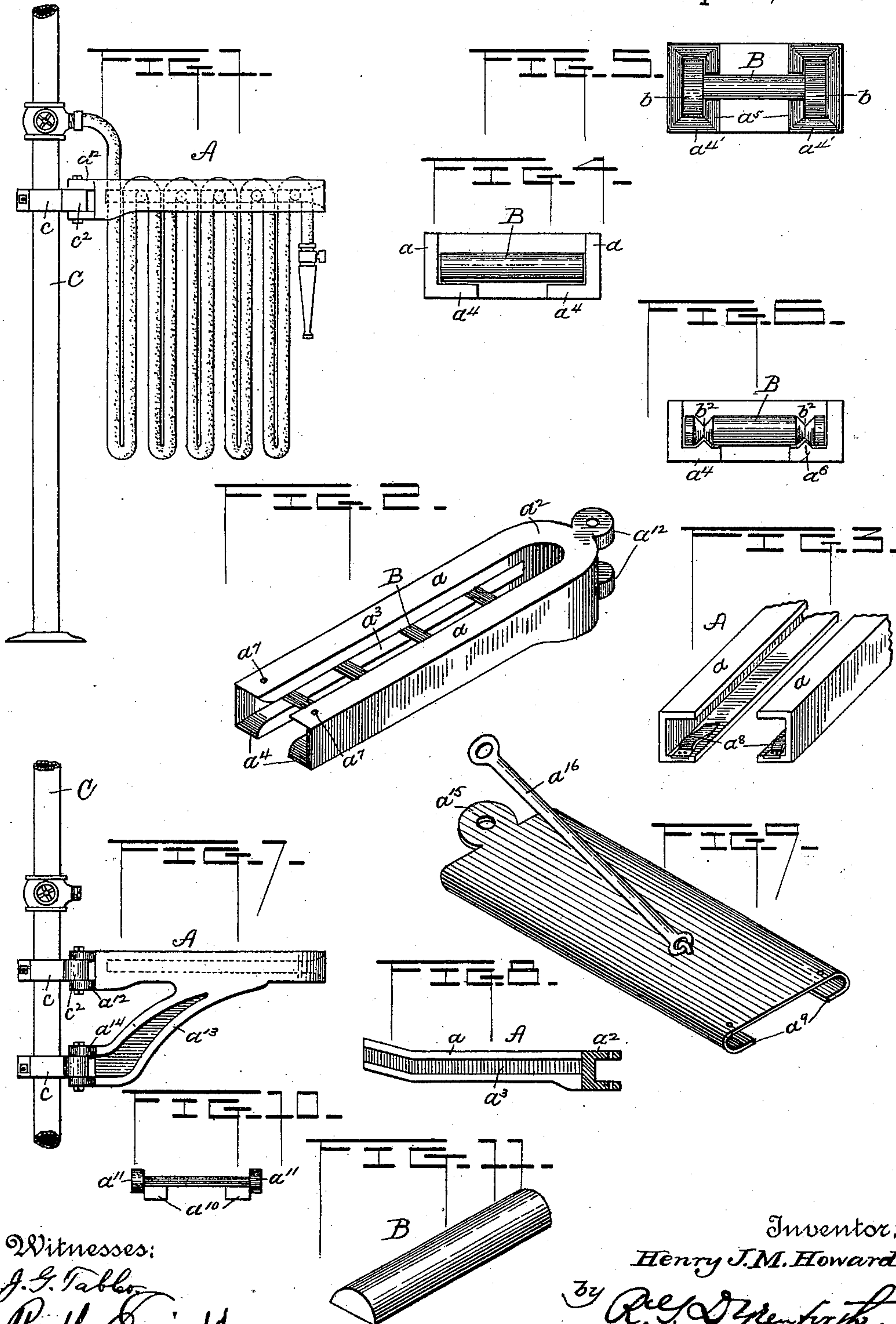


(No Model.)

H. J. M. HOWARD.  
HOSE RACK.

No. 601,653.

Patented Apr. 5, 1898.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## HOSE-RACK.

