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J. M. GOSSEN

3,419,933

COMBINATION MOULDING AND DOOR TRACK FOR SHELVES

Filed March 10, 1967

Fig. 1

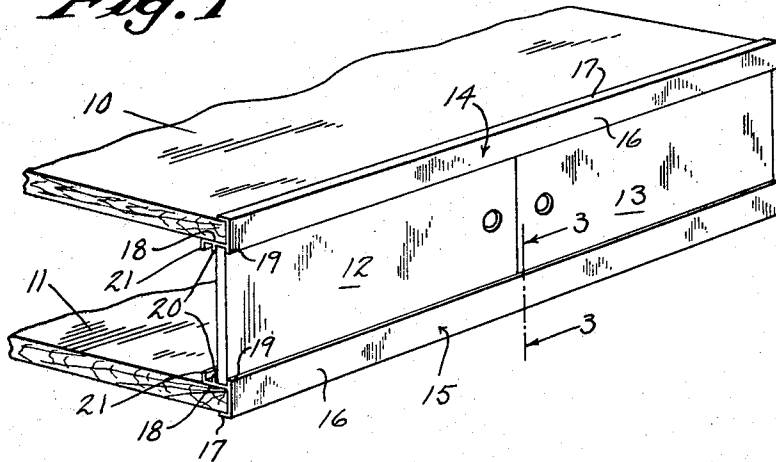


Fig. 2

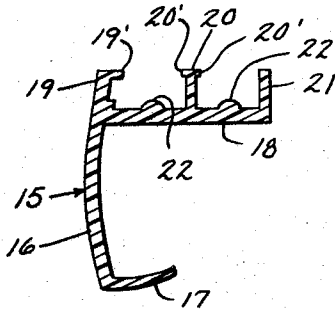


Fig. 3

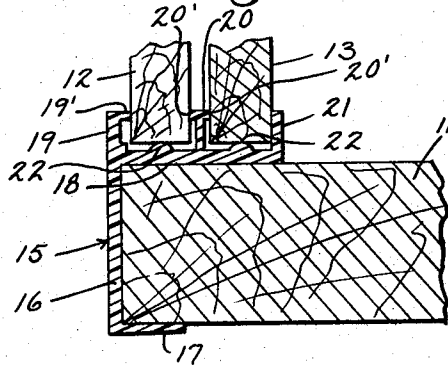


Fig. 5

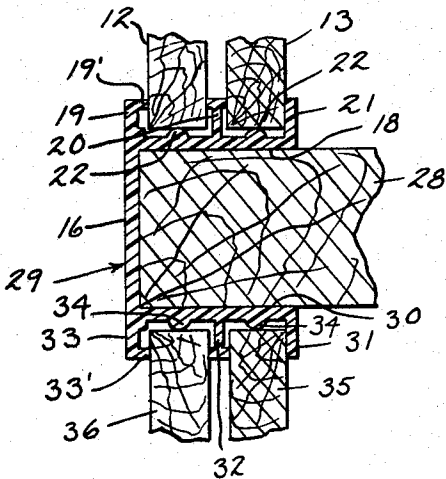
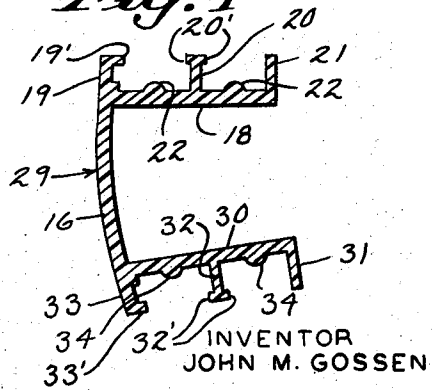


Fig. 4



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**COMBINATION MOULDING AND DOOR
TRACK FOR SHELVES**

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ABSTRACT OF THE DISCLOSURE

An edge trim or moulding for shelves which is both ornamental and which functions as a track for movably mounting sliding doors between two vertically spaced shelves to form an enclosed cabinet. Intended particularly for do-it-yourself homeowners, said moulding can be manually snapped onto the edge of a shelf without requiring any tools or fasteners.

