

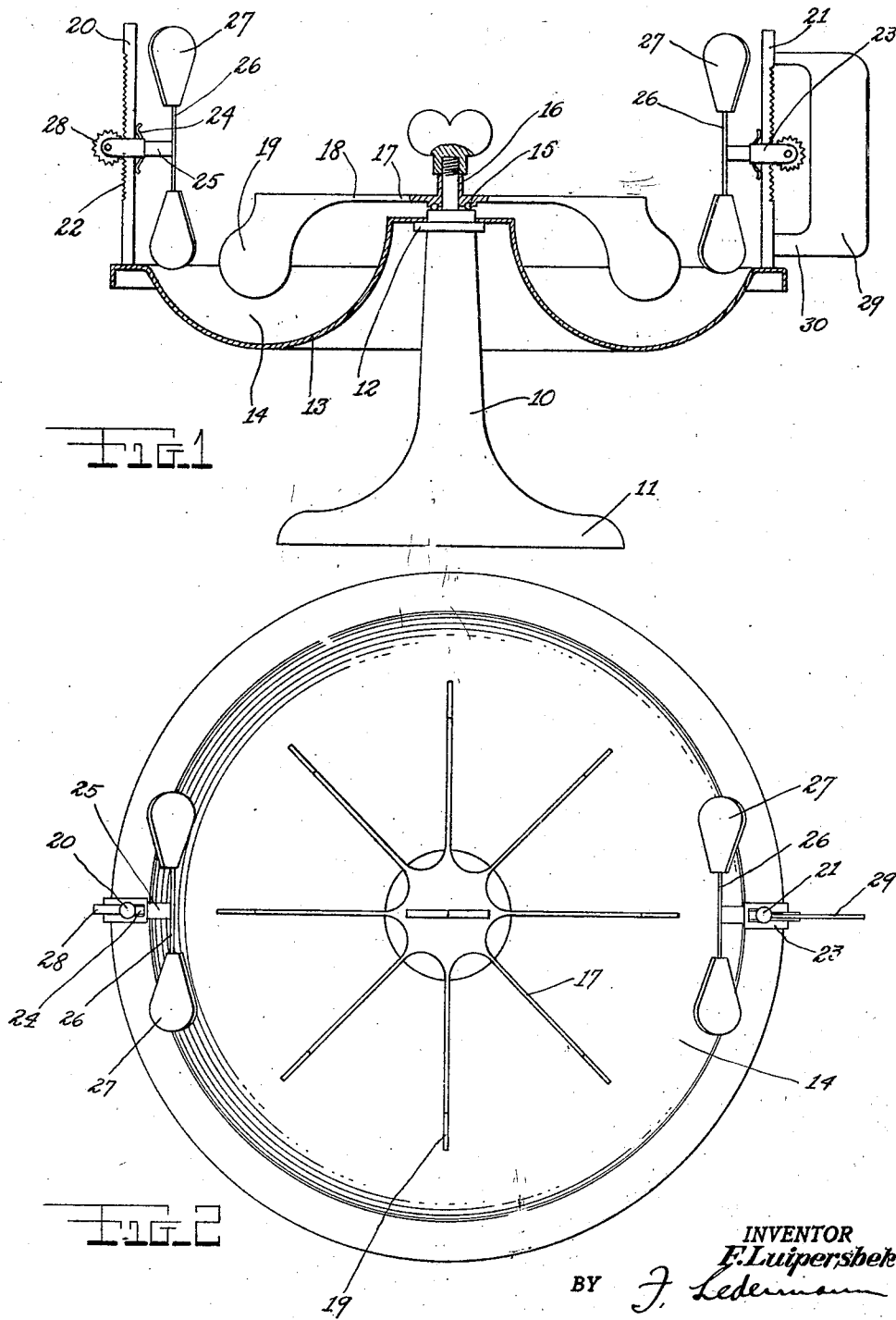
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WIND VANE

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WIND VANE.

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The main object of this invention is to provide an attractive toy which operates as a wind vane for indicating the direction of the wind. The device uses a plurality of propellers which rotate in opposite directions and the air wash created by these propellers is used by a third propeller which is rotatable in another plane and is rotated thereby.

Another object of this invention is to provide a toy wind vane which uses a series of propellers located in opposing planes.

The above and other objects will become apparent in the description below in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a longitudinal side sectional elevational view of the wind vane showing the construction of the latter.

