United States Patent [19]

Romney

[11] **3,759,398**

[45] **Sept. 18, 1973**

[54] **FABRIC DISPLAY AND MERCHANDISING SYSTEM**

[76] Inventor: **Russell H. Romney,** 3259 Bon View Dr., Salt Lake City, Utah 84109

[22] Filed: **Oct. 14, 1971**

[21] Appl. No.: **189,166**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 15,785, March 2, 1970, Pat. No. 3,633,250.

[52] **U.S. Cl.** **211/46,** 211/47, 211/48, 211/89, 211/163

[51] **Int. Cl.** **A47f 7/16**

[58] **Field of Search** 211/45, 46, 47, 48, 211/123, 124, 163, 182, 89

[56] **References Cited**

UNITED STATES PATENTS

3,318,460	5/1967	Becker	211/123
3,243,051	3/1966	Ruhnke	211/182
936,771	10/1909	Gandil	248/78 R
2,546,929	3/1951	Nampa	211/182
2,595,837	5/1952	Freeman	211/45

FOREIGN PATENTS OR APPLICATIONS

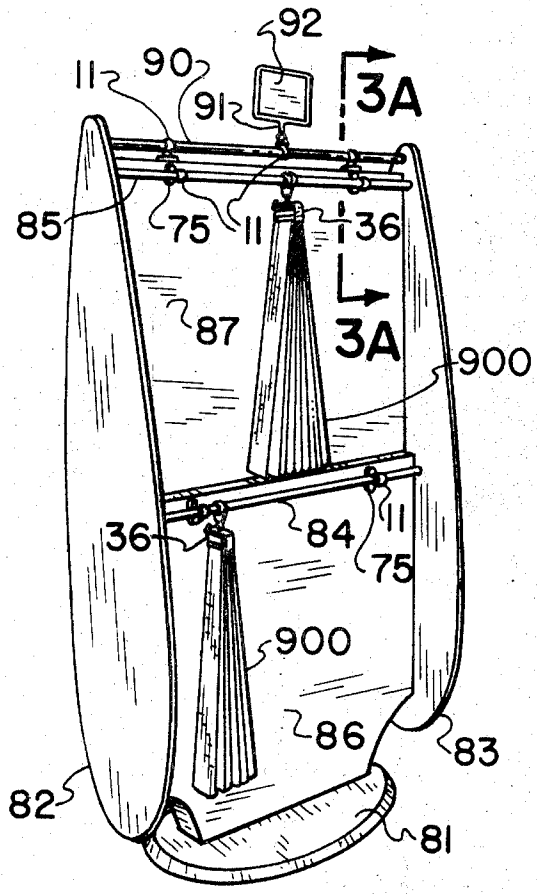
708,565	6/1941	Germany	211/46
1,180,459	12/1958	France	16/159
1,113,067	5/1968	Great Britain	211/45

Primary Examiner—Roy D. Frazier
Assistant Examiner—Thomas J. Holko
Attorney—Edwin M. Thomas

[57] **ABSTRACT**

A system is disclosed for holding and displaying samples of fabrics so they can be conveniently examined by prospective customers. Identifying means for each sample are provided so that the customer may order, e.g., by number from rack storage in another part of the mercantile establishment. Pivoted connecting elements mounted for universal rotation are employed to support the fabric holding means in such a way that numbers of large and different fabric samples are displayed clearly, but stored compactly, being supported on elongated, circular or cabinet type racks.

