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(19) **United States**(12) **Patent Application Publication**
Durand et al.(10) **Pub. No.: US 2004/0217677 A1**(43) **Pub. Date: Nov. 4, 2004**(54) **MOBILE FURNITURE AND ACCESSORY SYSTEM**(76) Inventors: **James M Durand**, DePere, WI (US);
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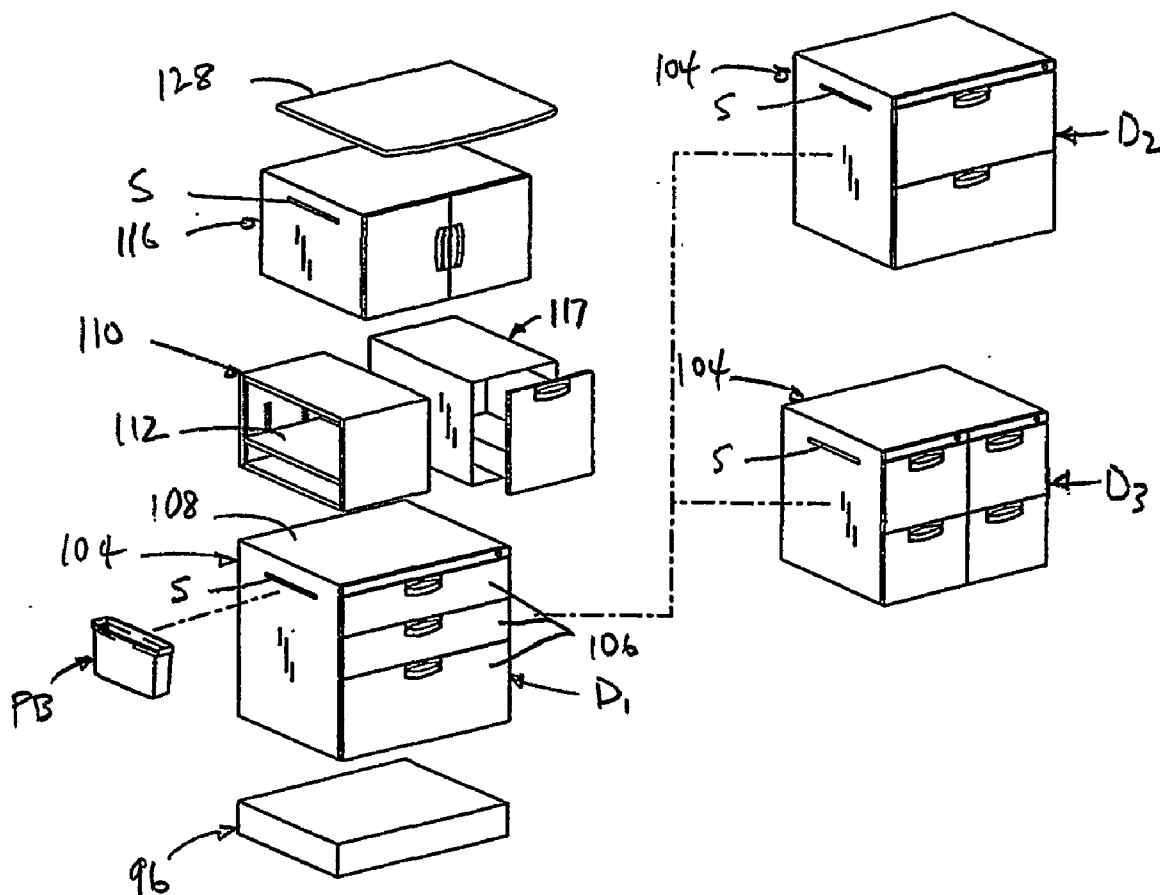
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Milwaukee, WI 53202 (US)(21) Appl. No.: **10/479,683**(22) PCT Filed: **Jun. 7, 2002**(86) PCT No.: **PCT/US02/18281****Related U.S. Application Data**

(60) Provisional application No. 60/297,189, filed on Jun. 8, 2001.

Publication Classification(51) **Int. Cl.⁷ A47B 87/00**(52) **U.S. Cl. 312/108**(57) **ABSTRACT**

A mobile furniture and accessory system for an office environment includes storage components, table or desk components, screen or partition components, paper management components, marker board components, computer support furniture and the like, for use in facilitating flexibility in manufacturing such components to user specifications and in arranging such components according to user requirements.



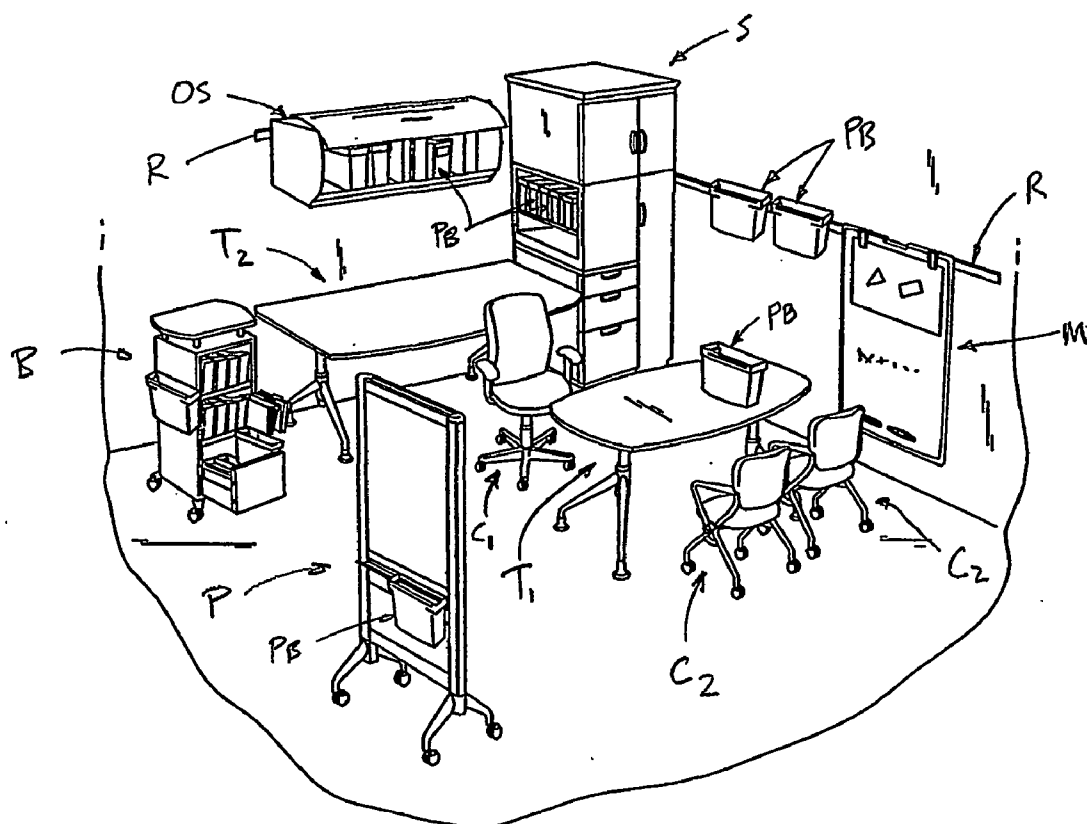
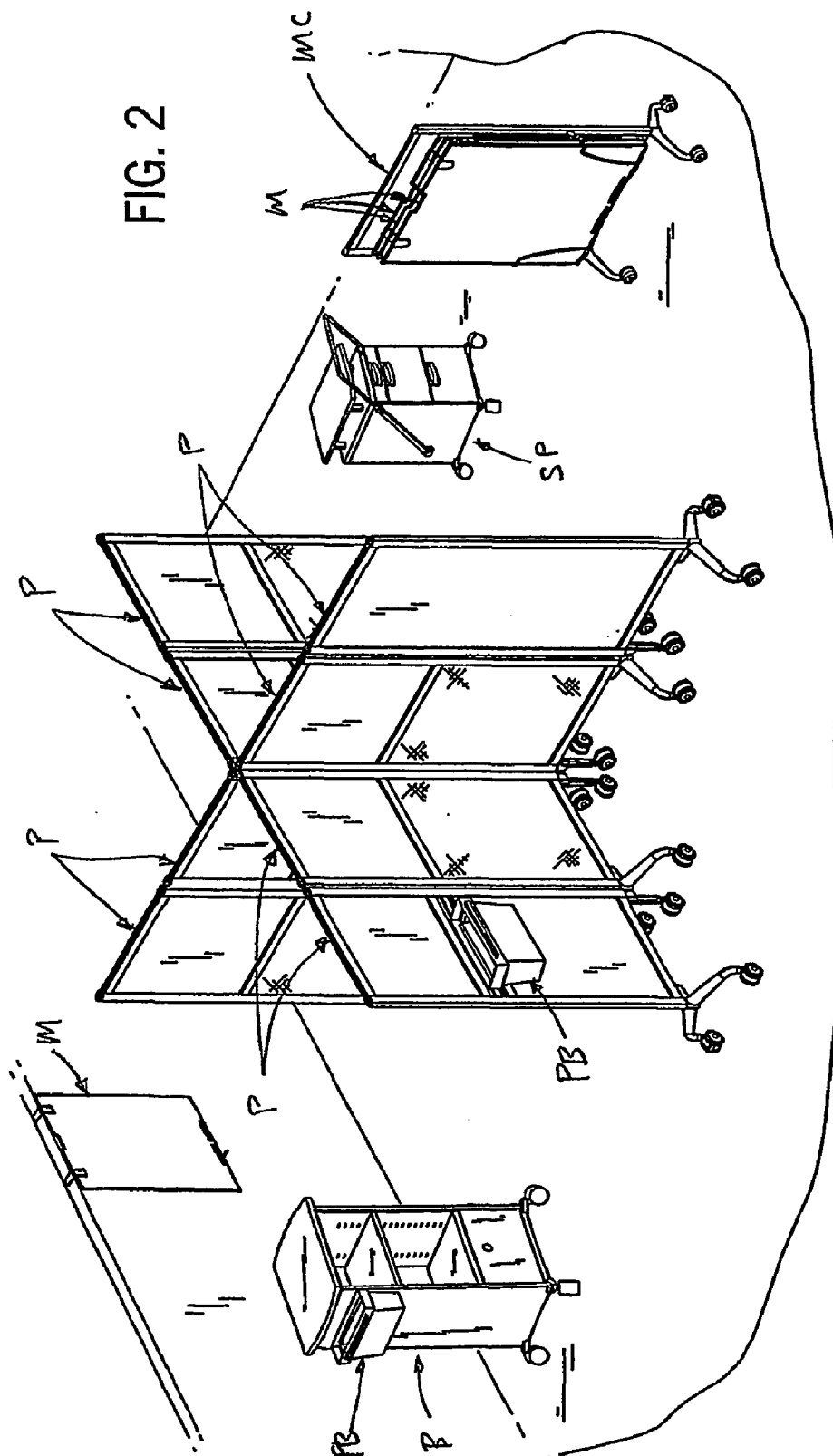
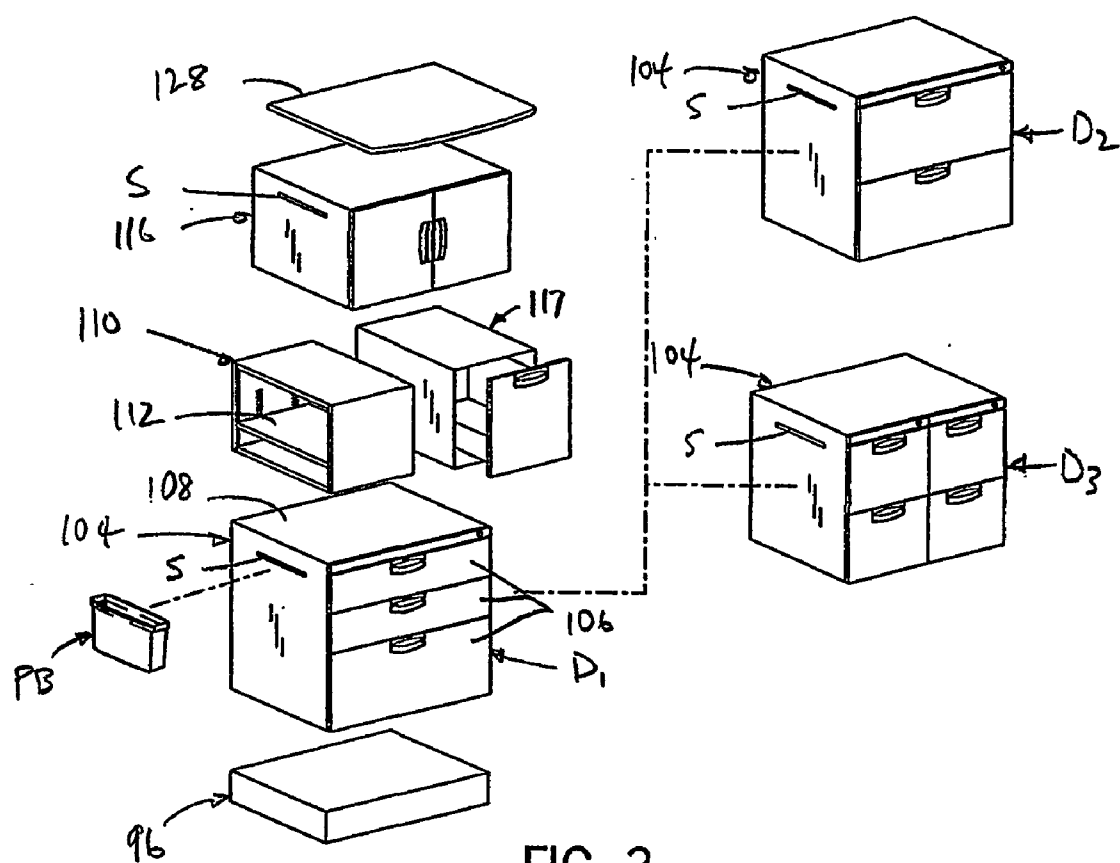


FIG. 1

FIG. 2





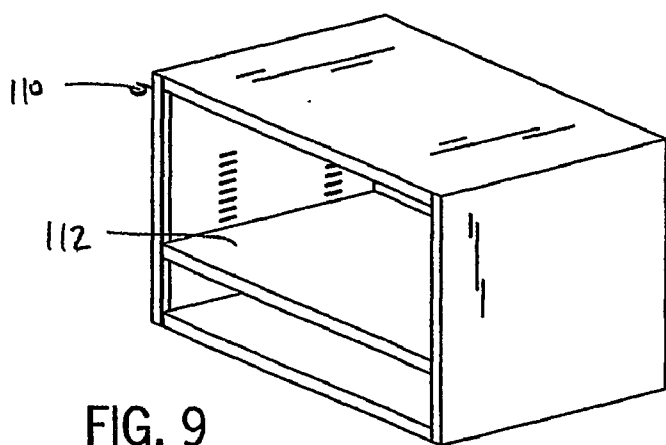
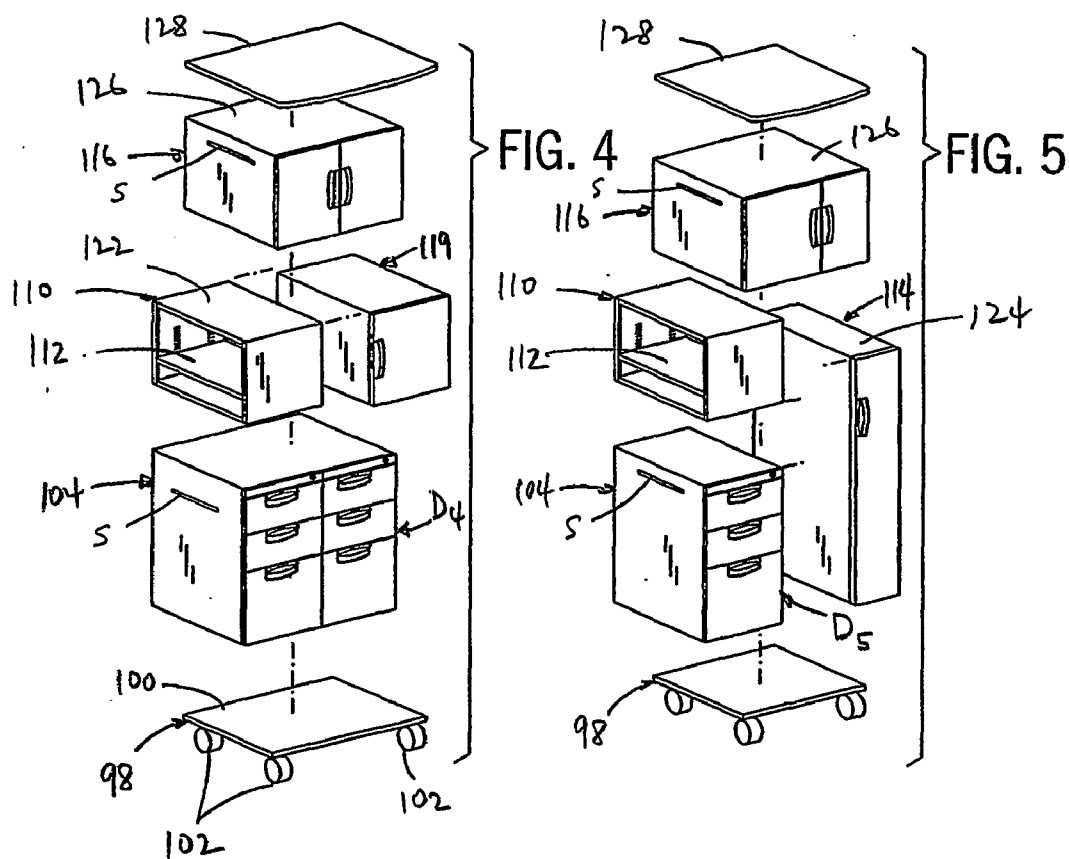


FIG. 9

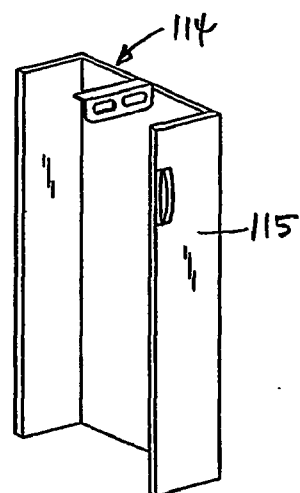
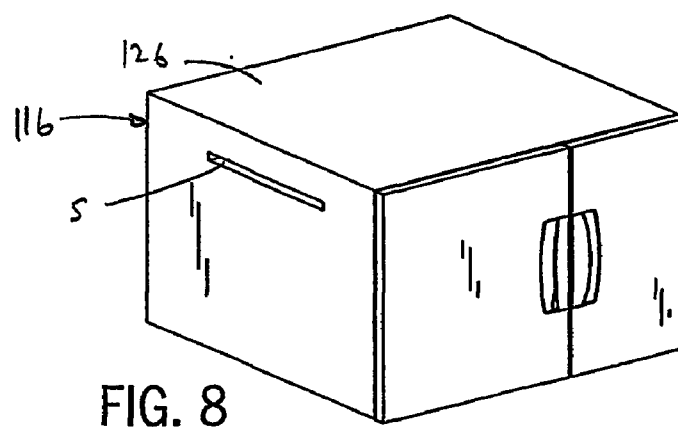
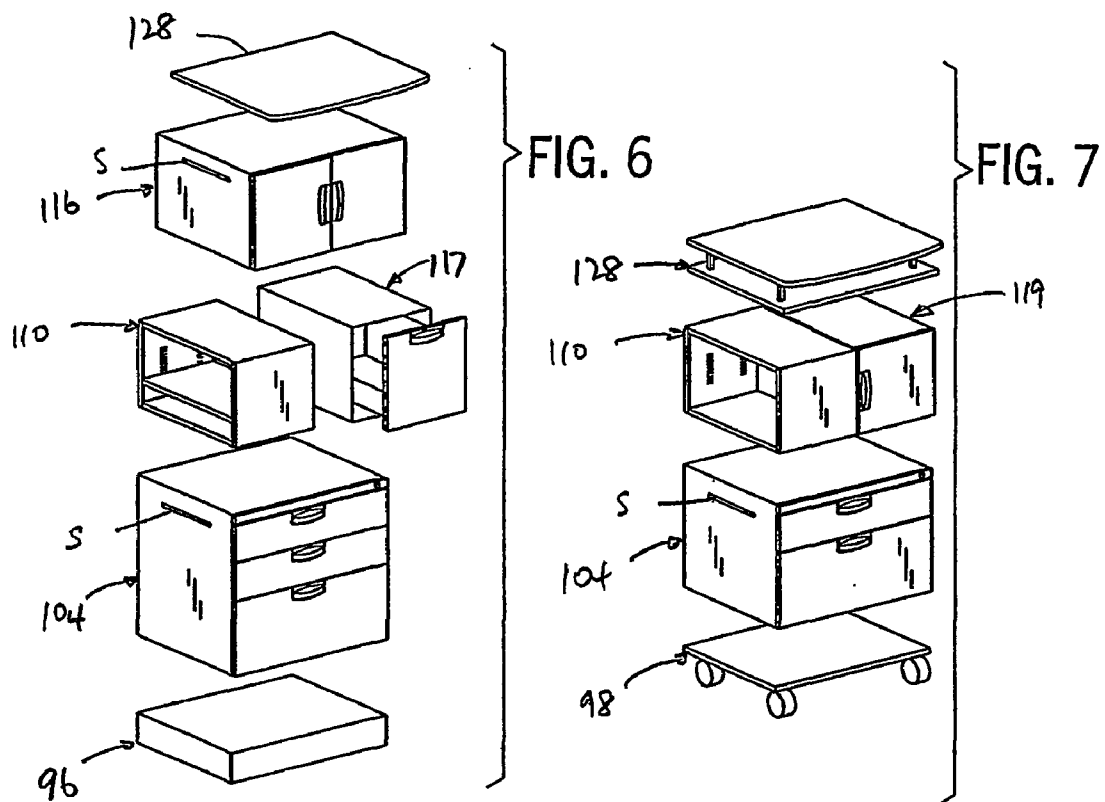


FIG. 10



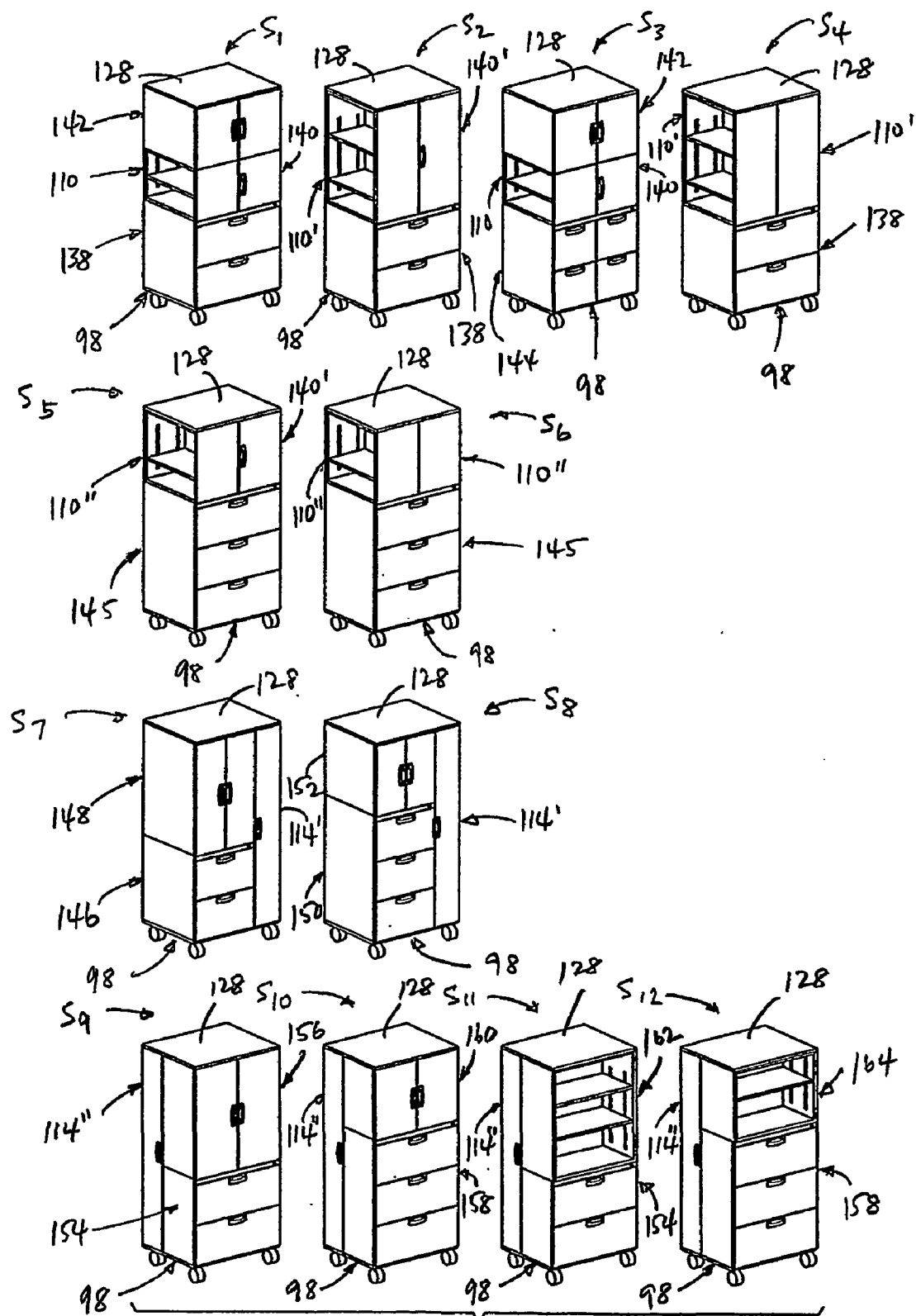


FIG. 11

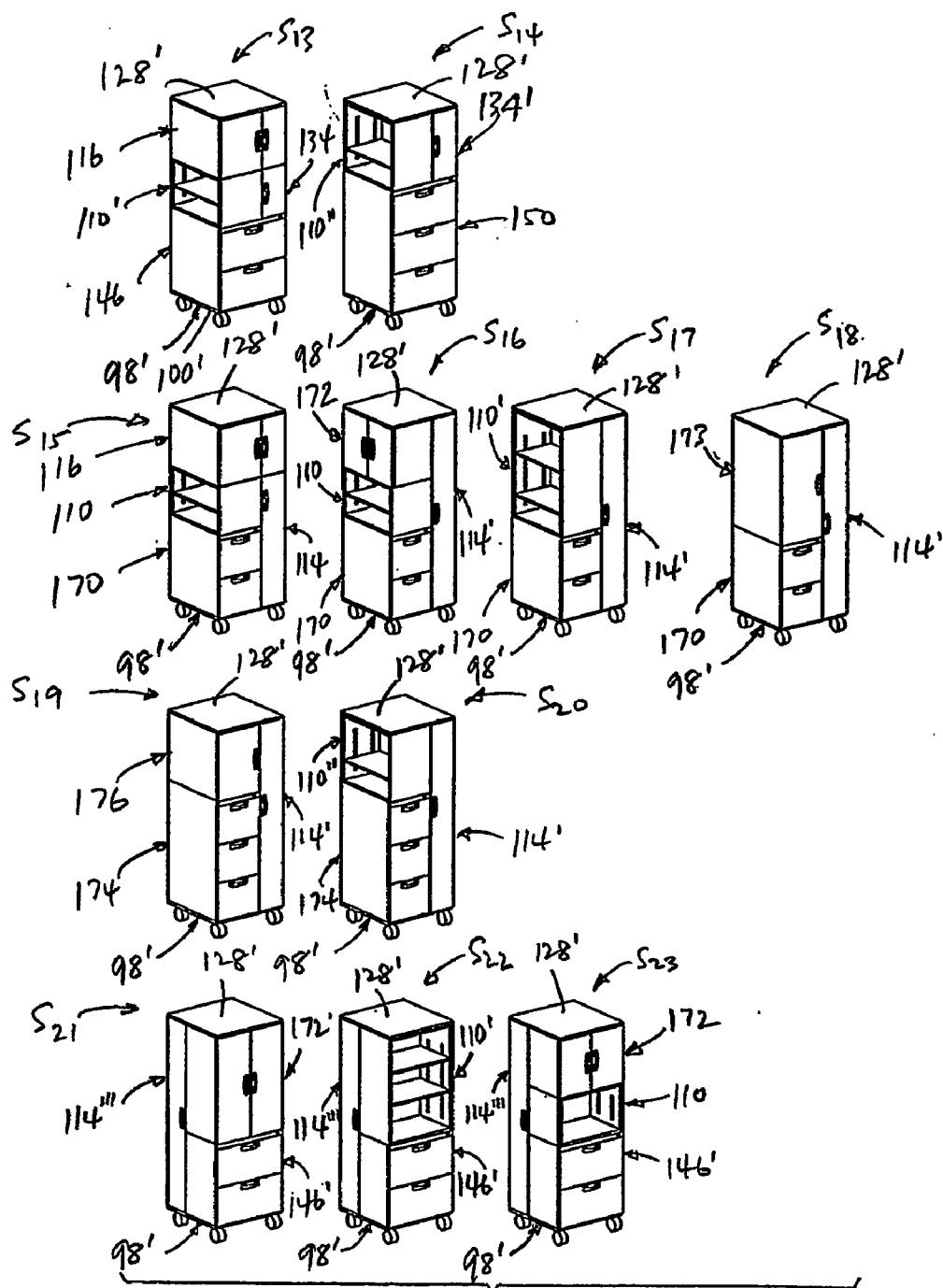
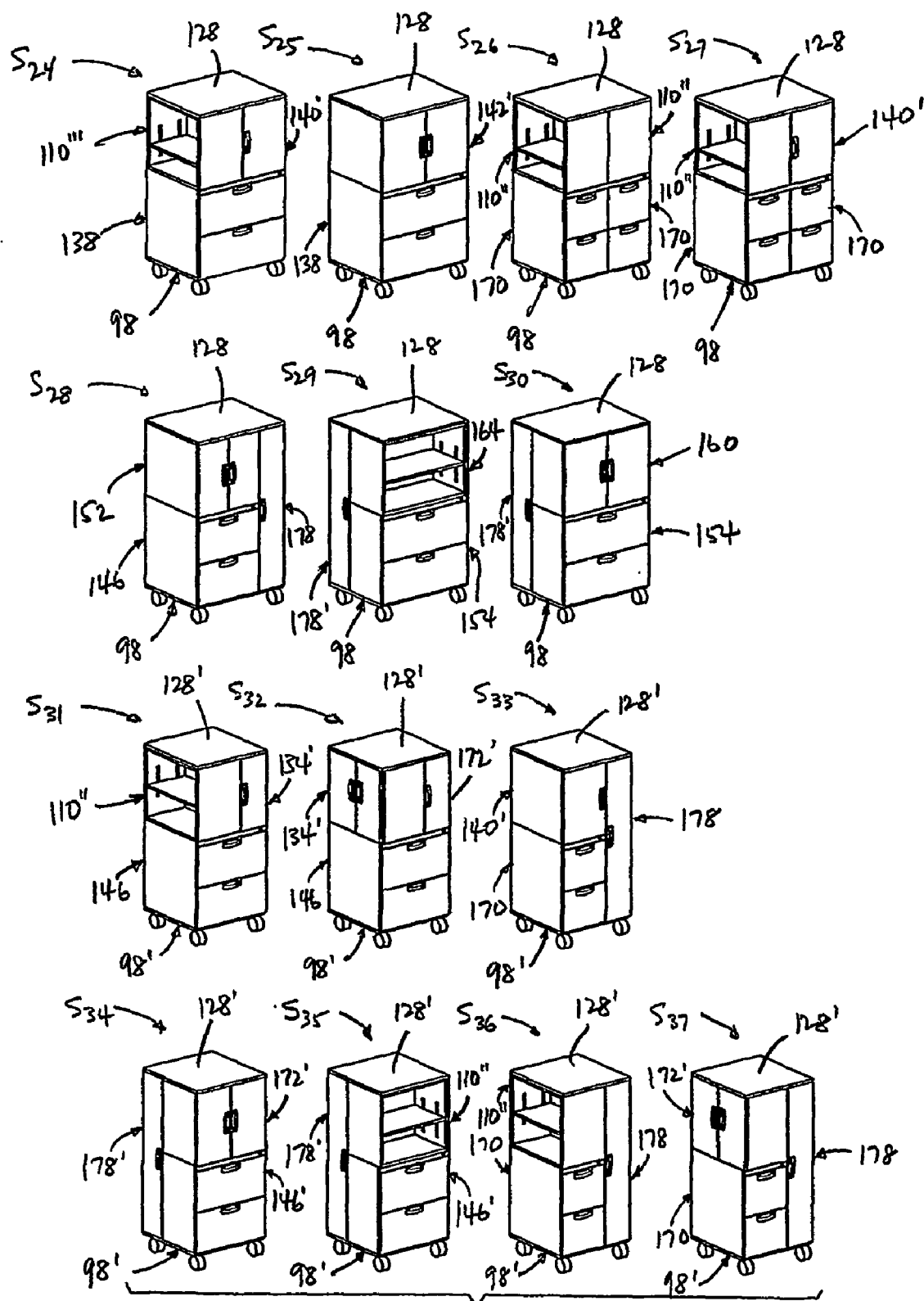