Figure 2 is a top plan view of Figure 1 showing the arrangement of the propellers and the means for adjusting the vertical fans to increase or decrease the air stream which drives the horizontal blades of the propeller.

Referring in detail to the drawing, the numeral 10 indicates an upright pedestal which is integral with an annular base 11, the pedestal and base supporting the entire wind vane mechanism. At the upper extremity of the pedestal an encircling flange 12 is formed. This flange forms a support for a platform 13 which is provided with an annular semi-circularly curved channel 14. The face of the pedestal forms a seat for balls 15 which latter support the hub 16 of a propeller 17. The arms 18 of the propeller have formed at their extremities fan blades 19 which hang suspended from the arms partly within the channel 14.

At diametrically opposite positions on the edge of the platform posts 20 and 21 extend vertically upward and at one position are provided with teeth 22 which extend the length of the posts. These posts form a guide for a yoke 23 which is slidable on each. The yokes are each provided with a curved spring 24 which is secured to the yokes intermediate their length and the ends of said springs contact with the sides of the posts as is indicated by the Figure 1. A space separates the arms of the yokes and in this space toothed wheels 28 are rotatably mounted, the teeth of the wheels being in engagement with the teeth 22 on the posts.

A stud extends from the yoke on each post and is indicated by the numeral 25. These

studs rotatably support arms 26 and 26' which are provided with fan blades 27 and 27' which are bent to the proper angle to rotate the arms when the wind travels toward the device.

The post 21 has mounted on its side a rudder 29 which has a pair of arms 30 which latter are directly connected to the post. The arms form a space between the rudder and the post in which the toothed wheel is adjustable.

The device illustrated in the drawing is adapted to serve as a wind vane which is always headed into the wind and thereby indicates its direction. It is to be noted that the fan blades 27 on opposing posts are so bent that the arms to which they are attached rotate in opposite directions, the post 21 being the rear member. When the wind blows askew to the rudder 29 the surfaces of the latter form deflecting surfaces and thereby rotate the platform until the posts are headed directly into the wind. The arm on the post 20 will rotate in one given direction and the air stream passing thru the fan blades on the post 20 will enter the curved annular channel 14 and create a current which rotates the propeller 17. The posts 20 and 21 are aligned with each other and are mounted at diametrically opposite positions. The fan blades 27 and arm 26 are mounted at the front of the device on the post 20 and the diametrically opposed fan, arm 26' and blades 27' are at the rear of the device. These aligned fan blades, when rotated, create a stream of air which passes diametrically over the member 13. As the members 19 are in direct path of this stream of air these arms 26 and 26' through causing the air to agitate in a direct path across member 13, cause the blades 19 to be rotated. To regulate the speed of the propeller the axes of the vertical arms 26 are made adjustable vertically. By mounting the studs 25 on yokes 23 which are slidable on the posts 20 and 21 and with the toothed wheels 28 and springs 24, a mechanism is provided which permits the adjustment of the arms to any position along the length of the post and releasably retains these parts in any of these positions.

It is to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

I claim:

1. In a wind vane, a pedestal, a platform

having an annular channel therein rotatable on said pedestal, a horizontal propeller rotatable on said pedestal in the channel of said platform, a pair of diametrically opposite
5 positioned vertical posts mounted on said platform, and a pair of vertical fans vertically adjustably mounted on said posts.

2. In a wind vane, a pedestal, a platform
10 having an annular semi-circularly curved channel open at the top, said platform being rotatable on said pedestal, a horizontal propeller on said pedestal being rotatable in the channel of said platform, a pair of posts
15 mounted vertically on said platform, said posts having longitudinal teeth thereon, a yoke mounted slidably and adjustably on each post, and a fan rotatable in a vertical plane mounted on each yoke creating an air stream

to propel the horizontal propeller when the vertical fans are rotating. 20

3. In a wind vane, a pedestal, a platform having an annular channel formed therein rotatably mounted on said pedestal, a propeller mounted on said pedestal and rotatable
25 in said channel of the platform, a pair of posts mounted vertically on said platform having teeth extending longitudinally thereon, yokes slidable on said posts, toothed wheels on said yokes engaging the teeth on
30 said posts, springs on said yokes retaining the teeth of the posts in engagement with the toothed wheels for releasably holding said yokes in position, and fans rotatably mounted on said yokes and rotatable in a vertical plane.

In testimony whereof I affix my signature.

FRANK LUIPERSBEK.