United States Patent

[11] 3,610,425

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[54] **ARTICLE SUPPORT AND DISPLAY DEVICES**
6 Claims, 6 Drawing Figs.

[52] **U.S. Cl.** **211/57**
[51] **Int. Cl.** **A47f 7/00**
[50] **Field of Search** 211/57, 54, 153, 162, 6; 312/234, 234.4

[56] **References Cited**

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ABSTRACT: Article support and display devices are provided which have an elongated body with a pair of flanges running lengthwise and extending inwardly toward one another, the inner edges of said flanges being substantially parallel and forming a slot between them, said slot being open at an end thereof, and means comprising an article supporting rod or rods of substantial length adapted to be removably mounted in said slot through said open end thereof and to extend laterally of said elongated body. Packages containing articles of merchandise can be suspended on said rods by forming a hole in one end of the package and inserting the rod through the hole. Other items can also be suspended from the rods in any suitable manner.

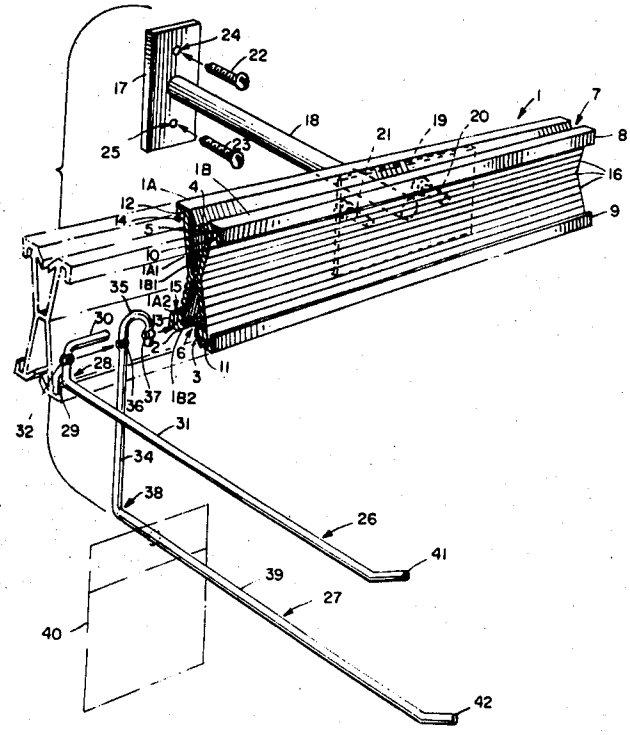


FIG. 1

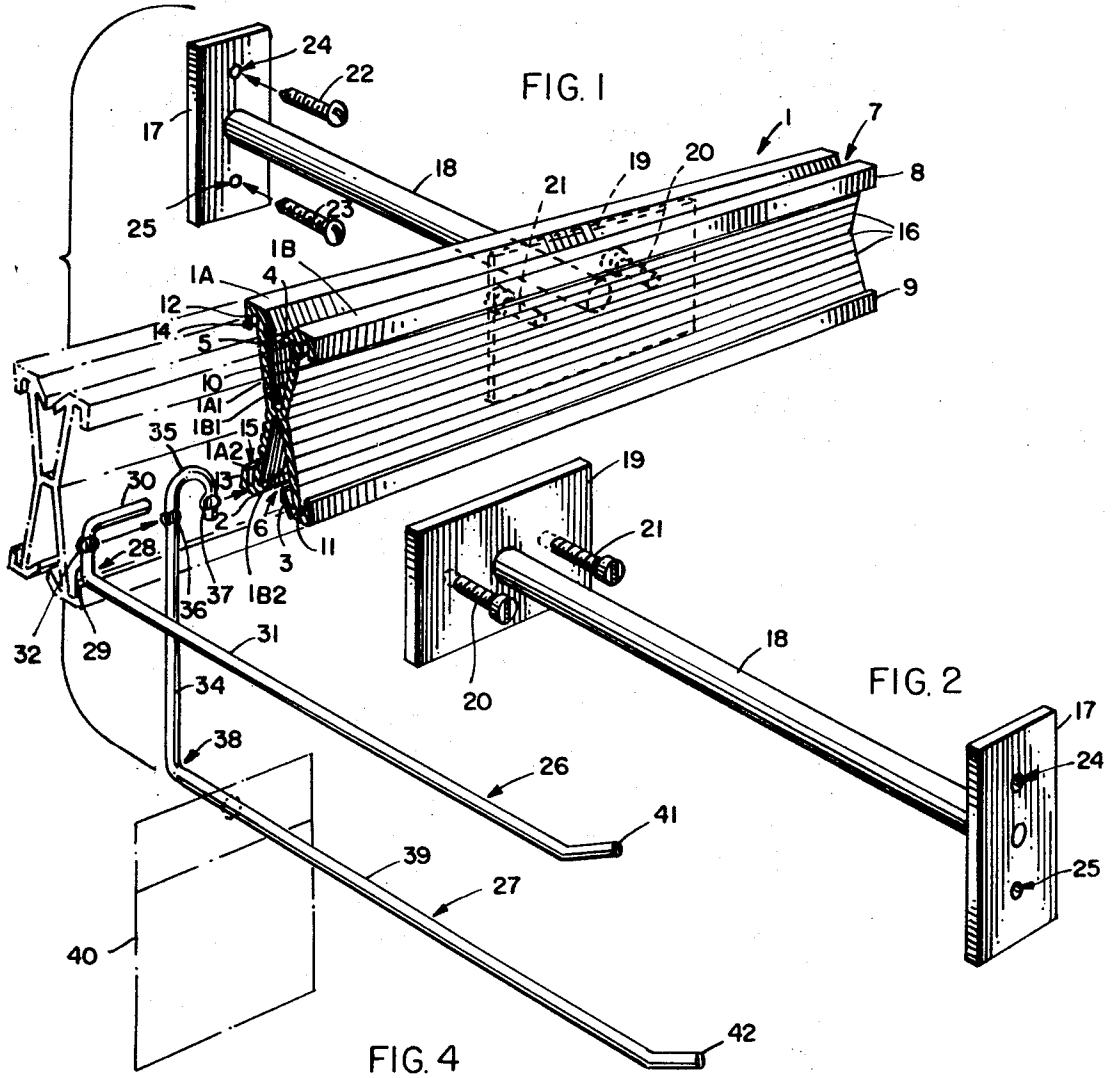


FIG. 2

FIG. 4

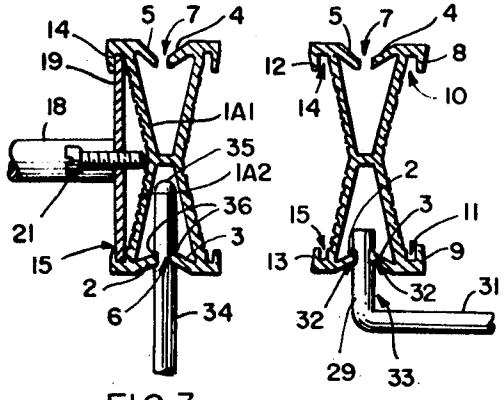


FIG. 3

FIG. 5

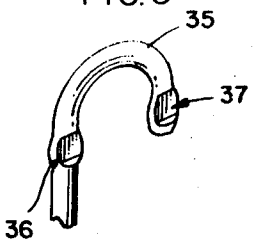
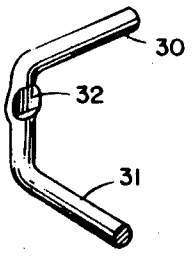


FIG. 6



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ARTICLE SUPPORT AND DISPLAY DEVICES

BACKGROUND OF THE INVENTION

In merchandising operations the display and handling of merchandise has become increasingly important in recent years. This is especially true because of the growing number of self-service stores.

One recent innovation is the use of display advertising supporting devices of the type shown in U.S. Pat. No. 3,208,107. These devices are especially suitable for supporting display advertising material including place cards, articles, letters, price cards and the like. It would be desirable to further extend the