SPECIFICATION forming part of Letters Patent No. 601,653, dated April 5, 1898.

Application filed October 4, 1895. Serial No. 564,651. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY J. M. HOWARD, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Hose-Racks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hose-supporting racks or holders.

The object is to produce a strong, compact, simply-constructed, and cheaply-made form of hose-rack which will be of large carrying capacity and capable of supporting hose of any width; furthermore, to provide means whereby any portion of the entire length of the hose may be readily removed or drawn therefrom free from kinks, twists, or the like and also by which it may be easily replaced and compactly arranged in separately-supported loops or bights, each of which is suspended out of contact to insure thorough drying thereof; furthermore, to provide means to prevent the hose-carrying pins or rods from working out of the rack, either from the side pressure exerted by the series of loops or bights of the hose, one against the other, or from the side pressure exerted by the water when first admitted to the hose, but which will not offer an obstruction when the hose is to be removed from the rack, and, finally, to provide means for causing the hose-carrying pins to move in a predetermined path within or on the rack.

With these objects in view the invention consists in the novel construction and combination of parts of a hose-rack, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate corresponding parts, I have illustrated several different ways of carrying my invention into effect, and in these drawings—

Figure 1 is a view in side elevation of my improved hose-rack, showing the same supported from a stand-pipe, with the hose in its suspended position. Fig. 2 is a view in perspective detail of the rack, showing its peculiar construction, also a series of hose-carry-

ing pins or rods in position between the two arms or members of the rack. Fig. 3 is a view in perspective of a portion of the rack, showing the front portion of the rack provided with springs for preventing the accidental escape of the carrying-pins. Figs. 4, 5, and 6 are end views showing modified forms of racks and hose-carrying pins that may be employed instead of that form shown in Figs. 1, 2, and 3. Fig. 7 is a view in side elevation showing a modified form of rack in which there is an additional support for the rack. Fig. 8 is a longitudinal sectional view of another form of rack in which the outer end is slightly inclined upward to prevent the escape of the hose-carrying pins. Fig. 9 is a perspective detail view of a combined hose-rack and shield. Fig. 10 is an end elevation of another form of hose-rack that may be employed in lieu of those shown in the other figures. Fig. 11 is a perspective detail view of a modified form of hose-carrying pin.

Referring to the drawings, A designates the rack or holder, comprising duplicate wings, arms, or plates  $a$ , which may be cast integral with the end plate  $a^2$ , forming therewith a single piece, as shown, or cast in two pieces and secured to the end plate by suitable means, or, if preferred, the parts of the rack may be made of sheet metal suitably assembled. Each arm is provided with a groove or channel  $a^3$ , extending longitudinally of its length, the two grooves forming guides or ways in which slide the hose-carrying pins or rods B. As shown in Fig. 2, the groove is so formed as to leave two inward-extending ribs or flanges  $a^4$ , which serve the double function of guiding the pins B to their respective positions and of preventing the pins from leaving the rack at any point except at the escape end, where, in order to facilitate the replacing of the pins, the ends of the side walls and of the flanges are flared outward, as clearly shown in Fig. 2. Instead of having each arm of the rack provided with two flanges  $a^4$  I may in some instances have but one flange on each arm, as shown in Fig. 4, or, as shown in Fig. 5, I may have each arm provided with the two flanges  $a^4$ , as described in connection with Fig. 2, and in addition thereto two additional flanges  $a^5$ , extending parallel with the sides of the arms, or, further,



I may provide each arm with but one flange, as in Fig. 4, and on each of these flanges is arranged an upward-extending longitudinally-disposed fin or spline  $a^6$ , as shown in Fig. 6.

Where the form of rack shown in Fig. 5 is employed, the hose-carrying pins B are provided with heads  $b$ , which work between the sides of the arms and the flanges  $a^5$ , these two parts coacting to prevent lateral displacement of the pins and thereby cause them to move in a predetermined path, and when the form of rack shown in Fig. 6 is employed the pins are provided with circumferential grooves  $b^2$ , which work on the fins  $a^6$ , the latter performing the same function as the flanges  $a^5$ . While the fins  $a^6$  and grooves  $b^2$  are each shown as V-shaped, it is to be understood that other forms of fins and grooves may be employed, if desired; also, that instead of having the pins circular in cross-section they may be semicircular, as shown in Fig. 11.

