie rods 26, extend from the outer extremity of one boom to the outer extremity of the next boom, thus providing substantially a skeleton frame for the wheel.

Thus it will be observed that as the shafts 21, are revolved by reason of the wheels being located at the rear of the car, the car and consequently the arms to which it is attached will be revolved in a forwardly direction as shown by the arrows in Fig. 1, the wheel revolving in the direction of the arrow shown at the left in Fig. 3, since the sails will be prevented by means of the stays 25 from moving in a forwardly direction; but when the sails are brought up in the wind they may turn rearwardly in a manner to present their edges to the wind, and thus progress of the car will be retarded and the wind will not interfere with the rotation of the wheel. It is likewise evident that the crank shafts may be lashed fast, and the wind will so act upon the sails as of itself to propel the cars, the sails opening and closing of themselves at proper intervals.

In this manner a carousel may be constructed simply and economically, and which will not only afford amusement and pleasure to the occupants of a car, but which may likewise be utilized for exercising purposes.

It will also be understood that the cars may be propelled upon a straight track as well as around an upright support.

Having thus described my invention, I I claim as new and desire to secure by Letters Patent—

1. In a carousel or like machine, the combination with a mast, a hub held to revolve around the mast, arms radiating from the hub, and cars supported by the arms, of a wind wheel located at the rear of each car, a drive shaft extending over the car, by means of which the wheel is revolved, said wheel consisting of a hub, booms radiating from the hub, substantially triangular sails or wings carried by the booms, gaffs connected with the booms and with the angles of the sails, and stays connecting the outer extremity of one boom with the outer extremity of a gaff on the next sail or wing, the stay crossing the faces of the sails back of the gaffs, as and for the purpose set forth.

2. A propelling mechanism for carousels or like machines, the same consisting of a wind wheel comprising a hub, booms secured to the hub and radiating therefrom, braces connecting the outer ends of all of the booms, substantially triangular sails or wings pivotally connected with the booms, gaffs likewise having pivotal connection with the booms and attachment to the wings or sails at the side angles thereof, and stay ropes connecting the outer ends of the gaff of a sail with the outer end of the boom of the next sail, the stays crossing one face of the sails while the gaff extends across the opposite face, as and for the purpose specified.

CHARLES BRAAF.

Witnesses:
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EDGAR TATE.