Oct. 17, 1939. W. J. BARGEN 2,176,782

STORAGE STRUCTURE

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Fig. 1.

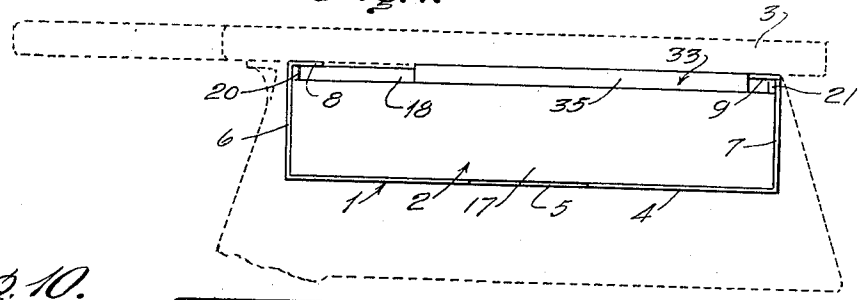


Fig. 10.

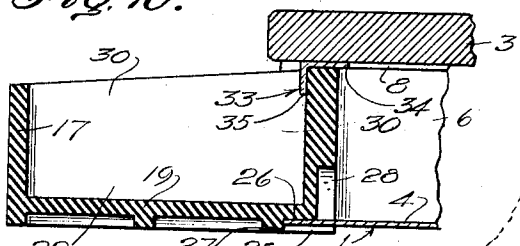


Fig. 2.

Fig. 3.

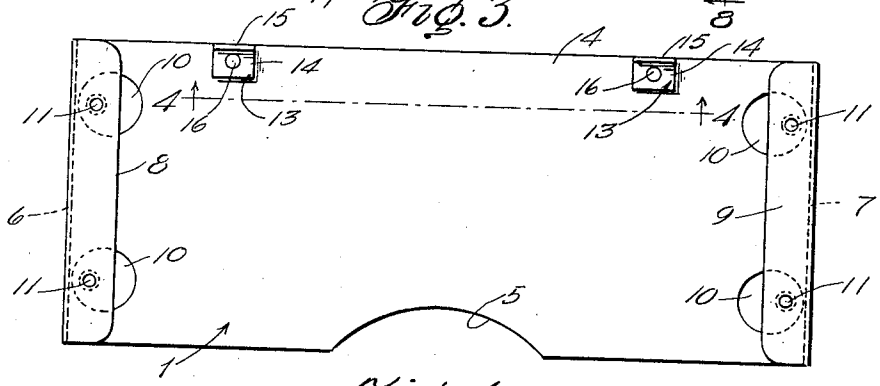
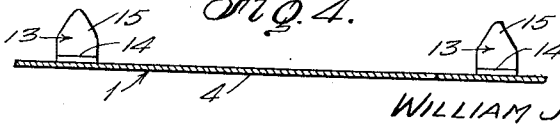


Fig. 4.



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Fig. 5.

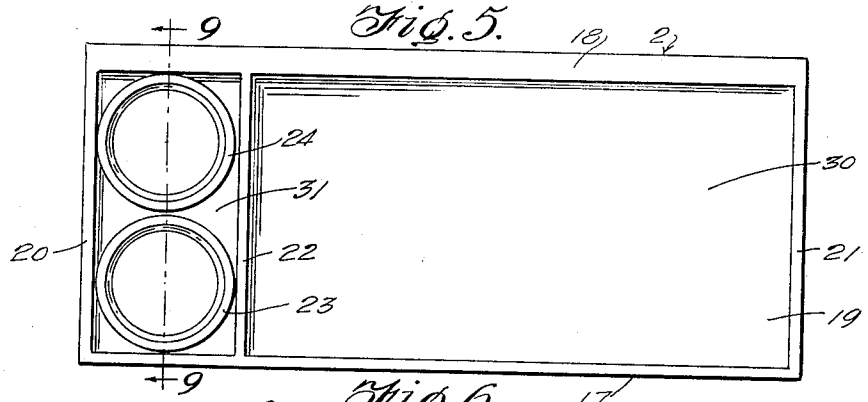


Fig. 6.

