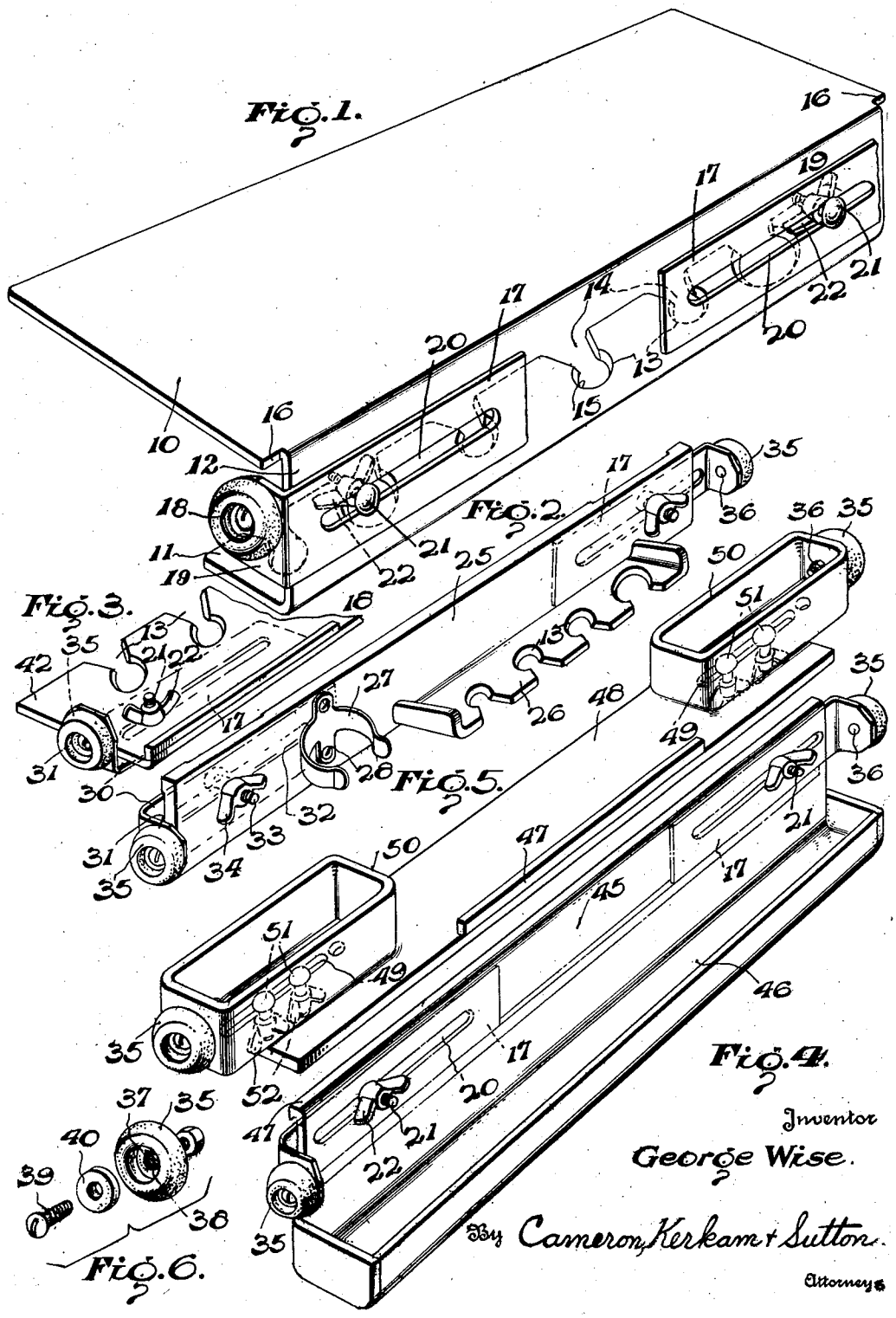
June 12, 1951 G. WISE 2,556,246

SELF-SUPPORTING EXTENDIBLE ARTICLE HOLDER

Filed Feb. 12, 1947



Patented June 12, 1951 2,556,246

UNITED STATES PATENT OFFICE

2,556,246

SELF-SUPPORTING EXTENDIBLE ARTICLE HOLDER

George Wise, Washington, D. C.

