July 5, 1966 C. N. WILLIAMS 3,259,082

PORTABLE SHELF

Filed April 23, 1965

FIG. 1.

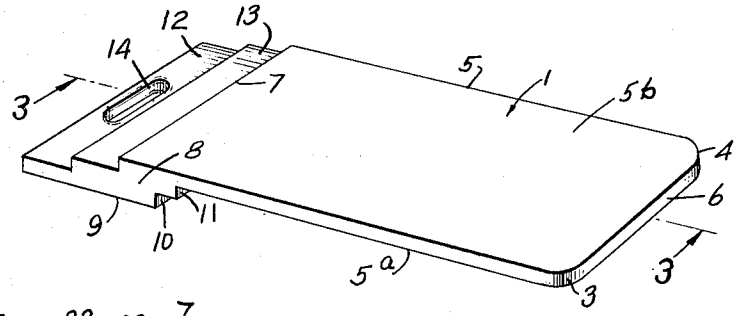
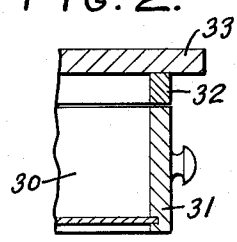


FIG. 2.



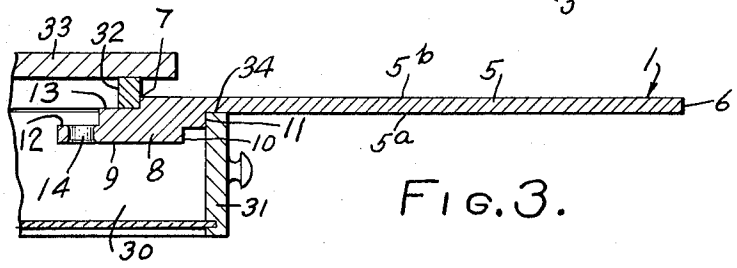
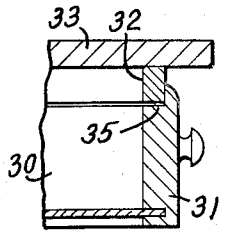


FIG. 3.



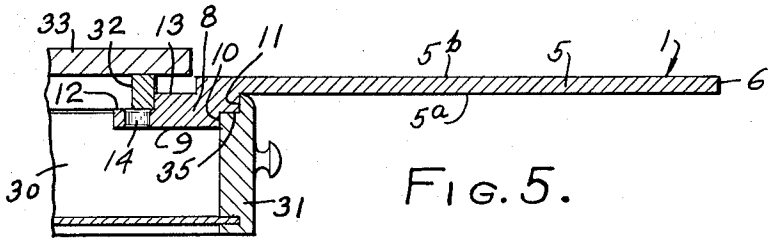
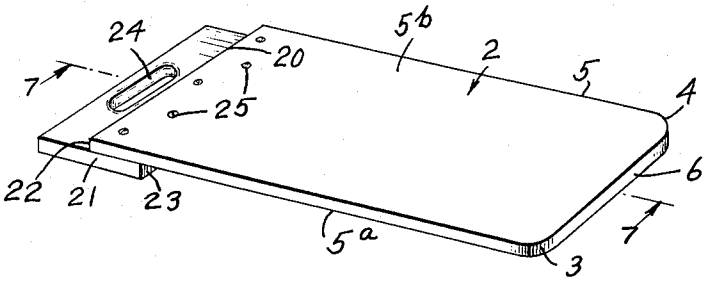


FIG. 5.

FIG. 4.

FIG. 6.



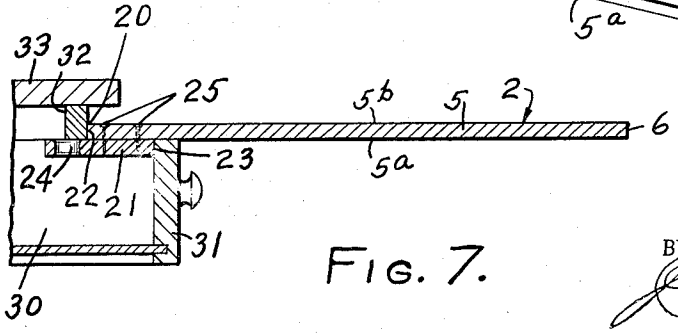


FIG. 7.

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PORTABLE SHELF

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3 Claims. (Cl. 108—152)

The present invention relates to a shelf which is portable in that the shelf may be carried from place to place as desired and then easily secured without the use of extraneous fastening devices to furniture of a type which incorporates a pull out drawer or tray.

The invention has utility in beauty shops as an extra shelf for holding various articles; during coffee breaks in an office, in that the shelf readily holds various commodities safely and securely; may be used in hair dressing to hold various beauty articles; of use by dentists and doctors for holding dental equipment as well as a bedstand and table.

An object of my invention is to provide a portable and detachable shelf so formed and constructed as to be held in position of service by an article of furniture.

A further object is the provision of a shelf which is attractive in appearance, easily stored, occupies small space and of great utility.

Other objects and advantages of my invention will be apparent to those having need for such a shelf.

In the drawing:

FIGURE 1 is a perspective view of one form of shelf;

FIGURE 2 is a fragmentary elevation of a drawer in an article of furniture;

FIGURE 3 shows the drawer of FIGURE 2 extended to receive and support an end of the shelf, the shelf section taken on the line 3—3 of FIGURE 1;

FIGURE 4 is a fragmentary sectional view of a modified drawer front;

FIGURE 5 shows the drawer of FIGURE 4 extended to receive an end of the shelf;

FIGURE 6 is a perspective view of a modified form of shelf; and

FIGURE 7 is a fragmentary sectional view of the shelf shown in FIGURE 6, taken on the line 7—7 and showing one end of the shelf engaging a drawer front and a rail beneath a table top.

