July 3, 1951 R. A. WALKER 2,559,054

MERCHANDISE HANGING DEVICE

Filed July 23, 1948 2 Sheets-Sheet 1

Fig. 1.

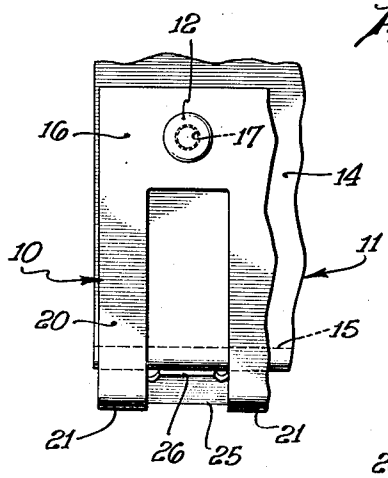


Fig. 2.

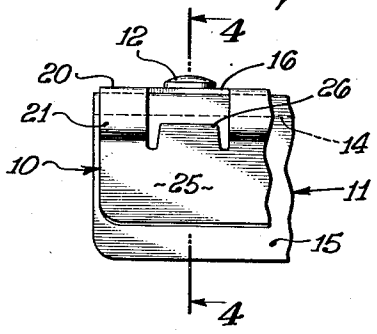
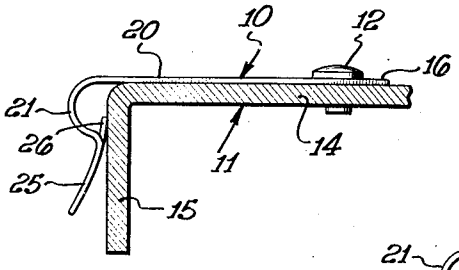


Fig. 3.



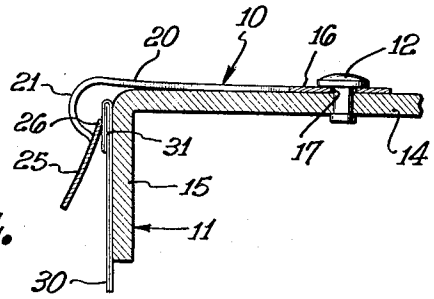


Fig. 4.

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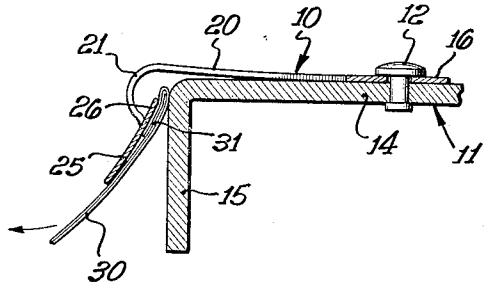


Fig. 5.

Fig. 6.

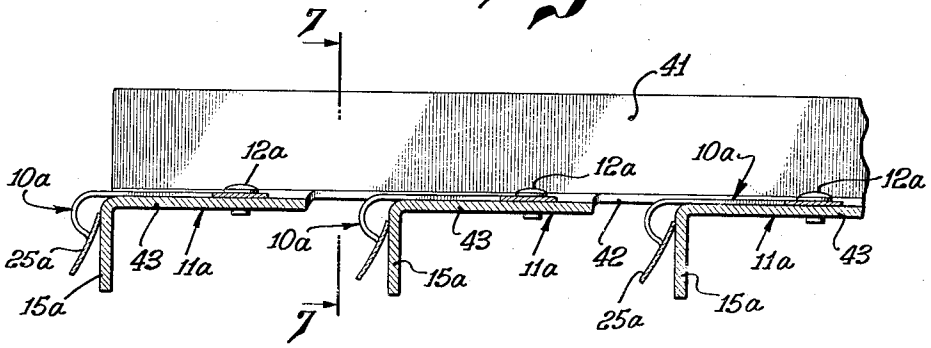
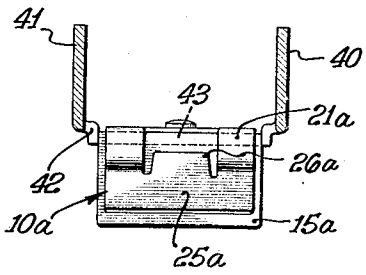


Fig. 7.



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MERCHANDISE HANGING DEVICE

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13 Claims. (Cl. 211—89)

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My invention relates to a display rack for holding and dispensing merchandise for sale purposes, and has particular reference to a new and novel means for yieldably holding such merchandise as bags, cards or other similar, relatively thin items in such a manner that the merchandise is securely held in place against accidental dislodgement and yet which may be readily and easily removed.

In the sale of such items as nuts, candies, condiments and other food products packaged in cellophone or transparent envelopes, the usual practice has heretofore been to form the bag or envelope with a hole in the top flange to fit over a spindle.

