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(54) **MULTI-CONFIGURATIONAL SPORTS ORGANIZER**

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(57) **ABSTRACT**

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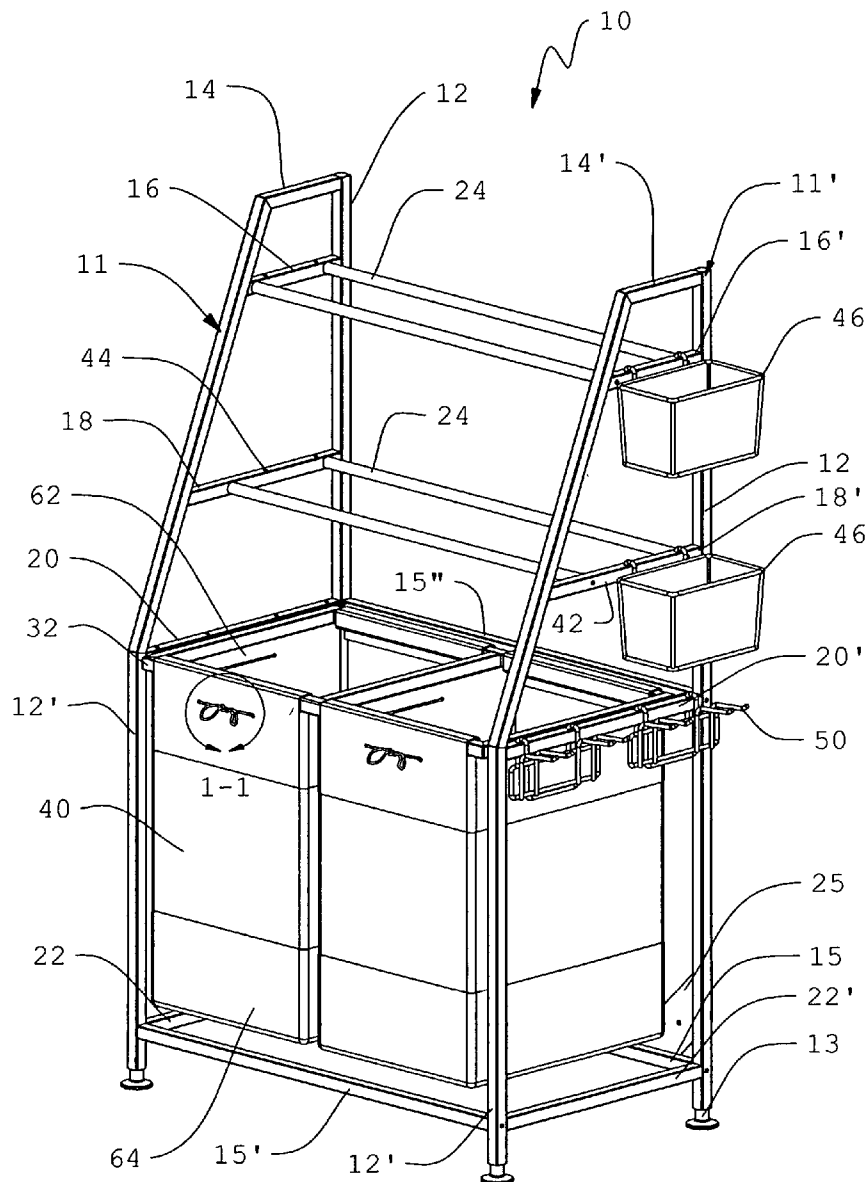
The present invention relates to a multi-configurational sports organizer capable of supporting sports equipment to encompass a wide range of sports, including miscellaneous odd shaped sporting items. The sports equipment organizer is adapted for easy individual storage personalization. The sports organizer allows access to the sporting goods from every direction around its perimeter. The sports equipment organizer also provides adequate ventilation to dry out sweaty or wet sporting goods. The sports equipment organizer also includes portable storage/carrier bags to allow a collection of sporting goods to be easily removed from the organizer and transported.

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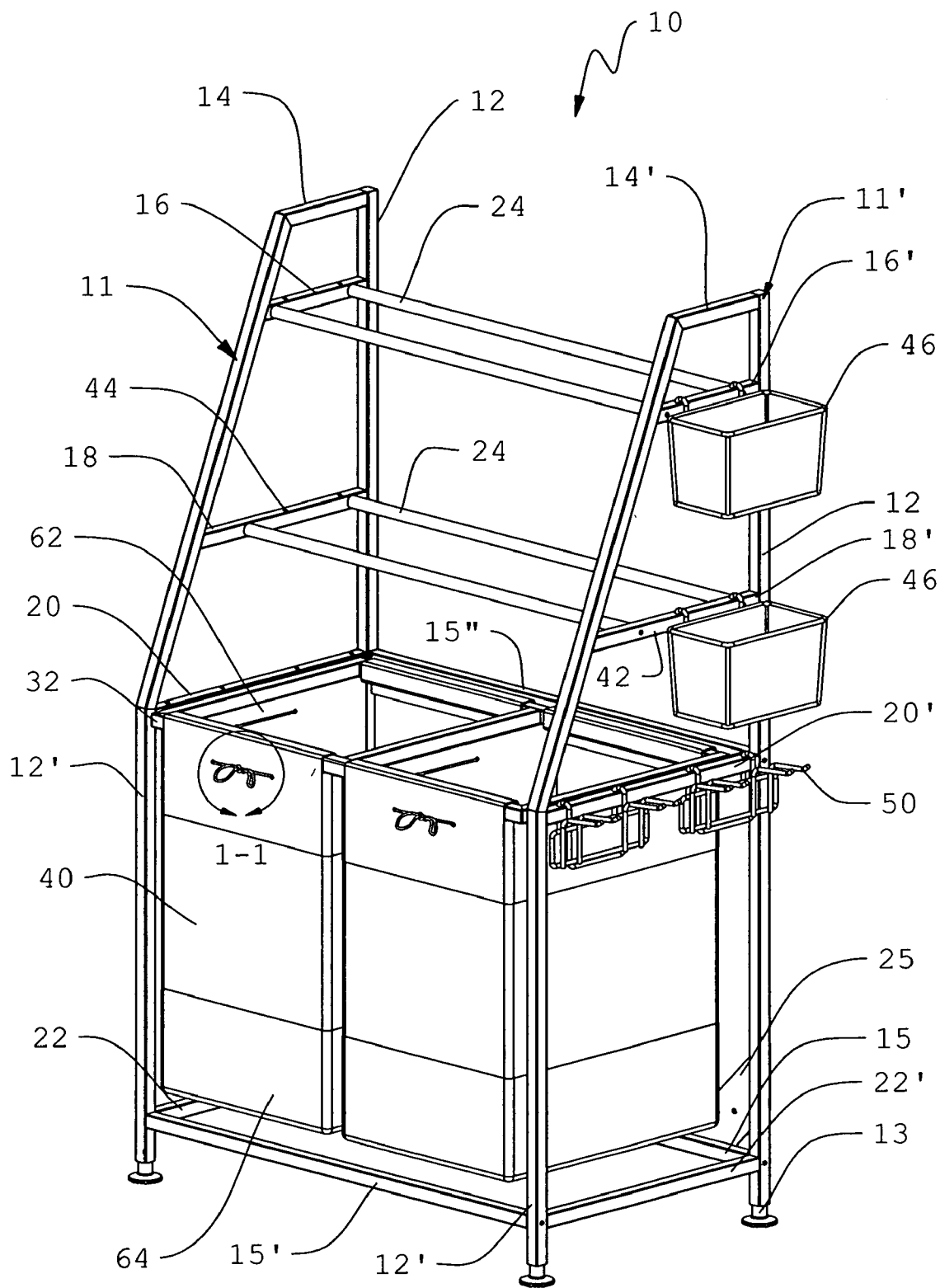


