United States Patent [19]

Cushing

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[54] **SUPPORTING DEVICE**

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[52] **U.S. Cl.** ..... **248/110,** 248/126, 248/226 E

[51] **Int. Cl.** **F16m 13/00**

[58] **Field of Search** ..... 248/37.3, 37.6, 108, 109, 248/110, 113, 126, 152, 174, 226 E, DIG. 6; 403/2; 211/65; 285/3, 4; 220/3.8

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Attorney, Agent, or Firm—Edith Grill

[57] **ABSTRACT**

A self supporting device for use on a horizontal surface or to be clipped on a shelf, comprising a substantially Z-shaped member including a clip formed out of the lower end of the member and a slot at the upper portion to be engaged by the article to be held. The clip is for attachment to a shelf such as found in a medicine cabinet, whereby the device is adapted to support an object by the configuration of the slot in the upper arm and allows for the article to be easily removed and replaced.

5 Claims, 6 Drawing Figures

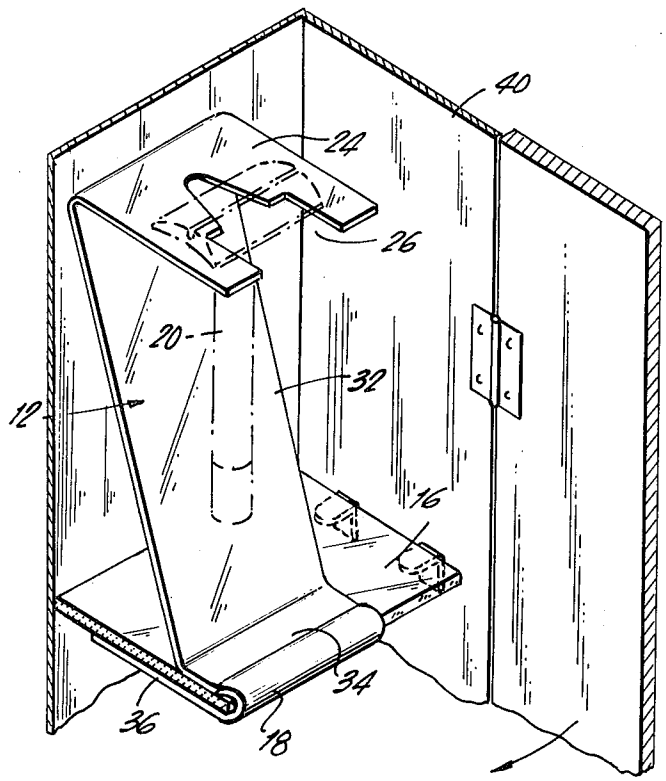


FIG. 1

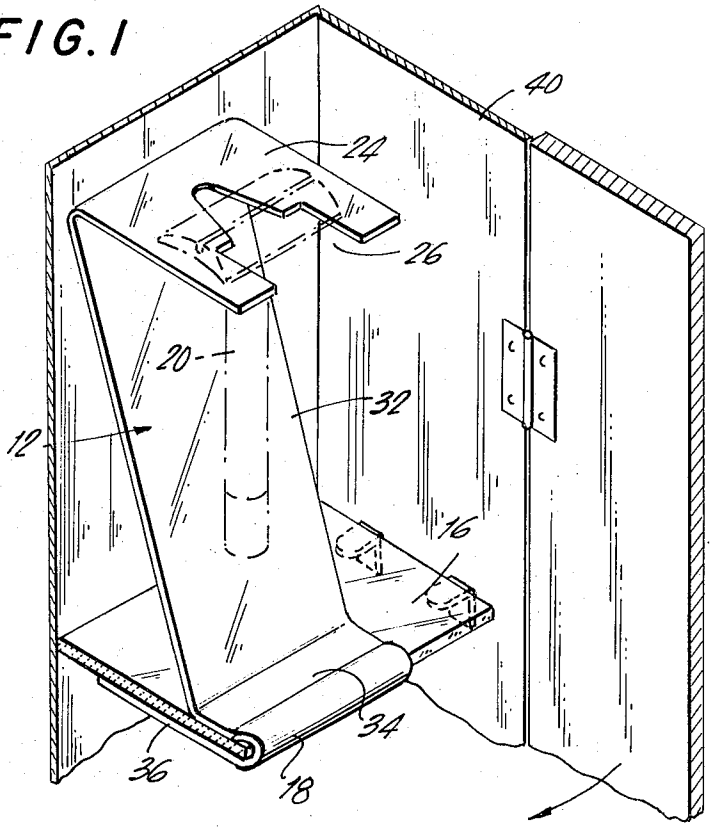


FIG. 2

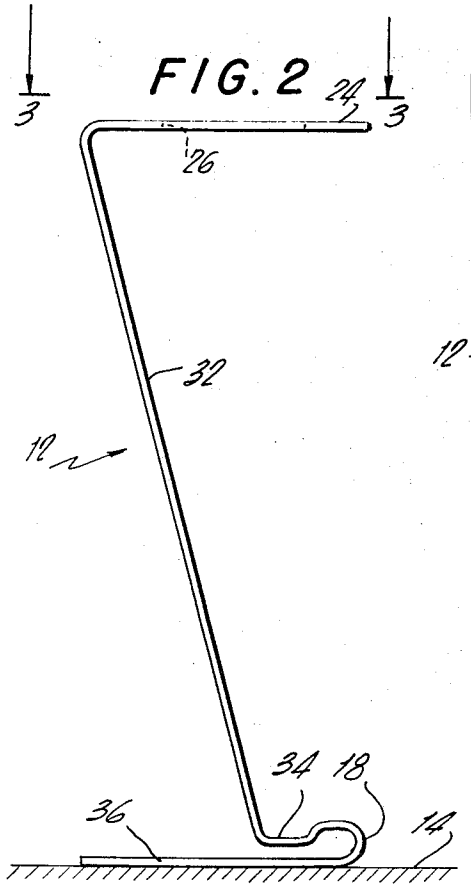


FIG. 3

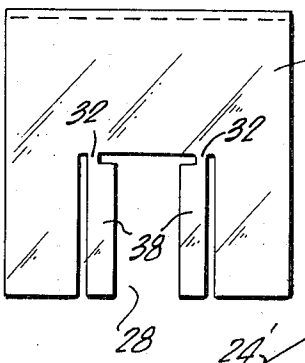


FIG. 5

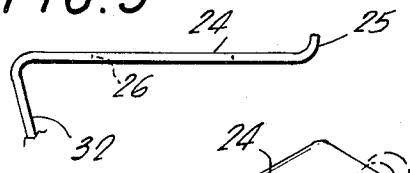


FIG. 4

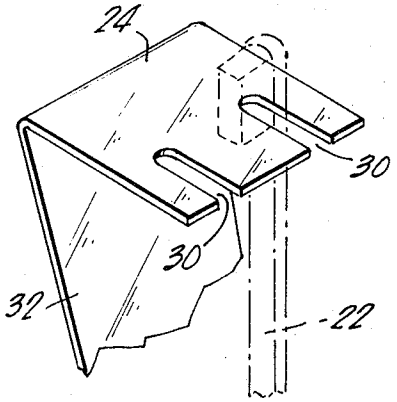
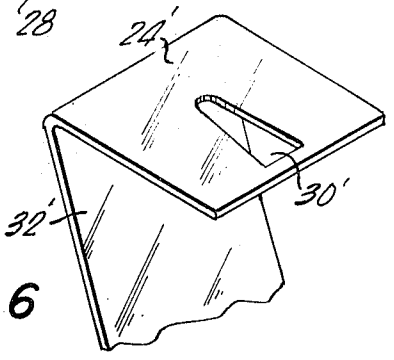


FIG. 6



SUPPORTING DEVICE

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

This invention relates to a supporting device that can be placed on a horizontal surface or easily and quickly attached to a shelf without further means for attachment, or without damage to the shelf. The device is capable of holding various objects such as tools, toothbrushes, razors, and guns which can be displayed in such a position as to be easily seen and quickly removed. The device can be used in pairs as bookends.