FIG. 12



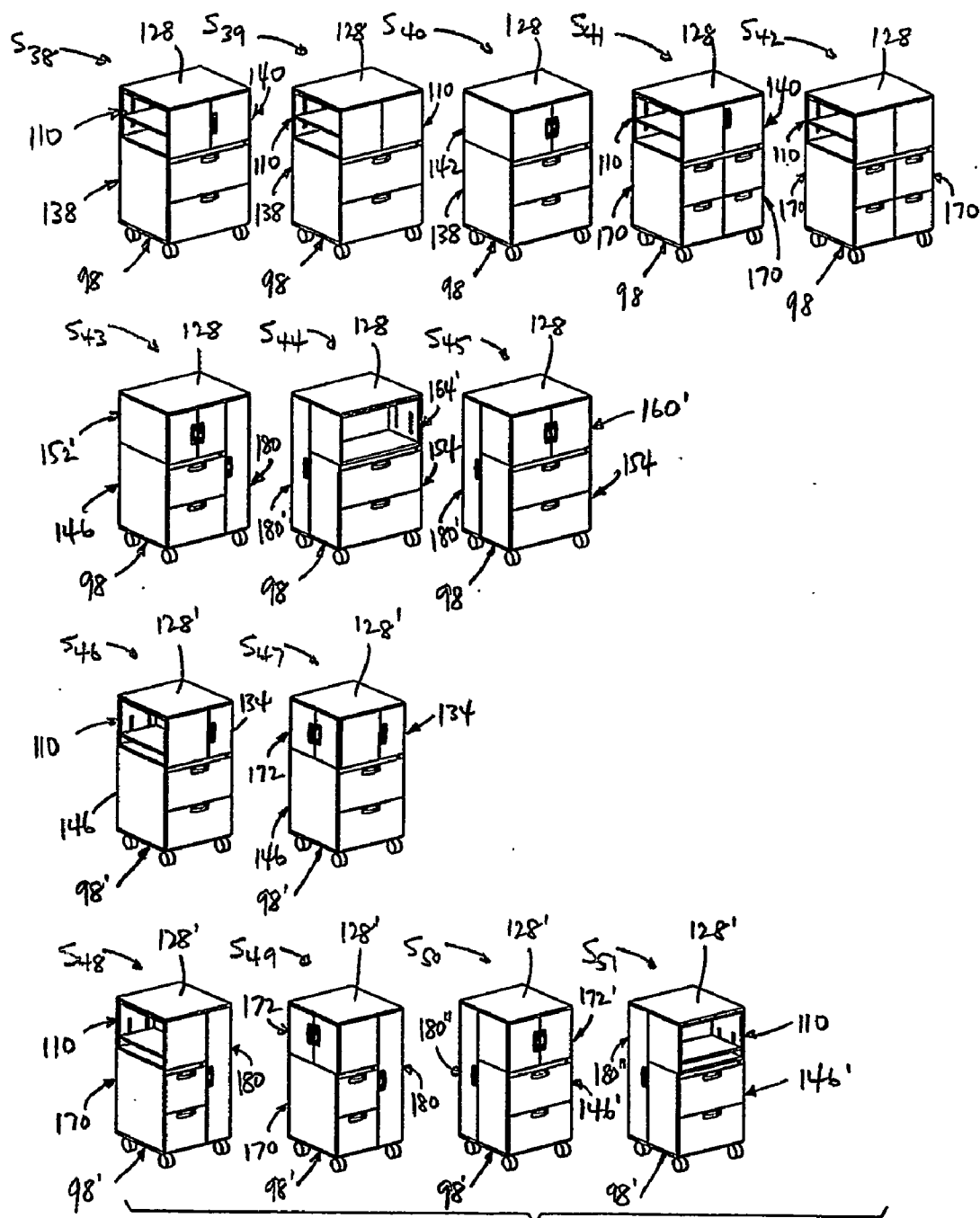


FIG. 14

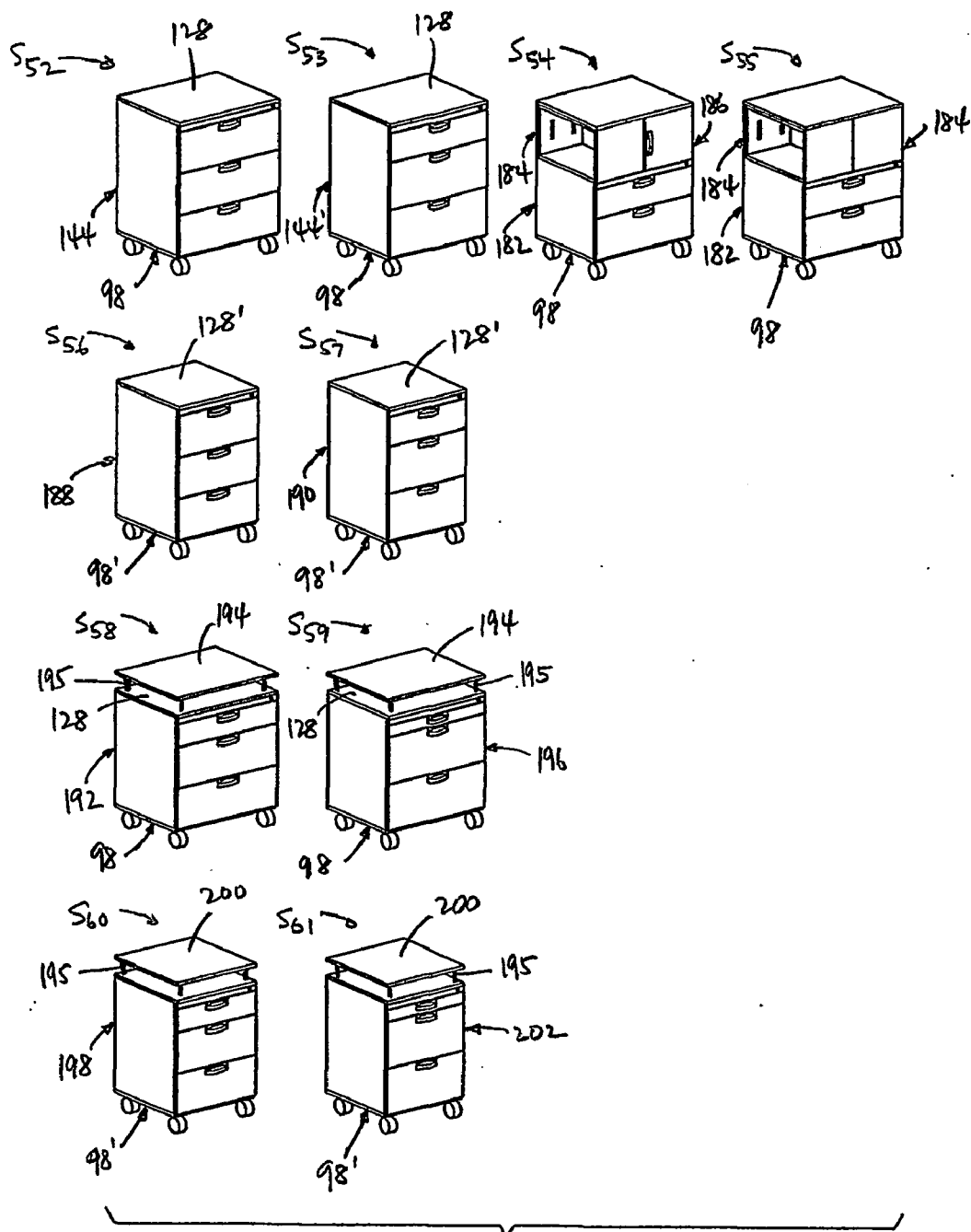


FIG. 15

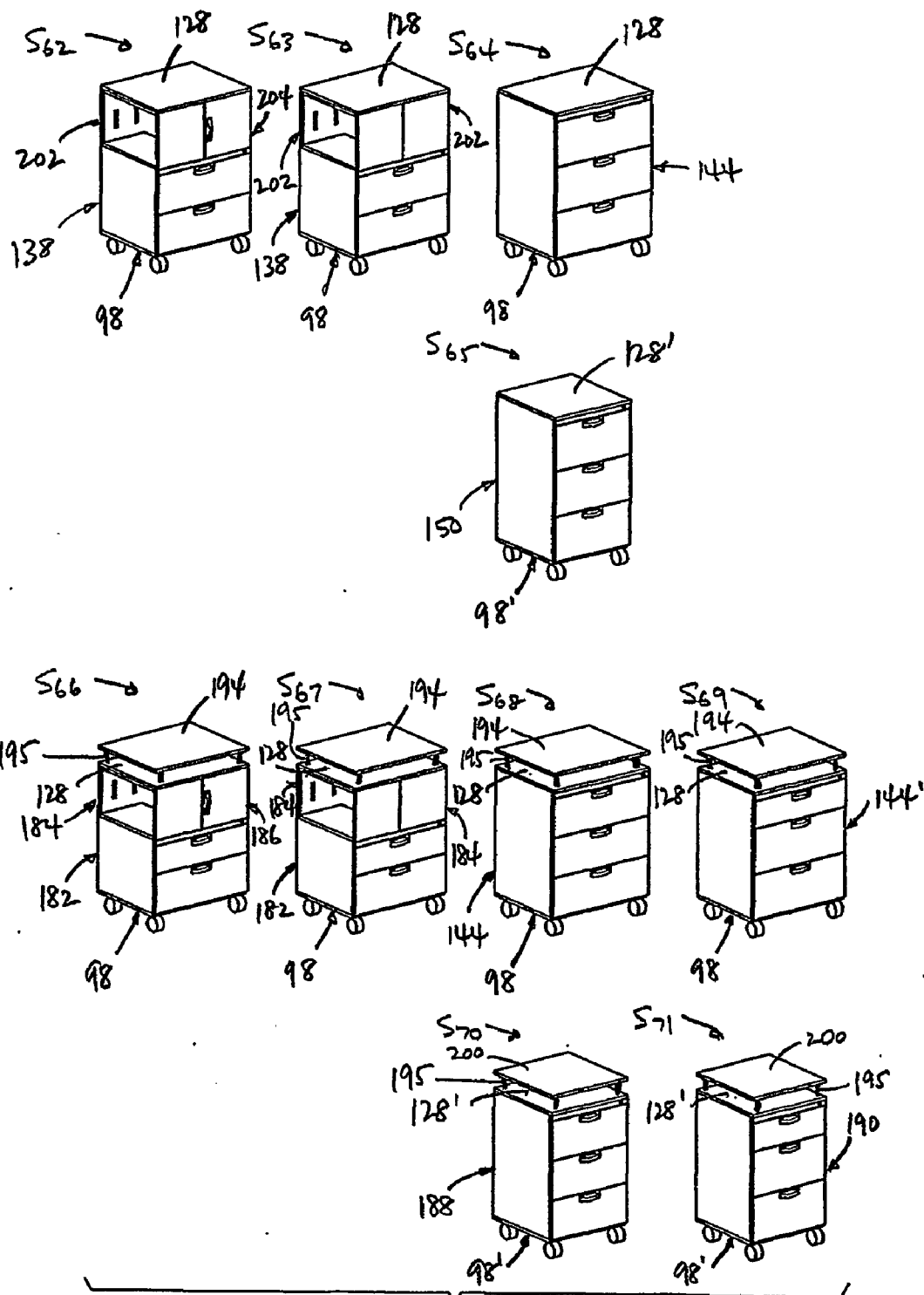


FIG. 16

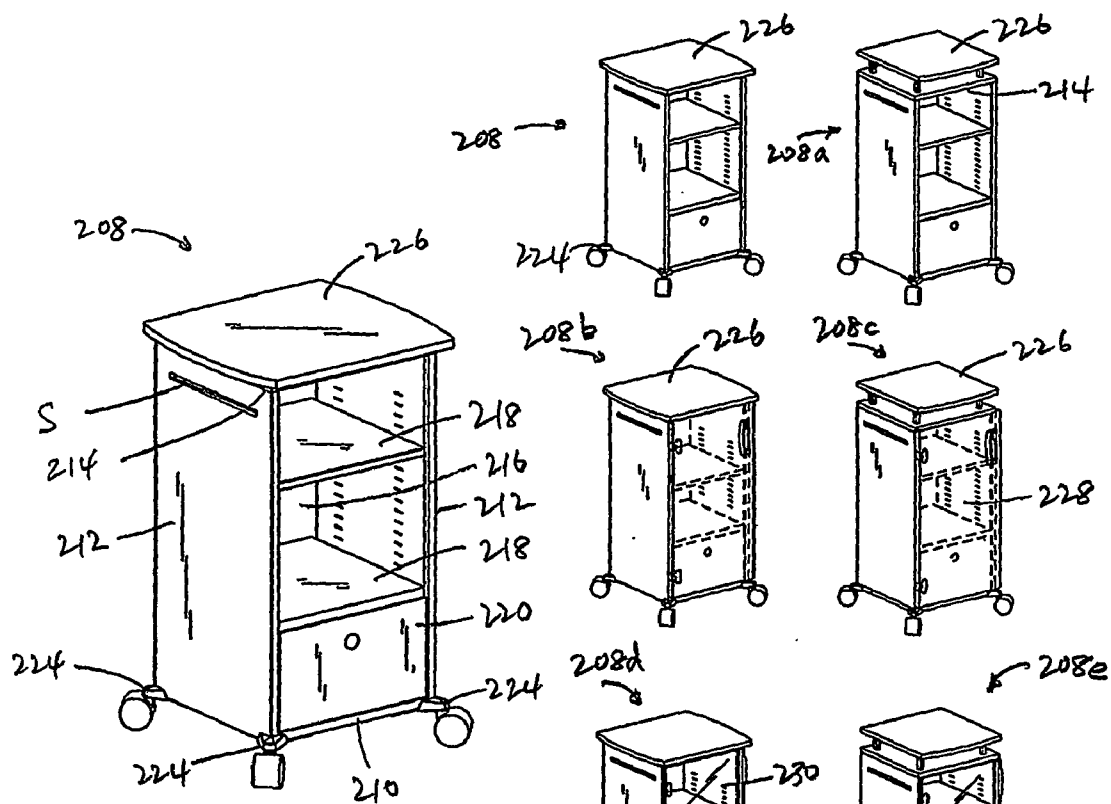


FIG. 17

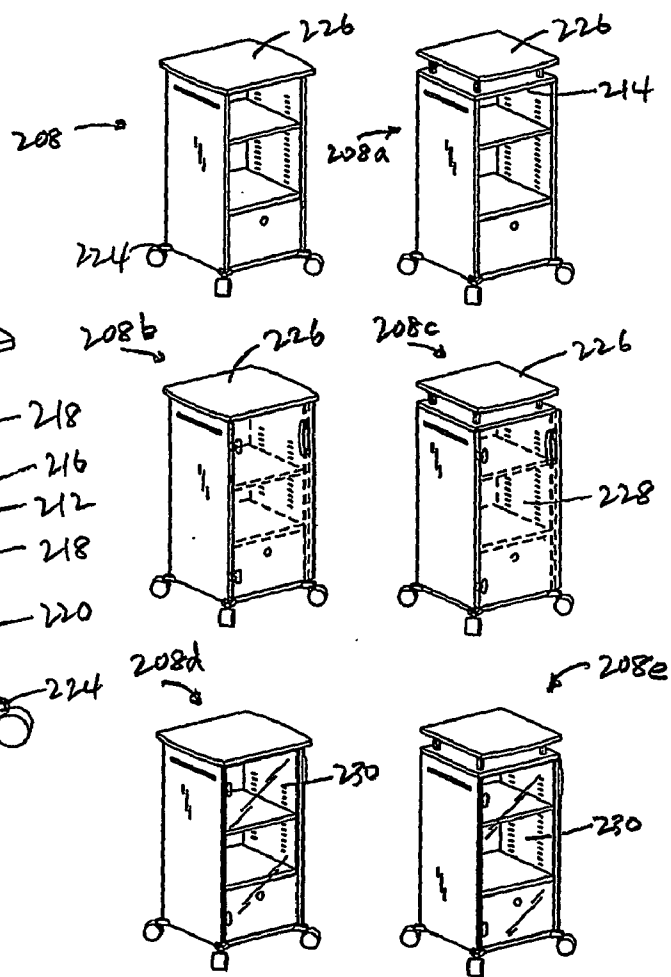


FIG. 18

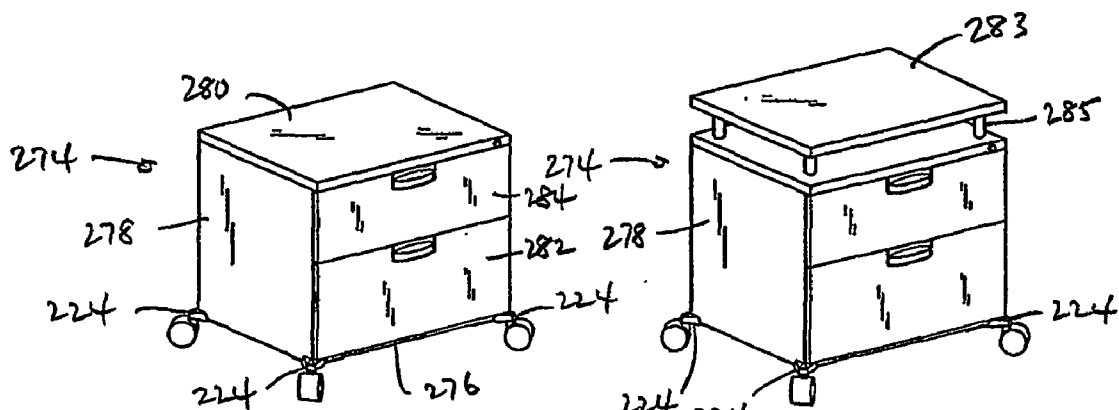
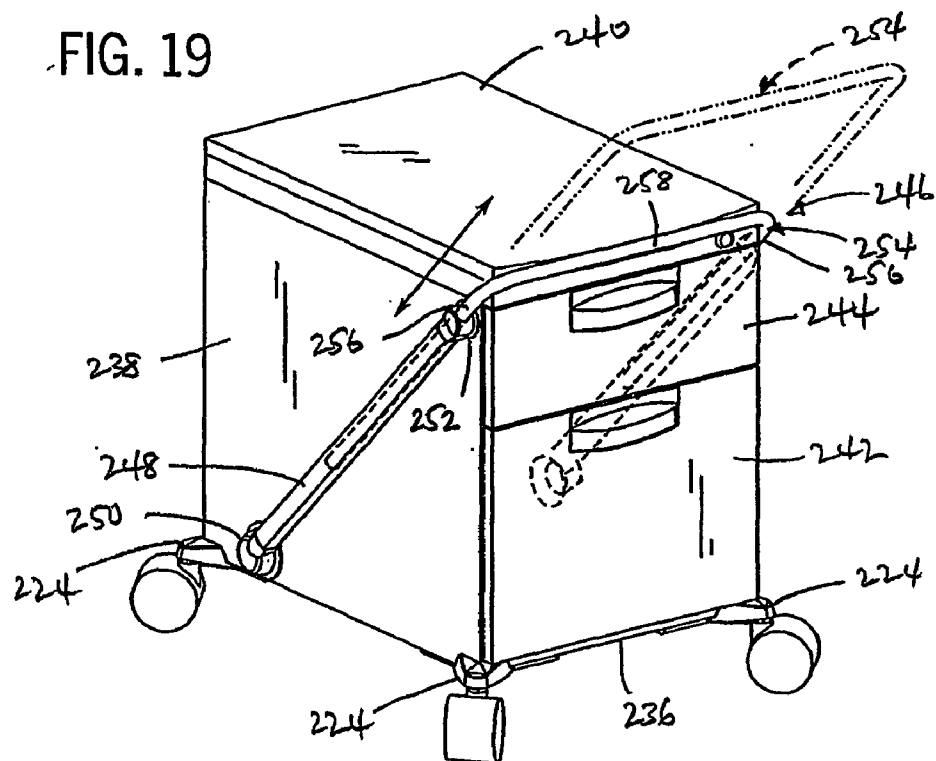


