STOCK SHELF LAYOUT INDICATORS

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ABSTRACT

A stock shelf layout indicator serving as reference and guide means to designate the relative spatial positions of shelf-stored and displayed articles, and comprising elongated strip or bar means having a surface adapted to carry article-identifying indicia thereon, the indicia carried on the strip means corresponding to a linear pattern of articles to be placed on the storage and display shelf.

12 Claims, 19 Drawing Figures
STOCK SHELF LAYOUT INDICATORS

This invention relates to indicator means or structures finding utility as stock shelf layout indicators. More particularly, the subject invention relates to devices which find utility in warehouses, supermarkets and other stores in which there is an extensive stocking of items on storage or on display shelves for inventory maintenance or for selection by a purchaser. Large food supermarkets are typical examples of establishments in which the subject invention is extremely useful.

As is well known, literally thousands of items are stocked on supermarket shelves, but the only shelf stock information ordinarily available and relating specifically to these products is the designation of price which is carried on a "price rail" secured to the facing edge or surface of the stock supporting shelf. It is an ever present and difficult task to keep the shelves well stocked and properly organized. As items are removed from the shelves, replacement is necessary, this procedure ordinarily being carried out by stock boys. Items completely depleted from a shelf pose particular problems since it is ordinarily not readily apparent from viewing a shelf what items are missing. It is a principal aim of the present invention to provide a reliable basis and guide for the restocking of shelves or for the general positioning or placement of stock items on storage and display shelves. More specifically, it is the aim of the invention to provide a "linear pattern" for product layout. This predetermined linear pattern or stocking pattern indicates the stock arrangement or organization, in a linear or lateral array.

It is a principal object of the invention to provide stock shelf layout indicator means which constitutes a visual reference for establishing and maintaining proper stock storage and display on stock-carrying shelves.

It is a related object of the invention to provide shelf stock layout indicator means designating a linear one-to-one correspondence between the indicia on the indicator means and the product or items which appear on or which should appear on the shelves themselves.

Still another object of the invention is to provide stock shelf layout indicator means which is ordinarily out of view of shoppers in supermarkets and the like.

A related object of the invention is to provide a stock shelf layout indicator means which is visible only to those charged with responsibility of maintaining stock on the shelves.

Another object of the invention is to provide a stock shelf layout indicator means which is normally covered by price designations on the price rail of a stock shelf, but which may be selectively exposed to view, as required, by personnel taking inventory or restocking shelves.

Still another object of the invention is to provide a stock shelf layout indicator which may be temporarily secured to the shelf for reference in taking inventory or in stocking the shelf, and which may then be simply removed and stored until needed at some later time.

Yet another object of the invention is to provide a stock shelf layout indicator which includes shelf attachment means in the form of adhesive means or magnetic means, whereby the indicator may be readily removed from the shelf when not required for reference.

Yet another object of the invention is to provide stock shelf layout indicator means which may be conveniently stored as a "bank" or "library" of guides for use, as required.

Another object of the invention is to provide a stock shelf layout indicator which has the general form of a retractable and extensible tape or band adapted to carry stock data thereon.

Still another object of the invention is to provide a stock shelf layout indicator which includes a plurality of longitudinally extending facets, each adapted to carry stock data indicia thereon.

A related object of the invention is to provide stock shelf layout indicator means adaptable to exist in any of a plurality of selectable lengths.

It is an important object of the present invention to provide stock shelf layout indicator means usable with both existing, installed shelving and in new installations.

Still another object of the invention is to provide a shelf layout indicator which will include, in addition to a designation of the proper position of the item for storage or display, price and reorder information as well.

An additional feature of the invention is that there is provided means for selectively shifting a legend-carrying stock layout indicator strip from an out of sight storage position beneath the stock shelf to an in view, exposed position overlying a facing edge position of the stock shelf.

A related object of the invention is to provide a novel clip mechanism readily attachable to existing price rails and adapted to hold a stock layout indicator strip in either of two physical dispositions, one being an out of sight storage position and the other being an exposed, full view position.

Still another object of the invention is to provide a hinged or pivotal assembly readily and simply attachable to an existing price rail to provide, in combination, a stock layout indicator strip and a new overlying but pivotal price rail.

A related object of the invention is to provide a price rail which normally covers the stock layout indicator strip of the invention, but which is pivotal to expose the strip for reference, as required.

Another object of the invention is to provide, for new installations, a combination stock layout indicator strip and an overlying pivotally supported price rail slidable at will to expose the indicator strip therebeneath.