FIGURE 1

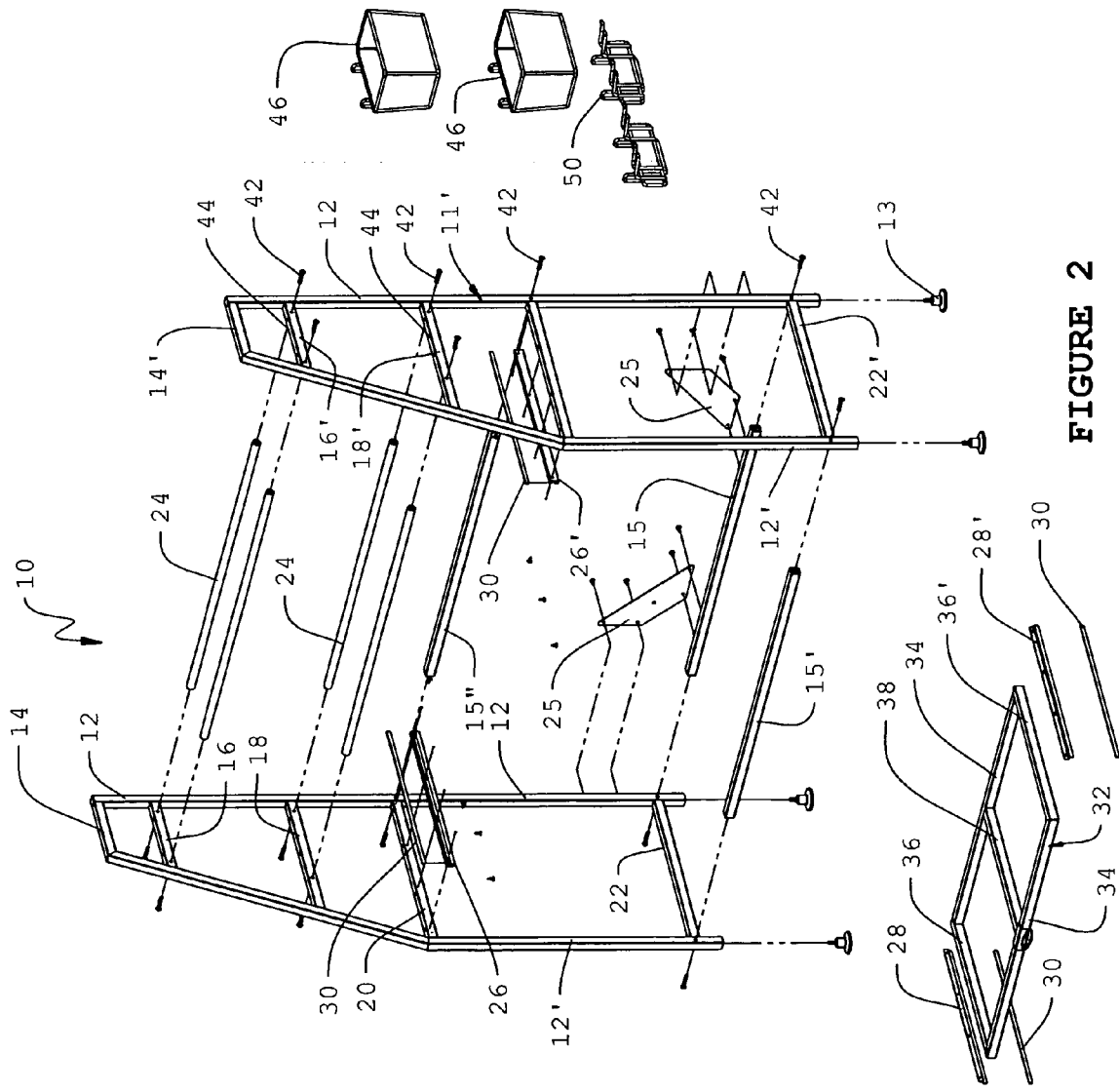


FIGURE 2

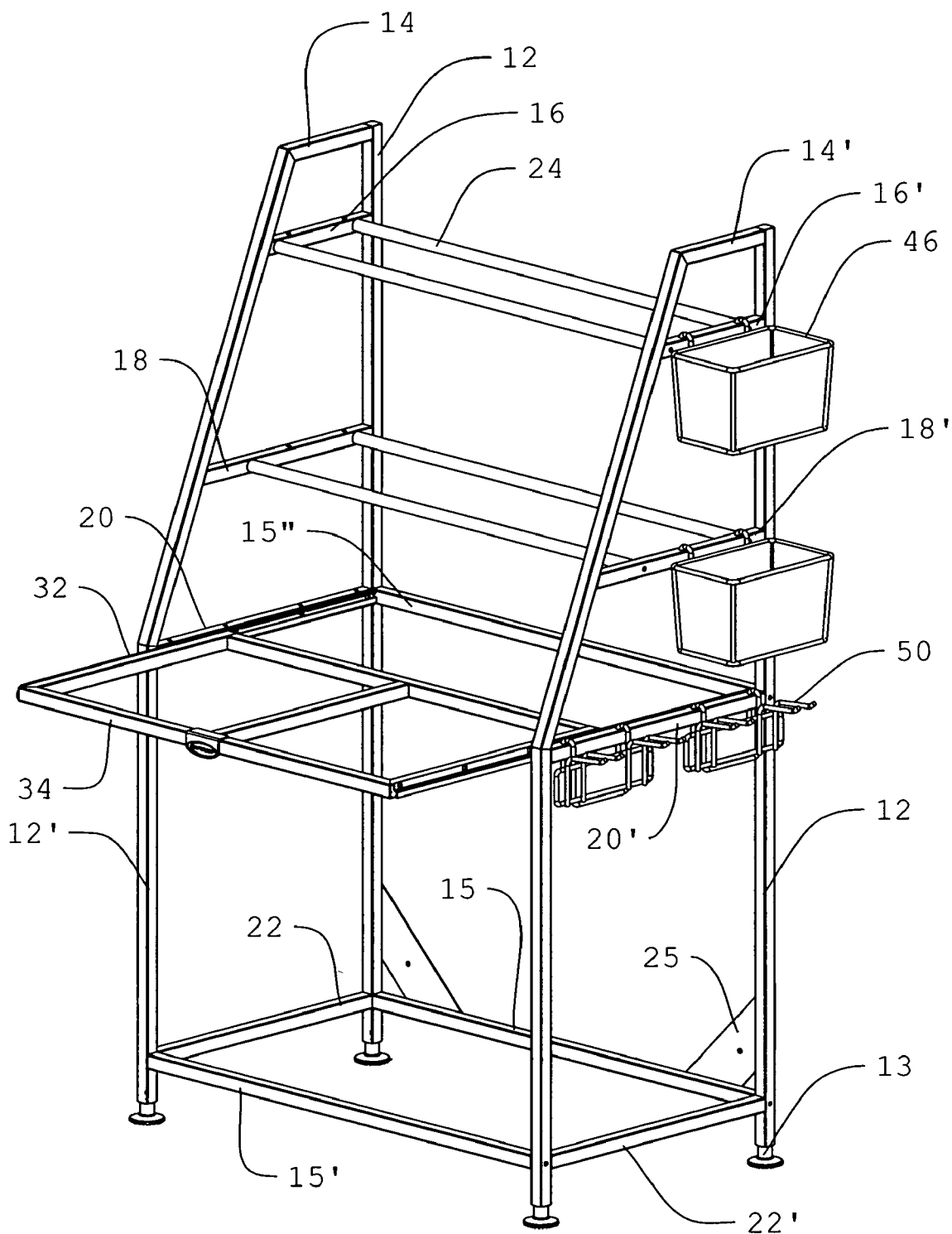


FIGURE 3

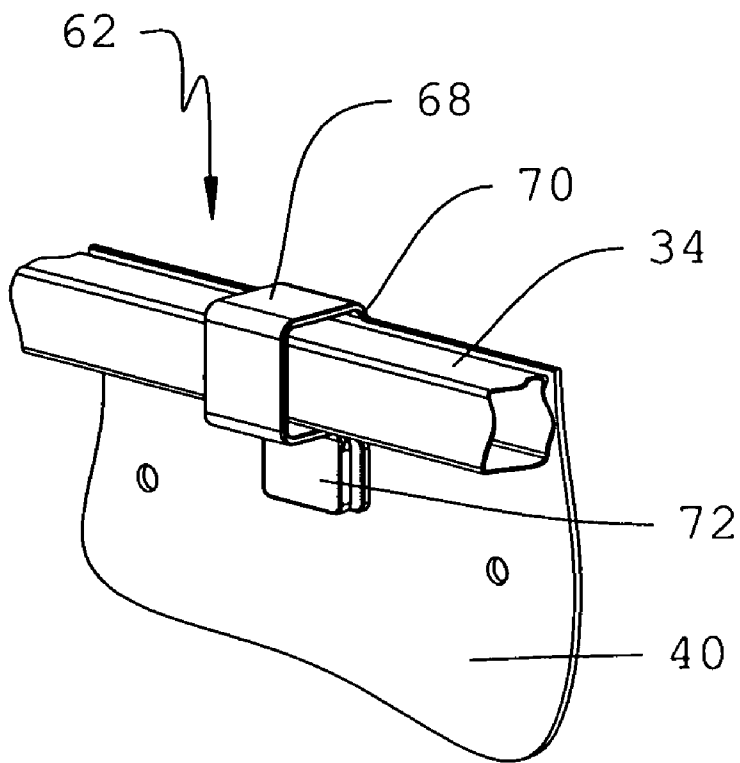


FIGURE 4

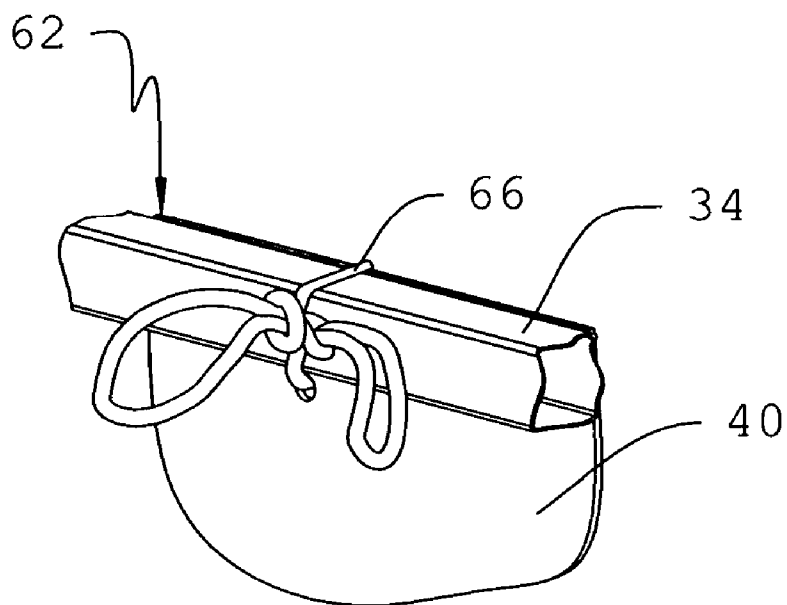


FIGURE 5

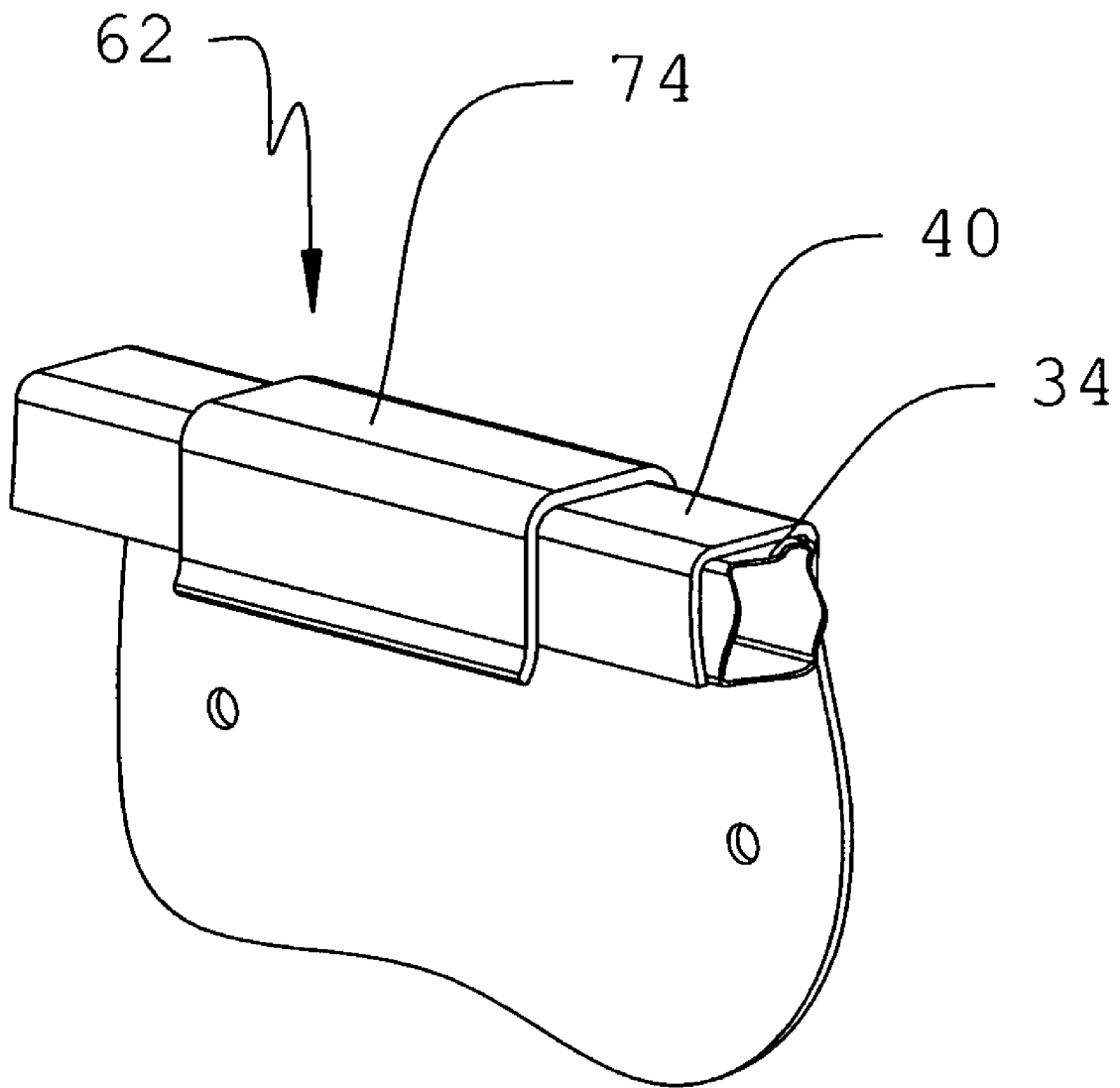


FIGURE 6

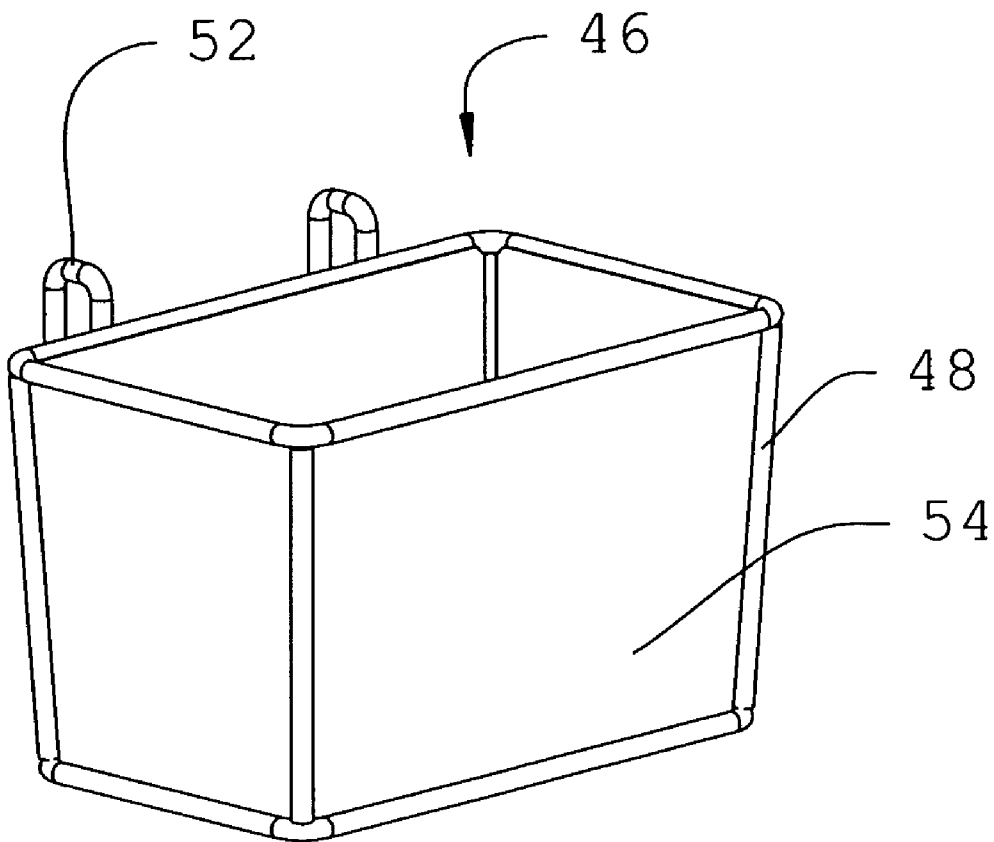


FIGURE 7

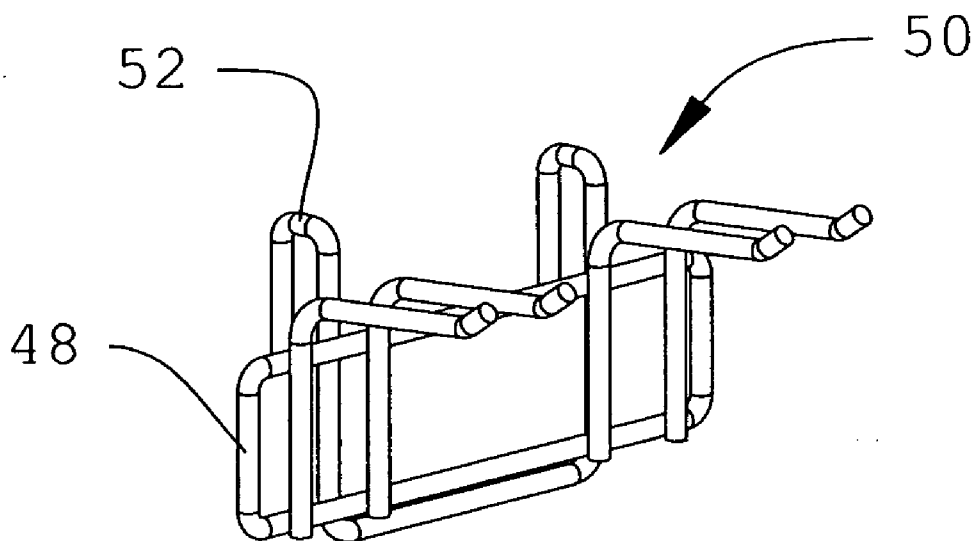


FIGURE 8

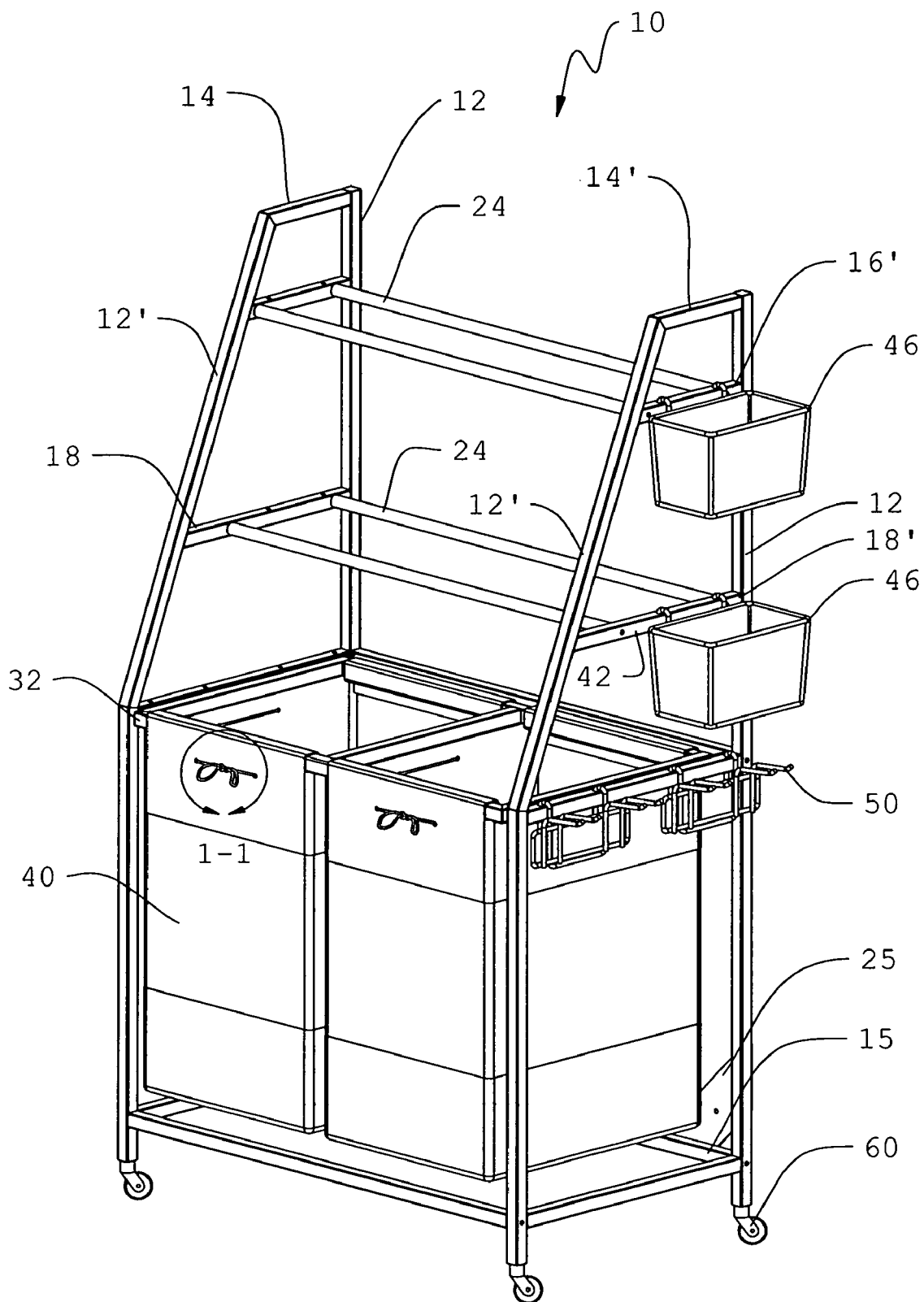


FIGURE 9

MULTI-CONFIGURATIONAL SPORTS ORGANIZER

FIELD OF THE INVENTION

[0001] This invention relates to storage devices and more particularly to a multi-configurational storage organizer utilizing interchangeable baskets and equipment supports for consumer preference storage of sporting equipment.

BACKGROUND OF THE INVENTION