Application February 12, 1947, Serial No. 728,111

10 Claims. (Cl. 211—123)

1

This invention relates to inserts for cabinets, wall receptacles or recesses, and the like, although, as will hereinafter appear, the invention, as to certain of its aspects, provides a novel unit which may be secured to the face of a wall or other suitable support, and more particularly to such an insert to provide a means for carrying toilet articles, whether men's or women's, articles of medical character, jewelry, or comparable elements.

It is an object of this invention to provide a unit of the type characterized which may be readily installed in medicine cabinets as conventionally provided in bathrooms, and also other comparable cabinets, receptacles, recesses, etc.

Another object of this invention is to provide a unit of the type characterized which is readily adaptable to cabinets, receptacles, recesses, etc., that vary in width.

Another object of this invention is to provide a unit of the type characterized which may be so constructed as to be readily applied to medicine cabinets of size and construction such as now commonly found in bathrooms.

Another object of this invention is to provide a unit of the type characterized which is so constructed that, if desired, it may be easily and quickly adapted for permanent retention in position by screws, tacks, nails or comparable securing elements.

Another object of this invention is to provide a unit of the type characterized which includes improved provisions for securing the unit in position under variations of size in the space to which it is applied.

Another object of this invention is to provide a unit of the type characterized which is readily susceptible to variations in detail so that it may be adapted for supporting men's or women's toilet articles, as well as other articles commonly kept in bathrooms, or articles temporarily deposited as an incident to performing the toilet.

Another object of this invention is to provide a unit of the type characterized which is simple in construction, inexpensive to fabricate, easy to install without especial skill, and flexible in its application to a variety of services.

Other objects will appear as the description of the invention proceeds.

The invention is capable of receiving a variety of mechanical expressions some of which by way of illustration are shown on the accompanying drawings, but it is to be expressly understood that the drawings are for purposes of illustration only, and are not to be construed as a definition of the limits of the invention, reference being had to the appended claims for that purpose.

2

Referring to the accompanying drawings, wherein the same reference characters are used to designate corresponding parts in different figures,

Fig. 1 is a perspective view of one embodiment of the invention;

Fig. 2 is a perspective view of another embodiment of the invention;

Fig. 3 is a fragmentary view of another embodiment of the invention;

Figs. 4 and 5 are perspective views of yet other embodiments of the invention; and

Fig. 6 is an exploded view of the friction pad shown in conjunction with the several embodiments of the invention.

The unit of the present invention may be made of any suitable material such as metal, wood, glass, etc., but by preference it is made of a suitable plastic which may be readily molded to the desired shape and size, such plastic materials having the advantage that they are particularly light in weight and easy to fabricate, and may be made transparent so as to simulate glass, or opaque, or given different colors to conform with varying color schemes.

The unit embodying the present invention will preferably be made of a plurality of standard sizes such that by selection of an appropriate size the unit can be readily adapted to a wide variety of widths of medicine cabinets, wall receptacles, recesses and the like. The unit embodying the present invention may also be made in various types appropriate for the various services to be performed, as for example types respectively constructed with particular regard to supporting toilet articles commonly used by men, with particular regard to supporting toilet articles commonly used by women, with particular regard to supporting toilet articles commonly used by both men and women, with particular regard to supporting medicine bottles or other articles commonly kept in bathrooms, etc.