Other and further objects, aims and advantages of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing in which:

FIG. 1 is a perspective view of one form of the stock shelf layout indicator of the invention adapted for attachment to an existing price rail, the stock shelf layout indicator including a rear panel on which the stock layout information is carried and a pivotal front panel which carries the price data, the front panel normally shielding the rear panel from view;

FIG. 2 is a cross-sectional view taken on the line 2—2 of FIG. 1, the broken line indicating an open position of the assembly, in which the indicia carried by the stock shelf layout indicator panel are visible;

FIG. 3 is another form of the stock shelf layout indicator of the invention, including attachment means to facilitate temporary securement of the indicator to a price rail, or to a shelf;
FIG. 4 illustrates still another embodiment of the invention, in which the stock shelf layout indicator has the general form of an extensible and retractable tape or band conveniently positionable along a stock-carrying shelf.

FIG. 5 is a perspective view of a band-like, self-coiling tape finding utility as still another form of a stock shelf layout indicator according to the present invention;

FIG. 6 illustrates a rod or bar-like stock shelf layout indicator according to the invention, polygonal (hexagonal) in cross section and adapted to carry layout indicia on each of its six longitudinally extending faces or facets;

FIG. 7 illustrates a bar or rod similar to that shown in FIG. 6, but triangular in cross section and having three longitudinally extending indicia-carrying surfaces;

FIG. 8 is a perspective view showing a pivotally supported price rail overlying a shelf layout indicator strip, in accordance with one embodiment of the present invention in which the strip is adapted for securing to existing price rail structures;

FIG. 9 is a view of the structure illustrated in FIG. 8, but showing the price rail pivotal downwardly to expose the shelf layout indicator strip to view;

FIG. 10 is a perspective view of a shelf stock indicator strip similar to that shown in FIG. 8, but in which the price rail is arranged to pivot upwardly rather than downwardly to expose the information carried by the shelf layout indicator strip;

FIG. 11 is a view of the structure illustrated in FIG. 10, with the price rail pivoted upwardly to expose the layout indicator strip thereunder;

FIG. 12 is a perspective view of a combination price rail and layout indicator strip assembly for new installations, the price rail being attached so as to be pivotal downwardly to expose the layout indicator strip thereunder;

FIG. 13 is a perspective view of the structure shown in FIG. 12, with the price rail pivoted downwardly to expose the stock layout indicator strip;

FIG. 14 is a perspective view of still another embodiment of the invention, similar to the structure of FIG. 12, but with the price rail being pivotable upwardly;

FIG. 15 is a view of the structure illustrated in FIG. 14, with the price rail pivoted upwardly to expose the layout indicator strip;

FIG. 16 is a perspective view showing a clip mechanism attached to a price rail and adapted to store and to display a layout indicator strip according to the invention;

FIG. 17 is a perspective view of the structure of FIG. 16, with a stock layout indicator strip supported, in viewing position, in the clip mechanism;

FIG. 18 is a cross-sectional view taken substantially on the line 18—18 of FIG. 16 and showing a stock layout indicator strip in its stored, out of sight, position below the stock shelf and held by the clip mechanism shown in FIG. 16; and

FIG. 19 is a plan view of the clip mechanism in position on a price rail and supporting a shelf layout indicator strip.

The aims and objects of the invention are accomplished by providing an elongate band or rod-like device, or an element extendible to form such a device, the device having one or more faces or facets adapted to carry information or indicia thereon. The information or indicia carried by the stock shelf layout indicator is so arranged as to constitute or define a linear pattern or array corresponding to a conventional stock product layout. In effect, there is substantially a linear, 1:1 correspondence between the indicia on the indicator element and the products stocked on the shelf. Preferably, in each embodiment of the invention the indicia carried by the indicator rod or band are normally not visible to persons other than those charged with the responsibility of maintaining shelf stock or ordering new inventory. When not in use, the stock shelf layout indicator is either covered from view or is physically stored at a point remote from the shelf itself.

Referring now to the drawing, and more particularly to FIGS. 1 and 2, for the purpose of illustrative disclosure, one preferred embodiment of the stock shelf layout indicator is shown as a dual panel assembly consisting of a pair of substantially coextensive, longitudinally extending webs 24 and 26 joined to one another at corresponding edge portions 30 and 32 by means of an integrally formed hinge 36. The rear wall 26 of the assembly terminates along the length thereof at its edge 40 opposed to the hinge 36 in an over-hanging curved section 42 so disposed as to constitute locking means for engaging and securing the upper edge portion 46 of the second web 24 when the latter is pivoted to a vertical position. As indicated schematically in FIG. 1, the dual panel assembly 20 is dimensioned and shaped for slidable insertion axially into or for snapping engagement within a cooperating price rail 50 having a configuration substantially C-shaped in cross section and secured to the facing edge or surface of a stock shelf 54.