9 Claims, 29 Drawing Figures



PATENTED SEP 18 1973

3,759,398

SHEET 1 OF 5

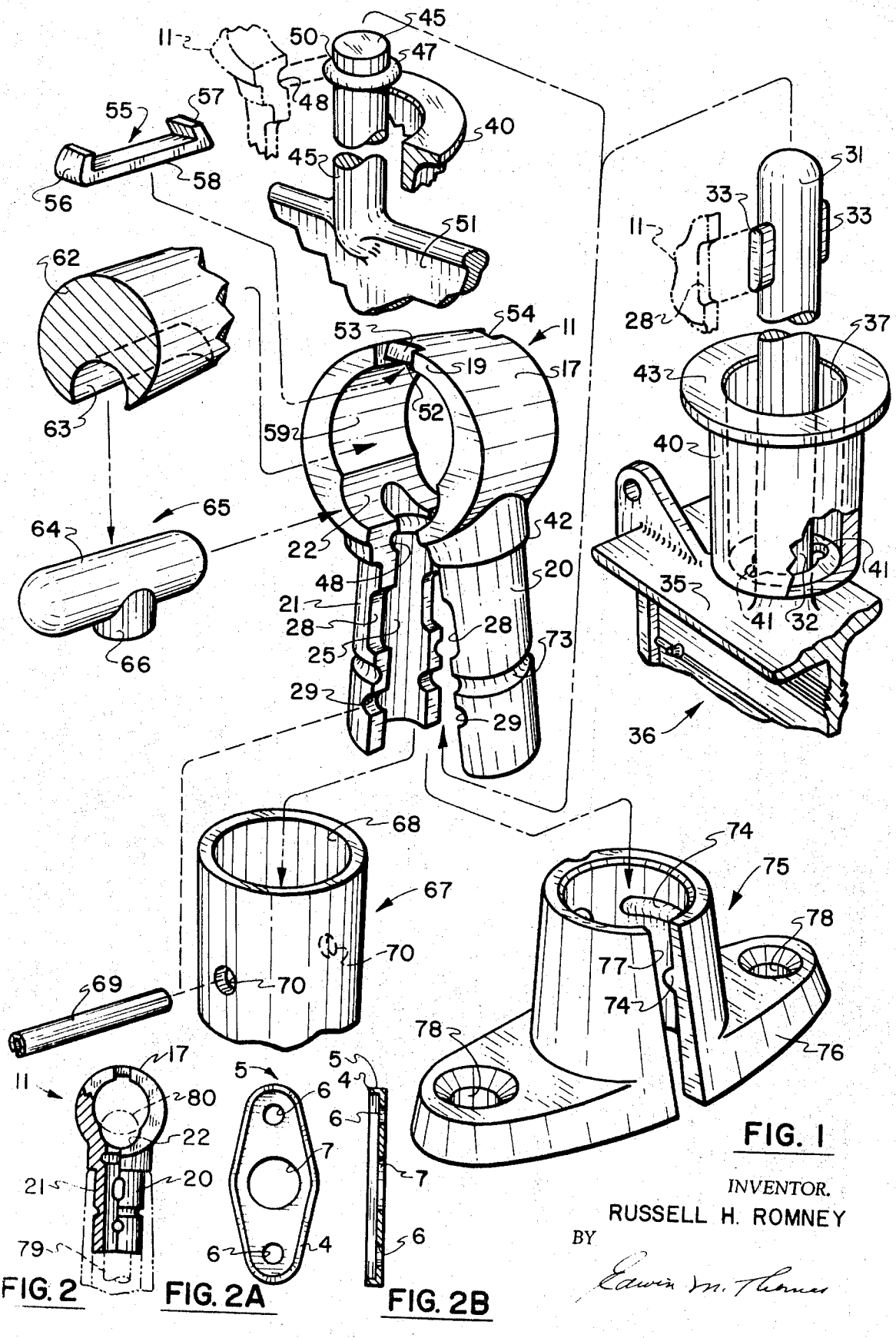


FIG. 1

FIG. 2

FIG. 2A

FIG. 2B

INVENTOR.
RUSSELL H. ROMNEY
BY
Edwin M. Thomas

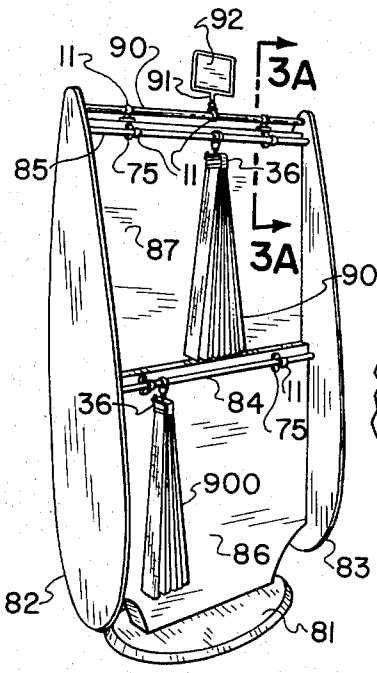


FIG. 3

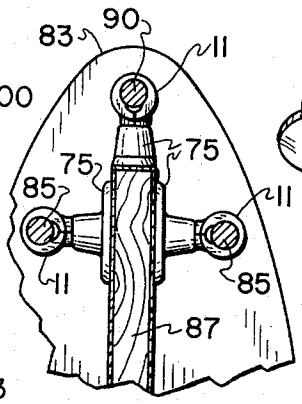


FIG. 3A

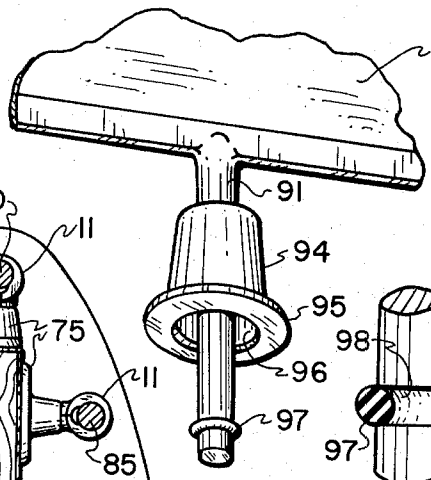


FIG. 4

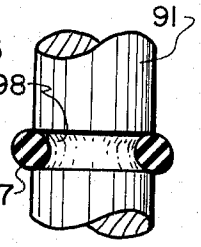
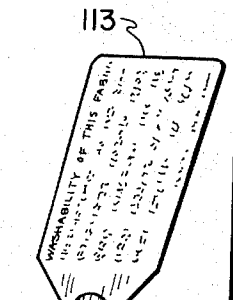