FIG. 23

FIG. 24

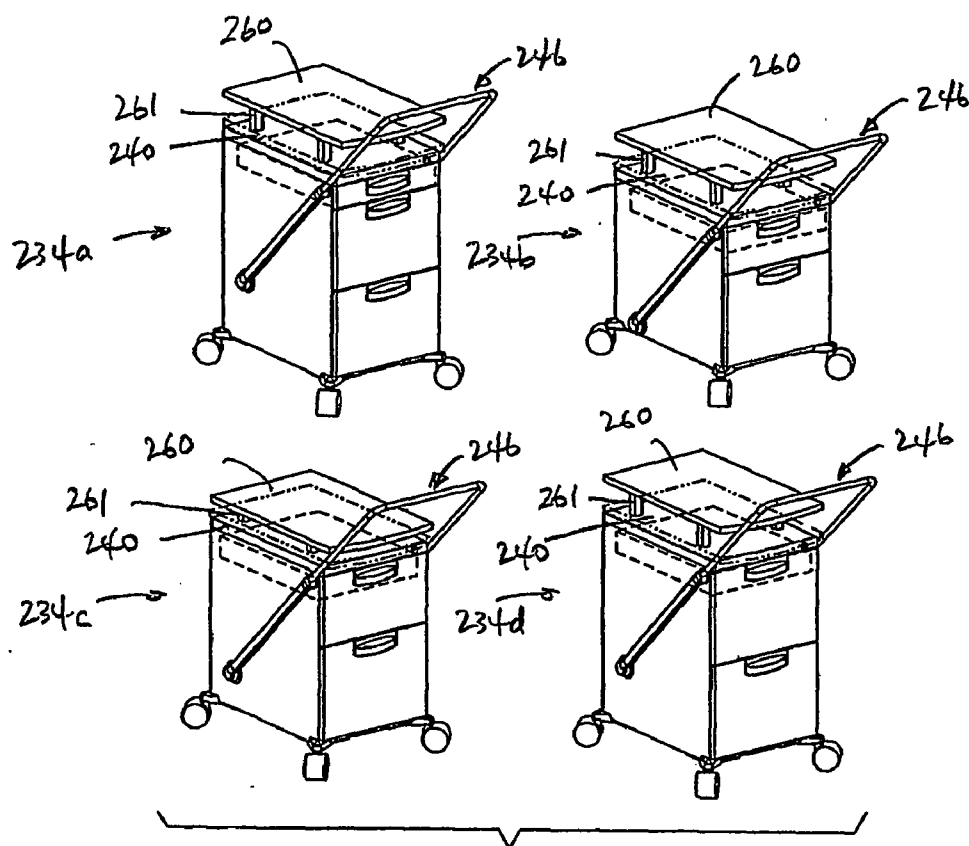


FIG. 20

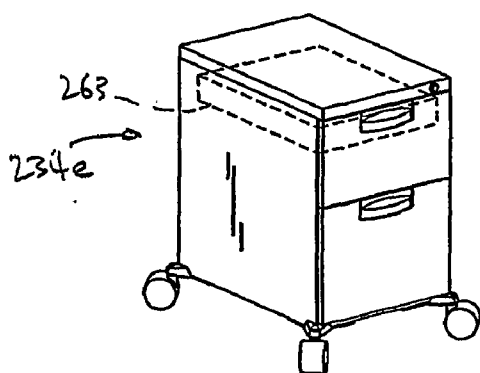


FIG. 21

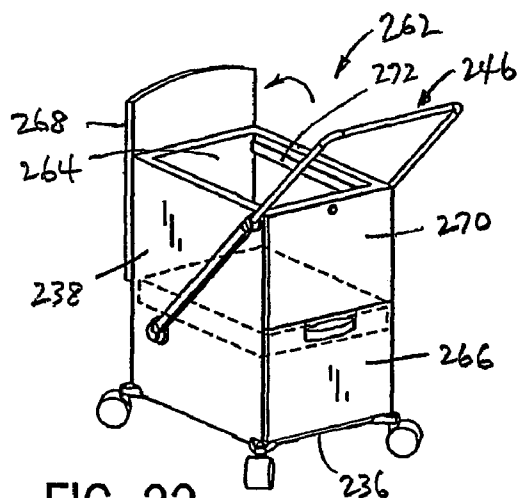
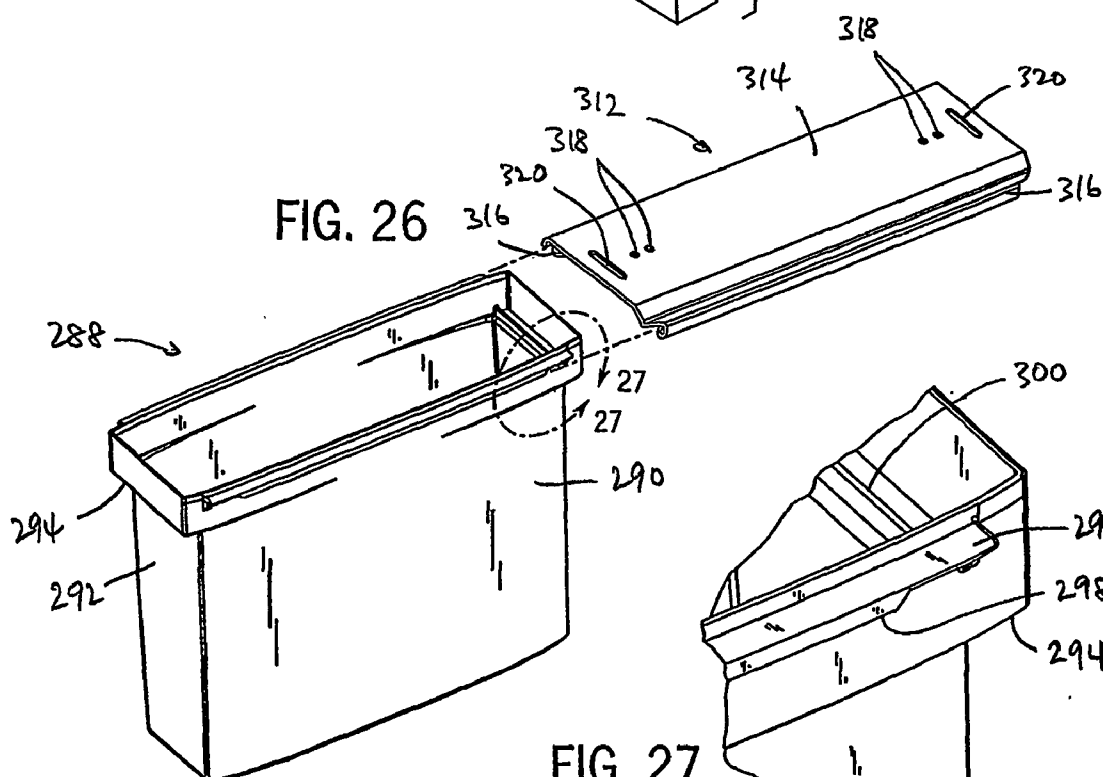
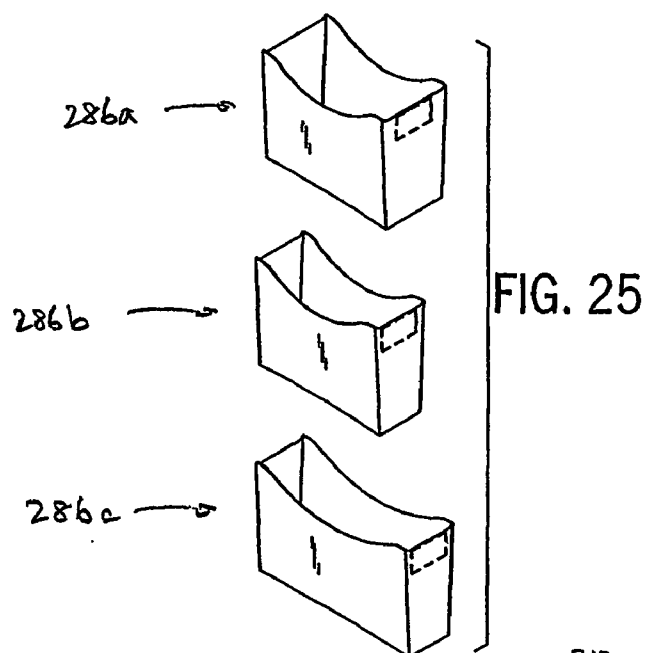
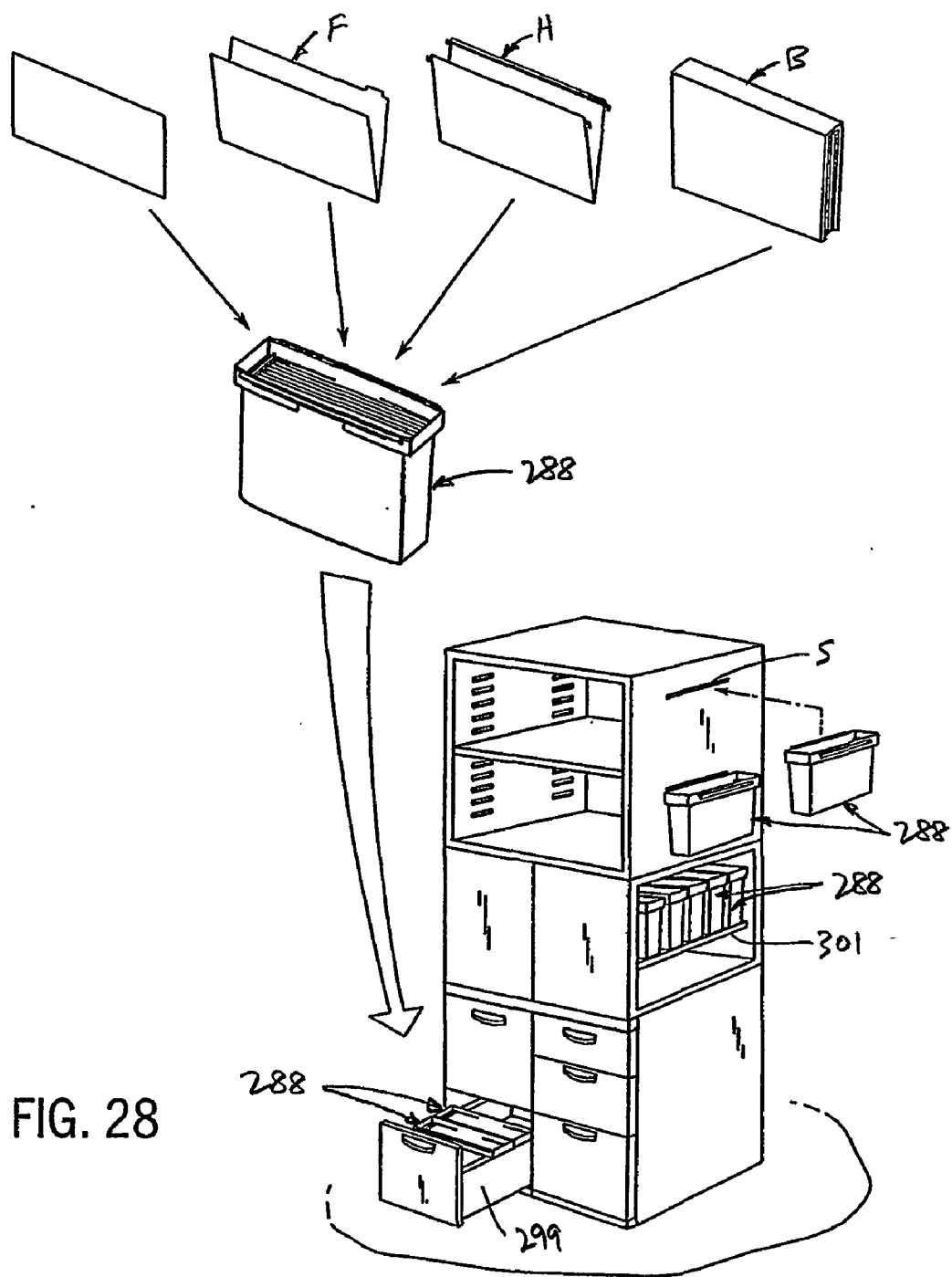
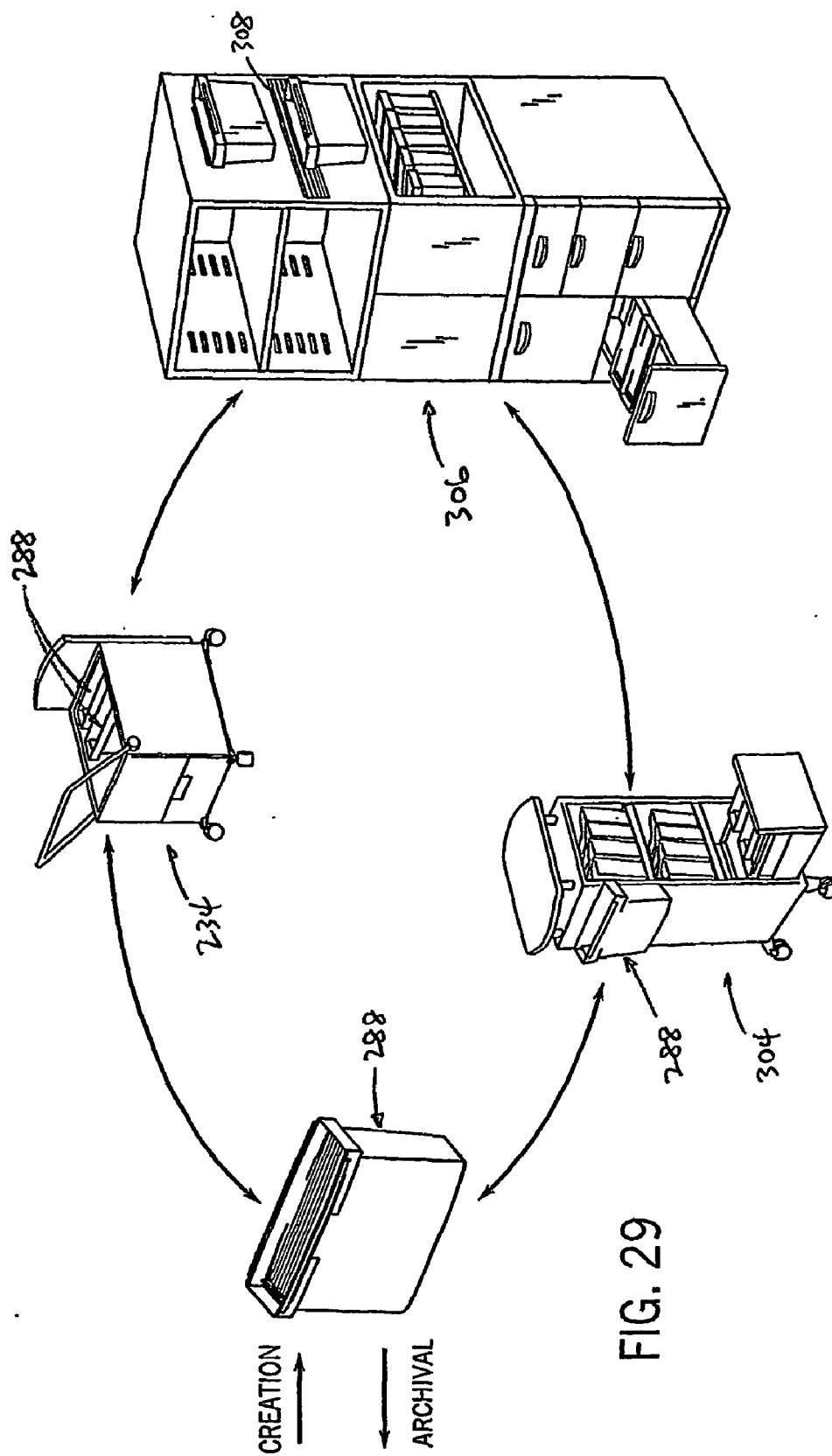


FIG. 22







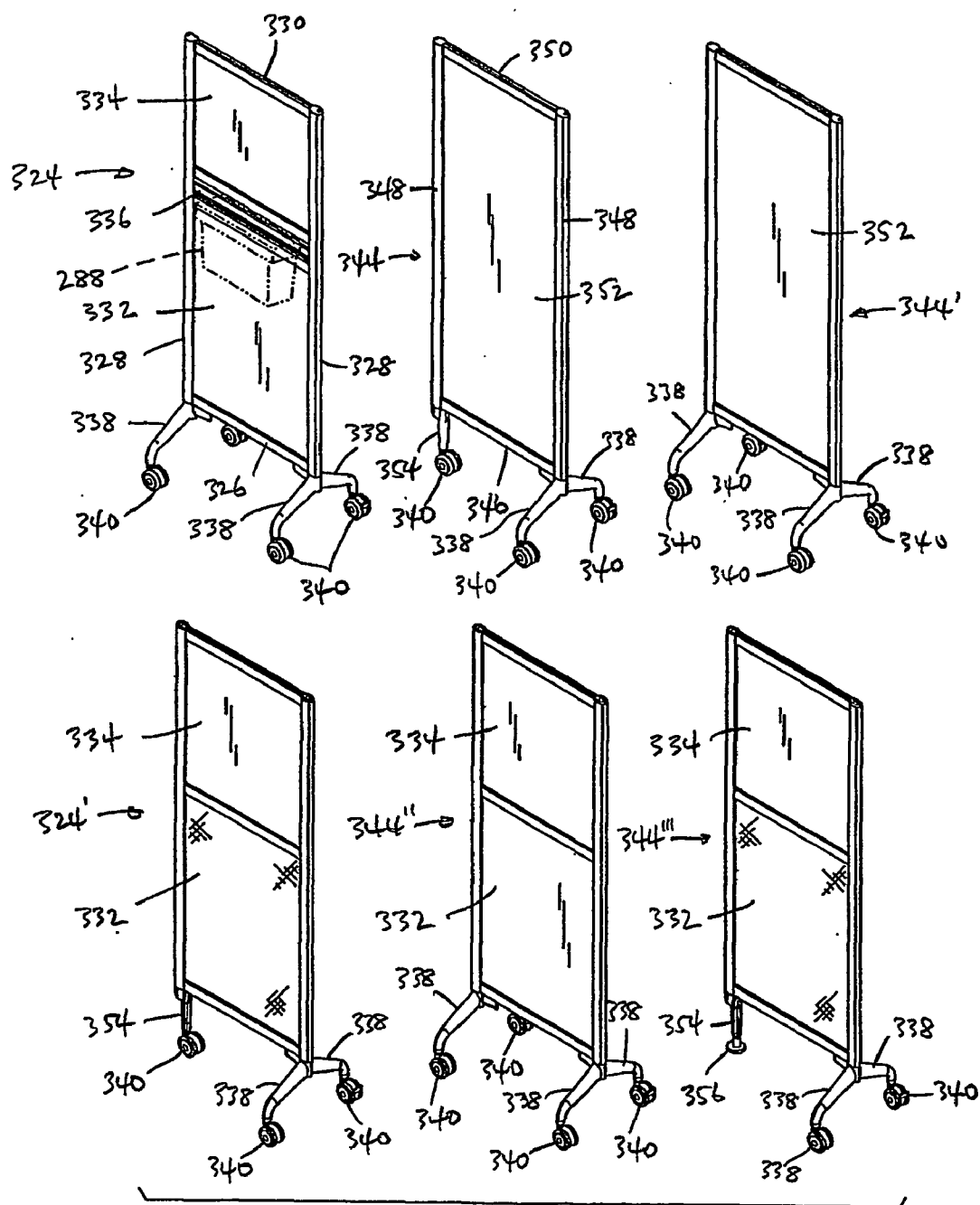


FIG. 30

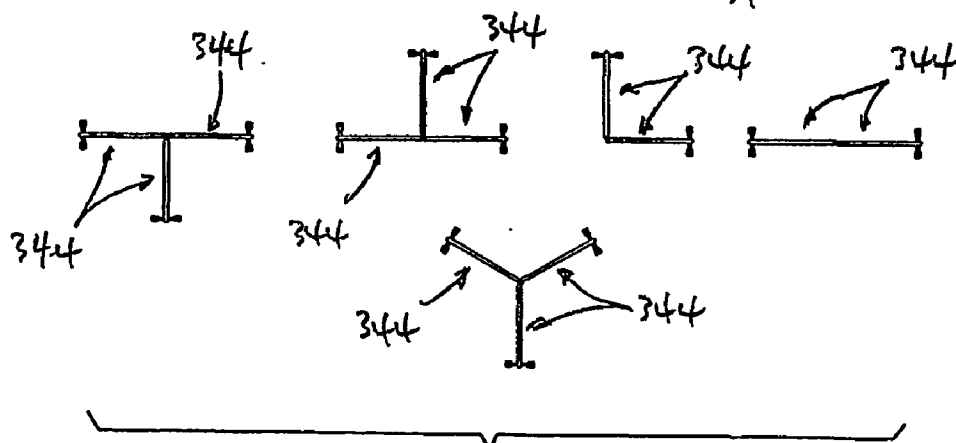
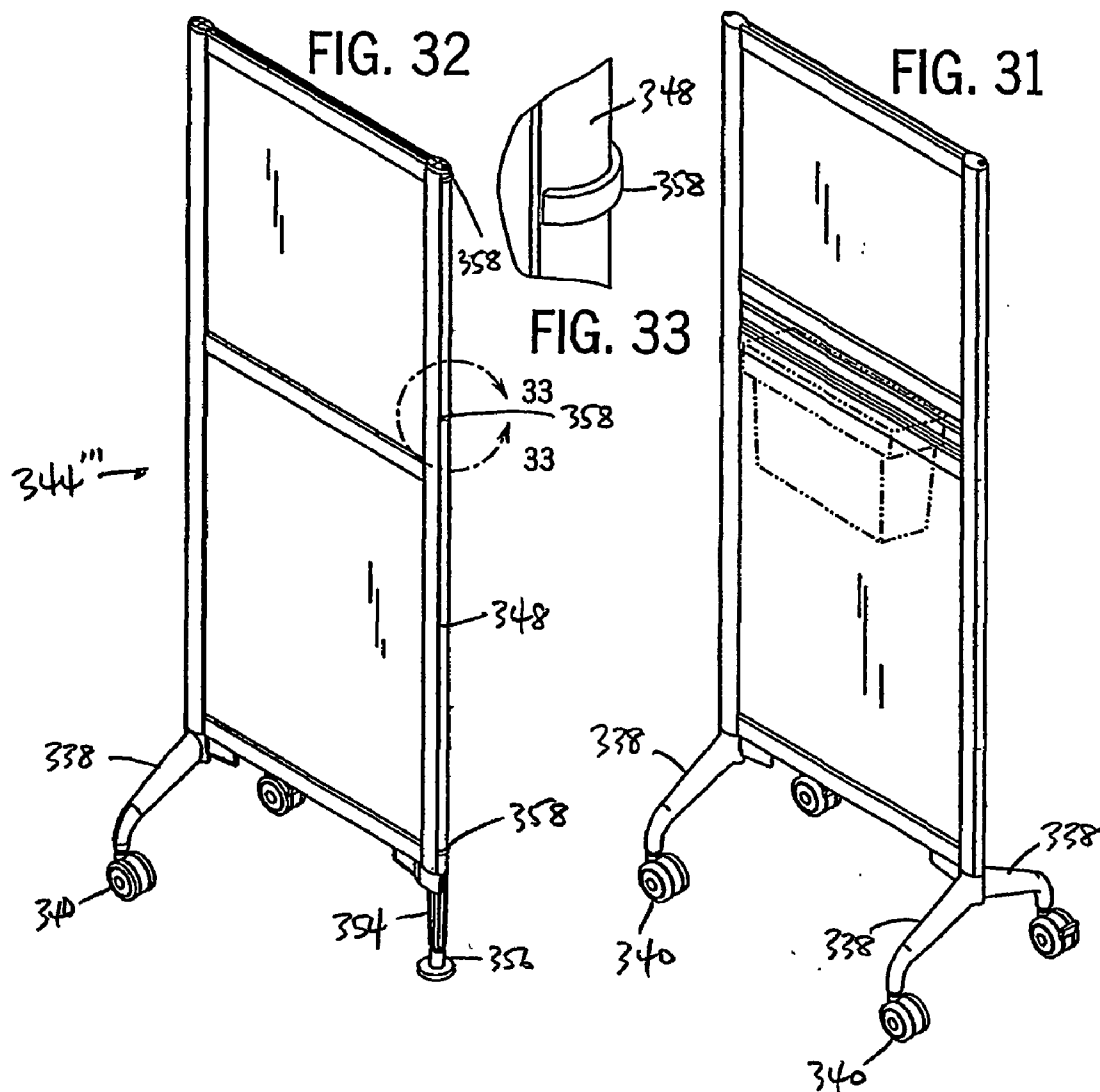
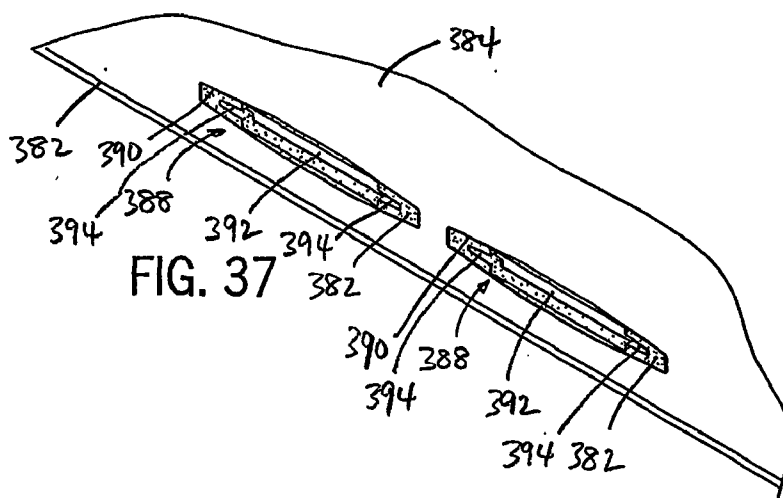
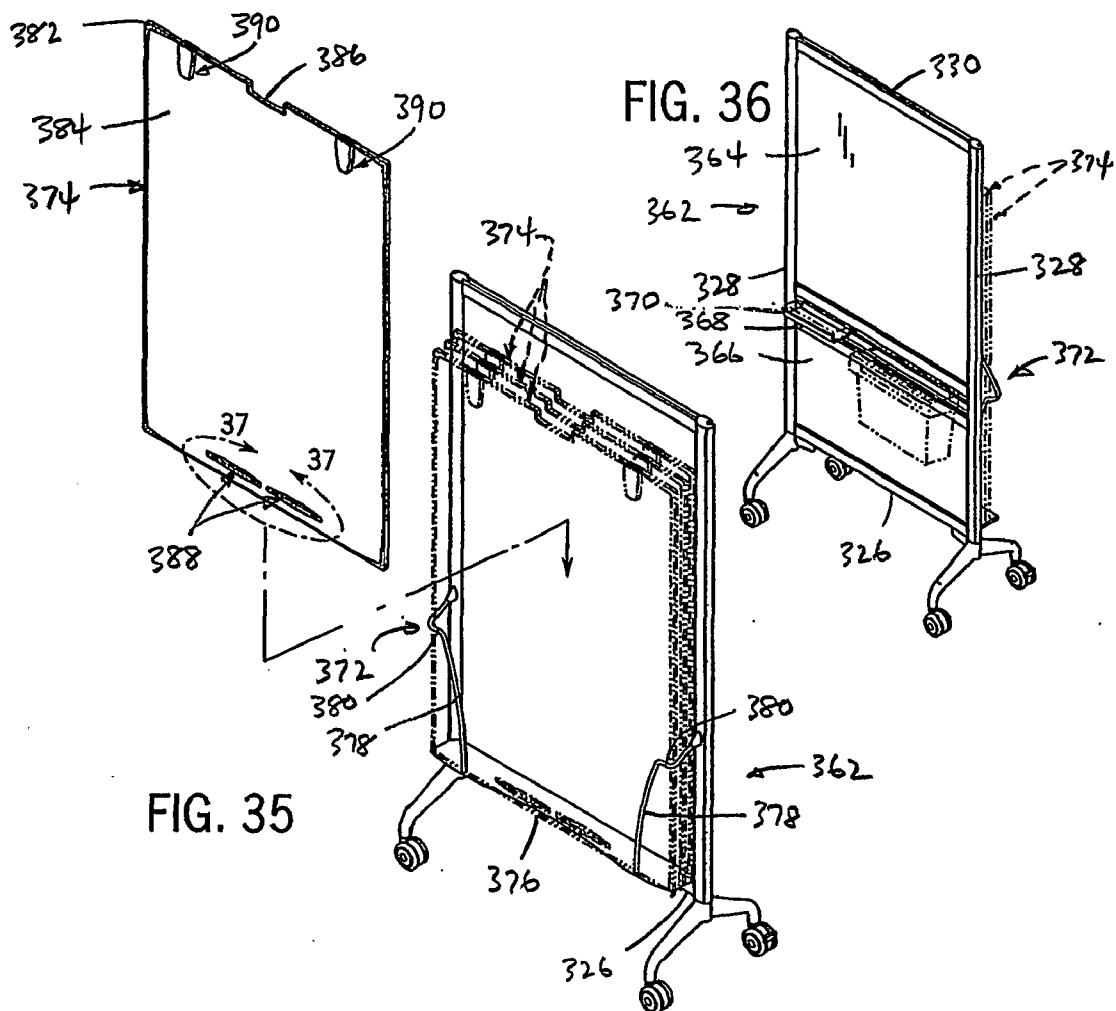
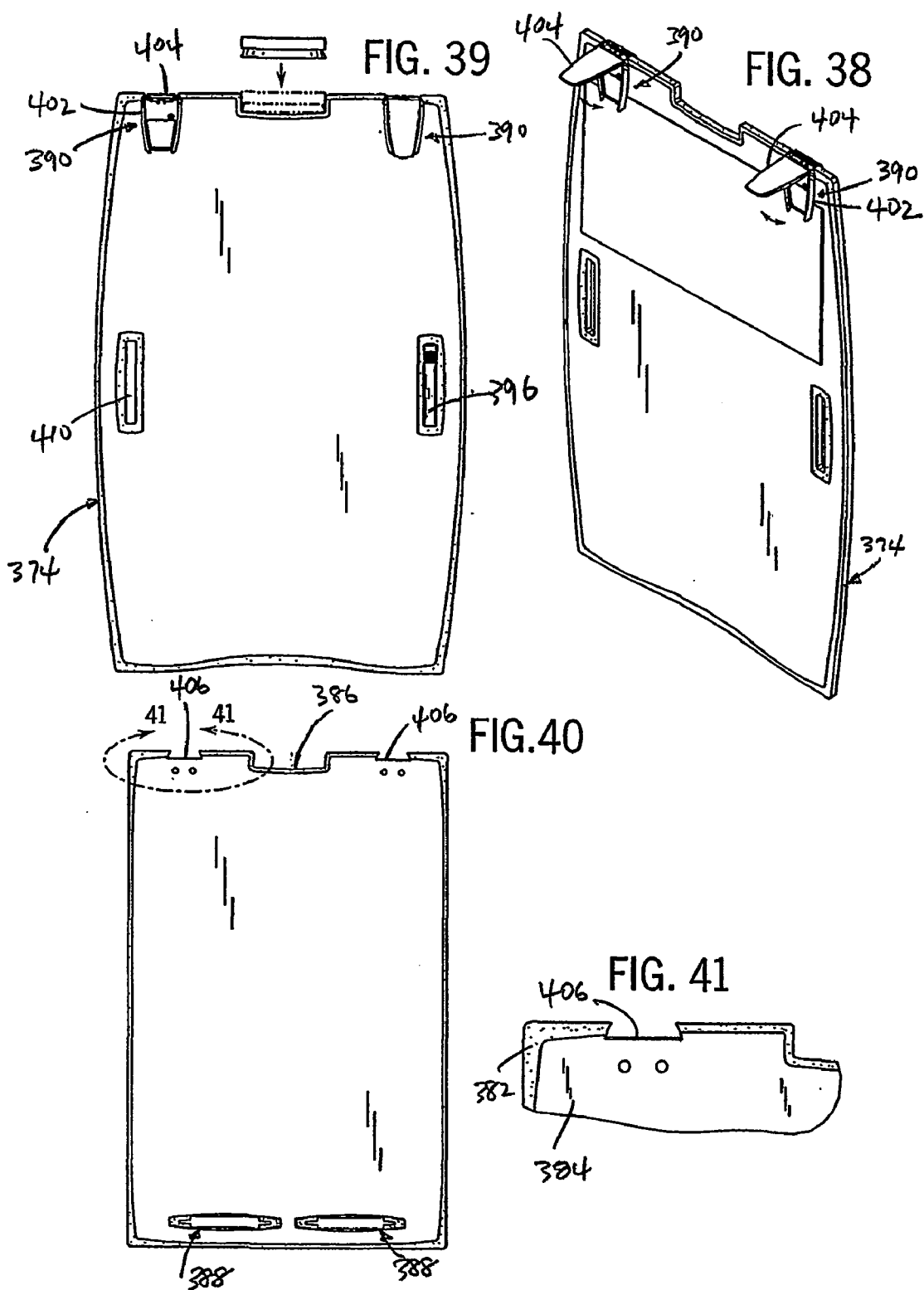
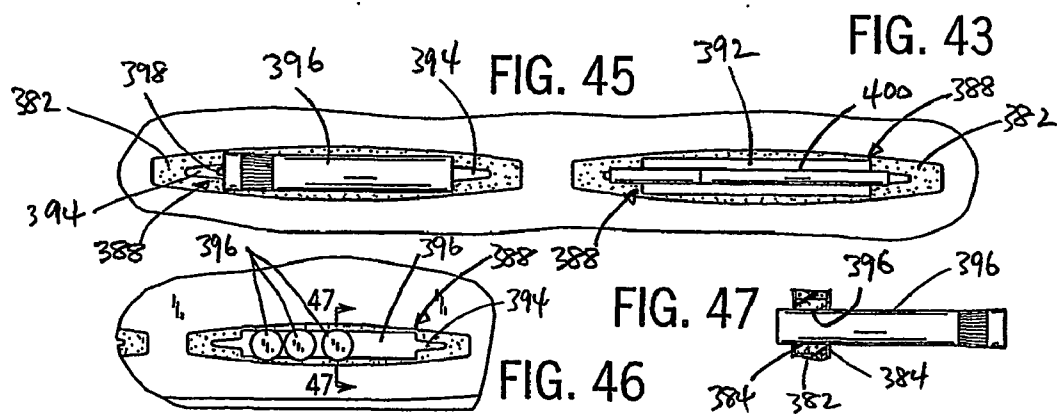
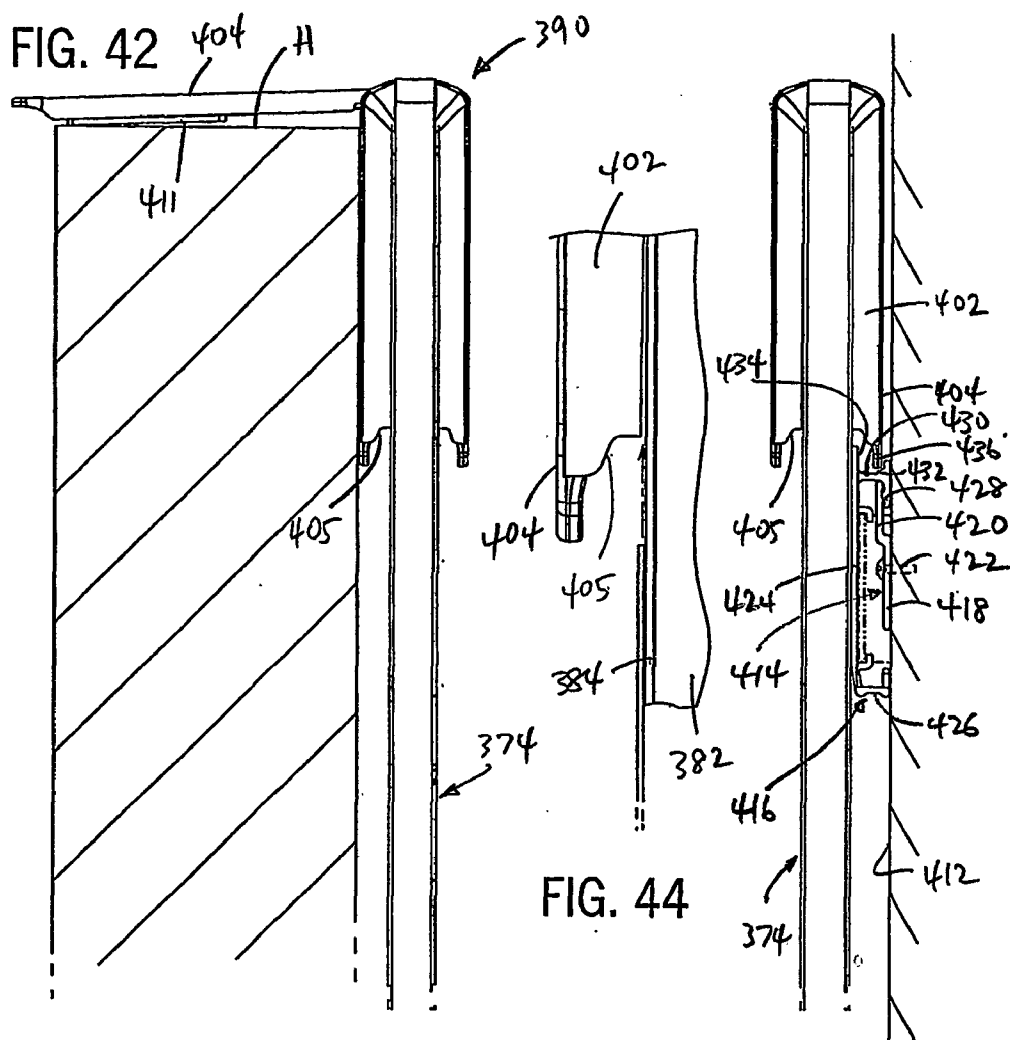
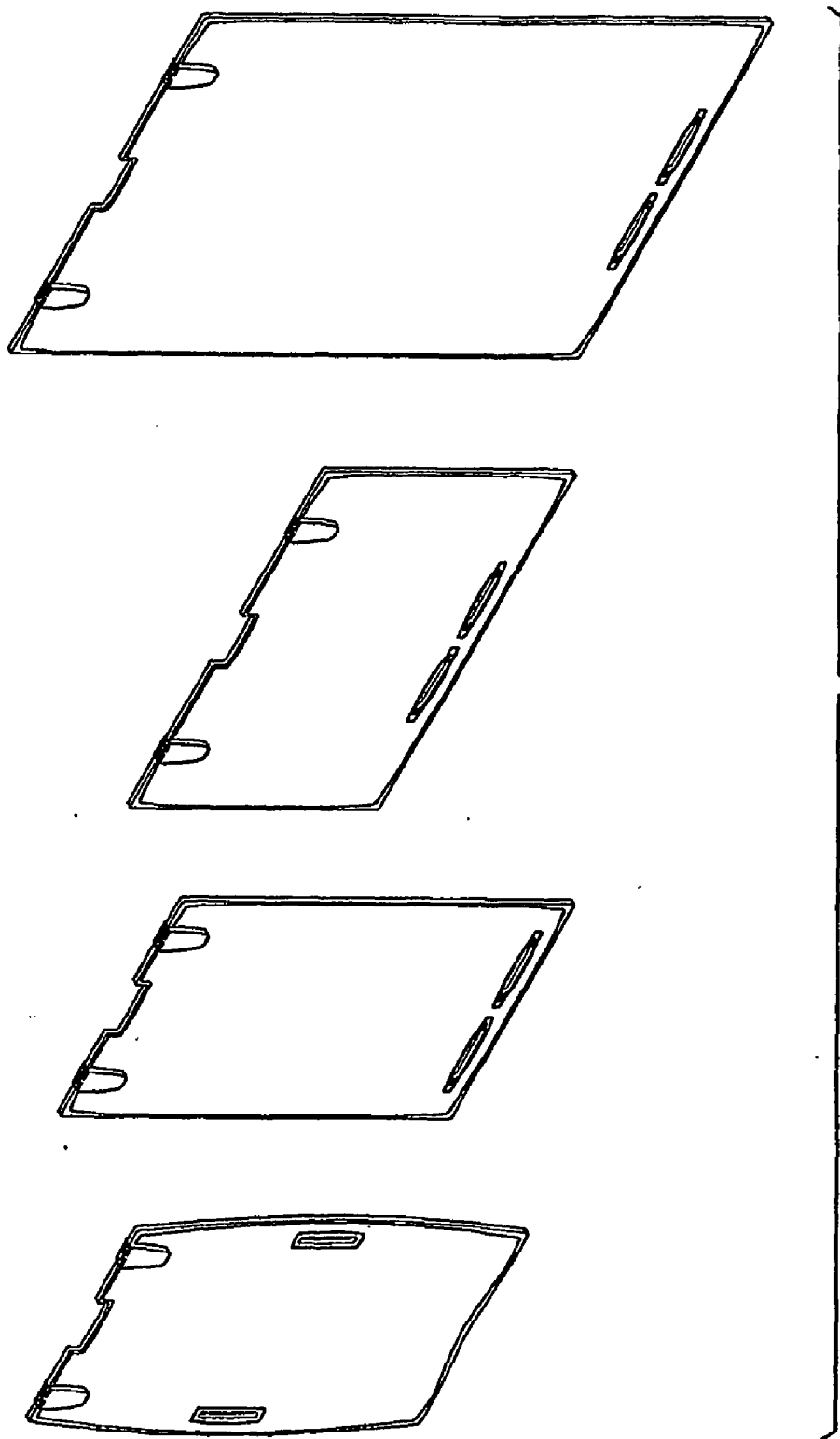