[0002] Storage of sporting equipment presents a special problem to the average consumer. The problem is the multitude of shapes that sporting equipment entails. For instance, ball shaped items such as basketballs, volleyballs, baseballs, tennis balls, and so forth must all be stored in a manner to prevent them from rolling away. However, the average consumer typically owns more than a single sized ball, making a storage apparatus that is specifically designed to accommodate a single sized sporting item inappropriate.

[0003] Storage of such sporting goods on a conventional flat shelf also presents apparent problems. One problem is the need to prevent the aforementioned ball shaped items from rolling off the shelf. Even if shelf space is modified to secure a ball shaped item, the accompanying odd shaped items present additional problems. For instance, hockey sticks and baseball bats take up an inordinate amount of shelf space. Placing the items in a corner lends no form of organization or protection for either the item or an individual who may come in contact with a loose item. Improper storage of such items also makes it difficult for cleaning, allowing accumulation of spiders and dirt. Improperly stored items may also lead to early degradation, and with the cost of sporting equipment, proper storage is a necessity. All of these problems are compounded in a home having more than one child, for each child may have their own sporting equipment.

[0004] Sports organizers represented by the prior art typically are constructed to incorporate at least one planar wall structure to allow storage of a broad range of items.

[0005] For example, U.S. Pat. No. 5,203,462 teaches a sports equipment rack having a ball holder constructed from a tubular rod bent into U-shaped configurations providing support for ball shaped items wherein a rod continuance leads to an arcuate shaped leg providing a hook bracket for placement of a baseball bat in a horizontal position.

[0006] U.S. Pat. No. 5,413,228 teaches a sports storage rack having a slotted member for supporting a baseball bat and an indented member providing for positioning of a baseball.

[0007] U.S. Pat. No. 4,936,467 teaches a sports equipment rack which consists of two frame members spaced apart by telescoping members. The rod members allow items to be placed against the wall with hooks on the front of each frame to allow storage of gloves and caps. Brackets bolted to the side of the frame provide storage for baseball bats.

