

Search history

Search 1: SFT=(modular and furniture and knock 1w down) (Results 200)

1) Family number: 14942131 (US2003200704A)

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FURNITURE SYSTEM

Abstract: Source: US2003200704A A furniture system is particularly adapted to support group activities in open plans, and the like. A plurality of columns support an overhead framework on the floor of a building in a freestanding fashion at a predetermined elevation, generally above average user height. A plurality of individual panels are provided, wherein each panel is constructed to permit easy, manual, bodily translation of the same by an adult user. A hanger arrangement is associated with the overhead framework, and cooperates with connectors on the panels to detachably suspend the panels at various locations along the overhead framework. The panels are manually reconfigurable between many different arrangements to efficiently and effectively support different group activities. Preferably, the panels are capable of providing a partitioning function to visually divide at least a portion of the workspace, and/or a display function to facilitate group communications.

Probable Assignee: STEELCASE INC

Earliest Publication Date: 19930409

2) Family number: 30267394 (US2001013209A)

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KNOCK-DOWN PORTABLE PARTITION SYSTEM

Abstract: Source: US2001013209A A **knock-down** portable partition includes a rigid panel frame having a central portion. The partition includes at least one cover panel covering at least a portion of the central portion of the rigid panel frame. Connectors detachably mount the cover panel on the panel frame to facilitate assembly and removal of the cover panel on the panel frame. The rigid panel frame includes at least two vertical posts having an upper end, a lower end, and opposite side faces. The opposite faces have at least two beam connection ports thereon positioned adjacent the upper and lower ends of the associated one of the posts. The panel frame also includes upper and lower beams extending generally horizontally between the vertical posts adjacent the upper and lower ends thereof, and interconnecting the vertical posts adjacent the connection ports. The panel frame includes quick-disconnect connectors such as movable lock members positioned on one of the posts and the beams adjacent the connection ports. The movable lock members are movably mounted for shifting between an unlocked position and a locked position. The panel frame further includes lock engaging surfaces positioned on the other of the posts and the beams adjacent the connection ports. The lock engaging surfaces are located thereon and abuttingly engage the lock members when the lock members are shifted to the locked position to rigidly yet detachably interconnect the posts and the beams for quick and complete assembly and disassembly of the **knock-down** portable partition.

Probable Assignee: STEELCASE INC

Earliest Publication Date: 19980702

3) Family number: 32245692 (US2005200250A)

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MODULAR FURNITURE

Abstract: Source: US2005200250A Furniture connectors and modular furniture systems are disclosed. The furniture connectors can be configured to include furniture-engaging portions of the connectors that are inserted into grooves that extend along edges of furniture members. The connectors can include at least two furniture-engaging portions that may be fastened to multiple furniture members to connect furniture members together in a secure manner in a variety of assembly configurations. The modular furniture systems disclosed may use easy-to-assemble connectors and reversible connections that may permit disassembly and reassembly, optionally, into a different furniture configuration than the one disassembled.

Probable Assignee: ZILLMANN DOLF

Earliest Publication Date: 20050915

4) Family number: 32192456 (US2005185398A)

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MULTIFUNCTION-ADAPTABLE, MULTICOMPONENT DEVICES

Abstract: Source: US2005185398A Devices with modular components have interchangeable parts that create and convert functional items to the same items having different features or to different items. Lamps, urns, planters, pots, containers and pedestals have modular, quick take-apart capabilities and may be reassembled with similar parts and/or additional or different parts. Multi-functional adaptability is provided, and these devices may include diverse electrical and electronic functions, including entertainment, communications, sensing, security, safety, environmental and other functions. Multiple electronic features could include receivers, transmitters, antennas, alarms, motion detectors, timers, device control and scent releasing functions. LAN, WAN, Internet, and other wired and wireless capabilities may be integrated into these devices.

Probable Assignee: GLYNNTech INC

Earliest Publication Date: 20050825

5) Family number: 41620399 (US2008069631A)

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MODULAR FURNITURE

Abstract: Source: US2008069631A Furniture connectors and modular furniture systems are disclosed. The furniture connectors may be configured to include furniture-engaging portions that are inserted into grooves that extend along connection sides of furniture members. The furniture connectors can include at least two furniture-engaging portions and may include elongated connecting elements extending from the furniture-engaging portions. The elongated connecting elements may be fastened to furniture members to connect multiple furniture members together in a secure manner in a variety of assembly configurations. The modular furniture systems disclosed may use easy-to-assemble connectors and strong, reversible connections that may permit disassembly and reassembly, optionally, into a different furniture configuration than the one disassembled. Expandability without disassembly or part removal may further augment the versatility of the system.

