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3,013,669

DISPLAY RACK

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FIG. 1

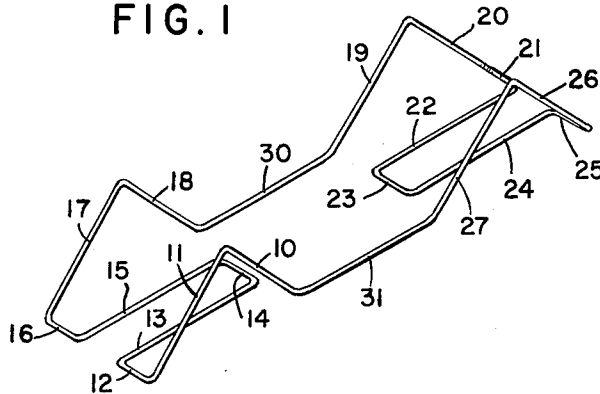


FIG. 2

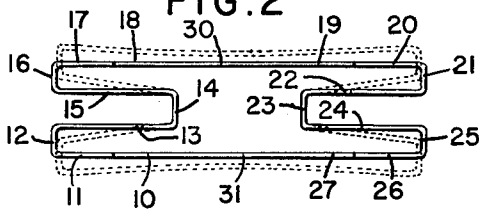


FIG. 3

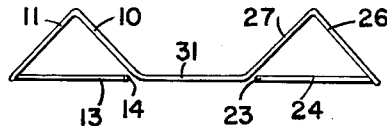
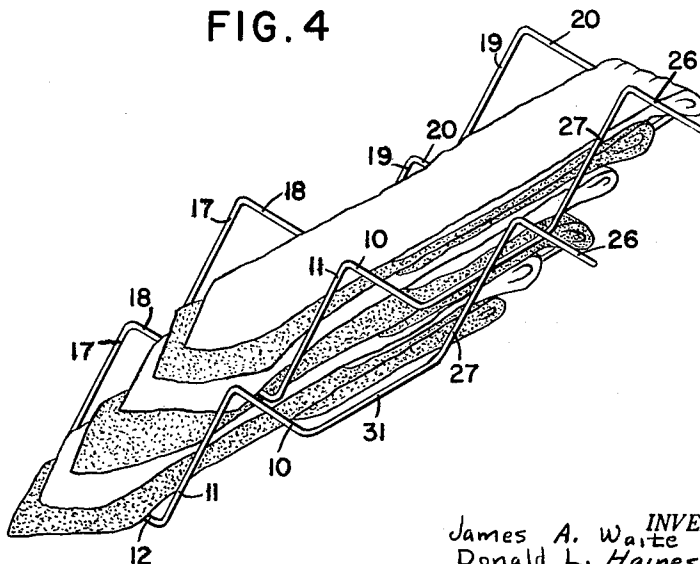


FIG. 4



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## DISPLAY RACK

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This invention is for a display rack and, more particularly, for a tie display rack for use in showcases and the like.

One method for displaying ties in stores and haberdashery shops is by hangers. For example, an arm projects outwardly from a base and on this arm are hung a number of ties for display purposes. Generally speaking, the type of hanger employed in a store is relatively expensive and actually does not display a large number of ties.

Another method for displaying ties is in a showcase where there are a large number of shelves. For example, in each showcase there may be two or three shelves in a staggered vertical relationship. The ties are arranged in groups of two and three, one on the other. The lowermost part of the tongue or the face of the tie is exposed for viewing by the prospective purchaser. These ties are placed in the groups adjacent to each other on the showcase shelf. If a customer wishes to look at a particular tie, it is necessary to remove this group comprising two or three ties, lay it on top of the showcase and separate it from the rest of the ties in the group. In removing the particular group of ties from the showcase quite often the clerk dislodges or knocks over an adjacent group of ties. The rearrangement of this adjacent group of ties takes a rather large amount of time out of the clerk's day. Upon placing the group of ties back on the showcase shelf it is necessary to be careful so as not to again knock over an adjacent group or groups of ties. Furthermore, due to constant removal and insertion of a group of ties, it is necessary to periodically rearrange the groups in the showcase so as to make them neater and more presentable to a prospective customer. For example, in a busy haberdashery shop it may be necessary to completely rearrange the ties two or three times a week. Each time the ties are completely rearranged a considerable period of time is required on the part of the clerk. With this in mind we have invented a tie display rack which holds a number of ties in a neat arrangement. These ties can be picked up without actually touching the ties in the group or touching an adjacent group of ties. The rack holding the ties can be arranged so as to form a nesting arrangement with another rack of ties. This makes it possible to display approximately two or more times as many ties in a given area. Naturally, the advantage of this is seen as a showcase can be utilized to fuller capacity or else fewer showcases will be required.