[0008] A disadvantage to this type of device is the use of the wall as a partial support which results in soiling of the wall. For instance, a basketball placed on the device is likely to impart marks on the adjoining wall leading to an unsightly

arrangement. Should the basketball be wet, it may not only soil the wall it may cause warpage of the wall.

[0009] In addition, many of these devices fail to provide a means for holding small items, or non-conforming items which may accompany a sporting activity, such as street hockey which employs hockey sticks, in-line skates and a hockey ball. Nondescript items are also difficult to store, such as frisbees and paddle rackets.

[0010] Other prior art devices utilize portable enclosures for storage of sports equipment. For example, U.S. Pat. No. 4,227,710 teaches a wheeled cart enclosure for carrying and storing baseball equipment. The enclosure includes shelves attached to a back panel with the shelves extending between side panel members extending at right angles to the back panel. A foldable stand extends away from the back panel to support the cart in an upright position for use as a bat rack and is folded to a storage position during movement of the cart.

[0011] U.S. Pat. No. 4,344,660 teaches a wheeled enclosure suitable for transporting equipment to be used by a baseball team. The cabinet includes an enclosure which is defined generally by a closed back, sides and bottom, openable front storage doors and by a top or upper hinged flap. The main compartment and front storage doors are further defined to provide specific areas for storage of baseball bats, catcher's equipment, baseballs, printed materials and accessory equipment. The cabinet includes a pair of wheels, a handle and hinged top and front doors to facilitate the movement of the cabinet when closed and to permit access to the stored materials.

[0012] This type of sports equipment organizer also has a number of disadvantages. First, the planar walled enclosures are generally heavy thereby reducing their portability. Second, the solid rear panel and side walls only allow the stored sporting goods to be accessed from the front area. Third, the enclosures are not ventilated, thereby trapping moisture inside and increasing the likelihood of bacteria and mold growth inside the enclosure.

[0013] In addition, the prior art fails to provide a sports equipment organizer that organizes a broad array of sports equipment, and provides a means of removing a collection of the stored equipment for transportation.

[0014] Thus, what is lacking in the art is a multi-configurational sports organizer capable of supporting sports equipment to encompass a wide range of sports, including miscellaneous odd shaped sporting items. The sports equipment organizer should be adapted for easy individual storage personalization. The sports organizer should allow access to the sporting goods from every direction around its perimeter. The sports organizer should also provide adequate ventilation to dry out sweaty or wet sporting goods. The sports organizer should also include portable storage/carrier bags to allow a collection of sporting goods to be easily removed from the organizer and transported.

SUMMARY OF THE INVENTION

[0015] It is an objective of the invention to provide a multi-configurational sports equipment organizer.

[0016] It is another objective of the invention to provide a multi-configurational sports equipment organizer that is easy to modify and readily adapts to consumer needs.

[0017] It is still another objective of the invention to provide a sports equipment organizer which provides excellent visibility of the stored sporting equipment.

[0018] It is a further objective of the invention to provide a sports equipment organizer which provides access to the sports equipment from all four sides.

[0019] It is still a further objective of the invention to provide a sports equipment organizer that provides easy and quick reconfiguration using modular sports equipment supports that may be secured to the organizer without fasteners.

[0020] In accordance with the above objectives, a multi-configurational sports equipment organizer is provided. The sports equipment organizer comprises at least two vertical side frames each having two spaced apart vertically extending end posts and a plurality of transverse horizontal attachment tubes immovably secured between the end posts of the side frames. The vertical side frames are interconnected together in spaced, parallel relationship by a plurality of lower connecting cross-frames secured between respective vertical end posts. A plurality of horizontal shelf supports extend between the side frames for supporting various sized sports balls and a variety of modular sports equipment support accessories are removably supported along the attachment tubes without the need for fasteners. A pair of flexible sports equipment carriers are removably mounted within a drawer frame member that extends between the vertical end frames. The drawer frame member slides inwardly and outwardly to permit the flexible carriers to be easily removed and reinserted within the drawer frame.

[0021] As compared to the prior art, the sports equipment organizer has many versatile features that allow the organizer to be personally configured for numerous sports. The system is modular in that all components work together to create a total sports equipment organizer with several options. The sports equipment organizer provides high visibility of the stored equipment and allows access to the equipment from all directions. The horizontal shelf supports are quick and easy to adjust for adaptation to different sporting equipment. The sports carriers are constructed of a flexible material that easily adapts to hold any variety of sports equipment and are removably mounted within the outwardly slidable drawer frame for easy removal and replacement. The flexible material is breathable to reduce bacteria and mold growth within moist or wet sporting equipment. The modular equipment support accessories have a unique locking design feature which allows attachment without fasteners and prevents the accessories from disengaging upon an impact.

BRIEF DESCRIPTION OF THE FIGURES

[0022] FIG. 1 is a perspective view showing the multi-configurational sports equipment organizer constructed in accordance with the present invention and utilizing a variety of removably mounted equipment support accessories;

[0023] FIG. 2 is an exploded perspective view showing the multi-configurational sports equipment organizer constructed in accordance with the present invention;

[0024] FIG. 3 is a further perspective view showing the multi-configurational sports equipment organizer of the present invention illustrating the slidingly mounted drawer frame mechanism;

[0025] FIG. 4 is a partial perspective view along lines 1-1 of FIG. 1, illustrating one means of attaching the flexible sports carriers within the drawer frame mechanism of the instant invention;

[0026] FIG. 5 is a partial perspective view along lines 1-1 of FIG. 1, illustrating one means of attaching the flexible sports carriers within the drawer frame mechanism of the instant invention;

[0027] FIG. 6 is a partial perspective view along lines 1-1 of FIG. 1, illustrating one means of attaching the flexible sports carriers within the drawer frame mechanism of the instant invention;

[0028] FIG. 7 is a perspective view showing the construction of a basket-type support accessory provided with integrally formed wire hooks;

[0029] FIG. 8 is a perspective view showing the construction of a support accessory provided with integrally formed wire hooks;

[0030] FIG. 9 is a perspective view similar to FIG. 1 but showing the sports equipment organizer supported on casters for displacement thereof.

DETAILED DESCRIPTION OF THE INVENTION

[0031] Although the invention will be described in terms of a specific embodiment, it will be readily apparent to those skilled in this art that various modifications, rearrangements, and substitutions can be made without departing from the spirit of the invention. The scope of the invention is defined by the claims appended hereto.

