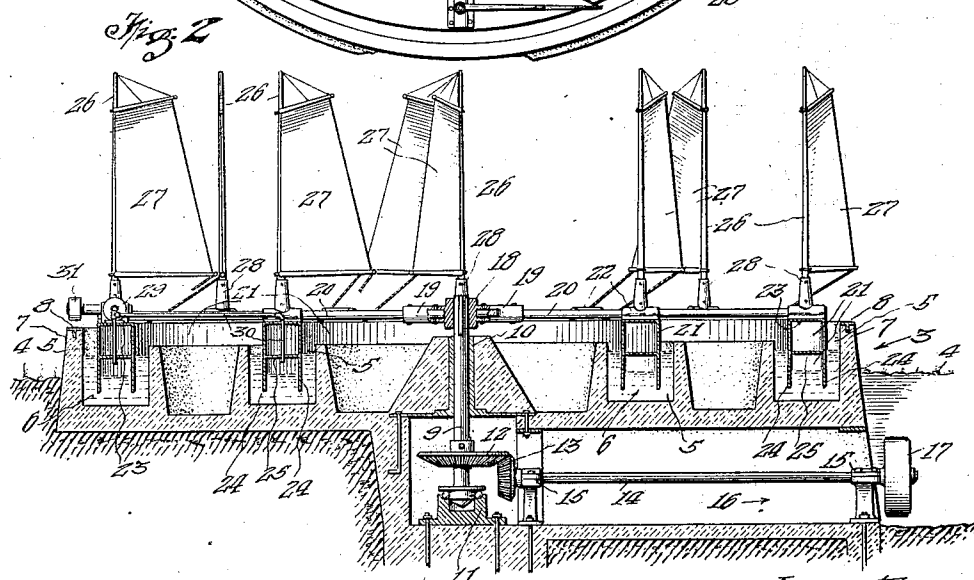
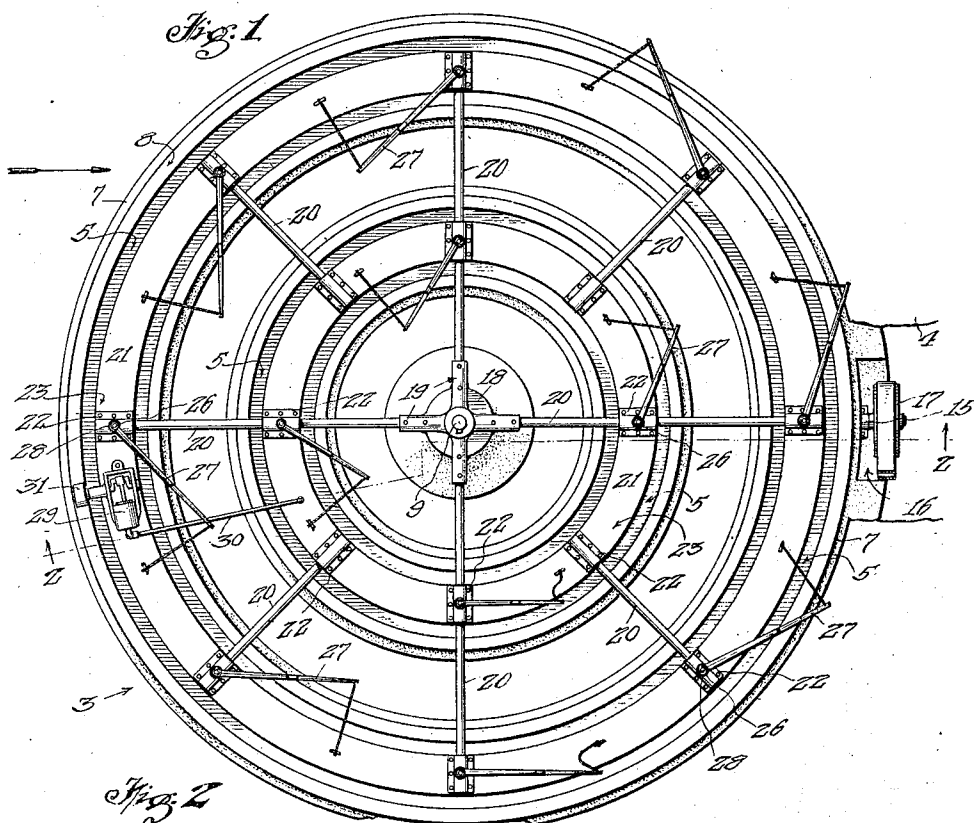


G. E. SALISBURY.
WIND MOTIVE APPARATUS.
APPLICATION FILED AUG. 1, 1912.

1,046,026.

Patented Dec. 3, 1912.



Witnesses:

William A. Christence
P. C. Christence

Inventor,

George E. Salisbury
Wm. A. Christence
His Attorney.

UNITED STATES PATENT OFFICE.

GEORGE E. SALISBURY, OF ARCADIA, CALIFORNIA.

WIND MOTIVE APPARATUS.

1,046,026.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed August 1, 1912. Serial No. 712,798.