FIG. 34









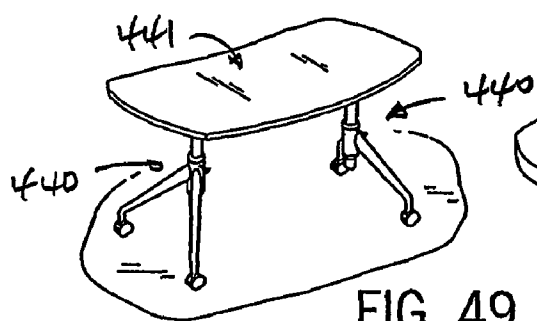


FIG. 49

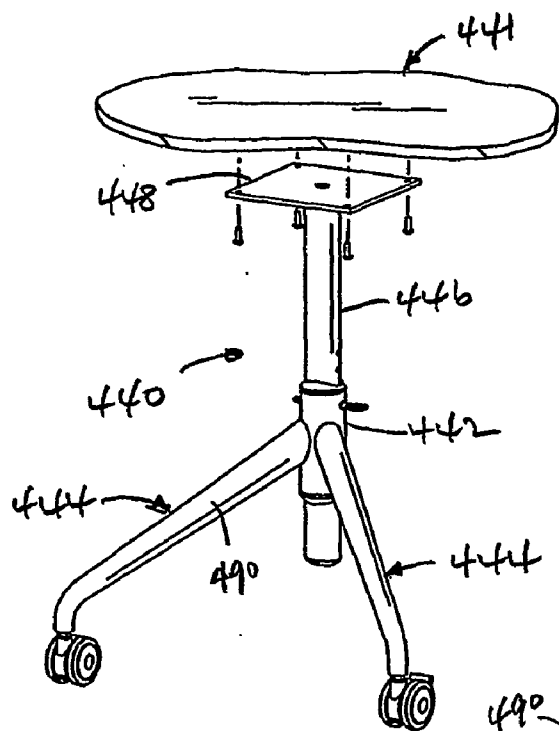


FIG. 50

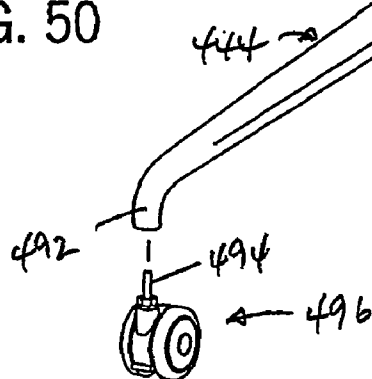
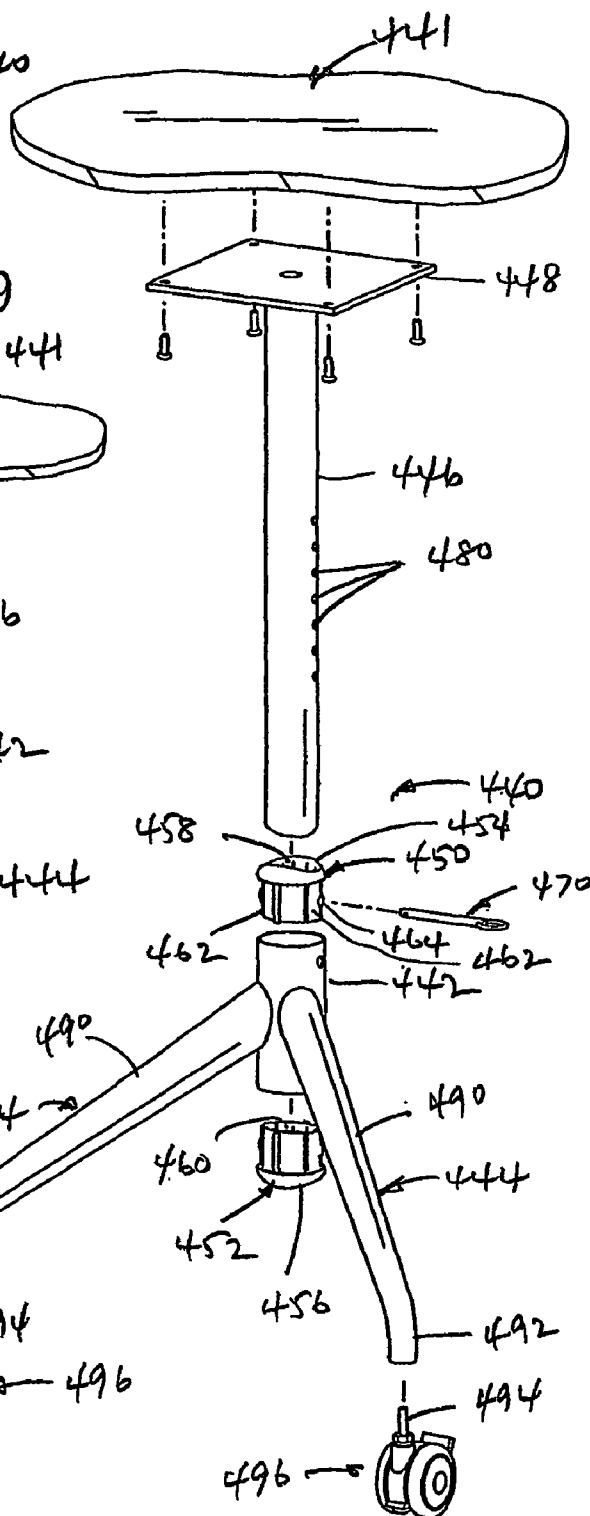
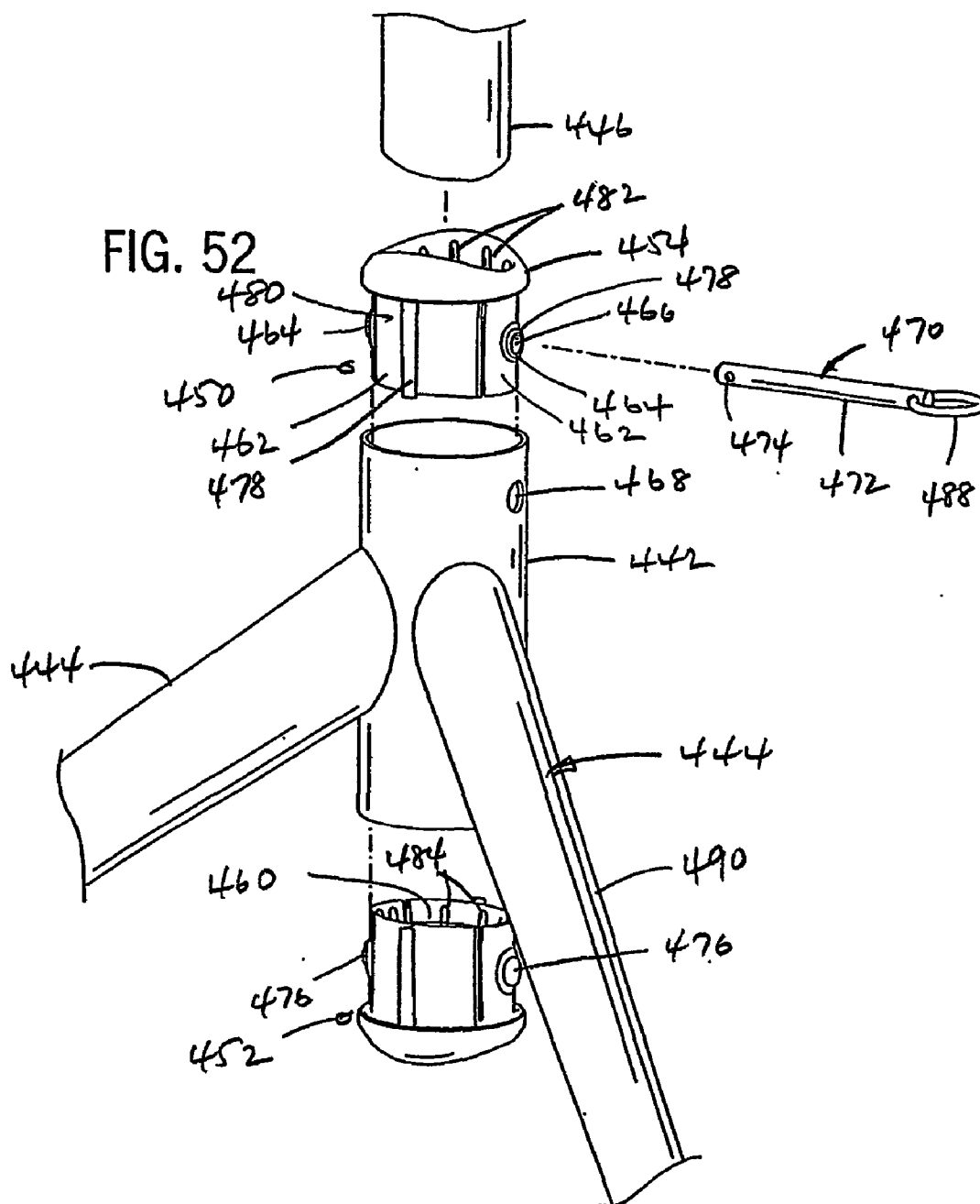
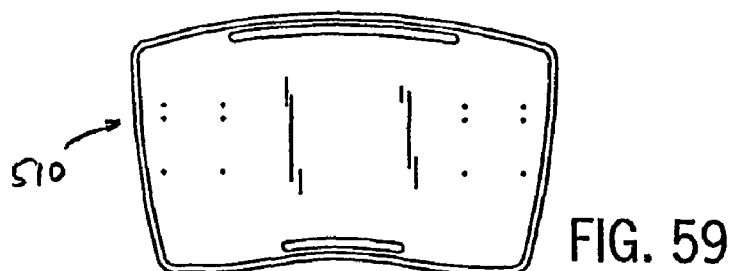
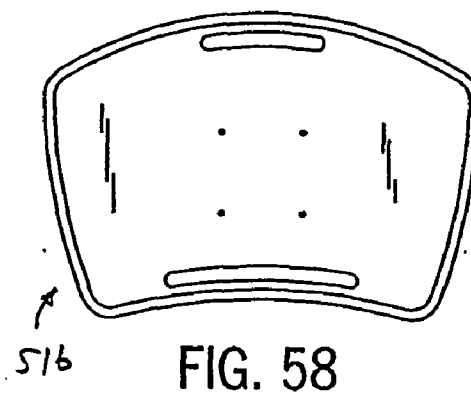
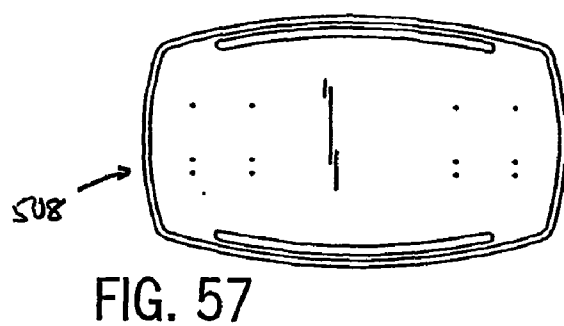
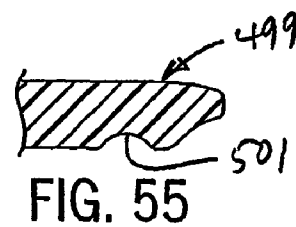
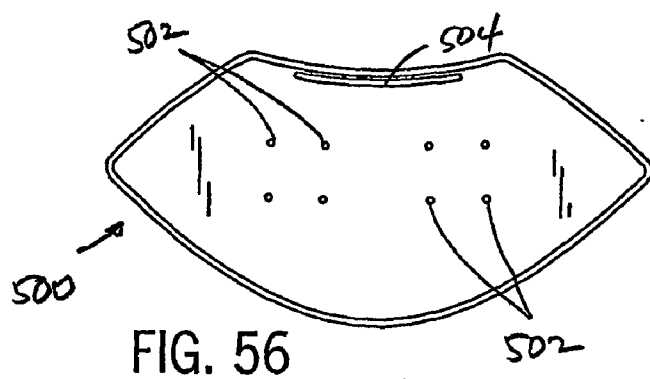
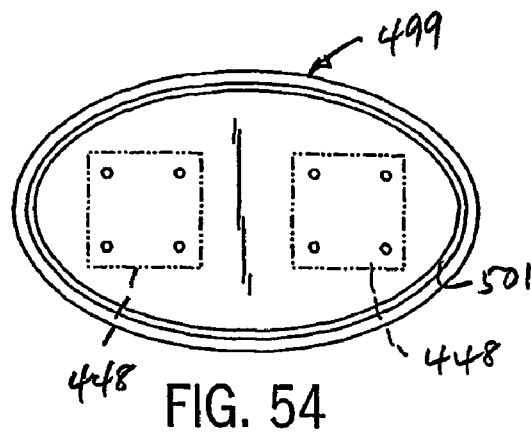
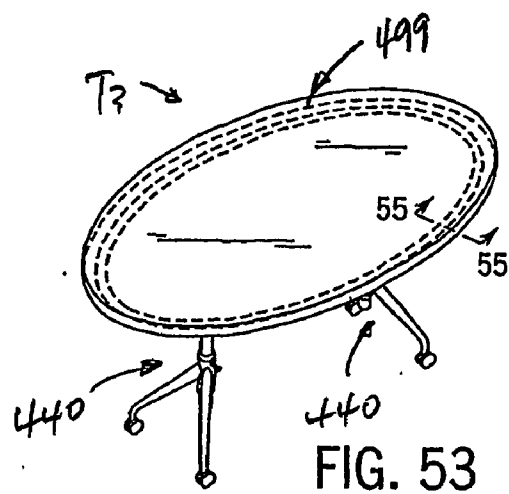
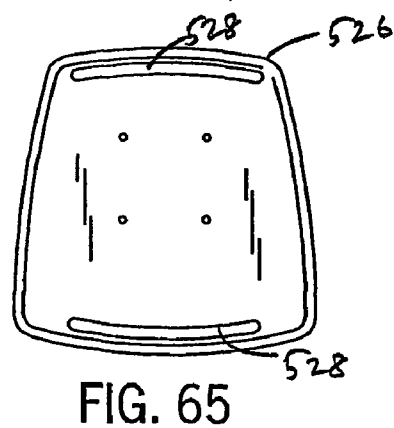
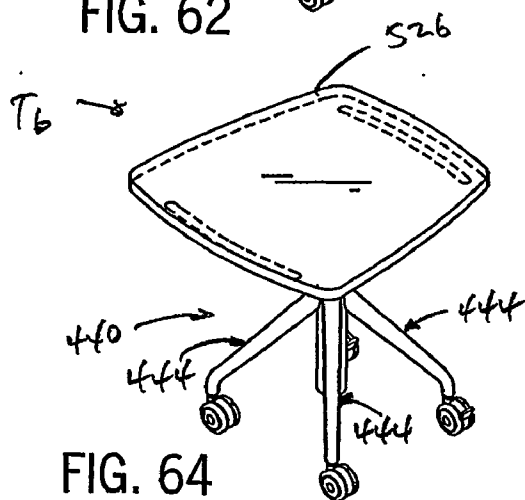
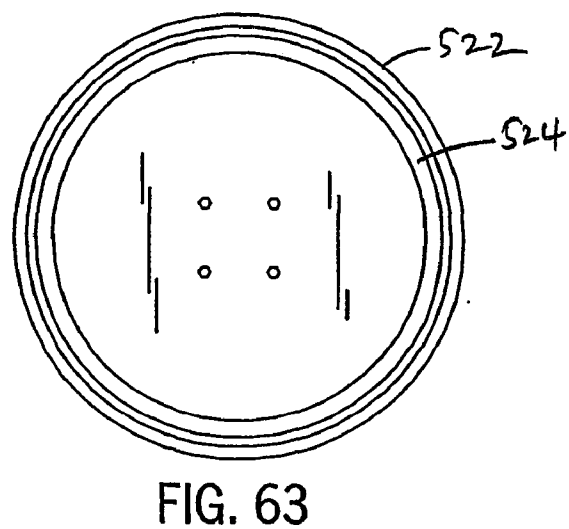
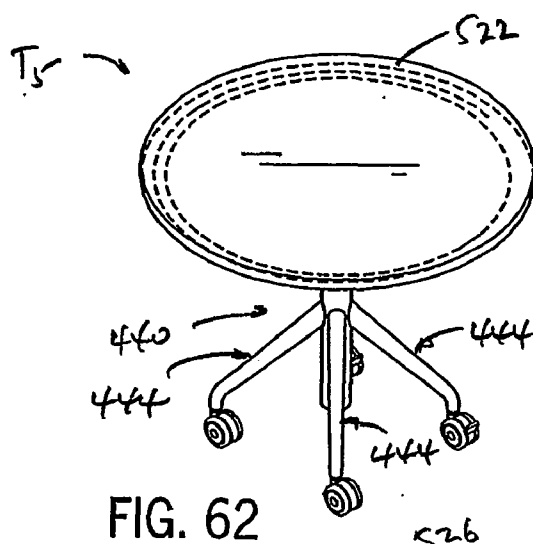
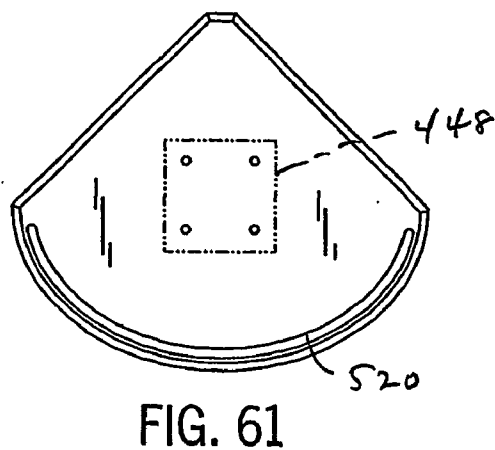
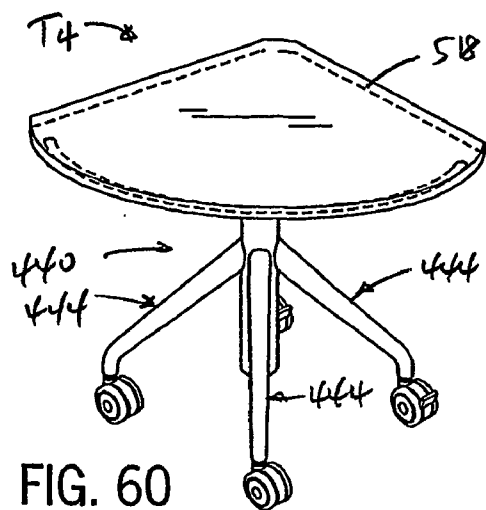


FIG. 51









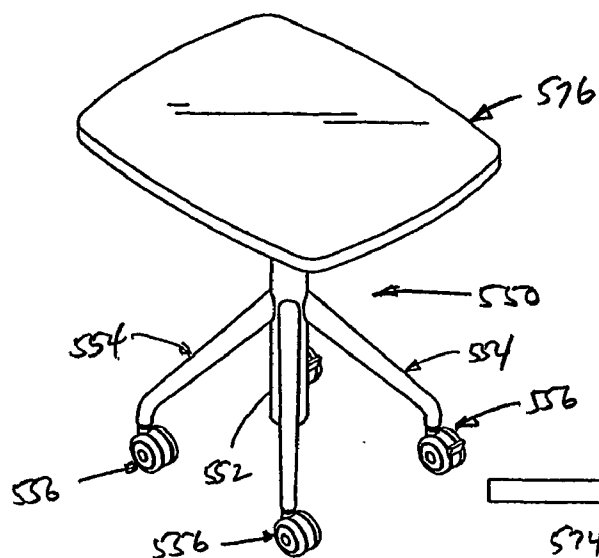


FIG. 66

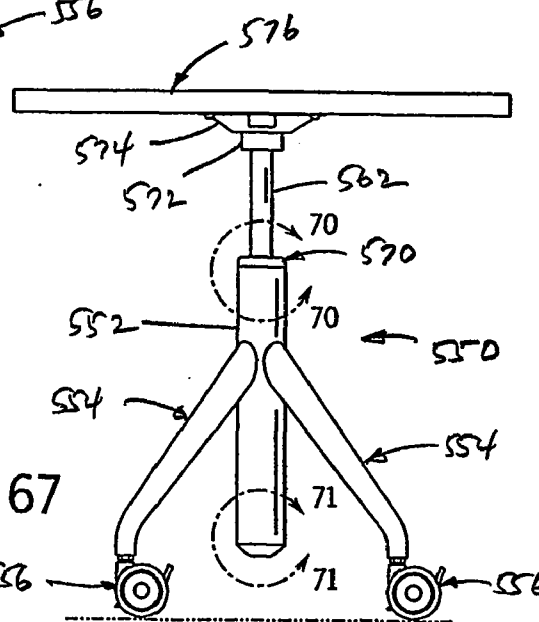


FIG. 67

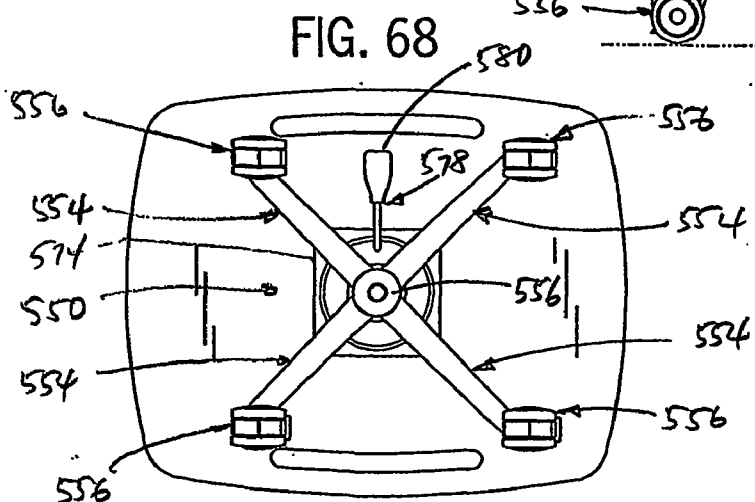
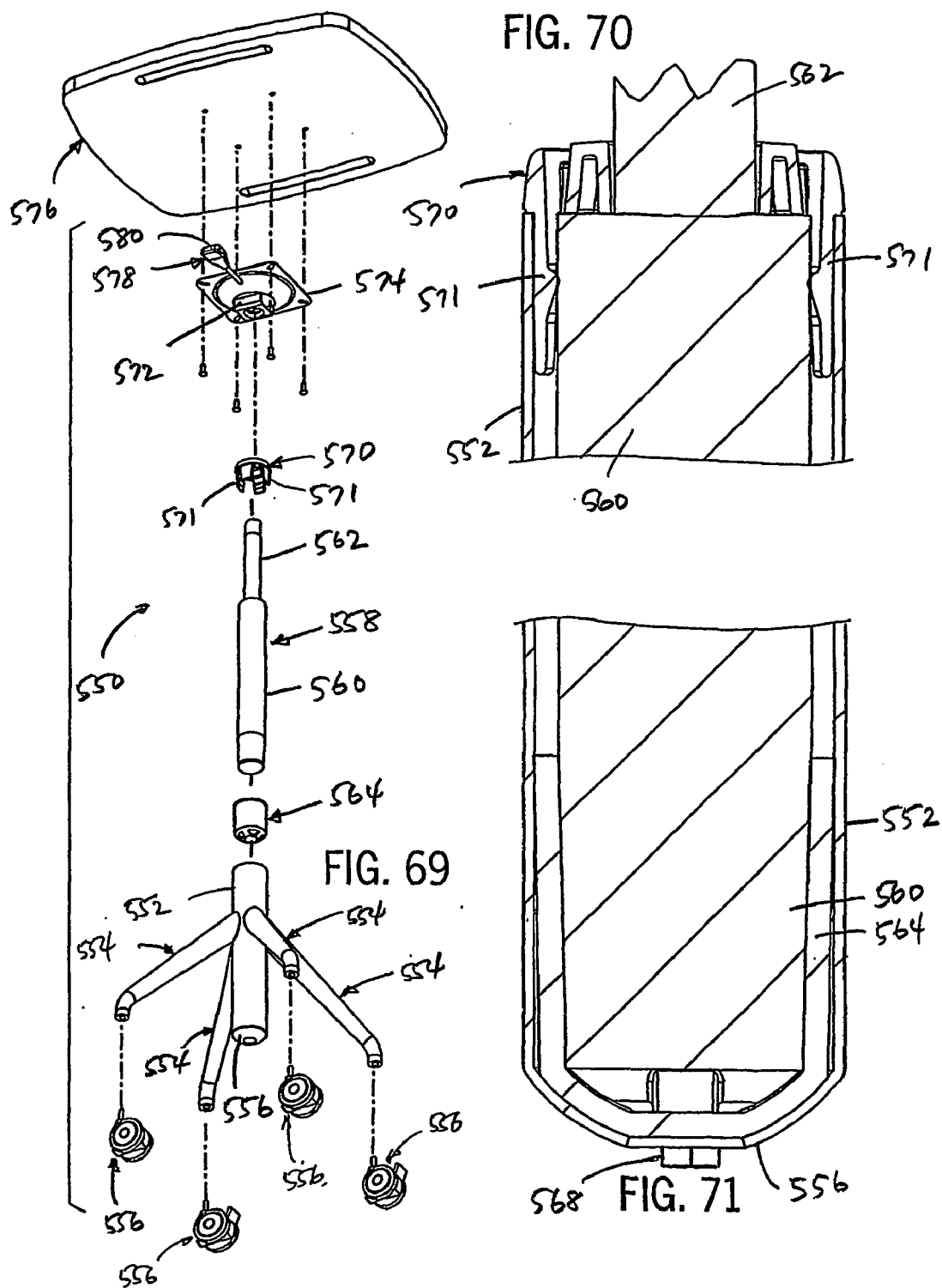