FIG. 5



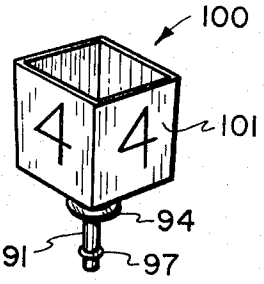


FIG. 6

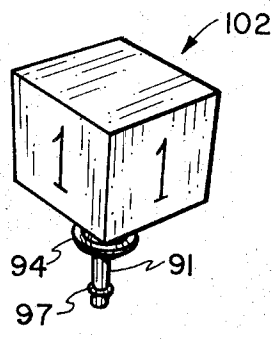


FIG. 7

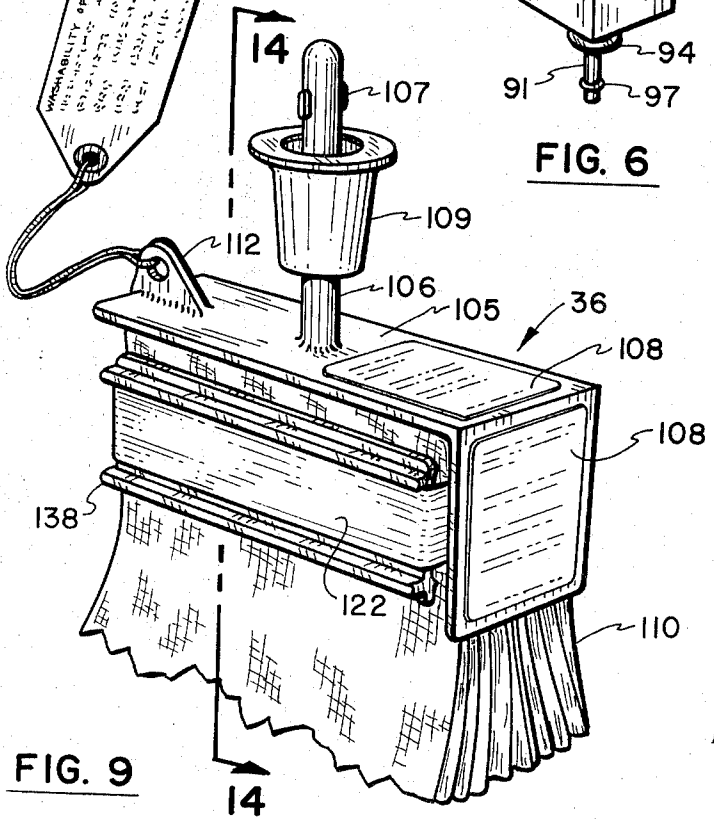


FIG. 9

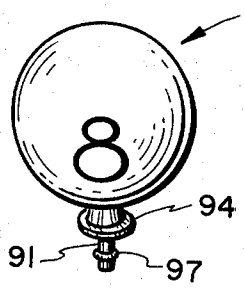


FIG. 8

INVENTOR.
RUSSELL H. ROMNEY

BY

Edwin M. Thomas

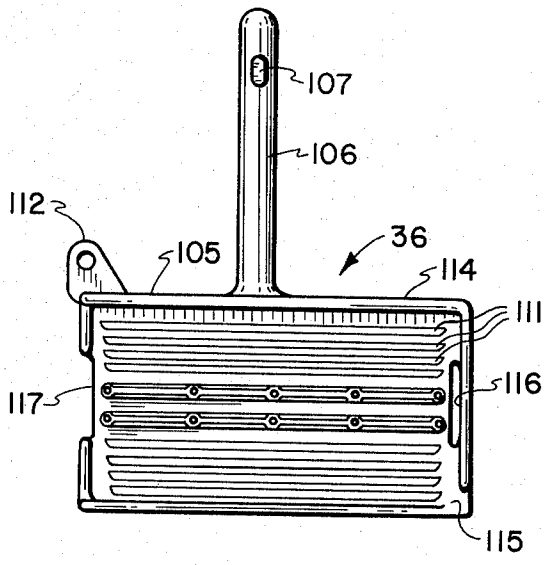


FIG. 10

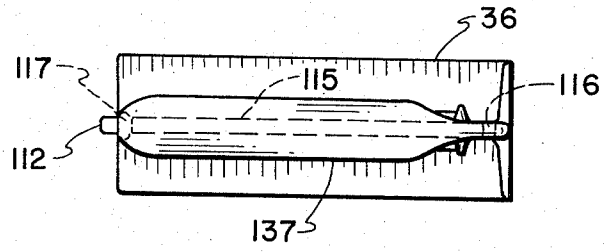


FIG. 11

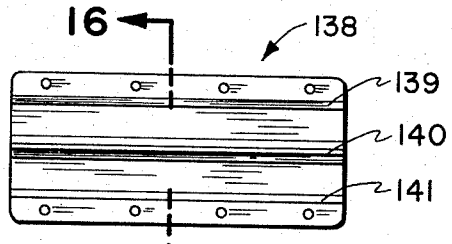


FIG. 15

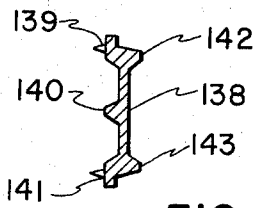


FIG. 16

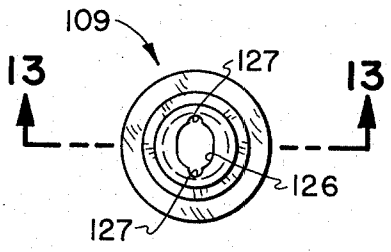


FIG. 12

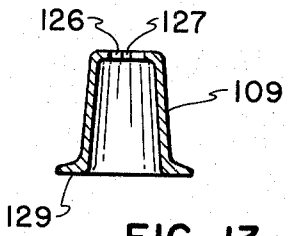


FIG. 13

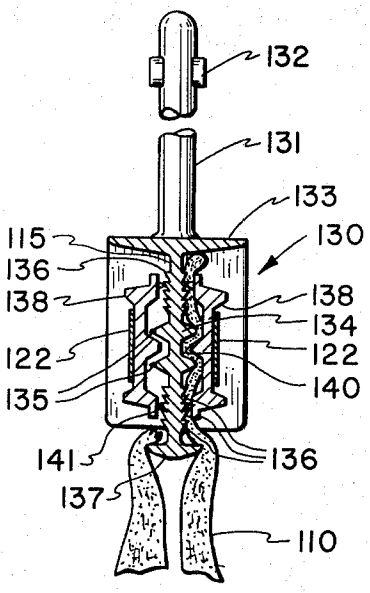


FIG. 14

INVENTOR.
RUSSELL H. ROMNEY
BY
Lewis M. Thomas

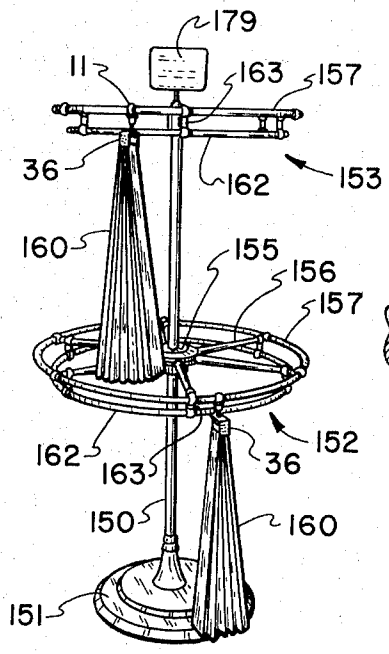


FIG. 17

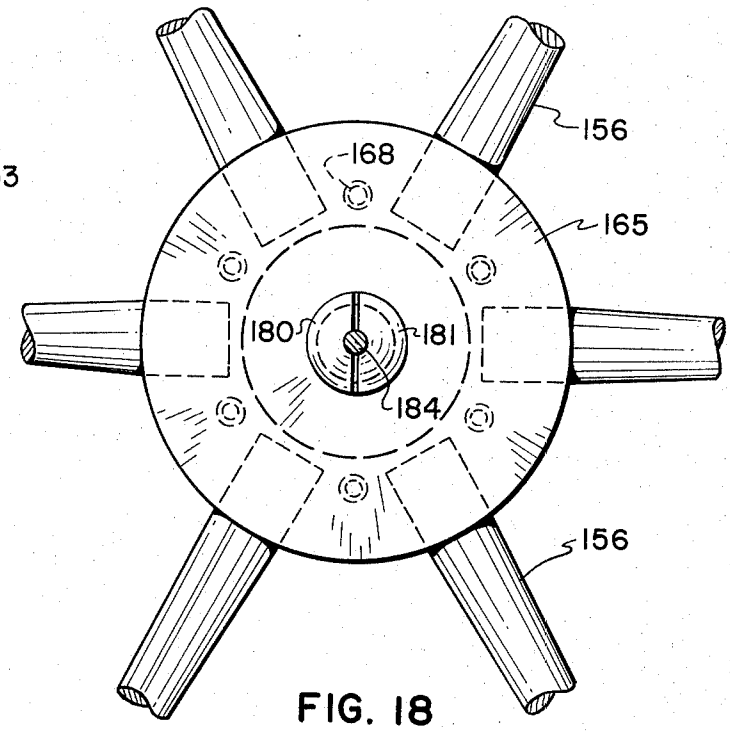


FIG. 18

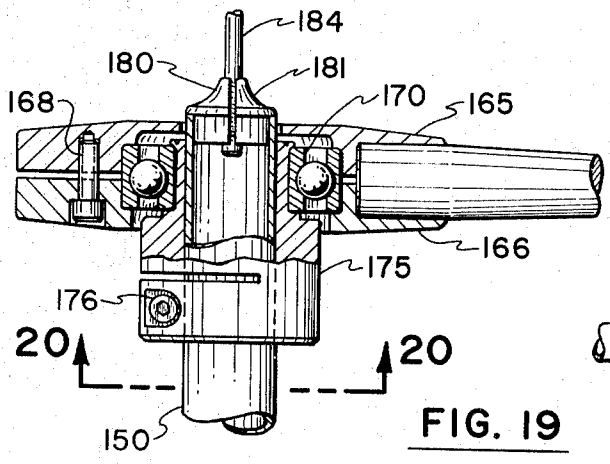
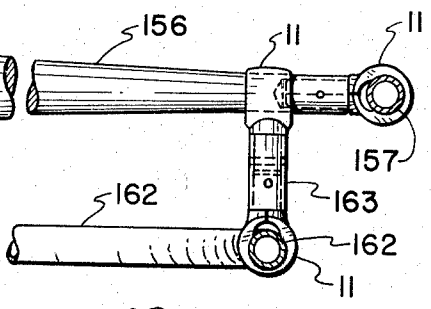
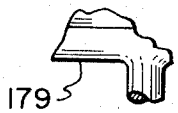