Such a method is not only insecure in that the bags can be accidentally dislodged from their position but are also objectionable from the standpoint that they are awkward. Only the first bag in the line can be removed.

It is among the objects of my invention to provide a means for securing such merchandise bags or envelopes so that they cannot be accidentally dislodged and so that a plurality of various types of bags may be displayed on the same individual stand, but which will permit removal of any desired bag.

It is also among the objects of my invention to provide a means for holding such bags or envelopes on the display rack so that the natural weight of the merchandise contained in the bag tends to increase the strength with which the bag is held in place.

Previously known so-called friction clips, which depend solely on friction, are deficient in the respect that relatively heavy bags or articles of merchandise cannot be securely held therein.

It will be apparent that whereas the rack was designed for use in connection with small bags or envelopes, its use can be extended to much heavier and larger items within the scope of the objects and purpose of the invention.

Other and further objects and advantages will become apparent from the drawings and the specifications relative thereto.

In the drawings:

Figure 1 is a fragmentary top plan view of a single element embodying the principles of my invention.

Figure 2 is a front elevation of the device shown in Figure 1.

Figure 3 is a side elevation of the device shown in Figure 1.

Figure 4 is a sectional side elevation taken on line 4—4 of Figure 1.

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Figure 5 is a view similar to Figure 4 illustrating the operation of the retaining member.

Figure 6 is a side elevational view showing a plurality of retaining members secured to a single bracket.

Figure 7 is a sectional view taken on line 7—7 of Figure 6.

Referring to Figures 1, 2 and 3, it will be noted that the essential feature of the invention comprises a spring clip member, designated generally 10, a resilient retaining bracket 11 and a rivet 12 securing the two members together.

The frame member 11 comprises a horizontal section 14 and a vertical depending element 15 integral therewith.

The spring retaining bracket 10 is formed with a flat mounting element 16 having an aperture 17 formed therethrough adapted to receive the rivet 12 to secure the same to the horizontal member 14. It is apparent, of course, that any other suitable means, such as a nut-and-bolt assembly or other device, may be used in place of the rivet 12.

The spring retaining member 10 is also formed with a horizontal resilient element 20 formed as an integral part of the mounting strip 16 and merging into a substantially semi-circular section 21. The semi-circular section 21 and the horizontal resilient member 20, as will be seen from Figure 1, are substantially narrower than the mounting strip 16 so that, as will be seen later in a description of the function of the device, any flexure will take place in the elements 20 and 21.

The flexible retaining member 10 is also formed with a releasing section or face 25 which is formed integral with the member 10 and which merges into a semi-circular section 21. The member 25 is formed on an arc, the purpose of which will become apparent later.

A gripping ear 26 is disposed between the members 21 and is formed as an integral part of the spring clip 10. The gripping ear 26 is adapted to resiliently press against the depending flange 15.

Referring to Figure 4, it will be seen that a bag 30 having a folded marginal section 31 has been inserted between the gripping ears 26 and the depending flange 15. Due to the natural resiliency of the elements 20 and 21, there is a tendency for the members 26 and 25 to move downwardly in Figure 4. This tendency results in a rotational movement in a counter-clockwise direction around a point at the juncture between the members 20 and 16 which, because of the fact

that the end of the ear **26** is below a horizontal line extending through this point of rotation, tends to move the point closer to the depending flange **15**.

There is also a natural resilience in the element **21** which tends to further rotate the point **26** closer to the element **15**, thereby resulting in a gripping action against the bag **30**.

The gripping action against the bag **30** is not dependent solely upon a frictional engagement between the ear **26** and the marginal section **31**. As will be noted in Figure 4, the spring member **10** is formed so that the insertion of the marginal portion **31** of the bag **30** will cause the spring to rise and create a gap betwen the resilient members **20** and the horizontal section **14** of the bracket.

The natural weight of the bag **30** tends to cause the point **26** to move downwardly. As explained above, any downward movement of the point **26** when below the point of rotation will tend to cause a movement inwardly against the face of the flange **15**. It will readily be apparent that in case of heavier loads a greater tendency will exist to cause rotation of the elements as above described, thereby further embedding the point of the ear **26** into the material and more securely holding it in position.

It should be apparent from the description of this clip and its function that the bag cannot be accidentally dislodged and, in fact, the bag cannot be removed by a downward pull short of exceeding the strength of the materials used.

Referring to Figure 5, I have illustrated the means for releasing merchandise bags held by the clip **10**.