Probable Assignee: ZILLMANN DOLF

Earliest Publication Date: 20080315

6) Family number: 15806052 (US5893616A)

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KNOCK-DOWN HANG-ON STORAGE UNIT FOR PORTABLE PARTITION SYSTEMS

Abstract: Source: US5893616A A **knock-down** hang-on storage unit for portable partition systems includes first and second end members with shelf support flanges having inwardly protruding horizontal support legs and vertical support legs that define narrow vertical slots. Forward edges of the end members have rearwardly opening notches that capture the forward edge of a shelf that extends horizontally between the end members. The shelf includes first and second depending attachment flanges along opposite sides thereof that are inserted into the slots. The rear portion of the shelf is supported on the horizontal support legs adjacent upstanding tabs on the shelf support brackets to horizontally capture the shelf member between the end members and provide a fastenerless interconnection therebetween.

Probable Assignee: STEELCASE DEVELOPMENT INC A OF MICHIGAN CORP

Earliest Publication Date: 19981119

7) Family number: 8748177 (US2004032156A)

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FURNITURE WITH MOLDED FRAME

Abstract: Source: US2004032156A Furniture having a frame made of a molded article in which the molded article is a shell-structure is described. Preferably the molded article describes a lattice structure in the form of a space frame. The molded article is preferably scaled and contoured providing significant structural integration and torsional strength.

Probable Assignee: STIPEK GRANT

Earliest Publication Date: 19961219

8) Family number: 50898106 (US2012080910A)

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KNOCK DOWN FURNITURE WITH LOCKING JOINTS

Abstract: Source: US2012080910A A **knock down furniture** system is presented. The furniture uses joints which bend or twist a panel when inserted into an adjoining panel to place the joint under stress and stiffen the joint. Preferably, tabs are used in combination with offset or rotated slots to achieve the same. The system allows for furniture which does not require fasteners or tools and which is easily assembled while still being stable. Parts of the furniture can be interchanged within a piece of furniture or between different pieces of furniture to customize the configuration of the furniture.

Probable Assignee: DAVIS CLARK

Earliest Publication Date: 20120405

9) Family number: 51576399 (US2012187737A)

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MODULAR **KNOCK-DOWN** UPHOLSTERED **FURNITURE**

Abstract: Source: US2012187737A A **knock-down, modular** furniture frame including a plurality of panels having interlocking sides and at least one tensioning device having a band that girds the plurality of panels to secure the plurality of panels together under tension into an interlocking relationship.

Probable Assignee: BLAIR MICHAEL

Earliest Publication Date: 20120726

10) Family number: 42066009 (US2010239795A)

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MODULAR CONSTRUCTION UNITS AND USES THEREOF

Abstract: Source: US2010239795A The invention relates to a modular unit used for constructing various items, the unit being made of a deformable material and characterized in that the unit has a flat element which is co-formed with a plurality of parallel tubular elements attached to a surface thereof, wherein the tubular elements are spaced apart from each other and each tubular element has a common wall with the flat element.

Probable Assignee: SHADE ON IT LTD

Earliest Publication Date: 20080731

11) Family number: 27988584 (US2003011231A)

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FRAME ASSEMBLY FOR MODULAR FURNITURE AND METHOD OF ASSEMBLING THE SAME

Abstract: Source: US2003011231A A frame assembly for securing a plurality of modular sofa parts together into a sofa frame. The frame assembly includes a pair of tapered members attached to opposing sides of a backrest sofa part and a pair of receptacles attached to a respective one of a pair of rails, which are in turn attached to a pair of armrests. The backrest is connected to the armrests by inserting each of the tapered members into a tapered slot defined by each respective receptacle and is further strengthened using a pair of overlapping securing members. The tapered shape of the tapered members and slots produces a positive fit that has two directional components to prevent rocking of the backrest in two directions. The rails are configured to also accept a sleeper unit, and a futon unit allowing the sofa frame to be easily upgraded or adapted as desired by the user.

