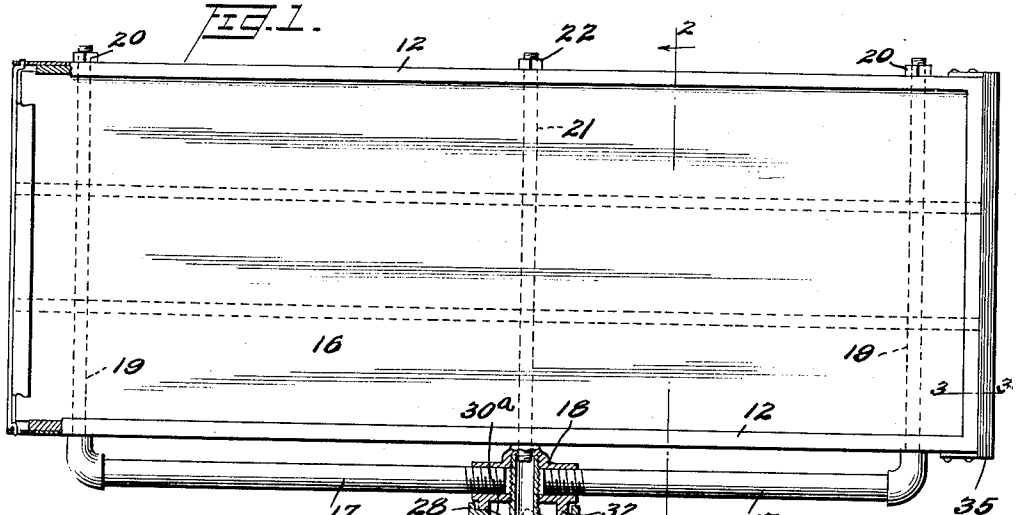
Dec. 15, 1925. 1,565,285

M. C. MERKER

MOVABLE SIGNBOARD

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FIG. 1.



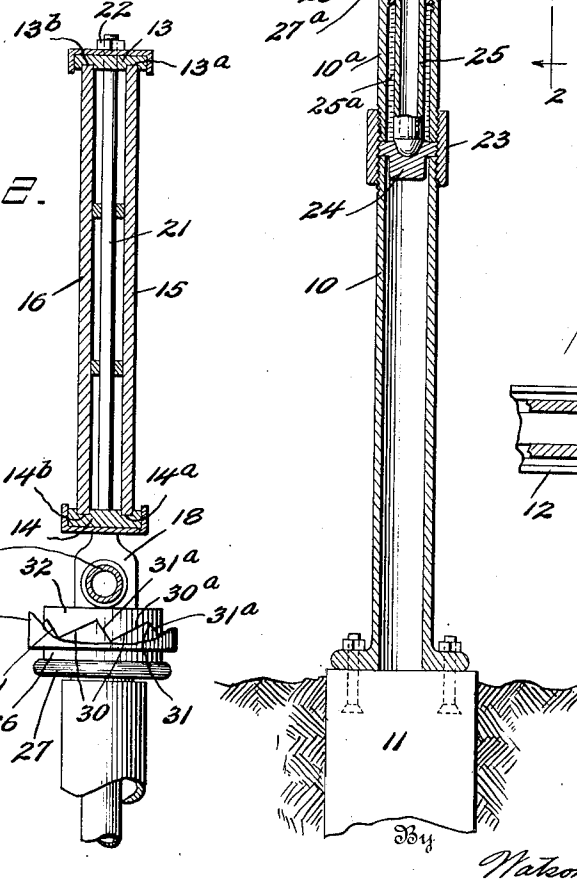
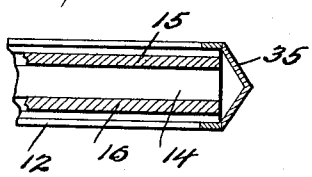


FIG. 2.

FIG. 3.



Inventor

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By

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Dec. 15, 1925. 1,565,285

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MOVABLE SIGNBOARD

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FIG. 4.

