April 3, 1951 F. F. MELVIN ET AL 2,547,531

SPRING CLIP FOR DISPLAY RACKS

Filed March 16, 1948 2 Sheets-Sheet 1

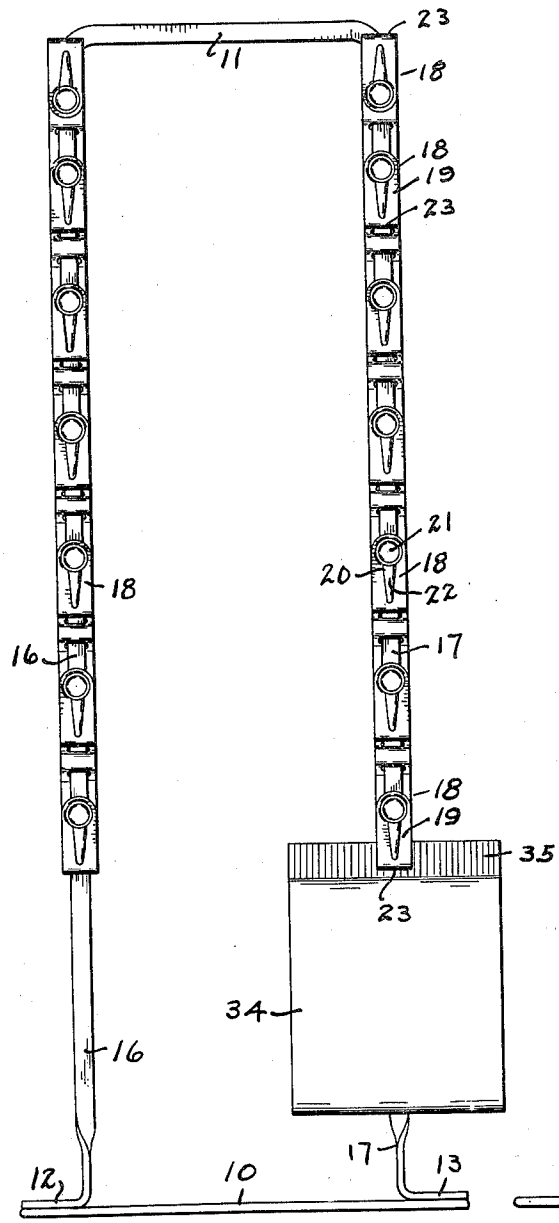


Fig. 1.

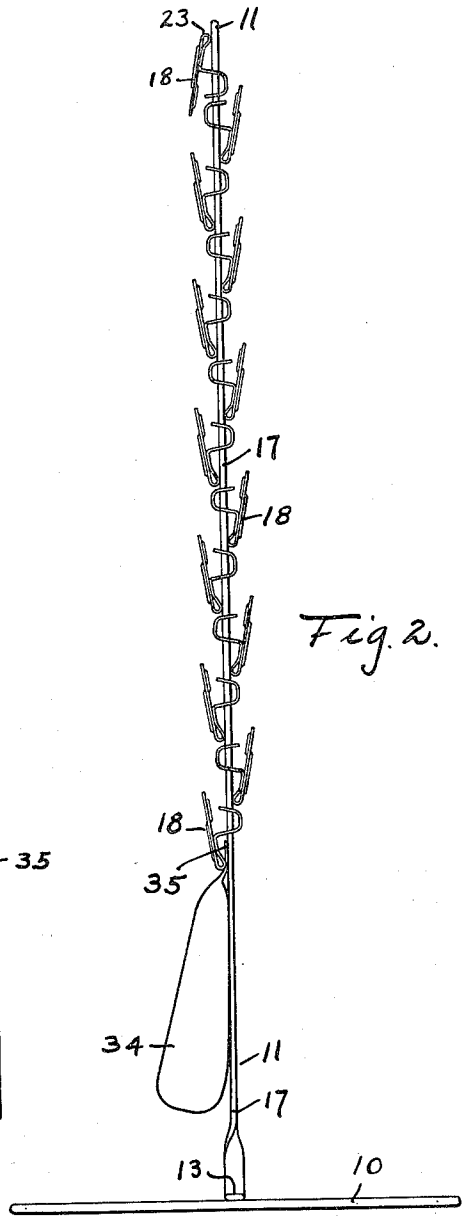


Fig. 2.