The front or outside web 24 of the dual panel assembly 20 carries product price indications 60, in the usual manner, which are, ordinarilly, the only indicia visible to the shopper. However, when it is necessary to restock the shelves, to take inventory, or to reposition or to reorganize the stock, that person responsible for carrying out this task need only pivot the forward panel 24 about the hinge 36 to expose the rear panel or stock shelf indicator panel 26. The layout indicator panel 26 carries a designation of the specific stock items which are to be stored on the particular shelf to which the web 26 is secured, indicating exactly the linear or lateral arrangement or the linear pattern of the various items or articles involved. The information carried on the stock shelf layout indicator panel 26 provides what may be considered to be a "floor plan" of the items to be stocked on the shelves. In the preferred embodiment of the invention illustrated, there is a direct, 1:1 linear correspondence between the items called for on the stock shelf layout indicator panel 26 and the items to be positioned on the corresponding shelf 54. In accordance with that embodiment of the subject invention illustrated in FIG. 1, it is contemplated that the dual panel assembly 20 would be secured to existing price rails 50 such as that illustrated. It is also contemplated that, in new installations, the assembly 20 may be substituted for the conventional price rail, it being necessary merely to attached the panel 26 to the forward face or edge 52 of a shelf.

The dual panel assembly 20 is preferably fabricated of plastic material such as polyethylene or polypropylene, these materials having the desirable property of being able to sustain repeated flexing, without damage. So fabricated, that portion of the assembly which
serves to join the two webs 24 and 26 may be described as a “live” hinge 36. The cross-sectional view of FIG. 2 illustrates schematically, in broken lines, the position of the price carrying web 24 when pivoted to expose the face of the stock shelf layout indicator web 26. Except when reference is being had to the indicia carried on the web 26, the web 24 is disposed to overlie the curved overhanging portion 42 of the upper end of the web 26. It will be appreciated that the entire panel assembly 20 may be reversed so that the hinge extends along the top, the stock shelf indicator web then pivoting in the opposite direction.

FIG. 3 illustrates a second embodiment of the stock shelf layout indicator of the invention. As shown, the indicator means 70 consists of an elongated ribbon, bar, or strip on the front face of which there is provided a linear array or linear pattern identifying the sale items 76 and the precise positioning along the shelf 54 where each of these items should be stocked or stored. In the particular embodiment of the invention illustrated, the strip 70 is provided with attachment means or bonding means 80 by which the strip is temporarily secured to the front face 84 of the price rail 50.

The attachment means 80 utilized to secure the strip 70 to the price rail 50 of FIG. 3 constitute magnetic elements, these being useful in that price rails are ordinarily fabricated of steel. Alternatively, the attachment means may consist of pressure sensitive adhesive pads.

When the stock shelf layout indicator band 70 is keyed to its proper position along the stock shelf 54 and secured to the price rail 50, the band 70 will provide not only a precise designation of the proper location for each item or product, but a clear indication as to the shelf space allocated to that product, suitable lateral limit lines or boundaries 84 having been premarked on the strip 70. When inventory has been checked, or when the shelf has been restocked as required, it is necessary merely to detach the strip 76 from the price rail 50 and to store the strip in a strip bank or library, for future reference and use. It will be understood that the strip 70 may be any preferred length but is conveniently 2 feet, 4 feet or 6 feet in length. In the particular embodiment of the band or strip contemplated, the latter would be fabricated of sheet steel and would be of that gauge ordinarily used in steel measuring tapes. The surface of the tape or band is adapted to receive markings to indicate the linear layout of products to be stored on the shelf. Alternatively, the supplying jobber or the manufacture of the products to be displayed may provide suitable tapes as guides to indicate the preferred manner of displaying the products in the supermarket.

Still another convenient form of the stock shelf layout indicator of the invention is shown in FIG. 4. As illustrated, the layout indicator 90 is an adaptation of the well known retractable ruler or steel tape which is withdrawable from and retractable into a casing or housing 94. The strip or tape itself 96 is marked or is adapted to receive markings 100 which constitute a linear designation of the identity of and the disposition of articles to be stocked on the shelf 54. Any preferred length of strips may be used, and it is contemplated that a “library” of strips may be established at each store to cover the layout of the entire product line. The retractable layout indicator strip assembly 90 would be used by the person replacing or stocking products on the shelf, and would then return to the library.