use of such article supporting devices so that they can be employed to support a number of articles of merchandise of the same type or of different types whereby the customer could readily select and remove an article of merchandise from the supporting device and carry it to a sales counter. It would be further desirable to have article supporting devices of the type described wherein a number of the articles each carried in its own individual transparent package can be supported on an outwardly extending rod. Some devices of this type are already known but the supporting structure is sometimes relatively complex and contains a number of parts that have to be assembled.

OBJECTS OF THE INVENTION

One of the objects of the present invention is to provide a new and improved article support and display device which is relatively simple to construct and use.

Another object of the invention is to provide an article support and display device consisting essentially of a single supporting body which can be mounted on a wall, counter or in any other suitable manner, and one or more article supporting rods which are adapted to be removably mounted in a slot in said body and to extend outwardly therefrom in order to receive articles of merchandise.

A further object of the invention is to provide an article support and display device of the type described in which the outwardly extending article supporting rods are bent at one end to form a section adapted to be mounted in a slot in an elongated body, said slot being formed by a pair of flanges running lengthwise and extending inwardly toward one another.

Still a further object of the invention is to provide article supporting rods which are adapted to be removably mounted in a supporting device of the type disclosed in U.S. Pat. No. 3,208,170.

An additional object of the invention is to provide article supporting rods of the type described which are relatively simple to manufacture and can be produced at relatively low costs.

