ASYMMETRIC EXPANDABLE SILVERWARE TRAY

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Abstract

A versatile drawer organizer structure for segregating a plurality of items. The structure includes a main compartment and two adjustable side compartments located on each side of the main compartment. Each of the side compartments can slide toward the main compartment or away from the main compartment thus decreasing and increasing the size of the side compartments and decreasing and increasing the overall width of the structure so that the structure precisely fits within the inside width of the drawer. The overall width of the structure can be adjusted without cutting of the material making up the structure and without making any permanent alterations to the structure. Thus, the structure can be easily sized to precisely fit the inside width of a large number of different drawers and many other enclosed spaces. Added features for the two adjustable side compartments are: they may be of differing widths, are expandable in length as well as width, contain rail-like grooves so that they can slide from the main compartment to any desired length yet not separate inadvertently.
Asymmetric Expandable Silverware Tray

Figure 3

Figure 4
ASYMMETRIC EXPANDABLE SILVERWARE TRAY

BACKGROUND

[0001] 1. The Field of the Invention

[0002] This invention relates to devices used to sort, segregate, and organize various items within an enclosed space.

[0003] 2. The Background Art

[0004] Almost every home and business has cabinets, dressers, desks, or other similar type of furniture with drawers that pull out and can be used to hold various items. Such items may be cooking utensils and cutlery, articles of clothing, such as stockings, underwear, and so forth, writing implements, office supplies, and other similar items. Generally, without some type of organizer in the drawer, such items are merely thrown into the drawer (or some other enclosed space) and the user must take the time to rummage through the various items in the drawer to find one particular item.

[0005] Thus, there is a need for structures to organize drawers and other similar enclosures so that the different items can be segregated so that one particular item can be quickly and easily retrieved from the drawer. In order to segregate and organize items which are stored in drawers as well as other enclosures, various structures have been proposed.

[0006] One approach to organizing a drawer has been to place boxes of different sizes within the drawer. This approach provides one or more compartments within the drawer in which items can be segregated. Disadvantageously, merely placing boxes in the drawer is unsatisfactory since the boxes do not fit precisely within the drawer and slide around and leave unused drawer space.

[0007] Another approach has attempted to overcome the disadvantages of placing boxes in the drawer. This approach provides one or more box like structures, which may be independently formed or formed as a unitary structure, which are cut to fit precisely within the drawer. Disadvantageously, many users do not want to bother with cutting the box structure or have difficulties making accurate cuts, which are necessary to provide a precise fit within the drawer or cuts which are cosmetically pleasing. Moreover, once the box structure is cut, the structure will likely not precisely fit into another drawer of different dimensions and likely cannot be altered to provide a different arrangement even in the same drawer.

[0008] In view of the above mentioned disadvantages, it would be an advance in the industry to provide a structure for organizing drawers and similar enclosed spaces which overcomes these and other drawbacks.

SUMMARY

BRIEF SUMMARY AND OBJECTS OF THE INVENTION

[0009] In view of the above described state of the art, the present invention seeks to realize the following objects and advantages.

[0010] It is a primary object of the present invention to provide an organizing structure for drawers and other enclosed spaces which is efficient and easy to use.

[0011] It is also an object of the present invention to provide an organizing structure for drawers and other enclosed spaces which can be sized to precisely fit at least one dimension of the drawer so that space in the drawer is efficiently used but does so without requiring any cutting or permanent alterations of the structure. It is a further object of the present invention to provide an organizing structure for drawers and other enclosed spaces which can be constructed in different configurations to suit different types of items and which can be moved from drawer-to-drawer as needed.

[0012] These and other objects and advantages of the invention will become more fully apparent from the description and claims, which follow, or may be learned by the practice of the invention.

[0013] The present invention provides a versatile structure for segregating a plurality of items in an enclosed space, for example a drawer. The dimensions of the drawer are referred to herein as a width, a depth, and a height. The preferred embodiments of the present invention include a main compartment and two adjustable side compartments located on each side of the main compartment. It is preferred that the main compartment and the side compartments each be fabricated in a rectangular, including a square, shape but many shapes can be used within the scope of the present invention. Each of the side compartments can slide toward the main compartment or away from the main compartment thus decreasing and increasing the size of the side compartments and decreasing and increasing the overall width of the structure so that the structure precisely fits within the inside width of the drawer. Each of the side compartments can be of a different width and are adjustable in depth. The overall width and depth of the structure can be adjusted without cutting of the material making up the structure and without making any permanent alterations to the structure. Thus, embodiments of the present invention can be easily sized to precisely fit the inside width of the drawer and many other enclosed spaces. A means for guiding the movement of the side compartments is preferably provided to keep the side compartments in place as the user sets the width of the structure to precisely fit within the width and depth of the drawer. Embodiments of the present invention can be provided with two adjustable side compartments or only one adjustable side compartment. It is also preferred that the main compartment include a plurality of individual compartments which can each be designated to hold a particular type of item.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] In order to better appreciate how the above-recited and other advantages and objects of the invention are obtained, a more particular description of the invention briefly described above will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered limiting of its scope, the invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:
FIG. 1 is a perspective view of the preferred embodiment of the present invention showing the asymmetric (uneven) widths of the slides on each side of the main compartment. Slots on either side of the slides permit additional compartment dividers to be inserted.