DESCRIPTION OF THE PRIOR ART

Various types of supporting devices have been used in the past which are confined to being placed on a horizontal surface or to being clipped to a shelf, or fastened thereto by screws, nails, or like fasteners, some of which permanently mar.

Prior supporting devices that are designed to be clipped to a shelf is seen in U.S. Pat. No. 2,472,058. That particular invention is directed to holding long narrow objects that will fit in curved hooks as toothbrushes and various tubes.

U.S. Pat. No. 2,883,062 is adapted for use if clipped to a shelf or attached to a vertical surface by a suction cup.

U.S. Pat. No. 3,486,630 is designed to support various objects if supported itself by a shaving cream can and, U.S. Pat. Nos. 2,960,237; 2,919,813; 1,998,232; and 2,382,894 are designed to support certain specific impliments.

U.S. Pat. No. 2,291,877 may be used to support items on a flat horizontal surface.

BRIEF SUMMARY OF THE INVENTION

This invention accomplishes its desired objects by utilizing a base which is formed on one end to provide a clip for securing the device to a shelf and is also suitable for supporting the device and whatever it is holding on a flat horizontal surface.

Engagement by the article to be supported is facilitated by a slot in the upper arm of the device that is especially designed to enable the object that is to be supported, to fit into the upper arm of the device. The interconnecting section of the device connects the base to the upper arm of the holder and is angled, with respect to vertical, whereby enabling the article that is being supported to be held in a position where it does not extend beyond the front edge of the base of the device.

It is therefore, the main object of the invention to provide a supporting device for accommodating various differently shaped objects. Further it is another object to provide a device that is constructed in one piece making it economical to manufacture and simple and refined in its appearance.

These objects and other features of the invention, which will become apparent as the following description proceeds, are attained by this supporting device, preferred embodiments of which are shown in the accompanying drawing, by way of example only, wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of an embodiment of the invention shown engaged with a shelf in a cabinet, with parts of the cabinet broken away to show the invention; illustrating a safety razor in broken lines;

FIG. **2** is a side elevational view of the device shown standing on a flat horizontal surface;

FIG. **3** is a top plan view looking in the direction of line **3—3** in FIG. **2** showing a modified form of the upper portion of the invention;

FIG. **4** is a partial perspective view of the upper portion of the invention showing another modified form of the upper portion;

FIG. **5** is a partial side elevational view of the upper portion of the invention showing another modified form of the upper portion.

FIG. **6** is a partial perspective view of another embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral **12** is used to generally designate a supporting device constructed in accordance with the concepts of this invention and which is self-supporting on any flat horizontal surface **14** and is self-securable to a projecting surface, such as the shelf **16.** The supporting device **12** is especially adapted for holding toilet accessories and can be placed on a flat surface **14,** such as a sink counter top, or it can be clipped to a shelf **16** in a medicine cabinet **40,** as shown in FIG. **1.**

The device **12** is extremely useful for displaying an article that is for use or sale, and then using the same holder functionally as supporting means once sold.

The supporting device **12** can be adapted to support or display a safety razor **20** as shown in FIG. **1** a toothbrush **22** as shown in FIG. **4,** or various other articles, not shown, such as tools, guns, or kitchen utensils and can be clipped onto a shelf to support books placed next to it.

The supporting device **12** is of one piece construction of plastic or metal that can be easily and inexpensively manufactured by injection molding, heat bending, or an extrusion process.

