Oct. 14, 1924. 1,511,965

H. K. HENNIGH

ADVERTISING DEVICE

Filed July 7, 1923

Fig. 1.

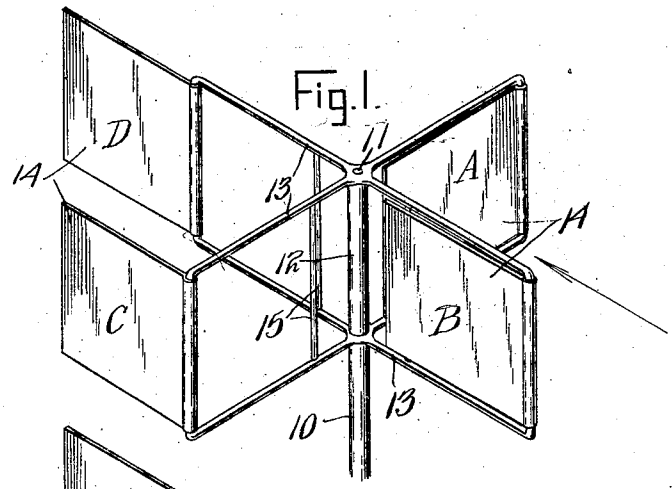


Fig. 2.

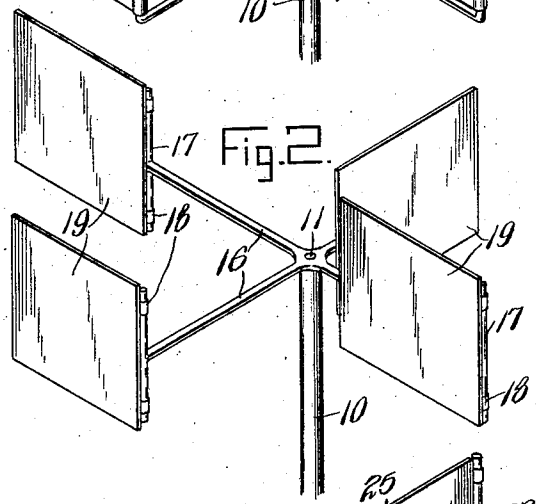


Fig. 4.

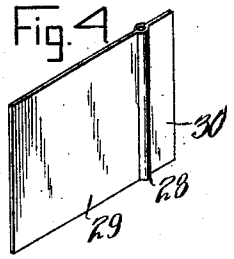
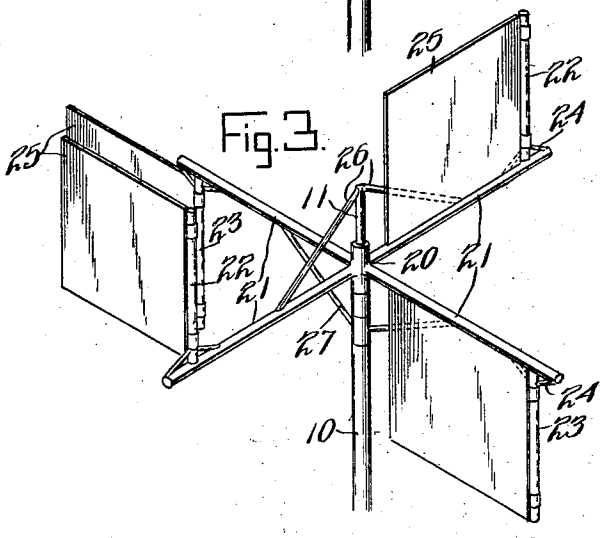


Fig. 3.



Inventor

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Patented Oct. 14, 1924. 1,511,965

UNITED STATES PATENT OFFICE.

HENRY K. HENNIGH, OF NEWCASTLE, INDIANA.

ADVERTISING DEVICE.

Application filed July 7, 1923. Serial No. 650,133.

To all whom it may concern:

Be it known that I, HENRY K. HENNIGH, a citizen of the United States, residing at Newcastle, in the county of Henry and State of Indiana, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

My said invention relates to an advertising device in the form of a windmill and it is an object of the same to provide advertising space that will be attractive and inexpensive, the advertising matter being placed on the vanes of the windmill. It is well-known that moving devices attract more attention than stationary ones and it is my purpose to combine in one device moving elements and printed matter or the like.

A further object of the invention is to provide a device of the character described which can travel in only one direction so that the successive vanes may carry progressive symbols such as words forming a sentence or a series of sentences or any other desirable sequences of letters, numerals, words, ideographs, etc.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a perspective of one form of my invention,

Figure 2 a perspective of a modified form,

Figure 3 a like view of a third form, and

Figure 4 a detail showing a modified vane.

In the drawings reference character 10 indicates a post at the upper end of which is a spindle 11 on which a hub 12 is mounted for rotation in the case of a device such as shown in Figure 1. This hub has radially extending arms 13 at its upper and lower ends forming upper and lower spiders whose arms may be connected by bent end portions forming journals for the vanes or leaves 14 or the vertical journals may consist of separate bent extensions on one or both of each pair of superposed arms 13 for convenience in locating the vanes thereon. Near the hub 12 is the cross bar 15 fixed to the upper and lower arms 13 and acting as a stop to limit the movement of the vanes.