FIG. 2 is a perspective view of the preferred embodiment of the present invention showing one slide and the direction to be expanded by means of inner slots, one half laid upon the other, or other means of expansion in the depth direction.

FIG. 3 is a perspective view of the preferred embodiment (less partitions) with a border showing slides of unequal widths, and a border separating the parts of the slide that will expand in the depth direction.

FIG. 4 is a perspective of the preferred embodiment viewed from the depth direction indicating the rails in which the slides and the main compartment are held together yet allow relative movement along the rails.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 shows a perspective view of the embodiment. The short end slide (2) is on the left-hand side of the center tray (1), and the long end slide (3) is on the right hand side of the center tray. The short end slide has the ability to expand in the depth direction. The long end slide has a groove (4) on both sides depthwise, allowing for the insertion of a rib (5) for further partitioning.

FIG. 2 shows the short end slide and the direction (8) it will expand. A border (7) indicates where the slide begins to separate.

FIG. 3 shows a perspective view of the embodiment sans compartments for easier viewing in which the asymmetry of a border line (9) indicates two very unequal-in-width slides (2, 3) before they are separated. A line of separation (7) is indicated in the short end slide.

FIG. 4 is a depth-wise view in which the main compartment (1) rides within the confines of the slides (2, 3) along rails (6) such that they are held together to prevent separation in the height (vertical) direction, yet retain the ability to slide in the width direction.

What is claimed and desired to be secured by United States Letters Patent is:

1. A structure for segregating a plurality of items, the structure comprising:
   - a drawer having a drawer width, a drawer depth, a drawer height, and a drawer bottom;
   - a main compartment disposed on the drawer bottom, the main compartment having a front side, a back side, a first side, a second side, and a main width, the second side oriented in the same direction as the first side, and the front side oriented substantially parallel to the back side, the main compartment having a plurality of individual compartments;
   - a first side compartment disposed on the drawer bottom, the first side compartment positioned adjacent to the first side of the main compartment and having a first width and a first depth, the first side compartment having a front wall and a back wall and one side wall;
   - a first channel formed in a ledge along the front side of the main compartment;
   - a first ridge formed along the front wall of the first side compartment, the first ridge being positioned in sliding engagement with the first channel and at least partially surrounded by the first channel such that the ridge is covered by the channel and such that the distance between the first side of the main compartment and the side wall of the first side compartment is varied as the first ridge slides within the first channel such that the first width of the first side compartment is changed, but remains fixed unless selectively changed, and such that the combined first width and main width together substantially match the drawer width of the drawer such that the entire drawer width of the drawer is substantially occupied by at least the main compartment and the first side compartment so that the drawer is efficiently used.

2. A structure for segregating a plurality of items as defined in claim 1 further comprising:
   - a second side compartment disposed on the drawer bottom, the second side compartment positioned adjacent to the second side of the main compartment and having a second width and a second depth, the second side compartment having a front wall and a back wall and one side wall;
   - a second channel formed in a ledge along the back side of the main compartment; a second ridge formed along the back wall of the second side compartment, the second ridge being positioned in sliding engagement with the second channel such that the distance between the second side of the main compartment and the side wall of the second side compartment is varied as the second ridge slides within the second channel such that the second width of the second side compartment is changed and such that the combined first width, second width, and main width together substantially match the drawer width of the drawer such that the entire drawer width of the drawer is substantially occupied by at least the main compartment, the first side compartment, and the second side compartment so that the drawer is efficiently used.

3. A structure for segregating a plurality of items as defined in claim 1 wherein the main compartment comprises:
   - a compartment for holding knives;
   - a compartment for holding forks, and a compartment for holding spoons.

4. A structure for segregating a plurality of items as defined in claim 1 wherein the first side compartment comprises a single unitary compartment.

5. A structure in which the two end slides have the ability to expand in the depth direction by means of two separate but opposite structures that lay one upon another, or by means of a sandwich type structure in which one of the two structures lies within the other and is thus expandable in the depth direction.

6. An asymmetry in which one slide is appreciably longer in the width direction than is the other and into which vertical notch paths on both ends of the slide in the depth and width direction allow for the entry of one or more partitions, the partitions and the end slides themselves likewise having notches such to allow entry of other partitions in the width direction.
7. A slide cavity, tracks, such that the center tray and the end slides are in contact along the tracks and that allows free movement in the width direction yet prevents the coming-apart of the center tray from the slides in the direction counter to that of the direction of the sliding.

8. A structure wherein partitions fit within one another such that in relative movement between the main compartment and side compartments the partitions are lengthened or shortened creating the desired areas between partitions.

Partition walls contain a cavity into which smaller size partitions walls fit. Thus drawing the smaller partition walls out of the larger lengths one or more partitions to change over-all sizes of compartments to fit the drawer space.

9. Lifts, props, or stilts to support one or more sides of the center structure or end structures to maintain a level parallel to the drawers bottom.

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