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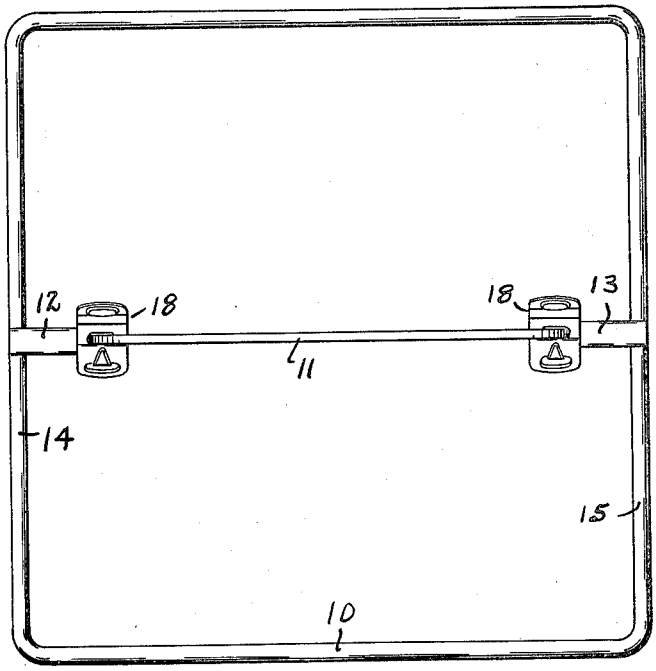


Fig. 3.

Fig. 5.

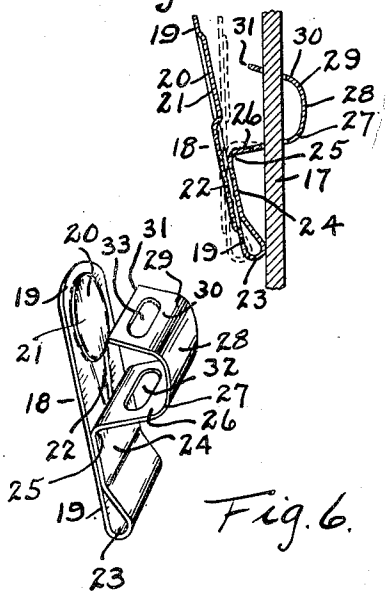


Fig. 6.

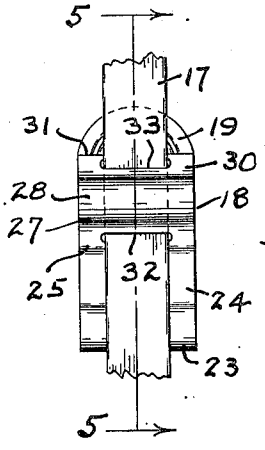


Fig. 4.

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SPRING CLIP FOR DISPLAY RACKS

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4 Claims. (Cl. 24—81)

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This invention relates to a display holder or rack intended primarily to hold individually materials that are carried or packaged in bags. A primary object of the invention is to provide a structure wherein each package or bag may be individually and removably supported upon a display rack so that the removal of one bag will not interfere with the supporting of the other bag on the holder. A still further important object of the invention is to provide means for individually holding and retaining bags on the holder and at the same time permit quick and easy replacement of the bags.

Other important objects and advantages of the invention including the extreme simplicity of the structure. and the relatively low cost of production, will be apparent to those versed in the art in the following description of one particular form of the invention as illustrated in the accompanying drawings in which

Fig. 1 is a view in front elevation;

Fig. 2, a view in side elevation;

Fig. 3, a view in top plan;

Fig. 4, a detail on an enlarged scale of an individual bag retainer as attached to a supporting element;

Fig. 5, a view in vertical section on the line 5—5 in Fig. 4; and

Fig. 6, a view in perspective of an individual retaining unit.