FIG. 68



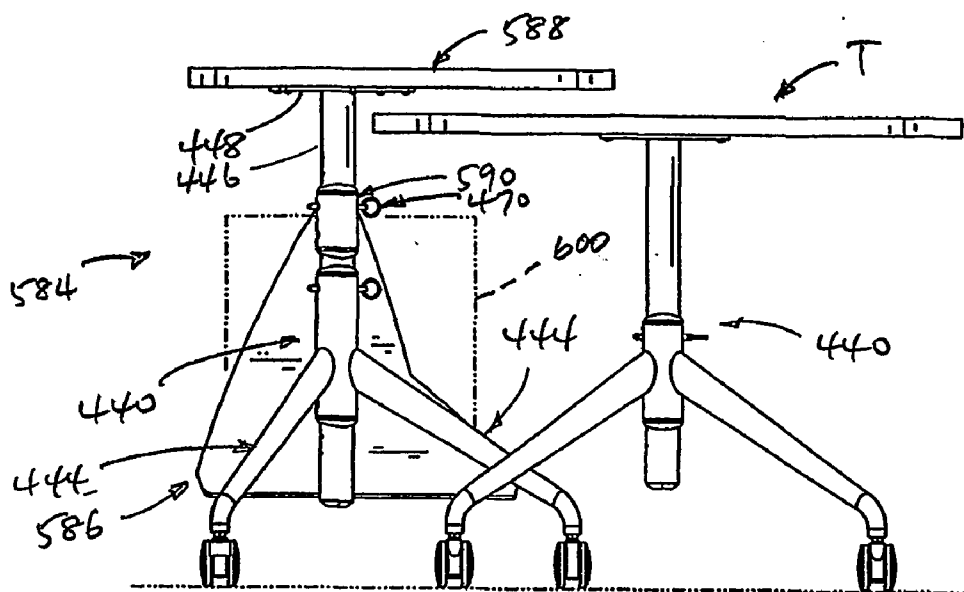


FIG. 73

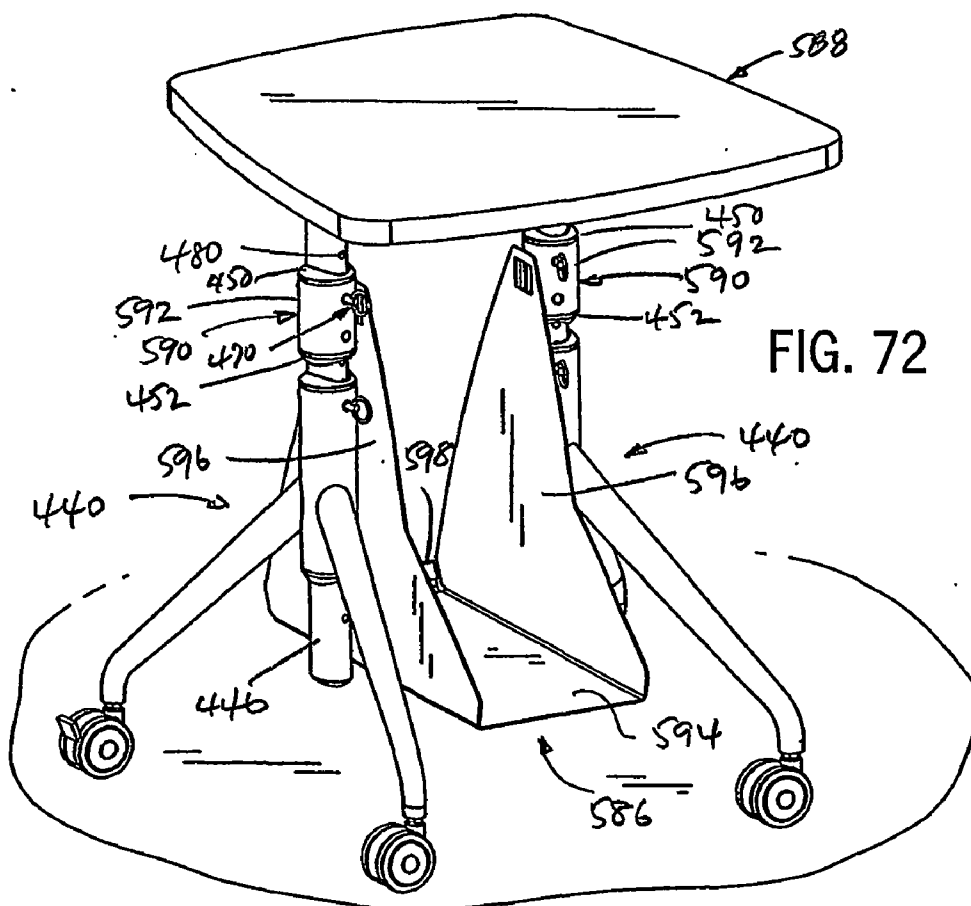
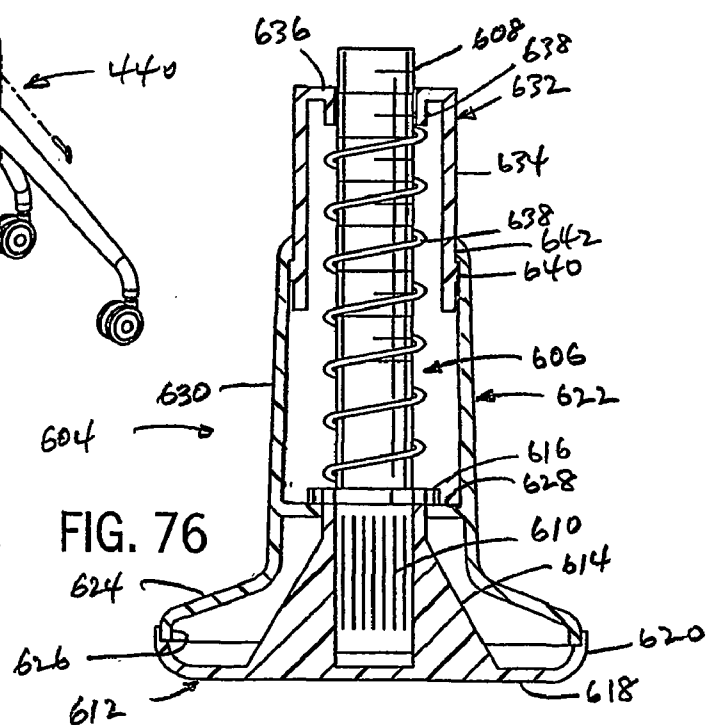
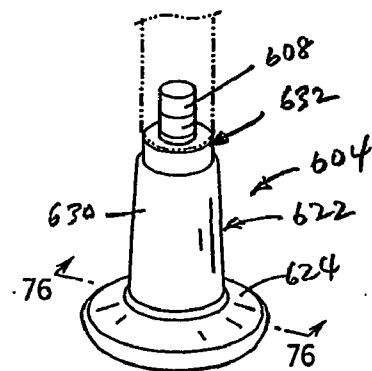
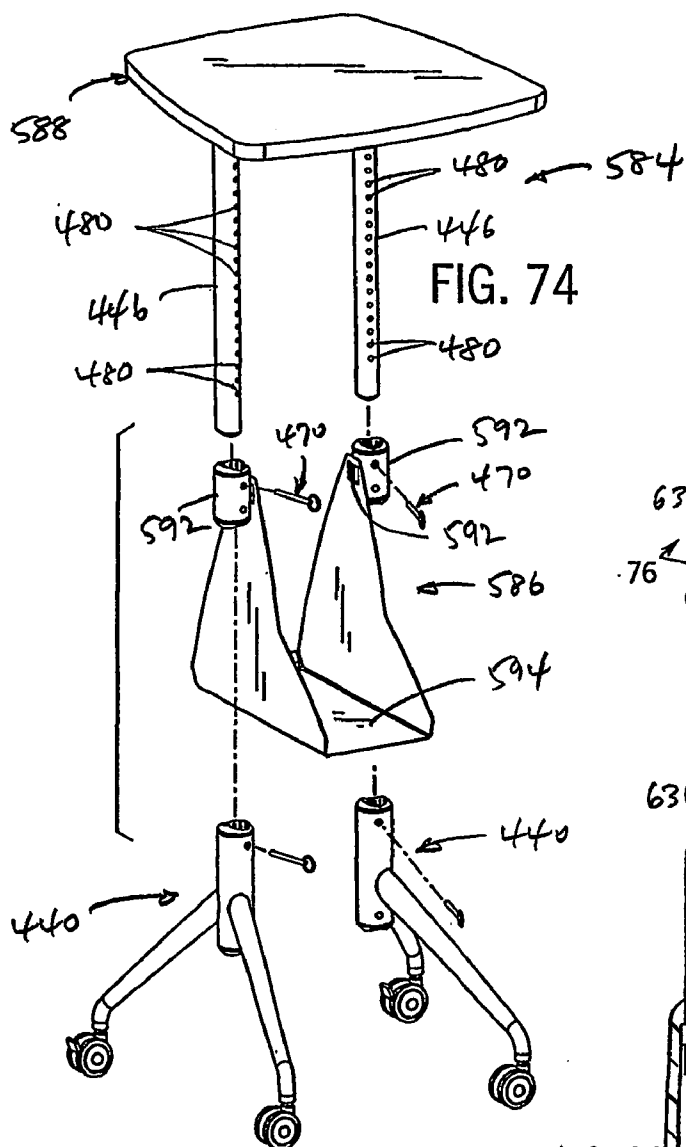


FIG. 72



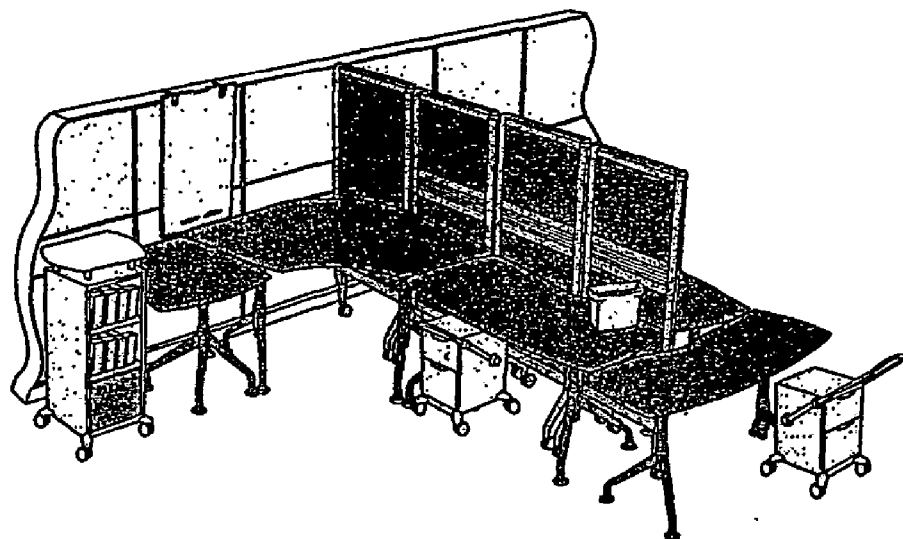


FIG. 77

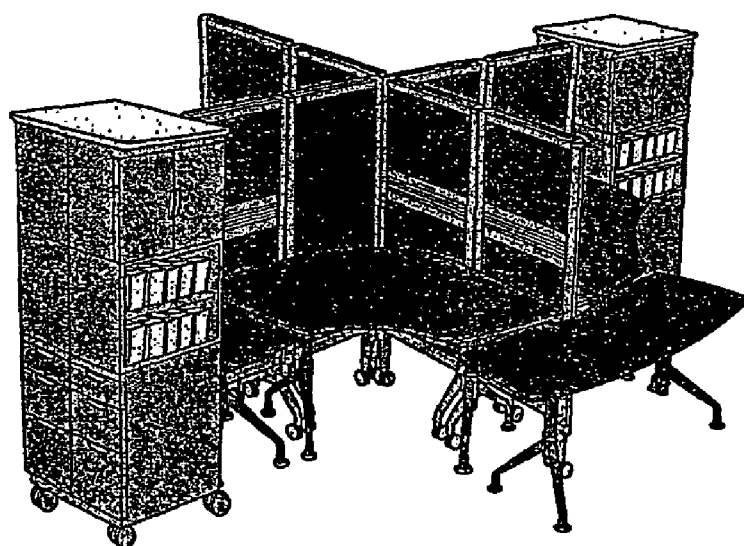


FIG. 78

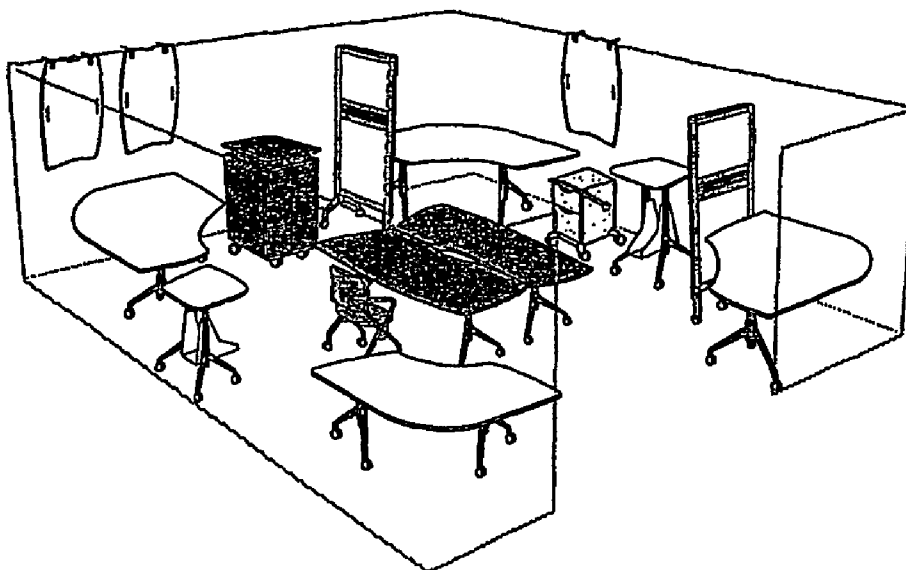


FIG. 79

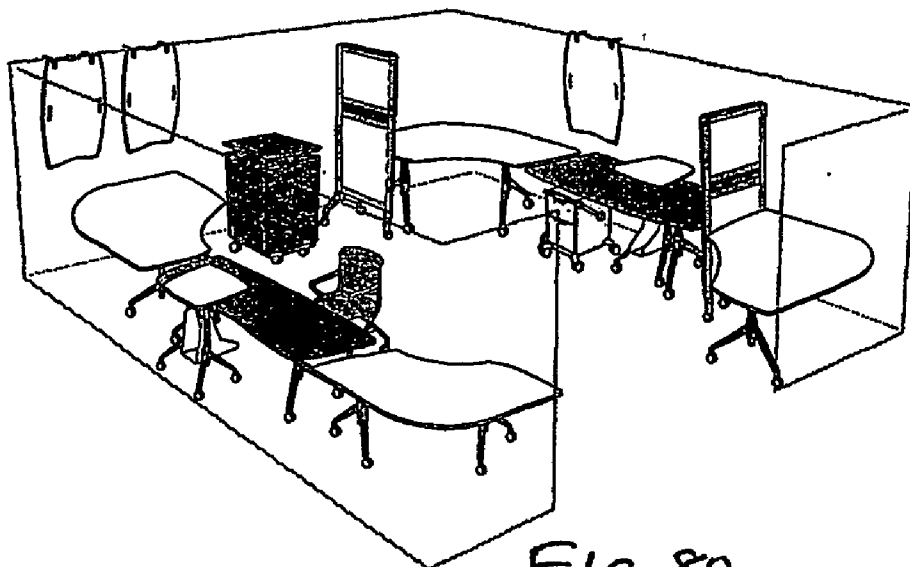
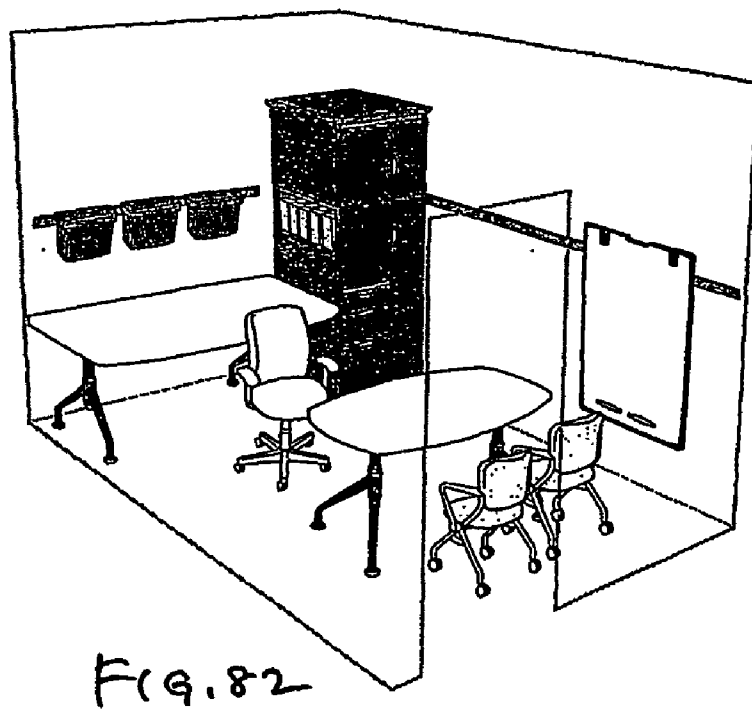
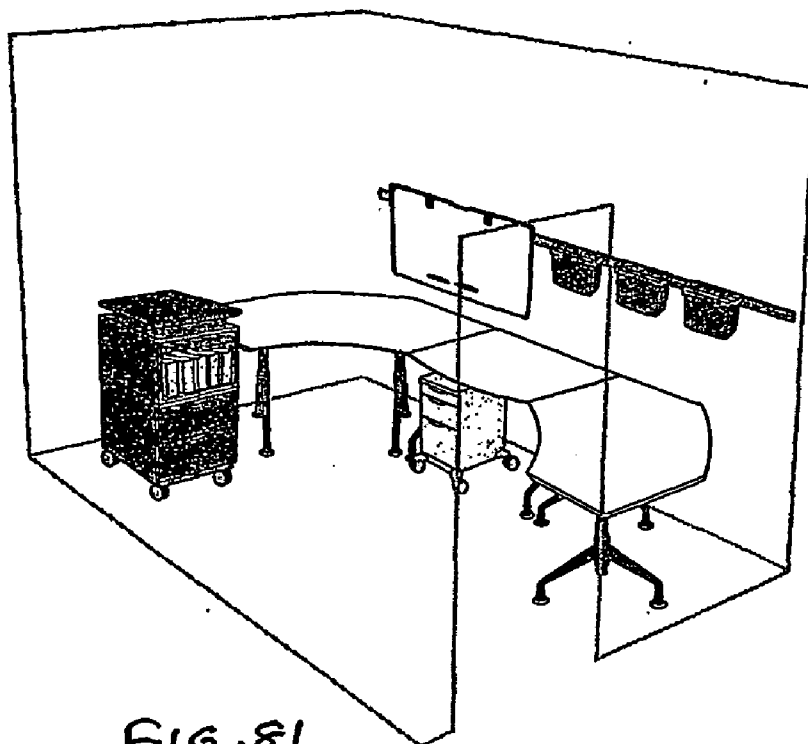


FIG. 80



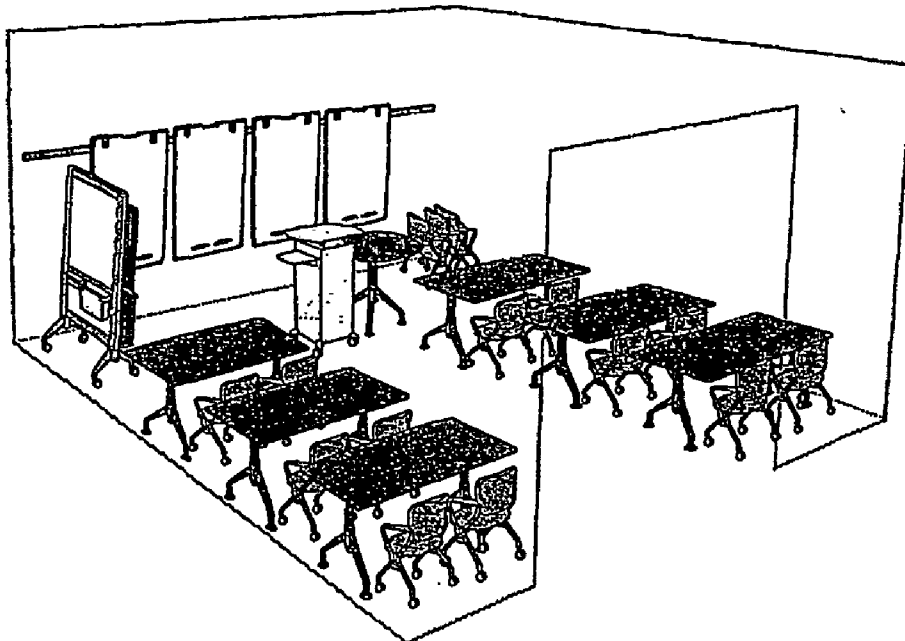


FIG. 83

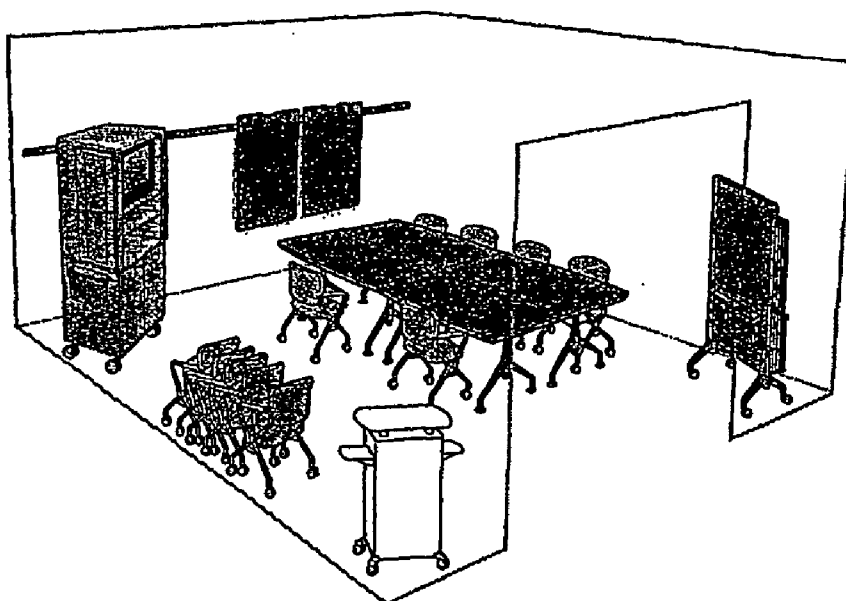


FIG. 84

MOBILE FURNITURE AND ACCESSORY SYSTEM**CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] This application claims the benefit of U.S. Provisional Application Serial No. 60/297,189, filed Jun. 8, 2001.

BACKGROUND AND SUMMARY OF THE INVENTION

[0002] This invention relates to furniture such as is employed in an office setting, and more particularly to a furniture and accessory system which includes a number of components which are readily adapted for movement and interchangeability in an office setting.

[0003] In many office environments, it is desirable to provide furniture components that can be quickly and easily moved to enable the office to be reconfigured for various tasks. It is also desirable to provide furniture components which can be manufactured according to specific user requirements, to enable the components to be used in an optimal manner by the user. It is further desirable to provide a furniture system in which the components are readily adapted to be used in combination with other components, and in which the components can be moved to varying arrangements and configurations according to the environment in which the components are to be used.

[0004] The present invention contemplates a number of furniture and accessory components which are adapted for use in an office environment, and which can be used separately or together and in various combinations and subcombinations, to facilitate work flow, individual and team productivity, and the ability to rapidly and easily reconfigure an office environment for various uses. The invention further contemplates a number of components which are of a modular construction so as to facilitate manufacture according to specific user requirements, to enable the components to easily be assembled according to specific user requirements.

[0005] In accordance with one aspect of the present invention, storage units can be constructed in various configurations from a number of modular components. The storage unit components are assembled on a modular base, which is preferably provided with casters or the like for imparting mobility to the storage unit. The modular components assembled together to form the storage unit are in the form of cabinet modules with drawers, shelf modules, and cupboard modules with doors that provide access to the open interior of the cupboard module. The various components can be in different sizes, and can be configured together in various combinations and subcombinations to form a storage unit having a desired configuration according to user requirements and/or the environment within which the storage unit is to be used.

[0006] Another aspect of the invention involves a tower-type storage unit, which again includes a base with casters for imparting mobility to the storage unit. The tower-type storage unit includes a series of walls with an open front, and can be assembled in various configurations, again according to user requirements.

[0007] Yet another aspect of the invention involves a mobile drawer-type storage unit which has an extendible and

retractable handle assembly which facilitates quick and easy movement of the storage unit from one location to another. The storage unit is built on a base with casters, which are configured to extend outwardly from each corner of the base to provide a stable mobile support for the storage unit. The tower-type storage unit and the mobile drawer-type storage unit may be assembled on the same base.

[0008] Another aspect of the invention involves a paper management bin arrangement which facilitates storage of papers and which is readily adapted for use in combination with the storage components incorporated into the mobile furniture and accessory system of the present invention. The paper management bin arrangement includes a bin defining an upwardly open interior adapted to receive files, papers or binders. The bin can be supported in a suspension-type manner from a bracket adapted to be mounted to a shelf or the like associated with one of the storage units. Alternatively, the bin can be hung from a slot associated with an external or internal wall defined by one of the storage units, or can be placed in a storage unit drawer. The bin is capable of being used in connection with multiple ones of the components of the storage units constructed according to the present invention, to facilitate work flow for active projects and to facilitate archival storage subsequent to completion of a project.

[0009] The present invention also incorporates screen-type partitions, which have a modular construction and which can be assembled in various forms. The partitions include outwardly extending legs for stability, and may include casters or the like for facilitating movement and reconfiguration of the partitions.

[0010] Yet another aspect of the invention involves a unique marker board construction which can be mounted in various ways using the components of the mobile furniture and accessory system of the present invention, including suspension from a storage unit, engagement with a partition or suspension from a rail adapted to be engaged with a wall. The marker board includes mounting members which can be opened or closed to adapt the marker board for mounting to various types of supports, and which can also be operated to secure a sheet of paper or the like to the marker board. The marker board includes an arrangement for maintaining various types of markers in engagement with the marker board, to keep the markers at the ready.

[0011] Another aspect of the invention involves various types of components such as desks, tables and the like, which provide horizontal work surfaces. In one form, a desk or table top is mounted to the upper end of each of a pair of leg assemblies. The leg assemblies are modular, and are adapted to be used in combination with various types and shapes of table or desk tops. Each leg assembly preferably includes a single table top support and a pair of outwardly extending legs. The height of the table top support can be adjusted, so as to provide adjustability in the elevation of the desk or table top. In one form, a manual adjustment mechanism involves a retainer pin which can be engaged within one of a series of passages defined by the table top support. The leg assemblies can also be adapted for use as a computer stand, in which a computer monitor is supported by the top of the stand, which is supported by the pair of leg assemblies. A CPU cradle is engaged between the leg assemblies, for supporting a computer CPU below the top of the stand

and between the leg assemblies. The cradle is preferably supported from a sleeve engaged with each table top support member, defining a passage through which the table top support member extends. The height of the sleeve relative to the support member can be adjusted, using a retainer pin engaged within one of the series of passages defined by the table top support member.