FIG. 19





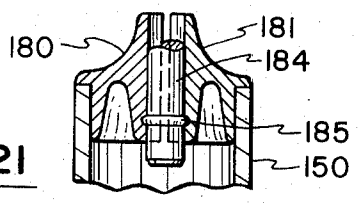


FIG. 21

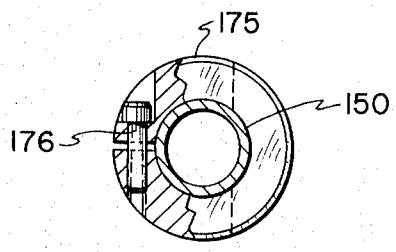


FIG. 20

INVENTOR.
RUSSELL H. ROMNEY
BY

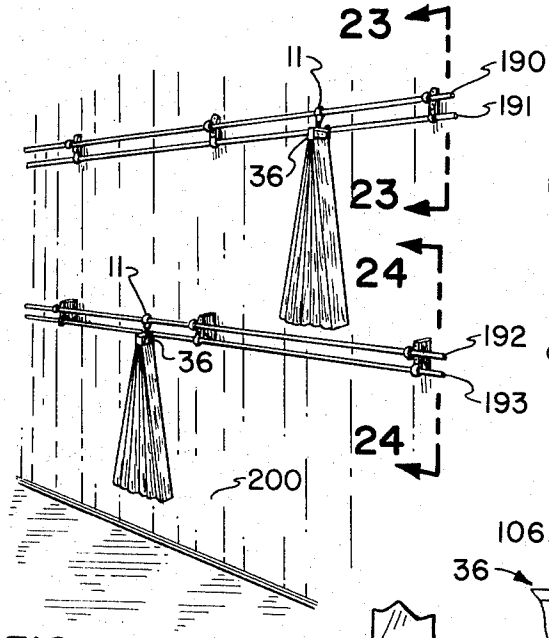


FIG. 22

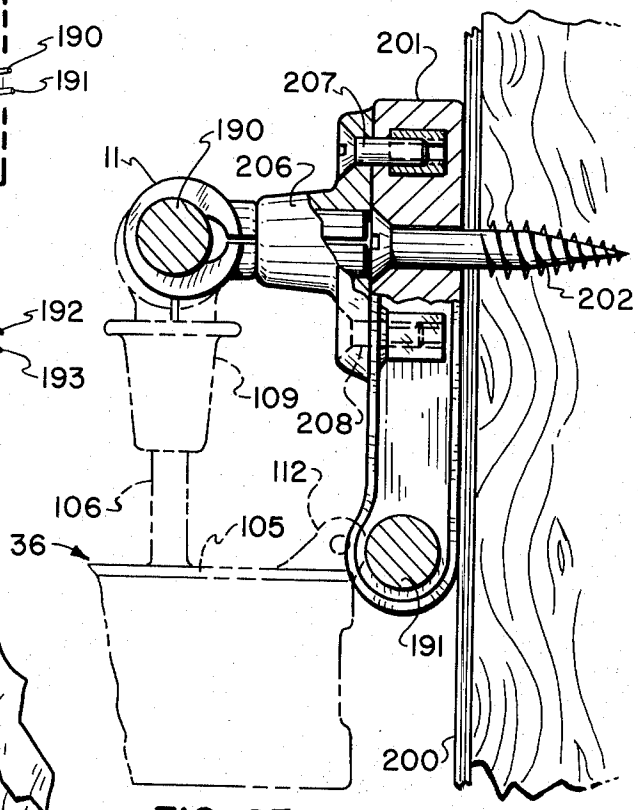


FIG. 23

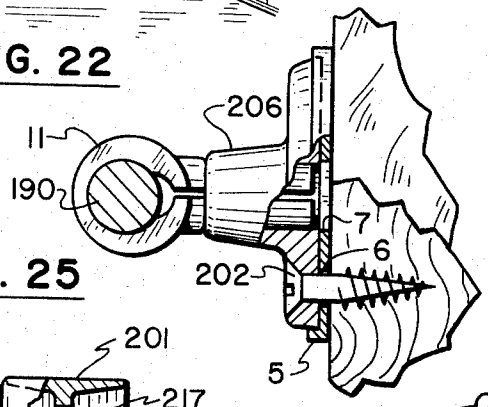


FIG. 25

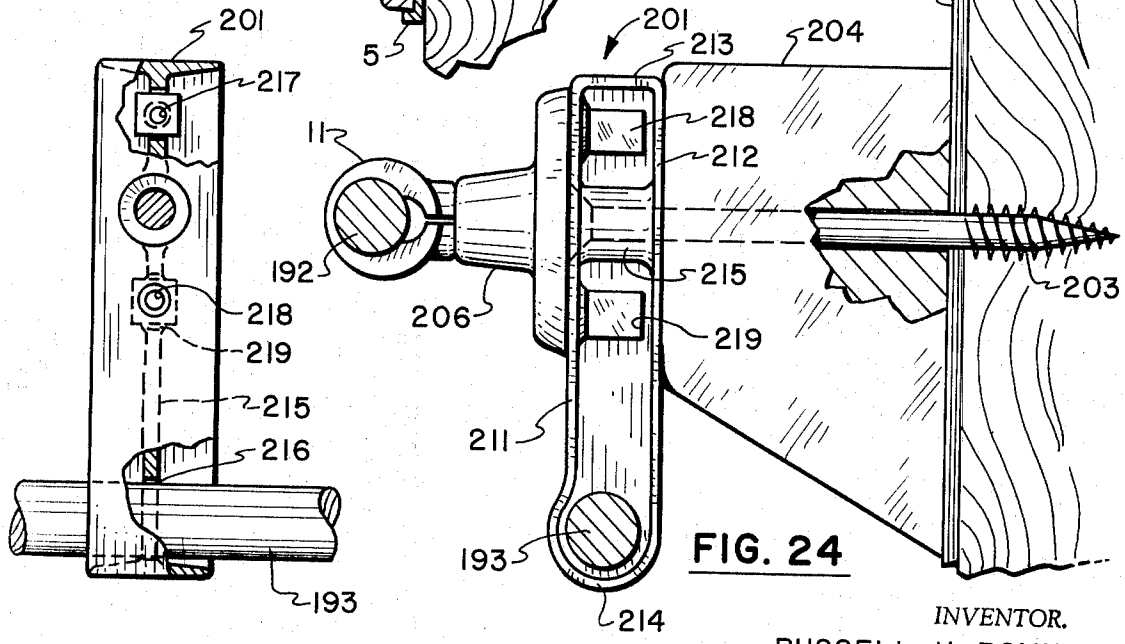


FIG. 24

FIG. 26

INVENTOR.
RUSSELL H. ROMNEY
BY
Edwin Sr. Thomas

FABRIC DISPLAY AND MERCHANDISING SYSTEM

The present application is a Continuation-in-Part of Application Ser. No. 15,785, filed Mar. 2, 1970, now U.S. Pat. No. 3,633,250.

BACKGROUND AND PRIOR ART

The merchandising of fabrics has long been handicapped by the almost universal custom of delivering and stacking or storing large bolts of cloth in piles on shelves or in other situations where the customer either cannot examine them closely, or must struggle with large masses of material to do so. While efforts have been made to display smaller samples or swatches of fabric, or short lengths which are hung in open areas for convenient examination, satisfactory means for holding substantial numbers of pieces of these fabrics in an attractive manner, where they will not be mussed up or covered by other samples, have been lacking.

A typical fabric store will have many hundreds and often several thousands of bolts of fabric of different patterns, materials and grades. Unless these can be displayed to advantage so that the customer can examine, feel and study the material, noticing how it hangs and drapes, etc., sales are often lost. Display by small patches or samples is not very satisfactory. Fabric merchants have found that samples of about a yard of material are needed for adequate examination by customers. Individual bolts of cloth are often heavy and massive and difficult for the average customer to handle. These bolts can be and often are displayed in racks, etc., but such displays are either unsightly or highly inconvenient. Furthermore, the display of large numbers of bolts occupies considerable space and for this reason alone is undesirable in most fabric stores.

It is obviously desirable to be able to hang a large number of fabric samples in such a way as to present an attractive general display while at the same time hanging each individual sample so that it can be spread out and inspected in detail. The present invention, therefore, is designed so that each individual sample of fabric is pivotally suspended, for swinging out and away from other samples, but arranged so as to swing back into line when released.

The sale of fabrics by small samples is not satisfactory even for plain fabrics, and less so for printed materials. Many fabrics are printed in large patterns so that it requires examination of approximately a yard of the fabric before the customer can make an intelligent selection. Samples of this size have been found to be good sales motivators. They often are less costly to the merchant than smaller samples because they can be sold, eventually, as remnants. However, for eventual sales, the samples must be kept and displayed with little or no damage. To make such display possible is one object of this invention. There is, in fact, urgent need for a system by which sizable samples of fabric may be displayed attractively, but held firmly in such a way that it will not be found later on the floor crumpled, or pushed under other merchandise and spoiled for future display or sale.