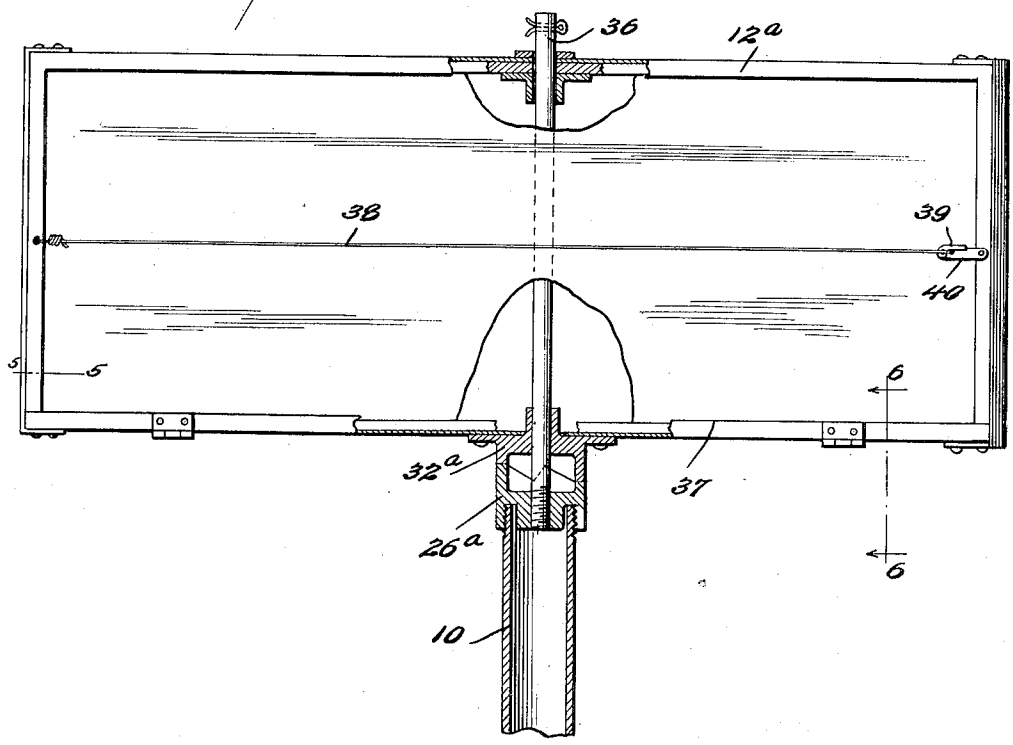


FIG. 5.

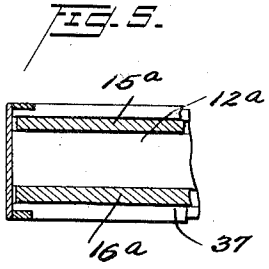
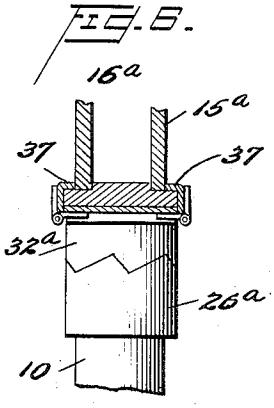


FIG. 6.



Inventor

Monte C. Merker.

By Watson, Cole, Moore & Grindle.

Attorney

Patented Dec. 15, 1925. 1,565,285

UNITED STATES PATENT OFFICE.

MONTE C. MERKER, OF READING, PENNSYLVANIA, ASSIGNOR TO MERKER, ELLIS, KRAMER COMPANY, OF READING, PENNSYLVANIA, A COPARTNERSHIP COMPOSED OF MONTE C. MERKER, HARRY G. ELLIS, AND PAUL A. KRAMER.

MOVABLE SIGNBOARD.

Application filed March 20, 1923. Serial No. 626,363.

To all whom it may concern:

Be it known that I, MONTE C. MERKER, a citizen of the United States, and a resident of Reading, county of Berks, Pennsylvania, have invented certain new and useful Improvements in Movable Signboards, of which the following is a specification.