In the drawing I have shown in FIGURES 1 and 6 two forms of shelves designated as **1** and **2** respectively. Both forms of shelves may assume any geometric configuration desired such as rectangular, circular, triangular, square and the like. For the present, however, both forms are rectangular with ends thereof curved as shown at **3** and **4**. This is by way of example only.

As is usual practice in shelves, the shelves **1** and **2** each have a plane surfaced body **5** of substantially uniform thickness or depth. The outer end of each shelf is designated as **6** while the inner end is designated as **7**. The inner end **7** of the shelf is provided with an enlarged depth head extension **8** which lies beneath the bottom surface **5***a* of body **5**. This extension **8** may be of solid construction as shown in FIGURE 1, or may be a lapped construction as shown in FIGURE 6. Thus, the portion between the bottom surface **5***a* of the shelf to the bottom surface **9** of the extension **8** may be of any depth found suitable. In this regard two transverse steps or offsets **10** and **11** extend between the bottom surface **5***a* of the shelf and the bottom surface **9** of the extension, the steps having the same depth of riser and the step **10** having a narrow tread. The top surface of extension **8** outward from the end **7** is provided with two steps or offsets **12** and **13** which descend below the level of the top surface **5***b* of the body of the shelf and are of the same depth in each instance as the depth of steps **10** and **11**. In

fact, the tread of the step **12** lies in the same plane as the tread of step **10** and the bottom surface **5***a* of the shelf body lies in the same plane as the tread of step **13**. The step **12** is provided with an elongated slot **14** which functions as a hand hold during the transporting of the shelf.

The shelf **2** at its inner end **20** is provided with an extension **21** secured at the bottom surface of the shelf to provide upper and lower steps or offsets at **22** and **23**. The extension **21** has a dimensional thickness substantially the same as that of the shelf **2**, and the extension is provided with an elongated slot at **24** to function as a finger hold for transporting the shelf. The shelf and the extension **21** may be held together in any suitable manner such as by gluing, screws **25**, or by any desirable means.

The operation, uses, and advantages of the invention are as follows:

A table drawer **30** is shown closed in FIGURE 2 with the drawer front **31** underlying a rail **32** secured beneath the table top **33**. FIGURE 3 shows the same drawer extended with the shelf **1** engaging the top edge **34** of the drawer front **31** and the shelf extension engaging rail **32**. The top edge of the drawer front engages lower step **11** while upper step **13** engages rail **32**. Hence the shelf has a cantilever support as the extension **8** is received within the drawer between the top edge of the drawer front **31** and the rail **32**. Obviously, the drawer may be extended further out than shown in FIGURE 2, but after the extension **8** with its steps engages the top edge of the drawer front and the rail, the drawer may be moved inwardly to cause firm engagement of the extension and its steps with the drawer front and the rail. Weight may be placed on the shelf when in this position and it is obvious that the top of the drawer front acts as a fulcrum and any tipping of the shelf downwardly is resisted by the step **11** in its engagement with the rail. This arrangement results for the shelf and the extension in a lever of the first class, the short lever being between the upper and lower steps and the long lever being the shelf body **5**. Obviously a table usually has considerable weight and light articles placed on the shelf would not tip it appreciably. As a matter of fact, actual use of the present invention has demonstrated that the shelf is very firm and, in fact, firmer than the usual slide shelf connected with desks. The only difference between the connection between the shelf and the drawer of FIGURE 5 is the fact that the top edge of the drawer is rabbetted at **35** and this rabbet construction allows the top edge of the drawer to engage both steps **10** and **11**. When the drawer is pushed inwardly, the step **12** engages the rail **32**. This construction functions in the same manner as just described for the construction shown in FIGURE 3. In FIGURES 6 and 7 in place of utilizing pairs of upper and lower steps, a single lower step and a single upper step is provided. The lower step will engage the top edge of the drawer front while the upper step **22** engages beneath the rail beneath the table top. In FIGURE 7 I have applied to the table top, drawer, and the rail the same reference numbers as shown in FIGURES 2 and 3.

The shelf and its extension may be formed of any suitable material such as wood, fiber board, metal, or a plastic. The shelf proper may be ornamented in any way desired such as providing a raised edge or the placing of a box or drawer beneath the shelf, or providing additional constructions connected to the shelf by shortening the length of the body to provide an additional shelf of the type which may be extended by any convenient means. The present invention is particularly adaptable for use by children in that the lower drawer of a cabinet may hold the shelf at a height convenient for children.

It is further obvious that the shelf body **5** and its extension **8** form two levers of unequal length particularly when the lower steps and the upper steps are engaging the drawer front and the table rail. Thus, the extension has a short lever as to points of support which are separated by the step construction, a construction which is necessary in order that the inner steps on the lower side of the extension may be fulcrumed on the drawer front and the upper steps engage the rail to prevent tipping action of the main body of the shelf. Thus the upper and lower steps are in staggered relationship.

I claim:

1. In a device of the character disclosed, a shelf provided with an elongated body having an upper and a lower surface, one end of said body provided with a descending step portion extending from the top surface of the body and provided with a step portion in descending relationship to the bottom surface of the body, the upper and lower portions having threads which lie in the same plane.

2. In a device of the character disclosed, a shelf provided with a body having a top and a bottom surface, an extension at one end of the body, said extension provided with a step having a tread and a riser leading to the top surface of the body, and the tread provided with a hand hold.

3. In a device of the character disclosed, a shelf provided with an elongated body having an upper and a lower surface, one end of said body provided with multiple descending step portions extending from the top surface of the body and provided with multiple step portions in descending relationship to the bottom surface of the body, the upper and lower portions having treads which lie in the same plane.

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