Referring first to the embodiment of Fig. 1, the unit is shown as formed in one piece and composed of a horizontal portion 10 adapted to serve as a shelf, a narrower horizontal portion 11 adapted to serve as a rack, although any suitable width may be employed, and a vertical connecting portion 12. The rack portion 11 is provided over any suitable portion of its length with any suitable number of slots 13, here shown as having tapering entrance portions 14 terminating in curved supporting portions 15, although any

other suitable shape of slot may be used if preferred, said slots being preferably of different sizes and so formed that they are adapted to receive and retain various articles such as conventionally used by men in shaving or various toilet articles commonly used by men or women or both. Fig. 1 shows the aforesaid slots 13 as distributed throughout the length of the rack portion 11, but if preferred, the rack proper may extend for only a part of the length of portion 11 and the remainder of said portion may be used for other purposes analogously as shown in the embodiment of Fig. 2. Also the upper portion 10 could also if desired be formed at its forward edge to provide a rack for any desired portion of its length.

The embodiment of Fig. 1 is preferably of such construction that it may be readily applied to the slots or ledges conventionally provided in the side walls of standard medicine cabinets, and to this end the width of the unit is made to conform with the width of standard medicine cabinets and the shelf portion 10 at each lateral extremity projects horizontally beyond the vertical portion 12 to provide laterally projecting extensions as shown at 16 so that, upon removing one or more of the shelves conventionally provided in such cabinets the laterally projecting portions 16 may be slid into a pair of the grooves or onto a pair of the ledges provided for carrying such shelves. Thereby a unit embodying the present invention may be readily installed in position in place of a shelf or shelves already present in the cabinet.

The unit of Fig. 1 may also be provided on the rear face of its vertical portion 12 with one or a pair of adjustable slides 17 having frictional elements 18 carried by right angularly extending portions 19, each slide 17 being provided with a slot 20 cooperating with a screw 21 and thumb nut 22 whereby each slide may be locked in proper position as will appear more fully from the more detailed explanation of these adjustable slides hereinafter made. Such adjustable slides may be used in conjunction with the laterally projecting portions 16 before referred to, so that the unit, although carried by said portions 16, may be locked in position to prevent accidental displacement, or they may be used to enable the unit to be installed in a space whose width exceeds the width of the unit, the slides being removed when the unit fits such space, or, if preferred, the lateral extensions 16 may be omitted and reliance placed solely on said slides with their friction elements for retaining the unit in position, all as will appear more fully from the discussion of the use of such slide or slides hereinafter made.

The unit of Fig. 2 comprises a body portion 25, which is shown as of simple flat construction, from which extends at right angles a rack portion 26 that may extend for the full length of the body portion 25 or, as shown, extend for only a portion of its length, said rack portion 26 being shown as provided with a plurality of suitable slots 13 as in the embodiment of Fig. 1. Where, as shown, the rack portion extends for only a portion of the length of the unit the body portion 25 beyond the rack portion may be provided with any suitable number of clips or other suitable forms of supporting elements 27 for carrying appropriate articles and which may be attached to the body portion 25 in any suitable way as by one or more screws 28.

In the embodiment of Fig. 2 a pair of slides

17 are mounted adjustably on the rear face of the body portion 25 so as to provide for adjustably retaining the unit frictionally in position in cabinets or other suitable spaces of different widths. While in the illustrated embodiment, a slide 17 is provided at each end of the body portion so that by adjusting the two slides at the two extremities of the body portion the unit may be centered in the space in which it is disposed, it will be apparent that if preferred a slide may be provided at only one extremity of the body portion, the opposite extremity of the body portion being provided with a right angularly extending projection carrying a friction element of the character to be described.