My invention relates to sign boards. The ordinary sign board is stationary and only one side of the same is available for the display of signs. Such stationary sign boards are always seen from the same angles and in course of time fail to attract attention. As usually constructed such sign boards also require considerable space for their support thus making it necessary to purchase or rent land upon which to erect the same. My invention aims to provide a sign board mounted so as to be movable or rotatable about a substantially vertical axis and so constructed that it will be caused to move by the force of the wind and change its position from time to time, which tends to attract attention. As such a board may have one side or the other exposed to view both sides are available for signs thus doubling the available area of the sign board as compared with a stationary sign board of the same length. A further object of my invention is to provide a construction in which after the sign board is displaced to a limited extent from its original position it will be automatically returned to such position thus providing a construction in which the sign will normally remain in substantially the same position unless considerable force is applied thereto. A still further object is to provide a construction in which the sign board is capable of rotating in one direction by application of a certain amount of force but in which considerably greater resistance is offered to rotation of the same in the opposite direction, the construction however being so arranged as to permit rotation in the last mentioned direction when sufficient force is applied. A still further object of the invention is to provide a support for the sign board which will require little space and which will not materially interfere with the tilling of the soil about the same. An additional object is to provide a sign board so constructed that signs may be easily inserted or removed as desired. The foregoing and other useful advantages are obtained by the construction hereinafter described and illustrated in the accompanying drawings in which:

Figure 1 is a vertical sectional view of my preferred form of construction certain parts appearing in elevation.

Figure 2 is a transverse vertical section on the line 2—2 of Figure 1, parts being broken away.

Figure 3 is a horizontal section on the line 3—3 of Figure 1.

Figure 4 is a vertical section of a slightly modified form of construction, certain parts in this figure also appearing in elevation.

Figure 5 is a horizontal section on the line 5—5 of Figure 4, and

Figure 6 is a vertical section on the line 6—6 of Figure 4.

Referring to the drawings in detail and particularly to Figs. 1, 2 and 3, the numeral 10 indicates a post or pedestal for supporting the sign board, this pedestal preferably being mounted upon a concrete foundation 11. I prefer to support the sign on a single pedestal so that it will require only a small amount of space on which to erect the same and will not interfere to any extent with the cultivation of the ground around and adjacent to the sign board. With a construction of this kind therefore it is unnecessary to purchase or rent a considerable tract of land on which to erect a sign.

In the preferred form of my device illustrated in said Figs. 1, 2 and 3, the sign board is made up of a suitable rectangular frame 12 which preferably includes upper and lower members 13 and 14 provided respectively with spaced grooves 13^a, 13^b and 14^a, 14^b for receiving the signs 15 and 16. Preferably the parts are so arranged that the signs may be inserted by slipping the same into the frame from one end thereof. Since the sign board is movable so that different sides may be presented to view at different times, both sides may be utilized for the display of signs thus doubling the capacity of the sign board. Also by making the signs removable, they may be painted or prepared in a shop and later inserted by unskilled workmen into the sign boards, thus

making it unnecessary to send out skilled workmen to prepare the signs where the boards are erected.

In the preferred form of my device I arrange pipes or rods 17 beneath the frame 12 which pipes are threaded into or otherwise secured to a supporting member 18. Connected to the outer ends of the pipes 17 are pipes or rods 19 which extend upwardly through the frame 12 and at their upper ends receive nuts 20 by which the frame is rigidly attached to the pipes 17. Another pipe or rod 21 is secured to the member 18 and extends upwardly through the middle of the frame and is provided with a nut 22 to afford further means for rigidly securing the frame to the supporting member 18. In this form of my construction the pedestal 10 is provided at its upper end with an extension 10^a, these parts being secured together by means of a coupling 23 or in any other desired manner. Between the portions 10 and 10^a of the pedestal I provide a bearing member 24 for a purpose hereinafter described. It is of course apparent that the parts 10 and 10^a of the pedestal may, if desired, be made integral and that the bearing member may be formed as a web or partition in such pedestal. Secured to the member 18 and extending downwardly therefrom is a pivot member 25, this member being rotatably arranged in the upper end of the pedestal and having its lower end resting on the bearing member 24. An annular space 25^a is formed between the pivot member and the adjacent wall of the pedestal which is adapted to receive a suitable lubricant. It will thus be seen that the bearing member 24 acts as a means for supporting the entire sign board and that the board may be rotated on this bearing.