[0012] Another aspect of the invention contemplates an adjustable height glide which can be engaged with legs of the various components of the mobile furniture and accessory system of the present invention, such as the tables, desks, and partitions. Such components can be fitted with casters for facilitating movement, with glides, or with a combination of casters and glides. The adjustable height glide includes a base adapted for engagement with a supporting surface such as a floor, and which includes an upstanding outer wall defining an interior within which a threaded connecting shaft is received. The threaded connecting shaft extends upwardly from the outer wall of the base. The threaded connecting shaft extends through the interior of an upper member, which is telescopically engaged with the outer wall of the base. The upper member is biased upwardly relative to the base by means of a spring, into engagement with the underside of the mounting area of the component to which the glide is to be mounted. The upper portion of the glide is moved inwardly as the threaded connecting shaft is advanced, and moved outwardly under the influence of the spring when the threaded connecting shaft is extended, such that the outer portion functions to conceal the upper area of the threaded connecting shaft located above the upper end of the outer wall of the base.

[0013] The various components of the mobile furniture and accessory system of the present invention can be used separately or in various combinations and subcombinations, to adapt to specific user requirements. The components are capable of being produced in various configurations, again according to user requirements and/or to enhance efficient and effective use of space in a work environment.

[0014] Various other features, objects and advantages of the invention will be made apparent from the following description taken together with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The drawings illustrate the best mode presently contemplated of carrying out the invention.

[0016] In the drawings:

[0017] **FIG. 1** is an isometric view of various components of the mobile furniture and accessory system of the present invention assembled together in a representative work environment;

[0018] **FIG. 2** is an isometric view of additional components of the mobile furniture and accessory system of the present invention assembled together in another arrangement of a work environment;

[0019] **FIG. 3** is an isometric view of various components incorporated into a modular storage unit forming a part of the mobile furniture and accessory system of the present invention;

[0020] **FIGS. 4-7** are views similar to **FIG. 3**, showing additional configurations of components that can be

assembled together to form a modular storage unit forming a part of the mobile furniture and accessory system of the present invention;

[0021] **FIGS. 8, 9 and 10** are isometric views of representative components that can be incorporated in the various configurations of a modular storage unit, such as illustrated in **FIGS. 4-7**, and forming a part of the mobile furniture and accessory system of the present invention;

[0022] **FIG. 11** is a view illustrating representative combinations of components incorporated into a modular storage unit having a first height and forming a part of the mobile furniture and accessory system of the present invention;

[0023] **FIG. 12** is a view similar to **FIG. 11**, showing various combinations of components incorporated into a modular storage unit having a second height, and forming a part of the mobile furniture and accessory system of the present invention;

[0024] **FIG. 13** is a view similar to **FIGS. 11 and 12**, showing different components incorporated into a storage unit having a third height, and forming a part of the mobile furniture and accessory system of the present invention;

[0025] **FIG. 14** is a view similar to **FIGS. 11-13**, showing components incorporated into a storage unit having a fourth height, and forming a part of the mobile furniture and accessory system of the present invention;

[0026] **FIG. 15** is a view similar to **FIGS. 11-14**, showing additional storage units of different configurations, forming a part of the mobile furniture and accessory system of the present invention;

[0027] **FIG. 16** is a view similar to **FIGS. 11-15**, showing additional configurations of components to construct storage units forming a part of the mobile furniture and accessory system of the present invention;

[0028] **FIG. 17** is an isometric view of another version of a storage unit forming a part of the mobile furniture and accessory system of the present invention;

[0029] **FIG. 18** is a view showing alternative versions of a storage unit similar to **FIG. 17**, forming a part of the mobile furniture and accessory system of the present invention;

[0030] **FIG. 19** is an isometric view of one version of a mobile cabinet forming a part of the mobile furniture and accessory system of the present invention;

[0031] **FIG. 20** is a view illustrating alternative versions of a mobile cabinet forming a part of the mobile furniture and accessory system of the present invention;

[0032] **FIG. 21** is a view similar to **FIG. 19**, showing another embodiment of a mobile cabinet incorporated into the mobile furniture and accessory system of the present invention;

[0033] **FIG. 22** is a view similar to **FIGS. 19 and 21**, showing another configuration of a mobile cabinet forming a part of the mobile furniture and accessory system of the present invention;

[0034] **FIGS. 23 and 24** are isometric views illustrating additional mobile cabinet configurations forming a part of the mobile furniture and accessory system of the present invention;

[0035] FIG. 25 is an isometric view illustrating a set of storage bins forming a part of the mobile furniture and accessory system of the present invention;

[0036] FIG. 26 is an isometric view showing a hanging version of a storage bin forming a part of the mobile furniture and accessory system of the present invention;

[0037] FIG. 27 is a partial isometric view with reference to line 27-27 of FIG. 26;

[0038] FIG. 28 is an isometric view illustrating a storage bin and its use in connection with an associated storage cabinet forming a part of the mobile furniture and accessory system of the present invention;

[0039] FIG. 29 is a view illustrating use of the bin and storage components incorporated into the mobile furniture and accessory system of the present invention;

[0040] FIG. 30 is an isometric view showing various versions of a movable screen or partition forming a part of the mobile furniture and accessory system of the present invention;

[0041] FIGS. 31 and 32 are isometric views illustrating embodiments of a screen incorporated into the mobile furniture and accessory system of the present invention;

[0042] FIG. 34 is a top plan view illustrating different configurations which can be attained using the screen of FIG. 32;

[0043] FIG. 35 is an isometric view of a marker board and the rear of a marker board cart, forming a part of the mobile furniture and accessory system of the present invention;

[0044] FIG. 36 is an isometric view of the front of the marker board cart illustrated in FIG. 35;

[0045] FIG. 37 is an enlarged partial isometric view with reference to line 37-37 of FIG. 35;

[0046] FIG. 38 is an isometric view of a marker board forming a part of the mobile furniture and accessory system of the present invention;

[0047] FIG. 39 is an elevation view showing one side of the marker board of FIG. 38;

[0048] FIG. 40 is an elevation view of a marker board forming a part of the mobile furniture and accessory system of the present invention;

[0049] FIG. 41 is an enlarged partial elevation view with reference to line 41-41 of FIG. 40;

[0050] FIG. 42 is a partial section view showing an upper area of a marker board forming a part of the mobile furniture and accessory system of the present invention, and illustrating one of the ways in which the marker board can be suspended for use;

[0051] FIG. 43 is a view similar to FIG. 42, showing another way in which the marker board can be suspended for use;

[0052] FIG. 44 is an enlarged partial section view showing the manner in which a sheet of paper can be engaged with the marker board of FIGS. 42 and 43;

[0053] FIG. 45 is an enlarged partial elevation view of a marker engagement area, as shown in FIG. 37, incorporated

into the marker board forming a part of the mobile furniture and accessory system of the present invention;

[0054] FIG. 46 is a view similar to FIG. 45, illustrating an alternative manner of securing a marker to the marker board;

[0055] FIG. 47 is a partial section view taken along line 47-47 of FIG. 46;

[0056] FIG. 48 is an isometric view illustrating various shapes and sizes of marker boards forming a part of the mobile furniture and accessory system of the present invention;

[0057] FIG. 49 is an isometric view of a representative table incorporated into the mobile furniture and accessory system of the present invention;

[0058] FIG. 50 is a partial isometric view showing one of the legs and a portion of the table top of the table of FIG. 49;

[0059] FIG. 51 is an exploded isometric view of the components of the table leg of FIG. 50;

[0060] FIG. 52 is an enlarged partial isometric view showing portions of the table leg of FIG. 51;

[0061] FIG. 53 is an isometric view of an alternative table top configuration for a table forming a part of the mobile furniture and accessory system of the present invention;

[0062] FIG. 54 is a bottom plan view of the table top of FIG. 53;

[0063] FIG. 55 is a partial section view taken along line 55-55 of FIG. 53;

[0064] FIGS. 56-59 are top plan views of representative alternative table top configurations for the table forming a part of the mobile furniture and accessory system of the present invention;

[0065] FIG. 60 is an isometric view of an adjustable height stand or table forming a part of the mobile furniture and accessory system of the present invention;

[0066] FIG. 61 is a bottom plan view of the table top of the table of FIG. 60;

[0067] FIG. 62 is an isometric view of another embodiment of an adjustable height table similar to the adjustable height table of FIG. 60;

[0068] FIG. 63 is a bottom plan view of the table top of the table of FIG. 62;

[0069] FIG. 64 is an isometric view of another embodiment of an adjustable height table similar to the table of FIG. 60;

[0070] FIG. 65 is a bottom plan view of the table top of the table of FIG. 64;

[0071] FIG. 66 is another embodiment of an adjustable height table similar to the table of FIG. 60;

[0072] FIG. 67 is a side elevation view of the adjustable height table of FIG. 66;

[0073] FIG. 68 is a bottom plan view of the table of FIGS. 66 and 67;

[0074] FIG. 69 is an exploded isometric view showing the components of the adjustable height table of FIGS. 66-68;

[0075] FIG. 70 is a partial section view with reference to line 70-70 of FIG. 67;

[0076] FIG. 71 is a partial section view with reference to line 71-71 of FIG. 67;

[0077] FIG. 72 is an isometric view of an adjustable height computer stand forming a part of the mobile furniture and accessory system of the present invention;

[0078] FIG. 73 is a side elevation view showing the computer stand of FIG. 72 in combination with an adjustable height table such as the table illustrated in FIG. 49;

[0079] FIG. 74 is an exploded isometric view of the adjustable height computer stand of FIG. 72;

[0080] FIG. 75 is an isometric view of a glide adapted for use in supporting the components of the mobile furniture and accessory system of the present invention;

[0081] FIG. 76 is a section view taken along line 76-76 of FIG. 75; and

[0082] FIGS. 77-84 are isometric view illustrating representative environments which can be attained using the mobile furniture and accessory system of the present invention.

DETAILED DESCRIPTION

[0083] The mobile furniture and accessory system of the present invention contemplates a number of furniture products and accessories which are adapted to be used in an office environment, and which provide ease of mobility and relocation of the various components incorporated into the system.

[0084] FIG. 1 illustrates a representative office environment configuration which can be obtained using the certain components of the mobile furniture and accessory system of the present invention. The components employed in the office environment of FIG. 1 can be readily and easily repositioned to change the layout of the office environment, for flexibility of the open plan office configuration and for different specific uses of the space. Representative components incorporated into the office environment of FIG. 1 include a storage unit S, a pair of desks or tables T1, T2, a binder storage tower B, and a mobile screen or partition P. A series of chairs C1, C2 are provided for use by the occupant of the office environment of FIG. 1. A marker board M is illustrated as being supported by a support rail R secured to a wall which in part defines the space for the office environment of FIG. 1. A series of paper management storage bins PB may be used by the occupant of the office environment of FIG. 1. Bins PB are adapted to be supported by or stored in a number of the components of the office environment of FIG. 1, including suspension-type support from rail R and screen or partition P, and conventional storage within a shelf unit associated with storage unit S. The office environment of FIG. 1 may also include an overhead storage unit OS supported by a support rail R secured to another wall defining the space for the office environment of FIG. 1. The floor-supported components illustrated in the office environment of FIG. 1 are provided with casters or glides, which facilitate movement of such components for reconfiguration to adapt the space for different uses by the occupant of the space, and to also enable movement for altering the overall plan of the office space.

[0085] FIG. 2 illustrates another representative office environment configuration which can be obtained using the components of the mobile furniture and accessory system of the present invention. In the environment of FIG. 2, a series of screens or partitions P are moved together to divide the overall space into separate spaces that can be used by several different people. The users of the space may use various storage products that can be moved into and about the space, either for personal or project storage, including a binder tower B and a mobile storage pedestal SP. A series of marker boards M may be adapted for use by the occupants of the space, and can be supported from a wall or from screens or partitions P. A mobile marker board cart MC is adapted to carry a series of marker boards M, and can also be used to support marker boards M during use. Paper management bins PB may be used by the occupants of the space, and supported from various components including screens or partitions P and binder tower B.

[0086] The mobile furniture and accessory system of the present invention may be used in other combinations and configurations of components, and additional examples will be shown and described hereafter.

[0087] Storage Components

[0088] One aspect of the mobile furniture and accessory system contemplates various storage products. In one form, the storage products may be modular in construction. As shown in FIGS. 3-10, the modular storage products are built on a mobile stationary platform or base module 96, or on a platform or base module 98 which includes a base member 100 having a series of casters 102 located one at each corner defined by base member 100.

[0089] In a representative combination, a drawer module 104 includes a cabinet and a series of pull-out drawers 106, all of which may be configured to accommodate files or may be conventional storage-type drawers. The cabinet of drawer module 104 defines a top 108. Drawer module 104 has a depth which corresponds to the depth of base module 96 or base member 100, and has a width which may be equal to or less than that of base module 96 or base member 100. Drawer module 104 may be provided with various drawer configurations, representatively illustrated at D₁, D₂, D₃, D₄ and D₅. It should be appreciated that the illustrated drawer configurations are exemplary only, and that other drawer styles and configurations may be employed. A bookcase module 110 is adapted to be placed on and secured to top wall 108 of drawer module 104. Bookcase module 110 may have the same footprint as drawer module 104, or may have a width less than that of drawer module 104. Bookcase module 110 is of conventional construction including an open front and an adjustable shelf 112 which divides the interior of bookcase module 110 into upper and lower storage areas. A wardrobe module 114 is adapted to be mounted to base member 100. Wardrobe module 114 is dimensioned so as to have the same depth as drawer module 104, and a width which, in combination with a narrow drawer module 104, equals the width of base module 96 or base member 100. Wardrobe module 114 includes an open interior which is accessible through a door 115. Wardrobe module 114 has a height which equals the combined height of drawer module 104 and bookcase module 110. In an arrangement in which the drawer module 104 has a width which equals that of base module 96 or base member 100,

a single drawer module 117 or a single door cabinet module 119 may be engaged with the top wall 108 of drawer module 104, in combination with bookcase module 110. A full-width cupboard module 116 is adapted to be mounted to the upper ends of bookcase module 110 and wardrobe module 114. Cupboard module 116 has an open interior which is accessible through a single door or a pair of doors 118, 120. The footprint of cupboard module 116 is the same base module 96 or as base member 100, which in turn is the same as the combined footprint of drawer module 104 (and bookcase module 110) in combination with wardrobe module 114. Cupboard module 116 is adapted to be secured to an upper wall 122 of bookcase module 110 and to an upper wall 124 of wardrobe module 114. Cupboard module 116 in turn defines an upper wall 126, and a top panel 128 is adapted to be secured to upper wall 126 of cupboard module 116. Typically, top panel 128 will have a similar style, color and appearance as base member 100, so as to provide an aesthetically appealing appearance to the modular storage system constructed of components 100-128.

[0090] Certain of the side walls of the various components may be provided with a horizontal slot S, which can be used to releasably mount a paper management bin PB to the component, in a manner to be explained.

[0091] The various components illustrated in FIGS. 3-10 can be positioned in various orientations relative to each other and relative to base modules 96 or 98, according to the configuration desired by the user.

[0092] FIG. 11 illustrates various storage unit configurations having a first modular height, and which can be obtained using the modular storage component concept in accordance with the invention. In a first storage unit configuration SI, a drawer module 138 is mounted to base member 100 of base module 98. Drawer module 138 is similar to a full width drawer module 104 with two full-width drawers. A bookcase module 110 and a single-door cupboard module 140 (which is identical to module 119) are secured to the top wall of drawer module 138. Bookcase module 110 and cupboard module 140 are configured to define the same footprint as drawer module 138 and base member 100. A two-door cupboard module 142 (which is identical to module 116) is mounted to the upper walls of bookcase module 110 and cupboard module 140. Again, cupboard module 142 has the same footprint as base module 98 and the components between cupboard module 142 and base module 98. A top panel 128 is mounted to the upper wall of cupboard module 142. As noted previously, the components of storage unit S₁ may be moved to different orientations relative to each other, other than the specific orientation shown.

[0093] A storage unit S₂ includes base module 98 and drawer module 138 as described with respect to storage unit S₁. Storage unit S₂ also includes a tall bookcase module 110' and a tall single-door cupboard module 140', which are configured similarly to bookcase module 110 and cupboard module 140, respectively. Top panel 128 is mounted to the upper walls of bookcase module 110' and cupboard module 140'.

[0094] A storage unit S₃ includes bookcase module 110, single-door cupboard module 140 and two-door cupboard module 142, as described previously. Storage unit S₃ further includes a drawer module 144 having the same footprint as

base module 98, but incorporating four drawers instead of the two drawers as illustrated in storage units S₁ and S₂.

[0095] A storage unit S₄ includes a drawer module 138 mounted to base module 98, in combination with a pair of back-to-back tall bookcase modules 110'. Top panel 128 is mounted to the upper walls of tall bookcase modules 110'.

[0096] Storage units S₅ and S₆ each include a drawer module 145 constructed similarly to drawer module 138 but including three drawers rather than two. Storage Unit S₅ includes an intermediate height bookcase module 110", which is constructed similarly to bookcase modules 110 and 110', having a height greater than bookcase module 110 but less than tall bookcase module 110'. Storage unit S₅ further includes a single-door cupboard module 140', which has a height greater than that of single-door cupboard module 140 and equal to that of bookcase module 110". Storage unit S₆ includes back-to-back bookcase modules 110".

[0097] Storage units S₇ and S₈ each include a full-height wardrobe module 114'. Storage unit S₇ includes a drawer module 146 constructed similarly to drawer module 138, but having a lesser width such that drawer module 146 and wardrobe module 114 cooperate to define a footprint the same as that of base member 100. A tall partial-width cupboard module 148 is mounted to the upper wall of drawer module 146, defining an open interior which is accessible through a pair of doors. Cupboard module 148 defines the same footprint as drawer module 146, and cooperates with wardrobe module 114' to define the same footprint as base member 100. Top panel 128 is mounted to the upper ends of cupboard module 148 and wardrobe module 114'.

[0098] Storage unit S₈ includes a drawer module 150 constructed similarly to drawer module 146 but including three drawers rather than two. Storage unit S₈ further includes a cupboard module 152 constructed similarly to cupboard module 148 but having a lesser height, such that drawer module 150 and cupboard module 152 have a combined height which equals that of wardrobe module 114'. Again, top panel 128 is mounted to the upper ends of cupboard module 152 and wardrobe module 114'.

[0099] Storage modules S₉, S₁₀, S₁₁, and S₁₂, each include a transversely mounted wardrobe module 114" having a width which equals that of base member 100. Storage module S₉ includes a drawer module 154 which includes a pair of drawers, and which has a lesser depth than drawer module 138, such that drawer module 154 and wardrobe module 114" cooperate to define a footprint which equals that of base member 100. A cupboard module 156 is mounted to the upper wall of drawer module 154, having a depth equal to that of drawer module 154. Cupboard module 156 and drawer module 154 have a combined height equal to that of wardrobe module 114", and top panel 128 is mounted to the upper ends of wardrobe module 114" and cupboard module 156.

[0100] Storage unit S₁₀ is constructed similarly to storage unit S₉, but includes a drawer module 158 constructed similarly to drawer module 154 but having three drawers instead of two and a greater height than that of drawer module 154. A cupboard module 160 is mounted to the upper wall of drawer module 154, and is constructed similarly to cupboard module 156 but having a lesser height, such that the combined height of drawer module 158 and

cupboard module 160 equals that of wardrobe module 114". Top panel 128 is mounted to the upper ends of cupboard module 116 and wardrobe module 114".

[0101] Storage unit S₁₁ includes wardrobe module 114" as well as drawer module 154. In addition, a tall bookcase module 162 (similar to 110') is mounted above drawer module 154, and is dimensioned such that drawer module 154 and bookcase module 162 have a height which equals that of wardrobe module 114". Top panel 128 is mounted to the upper ends of wardrobe module 114" and bookcase module 162.

[0102] In a similar manner, storage unit S₁₂ includes wardrobe module 114" and drawer module 158 having three drawers. A bookcase module 164 (similar to 110'), constructed similarly to bookcase module 162 but having a lesser height, is mounted to the upper wall of drawer module 158. Again, the combined height of drawer module 158 and bookcase module 164 equals that of wardrobe module 114", and top panel 128 is mounted to the upper ends of wardrobe module 114" and bookcase module 164.

[0103] It should be understood that the components shown and described with respect to storage units S₁-S₁₂ are illustrative of a virtually unlimited number of components and combinations of components which can be mounted to base module 98 in a similar manner, to provide a differently configured storage unit according to user requirements.

[0104] All versions illustrated in FIG. 11 have the same height, which corresponds in height to a conventional height of a wall panel employed in an open plan office system, e.g. 66 inches. In all configurations, the various components can be moved to different angular positions relative to each other, according to the configuration desired by the user.

[0105] FIG. 12 illustrates a series of storage unit configurations built on a base 98' having a lesser width than base 98. Again, the storage unit configurations of FIG. 12 are all of a similar height, representatively corresponding to the height of a conventional panel in a wall system, such as 66 inches. Certain of the components in the storage unit configurations of FIG. 12 correspond to those described with respect to FIG. 11, and like reference characters will be used to facilitate clarity.

[0106] As shown in FIG. 12, a storage unit S₁₃ includes a drawer module 146 having two relatively large drawers. Drawer module 146 is mounted to base member 100' of base module 98', and bookcase module 110 is mounted to the top wall of drawer module 146 along with a narrow cupboard module 134. Bookcase module 110 and cupboard module 134 define a combined footprint which is the same as drawer module 146 and base module 98'. Cupboard module 116 is mounted to the upper walls of bookcase module 110 and narrow cupboard module 134, and a top panel 128' is mounted to the top wall of cupboard module 116.

[0107] A storage unit S₁₄ includes a three-drawer module 150 mounted to base module 98'. An intermediate height bookcase module 110" is mounted to the upper wall of drawer module 150, along with a single-door cupboard module 134', which is constructed similarly to cupboard module 134 but having a greater height which equals that of bookcase module 110". Top panel 128' is mounted to the upper walls of bookcase module 110" and cupboard module 134'.

[0108] A storage unit S₁₅ includes a narrow two-drawer module 170 and a wardrobe module 114 mounted to base module 98'. Bookcase module 110 is mounted to the upper wall of drawer module 170, which have a combined height equal to that of wardrobe module 114. Cupboard module 116 is mounted to the upper walls of bookcase module 110 and wardrobe module 114, and top panel 128' is mounted to the upper wall of cupboard module 116.

[0109] A storage unit S₁₆ includes a full-height wardrobe module 114' and drawer module 170 mounted to base module 98'. Bookcase module 110 is mounted to the upper wall of drawer module 170. A laterally facing cupboard module 172 is mounted to the upper wall of bookcase module 110. Top panel 128' is mounted to the upper walls of bookcase module 172 and wardrobe module 114'.

[0110] A storage unit S₁₇ includes drawer module 170 and full-height wardrobe module 114' mounted to base module 98', along with a tall bookcase module 110'. Top panel 128' is mounted to the upper walls of bookcase module 110' and wardrobe module 114'.

[0111] A storage unit S₁₆ includes a full-height wardrobe module 114' and drawer module 170 mounted to base module 98'. A forwardly opening single-door cupboard module 173 is mounted to the upper wall of drawer module 117, and top panel 128' is mounted to the upper walls of cupboard module 173 and wardrobe module 114'.

[0112] A storage module S₁₉ includes full-height wardrobe module 114' along with a narrow drawer module 174 mounted to base module 98'. Drawer module 174 is similar to drawer module 170, but has a greater height and includes three drawers rather than two. A single-door cupboard module 176 is mounted to the upper wall of drawer module 174, and has the same footprint as drawer module 174. Top panel 128' is mounted to the upper ends of cupboard module 176 and wardrobe module 114'.

[0113] A storage unit S₂₀ includes drawer module 174 and full-height wardrobe module 114' mounted to base module 98'. Bookcase module 110" is mounted to the upper wall of drawer module 174, and top panel 128' is mounted to the upper walls of bookcase module 110" and wardrobe module 114'.

[0114] A storage unit S₂₁ has a laterally facing wardrobe module 114'" and a drawer module 146' mounted to base module 98'. Wardrobe module 114'" is constructed similarly to lateral wardrobe 114" (FIG. 2), but has a lesser depth so as to equal the width of base module 98'. Drawer module 146' is constructed similarly to drawer module 146, but again has a lesser depth and cooperates with wardrobe module 114'" to define the same footprint as base module 98'. A tall cupboard module 172' is mounted to the upper wall of drawer module 166', which has a combined height equal to that of wardrobe module 114". Top panel 128' is mounted to the upper walls of cupboard module 172' and wardrobe module 114'.

[0115] A storage unit S₂₂ includes lateral wardrobe module 114'" and drawer module 146' mounted to base module 98'. A tall bookcase module 110' is mounted to the upper wall of drawer module 146', which define a combined height equal to that of wardrobe module 114". Top panel 128' is mounted to the upper walls of bookcase module 110' and wardrobe module 114'.

[0116] A storage unit S_{23} includes lateral wardrobe module 114" and drawer module 146' mounted to base module 98'. In addition, bookcase module 110 and cupboard module 172 are stacked on top of drawer module 146' to define a height equal to that of wardrobe module 114". Top panel 128' is mounted to the upper walls of cupboard module 172 and wardrobe module 114".

[0117] Again, the components illustrated in connection with storage units S_{13} - S_{23} are representative of any number of component types and sizes which may be mounted to base module 98'. The component dimensions are selected such that the assembled components all have the same height, in this case 66 inches, which corresponds to a conventional wall panel height in an open plan space dividing system. Further, as before, the various components may be placed in different orientations relative to each other than the specific illustrated orientations, to provide additional flexibility in the storage unit design. In the case of the storage unit configurations illustrated in FIG. 12, base module 98' has a square footprint, which provides even greater flexibility in positioning the various components in different orientations relative to each other.

[0118] FIG. 13 illustrates shorter height storage unit configurations built on base modules 98 or 98'. The storage units of FIG. 13 are constructed to have a height which corresponds to a shorter wall panel height typically used in a panel-type open plan office space divider system, in this case 54 inches, although it is understood that other satisfactory heights may be selected.

[0119] As shown in FIG. 13, a storage unit S_{24} includes drawer module 138 mounted to base module 98, along with a laterally facing bookcase module 110" and a forwardly opening single-door cupboard module 140' mounted to the upper wall of drawer module 138. Top panel 128 is mounted to the upper walls of bookcase module 110 and cupboard module 140'.

[0120] A storage unit S_{25} also includes drawer module 138 mounted to base module 98. A double door cupboard module 142', constructed similarly to cupboard module 142 of FIG. 11 but having a greater height, is mounted to the upper wall of drawer module 138, and has the same footprint as drawer module 138 and base module 98. Top panel 128 is mounted to the upper wall of cupboard module 142'.

[0121] A storage unit S_{26} includes a pair of side-by-side drawer modules 170 mounted to base module 98. Drawer modules 170 define a combined footprint which is the same as base module 98, and each drawer module 170 includes a pair of vertically stacked drawers. A pair of intermediate height bookcase modules 110" are mounted in back-to-back fashion on top of drawer modules 170. Top panel 128 is mounted to the upper walls of bookcase modules 110".

[0122] A storage unit S_{27} also includes a pair of side-by-side drawer modules 170 mounted to base module 98. A bookcase module 110" is stacked on top of one of drawer modules 170, and a single-door cupboard module 140' is stacked on top of the other drawer module 170. Top panel 128 is mounted to the upper walls of bookcase module 110" and cupboard module 140'.

[0123] A storage unit S_{28} includes a drawer module 146 and a wardrobe module 178 mounted to base module 98. Wardrobe module 178 is constructed similarly to the for-

wardly opening versions of wardrobe module 114, but having a greater height which corresponds to the full height of storage unit S_{28} . A double door cupboard module 152 is mounted to the upper wall of drawer module 146, to define a combined height equal to that of wardrobe module 178. Top panel 128 is mounted to the upper walls of cupboard module 152 and wardrobe module 178.

[0124] A storage unit S_{29} includes a laterally opening full-height wardrobe module 178' and a drawer module 154 mounted to base module 98. A bookcase module 164 is mounted to the upper wall of drawer module 154, to define a combined height equal to that of wardrobe module 178'. Top panel 128 is mounted to the upper walls of bookcase module 164 and wardrobe module 178'.

[0125] A storage unit S_{30} includes drawer module 154 and laterally opening wardrobe module 178' mounted to base module 98. Cupboard module 160 is mounted to the upper wall of drawer module 154, which define a combined height equal to that of wardrobe module 178'. Top panel 128 is mounted to the upper walls of cupboard module 160 and wardrobe module 178'.

[0126] Storage units S_{31} - S_{37} are built on base module 98', and are constructed to have an overall height which is the same as storage units S_{23} - S_{29} .

[0127] Storage unit S_{31} includes a drawer module 146 mounted to base module 98', as well as an intermediate height bookcase module 110" and a single-door cupboard module 134' mounted to the upper wall of drawer module 146. Top panel 128' is mounted to the upper walls of bookcase module 110" and cupboard module 134'.

[0128] Storage unit S_{32} includes drawer module 146 mounted to base module 98'. Single-door cupboard module 134' is mounted to the upper wall of drawer module 146, and a laterally opening cupboard module 172' is mounted to drawer module 146 along with cupboard module 134'. Cupboard module 172' is constructed similarly to cupboard module 172 (FIG. 12), but has a greater height so as to correspond in height with cupboard module 134'. Top panel 128' is mounted to the upper walls of cupboard modules 134' and 172'.