It is to be understood that the description of the slide now to be made applies to each slide that may be used on the embodiments illustrated in Figs. 1 to 5 as well as other suitable embodiments. Each slide 17 as shown consists of a flat body portion 30 having a right angularly extending portion 31 at its extremity. Body portions 30, which may be made of any suitable length, is provided with a longitudinally extending slot 32, and extending through an aperture in the body portion 25 in alignment with said slot 32 is a readily removable screw 33 on which is threadedly mounted a wing nut 34, so that when the screw 33 is projecting through the slot 32 the wing nut 34 may be loosened to release the slide and the slide may be adjusted by moving it longitudinally with respect to the screw to the desired extent by reason of the slot 32, after which the wing nut may be tightened on its screw to lock the slide against displacement. However, by removing the wing nut from the screw the screw and slide may be entirely removed from the unit for a purpose to be explained.

Mounted on the right angularly extending portion 31 of each slide is a friction button 35 of any suitable size and material, preferably of rubber or comparable yielding but elastic frictional material. To retain the pad 35 in position the right angularly extending portion 31 is provided with a threaded aperture 36 extending therethrough, and the friction pad 35 has a recess 37 from which extends an aperture 38 to the rear face of the pad. A screw 39 is adapted to pass through the aperture 38 and be threadedly received in the aperture 36. In order to prevent the pad 35 from being pulled over the head of the screw or the head of the screw from cutting or otherwise unduly wearing the pad a centrally apertured washer 40, of fiber or other suitable material, is interposed between the head of the screw and the body of the pad, being seated in the recess 37, the face of the pad, when the screw and washer are in position, providing at its face a cavity so that the pad will not only operate as a friction element but also somewhat as a suction pad because of the presence of this cavity. Fiber is preferred to metal for the washer 40 because experience has demonstrated that there is less likelihood of the fiber cutting through the material of the pad. As will be apparent the pad, together with its screw and washer, may be readily removed from the end of the slide for a purpose to be explained.

Assuming that two slides are provided, although as above pointed out the friction pad at one end of the body portion 25 may be mounted on a right angularly extending projection comparable to portion 31 but integral with the portion 25, the width of the space in the cabinet or other space in which the unit is disposed can be measured,

and then, after loosening the thumb nuts 34, the slides may be adjusted so that the overall distance between the free faces of the pads 35 is somewhat greater than said measured width, say one quarter inch. The unit may then be forced into position, the compressibility of the pads 35 enabling such insertion of the unit, while the elasticity of the pads, which may be supplemented if desired by additional resilient means, assuring that the pads will make a firm frictional grip at the sides of the space in which the unit is disposed, the firm retention of the unit in position being further aided by the cavities in the operating faces of the pads.

The construction as just described has the further advantage that if it is desired to fix the unit permanently in position, the pads 35 may be removed by removing the screws 39, whereupon screws, tacks, nails or other suitable attaching elements may be passed through the apertures 36 in the portions 31 of the slides to secure the unit permanently in position. Such a construction has the further advantage that if it is desired to install the unit on a wall or in a space which is too wide for use of the provisions for adjustment, the thumb nuts 34 may be removed, the screws 33 and slides 30, 31 may be taken off the body portion 25, and screws, tacks, nails, or other suitable attaching elements may be passed through the apertures provided for the screws 33 so that the unit may be securely held in position on any suitable wall or other support. As will be apparent these advantages also inhere in the other embodiments of the invention herein disclosed.

In the embodiment of Fig. 2 the body portion of the unit is shown as vertical, and the slides 17 have forwardly extending portions 31 carrying the friction pads heretofore described. However, if preferred, the body portion may be disposed horizontally as shown at 42 in Fig. 3, in which event the slide or slides 17 will be disposed on the under face of the body portion 42 with the right angularly extending portion 31 of each slide extending vertically and carrying a friction pad 35 as in the embodiment of Fig. 2. In this construction the body portion is made somewhat wider than in the embodiment of Fig. 2 so that the slots 13 shall be disposed forwardly of the slide or slides 17 so that the latter will not interfere with the support of articles in the slots 13.

