M. HEIM.

REVOLVING SIGN.

APPLICATION FILED MAY 6, 1908.

925,907. Patented June 22, 1909.

Fig. 1.

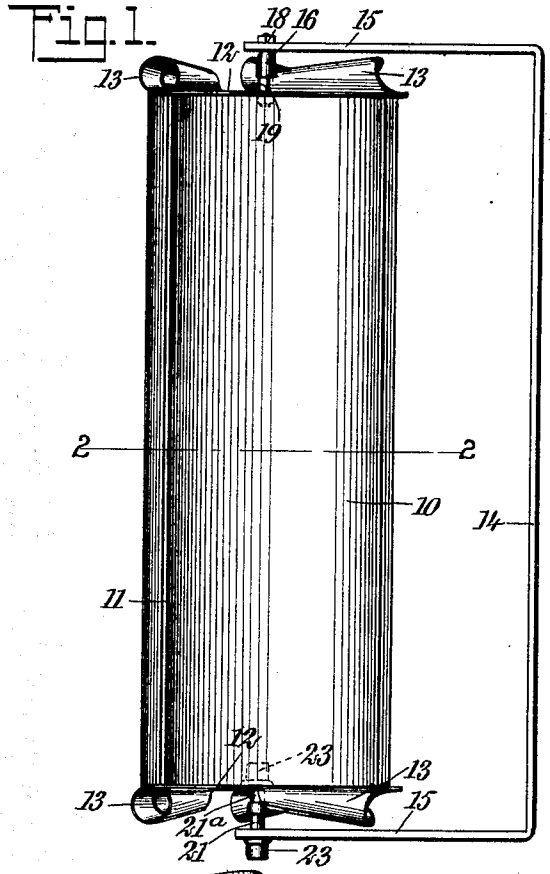


Fig. 4.

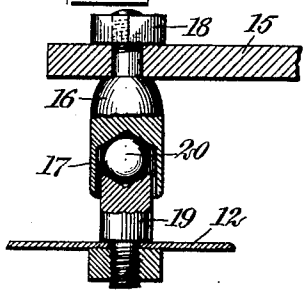


Fig. 5.

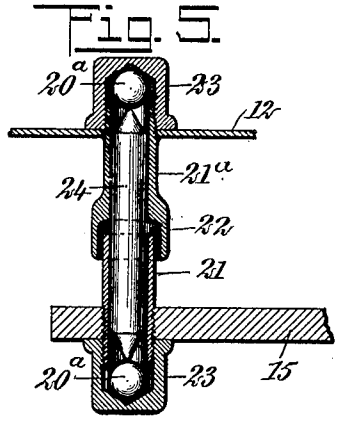


Fig. 3.

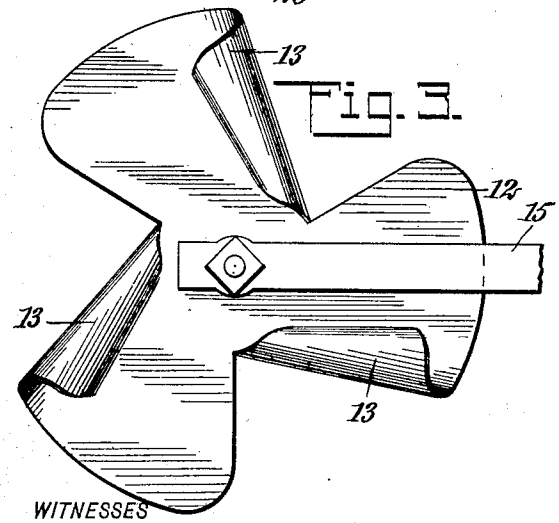
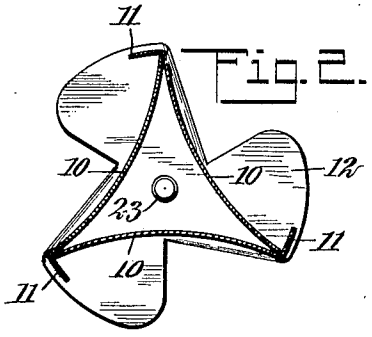


Fig. 2.