In the operation of the device shown in Figure 1 it will be seen that the windmill can rotate in either direction according to the preference of the user. By locating the vanes in the position shown in Figure 1 the mill will rotate counter-clockwise. The vanes A and B bear at their free ends against the cross bars 15 while those marked C and D move freely under the influence of the wind. As the mill rotates the vanes C and D in succession will move toward their respective cross bars while A and B as they approach the positions of C and D in Figure 1 will fly free with the wind and so a continuous rotation will be kept up. In this way, as will be evident, the vanes A, B, C and D will appear to the observer in succession. At the opposite side of each vane there may be another set of markings, and they may be in a sequence running in the opposite direction from those here shown. By swinging the leaves C, D about their pivots until they rest against the cross bars 15 and also swinging vanes A and B to the other side of the brackets formed by the bars or supporting arms it will be evident that the same air current will drive them in the contrary or clockwise direction.

In Figure 2 the structure above described has been modified by providing on the spindle 11 a single spider having arms 16 radiating therefrom and each arm having a vertical bar 17 at its end which may be integral with the arm if desired. These bars form journals for hinges 18 on vanes 19 which are generally similar in structure and operation to the vanes 14 except that in Figure 1 the hinge or journal part of the vane extends the full width of the vane. For supporting the hinges 18 the bars 17 may be reduced at their ends and thicker at the middle or vice versa.

The construction in Figure 3 shows a spider having a hub 20 and arms 21 radiating therefrom. Two of these arms have pivots 22 extending vertically upward while the other two have vertical pivots 23 depending therefrom. In each case the pivots are braced by oppositely extending braces 24 and vanes 25 are swingably mounted on the pivots and held in place by any conventional or desirable means. To limit rotation of the vanes in this case stops are provided which in the one case consist of oblique bars 26 extending from the top of pivot 11 to the spider arms 21 and in the other case consist of similar bars 27 extending from the lower end of the hub to the corresponding arms 21. The hub is here shown as composed of three sections for convenience

in assembling but may be made in a single piece if preferred. The operation of the device is generally similar to that of the devices in Figures 1 and 2 except that the device of Figure 3 can rotate only in one direction. The reason for this is that the braces 24 stand in the way of the vanes and prevent them from swinging through an arc of more than 180°. Similar results may be had in the case of Figures 1 and 2 by supplying additional stops to limit rotation of the vanes.

In Figure 4 I have shown a vane having a journal 28 intermediate its ends, the ordinary vane portion 29 being shown as considerably longer than the part 30. This part takes the place of a stop on the spider in a construction such as that shown in Figure 2 where it will strike against the adjacent spider arm to prevent rotation thru an arc of more than 180°.

It will be evident to those skilled in the art that various changes may be made in the construction of my device without departing from the scope of the invention and therefore I do not limit myself to the specific embodiment of the invention shown in the drawings and described in the specification but only as indicated in the appended claims. The device of my invention may also be used as a toy, or in some embodiments as a motor driven by wind for storing power or doing work in the familiar manner.

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

1. A reversibly operable advertising device in the form of a windmill comprising a spindle, a hub rotatably mounted thereon, rigid supports on the hub, and vanes pivotally carried by said supports, said vanes being adapted to contact with said rigid supports for limiting their rotation in either direction, substantially as set forth.

2. A reversible operable advertising device in the form of a windmill comprising a spindle, a hub rotatably mounted thereon, radiating arms on the hub, and vanes pivotally carried by said arms, said vanes being adapted to contact with rigid restraining means when rotating in either direction, substantially as set forth.

3. A reversibly operable advertising device in the form of a windmill comprising a spindle, a hub rotatably mounted thereon, rigid supports on the hub, and vanes pivotally carried by said supports, said vanes being adapted to contact opposite sides of said rigid supports for limiting their movement when rotating in opposite directions, substantially as set forth.

4. A reversibly operable advertising device in the form of a windmill comprising a spindle, a hub rotatably mounted thereon, rigid supports on the hub, and vanes having their ends shaped to provide sockets for pivotal cooperation with said supports, said vanes being adapted to contact with said rigid supports for limiting their rotation in either direction, substantially as set forth.

5. A windmill comprising a spindle, a hub on the spindle, radial arms on the hub, vanes journaled on the arms, and means carried by the arms to prevent the vanes from swinging past the arms, substantially as set forth.

6. A windmill comprising a spindle, a hub on the spindle, radial arms on the hub, vanes journaled on the arms, means carried by the arms at one side of said pivots to prevent the vanes from swinging past the arms, and means carried by the arms at the other side of said pivots to prevent the vanes from swinging through an arc of more than 180° substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Newcastle, Indiana this 5th day of July, A. D. nineteen hundred and twenty-three.

HENRY K. HENNIGH. [L. S.]

Witnesses:

RUBY C. BRADFORD, Jr.,

O. S. BOLING.