On the upper end of the pedestal I secure a cam member 26 in any suitable manner. Preferably this member is bolted to a plug 27 threaded into the upper end of the extension 10^a of the pedestal and held by a set screw 27^a. The cam member 26 is substantially circular and surrounds the pivot member 25 heretofore mentioned. The cam member 26 on its upper face is provided with a plurality of inclined or cam surfaces 30 and also with a plurality of other inclined or cam surfaces 31, the latter of which are inclined to the horizontal at a greater angle than the surfaces 30. The lower portion of the member 18 is shaped to form a cam member 32 for co-operating with the cam member 26, or if desired this cam member 32 may be formed separate from the member 18 and secured thereto. On its lower face the cam member 32 is provided with a series of inclined surfaces 30^a and 31^a which correspond respectively with the inclined surfaces 30 and 31 of the cam member 26. In short the two cam members 26 and 32 are provided with complementary cam or inclined surfaces which are adapted to fit and cooperate with each other the high portions of the member 26 being adapted to fit into the low portions or depressions of the member 32 and vice versa. An upwardly extending flange 28 on member 26 serves to retain oil in the member 26 so that the cam surfaces are always thoroughly lubricated.

From the foregoing it will be seen that the sign board is mounted for pivotal movement about a vertical axis which corresponds to the axis of the pivot member 25 and the rod or bar 21. The axis about which the frame of the sign board is movable is preferably arranged somewhat nearer one end of the sign board than the other, the purpose of this arrangement being to avoid the tendency of the sign board to rotate in the wind. By making one end shorter than the other the wind will serve to hold the short end of the board in the direction from which the wind is blowing after the manner of a weather vane. In order to minimize the force of the wind against the edge of the sign board facing the same such edge is provided with a triangular or beveled piece 35 which is secured to the frame so that one angle of such piece will be held toward the wind.

With a construction of the kind described it will be understood that the sign will normally be held in a certain position by the cam surfaces on the members 26 and 32. The action of the wind against the sign board will tend to cause rotation of the same about its vertical axis but such action will be resisted more or less by the cam surfaces on the members 26 and 32. As the wind acts in one direction upon the board it will cause the surfaces 30 and 30^a of the cam members to slide over each other a certain distance but the tendency will be for the board to return to its original position as the force of the wind decreases. Thus the board will be kept in a more or less constant motion by the action of the wind. In case the wind blows in a direction tending to cause the cam surfaces 31 and 31^a to contact, greater resistance will be offered against rotation but while these surfaces offer considerable resistance they are such as to yield in case sufficient force is applied thereto. It will of course be understood that if the sign board is rotated sufficiently to cause the upper cam surfaces 30^a to pass entirely over the lower cam surfaces 30 the board will tend to rotate still further in the same direction due to the action of the cam surfaces 31 and 31^a and it will take a new position at an angle to its former position. But if the board does not rotate a sufficient distance to cause the upper cam surfaces 30^a to pass entirely over the corresponding

lower cam surfaces then the board will tend to return to its original position. Thus as above stated the board is kept moving back and forth more or less which causes it to attract more attention than it would if it were stationary. Furthermore, if, due to the action of the wind, the sign board is rotated so as to point in different directions at different times this difference in appearance and location of the board only serves to take up new positions or attract attention and since both sides of the board are provided with signs it is immaterial which side is exposed to observation.

In Figure 4 I have shown a somewhat modified form of construction. In this form the upper cam member 32^a is secured directly to the frame 12^a and the lower cam member 26^a is rigidly mounted on the upper end of the pedestal 10. In this form of device also a bar or rod 36 is rigidly secured to the member 26^a or to the upper end of the pedestal 10 which rod or bar extends upwardly through the frame 12^a and forms the pivot or axis about which the frame may rotate. The inclined surfaces on the upper and lower members 32^a and 26^a in this form of device are the same as those on the members 32 and 26 previously described.

It may some times be desirable to insert the signs 15^a, 16^a into the frame from the lower edge thereof instead of from one end as previously stated and in order that this may be done I provide the lower edge of the frame 12^a in this form of device with pivoted retaining members 37 hinged at their lower edge. These retaining members, it will be understood, may be swung downwardly into substantially vertical position and the signs, either as a whole or in sections, then slipped upwardly into the frame. After the signs are thus inserted into the frame the retaining members 37 may be swung upwardly into the position shown in Fig. 6 in which position they are adapted to bear against the signs in the frame and securely hold the same. Any suitable means may of course be provided for holding such retaining members after they have been swung upwardly. If desired, additional means may be provided for retaining signs in the frame and in Figure 4 I have shown a wire 38 attached at one end to substantially the central portion of the frame and having a loop at the other end which is adapted to hook over a cam lever 39 mounted on a lug 40 secured to the other end of the frame. By hooking the loop of the wire over such cam lever and then forcing the lever into the position shown in Figure 4 the wire is drawn taut across the face of the sign in the frame and holds the same securely in position.

