June 19, 1928. 1,674,581

A. J. WEBB

BROOM HOLDER

Filed Aug. 11, 1927

Fig. 1.

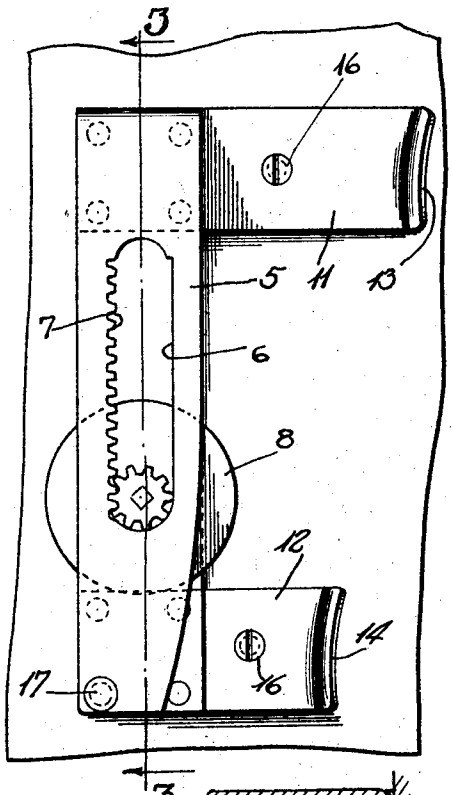
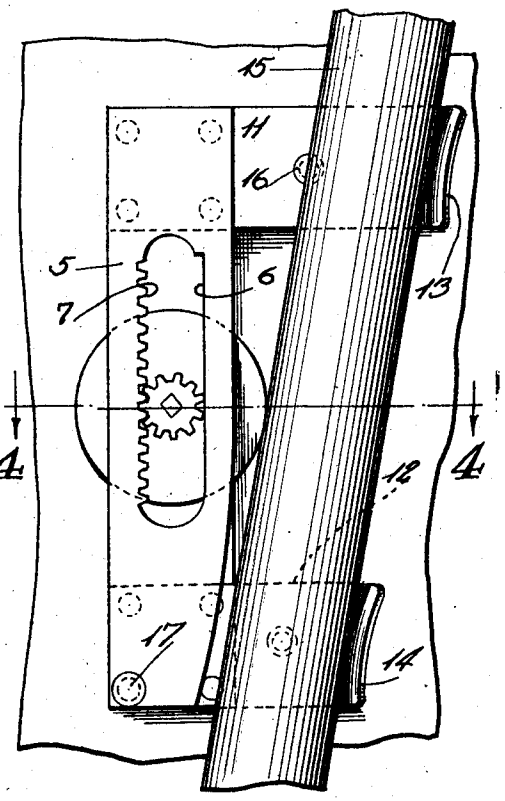


Fig. 2.



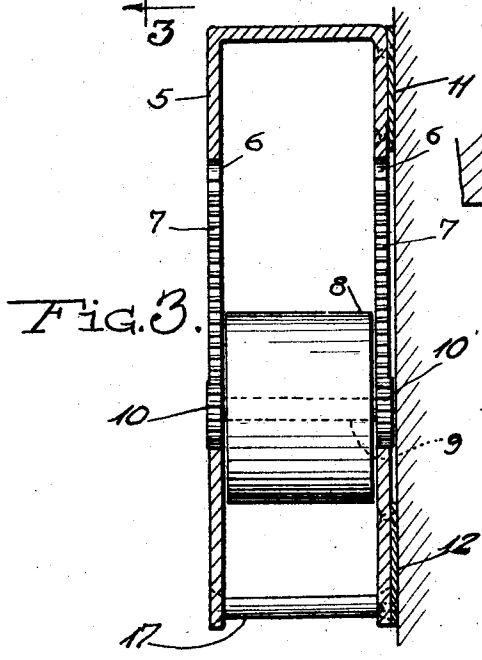


Fig. 3.

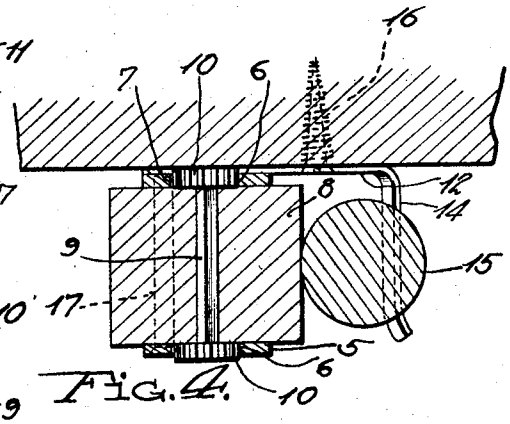


Fig. 4.

INVENTOR.
Anton J. Webb.
BY T. M. Bryant
ATTORNEY.

Patented June 19, 1928. 1,674,581

UNITED STATES PATENT OFFICE.

ALTON J. WEBB, OF ELMIRA, NEW YORK.

BROOM HOLDER.

Application filed August 11, 1927. Serial No. 212,227.

This invention relates to broom holders, and has more particular reference to a device of this kind in which the broom is supported by friction grip means including a roller movable into wedging engagement with the broom handle.