The present invention is based largely on a concept of using small, convenient universal fastening and holding means for securing swatches of cloth, and analogous fabrics, in quantities of a yard or more. These are secured detachably to attractive display racks, preferably to multi-level racks, where large number of such samples can be displayed attractively, for easy and adequate inspection by customers, without excessive space requirements.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is an exploded view showing a number of fabric display and holding elements adapted to be put together for supporting sizeable samples or swatches of cloth on a suitable rack.

FIG. 2 is detailed view, partly in section, of one of the bifurcate and hinged fastening elements which constitutes a feature of the invention.

FIG. 2A and FIG. 2B are, respectively, a face view and a sectional view of an auxiliary base plate for use with element 75.

FIG. 3 is a perspective view of a display rack showing one manner of displaying large smaples of fabric without allowing such to come loose from its fastening.

FIG. 3A is an enlarged fragmentary sectional view taken substantially along line 3A—3A of FIG. 3.

FIG. 4 is a perspective view of a fastening element for a display card or sign.

FIG. 5 is an enlarged detailed and partly sectional view of parts of the securing means for the display device of FIG. 4.

FIG. 6 shows a modified hollow display sign element and FIG. 7 a further solid modification.

FIG. 8 shows spherical type of display sign.

FIG. 9 shows a perspective view of a device for holding a fabric sample and identifying it, which is adapted to be secured in a rack for display, as in FIG. 3.

FIG. 10 is a face view of a fabric holding element of FIG. 9.

FIG. 11 is a bottom view of the device of FIGS. 9 and 10.

FIG. 12 is a top view of a fastening element and FIG. 13 is a vertical section of the same element taken substantially on the line 13—13 of FIG. 12.

FIG. 14 is a sectional view taken substantially on the line 14—14 of FIG. 9.

FIG. 15 is a face view of a separable clamping plate or jaw element of FIGS. 9 and 14.

FIG. 16 is a vertical cross-section taken on line 16—16 of FIG. 15.

FIG. 17 is a perspective view of a bilevel "carrousel" or rotary display rack showing some of the fabric sample fastening elements mounted thereon.

FIG. 18 is an enlarged horizontal or top view of the hub arrangement in the center of FIG. 17.

FIG. 19 is a vertical fragmentary sectional view of the wheel and support arrangement of FIGS. 17 and 18, showing details of mounting and structure.

FIG. 20 is a horizontal sectional view taken substantially on the line 20—20 of FIG. 19.

FIG. 21 shows an enlarged detail of means for fastening a sign to the top of the display rack of FIGS. 17 to 19.

FIG. 22 shows a perspective view of a multi-level wall rack on which various samples of fabric may be hung by means of attachment devices, constituting another aspect of the present invention.

FIG. 23 shows an enlarged sectional detail of wall bracket elements taken substantially on the line 23—23 of FIG. 22.

FIG. 24 shows another view of wall bracket elements taken at the lower level substantially along the line 24—24 of FIG. 22.

FIG. 25 is a detail view of a modified wall bracket arrangement.

FIG. 26 is a view, partly in section, of the bracket means of FIG. 24.

DESCRIPTION OF PREFERRED EMBODIMENT

Referring first to FIG. 1, there are shown a number of individual elements which collectively may be assembled in various ways for the economical and convenient support of fabric samples along with a display sign. A basic or key element of the system is a bifurcate hinged connector indicated at 11 in the center of FIG. 1. This connector per se forms a subject matter of copending application for U.S. Patent Ser. No. 15,785, filed Mar. 2, 1970 now U.S. Pat. No. 3,633,250. This bifurcate element per se, preferably is molded or cast from a tough resilient plastic, such as nylon, Delrin, or other material having good resiliency and strength characteristics. It has an upper loop portion 17 with a relatively thin wall toward the top as indicated at 19. The lower part of the loop continues as separate legs 20 and 21, an arcuate cut-out 22 being formed on each leg for several purposes which will be discussed in detail below. Among other things, these cut-out or relieved parts 22 facilitate placement of the device over a rod by merely spreading the legs 20 and 21 a reasonable distance apart. The legs themselves are formed so that when closed together, they present a circular cylindrical inner surface 25 adapted to surround and hold a cylindrical tube or rod-like member, such as 31 at the right of FIG. 1. Edges of the two legs, furthermore, are cut out or notched as indicated at 28 and 29 to form matching detent notches or grooves through which retaining pins, lugs 33, or other protruding elements of a shaft or shaft-like object such as 31 are received and locked in place when the two legs are closed together.

At the upper right in FIG. 1 the rod member 31 is shown provided with vertically elongated projections 33 which are adapted to fit into the upper notches 28 of member 11. A downward continuation 32 of this rod 31 connects to the top plate or web 35 of a fabric-holding element 36 of more or less T-shaped cross-section. See also FIG. 14. A hollow slidable cylindrical locking device 40 is larger internally than rod 32, but has a lower closure which fits rod 32 except for being provided with a slot 41. It is adapted to pass over the rod 31 and also over its projections 33. It has an internal cylindrical bore 37 adapted to fit snugly around the legs 20 and 21 of bifurcate device 11 when these are closed together to hold them snugly around rod 31, 32 and lugs 33. Thus, the rod 31 may be held against sliding or relative rotation between the two legs 20 and 21 of the bifurcate connector. It is locked in this holding position by lifting the member 40 up around the legs so that they cannot spread apart and release the protrusions or lugs 33. The locking member 40 is provided with an annular flange 43 at its upper end which is adapted to match and seat against a flange element 42 of similar diameter on member 11.

In the upper left part of FIG. 1 an adaptation is shown wherein a rod 45, corresponding more or less to rod 31 and projecting upwardly, is provided with a retaining ring or annular rib 47 and adapted to be held by a bifurcate device 11. The annular rib 47 is adapted to be received in an enlarged annular groove 48 of device 11. When the legs 20 and 21 of the latter are closed together, the rod 45 cannot be withdrawn axially through the bore 25 because the rib or "O"-ring 47 fits in a groove 50 in rod 45 as well as in groove 48 inside member 11. This rod 45 is adapted to support a display or sign element 51 which may be used for various purposes as will be described later. The cooperation of ring or rib 47 with groove element 48 in bifurcate member 11 is shown in dotted lines at the upper left.

Under some circumstances it may be desirable to place a frictional retarding force on rotation of the device 11 about a horizontal rod or axle passing through the loop 17. For example, it may be desirable to mount a card, a sample of the fabric, or some other display in such a manner that it is held against rotation not positively but with enough friction to stand in a predetermined position. For this purpose, a groove 52 and end notches 53 and 54 are provided inside the upper part of the loop element 17 of member 11. A friction or "brake shoe" element 55, formed of suitable frictional material, such as soft plastic, with upturned ends 56 and 57, is sized and shaped to fit into groove 52 and notches 53 and 54. The body or web 58 of member 55 fits in the channel 52 inside the loop portion 17 of member 11 but extends slightly into the circular cylindrical area 59 of loop 17. When a braking force is needed one of these braking shoes is simply installed in the loop 17, before placing member 11 on a rod, tube or shaft which fits the circular area 59. If no braking force is desired, the brake shoe element is simply omitted. The cylindrical surface 59 inside loop 17 is adapted to fit smoothly and in free running relationship around a supporting rod, tube, cylindrical shaft, or other device.