It is of course apparent that various modifications may be made in the details of construction heretofore described and it is not to be understood that the invention is limited to such details except as required by the appended claims.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A movable sign board comprising a frame mounted to move about a vertical axis intermediate its ends, said axis being located nearer to one end than the other of said frame, whereby rotation of the frame by the wind is prevented, means for yieldingly holding said frame in an original position, means tending to cause said frame to return to its original position after it is displaced therefrom, and means for yieldingly holding said frame in a new position at an angle to its original position after the same has been displaced a predetermined degree from its original position.

2. A movable sign board comprising a frame, a support on which said frame is mounted for rotation about a substantially vertical axis, means for yieldingly holding said frame in a plurality of positions at an angle to each other, said means comprising a stationary member secured to said support and a movable member secured to and rotatable with said frame, said stationary member having a cam surface provided with a plurality of high and low portions and said movable member having a projection adapted to slide over said cam surface and rest in any one of the low portions thereof.

3. A movable sign board comprising a frame, a support on which said frame is mounted for rotation about a substantially vertical axis, means for yieldingly holding said frame in a plurality of positions at an angle to each other, said means comprising a stationary member secured to said support and a movable member secured to and rotatable with said frame, said stationary member having a cam surface provided with a plurality of high and low portions and said movable member also having a cam surface provided with a plurality of high and low portions adapted to cooperate with the high and low portions on said stationary member.

4. A movable sign board comprising a frame, a support on which said frame is mounted for rotation about a substantially vertical axis, means for yieldingly holding said frame in a plurality of positions at an angle to each other, said means comprising a member secured to said support and a member secured to said frame, one of said members having a cam surface provided with a plurality of high and low portions and the other member having a part adapted to slide over said cam surface and rest in any one of said low portions of said cam surface.

5. A movable sign board comprising a frame, a support on which said frame is mounted for rotation about a substantially vertical axis, means for yieldingly holding said frame in an initial position and for moving it into a new position at an angle to its initial position after it has been rotated a predetermined degree from its initial position, said means comprising two members, one of which is secured to said support and the other to said frame, one of said members having a surface provided with a plurality of depressions each provided with inclined sides and the other member having a projection adapted to slide over said surface and rest in any one of said depressions.

6. A movable sign board including a frame, means for supporting the same for movement about a substantially vertical axis, said means comprising a hollow pedestal having a bearing surface therein below the upper end thereof, a pivot member secured to said frame and extending downwardly into said pedestal and resting on said bearing surface, a member secured to said pedestal and having on its upper face a plurality of high and low surfaces, a member secured to said frame and having on its lower face a plurality of high and low surfaces for cooperation with said first named surfaces upon rotation of said frame about its axis.

7. A movable sign board including a frame means for supporting the same for pivotal movement about a substantially vertical axis, a fixed cam member arranged concentrically with said axis, a second cam member also arranged concentrically with said axis and secured to said frame, each of said cam members having a plurality of inclined surfaces adapted to cooperate when said frame is rotated in one way about its axis, and also having a plurality of inclined surfaces of greater inclination than said first named surfaces adapted to cooperate when said frame is rotated the other way about its axis.

8. A movable sign board, means for supporting the same for movement about a substantially vertical axis, a fixed cam member surrounding said axis and having a plurality of high and low surfaces on its upper face, a second member rigidly secured beneath the lower edge of said board, said last named member having a plurality of high and low surfaces on the lower face thereof arranged to cooperate with the surfaces on said first named member, each of said members being in the form of a hollow cylinder, whereby a space is formed within said members for the reception of lubricant.

9. A movable sign board, means for supporting the same for movement about a substantially vertical axis, a fixed member surrounding said axis and having an upwardly projecting flange provided on its upper face with a plurality of high and low cam surfaces, a second member rigidly secured to said board and having a downwardly projecting flange provided on its lower face with a plurality of high and low cam surfaces adapted to cooperate with the first named cam surfaces, said flanges being spaced from said axis whereby a space is formed within said members for the reception of lubricant.

In testimony whereof I hereunto affix my signature.

MONTE C. MERKER.