Fig. 4 discloses another embodiment of the present invention wherein the unit is composed of a vertically extending portion 45 at the lower extremity of which is formed, preferably integrally therewith, a tray 46, or said tray could take the form of a shelf or a rack or any other suitable support as here contemplated. As in the embodiment of Fig. 2 the vertically extending portion 45 is provided at its rear face with a pair of slides 17 carrying friction pads 35, although as before explained the provision of adjustment may be supplied at only one extremity of the unit, and the portion 45 has an overhang 47 shielding the slide or slides. The vertical portion could be omitted and the slide or slides be mounted on the bottom or the rear wall of the tray itself.

The embodiment of Fig. 5 illustrates the provision for adjustment incorporated with one or more receptacles carried by the unit and suitable for receiving rings while washing the hands or other comparable use. As here shown, the unit includes a horizontal body portion 48 having a ledge 47 extending along the central portion of its forward edge, and at each extremity thereof as shown said body portion has a slot 49. Carried on the body portion over each slot is a small tray, box or other suitable receptacle 50 through the bottom wall of which extends one or more removable screws 51 for cooperation with the slots 49, each screw 51 being provided at the under face of the body portion with a wing nut 52. The end wall of the receptacle 50 is provided with a friction pad 35 as heretofore described. As shown, an adjustable receptacle 50 is provided at each extremity of the body portion 48, but as is apparent one of said adjustable receptacles may be replaced by a slide as heretofore described, or the body portion may have a vertically extending portion carrying a friction pad as before explained. In this embodiment, by loosening the nut or nuts 52 the receptacle or receptacles 50 may be slid lengthwise of the body portion by reason of the slots 49 so as to adjust the overall length of the unit as above explained, after which the nuts may be tightened to secure the receptacle or receptacles in adjusted position. So far as the friction pad or pads are concerned, this provision for adjustment functions in the same way as that above described in conjunction with Fig. 2, but this embodiment has the additional advantage that the provision for adjustment and frictional retention in position has incorporated therein a receptacle or the like which can be used for receiving appropriate articles.

It will therefore be perceived that by the present invention an easily manipulated unit has been provided which may be readily adapted to a wide variety of services and made in a wide variety of forms, possessing maximum flexibility in adaption to standard medicine cabinets, cabinets and other spaces of different sizes and construction, and even wall use, and of a lightness and simplicity of construction such that it may be fabricated at low cost and installed by the average householder without especial skill.

While in the illustrated embodiments including vertically and horizontally extending portions, said portions have been shown as made integral with each other, and this is a preferred construction facilitated by the use of plastic material, it is to be expressly understood that the vertically and horizontally extending portions may be made separately and connected together in any suitable way. It is also within the contemplation of this invention to provide one or more racks suspended from a shelf portion as in Fig. 1 for example but extending transversely of the unit instead of lengthwise as illustrated, in which event the rack portions would be set inwardly from the extremities of the unit sufficiently to provide the overhanging portions 16 for engagement with the surfaces for supporting the unit. It is also within the contemplation of this invention to provide a shelf portion as in Fig. 3 with suitable depending supporting elements, as hooks, clips, and the like, instead of a depending rack as in Figs. 1 and 2, and such supporting elements may be arranged either transversely or longitudinally of the shelf portion.

While the embodiments of the invention illustrated on the drawings have been described with considerable particularity, it is to be expressly understood that they have been selected merely by way of illustration, as the invention is capable of receiving a wide variety of expressions depending upon the service to which the unit is to be applied, as will now be apparent to those skilled

in the art, while other provisions may be supplied for effecting the adjustment of the unit to appropriate size, other expedients may be used for effecting frictional retention of the unit in position, the units may be built in larger sizes so as to incorporate more than the one or two shelves, racks or other comparable supporting portions shown, other forms of support for toilet, medicinal, jewelry, etc., articles may be applied to the unit, additional features with respect to locating, retaining, or supporting various forms of articles commonly found in bathrooms may be added, the unit may include other forms of supports as for example a rod, bar or the like, etc., all without departing from the broader aspects of the present invention. For a definition of the invention reference is therefore to be had to the appended claims wherein the term cabinet space is used generically to denominate any suitable medicine or other cabinet, wall receptacle, recess or comparable space.

