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O. GROTTOLA ETAL

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ARTICLE HOLDER

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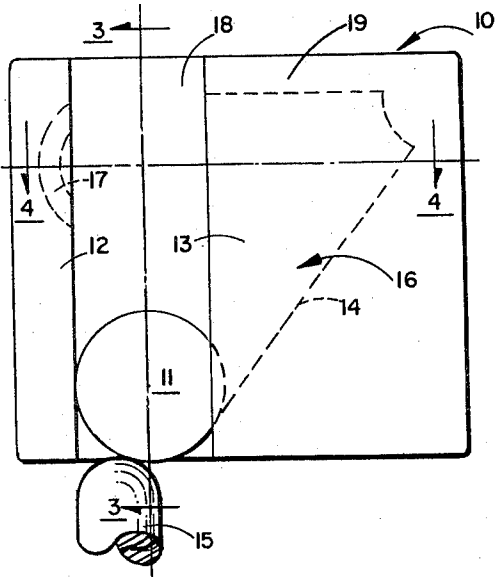


FIG. 1

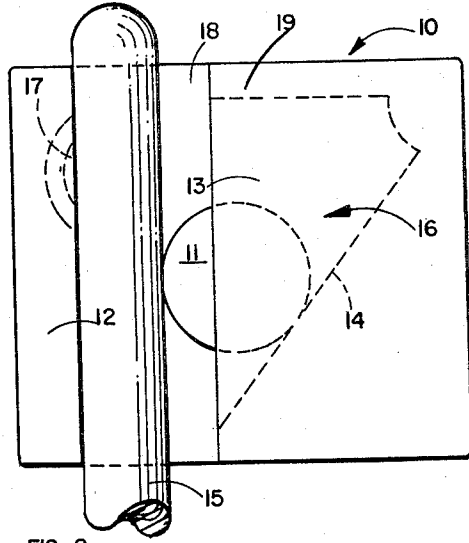


FIG. 2

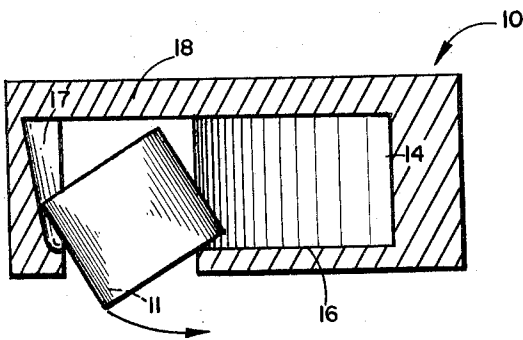


FIG. 4

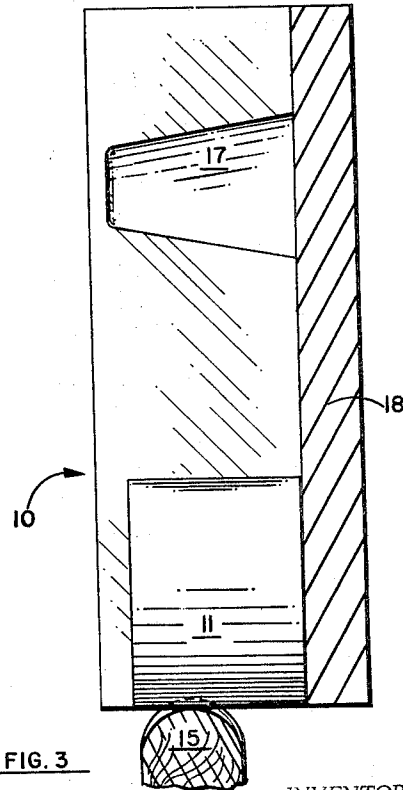


FIG. 3

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ARTICLE HOLDER

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3 Claims. (Cl. 248—113)

This invention relates to an improved article holder of the type adapted to support brooms, shovels, and various other implements by their handles.

One primary object of the present invention is to provide a simple, practical and efficient article holder designed for household use and adapted to be cheaply manufactured in two pieces.

The present invention embodies a two-piece article holder comprising a roller piece and a main body piece having a back plate member adapted to be supported on a wall. Formed integrally with the back plate member is a vertical end member adapted to provide at least one gripping surface. A right circular cone segment is recessed into the gripping surface of the end member. The recess has its largest diameter greater than the diameter of the roller. A locking member is formed integrally with the back member and contains a ramp surface which provides a second gripping surface. The locking member is adapted to receive and release the roller when the roller is aligned properly adjacent the recessed surface and to contain the roller within the locking member when the roller is in any other position. The locking member is also positioned adjacent the vertical member such that an article inserted between these members is held in place by the roller.