Accordingly, it is an object of this invention to provide a tie display rack making it possible to display more ties in a given showcase.

A further object is to provide a rack making it possible to show more ties to customers.

An additional object is to provide a rack whereby it is possible to maintain the ties in neat groups and which groups are ready for quick display to a customer.

Another object is to provide a tie display rack which can hold a relatively large number of ties thereby reducing storage area required for storing ties.

A further object is to provide a display rack which is relatively inconspicuous so as not to detract or take the attention of the customer from the tie and focus that attention on the display rack.

Another object is to provide a tie display rack which

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is adjustable in regard to its width so as to hold ties of various widths.

A further and important object is to provide a display rack which can form a nesting relationship with another rack thereby making it possible to hold a large number of ties.

A still further object is the provision of a display rack which is of sturdy construction thereby providing a relatively long life.

Another object is to provide a display rack which is inexpensive to manufacture, sell and maintain in working relationship.

These and further objects of the invention will be more particularly and clearly brought forth with reference to the following drawings, specification and claims.

In the drawing:

FIGURE 1 is a perspective view looking down on a specific embodiment of this invention constructed in accordance with the teachings thereof.

FIG. 2 is a plan view of a tie display rack illustrating, in solid line, the rack adjusted for ties of one width, and illustrating in phantom the rack adjusted for the display of ties of a wider width.

FIG. 3 is a side elevation view of the display rack illustrating the arrangement of the various members; and

FIG. 4 is a perspective view looking down on two display racks having ties arranged on said racks and with said two display racks in a nesting relationship with each other to provide for the display of a larger number of ties.

Referring to the drawings it is seen that the display rack comprises a stiff, but flexible, wire holder having a base for preventing the article on display from falling through the rack and sides for holding in position the articles one on another. This display rack is symmetrical in configuration and may be considered to comprise two sets of sides. Each set comprises two spaced-apart sides connected by a base member.

More particularly, a side, with the display rack in a horizontal position, at its inner end rises upwardly at an angle of about 40-45 degrees into an arm 10. This arm then bends downwardly at an inside angle of about 90 degrees into an arm 11. The lower ends of the arms 10 and 11 are approximately at the same elevation. The lower end and outer end of the arm 11 bends inwardly at an angle of approximately 90 degrees to form a short leg 12. This leg is substantially horizontal and in its inner end bends at an angle of about 90 degrees into a leg 13. The leg 13 folds back on the side formed of arms 10 and 11. This leg is about equal to in length the distance between the lower ends of the arms 10 and 11. At its inner end the leg 13 bends at an angle with itself and away from the side to form leg 14. The above comprises approximately one-half of a set of sides of the rack. It is to be realized that the leg 14 at its inner end connects with another or second leg 15 at its inner end. The second leg 15 bends into a second leg 16 which in turn bends upwardly to a second arm 17. The second arm 17 rises upwardly and then bends downwardly into a second arm 18. The legs 12, 13, 14, 15 and 16 of both sets of sides comprise the base member. The inner end of the arms 10 and 18 of one set of sides connect with the inner end of the corresponding arm 14 in the other set of sides by a stringer. In this manner there is realized a symmetrical display rack having two sets of symmetrical sides. More particularly, the arm 18 connects with an ascending arm 19 by means of a stringer 30. The arm 19 bends downwardly into a descending arm 20 which in turn bends into a short leg 21. The leg 21 folds back on the arm 16. The leg 21 then bends into a leg 22 which folds back on the arms 19 and 20. The leg 22 then bends away from the arms 19 and 20 and into a leg 23. This leg 23 is substantially parallel to the leg 14. The leg 23 then bends away from

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the leg 14 so as to fold back on the arms 19 and 20 to form leg 24. This leg 24 is of substantially the same length as the leg 22. At its outer extremity it bends away from the leg 22 and into the leg 25. Or, it may be said that the leg 25 folds back on the leg 12. The leg 25 then bends toward the arm 10 so as to form the ascending arm 26. The arm 26 at its apex bends downwardly into descending arm 27. The descending arm then bends into a stringer 31. This stringer 31 connects the arms 27 and 10 so as to form a unitary structure.