[0129] A storage unit S_{33} includes full-height wardrobe module 178 and drawer module 170 mounted to base module 98'. A single-door cupboard module 140' is stacked on top of drawer module 170, which define a combined height equal to that of wardrobe module 178. Top panel 128' is mounted to the upper walls of wardrobe module 178 and cupboard module 140'.

[0130] A storage unit S_{34} includes a laterally opening wardrobe module 178' and a drawer module 146' mounted to base module 98'. A cupboard module 172' is stacked on drawer module 146', which define a combined height equal to that of wardrobe module 178'. Top panel 128' is mounted to the upper walls of cupboard module 172' and wardrobe module 178'.

[0131] A storage unit S_{35} includes drawer module 146' and laterally opening wardrobe module 178' mounted to base module 98'. A forwardly facing bookcase module 110" is stacked on drawer module 146', which have a combined height equal to that of wardrobe module 178'. Top panel 128' is mounted to the upper walls of wardrobe module 178' and bookcase module 110".

[0132] A storage unit S_{36} includes a drawer module 170 and a wardrobe module 178 mounted to base module 98'. A laterally facing bookcase module 110" is stacked on drawer module 170, which define a combined height equal to that of wardrobe module 178. Top panel 128' is mounted to the upper walls of wardrobe module 178 and bookcase module 110".

[0133] A storage unit S_{37} includes a drawer module 170 and a wardrobe module 178 mounted to base module 98'. A laterally opening cupboard module 172' is stacked on drawer module 170, which define a combined height equal to that of wardrobe module 178. Top panel 128' is mounted to the upper walls of cupboard module 172' and wardrobe module 178.

[0134] Again, the components illustrated in connection with storage units S_{24} - S_{37} are representative of any number of component types and sizes which may be mounted to base modules 98 or 98'. The component dimensions are selected such that the assembled components all have the same height, in this case 54 inches, which corresponds to a conventional wall panel height in an open plan space dividing system. The various components may be placed in different orientations relative to each other than the specific illustrated orientations, to provide additional flexibility in the storage unit design.

[0135] FIG. 14 illustrates various storage unit components and configurations having a lesser height than those previously illustrated and described, which again may correspond to the height of a wall panel system in an open plan space dividing arrangement, e.g. 48 inches. Storage units S_{38} - S_{45} are built on base module 98, and storage units S_{46} - S_{51} are built on base module 98'.

[0136] Storage unit S_{38} includes drawer module 138 mounted to base module 98, along with bookcase module 110 and single-door cupboard module 140 mounted to the upper wall of drawer module 138. Top panel 128 is mounted to the upper walls of bookcase module 110 and cupboard module 140.

[0137] Storage unit S_{39} includes drawer module 138 mounted to base module 98, and back-to-back bookcase modules 110 mounted to the upper wall of drawer module 138. Top panel 128 is mounted to the upper walls of bookcase modules 110.

[0138] Storage unit S_{40} includes drawer module 138 mounted to base module 98, and cupboard module 142 stacked on drawer module 138. Top panel 128 is mounted to the upper wall of cupboard module 142.

[0139] Storage unit S_{41} includes side-by-side drawer modules 170 mounted to base module 98. A laterally opening bookcase module 110 is mounted to one of drawer modules 170, and single-door cupboard module 140 is stacked on the other drawer module 170. Top panel 128 is mounted to the upper walls of bookcase module 110 and cupboard module 140.

[0140] Storage unit S_{42} includes side-by-side drawer modules 170 mounted to base module 98, and back-to-back bookcase modules 110 stacked on top of drawer modules 170. Top panel 128 is mounted to the upper walls of bookcase modules 110.

[0141] Storage unit S_{43} includes drawer module 146 mounted to base module 98, along with a wardrobe module 180 constructed similarly to wardrobe module 178 but having a lesser height. A double-door forwardly opening cupboard module 152' is stacked on drawer module 146, and is constructed similarly to drawer module 152 but having a lesser height. The combined height of drawer module 146 and cupboard module 152' equals that of wardrobe module 180. Top panel 128 is mounted to the upper walls of cupboard module 152' and wardrobe module 180.

[0142] Storage unit S_{44} includes a laterally opening wardrobe module 180' and a drawer module 154 mounted to base module 98. A forwardly facing bookcase module 164' is stacked on drawer module 154, to define a combined height equal to that of wardrobe module 180'. Bookcase module 164' is constructed similarly to bookcase module 164, but having a lesser height. Top panel 128 is mounted to the upper walls of wardrobe module 180' and bookcase module 164'.

[0143] Storage unit S_{45} includes drawer module 154 and laterally facing wardrobe module 180' mounted to base module 98. A forwardly opening double-door cupboard module 160' is constructed similarly to cupboard module 160, but has a lesser height. Top panel 128 is mounted to the upper walls of cupboard module 160' and wardrobe module 180'.

[0144] Storage unit S_{46} includes drawer module 146 mounted to base module 98'. Bookcase module 110 is mounted to the upper wall of drawer module 146, along with single-door forwardly facing cupboard module 134. Top panel 128' is mounted to the upper walls of bookcase module 110 and cupboard module 134.

[0145] Storage unit S_{47} also includes drawer module 146 mounted to base module 98'. Cupboard module 134 is mounted to the upper wall of drawer module 146, along with laterally opening double door cupboard module 172. Top panel 128' is mounted to the upper walls of cupboard modules 134 and 172.

[0146] Storage unit S_{48} includes drawer module 170 and wardrobe module 180 mounted to base module 98'. Bookcase module 110 is stacked on drawer module 170, which define a combined height equal to that of wardrobe module 180. Top panel 128' is mounted to the upper walls of bookcase module 110 and wardrobe module 180.

[0147] Storage unit S_{49} also includes drawer module 170 and wardrobe module 180 mounted to base module 98'. Laterally opening cupboard module 172 is stacked on drawer module 170, which define a combined height equal to that of wardrobe module 180. Top panel 128' is mounted to the upper walls of cupboard module 172 and wardrobe module 180.

[0148] Storage unit S_{50} includes drawer module 146' and a laterally opening wardrobe module 180" mounted to base module 98'. Wardrobe module 180" is constructed similarly to wardrobe module 180', but has a lesser depth so as to correspond in width to that of base module 98'. A forwardly opening cupboard module 172' is stacked on drawer module 166', which define a combined height equal to that of wardrobe module 180". Top panel 128' is mounted to the upper walls of cupboard module 172' and wardrobe module 180'.

[0149] Storage unit S_{51} includes drawer module 146' and wardrobe module 180" mounted to base module 98'. A forwardly facing bookcase module is stacked on drawer module 146', which define a combined height equaling that of wardrobe module 180". Top panel 128' is mounted to the upper walls of wardrobe module 180" and bookcase module 110.

[0150] Again, the components illustrated in connection with storage units S_{38} - S_{51} are representative of any number of component types and sizes which may be mounted to base modules 98 or 98'. The component dimensions are selected such that the assembled components all have the same height, in this case 48 inches, which corresponds to a conventional wall panel height in an open plan space dividing system. The various components may be placed in different orientations relative to each other than the specific illustrated orientations, to provide additional flexibility in the storage unit design.

[0151] FIG. 15 illustrates a series of modular construction stand height storage units, all of which have a conventional overall stand height of approximately $39\frac{3}{4}$ inches.

[0152] A storage unit S_{52} includes a drawer module 144 mounted to base module 98. Drawer module 144 includes three drawers of equal size. Top panel 128 is mounted to the top wall of drawer module 144. Storage unit S_{53} is similarly configured, including a drawer module 144' mounted to base module 98. Drawer module 144' has the same overall dimensions as drawer module 144, but includes two equally sized larger drawers and one smaller top drawer. Top panel 128 is mounted to the top wall of drawer module 144'.

[0153] Storage module S_{54} includes a drawer module 182 which has a relatively large bottom drawer and a smaller top drawer. A laterally facing bookcase module 184 is mounted to the top wall of drawer module 182, along with a forwardly opening single-door cupboard module 186 which together define the same footprint as drawer module 182 and base module 98. Top panel 128 is mounted to the upper walls of bookcase module 184 and cupboard module 186.

[0154] Storage module S_{55} includes drawer module 182 mounted to base module 98, along with a pair of back-to-back bookcase modules 184 mounted to the upper wall of drawer module 182. Top panel 128 is mounted to the top walls of bookcase modules 184.

[0155] Storage modules S_{56} and S_{57} are built on base module 98'. Storage module S_{56} includes a drawer module 188 having three equally sized drawers. Storage module S_{57} includes a drawer module 190 mounted to base module 98'. Drawer module 190 includes two equally sized larger bottom drawers and a smaller top drawer. Top panel 128' is mounted to the upper wall of each of drawer modules 188, 190.

[0156] A storage unit S_{58} includes a drawer module 192 mounted to base module 98. Drawer module 192 has a pair of larger bottom drawers and a smaller top drawer. Top panel 128 is mounted to the upper wall of drawer module 192, and an oversail top panel 194 is adapted for interconnection above top panel 128 via supports 195. Storage unit S_{59} is similarly constructed, including a drawer module 196 having a pair of larger bottom drawers and a small top drawer. Top panel 128 is mounted to the upper wall of drawer

module 196, and oversail top 194 is adapted for engagement with top panel 128 via supports 195.

[0157] Storage units S_{60} and S_{61} are built on base module 98'. Storage unit S_{60} includes a drawer module 198 mounted to base module 98', which includes a pair of relatively large bottom drawers and a smaller top drawer. An oversail top 200 is adapted for engagement via supports 195 with top panel 128, which is mounted to the upper wall of drawer module 198. Similarly, storage unit S_{61} includes a drawer module 202 mounted to base module 98', which has a pair of large bottom drawers and a small top drawer. Again, oversail top 200 is adapted for engagement with top panel 128' via supports 195.

[0158] Again, the storage unit components and configurations shown in FIG. 15 are illustrative of a variety of other types of storage unit components and configurations which may be used. The components are assembled to base modules 98, 98' to provide a predetermined height, in this case corresponding to a stand height of $39\frac{3}{4}$ inches.

[0159] FIG. 16 illustrates other stand height storage unit configurations, having a height greater than the configurations illustrated in FIG. 15, in this case a stand height of $44\frac{11}{32}$ inch.

[0160] A storage unit S_{62} includes a drawer module 138 having a pair of drawers, mounted to base module 98. A bookcase module 202 is mounted to the top wall of drawer module 138, along with a single-door forwardly facing cupboard module 204, which together define the same footprint as drawer module 138 and base module 98. Top panel 128 is mounted to the upper walls of bookcase module 202 and cupboard module 204.

[0161] A storage unit S_{63} also includes drawer module 138 mounted to base module 98. A pair of back-to-back bookcase modules 202 are mounted to the upper wall of drawer module 98, and top panel 128 is mounted to the upper walls of bookcase modules 202.

[0162] A storage unit S_{64} includes a drawer module 144 mounted to base module 98, with a top panel 128 mounted to the upper wall of drawer module 144.

[0163] A storage unit S_{65} is built on base module 98', and includes a drawer module 150 mounted to base module 98'. Top panel 128' is mounted to the upper wall of drawer module 150.

[0164] Storage modules S_{66} - S_{69} are built on base module 98.

[0165] Storage unit S_{66} includes a drawer module 182 mounted to base module 98, and a bookcase module 184 and single-door cupboard module 186 mounted to the upper wall of drawer module 182. An oversail top 194 is adapted for mounting to top panel 128 via supports 195. Top panel 128 overlies bookcase module 184 and cupboard module 186. Similarly, storage unit S_{67} includes drawer module 182 and back-to-back bookcase modules 184. Top panel 128 overlies bookcase modules 184, and oversail top 194 is engaged with top panel 128 via supports 195. Storage unit S_{68} includes drawer module 144 mounted to base module 98 and top panel 128 mounted to the upper wall of drawer module 144. Oversail top 194 is engaged with top panel 128 via supports 195. Storage unit S_{69} includes drawer module 144' mounted to base module 98, and top panel 128 secured to the upper

wall of drawer module **144'**. Oversail top **194** is engaged with top panel **128** via supports **195**.

[0166] Storage units S_{70} and S_{71} are built on base modules **98'**. Storage module S_{70} includes drawer module **188** mounted to base module **98'**, and top panel **128'** mounted to the upper wall of drawer module **188**. Oversail top **200** is engaged with top panel **128'** via posts **195**.

[0167] Storage unit S_{71} includes drawer module **190** mounted to base module **98'**, and top panel **128'** mounted to the upper wall of drawer module **190**. Oversail top **200** is mounted to top panel **128'** via posts **195**.

[0168] As can be appreciated, the various modular storage components incorporated into storage units S_1 - S_{70} include a number of common components which are used in a variety of storage unit configurations, which increases manufacturing and assembly efficiencies as well as the range of product offerings. In addition, certain of the components, such as the bookcase components and the cupboard components, may be formed of common walls, with the bookcase modules being provided with open fronts and the cupboard modules being provided with doors which close the open fronts. This serves to further enhance manufacturing and assembly efficiencies.

[0169] In addition, while certain of the illustrated components are shown as having fully enclosed walls, it is understood that certain walls may be removed, which would otherwise be concealed in assembly. For example, certain of the components located at the top of a storage unit may be formed without a top wall, such that the top components are enclosed by top panels **128**, **128'**. Sidewalls may be eliminated when the side of the component is to be totally covered, to enable the neighboring component to enclose the open side. Bottom walls may similarly be eliminated. In all cases, the elimination of certain component walls reduces unit cost and weight.

[0170] FIG. 17 illustrates a binder tower storage unit **208** which is intended to replace a conventional overhead storage unit in the mobile office furniture and accessory system of the present invention. The basic structure of binder tower storage unit **208** is in the form of a cabinet which includes a bottom wall **210**, upstanding sidewalls **212**, a top wall **214** and a back wall **216**. Walls **210-216** cooperate to define a forwardly open internal cavity, within which a pair of shelves **218** are mounted by adjustable engagement with sidewalls **212**. A bottom file drawer **220** may be mounted below the lower shelf **218** and above bottom wall **210**. A thin pencil drawer may be mounted in the interior of storage unit **208** below top wall **214**.

[0171] A series of casters **224** are located at the lower end of storage unit **208**. Casters **224** extend outwardly from each corner defined by bottom wall **210**. The outboard orientation of casters **224** functions to provide stability to storage unit **208**. A top panel **226** may be mounted to top wall **214** in a conventional manner, to increase the horizontal upwardly facing surface area of storage unit **208**, or may be mounted to top wall **214** in an oversail arrangement using posts **227**. Certain of the walls of storage unit **208**, such as side walls **212**, may be formed with one or more slots **S** for use in suspending a paper management bin **PB**.

[0172] FIG. 18 illustrates various options and heights available for binder tower storage unit **208**. The basic

version shown at **208** includes an open front and the components as described with respect to FIG. 17. Storage unit **208** has top panel **226** mounted to top wall **214**. An alternative storage unit **208a** has top panel **226** mounted to top wall **214** in an oversail manner via posts **227**. In another alternative embodiment, the storage unit **208** has essentially the same construction as storage unit **208** as shown, but is taller in height due to an increased length of its sidewalls **212** and back walls **216**. The overall height of storage **208** as shown corresponds to a stand height of $39\frac{3}{4}$ inches, such as is shown and described with respect to the various storage units of FIG. 15. Similarly, the alternative embodiment of storage unit **208** has a height which corresponds to a stand height of $44\frac{11}{16}$ inches, such as is described in connection with the various storage units of FIG. 16. As shown in FIG. 19, other versions of storage unit **208**, shown at **208b**, **208c** may be fitted with a front hinged door panel **228** which selectively encloses the interior of the storage unit **208b**, **208c**. Door panel **228** may be formed of a material such as wood, steel or any other satisfactory material employed in manufacture of cabinet components.

[0173] Alternatively, a translucent door panel **230** may be hingedly mounted to the front of the storage unit, as shown at **208d**, **208e**.

[0174] FIG. 19 illustrates a mobile storage pedestal **234** built on a base similar to that of storage unit **208**. Storage pedestal **234** is in the form of a file-type storage unit having a bottom wall **236**, a pair of sidewalls **238**, a top wall **240** and a back wall (not shown). A lower drawer **242** and an upper drawer **244** are slidably mounted within the cabinet defined by walls **236-240**, in a known manner. An outboard caster **224** is located at each bottom corner of the cabinet defined by walls **236-240**, to impart stability to mobile storage pedestal **234**.

[0175] Mobile storage pedestal **234** includes a handle assembly **246**, which facilitates moving mobile storage pedestal **234** from one location to another. Handle assembly **246** includes a pair of stationary receiver tubes **248**, mounted one to each sidewall **238** of mobile storage pedestal **234** by means of a lower tube mount **250** and an upper tube mount **252**. Lower receiver tube **248** is oriented at an angle, which may be 45° .

[0176] Handle assembly **246** further includes an extendible upper handle section **254**, which includes a pair of depending side members **256** and a cross member **258** extending between and interconnecting the upper ends of side members **256**. Each side member **256** may include an outwardly biased snap-type button which is selectively engaged within an opening in its associated receiver tube **248**, for maintaining handle section **254** in an extended position shown in phantom, and a retracted position shown in solid lines.

[0177] FIG. 20 illustrates various other mobile storage pedestal configurations, shown at **234a-234d**. Mobile storage pedestal **234a** has a height slightly greater than that of storage pedestal **234** with a three-drawer front, including a narrow pencil drawer at the top. An oversail top **260** is mounted to top wall **240** by support posts **261**. Mobile storage pedestal **234b** is constructed similarly to mobile storage pedestal **234**, and includes oversail top **260** mounted to top wall **240** via support posts **261**. Mobile storage pedestal **234c** has a two-drawer front and a height slightly

greater than that of mobile storage pedestal **234b** but less than that of mobile storage pedestal **234a**, and includes oversail top **260** mounted to top wall **240** via support posts **261**. Mobile storage pedestal **234d** has a height similar to that of mobile storage pedestal **234a** but has a two-drawer construction. Oversail top **260** is mounted to top wall **240** via support posts **261**.

[0178] **FIG. 21** illustrates a basic version of a mobile storage pedestal, shown at **234e**, which is similar to mobile storage pedestal **234** but which is constructed without handle assembly **246**. In any of the various configurations of mobile storage pedestal **234**, the top drawer may include a conventional shallow internal drawer, such as shown at **263**.

[0179] **FIG. 22** illustrates an alternative mobile storage unit **262**, which also incorporates casters **224** and a handle assembly **246**. Mobile storage unit **262** includes bottom wall **236**, sidewalls **238** and a back wall, shown at **264**. A bottom drawer **266** is movably mounted between sidewalls **238** at the lower end of mobile storage pedestal **262**. At its upper end, the top of mobile storage pedestal **262** is open. Mobile storage pedestal **234** includes a retractable top cover **268**, which is movable between an open position as shown, for providing access to the open top of mobile storage pedestal **234**, and a closed position in which top cover **268** overlies the upper ends of sidewalls **238**, back wall **264** and a front panel **270** located above drawer **266**. Rails **272** are mounted to the inside surfaces of sidewalls **238**, and are adapted to support hanging file folders or the like within the open interior of mobile storage pedestal **262**.

[0180] **FIGS. 23 and 24** illustrate a low profile lateral-type mobile storage unit **274**, which is well suited for placement under a worksurface or the like. Storage unit **274** includes a bottom wall **276**, sidewalls **278** and a top **280**, as well as a back wall (not shown). A pair of drawers **282, 284** are movably mounted between sidewalls **278**, in a known manner. An oversail top **283** may be mounted above top **28** or via support posts **285**.

[0181] Casters **224**, which are located at the bottom corner of binder tower **208** and mobile storage pedestal **234**, are oriented at an 85° angle relative to the floor, to improve tracking of the caster wheels during movement.

[0182] Paper Management Components

[0183] **FIG. 25** illustrates a series of differently sized plastic bins **286a, 286b, 286c**, which can be used in the various storage units illustrated in **FIGS. 3-24**. Bins **286a, 286b, 286c** are formed of sheet plastic material which is die cut, scored, folded and sonic welded to form a bin having a closed bottom and a series of upstanding sides, and defining an open top. Bins **286a, 286b, 286c** are adapted to receive papers or other materials to be grouped together for storage.

[0184] **FIGS. 26 and 27** show a bin **288**, which defines a closed bottom and a series of upstanding walls, including a pair of sidewalls **290** and end walls **292**. Bin **288** may be formed of a plastic material in an injection molding process, although it is understood that other materials and forming methods may be employed. Bin **288** corresponds to paper management bin PB shown and described previously. Each end wall **292** defines an outwardly extending edge **294** toward its upper end. In addition, each sidewall **290** terminates in an upper edge and includes an outwardly extending flange **296** having a downwardly extending lip **298**.

[0185] As shown in **FIG. 28**, edges **294** of bin end walls **292** are adapted to rest on upper edges defined by drawer sidewalls **299** of the storage units, for suspending bin **288** within the drawer. Alternatively, bins **288** can be supported simply by placement on a shelf **301** or other supporting surface, in a conventional manner. Bins **288** may also be hung on the side of a storage unit, by engagement of lip **298** within a slot S formed in the storage unit sidewall. Alternatively, lip **298** may be engageable with a hanger member mounted to the storage unit sidewall, to suspend bin **288** from the exterior of the storage unit.

[0186] **FIG. 28** illustrates the types of materials which can be stored within a bin such as **288**. Such materials include paper, conventional file folders F, hanging file folders H and binders B. As shown in **FIG. 27**, an internal rib **300** is formed at the upper end of each end wall **292**, at the location where edge **294** extends outwardly from end wall **292**. Each rib **300** is adapted to receive a support hook associated with a hanging-type file folder H, to suspend folder H within the interior of bin **288**.

[0187] **FIG. 29** illustrates work flow utilizing the bin-type storage system used in combination with the various storage units of the present invention. Documents or other materials are placed within the bins such as **286, 288**, which can be stored in or hung on a personal mobile storage pedestal **234**, a workstation or semi-mobile storage unit, shown at **304**, which may be configured using the modular type or binder tower construction as described previously, as well as in a team or semi-permanent storage unit **306** which also may be constructed using the modular storage unit construction as described previously. A tool rail **308** may be mounted to a sidewall of storage unit **306**. Lip **298** of bin **288** may be engaged with a slot S in the storage unit sidewall or with one of the slots in tool rail **308**, for supporting the bin **288** on the exterior of the storage unit. The bins such as **286, 288** can then be removed from the active work area and used to store materials in conventional archive or permanent storage units.

[0188] Referring to **FIGS. 26 and 27**, lip **298** is formed by each flange **296** at the upper end of each bin sidewall **290**. A bin cover **312** defines a top panel **314** and a pair of inwardly facing channels **316** located at opposite sides of top panel **314**. Each channel **316** is configured so as to receive a flange **296** and its associated lip **298** in a sliding-type fashion, such that bin cover **312** can be slid onto the upper end of bin **288** to enclose the contents of bin **288**. Alternatively, bin cover **312** can be mounted to the underside of a shelf or other horizontal wall associated with a storage unit. Bin cover top panel **314** includes holes **318**, which are adapted to receive fasteners for connecting bin cover **312** to a horizontal member using threaded fasteners such as screws. In this manner, bin cover **312** is stationarily mounted to the horizontal member, and bin **288** can be stored within the storage unit by sliding bin flanges **296** and lips **298** into engagement with channels **316**, such that bin **288** is suspended from bin cover **312**. Alternatively, holes **318** and slots **320** in bin cover **312** can be used to mount a strap or a handle to bin cover **312**. In this manner, bin **288** can be transported with bin cover **312** attached, by carrying the bin using the attached strap or handle.

[0189] Mobile Screen Components

[0190] **FIG. 30** illustrates mobile screens incorporated into the mobile furniture and necessary system of the present

invention. The screens of **FIG. 30** correspond to screens or partitions P, described previously. In a first version, a screen or panel **324** includes a rectangular frame having a bottom frame member **326**, upstanding side frame members **328** and a top frame member **330**. Frame members **326-330** define an open interior, within which a variety of components can be mounted. In screen or panel **324**, an acoustic panel **332** is mounted in the lower interior area defined by the frame, and a marker board **334** is mounted within the upper internal area defined by the frame. A tool rail **336** is mounted between acoustic panel **332** and marker board **334**.

[0191] At the lower end of each side frame member **328**, a pair of legs **338** extend outwardly in opposite directions, and a caster **340** is mounted to the lower end of each leg **338**. The spacing of casters **340** provided by legs **338** imparts stability to panel **324**, to prevent panel **324** from tipping.

[0192] In another version, a panel **344** is constructed similarly to panel **324**, including a bottom frame member **346**, a pair of side frame members **348**, and a top frame member **350**. Panel **344** is shown as having a full-height marker board panel **352**, although it is understood that any other type of interior panel components may be employed. As with panel **324**, legs **338** extend outwardly in opposite directions from the lower end of one of panel side frame members **348**, and a caster **340** is mounted to the end of each leg **338**. The opposite side frame member **348** includes a single downwardly extending leg **354** which terminates at its lower end in a caster **340**. Panel **344** thus has a three-point stance. Other alternative versions include a panel **344'** having a full-height marker board panel **352** (which may also be an acoustic or translucent panel), and including legs **338** and casters **340** at both ends. An alternative version **324'** includes a lower acoustic panel **332** and an upper marker board panel **334** (which may also be a translucent panel), with a leg and caster structure similar to that of panel **344**. A further alternative panel **344''** includes a lower acoustic or translucent panel **332** and an upper marker board or translucent panel **334**, in combination with the same leg and caster structure as panel **344'**. Another alternative panel **344'''** includes a lower acoustic or translucent panel **332**, an upper translucent or marker board panel **334**, and a pair of legs **338** and caster **340** at one end. At the opposite end, a glide **356** is mounted to the lower end of leg **354**. It is understood that the illustrated and described panel configurations are representative of any number of types of materials and components that can be incorporated into the panel.

[0193] A number of panels like those illustrated in **FIG. 30** can be connected together in various configurations, as shown in **FIG. 34**. As a means of interconnecting the panels together, a series of magnets **358** (**FIGS. 32, 33**) may be mounted to one or both of side frame members **348** along its length. Each magnet **358** has a rounded face, which allows panels such as **344'''** to be connected together at any angular position relative to each other. Any desired number of panels **344** can be connected, and examples are illustrated in **FIG. 34**.

[0194] Magnets **358** may be mounted to one or both of side frame members **348**. Typically, however, magnets **358** are mounted to a side frame member **348** which is located above a downwardly extending leg **354** having either a caster **340** or a glide **356** at its lower end. When the panels are secured together as shown in **FIG. 34**, use of panels with

leg **354** facilitates connection of the panels together, since the presence of legs **338** typically prevents movement of the panels to varying angular orientations relative to the each other.

[0195] When not in use, the panels can be nested together for storage. The downwardly extending angle of legs **338** facilitates movement of the panels together in a side-by-side orientation, such that the legs **338** of one panel extend below the bottom frame member **346** of the adjacent panel.

[0196] **FIGS. 35 and 36** illustrate a marker board cart panel **362** having a similar construction as panel **324** described previously, including bottom frame member **326**, side frame members **328** and top frame member **330**. Marker board cart panel **362** includes a top interior panel **364**, which may be a marker board or any other type of panel, and a bottom interior panel **366**, which also may be a marker board panel or an acoustic or other type of panel. A tool rail **368** is located between top and bottom panels **364, 366**, and includes a slot for mounting a tray **370**. Tool rail **368** may also be used to mount bin **288**. A marker board storage rack **372** is mounted to the frame of marker board cart panel **362**, and is adapted to store a series of marker boards **374**. Rack **372** includes a bottom support wall **376**, and at least a pair of upwardly extending vertical supports **378** having transverse sections **380**, all of which cooperate to define a pocket within which the lower portions of marker boards **374** are received. In use, marker boards **374** can be removed from rack **374** for use, and then returned to rack **372** for storage.

[0197] Marker Board Components

[0198] **FIGS. 35 and 37-46** illustrate the construction of the marker board, such as **374** incorporated in the mobile furniture and accessory system of the present invention. The marker boards such as **374** correspond to marker boards M as described previously.

[0199] Each marker board **374** includes a core **382**, which may be formed of any satisfactory material such as a relatively thin (e.g. $\frac{3}{8}$ inch thick) foam core, which is preferably die cut to obtain the desired shape. A thin plastic sheet **384**, which may be formed of any satisfactory plastic material such as polyethylene, is applied to both surfaces of foam core **382** in any satisfactory manner, such as by use of an adhesive. Sheet **384** may be of any satisfactory thickness, such as 0.020 inches. The outwardly facing surface of sheet **384** forms a dry erase marker surface for marker board **374**, in a manner as is known.

[0200] Foam core **382** is cut to define an eraser retaining recess **386** as well as a pair of slots **388**, which are configured to grip a dry erase marker in a manner to be explained. Sheet **384** is die cut to a shape similar to that of foam core **382**, and defines an outer edge which is located slightly inward of the outer edge of foam core **382** throughout the periphery of foam core **382**. Sheet **384** further includes a pair of openings **390** which surround slots **388**.

[0201] A pair of hanging clip assemblies **390** are mounted to the upper edge of marker board **374**.

[0202] **FIG. 37 and 45-47** illustrates the configuration of slots **388** in greater detail. Each slot **388** includes a main section **392** and a pair of end sections **394**, each of which extends outwardly from one end of main section **392**. Main section **392** is generally rectangular, and each end section

394 has a truncated triangular shape. Main section **392** of each slot **388** has a height which is slightly less than the diameter of a conventional large dry erase marker, such as shown at **396**. In this manner, marker **396** can be pushed lengthwise into main section **392**, which has a length slightly greater than the length of dry erase marker **396**. The dry erase marker cap typically includes a protrusion **398** which accommodates the marker tip, which is received within one of slot end sections **394**. The resiliency of foam core **382** allows the edges of slot **388** to flex outwardly as necessary so as to conform to the shape of marker **396** and to grip marker **396** within slot **388**. In this manner, marker **396** can be stored within slot **388** when not in use.

