March 9, 1926.

1,576,447

J. I. MORELAND

WIND OPERATED SIGN

Filed Sept. 25, 1924

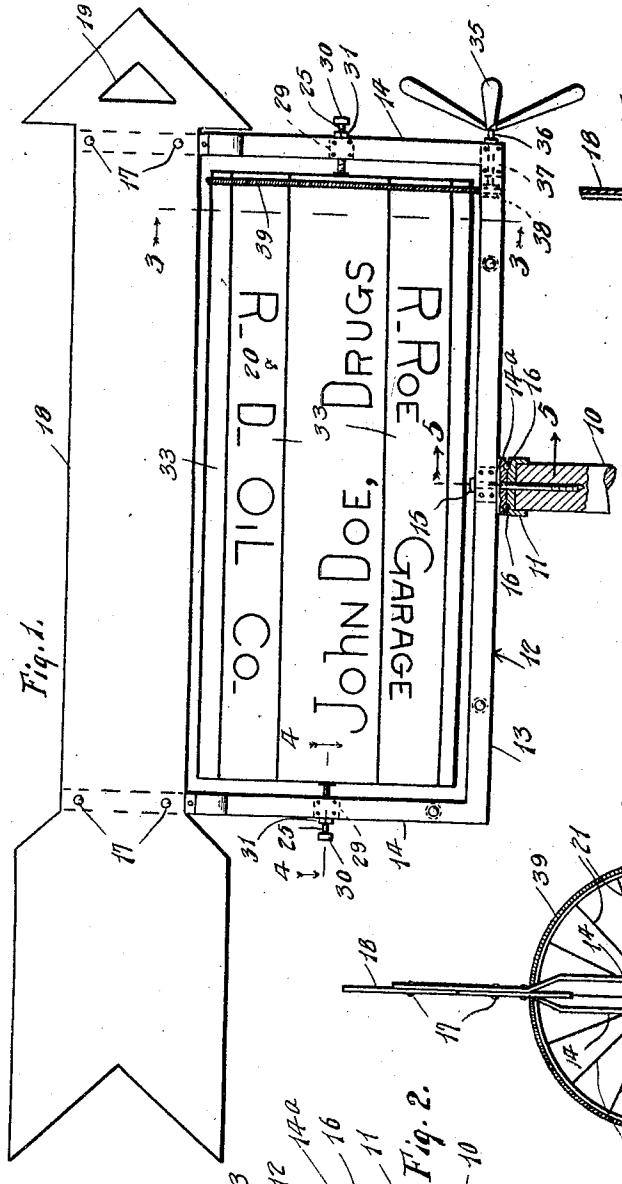


Fig. 1.

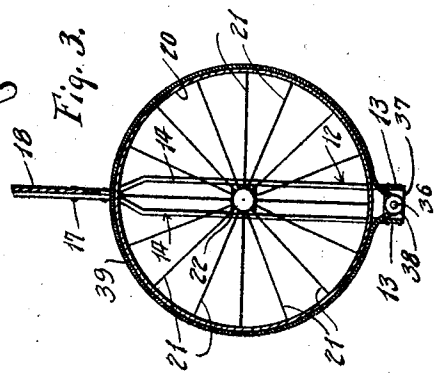


Fig. 3.

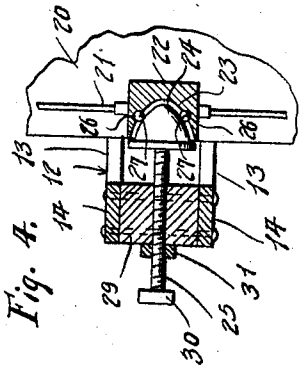
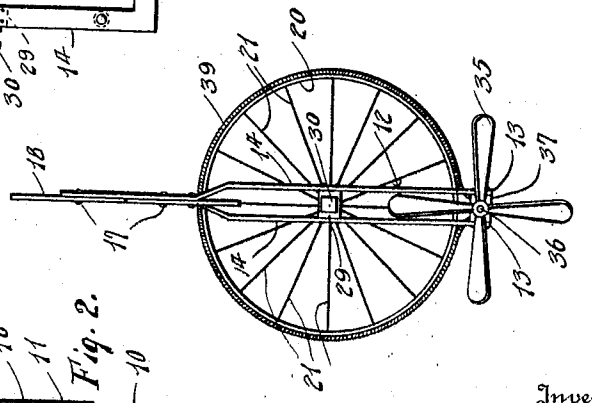


Fig. 4.



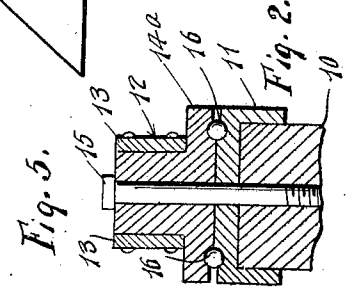


Fig. 2.

Fig. 5.

Inventor

J. I. Moreland.

By

Attorney

Patented Mar. 9, 1926.

1,576,447

UNITED STATES PATENT OFFICE.

JESSE I. MORELAND, OF DODD CITY, TEXAS.

WIND-OPERATED SIGN.

Application filed September 25, 1924. Serial No. 739,898.

To all whom it may concern:

Be it known that I, JESSE I. MORELAND, a citizen of the United States, residing at Dodd City, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Wind-Operated Signs; 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 a sign adapted to be rotated by the wind and primarily for use along roads or the like.

