Oct. 19, 1954 H. R. BERGLUND 2,692,054

DISPLAY AND STORAGE RACK

Filed Aug. 18, 1952

Fig. 1

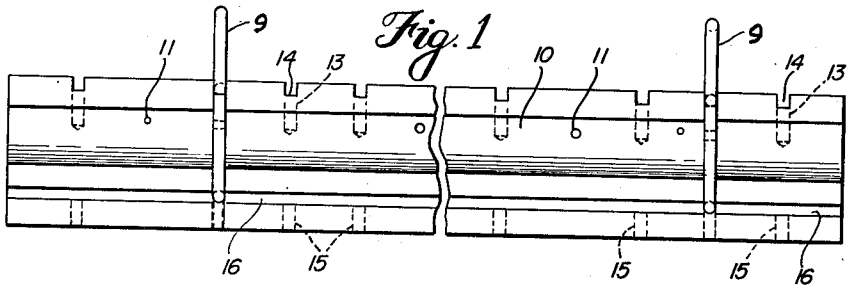


Fig. 2

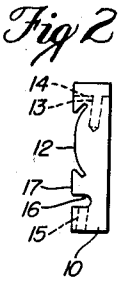


Fig. 3

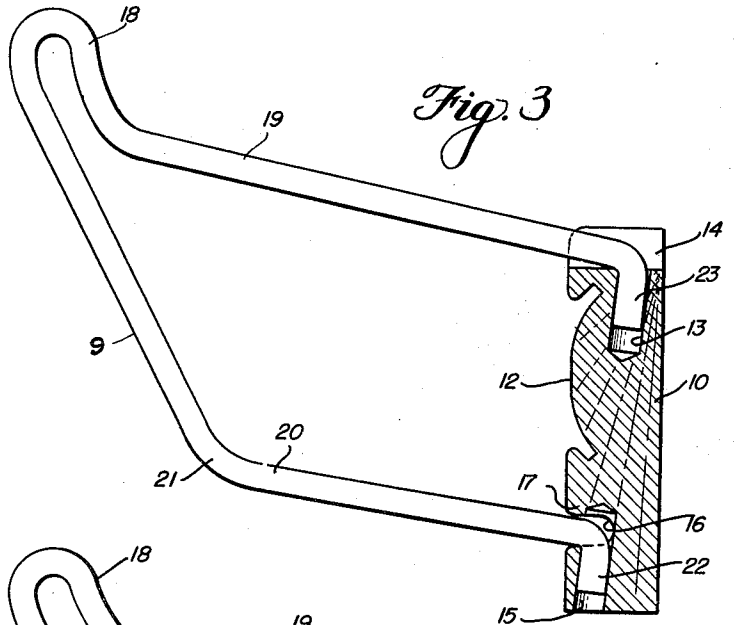


Fig. 4

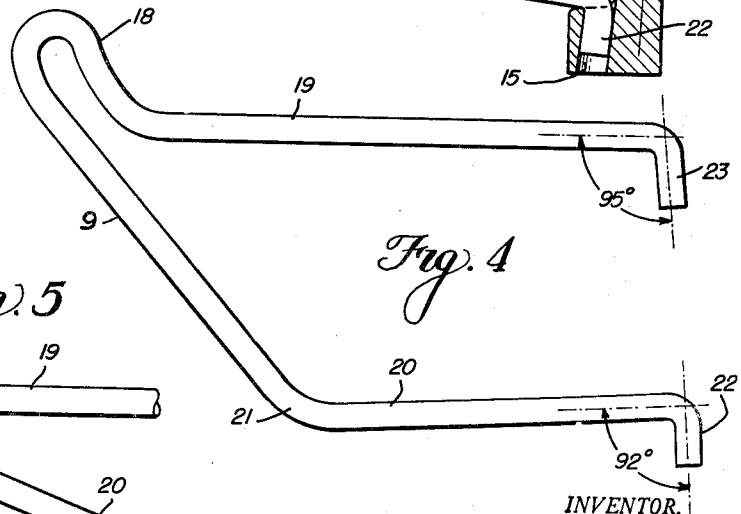
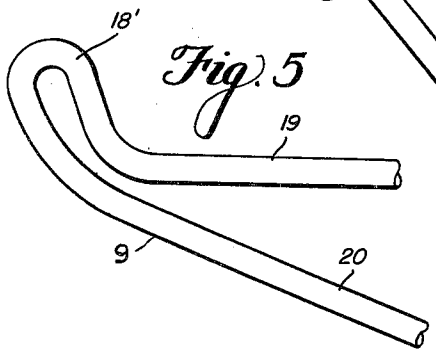