Another object of the present invention is to provide an article holder which will grip the handle of a broom, shovel or other like article and automatically secure the handle in a vertical position.

A further object of the present invention is to provide an article holder which will accept various size handles and provide a gripping force on the handle proportionate to the weight of the article.

These and other objects of the present invention will become more apparent and will be best understood by reference to the following description when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a front view of the article holder with a handle about to be inserted;

FIG. 2 is a front view of the article holder with the handle inserted and securely gripped;

FIG. 3 is a partial section, partial elevation view of the article holder of FIG. 1 taken along the section lines 3—3; and

FIG. 4 is another partial section, partial elevation view of the article holder of FIG. 1 taken along the section lines 4—4.

Referring to FIG. 1, the two-piece article holder designated 10 is comprised of a roller 11 and a main body member 16.

The body member 16 is adapted to be secured to a wall to hold the desired article in a vertical position.

The roller 11 is adapted to roll up the bottom ramp surface 14 when the handle 15 is inserted vertically into the body member.

The roller may be made from any suitable material such as rubber, plastic or wood. If the roller is made of wood, it may be desirable to coat the outer roller surface with rubber in order to insure a firm gripping surface.

Body member 16 is comprised of a back member 13 which is generally in a rectangular plate form, and a vertical end member 12 which is formed integrally with the back member and projects therefrom to provide one

gripping surface between which the handle 15 is gripped and a locking member 13 which is also formed integrally with the back member and which has a ramp surface 14 contained therein which projects from the back member and provides a second gripping surface. Also part of the locking member is a horizontal upper surface 19 which limits the upward movement of the roller.

Provided on the gripping surface of member 12 is a recessed section 17 having the shape of a right circular cone with a base diameter larger than the diameter of the roller 11. The purpose of this recessed section will become apparent as the disclosure progresses.

Referring now to FIG. 2 wherein the handle 15 of the article to be held is shown fully supported by the holder 10. The roller 11 provides a wedging or gripping action between the one gripping surface of end member 12 and the ramp member 14 which prevents the handle from slipping down and in fact the weight of the article determines the amount of gripping force which is applied through the roller. To release the handle, an upward vertical motion is imparted to the handle; and as the roller releases, the handle is pulled toward the operator and out from between the roller and the gripping surfaces.

It will be obvious to persons skilled in the art to vary the size of the roller and the spacing between the end member 12 and the locking member 13 to accommodate various sized handles.

In order to manufacture the device in two pieces, it is necessary to provide a means of inserting the roller within the locking member. Such means is shown in FIG. 3 wherein the recessed section 17 is shown more clearly recessed into the gripping surface of member 12 to provide a passage way for the roller past the locking member 13 to the bottom ramp surface 14. There are distinct advantages in manufacturing this holder in two pieces. The greatest advantage, of course, is that of low price, the other is that of structural rigidity.

The above operation is shown more clearly in FIG. 4. The roller 11 has been moved into alignment with the recess 17 and, as is shown by the action arrow, is being rotated about a vertical axis so as to disassociate the roller 11 from the main body member 16.

The recess 17 may be of such a size as to allow the insertion of rollers having various shapes and diameters peculiar to the particular type of article to be held.

Although not shown, it will be obvious to those persons skilled in the art that the article holder 10 may be manufactured by way of a series of holders having a common main body member laid end-on-end such that a plurality of articles may be held.

While the specific details of one embodiment of this invention have been herein shown and described, the invention is not confined thereto as changes and alterations may be made without departing from the spirit and scope thereof as defined in the appended claims.

We claim:

1. A two-piece article holder comprising:

a roller member;

a main body member having a back plate member adapted to be supported on a wall, formed integrally with said back member a vertical end member providing at least one gripping surface, a right circular cone segment recess in said one gripping surface, said recess having its largest diameter greater than the diameter of said roller member, a locking member formed integrally with said back member and having contained therein a ramp surface, providing a second gripping surface, said locking member adapted to receive and release said roller when said roller is alined properly adjacent said recessed surface and to contain said roller within said locking member in al-

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- other positions, said locking member also positioned adjacent said vertical member such that an article inserted between said members is held in place by said roller member being in contact with said second gripping surface and also forcing said article into contact with said first gripping surface.
2. The two-piece article of claim 1 wherein said locking member is further comprised of a horizontal upper surface positioned over said ramp surface so as to limit the upward travel of said roller member.
3. The two-piece article of claim 1 wherein said recess

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in said vertical end member is positioned in the upper portion of said member.

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