Various such rods or shafts may be used, a fragmentary portion of one of them being indicated at 62 at the left of FIG. 1. This particular one is unusual in that is has a partially cylindrical slot or cut-out 63 adapted to receive the cylindrical head 64 of a T-shaped key or locking member 65. The stem 66 of the T-shaped element may fit into the opening 25 of a member 11. With this arrangement, the bifurcate member 11 is firmly locked against relative motion to shaft element 62.

A tubular support column, shown as a vertical hollow tubular element 67, is shown at the lower left of FIG. 1. It is sized with an internal cylindrical bore 68 adapted to fit snugly around the legs 20 and 21 of the bifurcate device 11 when these legs are closed together. To hold these legs, when desired, a pin 69, preferably a hollow resilient or spring pin, may be inserted through openings 70 in the walls of member 67 and through the small semi-cylindrical notches 29 in the lower parts of the legs 20 and 21.

The bifurcate legs 20 and 21 are shown as further provided with an annular external groove 73 which may receive a complementary locking "O"-ring, collar or annular rib, formed or positioned inside an external leg-embracing bracket or foot member under certain conditions. Such an internal rib is shown at 74 in a base or bracket member 75, seen at the lower right hand part of FIG. 1. This member has a flat base 76, adapted to be secured by screws or equivalent fasteners to a suitable flat surface. It is split at 77 so that it can be opened up sufficiently to allow the internal rib 74 to engage or disengage the groove 73 on a pair of closed legs 20, 21. The bracket is made of resilient material and is formed so as to spring back together, to some extent at least, to close or partially close the split or gap 77. It is so designed that when fastened to a suitable base, not

shown in this figure, by means of screws or equivalent through holes 78, the internal bore will closely fit and firmly hold the bifurcate legs 20 and 21 closed together. The annular inner rib 74 then firmly engages the external annular groove 73 on the legs so they can rotate but not move axially. Thus, the bifurcate connectors and resilient bracket parts are locked together against sliding movement by closing or partly closing the gap 77. Member 75 is held closed by inserting screws through openings 78 into a mounting base of any suitable type.

FIGS. 2A and 2B show a small base plate 5 which is designed to receive the flat base of member 75 within a surrounding rim 4. It is sized so that the base 76 fits snugly within rim 4 when gap 77 is substantially closed, i.e., when rib 74 is well engaged in groove 73 of a bifurcate connector. Screw holes 6 are provided for attaching both the plate and member, 5 and 75 respectively, to a flat surface of any type, such as a table or counter top. A hole 7 in the center of plate 5 may be sized to receive either the legs 20, 21 of a bifurcate connector 11 or a smaller rod, of the diameter of members 45 or 31 in FIG. 1. The latter, as explained above, fit nicely within the legs 20, 21, when the latter are closed together. Holes 6 in member 5, FIG. 2A, of course, are formed to line up with holes 78 in member 75 and opening 7 is centered on the axis of bifurcate members held in device 75.

FIG. 2 shows a side view on smaller scale, partly in section, of the bifurcate hinged connector device 11 with its legs 20 and 21 closed together and engaging a headed inner rod-like member 79. The latter is shown with an enlarged head 80, which preferably is shaped to fit the enlarged arcuate cut-out 22 just above the juncture of the legs 20 and 21 with the loop 17 of connector 11. Thus, the connector has the following elements, which can restrain a held member from axial or longitudinal displacement, namely, grooves 48 and 73, the cut-out 22, and the notches 28 and 29. The grooves 48 and 73 permit relative rotation; surface 22 may or may not, depending on shape of a head such as 80, and the notches 28 and 29 definitely do not. Thus, a held bracket or foot member such as 75 may be rotated about its axis while held against bodily displacement; a sign 51 held by a stem such as 45, 47, likewise, but not a device locked in notches 28 or 29, such as sample holder 36 which cannot rotate and is also held against axial movement. This illustrates the versatility of the connectors 11 for the present purposes and for others not expressly mentioned.

FIG. 3 shows a display rack for holding a rather large number of samples 900. It has a floor base 81, oval shaped ends 82 and 83 of attractive design, color and finish, and horizontal support rods 84 and 85 on each side of both lower and upper partitions 86 and 87. Sample holders, described in greater detail below, or such as shown at 36, FIG. 1, are hung on these rods through connectors 11, the loop parts 17 fitting the rods smoothly while permitting rotation about the rods. Upper partition 87 is set back with respect to the lower partition members 86 to give a cascade effect; the rods 84 and 85 are spaced from the partitions by means of connectors 11 and brackets or foot members 75, being set out just far enough that the holders 36 (FIG. 1) with rear end surfaces abutting will rest against the partitions when in the down position, to give nice alignment to all the samples. An upper rod 90 is secured to the upper partition 87 by means of a pair of bifurcate members 11 and foot or bracket members 75, to support a sign 92. The sign comprises an upright stem 91 frictionally held to rod 90 through a connector 11 and supporting the sign for rotation on its stem 91. By use of a restraining device such as 55, FIG. 1, rotation of the sign about its support shaft 90 is prevented whereas the fabric sample supports preferably are freely rotatable on shafts 84 and 85.

FIG. 3A shows a section through the upper partition member 87 to the faces of which are attached foot members or brackets 75, identical with that shown in FIG. 1. They may have a plate 5, FIGS. 2A and 2B, between them and the partition. Such an arrangement is not shown and is not always necessary but it insures proper closing of gap 77; see FIG. 1. Bifurcate members 11 are secured to brackets 75 and rods 85 pass through their heads or loop elements 17. On top of partition 87 a similar arrangement supports the top rod 90 which is adapted, as shown in FIG. 3, to support the sign 92.

FIGS. 4 and 5 show on larger scale and in more detail the manner of mounting the sign 92 of FIG. 3. Stem 91 is provided with an annular groove 98 which receives a ring 97. The latter may be a one-piece elastic ring or "O"-ring that can be stretched over the rod 91, FIG. 5, or it may be a two-part split ring of non-elastic material retained in place by an external member 94 which is identical to member 40 already described. The latter has a plane annular flange 95 adapted to abut against flange 42 of a connector 11. It is formed with a cylindrical inner bore 96 sized to fit around the legs 20, 21, of a connector 11 in the same manner as elements 40, 67 and 75 already described. The connector 11 is not shown in FIGS. 4 and 5. The ring 97 permits relative rotation but not longitudinal or axial displacement between the associated parts.

FIG. 6 shows an alternative type of sign 100 supported in the same way on a stem 91, the sign elements being on four different sides of an upper hollow shell or display member 101. FIG. 7 is somewhat similar, showing a solid display member 102 similarly supported. FIG. 8 shows still another modification for the sign, the upper part 103 being spherical in shape. The globe part 103 is supported on a stem portion 91 on which is captivated a locking member 94. The stem 91 is held in the same manner as in FIGS. 4 and 5, with the collar of ring 97 engaged in the internal groove 48 of connector 11. The same is true of the modifications of FIGS. 6 and 7.