BACKGROUND OF THE INVENTION

Field of the invention.—The present invention pertains to the field of art including interior building materials and appurtenances.

Description of the prior art.—Prior U.S. Patents Nos. 2,345,658 and 2,126,111 disclose edge trim or moulding members for shelves, but are unlike the present dual-purpose structure in design or function. Patent No. 2,118,213 discloses a moulding that can also function as a door track, but in the latter patent the moulding and track are formed as two separate elements, which is substantially more expensive to manufacture than the present one-piece unitary structure, and said prior patented device does not permit the quick snap-on assembly featured in the present invention.

SUMMARY OF THE INVENTION

Frequently, homeowners and others are desirous of mounting inexpensive shelves or cabinets on the wall of a study or den, or in an office, and the purpose of the present invention is to provide an attractive edge trim or moulding which is designed to dress up the appearance of the shelf members and to also provide track means for mounting slidable doors between two or more shelves. In addition, and unlike conventional moulding members, the present invention can be manually snapped into position on the edge of the shelf and it will be clampingly retained thereon, thus saving time and also eliminating the necessity for tools or other equipment that many homeowners might not have.

Further advantages of the present invention are that said combination moulding and door track device is relatively inexpensive, it is readily adaptable for cabinets of various lengths and sizes, it is rugged and durable, and it is otherwise particularly well adapted for its intended purposes.

Brief description of the drawing

In the drawing, wherein the same reference numerals designate the same or similar parts in all of the views:

FIG. 1 is a fragmentary perspective view of a pair of shelves with the novel moulding thereon, and with sliding doors mounted therein;

FIG. 2 is a transverse sectional view through one of said moulding members before it is installed on a shelf;

FIG. 3 is a similar sectional view showing the moulding installed on a shelf, said view being taken along line 3—3 of FIG. 1;

FIG. 4 is a transverse sectional view of a modified

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moulding member for use in forming a double cabinet structure; and

FIG. 5 is another sectional view of the moulding illustrated in FIG. 4 showing it mounted on a shelf.

Description of the preferred embodiments

Referring now more particularly to FIG. 1 of the drawing, the numeral 10 designates a first shelf, and the numeral 11 designates a second shelf mounted therebelow, said shelves being formed of wood or any other desired material. Inexpensive shelves of this type and do-it-yourself mounting bracket assemblies are readily available for homeowners and others who are desirous of installing shelving on the wall of a den or other room.

As appears in FIG. 1, a first moulding member 14 is mounted on the outer longitudinal edge of the upper shelf 10, and a second moulding member 15 is mounted on the shelf 11 therebelow, said moulding members being identical in design but being mounted in opposed relationship. Said moulding members 14, 15 are formed of somewhat flexible and resilient plastic such as extruded polyvinyl chloride or similar relatively inexpensive material, and they can be of any desired length, depending upon the particular shelf requirements. While the illustrated moulding members 14, 15 are plain in design, the outer faces thereof can be provided with longitudinal ribs or other ornamentation, and the invention is not to be limited in this respect.

Referring now to FIGS. 2 and 3 of the drawing, which are sectional views through the moulding member 15, it will be seen that said moulding includes a substantially upright, bowed wall portion 16 which curves downwardly and inwardly as shown (FIG. 2) when the moulding is not installed on a shelf. Integral on the lower end of said wall portion is an inwardly extending lower flange or clamping element 17, hereinafter referred to as the bottom clamping flange, which is biased upwardly and inwardly at an acute angle relative to the wall portion 16 when said moulding is not installed, as illustrated.