Still another physical form of the stock shelf layout indicator of the invention is illustrate in FIG. 5. As shown, the indicator 110 comprises a metal band or strip 112 which is spring biased to form a constant diameter coil 114. However, the strip is also performed so that, when uncoiled, it is arcuate in form in cross section, and the second constituting an uncoiled position in which the band is extended, is arcuate in cross section, and “resists” recoil. As in previously described embodiments of the invention, the stock shelf layout indicator band 112 is provided with a marking surface adapted to receive product identification indicia 120 and has lateral boundary lines 122 for defining the location and the lateral limits of the shelf space allocated to the particular items to be stored. After use, the assembly is coiled and filed until needed.

In FIG. 6 the stock shelf layout indicator means is in the general form of a bar or rod 130. While it is contemplated that a rod of any cross sectional configuration may be used, the rod 130 of FIG. 6 is generally hexagonal in cross section and, accordingly, has six distinct laterally or longitudinally extending facets or faces 134. Each facet 134 may be used as a separate indicia carrying face so that a rod of relatively limited length may be used to define storage positions along many linear feet of shelf. Again, when not in use, the rod 130 is returned to the “library.”

Still other physical embodiments of the invention are illustrated in FIGS. 8–15 which depict various means of utilizing a stock layout indicator strip in conjunction with a price rail. Referring more particularly to FIG. 8 and FIG. 9, there is shown a stock shelf 150 to which there is secured, at a facing edge or surface 154 thereof, a conventional C-shaped channel or price rail 156. In accordance with the inventive concept of the embodiment illustrated, there is fastened to the existing price rail 156 an assembly 160 which includes, in combination, a stock shelf layout indicator strip or web 162 and a “new” price rail 166, the latter being pivotally joined to the indicator strip 162 by means of a hinge 170. In the embodiment pictured in FIG. 8, the hinge 170 is disposed at the lower terminal portion of the layout indicator strip 162 so that it is necessary merely to pivot the prior rail or price channel 166 downwardly, as shown in FIG. 9, to expose the stock layout indicator strip 162 to view.

Any preferred means including adhesives or screws may be used to affix the assembly 160 to an existing price channel 156. In the specific embodiment illustrated in FIG. 8, securement is through frictional engagement of the indicator strip within the price rail itself. For this purpose, the indicator strip 166 is formed at its lower margin to define a generally Z- or S-shaped configuration in which the strip itself 162 constitutes a principal wall and is joined to a generally parallel but displaced wall or web 174 by means of an interconnecting transverse, generally horizontally extending web or flange 178, the latter being integrally formed with the adjoining webs 162 and 174. The vertical height of the indicator strip 162 and the spacing between the upper extrexy 180 of the strip 162 and the flange 178 is such that with the laterally extending upper edge 180 of the strip 162 engaged against the adjacent upper
inside wall of the price rail 156, the transverse flange 178 of the Z-shaped structure stressingly and frictionally abuts the upper marginal edge 184 of the lower portion of the Z-shaped price rail 156, whereby the assembly 160 is maintained firmly and securely in place. Thus, in order to convert an existing price rail structure into the improved combination stock shelf layout indicator and price rail, it is necessary merely to insert or press the assembly 160 in place, as indicated in FIGS. 8 and 9, no special tools being required.

Referring now to FIGS. 10 and 11, it will be appreciated that the structure there shown is the same as the combination stock shelf layout indicator band and the overlying price rail assembly 160 depicted in FIG. 8, but reversed in position 180°. The mode of engagement of the assembly within the existing price rail is essentially the same as described above, the difference being that in the structure of FIGS. 10 and 11, hinges is at the upper end of the assembly rather than at the lower end. Accordingly, in order to expose the indicia carried on the stock shelf layout indicator band 162, it is necessary merely to pivot the price rail 156 upwardly about the hinge 170 as shown in FIG. 11.

The combination stock shelf layout indicator band and price rail assembly 190 illustrated in FIGS. 12 and 13 is adapted for "new installations" rather than for existing installations. As shown, the assembly 190 includes a stock shelf layout indicator strip or band 194 secured to the facing edge 198 of a stock shelf 200, any preferred attachment means such as screws 204 or adhesive being used. Pivotedly secured to the band 194 at its lower edge, by means of a hinge 208, is a price rail 210. It is necessary merely to pivot the price rail downwardly (FIG. 13) to expose the indicia carried on the stock shelf layout indicator band 194 therebeneath.

The structure shown in FIGS. 14 and 15 corresponds to the structure of FIGS. 12 and 13, the only difference being that, in its attachment to the shelf, the assembly has been reversed 180°.