[0203] Alternatively, as shown in **FIGS. 46 and 47**, a series of dry erase markers **396** can be inserted transversely into slot main section **392**, such that each marker **396** extends outwardly from the front surface of marker board **374**. In this manner, several markers **396** can be engaged within each slot **388**, to enable a user to store a number of markers, e.g. markers of different colors, which are conveniently accessible when needed to mark on marker board **374**.

[0204] As shown in **FIG. 45**, slots **388** are also able to accommodate thin dry erase markers, such as shown at **400**. Thin dry erase markers **400** typically have a length greater than that of large dry erase markers **396**. Slot end sections **394** are configured to engage the ends of thin dry erase markers **400**. Again, the resiliency of foam core **382** enables the edges of slot end sections **394** to grip the ends of marker **400**, so as to maintain marker **400** within slot **388**.

[0205] In an alternative construction, the slots may be configured so as to accept only a large dry erase marker (as shown in **FIGS. 38 and 39**) or only a thin dry erase marker. However, the illustrated embodiment provides use of a single slot configuration for accommodating two distinct types of markers.

[0206] Further, while only a pair of slots are shown, it is understood that any number of slots could be formed in marker board **374** to accommodate any desired number of markers.

[0207] **FIGS. 38-44** illustrate clip assemblies **390**, and the manner in which clip assemblies **390** are employed to support a marker board **374**. Each clip assembly **390** includes a pair of body sections **402**, which are located on opposite sides of marker board **374**. Body sections **402** are secured to each other with foam core **382** and sheets **384** sandwiched therebetween.

[0208] A hanger section **404** is pivotably mounted at the upper end of each body section **402**. Each hanger section **404** is pivotable between an open position, as shown in **FIG. 38**, and a closed position as shown in **FIG. 35**. When in the open position, the hanger sections **404** on the rear side of marker board **374** are used to hang marker board **374** from any satisfactory horizontal support surface, such as the upper edge of a cubicle panel, the edge of a cabinet, top frame member **330** of marker board cart panel **362**, a top frame member **330**, **350** of a panel, etc. In this manner, marker board **374** can easily be hung from any satisfactory support surface in any location, and removed when needed for storage or for replacement with another marker board **374**. When not in use, hanger sections **404** are pivoted to the

closed position to allow for compact storage of marker boards **374**. Each hanger section **404** may be provided with a gripping material (such as rubber) in its underside, to facilitate engagement of hanger section **404** with a support surface.

[0209] The forwardly facing hanger sections **404** can be opened to enable a sheet of paper or the like to be engaged between the surface of marker board **374** and body section **402**. Hanger section **404** is used as a lever to create a separation between the surface of marker board **374** and the underside of body section **402**, to enable a sheet of paper to be inserted therebetween. Alternatively, the user may lift body section **402** away from the surface of marker board **374** by engaging a fingertip below an inwardly extending surface **405** defined by the lower end of body section **402**, to create the required separation between body section **402** and the surface of marker board **374**. In either case, body section **402** functions to grip the sheet of paper when the outward force thereon is removed, to releasably maintain the sheet of paper in engagement with marker board **374**. **FIG. 44** illustrates the manner in which body section **402** is raised relative to the surface of marker board **374**, so as to insert a sheet of paper therebetween.

[0210] **FIGS. 40 and 41** illustrate a rectangular marker board **374**, and shows die cut recesses **406** which are adapted to receive hanging clip assemblies **390**. **FIG. 40** also shows recess **386** which is adapted to receive and retain a dry eraser **408** (**FIG. 39**). Marker board **374** of **FIG. 39** includes a pair of rectangular slots **410**, which are configured as described above so as to receive large dry erase markers, without the previously described end sections. In addition, slots **410** can be used as handles to facilitate handling of marker board **374**.

[0211] **FIG. 42** illustrates the manner in which a clip assembly **390** is used to suspend marker board **374** from a horizontal surface, shown generally at **H**, which may be defined by the top or a storage unit, the top of a wall panel, or any other horizontal surface adjacent a vertical surface against which marker board **374** can be positioned. **FIG. 42** illustrates hanger section **404** of clip assembly **390** extended, and a rubber pad **411** mounted to the underside of hanger section **404** located so as to engage horizontal surface **H** so as to frictionally maintain clip assembly **390** in engagement therewith.

[0212] **FIG. 43** illustrates a system for mounting marker board **374** to a wall, shown at **412**. In this arrangement, a wall mount bracket **414** is secured to wall **412**, and a hanger bracket **416** is engaged with wall mount bracket **414**. Marker board **374** is suspended from hanger bracket **416** via engagement of bracket **416** by clip hanger section **404**.

[0213] Wall mount bracket **414** defines a mounting section **418** which engages wall **412**, and an upwardly extending hanger bracket engagement section **420** which is laterally offset from mounting section **418**. Wall mount bracket **414** is secured to wall **412** using a series of anchors **422**. Wall mount bracket **414** has any desired length according to the desired positions for hanging marker boards **374** on wall **412**.

[0214] Hanger bracket **416** includes an outer wall **424** and an inwardly extending lower spacer section **426** located at the bottom of outer wall **424**, and which is adapted to engage

wall 412. At its upper end, hanger bracket 416 includes an inner engagement lip 428. The upper end of wall mount bracket engagement section 420 and engagement lip 428 include snap-fit engagement structure, such as an axially extending inwardly facing recess formed in engagement section 420 and an outwardly extending rib formed on engagement lip 428. A web 430 extends inwardly from outer wall 424, and engagement lip 428 extends downwardly from the inner end of web 430. An upwardly and outwardly facing surface 432 is defined by web 430 at its inner end.

[0215] In operation, once wall mount bracket 414 is secured to wall 412 using anchors 422, hanger bracket 416 is positioned above wall mount bracket 414 and moved downwardly so as to initially bring engagement lip 428 into contact with engagement section 420 of wall mount bracket 414. The user then engages the tip of a screw driver or other similar tool with surface 432, and applies a downward pounding force, such as using a mallet, on surface 432. This causes engagement lip 428 to snap fit into engagement with engagement section 420, to secure hanger bracket 416 to wall mount bracket 414.

[0216] Once hanger bracket 416 is mounted to wall 412 in this manner, marker board 374 can be mounted to hanger bracket 416 by placing hanger sections 404 of hanger clip assemblies 390 in their closed positions, and moving marker board 374 downwardly so as to bring hanger sections 404 into contact with an upward extension, shown at 434, defined by hanger bracket outer wall 424. Each hanger section 406 includes a downwardly extending end protrusion 436, which is located within the space between extension 434 and wall 412, for providing a positive engagement of marker board 374 with hanger bracket 416. In order to remove marker board 374, the user exerts an upward force so as to dislodge protrusions 436 from behind outer wall extension 434.

[0217] FIG. 48 illustrates different styles of marker boards that can be incorporated in the mobile furniture and accessory system of the present invention. The marker boards of FIG. 48 are constructed as shown and described, and provide different sizes and shapes according to user requirements and intended usage.

[0218] Table or Desk Components

[0219] Another aspect of the mobile furniture system of the present invention contemplates a mobile table or desk system which provides work surfaces which can easily be moved to various locations within a workspace. The table or desk components generally correspond to tables or desks T_1 , T_2 as illustrated in FIG. 1, and as shown in FIG. 49.

[0220] Referring to FIGS. 49-52, the table system of the present invention utilizes an adjustable height table base assembly 440 which is adapted to support a table top, representatively shown at 441. In a typical construction, a pair of table base assemblies 440 are mounted below table top 441 in a symmetrical manner, to support table top 441 above a supporting surface such as a floor.

[0221] Table base assembly 440 includes a cylindrical sleeve or collar 442 to which a pair of legs 444 are mounted. Legs 444 may be splayed as shown, or may be in alignment with each other. A table support column or post 446 is engaged with collar 442, and a mounting plate 448 is connected to the upper end of column 446. Openings are

formed in mounting plate 448, and are adapted to receive fasteners such as screws for mounting table top 441 to mounting plate 448. As shown in FIG. 51, collar 442 is in the form of an open-ended tubular member. A top bushing 450 is engaged within the open upper end of collar 442, and a bottom bushing 452 is engaged within the open lower end of collar 442. Bushings 450, 452 may be mounted to collar 442 in any satisfactory manner, such as by a press-fit engagement with collar 442. Top bushing 450 defines an exposed upper end 454 having a downwardly facing shoulder which engages the upper edge of collar 442. Similarly, bottom bushing 452 has an exposed lower end 456 defining an upwardly facing shoulder which engages the bottom edge of collar 442. Top bushing 450 and bottom bushing 452 define aligned passages 458, 460, respectively. Passages 458 are non-circular in shape and correspond in shape to the cross section of column 446. In the illustrated embodiment, column 446 is in the form of a tubular member having an elliptical cross section, and passages 458, 460 are elliptical in shape and sized slightly larger than column 446, so as to receive column 446 therewithin. In this manner, column 446 is slidably movable within collar 442.

[0222] The depending wall of collar 450, shown at 462, includes a raised area 464 defining an opening 466. A similar raised area and opening are located on the opposite side of wall 462. Openings 466 are placed into alignment with a pair of openings 468 formed in the wall of collar 442 toward its upper end, and a pin 470 having a shaft 472 and a detent 474, is adapted to be inserted through openings 466, 468.

[0223] Bottom bushing 452 is similarly constructed. However, the raised areas of bottom bushing 452, shown at 476, are solid and do not have an opening therethrough.

[0224] As shown in FIG. 52, depending wall 462 of top bushing 450 extends downwardly from exposed upper end 454, and is segmented so as to be capable of flexing inwardly relative to exposed upper end 454. Raised area 464 defines a ring 478. With this arrangement, when top bushing 450 is pushed into the open upper end of collar 442, walls 462 of top bushing 450 are flexed inwardly. One or more external ribs 478 formed in opposed guide walls 480, which are separate from depending walls 462, provide engagement with the inner surfaces of collar 442, to provide a tight fitting engagement of top bushing 450 with collar 442. When top bushing 450 attains its fully engaged position, i.e. the shoulder defined by exposed upper end 454 engages the top edge of collar 442, raised areas 464 are positioned so as to align rings 478 with openings 468 in the wall of collar 442, and the resiliency of walls 462 snaps rings 478 into openings 468. This engagement of top bushing 450 with collar 442 places top bushing 450 in a proper predetermined alignment relative to collar 442 and thereby legs 444. Similar construction of bottom bushing 452 provides a snap-fit engagement of bottom bushing 452 with the lower end of collar 442. Bottom bushing 452 does not have openings such as 468 in raised areas 476. Rather, raised areas 476 have solid material defining a button 480, which snaps into aligned openings formed toward the lower end of collar 442.

[0225] The inner surfaces of bushings 450, 452 which define respective passages 458, 460, are provided with a series of axially extending guide ribs, such as 482, 484, respectively, which are configured to closely engage column 446 to prevent column 446 from wobbling relative to collar

442 when inserted within collar **442** and engaged with top and bottom bushings **450**, **452**, respectively.

[0226] Column **446** includes a series of aligned pairs of openings, such as shown at **480**, in its walls. Each pair of openings **480** is adapted to be placed into alignment with collar openings **468**, so as to receive shaft **472** of pin **470** to fix mounting plate **448** in a desired vertical position, according to user requirements. Pin **470** includes a finger engagement ring **488** which enables a user to easily withdraw pin **470**. When a desired elevation of mounting plate **448** is obtained, the user inserts pin shaft **472** through collar openings **468** and aligned column openings **480**, to fix column **446** in position relative to collar **442** and to thereby fix the vertical position of mounting plate **448** and table top **441** connected thereto.

[0227] Each leg **444** extends outwardly and downwardly from collar **442**. Legs **444** are connected to collar **442** in any satisfactory manner, such as by welding, brazing or the like. Each leg **444** includes a primary upper support section **490** and a lower caster mounting section **492** which includes an upwardly extending opening adapted to receive the mounting stem **494** of a caster assembly **496**. Caster mounting section **492** is preferably oriented so as to extend in a generally vertical direction. With this construction, table base assembly **440** is adapted to provide mobile support for a table top or other work surface connected to mounting plate **448**.

[0228] The drawings illustrate a pair of legs **444** connected to and extending outwardly and downwardly from collar **442**. It should be understood that any number of legs may be mounted to collar **442**. Representatively, a single leg **444** may be mounted to collar **442**, and can be used to provide support for table top or worksurface when one additional base assembly **440** having multiple legs **444** is also engaged with the table top or worksurface. Alternatively, several single-leg base assemblies can be mounted to the table top or worksurface at various locations to provide support for the table top or worksurface. When a pair of legs **444** are mounted to collar **442** as shown and described, another base assembly **440** having a single leg **444** or multiple legs **444** is also mounted to the table top or worksurface at a spaced location, to provide support for the table top or worksurface. Three or more legs **444** can be secured to a collar **442**, for table configurations which require a single table base assembly **440**. In applications such as this, three, four or five legs **444** can be mounted to collar **442**, to provide stable and adequate support for the worksurface.

[0229] FIG. 53 illustrates a representative table T_3 which can be produced using the modular table system of the present invention. Table T_3 includes a table top **499** which may have any satisfactory shape, e.g. an oval shape, and which has table base assemblies **440** secured to its underside in spaced locations for providing support to table top **499** in a manner similar to that of table top **441** of FIG. 49. FIG. 54 illustrates the locations at which mounting plates **448** of base assemblies **440** are to be secured to the underside of table top **499**. As shown in FIG. 55, table top **499** includes a peripheral groove **501** in its underside, which provides a recess within which the users fingers are received when gripping the edge of table top **499** so as to move table T_3 from one location to another.

[0230] FIG. 56 illustrates a corner table top or worksurface **500** which is adapted to be supported by a pair of table

base assemblies **440**. Worksurface **500** includes a series of predrilled passages **502** in its underside, which are adapted to receive screws extending through the openings in mounting plate **448** so as to mount worksurface **500** to each table base assembly **440**. Worksurface **500** is formed with a groove **504** in its underside adjacent its inner edge, which provides a finger grip area for the user to facilitate gripping of worksurface **500** when it is desired to move the table assembly on the floor or other supporting surface. FIG. 57 illustrates a worksurface **508** with two sets of predrilled passages and grooves along both sides, to facilitate gripping of worksurface **508** from either side during movement. FIG. 59 shows a differently shaped worksurface **510**, again including two sets of predrilled mounting passages and grooves at both edges.

[0231] FIG. 58 shows a short worksurface **516** having a single set of mounting passages for mounting a base assembly **440** having at least three legs **444**. Worksurface **516** includes a groove in its underside at both edges of the underside. FIG. 60 illustrates an alternative version of a table, shown at T_4 , which includes a ledge-shaped table top **518**. Base assembly **440** of table T_4 includes four legs **444**, for providing stable support of table top **518**. A groove **520** is formed in the underside of table top **518** toward its curved front surface, to facilitate gripping of table top **518** for movement by a user. FIG. 62 illustrates another alternative table, shown at T_5 , having a round table top **522** and a four-legged base **440**. Table top **522** has a groove **524** that extends about the entire periphery of its underside.

[0232] FIG. 64 illustrates another alternative table, shown at T_6 , incorporating a generally trapezoidal table top **526** and a four-legged base assembly **440**. Grooves **528** are formed in the underside of table top **526**, adjacent opposite side edges of table top **526**.

[0233] The various table top configurations as shown and described are representative of any number of table tops, having any desired shape, which can be supported using base assemblies **440**. In addition, the pedestal-type table such as T_4 , T_5 and T_6 may incorporate base assembly **440** as described previously, or the adjustable height base assembly described hereafter.

[0234] FIGS. 66-71 show a pneumatic adjustable height base assembly **550** which can be employed in place of manually adjustable base assembly **440** to support a worksurface. FIG. 69 illustrates the components of base assembly **550** in an exploded fashion, and FIGS. 66-68, 70 and 71 illustrate the assembled components of base assembly **550**.

[0235] Base assembly **550** includes a cylindrical support tube **552** to which a series of legs **554** are mounted, in a manner similar to mounting of legs **444** to collar **442** in table base assembly **440**. Legs **554** are similar in shape and provide the same function as legs **444**, and caster assemblies **556** are mounted to the outer, lower ends of legs **554**. Alternatively, glides may be employed in place of caster assemblies **556**.

[0236] Support tube **552** is adapted to mount a pneumatic height adjustment cylinder assembly **558**, which includes a cylinder body **560** and an extendible and retractable rod **562**, in accordance with conventional construction. Cylinder assembly **558** is of the type commonly employed to adjust the height of a worksurface or seat, and includes a piston

received within cylinder body 560 to which rod 562 is connected, and a spring which normally biases rod 562 to an extended position.

[0237] A lower cup or bushing 564 is adapted to be received within the upwardly open interior of support tube 552, and rests on a lower end wall 566 defined by support tube 552. Bushing 564 provides a snug fit of the lower end of cylinder body 560 within support tube 552. A screw 568 extends through an opening in end wall 566 and into a threaded passage associated with the lower end of cylinder body 560, for securely mounting cylinder assembly 558 to support tube 552.

[0238] An upper bushing 570 is engaged with the upper end of support tube 552 and with the upper end of cylinder body 560. Upper bushing 570 is in the form of a ring having a central opening through which cylinder rod 562 extends, and which conforms in shape to a shoulder defined by the upper end of cylinder body 560. Upper bushing 570 includes depending prongs 571 that are configured to wedge between the upper end of cylinder body 560 and the inner surface of support tube 552 to secure the upper end of cylinder body 560 in position within support tube 552.

[0239] A bracket 572 is mounted to the upper end of cylinder rod 562, and is interconnected with a worksurface mounting plate 574 which is adapted to be connected to the underside of the worksurface, which is shown representatively at 576. An actuator lever 578 is pivotably mounted to bracket 572, and includes an outer engagement area 580 and an inner end which engages an actuator button at the upper end of cylinder rod 562, in a manner as is known. With this construction, lever 578 is operated so as to selectively allow a user to adjust the height of worksurface 576 by extending or retracting cylinder rod 562 by exerting an upward or downward force on worksurface 576. When lever 578 is released, engagement of the actuator button associated with cylinder rod 562 is relieved, such that the position of cylinder rod 562 relative to cylinder body 560 is locked to secure worksurface 576 in a desired vertical position.

[0240] FIGS. 72-74 illustrate a computer table assembly 584 which forms a part of the mobile furniture and accessory system of the present invention, and which is typically used in combination with a table T. Generally, computer table assembly 584 includes a pair of base assemblies 440 as shown and described with respect to FIGS. 49-52, in combination with a CPU support cradle 586 located between base assemblies 440, and a monitor supporting worksurface 588 connected to mounting plates 448 of base assemblies 440.

[0241] Each base 440 of computer table assembly 584 is constructed as described previously to support worksurface 588 above a supporting surface such as a floor in an adjustable height manner. Base 440 of table assembly 584 differs slightly from the construction as described previously, however, in that each column 446 has vertically spaced pairs of openings or apertures 480 in its walls substantially throughout its entire height.

[0242] CPU support cradle 586 is supported between table base assemblies 440 in a suspended manner by means of a pair of support sleeves 590, each of which is secured to one of columns 446. Each support sleeve 590 includes a tubular sleeve 592 having a top bushing 450 and a bottom bushing

452, mounted in the same manner as described previously with respect to mounting of top bushing 450 and bottom bushing 452 to collar 442. Support sleeve 590 further includes a removable pin 470 as described previously, such that support sleeves 590 can be manually adjusted to varying positions on columns 446 so as to adjust the height of CPU support cradle 586. Each support sleeve 592 further includes an inwardly facing hanger tab 592. CPU support cradle 586 includes a bottom support wall 594 and a pair of upstanding sidewalls 596. Each sidewall 596 has an opening within which support tab 592 is received, such that CPU support cradle 586 is suspended from support tabs 592 between base assemblies 440. Bottom wall 594 terminates in an upturned lip 598, which is configured to prevent a computer CPU, shown representatively at 600, from sliding off bottom wall 594.

[0243] It can thus be appreciated that computer table assembly 584 employs common components as table base assembly 440 to provide a computer support table, with the minor adaptation of providing columns 446 with openings throughout its entire length and the addition of CPU support cradle 586. The height of CPU support cradle 586 can be adjusted according to the height of CPU 600, and the overall height of monitor supporting worksurface 588 can be adjusted in the same manner as described previously with respect to table base assembly 440.

[0244] Furniture Glide

[0245] FIGS. 75 and 76 illustrate a glide assembly 604 which can be employed in the various components of the mobile furniture and accessory system of the present invention, either in place of or in combination with the illustrated caster assemblies.

[0246] Glide assembly 604 includes a stem 606 having a threaded upper end 608 which is adapted to be threadedly engaged with a mounting insert or the like associated with the furniture component to which glide assembly 604 is adapted to be mounted. Stem 606 further includes an irregular lower end 610. A foot 612 is engaged with lower end 610. Foot 612 includes a stem mounting section 614 having an internal passage within which irregular lower end 610 of stem 606 is received, either in an insert molding operation or in a press-fit construction. Stem 606 includes a retainer disc 616 which engages an upper end defined by stem mounting section 614. Foot 612 further includes an annular outwardly extending engagement section 618 which terminates in an upturned flange or wall 620.

[0247] Glide assembly 604 further includes an intermediate riser member 622 which extends upwardly from foot 612. Riser member 622 has a lower annular wall 624 terminating in a lip 626 which engages wall 620 of foot 612 in a snap-fit manner. Riser member 622 further includes an inwardly extending ring 628 engaged by disc 616, which is operable to secure riser member 622 to foot 612 when stem 606 is engaged with stem mounting section 614. Riser member 622 further includes an outer wall 630 which extends upwardly from lower wall 624, and which defines a slight inward taper in an upward direction. Riser member 622 is open at its upper end, and a telescoping collar 632 extends from the upper end of riser member 622. Collar 632 defines an outer wall 634 and a top wall 636 having a central opening, through which threaded upper end 608 of stem 606 extends. A spring 638 bears between disc 616 and a guide flange 638 extends inwardly from upper wall 636.

[0248] Collar 636 is vertically movable relative to riser member 622, and is outwardly biased by spring 638. The lower end of outer wall 634 is provided with a slight outward ring protrusion 640, and the upper end of riser outer wall 630 is provided with a slight inward protrusion 642, which provide a snap-type lock arrangement so as to maintain collar 632 in engagement with riser member 622.

[0249] In operation, glide assembly 604 is secured to an insert or other mounting structure associated with an item of furniture, by turning threaded upper end 608 of stem 606 into engagement with the internal threads of the insert or other such mounting structure. On continued advancement of threaded upper end 608 in this manner, upper wall 636 of collar 632 engages the insert or other downwardly facing surface defined by the article of furniture to which glide assembly 604 is mounted, to fully conceal stem 606 between the glide mounting surface and the support surface such as a floor, with which foot 612 is engaged. Stem 606 is turned so as to provide the desired amount of engagement of threaded upper end 608 within the insert. As advancement of stem 606 continues, collar 632 is retracted relative to riser member 622 against the force of spring 638, to reduce the overall height of glide assembly 604 defined between the lower end of foot 612 and upper wall 636. This functions to fully conceal stem 606. If it is desired to back stem 606 out of the threaded insert for any reason, such as when the article of furniture is moved or to level or otherwise adjust the elevation of the article of furniture, glide assembly 604 is turned so as to move foot 612 outwardly relative to the article of furniture. During such movement of glide assembly 604, collar 632 is extended under the influence of spring 638, to maintain upper wall 636 in engagement with the downwardly facing surface of the article of furniture from which glide assembly 604 extends.

[0250] FIGS. 77-84 illustrate a variety of different applications for the modular mobile furniture and accessory system of the present invention. FIG. 77 includes tables, partitions and storage units used to create a work area in combination with a panel-type wall system. FIG. 78 illustrates tables or desks in combination with storage units and screens or partitions for creating several different work areas in an open area. FIG. 79 shows the table or desk components as well as the storage, screen and marker board components in providing a team-type work environment within an enclosed space. FIG. 80 illustrates the reconfigurability of the components shown in FIG. 79, for altering the layout of the space. FIG. 81 illustrates the table or desk, storage, marker board and bin components in a private office environment, which is also illustrated in FIG. 82. FIGS. 83 and 84 illustrate a series of tables or desks which can be moved as required for use in either a training environment as shown in FIG. 83 or in a conference environment as shown in FIG. 84.

[0251] It can thus be appreciated that the components of the present invention greatly facilitate flexibility in an office environment, and can be custom-ordered to user specifications and arranged according to user requirements for optimizing workflow and efficiency.

[0252] Various alternatives and embodiments are contemplated as being within the scope of the following claims particularly pointing out and distinctly claiming the subject matter regarded as the invention.

We claim:

1. A storage system, comprising:

a mobile base; and

a series of storage modules;

wherein selected ones of the storage modules are mounted to the base to form a storage unit.

2. The storage system of claim 1, wherein the storage modules comprise a series of differently configured storage modules which are adapted to be interconnected together and supported by the mobile base.

3. The storage system of claim 2, further comprising a top module interconnected with an uppermost one of the storage modules.

4. A method of constructing a storage unit, comprising the steps of:

providing a base;

providing a series of differently configured storage members; and

mounting selected ones of the storage members to the base in a modular configuration and interconnecting the storage members together to form a storage unit supported by the base.

5. A storage unit, comprising:

a cabinet defining an interior and a series of bottom corners; and

a caster mounted to the cabinet assembly and extending outwardly from the cabinet assembly at each bottom corner.

6. A mobile storage unit, comprising:

a storage cabinet defining an interior;

a series of casters mounted to the cabinet; and

a retractable handle assembly interconnected with the cabinet, for movement between an extended position for moving the cabinet on a supporting surface such as a floor by moving the series of casters on the floor, and a retracted, inoperative position.

7. A storage system, comprising:

a series of bins, wherein each bin is adapted to receive documents or files; and

a storage unit including a cabinet and one or more drawers, wherein the bins are capable of being supported within the one or more drawers by cooperating engagement structure between the bins and the drawers, and further comprising cooperating engagement structure between the cabinet and the bins for supporting the bins on the exterior of the cabinet.

8. The storage system of claim 7, wherein each bin includes a pair of downwardly facing edges along its sides, which engage an upper edge defined by the drawer so as to suspend the bin within the drawer.

9. The storage system of claim 7, wherein the exterior engagement structure includes an external lip defined by the bin, which cooperates with a slot or the like associated with the cabinet so as to engage the bin with an external wall defined by the cabinet.

10. The storage system of claim 7, further comprising a bin cover which is adapted to be selectively engageable with an open upper end defined by the bin, wherein the bin cover

can either be mounted to the bin and carried with the bin so as to enclose the contents of the bin, or can be mounted to a support surface associated with a storage unit, wherein the bin is engageable with the bin cover so as to support the bin from the bin cover in a suspended manner within the storage unit.

11. A screen system, comprising:

- a series of screens, each of which includes a mobile base and a frame defining at least one upright member; and
- a magnetic connection arrangement associated with the upstanding member of at least one of the screen frames, wherein the magnetic connection arrangement is operable to releasably connect two or more screen frames together.

12. A marker board, comprising:

- a marking member having a substantially flat marking surface; and
- one or more cut out areas associated with the marking member, wherein the cut out areas are configured to selectively engage markers adapted to be used in marking on the marking surface.

13. A marker board, comprising:

- a marking member; and
- a clip arrangement for use in suspending the marking member from a support structure, wherein the clip arrangement includes a base structure interconnected with the marking member, and a movable hanger member interconnected with the base structure, wherein the hanger member is movable between an inoperative closed position in which the hanger member is engaged with the base member, and an operative open position in which the hanger member is adapted to be engaged with a support surface for suspending the marking member from the support surface.

14. A mobile table assembly, comprising:

- a support collar;
- one or more legs extending outwardly from the support collar and adapted to engage a supporting surface such as a floor; and
- a column received within a passage defined by the collar, wherein the column defines an upper end adapted to support a worksurface.

15. The table assembly of claim 14, wherein an adjustable height engagement arrangement is interposed between the collar and the column.

16. The table assembly of claim 15, wherein the collar includes bushing structure for guiding movement of the column relative to the collar.

17. An adjustable height table, comprising:

- a cylinder assembly including a cylinder body and an extendible and retractable rod;
- a worksurface adapted for connection to the rod; and
- a support arrangement for supporting the body of the cylinder assembly, comprising a support member within which the cylinder body is received, and one or more legs extending outwardly and downwardly relative to the support member for engagement with a supporting surface such as a floor.

18. A computer table, comprising:

- a pair of spaced apart base members, wherein each base member is engaged at an upper end with a support surface adapted to support a computer monitor; and
- a computer unit support member disposed between the base assemblies.

19. The computer support table of claim 18, wherein each base assembly includes a column, and further comprising an adjustable height connection arrangement interposed between the computer support unit and each column for adjusting the height of the computer.

20. The computer support table of claim 19, wherein each base assembly further includes an adjustable height arrangement for adjusting the height of the column and thereby the worksurface relative to a supporting surface such as a floor.

21. A glide assembly for use with an article of furniture having a glide mounting area, comprising:

- a stem defining a lower end and an upper end, wherein the upper end includes engagement structure for engagement with the article of furniture;
- a foot interconnected with the lower end of the stem;
- a cover arrangement extending upwardly from the foot and enclosing a portion of the stem;
- a collar telescopingly interconnected with the cover arrangement for enclosing an upper portion of the stem extending above the cover arrangement; and
- a spring for biasing the collar outwardly relative to the cover arrangement into engagement with the mounting area of the article of furniture.

* * * * *