With respect to the references herein to "top" and "bottom" portions of the moulding, incidentally, it is to be understood that while said references are applicable to the lower shelf moulding 15 illustrated in FIGS. 2-5, said terms of reference are merely intended to facilitate a clear understanding of the particular drawing views, since in actual practice the upper moulding member 14 is mounted in an inverted position, as described.

Referring again to FIG. 2 of the drawing, formed on the upper portion of the moulding 15 is an inwardly-extending, horizontal upper flange or clamping element 18, hereinafter referred to as the top clamping flange, and projecting transversely upwardly therefrom are spaced, longitudinal flanges 19, 20 and 21, hereinafter referred to as the track flanges, which extend in parallel relationship the length of said moulding, there being an outer track flange 19 formed as an upward extension of the wall 16, an intermediate track flange 20, and an inner track flange 21. Said outer track flange 19 is provided with a short, inturned upper shoulder portion 19', and the intermediate track flange 20 has a T-shaped upper shoulder portion 20'. Formed in the upper surface of the top element 18 intermediate and parallel with the track flanges 19 and 20 is a longitudinal rib 22 having a convex upper surface, and a similar rib 22 is formed between the track flanges 20 and 21, the function of which will be hereinafter seen.

In accordance with the present invention, when it is desired to utilize the moulding 15 on a shelf, said moulding can be manually flexed to temporarily urge the bottom clamping flange 17 thereof downwardly and outwardly

to a horizontal position, as well as to straighten the normally bowed wall 16, and in this condition said moulding can be slipped onto the edge of the shelf, as illustrated in FIG. 3. The resiliency of the plastic or other material from which the moulding is made exerts clamping pressure to securely retain said moulding in position on the shaft. The result is that with the present invention screws or other fastening devices are unnecessary, and the installation of the moulding is not only simple, it can be accomplished in a matter of seconds.

In accordance with the present invention, the moulding 14 which is mounted on the upper shelf 10 is identical in design to the moulding 15 on the lower shelf, as hereinabove described, and the snap-on installation procedure is identical except that said upper moulding is inverted so that the projecting track flanges 19-21 thereon face downwardly, as shown in FIG. 1. With the mouldings 14 and 15 mounted in opposed relationship on the upper and lower shelves the unit is ready to receive the sliding door panels 12 and 13.

As is illustrated in FIG. 3, the door panel 13 is mounted in the longitudinal space between the upright track flanges 20 and 21 of the lower moulding 15, and the panel 12 is mounted in the adjacent parallel space between the track flanges 19 and 20, said flanges providing guideways or tracks for said movable doors. Said door panels rest on the longitudinal convex ribs 22, and are slidable therealong with a minimum of frictional resistance, said sliding doors functioning in the usual and well known manner. The inwardly-projecting upper shoulder portions 19', 20' of the flanges 19, 20 are designed to stabilize and ensure the proper positioning of said doors with minimal frictional resistance, thus promoting smooth, easy sliding movement.

The upper longitudinal edges of the door panels 12, 13 are similarly fitted in the tracks provided by the downwardly facing flanges 19-21 on the upper shelf moulding 14 to complete the assembly, and the result is a quickly-assembled cabinet-like structure which is not only well suited for its intended purposes, but which is neat and attractive in appearance. Additional pieces of similar moulding can be mounted on the end edges of the shelves 10 and 11 and panels non-movably positioned therein if a completely enclosed structure is desired. In the preferred form of the present invention the moulding is formed of a plastic or other material which permits a homeowner to easily cut the same to any desired length, thus providing wide versatility and making the invention readily adaptable for shelving of various lengths.

In addition to the single cabinet structure hereinabove described, in accordance with the present invention it is also possible to form two or more cabinets, positioned one above the other. To form a double cabinet it is necessary that there be three parallel, vertically-spaced shelves, and the modified moulding member 29 illustrated in FIGS. 4 and 5 of the drawing is utilized on the intermediate shelf, which shelf is designated by the numeral 28 in FIG. 5. Moulding members identical to the mouldings 14 and 15 hereinabove described are employed on the top and bottom shelves.