WITNESSES

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REVOLVING SIGN.

No. 925,907. Specification of Letters Patent. Patented June 22, 1909.

Application filed May 5, 1908. Serial No. 430,949.

To all whom it may concern:

Be it known that I, MORRIS HEIM, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Revolving Sign, of which the following is a full, clear, and exact description.

This invention is an improvement in revolving signs, and has in view a device of this nature which will be set and kept in motion by very light currents of air. To this end I construct the bearings of the sign to develop no appreciable friction either at first or after the sign has been in use and exposed to the weather for an extended period. I also increase the tendency of the sign to revolve by providing each of its heads, or its opposite ends, with outwardly-extending vanes which incidentally add to the ornamental appearance of the sign.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a revolving sign complete constructed in accordance with my invention; Fig. 2 is a cross-section of the same substantially on the line 2—2 of Fig. 1; Fig. 3 is a plan of the sign; Fig. 4 is a longitudinal section through the top bearing of the sign; and Fig. 5 is a longitudinal section through the bottom bearing of the sign.

The body of the sign is made up of a number of sections 10, preferably three, each section being composed of a plate of sheet metal arranged lengthwise of the sign, with the outer face slightly concaved transversely, and with one edge turned at approximately right-angles to overlap the edge of the next adjacent section and provide a vane 11. The several sections or plates of the body are rigidly secured together adjacent to the vanes by riveting, soldering, or any suitable manner. At each end of the body portion of the sign is attached a head 12, preferably also made of sheet metal, and is slit approximately radially midway between the vanes 11, and the metal at one side of each slit curled over to form outwardly-extending vanes 13, and the metal at the opposite sides of the slits left flat to form abutments at the opposite ends of the vanes 11, operating to confine the air striking against these vanes and obtaining its full efficiency.

Any suitable bracket 14 may be used in supporting the sign in an upright position, that shown being made of a plain bar of metal and having arms 15 extending outwardly therefrom. In the top arm 15 of the bracket is secured a stud 16 having an inverted cup 17 at its lower end provided with a conical or V-shaped bottom, the connection of the stud 16 with the arm of the bracket being preferably effected by constructing the stud with a threaded shank of reduced diameter on which is screwed a nut 18 at the top of the arm. In the top head 12 of the sign is likewise fastened at the center, a stud 19 having a V-shaped or conical depression in its upper end, corresponding to that of the cup, within which it is arranged, and forming in connection therewith the bearing for a ball 20. The bottom bearing for the sign is preferably made by threading respectively into the bottom arm 15 and the bottom arm 12, a nipple 21 and a nipple 21^a, the nipple 21^a having a cup 22 at its lower end fitting over the upper end of the nipple 21, and both nipples extending through the opposite sides of the parts to which they are threaded, where each is provided with a cup 23 having a V-shaped or conical depression in its closed end forming one of the bearings of a ball 20^a. The opposite bearing of the ball 20^a is formed by the conical extremities of a spindle 24 which revolubly fits within the nipples 21 and 21^a. By this construction of the bearings I have found that no appreciable friction is developed either when the sign is new or after it has been exposed to the weather for an extended period, owing to the fact that the turning action is on the bearing balls which are inclosed and protected. As the weight of the sign is entirely on the lower bearing, the friction at this point is naturally greatest. The sticking of one of the balls 20^a would, however, not render the sign inoperative for the reason that the revolution would freely take place on the other ball.

In assembling and dismounting the sign, the arms 15 of the bracket are sprung apart sufficiently to permit the top of the stud to clear the lower edge of the cup, the latter operating when the sign is set up not only to protect the bearing from the weather, but preventing the accidental dislocation and loss of the ball.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

A revolving sign having a head slit on radial lines and curled over at one side of each of the slits to form outwardly-extending vanes.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MORRIS HEIM.

Witnesses:
W. W. HOLT,
JOHN P. DAVIS.