Fig. 5



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DISPLAY AND STORAGE RACK

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3 Claims. (Cl. 211—87)

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This invention relates to new and useful improvements in display or storage supports for a plurality of articles.

An important object of the invention is to provide a device of the above character which includes a base and a plurality of brackets or hooks which may be easily and quickly detached from the base and attached thereto in stable non-pivotal relation in various selected positions along the length thereof to accommodate various articles and sizes thereof.

Another important object of the invention is to provide each bracket or hook with a pair of arms terminating in anchoring ends which are bent in the same direction, whereby after the arms are sprung apart to insert the anchoring ends into vertically aligned sockets in the base, the bracket will be prevented from accidental turning on the axis of the anchoring ends and these ends will be prevented from accidental displacement from the base, but at the same time, can be easily removed therefrom when desired for storage or rearrangement.

A further object of the invention is to provide an inexpensive support of the above character which is not only durable, but is capable of quick set-up, knock-down and storage.

Other objects and advantages will become apparent during the course of the following description.

In the accompanying drawing forming a part of the description and wherein like numerals are employed to designate like parts throughout the several views,

Fig. 1 is a front elevation of the improved rack or support broken intermediate its ends to accommodate its length on the drawing and with a pair of hooks or brackets shown associated therewith,

Fig. 2 is an end elevation of the support without the detachable hooks associated therewith,

Fig. 3 is an enlarged transverse section of the base of support showing a bracket assembled therewith in operative position to support an article,

Fig. 4 is an enlarged side elevation of one of the brackets prior to assembly with the base, and

Fig. 5 is an enlarged side elevation of the end of a modified shape of bracket.

Referring now more in detail to the drawings, wherein for the purpose of illustration and not limitation, there is shown a preferred embodiment of the invention, which is adapted for the display and storage of automobile fan belts, radiator hoses, or any other articles which can

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be hung from hooks or brackets. The numeral 10 designates an elongated base having a plurality of openings 11 drilled transversely therethrough for the reception of nails or screws by which it can be easily affixed to a wall or the like. This base in the present illustration is made of a wooden board or strip of substantial thickness having its front face formed as an ornamental moulding effect 12 by grooving or routing the board lengthwise as shown.

The top horizontal edge of this board 10 is drilled substantially vertically toward the center thereof and at spaced intervals with openings 13 at an angle of about 97 degrees from the horizontal to form an upper series of sockets. These sockets are arranged in groups of three equally spaced sockets separated lengthwise of the base by a more widely spaced single socket to accommodate various size articles on the brackets, to be presently described and which are detachably mounted in the sockets. The top edge of the base, coincident with each socket 13 to cross the upper end thereof, is provided with a transverse horizontal groove or notch 14 extending through the front and back vertical faces of the base. The bottom horizontal edge of the base is also provided with an opening 15 drilled toward the longitudinal center of the base in axial alignment with each upper socket 13, thus providing the base with a series of pairs of substantially vertically aligned sockets 13 and 15 spaced at intervals throughout the length of the base 10, with the sockets of each pair arranged at substantially 97 degrees to the horizontal. Intersecting and communicating the upper ends of the entire series of lower sockets 15, is a horizontal groove 16 routed lengthwise across the entire front face of the base from end to end, as shown. This provides the base 10 with a horizontal shoulder 17 overhanging the upper end of each lower socket 15 to prevent accidental vertical displacement of the bracket associated therewith as will now be described.