What is claimed is:

1. An adjustable article supporting unit which is adapted to be inserted and supported between the opposed surfaces of any recess, opening, cabinet and the like, said unit comprising a body portion in combination with extendible means and resilient means mounted on both ends of said unit, said resilient means comprising pads of yielding but elastic frictional material, said body portion having at least two angularly related members, said extendible means comprising at least one adjustable slide mounted on said body portion and carrying one of said resilient means, and means cooperating with said slide for locking said slide to said body portion in a position such that said resilient means will be compressed and grip said opposed surfaces and support said unit thereon when said unit is forced into position.

2. A unit as defined in claim 1 in which at least one of the body members constitutes article supporting means.

3. A unit as defined in claim 2 in which a line through the centers of the resilient means lies in a plane parallel with a line through the center of gravity of the article supporting means so that any tendency to tilt from the horizontal is substantially eliminated.

4. A unit as defined in claim 1 in which said body portion is of one-piece and has a vertical portion and a horizontal portion projecting therefrom and constructed to provide an article-supporting rack, said slide being mounted on said vertical portion.

5. A unit as defined in claim 4 in which said horizontal portion is at the lower edge of the vertical portion and wherein a second horizontal member extends from the upper edge of the vertical portion to form a shelf overlying the lower horizontal portion.

6. A unit as defined in claim 1 in which said body portion is of one piece and has at least a vertical portion and a horizontal portion projecting relative to each other to form a ledge on which said slide is mounted.

7. A unit as defined in claim 1 in which at least one of the body members constitutes article supporting means of less length than the other body member.

8. A unit as defined in claim 1 in which said body comprises a tray.

9. An adjustable article supporting unit which is adapted to be inserted and supported between the opposed surfaces of any recess, opening, cabinet and the like, said unit comprising a body portion in combination with extendible means and resilient means mounted on both ends of said unit, said resilient means comprising pads of yielding but elastic frictional material, said body portion having at least two angularly related members, said extendible means comprising one of said angularly related body members in the form of at least one slidable receptacle mounted on said other body member, and means cooperating with said slidable receptacle for locking said slidable receptacle to said other body member in a position such that said resilient means will be compressed and grip said opposed surfaces and support said unit thereon when said unit is forced into position.

10. An adjustable article supporting unit which is adapted to be inserted and supported between the opposed surfaces of any recess, opening, cabinet and the like, said unit comprising a body portion in combination with extendible means and resilient means mounted on both ends of said unit, said resilient means comprising pads of yielding but elastic frictional material, said body portion having at least two angularly related members at least one of which constitutes article supporting means, said extendible means comprising at least one adjustable slide mounted on said body portion and carrying one of said resilient means, and means cooperating with said slide for locking said slide to said body portion in an adjusted position such that the length of said unit is greater than the distance between said opposed surfaces, said resilient means being yieldingly compressible when said unit is forced between said surfaces and said pads having elastic frictional grip on said surfaces in the adjusted position of said unit therebetween to support said unit in position for articles to be held on or suspended from said article supporting means.

GEORGE WISE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
646,969	Jolger	Apr. 10, 1900
953,803	Sellers	Apr. 5, 1910
1,069,411	Greene	Aug. 5, 1913
1,242,017	Mendelsohn	Oct. 2, 1917
1,243,059	Fiesleben	Oct. 16, 1917
1,379,879	Schepper	May 31, 1921
1,639,551	Booth	Aug. 16, 1927
1,690,711	Blodgett	Nov. 6, 1928
1,763,034	Bunker	June 10, 1930
1,830,058	Helmond	Nov. 3, 1931
2,020,991	Brody	Nov. 12, 1935

FOREIGN PATENTS

Number	Country	Date
24,527	Great Britain	1914