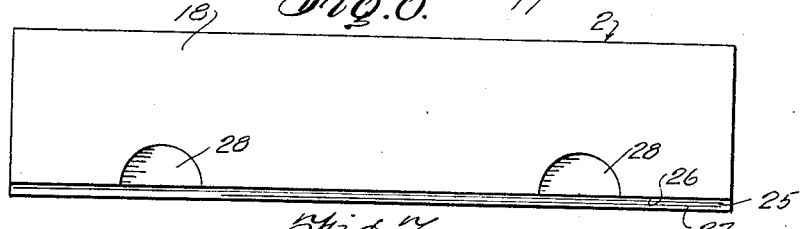


Fig. 7.

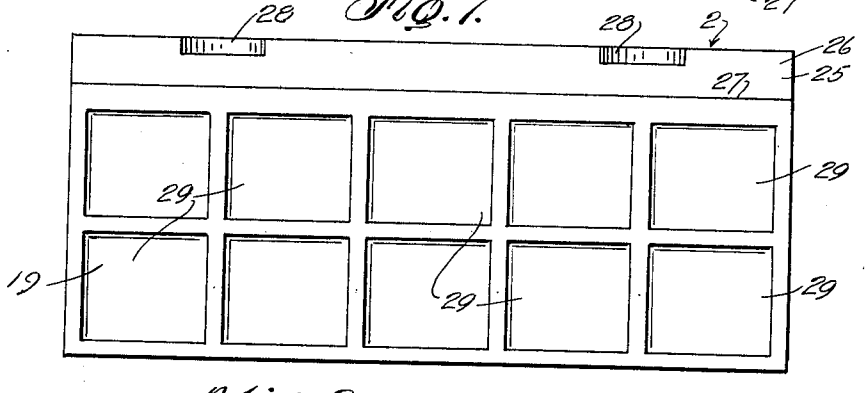


Fig. 8.

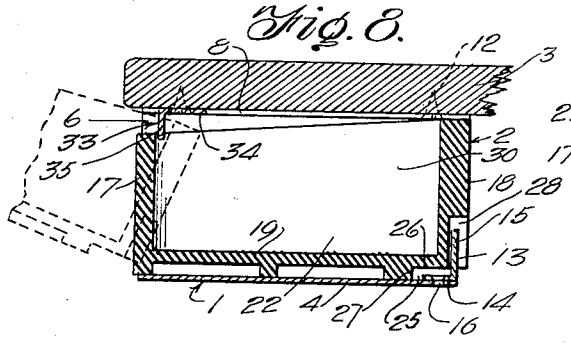
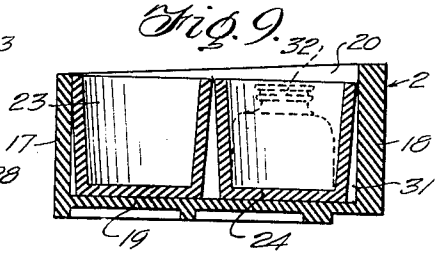


Fig. 9.



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2,176,782

STORAGE STRUCTURE

William James Bargen, Waukegan, Ill.

Application November 27, 1937, Serial No. 176,934

2 Claims. (Cl. 45—90)

This invention relates to a storage structure designed primarily for connection to and to be supported from desks of the classroom type but it will be understood however, that a storage structure, in accordance with this invention may be connected to and supported from other types of desks or other supports.

The invention has for its primary object to provide, in a manner as hereinafter set forth, a storage structure including a portable container element and a holder element for removably supporting the container element and with the container element constituting a storage means for any object for which it is found applicable, but more particularly for the storage of appliances, such as pens, pencils, crayons, ink bottles, ruler, brushes, water colors, drafting instruments, and other hand used implements employed by a student in a classroom and with the container element so formed as to enable the student to have quick access to the objects stored therein when desired.