To all whom it may concern:

Be it known that I, GEORGE E. SALISBURY, a citizen of the United States of America, residing at Arcadia, in the county of Los Angeles, State of California, have invented a certain new and useful Wind Motive Apparatus; 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 wind motive apparatus; and it may be said to consist in the provision of the novel features and in the novel and improved construction, arrangement and combination of parts and devices therein as will be apparent from the description and claims which follow hereinafter.

One object of the invention is to provide novel and improved means for buoyantly supporting the sail arms and parts carried thereby.

Further objects of the invention are to provide a novel and improved construction for the apparatus, which is simple in character, cheap to manufacture, install and maintain, strong and durable, easy to assemble or demount, and efficient in operation.

Other objects and the advantages of the invention will be apparent to those skilled in the art from a consideration of the following description of one form of construction embodying the invention, taken in connection with the accompanying drawings in which—

Figure 1 is a plan view of the apparatus, and Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

A suitable structure 3—preferably of concrete and having a portion thereof extending below the surface of the ground 4—may be formed to provide one or more annular channels 5 adapted to contain fluid 6 therein; one of the walls 7 of the channels 5 preferably extending higher than the other and having thereon a plate 8.

An upright shaft 9 may pass through a bearing 10 suitably affixed substantially centrally in the structure 3; the lower end portion of the shaft 9 preferably being mounted on a suitable foot bearing 11 and having fast thereon a bevel wheel 12 adapted to mesh in with a bevel pinion 13 on a shaft

14 which may be mounted on suitable bearings 15 arranged in a passageway 16 at the lower end of the structure 3 and have thereon a drive pulley 17.

A suitable wheel 18 may be splined on the upper portion of the shaft 9 and have thereon radial sleeves or sockets 19 in which may be fitted one end portion of radial arms 20.

Suitable annular air chambers 21 may be arranged in the channels 5 and may be secured to the arms 20 by means of plates 22 which are formed to fit over the arms 20 and are riveted to the top 23 of the chambers 21. The sides 24 of the chambers 21 extend below the bottom 25 of the chambers as seen in Fig. 2.

Masts 26 for suitable sails 27 may be suitably secured to the chambers 21 or to the arms 20. As shown, the masts 26 may have the lower portion thereof fitted in sleeves or sockets 28 on the plates 22.

Any suitable device may be employed to pump or force air under pressure into the space between the sides 24 below the bottom 25 of the chambers 21. As shown, an air pump 29 may be mounted on the top of one of the chambers 21 and have connected therewith pipes 30 leading to the underside of the bottom 25 of the chambers 21.

The pump 29 may be driven by pulley 31 adapted to make frictional contact with the plate 8. In operation it will be understood that wind pressure on the sails 27 turns the arms 20 which are operatively connected with the power shaft 14. Also it will be seen that the arms 20 and parts thereon are supported by the chambers 21 which are buoyed up by air under pressure interposed between the bottom 25 of the chambers and the fluid in the space between the downwardly extended sides of the chambers. In consequence of the wheel 18 being splined on the shaft 9, the pump 29 operates only when the buoyant support for the chambers 21 is not sufficient to lift the chambers and parts thereon to raise the pulley 31 out of contact with the plate 8.

While one form of construction in which the invention may be embodied has been particularly illustrated and described, there are many changes and modifications thereof that will readily occur to those skilled in the art, wherefore, the right is reserved to all such

changes and modifications as do not depart from the spirit and scope of the invention as defined in the appended claims.

I claim:

5 1. The combination of a shaft, a channel adapted to contain fluid, an annular chamber arranged in the channel, said chamber having its sides extending below the bottom thereof, arms connected with the chamber
10 and movably connected with the shaft, means to move said arms by air in motion, and means to deliver air under pressure to the space below the bottom of the chamber.

15 2. The combination of a structure formed to provide channels adapted to contain fluid, a plate carried by one of the walls of the channels, annular chambers arranged in the channels, said chambers having the sides thereof extending below the bottom thereof,
20 a shaft, arms connected with the chambers and movably connected with the shaft, means to move said arms by air in motion, an air pump mounted on one of the chambers, pipes leading from the pump to the space below
25 the bottom of the chambers, and a pulley adapted to contact with said plate to operate the pump.

3. The combination of a structure formed

with a passageway in the lower portion thereof and with channels adapted to contain fluid in the upper portion thereof, a plate carried by one of the walls of the channels, annular chambers arranged in the channels, said chambers having the sides thereof extending below the bottom thereof, 35
a power shaft arranged in said passageway, an upright shaft operatively connected with the power shaft, arms connected with the chambers and movably connected with the upright shaft, means to move the arms by 40
air in motion, an air pump mounted on one of the chambers, pipes leading from the pump to the space below the bottom of the chambers, and a pulley adapted to coact with said plate to operate the pump, sub- 45
stantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses at Los Angeles, county of Los Angeles, State of California, 50
this 27th day of July A. D. 1912.

GEORGE E. SALISBURY.

Witnesses:

FRED A. MANSFIELD,
A. H. LIDDERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."