When the hose is on the rack, as shown in Fig. 1, there is a tendency for the bights of the hose to exert side pressure one against the other, especially when water is first admitted to the hose, and this side pressure tends to displace one or more of the pins in the outer portion of the rack. In order to overcome this objectionable feature, I have devised several ways, one of which, as shown in Fig. 1, consists in providing the outer portion of each of the arms with openings  $a^7$ , through which may be inserted a thin piece of wood, such as a match, or, if preferred, a piece of twine tied about the ends of the arms. These pieces of wood or the twine will be strong enough to withstand the lateral pressure of the hose, but not strong enough to withstand the strain to which they will be subjected when the hose is jerked from the rack, as in case of fire. Instead of employing the pieces of wood or the twine I may provide the outer portions of the arms with springs  $a^8$ , as shown in Fig. 3, which bulge upward and hold the pins in place, or, if preferred, I may incline the ends of the arms upward, as shown in Fig. 8, and accomplish the same result.

In Fig. 9 I have illustrated a device constituting a combined rack and shield. This rack may be made of sheet metal, having its edges turned under and inward to form flanges  $a^9$ , on which rest the hose-supporting pins.

In each of the different forms of racks thus far discussed the rack is described as provided with flanges for supporting the hose-carrying pins; but it is to be understood that the feature of the pins having a sliding connection with the rack, as distinguished from having the rack provided with a series of steps or projections with which the pins engage, may be effected by other means than

those described. Thus instead of having the rack provided with flanges, as shown in Figs. 1 to 9, inclusive, the rack may be constructed of two parallel-arranged bars or arms  $a^{10}$ , as shown in Fig. 10, secured to or formed integral with the end plate  $a^2$ . The hose-carrying pins in this instance are provided with heads  $a^{11}$ , which bear against the outer sides of the arms, by which means the pins are guided in the proper direction when the hose is being placed in position on the rack. The rack is shown in this instance as supported from a stand-pipe C, although it may be supported from a wall or the like. When supported from a stand-pipe, the latter is provided with clamping-collar  $c$ , having a perforated ear  $c^2$ , to which are pivotally secured ears  $a^{12}$ , carried by the racks shown in Figs. 1 and 2, in which manner the racks illustrated in Figs. 3, 4, 5, 6, 8, and 10 may also be constructed. In Fig. 7 the rack is shown as provided with a supporting-arm  $a^{13}$ , and in this instance the stand-pipe will be provided with two collars C, the ears  $c^2$  of which are engaged, respectively, by the ears  $a^{12}$  of the rack and the ears  $a^{14}$  of the supporting-arm.

In the form of rack shown in Fig. 9 the ear  $a^{15}$  of the rack engages with the ear  $c^2$  of the clamp-collar C, a rod  $a^{16}$ , secured near the outer end of the rack and to a hook or the like on the stand-pipe, serving to support the rack against sagging.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a hose-rack, of hose-carrying pins arranged in horizontal alinement and adapted to slide in the direction of the length of the rack and to be entirely disconnected therefrom in the act of removing the hose, substantially as described.

2. A hose-rack comprising a support provided with longitudinal guides or ways, and hose-carrying pins arranged in horizontal alinement and adapted to move on or in the guides or ways and to be entirely disconnected therefrom in the act of removing the hose, substantially as described.

3. A hose-rack comprising a support provided with longitudinal guides or ways, hose-carrying pins arranged in horizontal alinement and adapted to move on or in the guides or ways and to be entirely disconnected therefrom in the act of removing the hose, and means for preventing the accidental escape of the pins from the rack, when the hose is hung thereon, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY J. M. HOWARD.

Witnesses:

B. W. SOMMERS,  
R. M. ELLIOTT.