Oct. 20, 1970 B. J. UPHOFF 3,534,431

DOOR STOP FOR LATERALLY MOVABLE DOORS

Filed May 21, 1969

Fig. 1

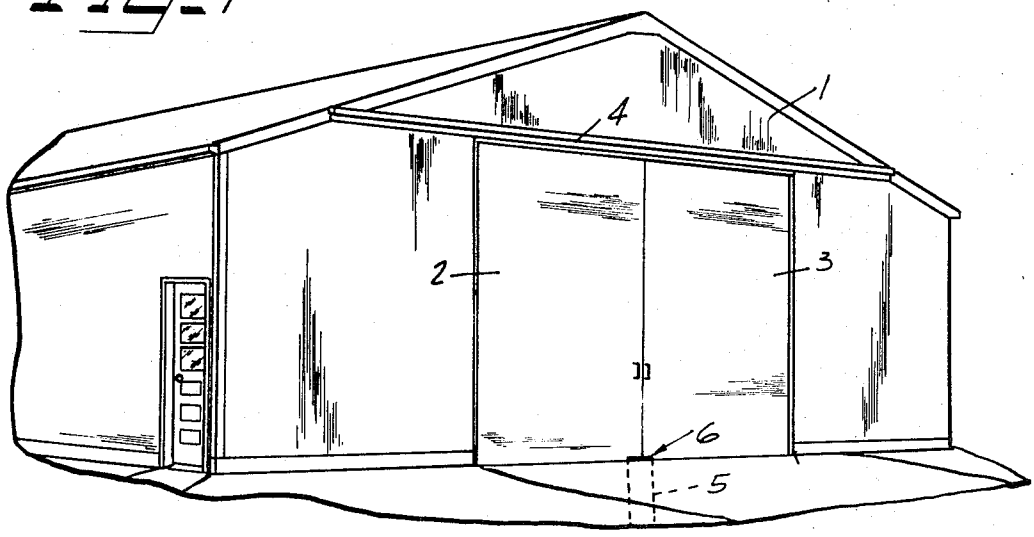


Fig. 2

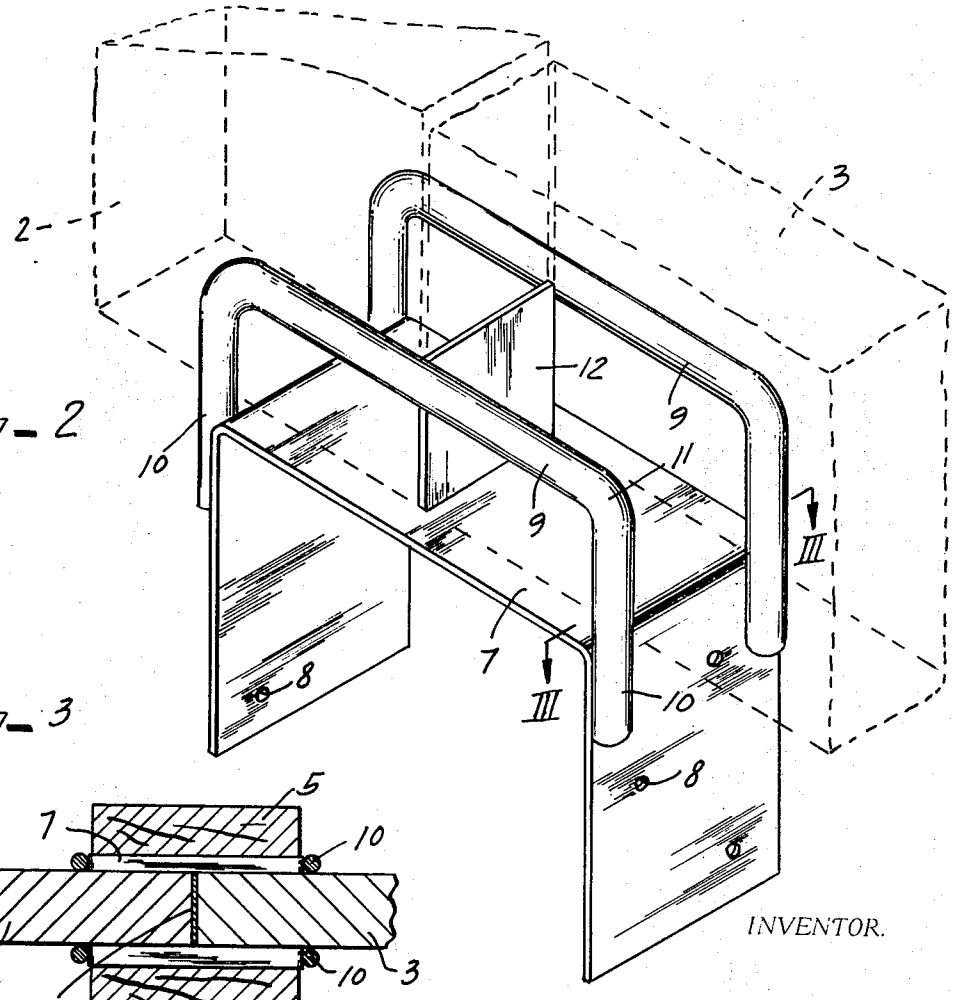


Fig. 3

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DOOR STOP FOR LATERALLY MOVABLE DOORS

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ABSTRACT OF THE DISCLOSURE

A door stop for laterally movable doors, highly desirable for use in pole buildings, including a base member for attachment at floor level to a part of the building and a pair of spaced bars having downwardly extending end portions secured to said base member, whereby said bars are spaced above said base member such that they will not accumulate dirt, debris, ice, etc. and can be safely driven over by a rubber-tired vehicle.