As will be seen in FIG. 4, the intermediate moulding 29 includes a bowed wall portion 15 which normally curves downwardly and inwardly, as shown, when it is not installed on a shelf, and forming the top thereof is an inwardly-extending flanged clamping element 18 identical to that formed on the above-described mouldings 14 and 15. In lieu of the short bottom clamping flange 17 employed on the moulding illustrated in FIGS. 1-3, however, the lower portion of said modified moulding 29 includes an upwardly and inwardly biased bottom flange 30 having downwardly-projecting parallel track flanges 31, 32 and 33. Said moulding lower portion also includes longitudinal convex ribs 34 and inturned flange shoulder extensions 32', 33' to facilitate the unimpeded sliding movement of door panels installed therein, as will be described.

The moulding 29 can be manually flexed to temporarily urge the bottom clamping flange 30 downwardly and outwardly to a right angular position relative to the wall portion 16, as well as to straighten said normally bowed wall, and said moulding can then be slipped onto the edge of the intermediate shelf 28. As in the case of the mouldings 14 and 15, the resiliency of the moulding material functions to clampingly retain said moulding 29 in position on the shelf without the use of screws or other retainers.

Sliding door panels 12, 13 (FIG. 5) can be installed between said intermediate moulding 29 and the moulding carried by the shelf thereabove, and door panels 35, 36 can be mounted in and between said intermediate moulding and the moulding carried by the shelf therebelow, the downwardly-facing track flanges 31, 32 and 33 on said intermediate moulding providing guideways or tracks for the upper edges of said panels 35, 36. Thus there is provided a cabinet structure having double the capacity of the unit illustrated in FIG. 1 but characterized by the same attractive edge trim and sliding door assembly.

From the foregoing detailed description it will be seen that the present invention provides an inexpensive and versatile edge trim or moulding which is designed to dress up the appearance of shelves and to also provide track means for mounting slidable doors between two or more shelves to form a cabinet. Moreover, and unlike conventional mouldings, said novel dual-purpose moulding can be quickly and easily snapped onto the shelves and is securely retained thereon without fasteners, and without necessitating the use of special tools or other equipment.

While the preferred form of the present invention has been illustrated and described herein, it is to be understood that numerous variations or modifications in the design thereof are possible. What is intended to be covered herein is not only the illustrated embodiment of the invention but also any and all variations or modifications thereof as may come within the spirit of said invention, and within the scope of the following claims.

What I claim is:

1. A shelf moulding formed entirely of flexible and resilient plastic material, comprising: an elongated, substantially vertical strip, said strip being adapted to normally assume a bowed condition when said moulding is not installed on a shelf, and said strip being adapted to assume a straight, vertical position when said moulding is flexed and mounted on a shelf; a first, upper elongated clamping flange formed on and extending transversely inwardly of said strip; a second, lower elongated clamping flange formed on and extending transversely inwardly of said vertical strip and normally being biased upwardly at an angle from the true horizontal when said moulding is not installed on a shelf, the flexible and resilient nature of said moulding permitting the same to be temporarily flexed to position said upper and lower clamping flanges in right angular relationship to said strip and to clampingly engage said moulding on the edge of a shelf; and three parallel track elements formed on and projecting transversely from the surface of one of said clamping flanges and extending the length of said moulding, the longitudinal spaces between said elements forming parallel tracks adapted to receive and slidably retain a pair of sliding door panels.

2. The moulding recited in claim 1 and having longitudinal ribs formed on said flanges between said track elements adapted to slidably support the edges of door panels carried between said track elements to minimize friction during sliding movement of said doors.

3. The moulding recited in claim 1 and having transverse shoulder portions formed on said track elements positioned to engage and stabilize said door panels during sliding movement thereof.

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A. CALVERT, *Assistant Examiner.*

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U.S. Cl. X.R.