Another way of presenting this structure is as follows. A display rack, said rack being of a continuous deformable material whose lateral dimension is small in comparison with its longitudinal dimension, said rack comprising a first ascending arm 10 connecting with a first descending arm 11, said first descending arm at its lower end bending inwardly to form a first leg 12, said first leg bending inwardly so as to fold back on the first descending arm and to form a second leg 13, said second leg bending inwardly into a third leg 14, said third leg and said first leg being on opposite sides of the second leg, said third leg bending into a fourth leg 15 and which fourth leg folds back on the second leg, said second and fourth legs being of substantially the same length, said fourth leg bending outwardly and away from the third leg into a fifth leg 16, said fifth leg bending upwardly and back on the first descending arm into a second ascending arm 17, said second ascending arm bending into a second descending arm 18, second descending arm connecting with a third ascending arm 19, said third ascending arm bending into a third descending arm 20, said third descending arm at its lower end bending inwardly and back on the fifth leg into a sixth leg 21, said sixth leg bending inwardly toward the fifth leg into a seventh leg 22, said seventh leg bending into an eighth leg 23 directed away from the sixth leg, said eighth leg bending into a ninth leg 24, which folds back on the seventh leg, said seventh and ninth legs being of substantially the same length, said ninth leg bending outwardly and away from the sixth leg into a tenth leg 25, said tenth leg bending into an ascending fifth arm 26 which is folded back on the descending fourth arm, and said ascending fifth arm bending into a descending sixth arm 27, and said descending sixth arm connecting with the ascending first arm 10 to form the integral, continuous display rack.

Although reference has been made to a first leg 14 at its inner end connecting to a second leg 14 at its inner end and which second leg 14 bends into a second leg 13 or 15, it is to be realized that from a practical standpoint that these legs 14 are not separated from each other prior to forming the rack and then soldered, welded or brazed together. Actually, in the manufacture of the rack a single piece of wire is used and the two ends welded or brazed together to form a continuous loop. The two ends may be united at the legs 14, although another desirable place is in a stringer 30 or 31.

The wire out of which the display rack is made is of sufficient flexibility and possesses a spring constant making it possible to pull the legs 13 and 15 or 22 and 24 in one set of sides away from each other so as to make the rack of a wider width or to press closer together the legs 13 and 15 or 22 and 24 in one set of sides so as to adjust the rack for a narrower width. By so deforming the configuration of the legs 13 and 15 or 22 and 24 the tie rack is made adjustable. This is more particularly brought forth by reference to FIGURE 2 where the rack is illustrated in solid line as being of one width. The legs 13 and 15 or 22 and 24 in one set of sides have been pulled away from each other or deformed, see the phantom lines, so that the sides are farther away from each other making it possible to display ties of a wider width. In addition to the leg 17 being deformed the stringer 20 is deformed into a bow.

Referring to FIG. 4 there is shown a manner of displaying the ties in one of these racks. The bottom tie is folded back on itself so that the tongue or base is showing. This

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tongue or base overlies the leg 16 by approximately an inch and a half or two inches. Then the next tie, which is folded back on itself, is laid over the bottom-most tie so as to overlie the leg approximately an inch. In this manner part of the bottom-most tie is preserved for viewing. Then, a third tie is folded back on itself and the tongue or face laid over the second tie so that the tongue of the third tie is approximately even with the legs 12 and 16 or the tip of the tongue overlies the legs 12 and 16 by approximately half an inch. In this manner a portion of the bottom-most tie and the second tie are preserved for viewing by a prospective customer and a great deal of the top tie is preserved for viewing.

In FIGURE 4 there is illustrated the manner in which the two racks, with ties in them, can be arranged in a nesting relationship so as to show a relatively large number of ties such as six or eight. The ties are placed in the racks as previously stated and then one rack is placed over the ties in the other rack. The sides in the lower rack are spaced somewhat further apart than the stringers 30 and 31 in the upper rack. In this manner the sides of the lower rack tend to position the upper rack between the arms 10 and 11, and 25 and 26 on one side, and 17 and 18, and 19 and 20 on the other side, in a set of sides. The legs 12 and 16 on the upper rack, the foreward is juxtapositioned with respect to the arms 10 and 11 on the lower rack. Naturally, with the sides, positioning the stringers 30 and 31 on the upper rack between said sides and the friction of the ties rubbing against themselves, the two racks are held in an upright position.