THE DRAWINGS

Other objects and advantages of the invention will appear from the following description in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of an article support and display device provided in accordance with the invention;

FIG. 2 is a perspective view of a portion of the device shown in Fig. 1 illustrating means for mounting said device from a wall or other structure;

FIG. 3 is a cross-sectional view of a portion of the device shown in FIG. 1;

FIG. 4 is another cross-sectional view of the device shown in FIG. 1;

FIG. 5 is a view of the inner portion of one type of article supporting rod shown in the device of FIG. 1; and

FIG. 6 is a view of the inner portion of another type of supporting rod illustrated in the device shown in FIG. 1.

THE INVENTION

Briefly described the invention is an article support and display device comprising an elongated body having a pair of flanges running lengthwise and extending inwardly toward one another, the inner edges of said flanges being substantially parallel and forming a slot between them, said slot being open at an end thereof, and means comprising an article supporting rod or rods of substantial length adapted to be removably mounted in said slot through said open end thereof and to extend laterally of said elongated body.

The aforementioned elongated body can be supported from a wall or other structure in any suitable manner.

In accordance with the invention each article supporting rod is bent at one end to form a section adapted to be mounted in the slot in said elongated body and said section provided with a notch or oppositely disposed notches, the sides of which are adapted to engage a side or sides of said slot whereby each article supporting rod can be moved within said slot to a predetermined position or, if desired, removed through the open end of said slot.

In a preferred structure of the article supporting rods each of the aforementioned sections has an intermediate portion and an end portion, the end portion extending generally in a plane at an angle to a plane through said intermediate portion and the remainder of the rod and each intermediate portion has a notch on one or both sides adapted to engage a side of said slot in said elongated body.

In a still more specific embodiment of the invention, said end portion of the article supporting rod is in the form of an inverted U and each leg of the U contains a transversely extending notch so that a straight line through the notches in the two legs of the inverted U is substantially at right angles to the intermediate portions. As another alternative, the end portion instead of having the general shape of an inverted U can be substantially straight.

Referring to FIG. 1 it will be seen that the supporting device generally shown at 1 is an X-shaped cross section including a pair of substantially parallel spaced allochiral bars 1A and 1B. The bar 1A includes upper and lower substantially straight portions 1A1 and 1A2, while the bar 1B includes upper and lower substantially straight portions 1B1 and 1B2. The included angles between the straight portions 1A1–1A2 and 1B1–1B2 of the embodiment illustrated are slightly less than 180°, while the included angles between the straight portions 1A1–1B1 and 1A2–1B2 are less than 30°. The section includes a pair of inwardly and upwardly extending flanges or projections 2 and 3 running lengthwise at the bottom of the supporting device 1 and a pair of inwardly and downwardly extending flanges or projections 4 and 5 running lengthwise at the top of the supporting device 1. The inwardly extending projections may take any desired form. The inner edges of the flanges 2 and 3 define a space or slot 6 which runs lengthwise and the inner edges of the flanges 4 and 5 define a space or slot 7 which runs lengthwise. The side flanges or lips 8 and 9 extend vertically and define spaces 10 and 11 which run lengthwise. Similarly, on the opposite side of the supporting device the vertical side flanges or lips 12 and 13 define spaces 14 and 15, respectively.

The supporting device is preferably formed by extruding a metal, such as aluminum or an aluminum alloy, or a rigid plastic, and in the device shown, longitudinal grooves 16 are formed during the extrusion but these are not essential for the practice of the invention.

The bar or elongated body member 1 can be supported from a wall or other structure by using a supporting member of the type shown in detail in Fig. 2 wherein a plate 17 is secured by means of a rod 18 to a plate 19. The plate 19 is adapted to be inserted into the spaces or channels 14 and 15 in the manner shown in FIG. 3 and to be held in said spaces by tightening the setscrews 20 and 21 against the outer sides 1A1 and 1A2 of elongated body member 1. The plate 17 is adapted to be fastened to a wall or other structure by means of screws 22 and 23 inserted through holes 24 and 25 or in any other suitable manner. The fastening member comprising the elements 17, 18 and 19 can be made of metal, rigid plastic or any other suitable rigid material having substantial structural strength.

Two different types of article supporting rods **26** and **27** are illustrated in Figs. **2**, **3**, **4**, **5** and **6**. The supporting rod **26** is bent at one end to form a section **28** which consists of an intermediate portion **29** and a straight end portion **30**. The intermediate portion **29** extends upwardly with respect to the elongated article supporting portion **31** and has a pair of notches, one on each side thereof indicated at **32,32** (see FIG. **4**). The notches **32**, **32** are adapted to fit over the edges of the sides of slot **6** so that the end section of article supporting rod **26** can be inserted into the open end of slot **6** and moved along said slot to any predetermined position. The angle formed at **33** is usually either a right angle as shown in FIG. **4** or an acute angle of any size up to about 60° from the horizontal. It will be recognized that when the angle is an acute angle, the rod **31** is tilted upwardly and any articles suspended from said rod tend to move by gravity inwardly toward the elongated body member **1**. The straight portion **30** acts as a guide or stabilizer when supporting rod **26** is moved along the slot **6** of elongated body **1**.