An important object is to provide a construction wherein the moving parts work with minimum friction and are driven by the wind, particularly having a driving connection whereby the wind will not operate the advertising drum or sign proper at an undue speed.

Another object is to provide a construction utilizing a weather vane which serves to point into the wind a wind-driven operating means.

Still another object is to provide a construction wherein portions of the sign may be read from opposite sides thereof.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:—

Figure 1 is a view of the device in side elevation;

Figure 2 is a front end view;

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 1;

Figure 4 is a vertical sectional view taken on the line 4—4 of Figure 1, and

Figure 5 is a sectional view taken on the line 5—5 of Figure 1.

Referring specifically to the drawings, the device is adapted to be disposed alongside of a road or in any other conspicuous position desired as it is usually adapted for advertising purposes. The operating parts may be mounted on a pole or standard 10 which may have a metal cap 11 thereon. Mounted by the standard is a U-shaped frame 12 having a lower arm 13 and side arms 14. Suitably fastened to the lower arm and centrally thereof is a bearing plate 14ª which rests on the cap or bearing plate 11. A removable stud 15 is secured in the upper end of standard 10 and passes through the arm 13 and plate 14ª and such plate 14ª and arm are swivelled on this stud. The bearing plates 11 and 14ª have coacting grooves as shown which form a race for ball bearings or other anti-friction means as at 16.

Any equivalent swivel means for the operating parts may be substituted.

At the top of the arms 14 and riveted or bolted thereto as at 17 is a relatively long plate 18 which forms and is shaped like a weather vane so as to point the device into the wind. The forward end or point portions of the weather vane has a triangular slot as at 19.

A sign, advertising cylinder or drum is provided as at 20. This element essentially comprises a hollow cylinder of light weight sheet metal so as to offer little resistance to the wind and the elements having spokes or the like 21 at each end radiating from a hub as at 22. Said hubs 22 have conical seats 23 and the conical heads 24 have stub shafts 25. In order to reduce friction, the surfaces 23 and 24 may have race ways 26 or balls or other anti-friction bearings as at 27. Stub shafts 25 are in the form of screws adjustably mounted in blocks 29 carried by the arms 14. Stub shafts 24 also have heads as at 30 for engagement by a wrench or the like in order to adjust them and also have lock nuts 31 mounted thereon to bind against the blocks 29.

The outer surface of the drum 20 is subdivided into longitudinally extending panels or spaces as at 33, and the advertising matter of the alternate spaces is reversed as shown so that when the cylinder or drum 20 rotates, the alternate panels or advertising portions may be observed and read or understood from opposite sides of the sign. The reverse arrangement also serves to set off the different panels at each side so as to avoid confusion between them or the reading of adjacent panels simultaneously and improperly.

At the front of the device the wind wheel 35 is provided which may be of any desired construction, that shown being conventional, and also relatively small in size as compared with the drum, to the end that the drum will be rotated slowly. Wind wheel 35 is rigid with and rotates a short shaft 36 journaled in suitable bearings 37 on the arm 13. At the inner end of shaft 36, a relative-

ly small pulley 38 is fixed and drives an endless belt as at 39. This belt may be of any suitable material but preferably is of metal, endless, and of coil spring formation so that its tension will assist in holding it in place and at the proper pressure. The belt 39 surrounds the drum 20 adjacent the front end thereof.

The device in finished form, will be approximately ornamented and finished. When installed, the vane 18 which itself forms part of the advertisement, being subject to the wind, will always point the device into the wind and thus the wheel 35 will be driven by the wind, thus driving shaft 36, pulley 38, belt 39 and the drum 20. As the drum 20 revolves, its advertising panels 33 alternately and successively come into view for reading or observation by the public on each side of the drum. In addition the drum is subject to turning on the stud 15 as an axis due to the subjection of the vane 18 to the wind. The turning of the device is free and easy since friction has been reduced to the minimum.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

What is claimed is:—

1. An advertising device comprising an upstanding U-shaped frame mounted for rotation in a horizontal plane, a vane secured to the side arms of said frame, a drum journaled on said arms, an operating shaft journaled on said frame, a wind wheel secured to said shaft, and a belt trained on said drum and shaft.

2. An advertising device comprising an upstanding U-shaped frame mounted for rotation in a horizontal plane, a vane secured to the upper ends of the side arms of the frame, an advertising device mounted for rotation between said side arms, an operating shaft journaled on said frame, a wind wheel secured to said shaft, and a driving connection between said shaft and the advertising device.

3. An advertising device comprising an upstanding U-shaped frame, means to mount said frame for rotation on a vertical axis, a vane secured to the upper ends of the side arms of the frame, a cylinder adapted to carry advertising matter mounted for rotation on the arms of said frame and having a belt groove in its outer surface, a shaft mounted for rotation on said frame, a pulley on said shaft, a belt trained on said pulley and in the belt groove aforesaid, and a wind wheel secured to the shaft.

4. An advertising device of the class described comprising an upstanding substantially U-shaped frame adapted to be swivelled, a vane connecting the free ends of said frame and forming one side for the space thereof, a sign drum disposed in the space of said frame, stub shafts adjustably mounted by the frame, said drum having hubs at its ends journaled on said stub shafts, said drum having a groove about its periphery, a belt engaged in said groove, a shaft journaled on said frame, a pulley on said shaft over which said belt is trained, and a wind wheel operable to drive said shaft.

In testimony whereof I affix my signature.

JESSE I. MORELAND.