The bag **30** may be pulled outwardly from the rack which is to the left, as shown in Figure 5. This causes the bag to conform to the surface of the releasing member **25** and to pull it outwardly from the element **15**. Further pulling on the bag **30** tends to rotate the element **20** in a clockwise direction which tends to move the point of the ear **26** farther away from the depending flange **15** and also to lengthen the radius of curvature of the element **21** which further moves the point of the ear **26** away from the depending flange **15**. Such action continues until the distance between the point of the ear **26** and the surface of the depending flange **15** exceeds the thickness of the bag flange **31**, whereby the bag is then released and removed from the rack.

Whereas, I have heretofore explained my invention in connection with a single retaining element having a single retaining ear, it is apparent that the principle and structure above described can be used in multiple, either in width and number of retaining ears or in multiple gang, so that a plurality of bags or envelopes can be hung in horizontal line from one supporting fixture.

As shown in Figure 6, the bracket **11** (designated **11***a* in Figure 6) becomes a part of a larger unit having vertical extending side walls **40** and **41** and a base **42** joining the two side walls together and forming a substantially U-shaped channel. The base **42** is offset in the center to form a depressed section **43**, the purpose of which will be explained later.

The base **42** is lanced and bent downwardly to form a vertical retaining member **15***a* (corresponding to the member **15** in Figures 1–5, inclusive). A plurality of spring retaining members **10***a* are secured to the depressed section **43**.

The purpose of depressing or offsetting the section **43** is as follows:

Referring to Figure 4, it will be noted that the bag **30** may be inserted so that the top of the flange member **31** can be inserted upwardly into abutment against the spring member **20**. This is also true of the first or left-hand element in Figure 7. However, were the spring element **10***a* secured on the level of the base member **42** in the assembly shown in Figure 6, the top of the marginal section **31** would abut against the side walls **40** and **41** and would not be inserted far enough for effective gripping action in some cases. It, therefore, is necessary in some installations or for some intended uses, to depress the center section **43** so that the under surface of the side walls **40** and **41** are level with or about the under surface of the resilient section **20**.

It is intended to form multiple assemblies, such as shown in Figure 6, and to mount a plurality of these assemblies on a main supporting frame in both vertical and horizontal rows so that a large number of bags containing salable merchandise may be displayed at one time.

It will readily be apparent to those skilled in the art that many variations in form can exist which would still be within the scope of my invention. For example, resilient material is used to form the retaining clips. This is the preferred form. However, a relatively rigid member could be substituted in lieu thereof and freely pivoted from the frame **10**. In such case, the weight of the retainer element **11** would act as a biasing agent, urging the point or finger **26** inwardly against the plate **15**.

While I have herein shown and described my invention in what I have conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of my invention, which is not to be limited to the details disclosed herein, but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices.

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

1. A hanger bracket comprising a relatively rigid frame having a substantially vertical depending member, a relatively resilient member secured to said rigid frame at a point remote from said depending member and having a gripping portion extending substantially parallel to the depending member, said portion being formed with a relatively resilient arcuate section and a relatively rigid arcuate section depending from said first mentioned arcuate section in a reverse direction thereto, said second arcuate section being formed with a reduced end extending upwardly and adapted to resiliently engage the face of said depending member, said resilient member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to said depending member.

2. A hanger member comprising a relatively rigid frame having a substantially vertical depending member, a relatively resilient member secured to said rigid frame at a point remote from said depending member and having a gripping portion extending substantially parallel to the depending member and being formed with a relatively resilient arcuate section and a relatively rigid arcuate section depending from said first mentioned arcuate section, said second arcuate section being formed with a reduced end extending upwardly and adapted to resiliently engage

the face of said depending member, said resilient member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to said depending member and to release said item upon the application of a horizontal force thereto.

3. A hanger bracket comprising a relatively rigid frame having a plurality of substantially vertical depending members and a relatively resilient member adjacent each of said depending members secured to said rigid frame and having a portion thereof extending substantially parallel to said frame and being formed with a relatively resilient arcuate section and a relatively rigid arcuate section depending from said first mentioned arcuate section, said second arcuate section being formed with a reduced end extending upwardly and adapted to resiliently engage the face of said respective depending member, said resilient member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to said depending member.

4. A hanger bracket comprising a relatively rigid frame having a substantially vertical depending member therefrom, a retaining member pivotally secured to said rigid frame at a point remote from said depending member and having a gripping portion extending substantially parallel to the depending member and being formed with a first arcuate section and a second reversed arcuate section depending from said first mentioned arcuate section, said second arcuate section being formed with a reduced end extending upwardly and adapted to engage the face of said depending member and being normally biased against said depending member, said retaining member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to said depending member.

5. A hanger bracket comprising a relatively rigid frame having a plurality of substantially vertical depending members, a retaining member pivotally secured to said rigid frame adjacent each of said depending members at a point remote from said depending members and extending substantially parallel to said frame and being formed with a first arcuate section and a second reversed arcuate section depending from said first mentioned arcuate section, said second arcuate section being formed with a reduced end extending upwardly and adapted to engage the face of said depending member and being normally biased against said respective depending member, said second member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to said depending member.