The primary object of the present invention is to provide a broom holder of the above kind which is light in weight, simple and durable in construction and efficient and reliable in operation.

A more particular object of the invention is to provide a broom holder of the above kind in which means is provided for positively causing movement of the roller from released to gripping position, or vice versa, upon rotation of said roller, whereby care need not be exercised in the use of the device to insure reliable operation thereof.

A still further object is to provide a broom holder of the above kind including a vertically movable roller, and a plurality of abutments located at different distances from and to one side of the roller for positioning the handle of the broom at an oblique angle to the direction of movement of the roller so that effective wedging engagement of the latter with the handle is had.

Other objects will become apparent as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a front elevational view of a broom holder constructed in accordance with the present invention;

Figure 2 is a view similar to Figure 1 with the roller in partly raised position and in wedging engagement with the handle of a broom supported by the holder;

Figure 3 is a vertical section taken upon line 3—3 of Figure 1; and

Figure 4 is a horizontal section taken upon line 4—4 of Figure 2.

Referring more in detail to the drawing, the present broom holder includes a U-shaped vertical frame 5 preferably constructed of a strip of sheet metal suitably bent into shape, and having opposed vertical elongated slots 6 in the spaced parallel legs thereof. One longitudinal or vertical wall of each of the slots 6 is formed with a series of rack teeth 7 substantially from top to bottom thereof, and vertically movable in the frame between the legs thereof is a friction roller 8 whose spindle 9 has projecting ends upon which are fixed spur pinions 10 freely movable and guided in the slots 6 and meshing with the teeth 7 of the corresponding wall of said slots. It is thus apparent that when the roller 8 is turned it is caused to move longitudinally in the slots 6 in a positive manner. To state the condition in a different way, it may be said that upon movement of the roller 8 longitudinally of the slots 6, rotation of the roller is positively effected by engagement of the pinions 10 with the rack teeth 7.

Rigidly attached to the upper and lower ends of the rear leg of the frame 5 are lateral arms or plates 11 and 12 which are of different lengths and terminate in forwardly directed free ends 13 and 14 located at different distances from and to one side of the roller 8 and above and below the path of travel of the latter in the slots 6. The forwardly directed ends 13 and 14 thus form a pair of fixed abutments against the inner side of which is adapted to be placed the broom handle 15 so that the latter is positioned obliquely to the direction of movement of the roller 8 in the frame 5 as shown in Figure 2, whereby said roller may be moved into tight wedging engagement with the broom handle for effectively supporting the broom.

The forwardly directed ends 13 and 14 of the arms or plates 11 and 12 are of inwardly curved form both horizontally and vertically to facilitate insertion of the broom handle between said ends 13 and 14 and the roller, and in order to facilitate attachment of the broom holder to a vertical wall or the like, the arms 11 and 12 may have suitable openings through which are passed screws or other driven fasteners 16.

The free ends of the legs of frame 5 are preferably connected by means of a transverse rod or rivet 17 to avoid spreading of said ends of the frame legs.

As illustrated in the drawing, the device may be positioned with the frame 5 inverted so that upon downward movement of the roller 8 under the force of gravity, said roller will move into binding engagement with the broom handle. In operation, the broom handle is inserted with an upward movement so as to force the roller 8 upward-

ly to released position and to freely permit the upward passage of the broom handle between said roller and the forwardly directed ends 13 and 14 of arms 11 and 12. The broom is then allowed to lower until the roller 8, which lowers at the same time, moves into wedging engagement with the broom handle, whereupon the broom is effectively supported in the desired elevated position. In removing the broom, the same is given a slight upward movement, and is simultaneously pulled forwardly from between the roller and the ends 13 and 14, the roller 8 immediately dropping to the lower ends of the slots 6 when the broom handle is removed.

From the foregoing description it is believed that the construction and operation as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

Minor changes may be made without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

1. A broom holder including a frame provided with elongated vertical slots having rack teeth on corresponding walls thereof, a roller movable in the frame and having pinions fixed to turn therewith and meshing with said rack teeth, and abutments carried by the frame to position the broom handle whereby the roller may move into wedging engagement therewith.

2. A broom holder including a U-shaped frame having opposed vertical elongated slots in the legs thereof formed with toothed racks, a roller movable in the frame between its legs and having a spindle freely movable in said slots, and pinions engaging said racks and lateral arms carried by one leg of the frame and having forwardly directed ends located at different distances from one side of the roller and forming broom handle abutments.

3. A broom holder including a U-shaped frame having opposed vertical elongated slots in the legs thereof, a roller movable in the frame between its legs and having a spindle freely movable in said slots, lateral arms carried by one leg of the frame and having forwardly directed ends located at different distances from one side of the roller and forming broom handle abutments, and pinions on the ends of said spindle within said slots, the slots having rack teeth formed in corresponding walls thereof engaged by said pinions.

4. A broom holder including a U-shaped frame having opposed longitudinal elongated slots in the legs thereof, a roller movable in the frame between its legs and having a spindle freely movable in said slots, and lateral arms carried by one leg of the frame and having forwardly directed ends located at different distances from one side of the roller and forming broom handle abutments, said lateral arms projecting from the upper and lower ends of the frame above and below the limits of travel of the spindle in said slots.

In testimony whereof I affix my signature.

ALTON J. WEBB.