In the embodiment of the invention illustrated by supporting rod **27** the inner section **34** extends upwardly and terminates in a U-shaped end portion **35** which is provided with notches **36** and **37**. These notches FIG. be either on one side or both sides of the end portion **35**. A straight line drawn through these notches will usually be substantially at right angles to the intermediate portion **34** of rod **27**. The angle **38** formed between the portion **1A2**, and the article supporting portion **39** of the rod **27** can be varied depending upon whether the portion **39** is to be horizontal or tilted upwardly or downwardly. Usually it is undesirable for the portion **39** to be tilted downwardly because any articles supported by the rod **27** would tend to slip off. Accordingly, it is usually preferable that the angle indicated at **38** be either 90° or an acute angle not greater than 60° so that the articles places on rod **27** will remain horizontal or will tend to gravitate toward elongated body member **1**. Item **40** represents in phantom the manner in which packages containing articles of merchandise can be disposed on the rod **27**. Similarly, packages can be disposed on the rod **26**. To prevent accidental displacement of the packages from the rods **26** and **27** upwardly extending outer end portions **41** and **42** are provided.

It will be recognized that a number of rods such as the rods **26** and **27** can be mounted in the slot **6** at spaced intervals depending upon the sizes of the packages. Both types of rods can be used at the same time or only one type need be used. The rods can be of different lengths and the end sections can be of different lengths so that articles of merchandise can be positioned above and below one another or at different distance from one another with respect to the elongated body member **1**. Thus, a device of the type herein described is exceptionally versatile in permitting many different types of displays with assorted kinds of merchandise.

It will be understood that the invention is not necessarily limited to the use of an elongated body member **1** of the type illustrated in Fig. **1**, it being essential, however, that whatever type of elongated body member is used it should contain a slot open at one end with sides substantially parallel and adapted to receive notched article supporting rods of the type herein described. The member **1** has the advantage that price cards can be placed between the spaces **10** and **11** and the device can be mounted by the use of an attachment such as that shown in Fig. **2** which will slide into the open ends of the spaces **14** and **15**.

Another advantage of using the elongated body member **1** as a supporting member is that the slot **7** can also be used for mounting article supporting rods such as **26** and **27**. The end sections **29** and **34** would then extend downwardly rather than upwardly and the outer ends **41** and **42** should be bent in the opposite direction to retain articles of merchandise. The sections **31** and **39**, instead of extending under the flange **3**, will extend over the flange **4**.

The invention is hereby claimed as follows:

1. An article support and display device comprising an elongated body having a pair of flanges running lengthwise and extending inwardly toward one another, the inner edges of said flanges' being substantially parallel and forming a slot between them, said slot being open at an end thereof, and means comprising an article supporting rod of substantial length adapted to be removably mounted in said slot through said open end thereof and to extend laterally of said elongated body, said article supporting rod being bent at one end to form a section adapted to be mounted in said slot, said section having an intermediate portion and an end portion, said end portion extending generally in a plane at an angle to a plane through said intermediate portion and the remainder of said article supporting rod, said intermediate portion having a notch therein the sides of which are adapted to engage a side of said slot.

2. A device as claimed in claim **1** in which said end portion has the general shape of an inverted U and each leg of the U contains a transversely extending notch, a straight line through said notches being substantially at right angles to said intermediate portion.

3. A device as claimed in claim **1** in which said end portion is substantially straight.

4. An article supporting rod of substantial length adapted to be removably mounted in a slot between two flanges of an article support, said supporting rod being bent at on end to form a section which extends at an angle to the remainder of the supporting rod, said section having an intermediate portion and an end portion, said end portion extending generally in a plane at an angle to a plane through said intermediate portion and the remainder of said article supporting rod, said intermediate portion having a notch therein the sides of which are adapted to engage a side of said slot.

5. A device as claimed in claim **4** in which said end portion has the general shape of an inverted U and each leg of the U contains a transversely extending notch, a straight line through said notches being substantially at right angles to said intermediate portion.

6. A device as claimed in claim **4** in which said end portion is substantially straight.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,610,425 Dated October 5, 1971

Inventor(s) Marion J. Madey

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

First page, left-hand column, sixth line, "Foster" should read -- Poster --.

Column 1, line 11, "place cards" should read -- placards --.

Column 3, line 23, "FIG." should read -- can --; line 27, "1A2" should read -- 34 --.

Column 4, line 41, Claim 4, "on" should read -- one --.

Signed and sealed this 2nd day of May 1972.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents