

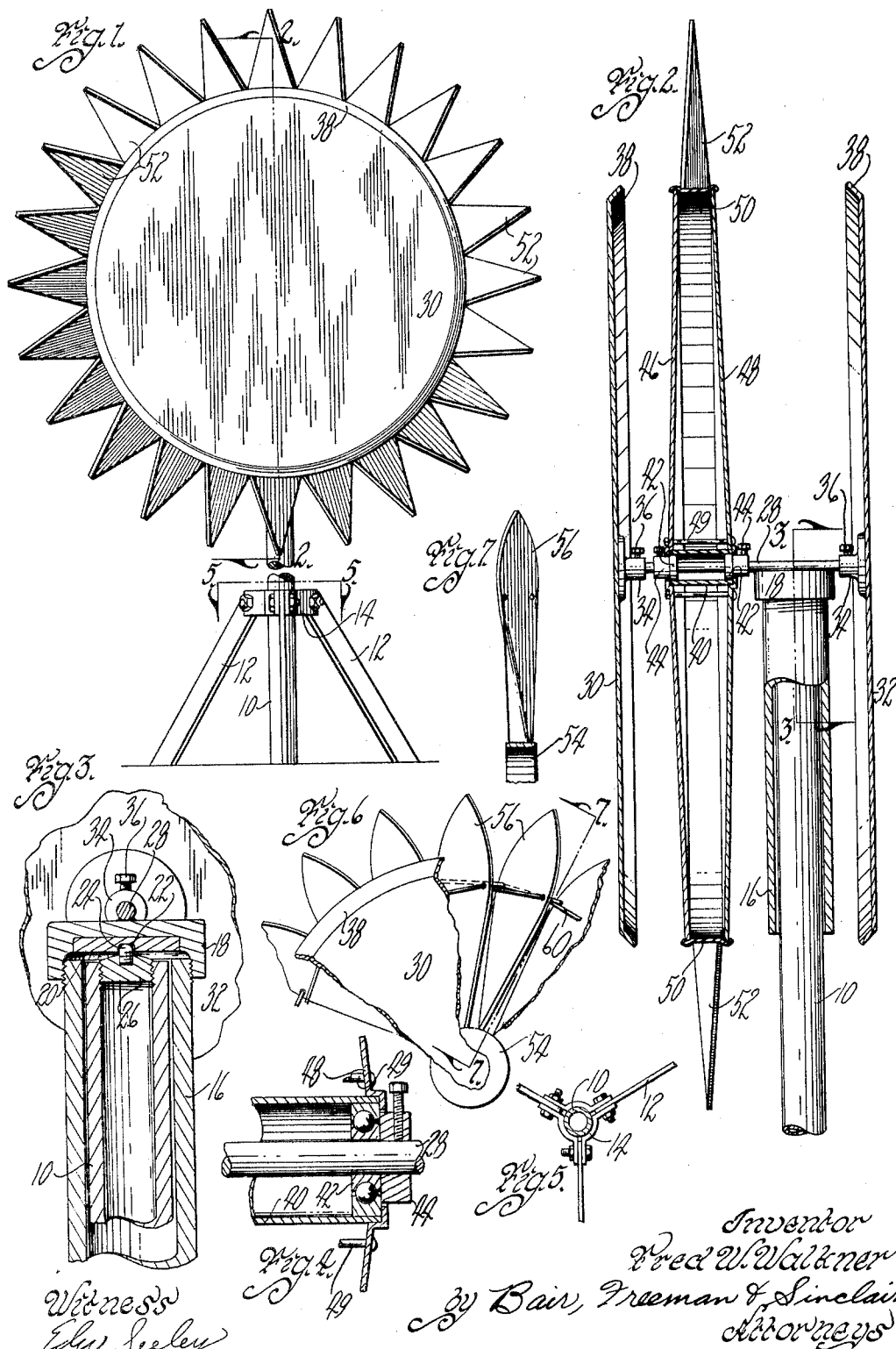
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ROTATABLE ADVERTISING SIGN

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ROTATABLE ADVERTISING SIGN

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The object of this invention is to provide an advertising sign for outdoor use which is especially efficient for attracting attention, and which is provided with movable parts capable of being actuated by the wind.

A further object of this invention is to provide an improved construction for an outdoor advertising sign which is supported for rotation on a vertical axis and which is provided with a border member arranged for rotation on a horizontal axis, both rotary movements being induced by action of the wind.

Still another object is to provide an advertising sign which is comparatively simple and inexpensive to manufacture, and which is efficient and durable in use.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a face view of a rotatable sign embodying my invention.

Figure 2 is an enlarged vertical section on the line 2—2 of Figure 1, the lower portion of the supporting post being broken away.

Figure 3 is a detail vertical section on the line 3—3 of Figure 2, showing particularly the bearing means for rotation on a vertical axis.

Figure 4 is a detail section showing particularly the bearing means for rotation on the horizontal axis.

Figure 5 is a horizontal section on the line 5—5 of Figure 1.

Figure 6 is a fragmentary elevation of a portion of the device illustrating a modified construction, particularly with respect to the movable border member.

Figure 7 is a detail section of a portion of the device shown in Figure 6.

The principal parts of the device are supported on a post 10 which is supported in any suitable manner in upright position. As here shown, the post 10 is provided with a plurality of inclined braces 12 at its lower end

which are attached to a clamp member 14 engaging the post.

On the upper end portion of the post is mounted in embracing relation a sleeve 16 which is rotatable on the post. The sleeve 16 has a cap 18 threadedly mounted on its upper end and said cap preferably is provided with an internal bearing plate 20. The plate 20 is provided with a central socket 22 engaging a restricted bearing member 24 which may be carried by a screw plug 26 mounted in the upper end of the post. The bearing plate 20 and bearing member 24 preferably are composed of different metals. For instance, the plate 20 may be of brass and the member 24 of steel.

A spindle 28 is fixed rigidly to and extends transversely of the top of the cap 18, projecting at both ends therefrom. At the ends of the spindle are rigidly mounted sign plates 30 and 32, the outer faces of which are suitable for carrying advertising matter. As here shown, each sign plate is of circular formation and is provided at its center with a hub 34 fixed to one end of the shaft by means of a set screw 36. If desired the sign plates may be formed of sheet metal and may be bent or otherwise shaped at their margins to form stiffening and finishing flanges 38.

A movable border member is provided and is in the nature of a wheel rotatably mounted on the central portion of the spindle 28 and having parts projecting beyond the peripheries of the advertising plates 30 and 32.

According to the construction shown particularly in Figures 1 to 5 inclusive, the movable border member is formed with a hub 40 rotatably mounted on the spindle 28. If desired the hub may be provided with anti-friction bearings 42 fixed to the respective ends of the hub and engaging the spindle. Any suitable means may be provided for supplying lubricant to the bearings 42. Set collars 44 may be mounted on the spindle outside of the respective bearing members 42 for preventing undue longitudinal play on the spindle.

Fixed to the respective ends of the hub 40 are discs 46 and 48 held in place on the hub by bolts 49. The discs 46 and 48 have a rim

50 rigidly secured to their outer peripheries.

The rim 50 carries a plurality of radially projecting vanes 52 which are arranged at an oblique angle so as to be engageable by the wind for causing the wheel to turn on the spindle. The vanes 52 project beyond the peripheries of the sign plates 30 and 32 for engagement by the wind and for attracting attention to the sign, these vanes constituting a movable border about both of the sign plates when the wheel is rotated on the spindle and it will be understood that an effective means is thus provided for attracting attention to the advertising matter carried by the sign plates.

The sleeve 16 and parts carried thereby, including the spindle, advertising plates and rotatable wheel, are also rotatable on a vertical axis about the post 10 and such rotation is also induced by action of the wind against the inclined vanes 52. The wind action against these vanes causes the device to turn about the post 10 in such manner that one of the plates 30 or 32 will face toward the direction from which the wind is blowing, after the manner of a windmill or ordinary windwheel.

In the form shown in Figures 6 and 7, there is preferably no change except with respect to the wheel or the construction of the movable border for the sign plates. This form of the construction is particularly applicable to an advertising sign of relatively smaller dimensions.

According to this construction a hub member 54 is rotatable on the spindle and it may be provided with anti-friction bearings if desired. A plurality of vanes 56 project radially beyond the sign plates and are fixed at their inner ends directly to the hub member. Each vane 56 may be formed of sheet metal cut to the desired shape, arranged in a plane oblique to the axis of rotation and attached to the hub member in any suitable manner as by welding. The vanes 56 preferably are interconnected in series and thereby suitably braced by wires 60 extending through the vanes and secured thereto as by welding.

It is obvious that the projecting portions of the vanes of either type, namely those designated as 52 or those designated as 56, may be made of any suitable shape whereby different effects are produced in the use of the sign. Furthermore, the projecting portions of the vanes may be suitably colored or otherwise decorated.

Some changes may be made in the construction and arrangement of the parts of my rotatable advertising sign without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which

may be reasonably included within their scope.

I claim as my invention:—

1. An advertising sign comprising a supporting post, a sleeve rotatably mounted on the upper end of said post, a spindle supported in horizontal position by said sleeve, a sign plate carried by said spindle, and a windwheel rotatably mounted on said spindle, said wheel having vanes projecting beyond the periphery of said sign plate for engagement by the wind and for providing a moving border for the plate.

2. An advertising sign comprising a support, a carrier member mounted for rotation on a vertical axis on said support, a sign plate mounted in upright position on said carrier member, and a wind wheel on said carrier member behind said sign plate, arranged for rotation on a horizontal axis, said wheel having vanes projecting beyond the periphery of said plate for engagement by the wind and to furnish a rotating border for the sign plate.

3. An advertising sign comprising a support, a carrier member arranged for rotation on a vertical axis thereon, a windwheel arranged for rotation on a horizontal axis on said member, and spaced sign plates carried in upright positions on said carrier member on opposite sides of said windwheel, said wheel having parts projecting radially beyond the peripheries of both sign plates.

4. An advertising sign comprising a supporting post, a sleeve rotatably mounted on the upper end of said post, a cap on said sleeve having a bearing on the post, a spindle supported in horizontal position by said cap, a windwheel rotatably mounted on said spindle at one side of the cap, and spaced sign plates supported in vertical position on said spindle on opposite sides of said windwheel, said wheel having vanes projecting beyond the peripheries of both sign plates.

Des Moines, Iowa, June 16, 1931.

FRED W. WALKNER.