The invention has for its further object to provide, in a manner as hereinafter set forth, to set up a portable container element throughout of resilient material to prevent chipping, marring and impairing thereof when it is removed from the holder element and seated on a support and when returned to and arranged within the holder element.

The invention has for its further object to provide, in a manner as hereinafter set forth, a storage structure for use by scholars in class rooms for storing appliances as aforesaid and including a container element constructed throughout from a material possessing a characteristic to deaden sound when objects are inserted or dropped into said element by a scholar to prevent the annoyance of sound to the teacher and other scholars.

A further object of the invention is to provide, in a manner as hereinafter set forth, a storage structure including a portable open top container element and a holder element for removably supporting the latter adapted to be anchored below and secured in suspended relation with respect to the lower face of a desk top adjacent an aisle edge of the latter, and with the structure including means for locking the container element extended into the aisle to permit of a student having convenient access to the contents thereof.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a storage structure for the purpose referred to which is comparatively simple in its construction and arrangement, strong, readily assembled, thoroughly efficient in its use, including a portable container element and a holder element and with said elements having means for conveniently moving the container element from the holder element, readily installed with respect to a desk or other support and comparatively inexpensive to manufacture.

The adaptation of the invention is illustrated by way of example with respect to a stationary desk top, but it is to be understood that it can be employed in connection with a hinged desk top or with any other suitable support therefor.

In the drawings:

Figure 1 is a side elevation of a storage receptacle in accordance with this invention showing the adaptation thereof with respect to a desk having a stationary top, the desk and its top being shown in dotted lines,

Figure 2 is a top plan view of the storage receptacle as applied to the lower face of a stationary desk top, the latter being shown in dotted lines,

Figure 3 is a top plan view of the holder element of the structure,

Figure 4 is a section on line 4—4, Figure 3,

Figure 5 is a top plan view of the container element of the structure,

Figure 6 is a side elevation of the container element of the structure,

Figure 7 is an inverted plan view of the container element of the structure,

Figure 8 is a section on line 8—8, Figure 2,

Figure 9 is a section on line 9—9, Figure 5,

Figure 10 is a fragmentary view in vertical section illustrating the container element in extended laterally suspended relation with a side edge of a desk top and the front of the holder element.

A storage structure in accordance with this invention includes an open top holder element and an open top container element generally indicated at 1, 2 respectively. Preferably, the holder element will be constructed throughout of sheet metal of the desired gauge. The container element will be constructed throughout of resilient material, preferably rubber. Normally, the container element is removably mounted in the holder element and supported by the latter. The holder element is to be fixedly secured to the lower face of a support and with reference to Figures 1, 2 and 8 the holder element 1 is shown by way of example as being fixedly secured to and depending from the lower face of a stationary desk top 3.

The holder element 1 includes a rectangular bottom portion 4 of the desired length and width and having its outer side edge formed with an

arcuate cutout 5. Each end of the bottom portion 4 merges into a vertically disposed end portion and such end portions are indicated at 6, 7. The height of the end portions 6, 7 is materially less than the length of the bottom portion 4. The end portions 6, 7 at their top are formed with inwardly extending flanges 8, 9 respectively. The bottom portion 4 at each end thereof is formed with a pair of spaced enlarged openings 10. The flanges 8, 9 are provided with spaced openings 11 for the passage of holdfast devices for the securing of the element 1 against the lower face of the desk top 3. One of such holdfast devices is shown in Figure 8 and indicated at 12. The openings 10 in the bottom portion 4 of the element 1 provides for the convenient access of disposing the holdfast devices 12 in anchoring position relative to the element 1. The bottom portion 4 has anchored upon its upper face a pair of upstanding spaced aligned angle-shaped stops 13 and each consists of a horizontal leg 14 and a vertical leg 15. The legs 14 are secured to the bottom portion 4 of element 1 by the holdfast means 16. The legs 15 of the stops 13 have their rear faces flush with the inner lengthwise edge of the bottom portion 4 of element 1. Preferably, the holder element 1 will be of rectangular contour in front elevation.