FIGS. 9 and 10 show on larger scale a single sample holder device for sample fabrics or swatches. It is of the same type shown in FIG. 3. This consists of a molded block or bracket member 105 supported by an upwardly directed stem 106 having laterally projecting lugs 107 and adapted to be supported in the same manner as element 35, already described in general terms in connection with FIG. 1. Stem 106 is sized to fit snugly between the legs 20, 21, of a bifurcate connector 11, as in FIG. 1, when the legs are closed together. See also FIG. 2. The lugs 107 are adapted to engage in notches such as 28 to hold the stem 106 against both rotary and axial displacement. A captivated slidable collar 109, identical with collar 40, FIG. 1, and member 94, FIG. 4, hold the legs together. The bracket or backing member carries a price tag or label 108; an additional tag 108 is shown on the front. Such tags also

bear identifying data such as a sample code number, etc. As shown better in FIG. **10**, the member **105** has reinforcing and fabric engaging ribs **111** and is provided with an ear **112** perforated for attachment of a tag **113**. The tag may bear fabric or sample identification, or show fiber content, name of manufacturer, or other data, such as availability, etc., for the customer's information.

FIG. **10** shows a stripped view of the device of FIG. **9** and FIG. **11** a bottom view. The device **36** has a flat top flange or plate member **114** and a downwardly extending web or fabric holder part **115**. Adjacent to the front end wall the web **115** is perforated at **116** and it is notched at **117** in its other end so that a binding tape can be passed through the slot and around web member **115**. When a swatch of fabric is pressed against rib **111** and wound with tape which is passed through slot **116** and notch **117**, the fabric is securely held in place. The fabric and tape are not shown in FIGS. **10** and **11**, but tape **122** and fabric **110** and the general arrangement are clearly shown in FIG. **9**. See also FIG. **14**.

FIGS. **12** and **13** show a retaining thimble-like device **109** for holding the stem **106** of the hanger element **36** (see also FIGS. **10** and **11**) by clamping together the legs of a fastener **11**. See FIG. **1**. The stem **106** passes through a hole **126** in the thimble **109**, provided with notches **127** for the ears or lugs **107**. Device **109** has an annular flat base **129** for convenient holding by fingers of a person examining the sample. Internally, the piece **109** is sized to hold together the legs of the bifurcate holder **11** in the same manner as analogous holders described above.

FIG. **14** shows a sectional view of a sample holder in which separate corrugated or ribbed cleat elements **138** are provided to hold the fabric against the main web **115**. This device, designated generally at **130**, has a support stem or shaft **131** identical with stem **106** described above and having lugs **132** for holding in the same manner in a bifurcate connector. The holder may vary somewhat in detail, but as shown in FIG. **14**, it is molded from strong suitable plastic material, preferably, although it may be of cast metal or of other suitable material or construction. An upper flange **133** forms the top which is also the head of a ribbed but generally T-shaped cross-section web **134**. On each side the corrugations or ribs **136** and **135** provide reinforcement as well as assisting in gripping the fabric. Some of these corrugations **136** may be smaller than others and shaped to better support the fabric, as shown above and below the larger ribs **135** on each side of web **134**. The bottom of the web terminates in a smooth but relatively narrow flange or transverse member **137**. See also FIG. **11**. Separable cooperating clamping elements **138**, one of which is shown separately in FIG. **16**, are formed with complementary corrugations or ribs **139**, **140** and **141** on one side, to face the center web and with reinforcing ribs or beads **142** and **143** on the outside. See FIGS. **15** and **16** for details of these ribs and beads. The fabric is folded or pleated in suitable fashion so as to stand neatly on either side of the web or T-stem **134**, preferably on both sides. The cooperating clamping members **138** are pressed into the fabric enough to obtain a good grip in combination with ribs **135**, **136**. The parts are then fastened together in any suitable fashion, as by application of a band of self-adhesive tape or equivalent or by a suitable mechanical fastener. The bottom flange **137** of each sample holder is designed to slide into a holding device associated with or forming part of a pleating device. The latter is no part of the present invention.

FIG. **17** shows a rotatable exhibitor rack having a vertical axle supporting two wheel type display structures. The vertically spaced wheels are mounted for free rotation on vertical axle **150** which is provided with a suitable stand or base **151**. Each of the wheels **152** and **153** has a central hub **155**, spokes **156** and a rim **157** in the form of a nicely finished bar or tubular ring attached to the outer ends of the spokes. Ring or rim member **157** is of suitable transverse diameter to receive freely the loop portion **17** of a bifurcate connector **11**; see FIG. **1** and compare rods **85**, FIG. **3**. Samples **160** of fabric are supported on devices such as those described above in connection with FIG. **3** and FIGS. **9** to **16**, so that they can be swung outwardly about supporting rings **157** for better inspection by the customer. A ring **162** made of metal tubing of somewhat smaller diameter than the rim or ring member **157** is suspended below and inside the latter by supports **163** including bifurcate connectors depending from the spokes **156**. This lower ring serves as a bumper to stop the inner end of the sample holders **36** and limit the inward swinging of the samples. This holds them in nice uniform hanging arrangement, except when one sample at a time is pulled outward as by swinging it about its pivoted loop **17** which is suspended on ring **157**. The sample holders **36** can be detached from connectors **11** if the customer wants to make a more detailed inspection.

As shown best in FIGS. **18** and **19**, the hubs **155** are made up of upper and lower ring or plate members **165** and **166** secured together by bolts **168** and mounted on a ball bearing race **170**, FIG. **19**, for free rotation. The support links **163** are supported on spokes **156** by connectors **11** at their upper ends and they in turn support the bumper ring **162** by other connectors at their lower ends, FIG. **19**. A split collar **175**, FIGS. **19** and **20**, is arranged to clamp to the upright post support **150**, a bolt **176** being provided to spring the open ends together for clamping. With this arrangement, the hubs can be clamped to post **150** at any desired level. Two wheels are shown in FIG. **17** and this is the preferred arrangement; it will be obvious that three or more wheels may be used to support more samples at three or more levels. A sign **179** is fixed to the top of post support **150**, as shown in FIG. **17**.

FIG. **21** shows a split or two-piece block element **180** and **181** for supporting the sign **179** atop post **150**. These identical parts are formed to fit snugly around a stem **184** of the sign **179** and to hold a ring or collar **185** to prevent axial displacement of the stem **184** while permitting its free rotation about its vertical axis. By fitting the split half members **180** and **181** inside the hollow post **150**, they cannot separate and the sign is securely held. It may be quickly replaced by lifting the parts upwardly out of the post **150**, separating them, and removing the stem **184**, as will be obvious.

FIG. **22** shows a wall type display system which consists of upper and lower parts of rods **190**, **191** and **192**, **193**, respectively. The upper rods **190** and **191** are mounted to a wall **200** or other vertical support through molded brackets or blocks **201** secured by screws **202**. The lower pair **192** and **193** are secured by screws **203** through a spacer block **204** as seen respectively in FIGS. **23** and **24**. Spacer block **204** in the

lower figure sets the samples out a little farther away from the wall than the upper set, as is seen in FIG. 22. A split bracket member 206, identical with the split bracket 75 of FIG. 1, is attached by screws 207 and 208 to the front face of bracket 201 and holds a bifurcate connector 11 with its legs closed together in exactly the same manner as member 75 holds the member 11 with its legs 20 and 21 closed together. In this way the connector is held firmly by ribs 74 inside bracket 206, identical with those shown in bracket 75, which engage grooves such as 73 in the bifurcate connectors 11. The sample supporting rod 190 is supported in the upper unit, as seen clearly in FIG. 23, and rod 192 is supported in a lower unit, as shown in FIG. 24. Sample holders 105 are identical with those shown in FIGS. 9 to 13. The components of the sample holder shown in FIG. 23 bear the same reference characters as those in FIG. 9. The lower rod of each pair serves as a limit stop or bumper for the sample holder; thus, the ear 112 of holder 105 is seen resting against rod 191 in FIG. 23 and the parts not shown will be arranged similarly in FIG. 24. The only important difference between the parts of FIG. 23 and those of FIG. 24 are the outward spacing from the wall of the lower set by reason of spacer block 204.