Referring to the drawings, in which like characters of reference indicate like parts throughout the several views, we form a base out of any suitable material and in any suitable shape, herein shown as consisting of the rectangularly formed wire member 10. Then there is formed an elongated, generally U-shaped member 11 out of any suitable stock, herein shown as out of flat bar stock, to have out-turned feet 12 and 13. These feet 12 and 13 are respectively secured to side members 14 and 15 of the base member 10 preferably across the top sides of the center portions thereof, Fig. 3.

Along each of the vertical legs 16 and 17 of the member 11 are frictionally retained a plurality of retaining units 18. In the form herein shown, for illustration purposes only, there are 13 of these units 18 carried on each of the legs 16 and 17, Fig. 2.

A description of one of these retaining units 18 will be sufficient for all of such units, since they are all identical one with the other. The unit is made preferably out of spring steel to have a plate 19 generally planar with the exception of deformed areas 20 which are provided as means for stiffening the plate 19 at zones where otherwise it would tend to bend, it being the desire that the plate do not bend through such zones.

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In the form herein shown, these depressed zones consist of a circular area from which there extends a generally triangular area downwardly therefrom, these areas being designated specifically by the numbers 21 and 22, Fig. 1. From the lower end of the plate 19, that is the relative lower end as viewed in Figs. 4, 5 and 6, the metal is bent around in the form of a loop 23 to carry the metal around and back against the rear face of the plate 19 by a portion 24, this portion 24 normally being substantially in contact throughout the area thereof with the face of the plate 19. This portion 24 extends upwardly along the back face of the plate 19 to substantially its midpoint, and then the metal is carried rearwardly by a substantially 90 degree bend 25 to form a rearwardly extending leg 26. The material is carried on from this leg 26 through a bend 27 upwardly by a length 28, and then through a bend 29 around forwardly by a terminating leg 30 which is directed toward the rear side of the plate 19, but terminates by an edge portion 31 in spaced relation therefrom.

The members 26 and 30 are respectively provided with slots 32 and 33 therethrough, the slots being proportioned to have the shape and general contour of a cross section through the legs 16 or 17, but the areas of these slots exceeding the cross sectional area of the legs in each instance. As best indicated in Fig. 5, the members 26 and 30 diverge one from the other from the respective bends 27 and 29, that is they are non-parallel and the edge 31 is further removed from the member 26 than are the respective members as they leave those bends.

Prior to the fixing of the feet 12 and 13 to the members 14 and 15 of the base 10, a desired number of these units 18 are threaded upwardly along each of the legs 16 and 17. This threading is accomplished by relatively inserting the leg 16 or 17 as the case may be through the respective slots 33 and 32 if the loop 22 is to be disposed downwardly, or through the slot 32 and then the slot 33 if the unit is to have its loop 23 disposed upwardly, these positions being optional depending upon the goods to be displayed and how they are to be gripped. The threading operation is accomplished by pushing the edge 31 of the member 30 downwardly toward the member 26 so as to bring the member 29 into substantially parallelism with the member 26 whereupon the legs 16 or 17 may be easily inserted through the respective slots. Then upon releasing the edge 31 of the member 30, the member 30 tends to spring away from the member 26 to cause the edges of the respective slots to bite into or yieldingly grip the front and rear sides respectively of the particular leg. In this position,

the loop 23 is also yieldingly pressed against the face of the leg 17 for example when the member 30 is released. Thus by the inherent spring action existing between the members 26 and 30 through the interconnecting back portion 28, the unit 18 is firmly fixed and held in the position where it is left.

Now to employ the device, a bag 34 for example, has its upper gripped together edge portions 35 inserted under the loop 23, between it and the face of the leg 17. This is permitted by pushing the upper end of the plate 19 toward the face of the leg 17, as suggested by the dash lines Fig. 5, which action will cause the plate 19 to relatively pivot through the member 26 to in turn kick loop 23 forwardly from the leg 17 and thus give space for the insertion therebetween of this part 35 of the bag 34. This action may be repeated for each of the units 18 carried by the legs 16 and 17.