The supporting device **12** includes an upper horizontal arm **24,** that can have various shaped slots **26, 28, 30** formed therein. The slots **26, 28, 30** are formed to conform to the contours of the object to be supported. Slot **26,** which has a square frontal portion one side of which opens on the front edge of arm **24** and has a frontwardly diverging triangular rear section, is especially formed to be engaged by a safety razor **20.** Slots **30** are rectangularly formed with one of the shorter sides opening onto the front edge of arm **24** to facilitate the engagement of a toothbrush **22.** Slot **28** is rectangular with one of the shorter sides opening onto the front edge of arm **24.** The slot **28** has tabs **38** with a weakened section **32** so they may be broken off by hand and thereby enlarge the width of slot **28** if desired.

At the rear of arm **24** is a downwardly and forwardly extending interconnecting member **32.** The interconnecting member **32,** is at an angle to the vertical allowing objects, such as a safety razor **20** or a toothbrush **22,** to hang from arm **24** and not interfere with the supporting of such objects. The interconnecting member **32** at its bottom is connected to a clip **18.**

The clip **18** is comprised of a flat portion **34,** the bottom of which can engage the top projecting element such as the shelf **16** shown in a medicine cabinet **40.** At

the front of the flat portion **34** is an arcuate section of the clip **18** that arcs upwardly and forwardly from the flat portion **34** and then downwardly and inwardly where it connects to the front of the horizontal base **36.** The arcuate convex section of the clip **18** enables the flat portion **34** to act resiliently and thereby the bottom of the flat portion **34** and the top of the base **36** can clampingly engage a projecting element **16** and become self attaching. The arcuate section of the clip means **18** provides the flexible action needed between the base **36** and the flat portion **34.**

The base **36** is planar and extends backwardly from the clip **18.** The base **36** acts either as a complementary section to the flat portion **34** when clamping onto a projecting element **16** or as an engaging surface to a horizontal surface **16,** such as a counter top. The base **36** enables the supporting device **12** to be self-supporting on a horizontal surface **14** when holding an object, such as a safety razor or a toothbrush.

A form of the invention employing a slot or opening **30'** closed at the front of the arm **24',** if desired, is shown in FIG. **6.**

The overall size of the supporting device depends on the particular object that is desired to be supported. The interconnecting member **32** is elongated if tall objects are to be supported. The base **36** extends so that it reaches backward of the center of gravity of the object that is being supported, as it is held by the arm **24** in the slot **26, 28,** or **30.** The slots **26, 28, 30** are of various shapes and sizes to engage an unlimited number of objects. A slot **28** could be provided with break away tabs **38** having weakened break points **32** so that enlargement of the slot is possible by hand.

As shown in FIG. **5,** the front of arm **24** could be provided with a lip **25** being arcuate and extending upwardly and outwardly from the supporting device **12** to adapt the arm **24** to support a wide variety of objects.

In FIG. **6** there is shown a form of the invention in which arm **24'** is provided with a closed opening **30'.**

A latitude of modification and change is intended in the foregoing disclosure, and in some instances, some features of the present invention may be employed without a corresponding use of other features.

I claim:

1. A unitary supporting device comprising a substantially Z-shaped member including an upper horizontal arm having a slot therein, a horizontal base, and a downwardly and forwardly extending interconnecting member extending between and connecting said arm and said base, said base including clip means integrally and resiliently interconnecting said base and said interconnecting member at the front of said base for engagement with a horizontal projecting element with said element being received and resiliently clamped between said base and said clip means, said clip means being arcuate and curving downwardly and inwardly over the top of said base.

2. A supporting device according to claim **1,** wherein said slot opens into the front edge of said arms.

3. A supporting device according to claim **1,** wherein said arm has a plurality of slots opening into the front edge thereof.

4. A supporting device according to claim **1,** wherein said arm is provided with tabs on at least one side of said slot, said tabs having a weakened break point so said tabs can be broken off to enlarge said slot.

5. A supporting device according to claim **1,** wherein said arm is provided with a lip, said lip being arcuate and entending outwardly and upwardly from the front of said arm.

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