BACKGROUND OF THE INVENTION

(1) Field of the invention: This invention relates to the art of door stops, and more particularly to a stop highly desirable for use as a center stop positioned centrally at the bottom of a door opening which is usually closed by a pair of laterally movable doors suspended from suitable trolleys riding on a track disposed on the building above the door opening. The stop functions to prevent overmoving a door toward closed position and also to align the doors with the edges thereof at the proper degree of adjacency and in the same plane with each other.

(2) Description of the prior art: In the past, door stops for the general purpose of the instant invention have usually been channel-shaped members with solid side walls, with or without a transverse center partition, and when so constructed, these door stops would accumulate dirt, debris, snow and ice, and in some cases the stop would become plugged with debris or ice, and prevent the doors from properly closing. In other instances, even though the doors were closed, rain or snow seeping through the crack at the junction of the doors could collect in the stop and freeze the doors in closed position making it extremely difficult to open them. In addition, such heretofore known door stops, in every instance of which I am aware, could not effectively be utilized as a center stop mounted on a post terminating at floor level because of the danger of ruining a tire if a rubber-tired vehicle were driven over the stop.

SUMMARY OF THE INVENTION

The instant invention overcomes the disadvantages of the prior art discussed above, in the provision of a door stop constructed for firm positioning to the top of a post embedded in the ground and terminating at ground or floor level and further constructed so that the door stop will not retain dirt and debris to an objectionable extent, nor retain water to an extent that the doors will be frozen fast to the stop or each other. In addition, the invention is simple in construction, economical, and arranged that a rubber-tired vehicle may be driven directly over the stop without injury to the tires.

Other advantages of the instant invention will become apparent from the disclosures hereinafter.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a fragmentary perspective view of a farm, storage, or utility building of the pole type with a door stop embodying the principles of this invention operatively associated therewith;

FIG. 2 is an enlarged perspective view of the door stop itself with the relation of the doors therewith indicated in dotted lines; and

FIG. 3 is a fragmentary reduced plan sectional view taken substantially as indicated by the line III—III of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1, by way of example, I have shown a farm building **1** which is provided with a pair of laterally movable doors **2** and **3** shown in closed position over a door opening in the building. These doors are suspended from pulleys which ride a track **4** mounted on the building above the door opening, in a known manner. The building is of the type comonly referred to as a pole building since the foundation of the building is a number of vertical posts anchored in concrete and embedded in the ground, such as post **5**, the posts terminating at the top at ground or floor level. The door stop embodied in this invention, generally indicated by numeral **6**, as seen in FIG. **1**, is mounted on the top of a post centrally disposed with regard to the door opening in the building.

With reference now to FIGS. 2 and 3, it will be seen that the door stop includes a base member **7** in the form of an inverted U which may readily be disposed on top of the post **5** and which is sized so that the legs of the U will extend downwardly on opposed sides of the post while the interconnecting portion extends across the top of the post. The legs of the post are each provided with a plurality of apertures **8** through which the base is secured to the post with nails, screws, or the equivalent. Identical metal bars **9—9** extend over the base plate **7** and are disposed thereabove with their end portions **10—10** turned downwardly and welded to the legs of the U-shaped base plate. These rods have a curvate bend at the connection between the end portions and the cross bars **9** and are preferably round in cross section with a diameter of approximately ½". It is a simple expedient to shape the bars from a piece of rod stock. The bars **9—9** are spaced apart sufficiently to accommodate the lower corners of the doors **2** and **3** therebetween, as indicated in FIGS. **2** and **3**.

A bumper **12** is disposed transversely to the path of the doors in the median plane between the bars **9—9**. This bumper is welded to the base **7** and to each of the bars **9**. It should be noted that the bumper terminates at approximately half the diameter of each bar below the top of the bar. The bumper, of course, prevents movement of either door **2** or **3** beyond its correct position for closing half the door opening in the building.

From the above description, it will be noted that the door stop is so constructed that it will not in any manner damage an inflated tire driven over it. The bars **9—9** are smooth, round in cross section, and have no sharp corners, and the bumper **12** does not project as high as the bars do. The door stop projects a total of less than 2¼" above the top of the post to which it is secured. Thus, an inflated tire may pass directly over the door stop, and the entrance into or exit from the building **1** of farm vehicles, for example, some of which may be heavily loaded, is not confined to a path on either side of the door stop. Further, the door stop is open at the sides and ends so that dirt and debris will not accumulate and set therein to an objectionable degree, and there is no chance for ice to freeze within the door stop and lock the doors accordingly. Consequently, the door stop may be utilized to facilitate proper closing of the doors in locations where formerly no door stop was used. In addition, the door stop is simple in construction, simple to attach in position, and long-lived.

Although various minor modifications might be suggested by those versed in the art, it should be understood

that I wish to embody within the scope of the patent granted hereon all such modifications as reasonably and properly come within the scope of my contribution to the art.

I claim as my invention:

1. A door stop for laterally movable doors, including
a base member for attachment at floor level to a part of a building,
a pair of spaced bars having downwardly extending end portions secured to said base member whereby said bars are spaced above said base member, and
the space between said bars and base member being open to eliminate an accumulation of debris within the door stop.

2. The door stop of claim 1, wherein said base member has the shape of an inverted U to embrace the top of a post terminating at floor level.

3. The door stop of claim 1, wherein said bars are round and shaped with rounded curves where the end portions are downwardly turned.

4. The door stop of claim 1, including
an upstanding bumper plate disposed transversely to the path of the doors and centrally disposed on said base member between said bars.

5. The door stop of claim 4, wherein said bumper plate terminates at the top edge below the tops of said bars.

6. The door stop of claim 5, wherein said bumper plate is secured to both said base member and the lower portion of said bars.

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