As indicated in Figs. 1 and 2, the uppermost units 18 may be reversed in position if desired, by having the free end of the plate 19 turned downwardly and the loop 23 at the upper portion. This is particularly usable to hold display cards, or to hold other packages which are more rigid in nature than a loosely filled bag 34. While the frame 11 may be made out of any suitable material such as round stock, the flat form herein shown is particularly desirable where it is intended that the unit 18 be rigidly held against rotation around the leg 16 and 17. Removal of each bag 34 is easily had by simply pressing the upper or outer free end of the plate 19 toward the respective leg 16 or 17 to free the grip of the loop 23 against the bag. It is obvious that no welding operations or the like are required to position the units 18 along the leg 16 and 17 since each unit 18 will maintain its respective, predetermined position therealong. Moreover each unit 18 is absolutely independent of the next adjacent or any other unit 18 along either of the legs.

Therefore, while we have described the invention in more or less minute detail in the form as shown by the accompanying drawings, it is obvious that mechanical changes may be employed without departing from the spirit of the invention, and we therefore do not desire to be limited to that precise form beyond the limitations which may be imposed by the following claims.

We claim:

1. For a display rack having a clip supporting bar, a retaining clip unit to be adjustably positioned along the bar, said unit comprising a continuous length of spring metal formed to have a front plate length, from one end of which plate length the metal extends around rearwardly and up back and forwardly toward the rear side of said plate length to have a bend at approximately the longitudinal central zone of the plate length; a leg extending rearwardly and integrally from said bend at approximately ninety degrees to said plate length; said leg having a hole therein shaped to have a marginal contour similar to that of said bar, but exceeding in cross-sectional area that of said bar; a length extending upwardly from the rear end of the leg; and a second leg which is extended forwardly from the upper end of said last length, said last leg having a hole therethrough of substantially the same contour and area as that in said first leg; said legs diverging one from the other from said intervening length; and said last leg terminating by its forward end in spaced relation from said plate length; said bar to be received through said leg holes by forcing said legs into approximate parallelism, said unit being held in position on the bar by releasing the legs to permit the margins of said leg holes to grip the bar, to have said end of said plate length urged yieldingly toward said bar; and said plate having a free end portion; whereby pressure on said plate free end portion will rock the plate length over said bend to rock said one end away from said bar for insertion of display matter between it and said bar.

2. A clamping device for a display rack having a vertical bar comprising a generally C-shaped spring member having opposed upper and lower legs, each of said legs having an opening therethrough capable of receiving said bar with a sliding fit between front and rear edges thereof; a depending foot fixed to the outer end of said lower leg at substantially a right angle to extend downwardly to bear against said bar; a lever fixed to the lower end of the foot and extending upwardly along said foot; said lever being of greater length than said foot; the action of said spring member tending to urge the legs apart and thus grasp the bar between the front and rear edges of said openings and also to force the lower end of said lever against the bar.

3. A clamping device to be shiftably engageable along a bar, comprising a generally C-shaped spring member having opposed, spaced apart legs normally tending to diverge one from the other, each leg being provided with an opening to receive said bar therethrough; one of said legs having an outer bend spaced outwardly from its said opening, from which bend a portion of the leg extends oppositely away from the other leg for a distance along said bar and to abut the bar by an end zone spaced from said bend; and a lever fixed to said leg portion to extend at least beyond said bend in a direction toward but spaced forwardly from the outer end of said other leg.

4. A clamping device to be shiftably engageable along a bar, comprising a generally C-shaped spring member having opposed, spaced apart legs normally tending to diverge one from the other, each leg being provided with an opening to receive said bar therethrough; one of said legs having an outer bend spaced outwardly from its said opening, from which bend a portion of the leg extends oppositely away from the other leg for a distance along said bar and to abut the bar by an end zone spaced from said bend; and a lever fixed to said leg portion to extend at least beyond said bend in a direction toward but spaced forwardly from the outer end of said other leg; said lever being an integral part of said leg portion, extending from said zone back over the outer face of said portion.

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