Referring now to FIGS. 16-19 there is shown still another means for attachment of a stock shelf layout indicator band to an existing price rail and a technique for storing that band in an out-of-sight position when not in use. As illustrated, this embodiment of the invention utilizes a clip 220 which seats within and attaches to an existing price rail 224, the latter being affixed to a forward face 226 of a stock shelf 230 in the usual manner. As shown in FIG. 16 and as seen more clearly in the cross-sectional view of FIG. 18, the clip 220 includes a vertically extending band 134 comprising upper 236 and lower 238 tabs which seat respectively in the upper and lower looped sections 242 and 244 of the generally C-shaped price rail 224. Connected to the band 234 and extending downwardly therefrom is a web 250 which overlies the lower portion 244 of the price rail 224. An extension of the web 250 projects rearwardly and is looped to form walls 254 and 258 defining a laterally open slot 262. At its forward extremity the wall 258 is directed upwardly to form a tab 264 generally paralleling the web 250 and defining therebetween an upwardly opening slot 270, the latter communicating with the slot 262 through a constricted passage 272. In the embodiment of the clip illustrated, the preferred structural material is a transparent flexible, self-supporting plastic.

The utility of the clip 220 will be evident upon a consideration of FIGS. 17 and 18. Referring first to FIG.
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and further comprising clip means for attachment of said shelf stock layout indicator means to the stock shelf.

5. The structure as set forth in claim 4 wherein said clip means comprises, in combination, spaced wall means defining a generally L-shaped laterally open slot, and web means integral with said wall means adapted for securement to and support by a price rail carried by the stock shelf.

whereby said L-shaped slot defines a passage extending forwardly of and beneath the stock shelf, said strip means being supportable by said clip means and being selectively shiftable within said passage between an in-view position in front of an overlying the price rail and an out-of-sight position beneath the stock shelf.

6. The structure as set forth in claim 1 and further comprising a price rail and attachment means securing said price rail to the shelf, said price rail being generally C-shaped in vertical cross section,

and further comprising clip means,

said clip means including vertically extending tab means sized to engage upper and lower portions of said price rail for securement therewithin, wall means depending from said tab means and constituting a support for said strip means,

said wall means defining a laterally open generally L-shaped slot extending beneath and forwardly of the stock shelf,

said strip means being adapted for support within said slot and being selectively shiftable in said slot between an out-of-sight position beneath the stock shelf and an in-view position in front of the stock shelf.

7. The structure as set forth in claim 6 wherein said wall means define a slot opening upwardly as well as laterally to facilitate downward insertion of said strip means into and ready removal of said strip means from said slot.

8. The structure as set forth in claim 6 wherein said clip means is fabricated of a self-supporting, flexible plastic material.

9. Shelf stock layout indicia means adapted for use to present a diagrammatic representation of a predetermined linear pattern of items to be stocked on a shelf, said indicia means comprising:

strip means having at least one face receptive to application of visual data thereon, attachment means securing said strip means to the shelf along an edge portion thereof, panel means overlying and visually shielding said strip means along the length thereof, and hinge means fastened to said panel means and extending longitudinally therealong at a marginal portion thereof, said panel means being selectively pivotally shiftable about said hinge means to expose to view said strip means and any product information carried thereby, whereby any said information carried by said strip means may be maintained normally out of the view of customers shopping for items on a shelf thereadjacent, and may be exposed to view, as required, for reference by personnel charged with the responsibility of stock replacement, product information displayed on said face of said strip means, said product information defining a linear array of stock items along the length of said strip means, items depicted in said array being spaced along said strip means to correspond with linear placement positions of correlated actual items to be stocked along said shelf,

whereby in checking inventory and in stocking said shelf, reference may be made to said product information displayed on said strip means to facilitate inventory procedures, preparation of stock orders, and the restocking of shelves.

10. The structure as set forth in claim 9 wherein said panel means overlying said strip means comprises a price channel substantially C-shaped in cross section.

11. The structure as set forth in claim 9 and further comprising a price channel secured to said shelf and wherein said attachment means securing said strip means to the shelf comprises means securing said strip means within said price channel.

12. The structure as set forth in claim 9 wherein said shelf carries a price rail, and further comprising clip means for attachment of said shelf stock layout indicator means to the stock shelf,

said clip means being adapted for securement in the price rail carried by the stock shelf and being operable to support said strip means selectively in an in-view position in which said strip means overlies said price rail and in an out-of-sight position in which said strip means is carried beneath the stock shelf.

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