[0032] Referring now to the drawings and more particularly to FIGS. 1 and 2, there is shown generally a multi-configurational sports equipment organizer 10 constructed in accordance with the present invention. The equipment organizer includes at least two vertical side frames 11 and 11' each having two spaced apart vertically extending corner posts 12 and 12'. The side frames 11 and 11' are substantially identical with respect to each other and are mirror images of each other. The corner posts 12 and 12' are interconnected at a top end by transverse horizontal members 14 and 14', herein illustrated as an integrally formed transverse portion of a rigid tube constituting one of the vertically extending corner posts 12 and 12'. The corner posts 12 and 12' are interconnected at a bottom end by a transverse horizontal member 22. Also interconnecting the vertically extending corner posts are a plurality of transverse horizontal attachment tubes 16 through 20 immovably secured in a spaced relationship between the rearward corner post 12 and the forward corner post 12'. The attachment tubes are provided with apertures 44 integrally formed therein for removably attaching equipment support accessories. Each end post 12 and 12' also include an adjustable foot member 13. The foot members 13 are preferably threadedly secured within the lower end of the corner posts to allow upward and downward adjustment thereof. The adjustment of the foot members allows the sports organizer to be easily stabilized on flat as well as irregular surfaces.

[0033] The vertical side frames 11 and 11' are interconnected together in spaced generally parallel relationship by at least two connecting cross-bars 15, 15' secured between a

respective common one of the corner posts 12 and 12' of the pair of vertical side frames 11 and 11'. To add strength and rigidity to the assembly, a pair of gusset members, illustrated as gusset plates 25 connect between the lower connecting cross-bar 15 and the corner posts 12. In a most preferred embodiment the side frames are interconnected by three connecting cross-bars 15, 15' and 15" for additional strength and rigidity.

[0034] A plurality of shelf supports 24 are secured between the respective horizontal attachment tubes 16, 16' and 18, 18' interconnecting the upper portion of the side frames 11 and 11'. The shelf supports 24 may be adjustable along a horizontal plane to hold and keep various sized balls or other sporting goods, the adjustment maintaining the shelf supports in a parallel horizontal plane. In the preferred embodiment the shelf supports extending between horizontal attachment tubes 16 and 16' are adjusted to support smaller sporting paraphernalia such as footballs, softballs and so forth while the shelf supports extending between attachment tubes 18 and 18' are adjusted to support larger sporting goods such as basketballs, volleyballs and the like. The cross-bars 15 and shelf supports 24 are attached to the side frames 11 and 11' with fasteners such as screws 42 suitable for ease and rapidity of installation and removal.

[0035] Referring to FIGS. 2 and 3, the slidingly mounted drawer frame mechanism is illustrated. The rectangularly shaped drawer frame 32 generally includes like constructed front and back members 34, like constructed left and right side members 36, 36' and a divider member 38. The side, front, back and divider members are preferably secured together by weldment to form the drawer frame 32. The divider is positioned generally at the midpoint of the back member extending to the front member. It should be noted that other fastening methods well known in the art suitable for attaching tubular components together may also be used.

[0036] Horizontal attachment tubes 20 and 20' each include a drawer slide track 26 and 26' secured thereto. The drawer slide tracks are constructed and arranged to cooperate with drawer slide rails 28 and 28' mounted to the left and right side members 36 and 36' of drawer frame 32 in a manner well known in the art. The slide rails are suitably secured to drawer frame 32 to allow the frame to be slid outwardly for easy removal and reinsertion of the flexible equipment carriers 40 (FIG. 1). The drawer slide tracks 26, 26' and drawer slide rails 28 and 28' each include a linear bearing 30 to facilitate linear translation of the drawer without binding.

[0037] Referring to FIGS. 4-6, several means of removably securing flexible equipment carriers 40 (FIG. 1) within the drawer frame 32 are shown. The flexible carriers 40 each include a first closable end 62 and a second closed end 64. The first end 62 generally including a means for removably attaching the flexible equipment carrier 40 to the drawer frame in an open position. In one embodiment, the means for removably securing the flexible equipment carrier within the drawer frame includes a plurality of tie strings 66 (FIG. 5) attached in a spaced arrangement around the perimeter of the first end 62 of the flexible carrier 40. The tie strings 66 are constructed and arranged for tied securement around a portion of the drawer frame 32. An alternative means for removably attaching the flexible equipment carriers 40 to the drawer frame includes flexible straps 68 (FIG. 4) having a

suitable length to extend around a portion of the drawer frame. The flexible straps 68 include a first end 70, attached in a spaced arrangement around the perimeter of the first end 62 of the flexible carrier 40, and a second end 72 which may include hook and loop, snaps or other fasteners well known in the art. Yet another alternative means of removably attaching the flexible equipment carriers 40 to the drawer frame 32 includes a plurality of clips 74 (FIG. 6). The clips 74 may be constructed of plastic or metal by methods well known in the art. The clips 74 are constructed and arranged to slide over a portion of the drawer frame 32 and a portion of the flexible equipment carrier 40 to hold the equipment carrier in an open position. The flexible equipment carriers 40 are preferably constructed of a flexible or mesh type material. The flexible material should also be constructed and arranged to allow air to flow through the sporting equipment within the carriers.

[0038] Referring to FIGS. 7 and 8, a plurality of sports equipment support accessories generally illustrated as a basket 46 and fixed peg support 50 are illustrated. The support accessories are constructed and arranged for removable attachment to the apertures 44 in the horizontal attachment tubes 16-20. These accessories are preferably formed from wire rod 48 with cross-wires resistance welded together at their intersections, as is well known in the art. Further, all of these accessories include integrally formed wire hook ends 52 which may vary in configuration depending on the accessory and its interconnection with the sports organizer. The construction of the wire hook ends 52 allow the accessories to be attached to the attachment tube apertures 44 without fasteners by merely inserting the hook into the aperture and sliding the accessory downward. This construction permits end user to rearrange the sports equipment organizer with a plurality of equipment support accessories to suit a particular need. The wire basket 46 may include a flexible liner 54. The flexible liner is constructed and arranged for removal from the wire basket 46 to allow small sporting items to be transported in a group.

[0039] Referring to FIG. 9, the sports equipment organizer is illustrated including casters 60 secured to the bottom of the vertically extending posts 12 and 12' of each of the vertical side frames 11 and 11'. The casters 60 permit the sports organizer to be easily moved from one location to another. The casters may also be provided with brakes (not shown) for securing the equipment organizer in place.

[0040] A sports equipment organizer has been shown and described. The wire and tubing construction of the sports organizer 10 allows light to permeate through the entire organizer making all of the organized equipment visible. The construction also allows air to flow through the organizer allowing moist or wet equipment to dry. The construction also has the added advantage of allowing access to the sports equipment from all sides.

[0041] All patents and publications mentioned in this specification are indicative of the levels of those skilled in the art to which the invention pertains. All patents and publications are herein incorporated by reference to the same extent as if each individual publication was specifically and individually indicated to be incorporated by reference.

[0042] It is to be understood that while a certain form of the invention is illustrated, it is not to be limited to the

specific form or arrangement herein described and shown. It will be apparent to those skilled in the art that various changes may be made without departing from the scope of the invention and the invention is not to be considered limited to what is shown and described in the specification.