The container element 2 will correspond in contour to that of the element 1. The element 2 will be of such length with respect to the element 1 that when element 2 is positioned in element 1 for the purpose of being held by the latter, the flanges 8, 9 will extend over the top of the element 2 at the ends thereof. The element 2 consists of an outer section and a pair of inner sections. The inner sections are independent of each other and also independent of the outer section. The outer section includes a front side wall 17, a rear side wall 18, a bottom 19, a pair of end walls 20, 21 and a partition 22. The inner sections are receptacles and are of cup-like form opening at their tops and indicated at 23, 24.

The wall 17 has its top edge arranged below the top edge of the wall 18. The wall 17 is of less thickness than the wall 18. The partition is disposed transversely with respect to the outer section of element 2 and is arranged between the walls 17, 18 at a point between the transverse median of the outer section of element 1 and the end wall 20. The partition 22 merges into the walls 17, 18 and the bottom 19. The top edges of the walls 20, 21 and partition 22 incline upwardly from the top of wall 17 to the top of wall 18. The inner portion of the lower face of the bottom 19 is rabbeted, as at 25 and such rabbet extends throughout the bottom 19 from the outer face of the end wall 20 to the outer face of the end wall 21. The rabbet provides a horizontal wall 26 and a vertical wall 27. The walls 26, 27 provide respectively a seat or bearing and shoulder or abutment for a purpose to be referred to. The lower end of the wall 18 is flush with the wall 26 of the rabbet. The rabbet 25 provides a clearance for the stops 13 when the element 2 is mounted in the element 1. The outer face of the wall 18 in its lower portion is formed with a pair of spaced parallel vertically extending cutouts 28 opening at the bottom edge and outer face of such wall. When the element 2 is mounted in the element 1, the stops 13 extend into the cutouts 28 and the forward walls of such cutouts coact with the vertical legs 15 of the stops 13 to arrest a further inward movement of the element 2 relative to the element 1.

Forwardly of the wall 27 of the cutout 25 the lower face of the partition 19 is formed throughout with two rows of spaced parallel squared recesses 29 constituting suction chambers functioning when the element 2 is removed from element 1 and mounted on a support to create a vacuum whereby element 2 will be gripped to such support and prevent the accidental slipping or sliding of element 2 relative to the support on which it seats.

The partition divides the outer section of element 2 into the compartments 30, 31. The inner sections of element 2 are arranged in compartment 31 and each is adapted to receive a water color or other substance or a bottle of ink 32 as indicated in dotted lines with respect to the inner section 24. The height of the inner sections 23, 24 is less than the height of the end wall 20 and partition 22. The compartment 30 is for the storage of pens, pencils, crayons or other hand used implements employed by the student.

The storage structure includes an angle-shaped stop member 33 which is disposed in lengthwise relation with respect to the elements 1 and 2. The stop member 33 is of less length than the length of the compartment 30. The stop member 33 consists of a horizontally disposed leg 34 and a vertically extending leg 35 which depends from the outer side of the leg 34. The horizontal leg 34 of the member 33 is formed with spaced openings 36 for the passage of holdfast devices to secure it against the lower face of the desk top 3 or other support. When the element 2 is positioned within the holder element 1, the leg 35 of the member 33 will be positioned inwardly of and in close proximity to the wall 17 of the outer section of element 2. The leg 35 is arranged in the path of the wall 18 of the outer section of element 2 whereby element 2 cannot be removed from element 1 until element 2 is tilted in a manner as shown in Figure 8. The leg 35 also constitutes a top coacting with the wall 17 of the outer section of element 2 to arrest the inwardly shifting of element 2 if for some reason or other the legs 15 of the stop 13 do not perform their function.