6. A hanger bracket comprising a relatively rigid frame member having a substantially horizontal section and a depending relatively vertical member, a resilient clip secured to said horizontal section at a point remote from said depending section and extending outwardly thereto, said resilient clip having a plurality of relatively narrow sections lying parallel to said horizontal frame member and terminating in an arcuate section below said horizontal member and adjacent said depending member, an arcuate releasing section formed as an integral part of said arcuate member and being formed with an upwardly and inwardly directed gripping ear adapted to resiliently engage the surface of said depending member at a point below a horizontal line through the point of juncture between said horizontal frame member and said resilient clip.

7. A hanger bracket comprising a relatively rigid frame member having a substantially horizontal section and a plurality of relatively vertical members, a plurality of resilient clips secured to said horizontal section remote from each of said vertical members and extending outwardly from said vertical members, said resilient clips having a plurality of relatively narrow sections lying parallel to said horizontal section and terminating in an arcuate section below said horizontal section and adjacent each of said vertical members, an arcuate releasing section formed as an integral part of said arcuate member and being formed with an upwardly and inwardly directed gripping ear adapted to resiliently engage the surface of one of said vertical members at a point below a horizontal line through the point of juncture between said horizontal section and said resilient clips.

8. A hanger bracket comprising a relatively rigid frame member having a substantially horizontal section and a plurality of depending relatively vertical members, a retaining clip pivotally secured to said horizontal section at a point remote from each of said depending members and extending outwardly from said vertical members, said retaining clip having a section lying parallel to said horizontal section and terminating in an arcuate section below said horizontal section and adjacent each of said depending members, an arcuate releasing section formed as an integral part of said arcuate member and being formed with an upwardly and inwardly directed gripping ear adapted to engage the surface of one of said depending members at a point below a horizontal line through the point of juncture between said horizontal section and said resilient clip and being normally biased thereagainst.

9. A hanger bracket comprising a relatively rigid frame member having a substantially horizontal section and a depending relatively vertical member, a retaining clip pivotally secured to said horizontal section remote from said depending member and extending outwardly from said depending member, said retaining clip having a section lying parallel to said horizontal section and terminating in an arcuate section below said horizontal section and adjacent said depending member, an arcuate releasing section formed as an integral part of said arcuate member and being formed with an upwardly and inwardly directed gripping ear adapted to engage the surface of said depending member at a point below a horizontal line through the point of juncture between said horizontal section and said resilient clip and being normally biased against said depending member.

10. A hanger comprising a relatively rigid frame having a substantially horizontal member and a substantially vertical member, a relatively flexible retaining member comprising a mounting element, means for securing said mounting element to said frame, said retaining member having a plurality of horizontally disposed flexible portions, each of said flexible portions merging into a rounded element, a releasing member depending from said rounded elements and a gripping finger extending upwardly from said releasing member and adapted to bear against said vertical frame member and to engage said vertical frame member at a point below a horizontal line projecting from the top of said horizontal member.

11. A hanger comprising a relatively rigid frame having a substantially horizontal member and a plurality of substantially vertical members, a plurality of relatively flexible retaining members, each of said retaining members comprising a mounting element formed with an aperture receiving means for securing said mounting element to said frame and a plurality of horizontally disposed flexible portions, each of said flexible portions merging into a rounded element, a releasing member depending from said rounded elements and a gripping finger extending upwardly from said releasing member and adapted to bear against each of said vertical frame members and to engage said vertical frame members at a point below a horizontal line projecting from the top of said horizontal member.

12. A hanger bracket comprising a substantially rigid frame having a member depending therefrom, a resilient clip secured to said frame and terminating below the top of said depending member, means for securing an item to said hanger bracket, said means comprising an inwardly directed gripping ear secured to said resilient clip adapted to resiliently engage said depending member at a point below a horizontal line through the point of juncture of said frame member and said resilient clip and a releasing member depending from said gripping ear adapted to cause said gripping ear to move away from said depending member upon application of outward and upward force thereto.

13. A hanger bracket comprising a relatively rigid frame having a depending member, a relatively resilient member having an anchoring portion secured to said rigid frame at a point remote from said depending member and having a gripping portion extending substantially parallel to the depending member, said gripping portion being formed with a relatively resilient connecting section extending to the anchoring portion and a relatively rigid section depending from the connecting section and disposed obliquely outwardly and downwardly relative to the upper part of the depending member, said relatively rigid section being formed with a reduced end extending upwardly and adapted to resiliently engage the face of the depending member, said resilient member being adapted to yield upon insertion of an item to be hung by said bracket and to tightly grip said item upon application of a force parallel to the depending member.

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