FIG. 25 shows how a bracket 206, FIG. 22 and 23, may be mounted in a support plate 5; see details of this plate in FIGS. 2A and 2B, already described. As noted above, the flanged plate helps to insure that member 206, identical with foot member or bracket 75 of FIGS. 1 and 3A, will not open up enough to release its hold on connector 11 which supports the sample bearing rods 190 or 192, FIG. 22.

Further details on the bracket or block 206 are seen in FIG. 26. Member 201 is a backing block preferably molded of strong tough plastic material with front and rear walls 211, 212, top wall 213, curved bottom wall or loop 214 and web 215, see FIG. 24, which holds all these parts together. Removable brass nuts 217 and 218 are placed in cavities 219 to receive the screws 207 and 208 (FIG. 23) which hold members 206 in place. An opening 216 in the lower part of the web 215 receives the rod 193 (or 191 in the case of the upper structure). With this arrangement, the rods 190 and 191 support and align, respectively, an array of samples near the wall at the higher level while the lower rods 192 and 193 support and align another array at the lower level and spaced a little farther from the wall, making an effective and attractive display.

In the wall rack arrangement of FIGS. 22 to 26, as well as in the floor racks of FIGS. 3 and 17, the fabric samples or swatches are arranged to hang uniformly and neatly by gravity. The connector 11 which supports each sample turns freely on its supporting rod 84, 85, 157, or 190, etc. When released, the fabric holder swings by gravity to a rest or stop position, either against a wall element, such as partition 86 or 87, FIG. 3, or against stop rods 162, 163, FIG. 17, or rods 191, 193, FIGS. 22 and 23. In each case, the samples are nicely aligned, presenting a neat array of samples when hanging naturally.

The samples can be swung out of line for detailed examination by the customer, each being large enough for an effective showing. While the one end is pleated, the sample can be spread out almost fully for visual and manual inspection; yet it folds together and it swings back into line when released.

The individual samples also can be detached from the supporting rod, in any of the embodiments, so that the prospective customer can make an even more detailed inspection, perhaps in a better light or by laying the sample out on a table. Referring to the upper right hand part of FIG. 1, the sleeve member 40 may be pulled down to free the bifurcate legs 20 and 21 which then are free to spring apart, as shown in the central part of FIG. 1. This frees the detent lugs 33 from notches 28 in the legs, allowing the sample holder 35 with its upstanding stem 31, to be removed from its support. By reversing the procedure, the sample holder is replaced in its secure hanging position. In many cases, it will not be necessary or desirable to remove the sample from its hanging position, but when removal is desirable, it is easily and quickly accomplished. The sleeve 40 normally remains captive on stem 31, but can be removed by forcing the ears 33 through the slots 41; see FIG. 1.

Sign elements, not shown in FIG. 22, may be arranged in the same manner as in FIGS. 3 and 17, to designate areas or groups of samples, as will be self evident to those skilled in the art. Such signs may be attached to the rods 190 and 192 and may be held in upright position thereon by employing one of the little brake shoe or friction elements 55, FIG. 1, inside the loop of the supporting bifurcate connector, in the same manner as already described in connection with parts 50, 51, of FIG. 1, etc. This will hold the sign upright or in any other orientation that might be desired. Thus, the bifurcate connectors 11 are highly versatile to serve numerous functions in the various forms of display apparatus so far described, and in many others which will suggest themselves to those skilled in the art.

The invention includes method aspects, entirely aside from the particular forms of display apparatus but inherent in the use of such apparatus. Samples of fabric large enough for easy and adequate inspection are pleated across one margin, usually an end, and are hung neatly in the pivotably mounted holder. The latter is detachably held, e.g. through the convenient bifurcate connectors and locking means described, so that the sample can either be inspected without detaching it from the supporting rod, or it can readily be detached by the customer and taken aside for more detailed inspection. A series, usually a large number, of samples with their individual holders are mounted neatly and in perfect alignment along the rod, or around the ring in the case of a carrousel type arrangement. Alignment is maintained by bumper or stop means against which the holder rests when the sample is in normal hanging position. Each sample and its holder can be swung widely away from the position of the other samples.

Each sample is identified by number or other identifying data; in a large store punched cards, magnetic print, etc., with suitable decoding means may be used. A separate stock, usually in the form of bolts of fabric, is maintained in a separate area of the store and similarly labeled or encoded. Orders taken from the sample are filled by cutting from the bolt, which the customer does not handle and may not even see. This prevents damage to the main stock which is so common with conventional fabric merchandising.

Other variations in apparatus and method which come within the spirit and purpose of the present invention will suggest themselves to those skilled in the art and it is intended by the claims which follow to

cover them, as far as the state of the prior art properly permits.

What is claimed is:

1. Apparatus for display of fabric samples and the like which comprises, in combination:

a. a supporting base comprising an upwardly extending frame element which supports a plurality of laterally extending cantilever members,

b. an elongated horizontal rod member secured to and supported by said cantilever members,

c. a plurality of flexible and resilient bifurcate connecting elements each having a loop portion surrounding said rod and having a pair of internally hollow legs adapted to receive between them and to hold when closed together a rod-like stem member against longitudinal displacement,

d. a retainer sleeve element adapted to be moved into or out of locking position with respect to said legs so as selectively to hold said legs together or permit them to spring apart, and

e. a sample holding means for attachment to each said bifurcate element, each said sample holding means including a pair of mutually facing gripping members for securely holding the fabric sample in pleated condition, one of said pair having an upwardly extending support stem or rod, said stem or rod being formed to fit between and be securely held against axial displacement with respect to said bifurcate legs when said legs are held together as aforesaid.

2. Apparatus according to claim 1 in which the frame element is a vertical wall and the cantilever members are brackets secured to said wall.

3. Apparatus according to claim 1 in which each sample holding means comprises a stop element and wherein an accurately aligned stop surface is provided for abutment of said stop element, whereby the samples normally hang by gravity with the stops elements in abutment and in good, neat alignment.

4. Apparatus according to claim 1 which includes an additional bifurcate connecting element frictionally gripping the horizontal rod and a display element mounted on said bifurcate element.

5. Apparatus according to claim 1 which includes a sign element having a vertical stem projecting from the display apparatus and held in upright position by means of a resilient hinged bifurcate connector engaging both said stem and said horizontal rod, and means for detachably fastening the legs of said bifurcate connector securely to said stem.

6. Apparatus according to claim 5 which includes a horizontal support rod embraced by a loop of said hinged connector and friction means interposed between said rod and said loop to maintain the sign element in upright position.

7. Apparatus according to claim 1 in which the horizontal rod is a ring member supported by the cantilever members as the circumference of a horizontal rotatable wheel.

8. Apparatus according to claim 7 which involves as a stop member a parallel rod member aligned with and below the horizontal rod member.

9. Apparatus according to claim 7 in which each sample holder is supported on said ring through a said bifurcate connecting element and in which each sample holder bears and retains a retainer sleeve which can be slid onto or off said bifurcate legs but is normally retained on the stem of said holding means.

* * * * *