The stop member 33 when the container element is mounted in the holder element is arranged over compartment 30 and is spaced from the partition 22 whereby the leg 35 does not engage the latter. Furthermore, the setting up in the manner as stated of the member 33 prevents any possible contact thereof with the sections 23, 24 of the container element.

When the holder element is secured to the desk top or other support the front of such element is to be disposed inwardly with respect to that edge of the desk top or support which is adjacent the front of the element.

When element 2 is mounted in element 1, the front of element 2 will not project outwardly with respect to the desk top and not interfere with a student passing that side of the desk top to which the element 1 is connected. The frame of element 2 is smooth throughout and free of any projections whatsoever.

The cutout 5 in connection with a recess 29 facilitates the removing of element 2 from element 1.

The element 1 is substantially of split band or yoke-like form.

The walls 26, 27 of the rabbet 25 are respectively a seat and a shoulder and coact with the front portion of the bottom 4 of element 1, the front edge of said bottom 4, the stop member 32

and the wall 18 of element 2 for locking the latter in outwardly extended relation with respect to the front of element 2 when the major portion of the latter is suspended in an aisle in the classroom. When element 2 is extended, as shown in Figure 10, the wall 26 of rabbet 25 will seat on bottom 4, the wall 27 of rabbet 25 will be positioned against the front edge of bottom 4 and the wall 18 of element 2 will bear against the stop 33. The resilient characteristic of element 2, when the latter is locked in its extended position as shown in Figure 10, will prevent the unlocking of element 2 when downward or upward pressure is applied against the extended portion of such element. The resilient characteristic of element 2, when the latter is suspended in lateral relation with respect to the desk top will prevent the tearing or holding of the clothes of one passing through the aisle and abutting such element. When the latter is extended as shown in Figure 10, the student will have convenient access to the appliances stored in the compartment.

The setting up of element 2 of gradually increasing height from front to rear facilitates the tilting thereof to the dotted line position (Figure 8) when it is desired to remove element 2 from the front of element 1.

The cup-shaped inner sections 23, 24 frictionally engage the walls of compartment 31 to prevent the shifting thereof when the element 2 is moved to extended position with respect to element 1, and also when element 2 is removed from element 1 and seated on the upper surface of the desk top or other support.

What I claim is:

1. In a storage receptacle, an open front rigid holder element including a bottom, a portable resilient open top container element removably mounted in and slidable relative to the holder element, said container element having the rear marginal part of the lower face of the bottom thereof rabbeted to provide said container bottom with a horizontal bearing and a vertical abutment depending from the forward end of the bearing, and a stop member depending in said container element, the said container element capable of having a portion thereof extending laterally from said front to provide for the mounting of said bearing on the outer part of the upper face of the bottom of the holder and said abutment to abut the front edge of the bottom of said holder, and said stop member coacting with the front of the rear part of the container element and with said abutment, bearing, the outer part of said bottom and the front edge of said bottom for locking said extended portion of the container element in suspended relation with respect to the front of the holder.

2. In combination, a support, a holder secured to and depending from the lower face of said support adjacent to an edge of the latter, said holder including a bottom and an open front, an open top resilient container including a pair of side walls, a front wall, a rear wall and a bottom, said container having the rear portion of its bottom of reduced thickness with respect to the front portion of such bottom to provide the lower face of said bottom with a bearing and an abutment, a stop depending from the lower face of said support into and near the open front of the holder, said stop coacting with said rear wall and said bearing and abutment coacting respectively with the front portion and front edge of the bottom of the holder for detachably securing the container in laterally extended relation with respect to the open front of the holder, said container having the upper edges of its side walls extending at an upward inclination from its front to its rear wall to provide for the tilting of the rear portion thereof inwardly relative to the front of the holder and said edge of the support, when the container is in such extended relation to permit of the removing of the container from the holder.

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