The hooks or brackets 9, one for each pair of vertically aligned sockets 13 and 15, each consist of a single length of resilient wire bent upon itself intermediate its ends to provide a loop or bight 18 with a pair of arms 19 and 20. The bight 18' shown in Fig. 5 can represent a more closed bight for a longer hook or bracket, or can represent the shape of the bight 18 prior to the arms 19 and 20 being sprung apart to be assembled with the base in a manner to be presently described. When the bracket is not associated with the base 10, its arms 19 and 20 assume the

slight converging relationship toward their free ends shown in Fig. 4 so that the distance between their ends is less than the distance between these ends when the bracket is stressed and attached to the base. Stated another way, the arms 19 and 20 are spaced apart a distance less than that between the entrances to the sockets 13 and 15. Thus, to attach the bracket to the base, the arms 19 and 20 must be sprung or spread apart against the tension of the wire. The arm 19 extends straight back from the bight 18, while the arm 20 extends first downwardly thereof and then is bent at 21 at an angle of approximately 125 degrees thereto. The shorter free end 22 of the arm 20 is bent downwardly thereof at an angle of approximately 92 degrees thereto, while the free end 23 of the upper arm 19 is bent downwardly at an angle of approximately 95 degrees thereto to be approximately aligned with the free end 22 of the other arm 20.

Each bracket is assembled with the base 10 by leading the free end 22 of the lower arm 20 into the groove 16 above the lower socket 15 and tilting the bracket upwardly to guide the angular end 22 down into the socket 15. The upper arm 19 is grasped and sprung upwardly away from the lower arm 20 whereby the free angled end 23 of the upper arm may be guided into the upper socket 13. Pressure on the arms is then released so that the natural resilience in the wire will move the upper arm 19 downwardly toward the lower arm 20 to move the angular end 23 fully into the upper socket 13 until the adjacent portion of the arm 19 is seated in its notch 14 to prevent turning of the bracket on the axis of the angular ends 22 and 23. Due to the difference in the angling of the two free ends 22 and 23 and the fact that the two vertical sockets 13 and 15 are in alignment, it will be apparent that these ends will be frictionally bound in their sockets to resist both pivotal movement of the bracket relative to the base 10 and to resist accidental displacement of the ends 22 and 23 from their sockets. To remove the bracket from the base, it is only necessary to grasp the upper arm 19 and lift it to remove the end 23 from the socket 13 and then tilt the bracket forwardly from the base to remove the other end 22 from its socket 15 and pull it out of the groove 16. The angular end 22 is shorter than the end 23 whereby it may enter and leave the socket 15 without undue binding.

From the foregoing description it will be apparent that any number of the brackets can be associated with the base in a multitude of different spacings to accommodate various articles and that the device is capable of quick and compact storage, shipment, and erection. It will of course be apparent that various changes in the construction and arrangement of the various parts of the device may be made without departing from the scope of the appended claims.

I claim:

1. An article support comprising a base for mounting in a vertical plane and having a pair of substantially vertically disposed aligned openings therein and extending at a slight angle to the mounting face thereof, the face of said base having a grooved portion extending horizontally near the edge of the base on both sides of and adjacent one of said openings and in communication therewith and providing a shoulder above said one opening, a detachable wire bracket comprising a length of resilient wire bent to provide a pair of arms having angular ends bent generally in the same direction whereby one end extends outwardly and the other inwardly of said pair of arms, said ends being normally spaced apart a distance less than the distance between the entrances to said openings whereby said outwardly turned end may be inserted through said grooved portion into said one opening and the arms spread apart and then released to insert said inwardly turned end into the other of said openings, said outwardly bent end having a length greater than the height of said grooved portion.

2. An article support comprising an elongated base having upper and lower longitudinal edges provided with vertically aligned openings or sockets arranged in pairs throughout the length of said base, said base also having a horizontal groove extending lengthwise thereof and communicating with the tops of said sockets in the lower edge to form shoulders above said lower sockets, a detachable wire bracket for certain of said pairs of sockets comprising a length of resilient wire bent to provide a pair of arms having angular ends bent downwardly in generally the same direction and normally spaced apart a distance less than the distance between said sockets whereby the lower arm and angular end may be inserted through said groove and into a lower socket and the arms spread apart then released to enter the upper angular end into the upper socket.

3. An article support as claimed in claim 2, with the upper edge of the base provided with a transverse notch communicating with each socket in said upper edge and adapted to receive the upper arm of the bracket when the upper angular end of said bracket is inserted into said upper socket.

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