The base member on each set of sides, i.e., legs 12, 13, 14, 15, 16, 21, 22, 23, 24 and 25 prevent the ties from falling through the tie display rack upon picking up the rack. And the sides prevent the ties from falling sideways off of each other.

The advantage of this display rack can be readily seen by reference to FIGURE 4. The ties can be arranged on a rack, the rack placed on a showcase shelf, and then many other racks placed on the same shelf. If a customer desires to see a certain tie, the clerk can pick up the rack off of the shelf by holding onto the sides. The rack can then be placed on the showcase counter and the ties lifted from the rack. If a customer does not care to buy a tie in the group then the clerk can rearrange the ties on the rack and insert the rack back on the shelf. By picking up the rack itself and not having to handle the ties the clerk can more quickly and more easily remove the ties from the shelf. Also, there is less possibility of disarranging the ties in a group of ties. Also, if necessary to rearrange the group of ties, the tie rack can be removed from the display counter, the ties rearranged and the tie rack placed back on the counter. It is much easier to rearrange the ties on top of the display counter than on the shelves of the counter wherein there is limited working room. Furthermore, by using the nesting relationship of the racks it is readily apparent that approximately two times or even more ties may be displayed in a given area. Such a large number of ties for display gives the prospective customer a larger choice from which to choose and also cuts down the storage area required to store ties in reserve. The wire employed for the display rack can be anodized or coated with a material to make it both pleasing in appearance and also due to the small diameter of the wire the same is relatively inconspicuous. By being inconspicuous the prospective customers attention is fixed on the ties and not on the rack. These display racks, even though made of a wire, are nevertheless of a sturdy construction for their use as they do not receive rough treatment and therefore have a relatively long life.

Although it has been stated that the rack is made from wire it is to be realized that rod, tube or other material having sufficient spring constant and flexibility may be employed. The material employed for the rack should be one whose length across a cross-section is small in comparison with its total length or, by another way of

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expression, whose lateral dimension is only a fraction of its longitudinal dimension.

Having disclosed our invention what we wish to claim is as follows:

1. An article of manufacture, said article being constructed of a continuous flexible material whose lateral dimension is very small in comparison with its longitudinal dimension, said article comprising two sets of sides, each set comprising two spaced-apart raised sections, one raised section in one set connecting by a stringer with a corresponding raised section in the other set, one raised section in the set of sides connecting with the other raised section by a base member which folds back on itself.

2. A display rack, said rack being of a continuous deformable material whose lateral dimension is small in comparison with its longitudinal dimension, said rack comprising a first ascending arm connecting with a first descending arm, said first descending arm at its lower end bending inwardly to form a first leg, said first leg bending inwardly so as to fold back on the first descending arm and to form a second leg, said second leg bending inwardly into a third leg, said third leg and said first leg being on opposite sides of the second leg, said third leg bending into a fourth leg and which fourth leg folds back on the second leg, said second and fourth legs being of substantially the same length, said fourth leg bending outwardly and away from the third leg into a fifth leg, said fifth leg bending upwardly and back on the first descending arm into a second ascending arm, said second ascending arm bending into a second descending arm, second descending arm connecting with a third ascending arm, said third ascending arm bending into a third descending arm, said third descending arm at its lower end bending inwardly and back on the fifth leg into a sixth leg, said sixth leg

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bending inwardly toward the fifth leg into a seventh leg, said seventh leg bending into an eighth leg directed away from the sixth leg, said eighth leg bending into a ninth leg which folds back on the seventh leg, said seventh and ninth legs being of substantially the same length, said ninth leg bending outwardly and away from the sixth leg into a tenth leg, said tenth leg bending into a fourth ascending fifth arm which is folded back on the descending third arm, and said ascending fourth arm bending into a fourth descending arm, and said descending fourth arm connecting with the ascending first arm to form the integral, continuous display rack.

3. A display rack, said rack being of continuous deformable material whose lateral dimension is small in comparison with its longitudinal dimension, said rack comprising two sections, each section comprising two spaced-apart ascending arms, each of the ascending arm bending into a descending arm, each descending arm at its lower end bending into an inwardly directed first leg, each first leg bending back on the descending arm into a second leg, and each said second leg at its inner end bending inwardly and away from the first leg into a third leg, one of said third legs uniting with the other third leg to connect the two second legs, and said two sections being positioned with the third leg in each section in the interior of the display rack and with the two first legs in a section being in the exterior of the rack, and a stringer connecting the ascending arm of one section with the juxtapositioned ascending arm of the adjacent section.

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