[0043] One skilled in the art will readily appreciate that the present invention is well adapted to carry out the objectives and obtain the ends and advantages mentioned, as well as those inherent therein. The embodiments, methods, procedures and techniques described herein are presently representative of the preferred embodiments, are intended to be exemplary and are not intended as limitations on the scope. Changes therein and other uses will occur to those skilled in the art which are encompassed within the spirit of the invention and are defined by the scope of the appended claims. Although the invention has been described in connection with specific preferred embodiments, it should be understood that the invention as claimed should not be unduly limited to such specific embodiments. Indeed, various modifications of the described modes for carrying out the invention which are obvious to those skilled in the art are intended to be within the scope of the following claims.

What is claimed is:

1. A multi-configurational sports equipment organizer comprising:

at least two vertical side frames, each side frame including two spaced-apart vertically extending corner posts, said corner posts being interconnected at a top end by a transverse top horizontal member, said corner posts being interconnected at a bottom end by a transverse bottom horizontal member;

a first cross-bar for securing said vertical side frames in a spaced generally parallel relationship, said first cross-bar extending between and secured to a respective forward corner post of each said side frame;

a second cross-bar for securing said vertical side frames in a spaced generally parallel relationship, said second cross-bar extending between and secured to a respective rearward corner post of each said side frame;

a first transverse horizontal attachment tube extending between and secured to said forward and said rearward corner posts at an upper portion of each said side frame, said first attachment tube adapted for attachment of an upper shelf;

a first pair of shelf support members for forming an upper shelf, said first pair of shelf support members extending between and secured to said first attachment tubes, said first pair of shelf support members spaced apart and positioned in horizontal alignment with respect to each other for supporting sports equipment;

a second transverse horizontal attachment tube extending between and secured to said forward and said rearward corner posts at about a mid portion of each said side frame, said second attachment tube adapted for attachment of a drawer frame member;

a drawer frame member extending between and slidingly secured to said second attachment tubes, said drawer frame member constructed and arranged to support at least one flexible equipment carrier in an open position, and

at least one flexible equipment carrier removably secured to said drawer frame member, said flexible carrier including a first closable end and a second closed end, said first end including a means for attaching said flexible equipment carrier to said drawer frame in an open position, wherein sports equipment may be placed in said flexible carrier.

2. The sports equipment organizer according to claim 1 including a third transverse horizontal attachment tube extending between and secured to said forward and said rearward corner posts of each said side frame, said third attachment tube positioned between said first horizontal attachment tube and said second horizontal attachment tube, said third attachment tube adapted for attachment of a lower shelf;

a second pair of shelf support members for forming a lower shelf, said second pair of shelf support members positioned in horizontal alignment with each other and secured to said third attachment tubes and extending between said side frames at an upper portion thereof, wherein said second pair of shelf support members are constructed and arranged for supporting sports equipment.

3. The sports equipment organizer according to claim 1 wherein said flexible equipment carrier is constructed of a breathable material.

4. The sports equipment organizer according to claim 1 wherein said flexible equipment carrier is constructed of a mesh material.

5. The sports equipment organizer according to claim 1 wherein said drawer frame member includes a divider member extending between and secured to about the midpoint of a front frame member and a back frame member, wherein said drawer frame member is divided into two substantially equally sized frames, wherein said drawer frame member is constructed and arranged to hold a first end of two flexible carriers in an open position.

6. The sports equipment organizer according to claim 5 including two flexible equipment carriers removably secured to said drawer frame member, said flexible carriers including a first closable end and a second closed end, said first end including a means for attaching said flexible equipment carriers to said drawer frame in an open position, wherein sports equipment may be placed in said flexible carriers.

7. The sports equipment organizer according to claim 1 wherein said means for attaching said flexible equipment carriers to said drawer frame in an open position includes a plurality of tie strings constructed and arranged for tied securement around a portion of said drawer frame, wherein said plurality of tie strings are attached in a spaced arrangement around a perimeter of said first end of said flexible carrier.

8. The sports equipment organizer according to claim 1 wherein said means for attaching said flexible equipment carriers to said drawer frame in an open position includes a plurality of straps constructed and arranged for securement to said drawer frame, said straps having a first end attached around a perimeter of said first end of said flexible carrier, said straps having a second end, wherein said second end extends around a portion of said drawer frame and attaches to said first end of said flexible carrier via hook and loop.

9. The sports equipment organizer according to claim 1 wherein said means for attaching said flexible equipment

carriers to said drawer frame in an open position includes a plurality of straps constructed and arranged for securement to said drawer frame, said straps having a first end attached around a perimeter of said first end of said flexible carrier, said straps having a second end, wherein said second end extends around a portion of said drawer frame and attaches to said first end of said flexible carrier via a snap member.

10. The sports equipment organizer according to claim 1 wherein said means for attaching said flexible equipment carriers to said drawer frame in an open position includes at least one metal clip constructed and arranged for securing said first end of said flexible carrier to said drawer frame, wherein said at least one metal clip extends partially around a portion of said drawer frame and said first end of said flexible carrier thereby securing said flexible carrier in an open position.

11. The sports equipment organizer according to claim 1 wherein said vertically extending corner posts have a generally square cross-section.

12. The sports equipment organizer according to claim 1 wherein said vertically extending corner posts have a generally round cross-section.

13. The sports equipment organizer according to claim 1 wherein said transverse top horizontal member and said end posts are integrally formed by a bent metal tube.

14. The sports equipment organizer according to claim 2 wherein said first, said second, and said third attachment tubes are provided with apertures integrally formed therein for attaching equipment support accessories thereto, wherein said accessories may be attached to said attachment tubes without separate fasteners.

15. The sports equipment organizer according to claim 14 including at least one wire rod basket, said basket having integrally formed hooks for attachment to said apertures in said horizontal attachment tubes, wherein said at least one wire basket is removably securable to said first, said second, and said third horizontal attachment tube, whereby a plurality of said wire rod baskets may be attached to said sports equipment organizer in multiple configurations.

16. The sports equipment organizer according to claim 14 including at least one fixed peg support, said fixed peg support having integrally formed hooks for attachment to said apertures in said horizontal attachment tubes, wherein said at least one fixed peg support is removably securable to said first, said second, and said third horizontal attachment tube, whereby a plurality of said fixed peg supports may be attached to said sports equipment organizer in multiple configurations.

17. The sports equipment organizer according to claim 1 including a caster secured to a bottom end of each of said vertically extending corner posts.

18. The sports equipment organizer according to claim 1 wherein said second cross-bar for securing said vertical side frames in a spaced generally parallel relationship includes a pair of gusset members, each said gusset member including a first end and a second end, wherein said first ends of said gusset members are secured to each distal end of said cross-bar and wherein said second end of said gusset members are secured to a respective rearward corner post of each said side frame.

* * * * *