Probable Assignee: HICKORY SPRINGS MFG CO

Earliest Publication Date: 20030116

12) Family number: 49900149 (US2012317894A)

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MODULAR WALL SYSTEM

Abstract: Source: US2012317894A A moveable and demountable wall panel system for defining an office space with a plurality of wall panels disposable in a substantially upright manner between a floor and a ceiling each having respectively a series of uppermost and lowermost deviations. The system includes at least one prefabricated frameless panel, the top edge of each panel being provided with a ceiling track configured for being removably insertable into a corresponding ceiling rail. The system also includes a bottom floor channel associated with each corresponding panel and being configured for operatively resting against the floor opposite to the ceiling rail. The system also includes first and second height adjustment assemblies associated with each panel and insertable into a corresponding bottom floor channel.

Probable Assignee: ALLSTEEL INC

Earliest Publication Date: 20111110

13) Family number: 12273365 (US5472269A)

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MODULAR FURNITURE SYSTEM

Abstract: Source: US5472269A A modular furniture system is shown which features a series of panels which can be manufactured and shipped in a **knock down** condition. Various connecting accessories provide improved wire management capabilities and allow a variety of modular configurations to be assembled from a small number of component parts. An improved connector allows vertical support panels of adjacently arranged modules in the system to be connected without requiring holes to be drilled in the exposed edges thereof.

Probable Assignee: NOVIKOFF INC

Earliest Publication Date: 19951205

14) Family number: 31903238 (US2005132718A)

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MODULAR WINE CELLAR AND WINE STORAGE SYSTEM

Abstract: Source: US2005132718A A wine storage system is formed by a modular frame defined by upright members and cross members arranged to form a three dimensional array of compartments in rows and columns where the upright members and cross members have interconnections therebetween allowing addition of further members to form frames of different sizes in a modular construction. Each compartment is arranged to receive an independent wine cell having an insulated rectangular housing with a door and a semi-conductor or other based cooling element inside the housing for cooling the wine bottles. A modular electrical supply arrangement provides a single connection for the modular frame and a connector on each compartment for the housing as it slides into the compartment. Some of the housings can be replaced by less expensive **knock down** or collapsible non-cooling racks for temporary storage. Alternatively the modular frame can be clad by panels and doors and insulated with a central chilling system cooling all the bottles in each of the compartments simultaneously.

Probable Assignee: LILKE HARVEY D

Earliest Publication Date: 20050510

15) Family number: 11196580 (US5921647A)

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FURNITURE

Abstract: Source: US5921647A A new concept of assembly furniture comprises frame components and panels which fit in grooves in the frame components together with fixing members for fixing frame components to each other at their ends, for example, parallelepiped furniture units. The frame components furthermore have formations in them, for example, a set of holes of standardized pitch into which elongate members which have matching formations at their ends can fit when the frame components are assembled. These elongate members with formations at their ends allow for the mounting of hinges, drawer runners and shelf supports and the like without the necessity for drilling, screwing or any other fastening approach. The key feature of the assembly furniture is that it is capable of being disassembled and reassembled into different kinds of furniture by the owner thereof. For example, in a child's bedroom as the child grows up the style in aesthetic respects and functional aspects of the furniture can be changed using the original components purchased.

Probable Assignee: BAVARIAN DESIGN CONCEPT CC

Earliest Publication Date: 19970430

16) Family number: 28038503 (US2003019406A)

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JOINTED, INTERLOCKING KNOCKDOWN FURNITURE

Abstract: Source: US2003019406A Knockdown furniture comprising flat, interlocking, planar parts assembled or disassembled without tools or fasteners. A flat top is supported above ground. A plurality of identical, generally C-shaped legs operatively oriented in radially, spaced apart relation upon erection, support and elevate the top. Each leg comprises a foot touching the ground, an arm for grasping the top, and a wedging section of varying width that is oriented generally perpendicularly. A planar lock shaped like and parallel with the top engages the leg wedging regions. The legs penetrate slots defined in the lock and are thus captivated. Each leg intermediate section may vary in width, with the outside of each intermediate leg section comprising a ramp, and the inside forming a complementary leg edge. The wedging action resulting from slot-to-ramp engagement locks the parts together, with the complimentary leg edges firmly abutting one another.

Probable Assignee: BART FRANCISCUS P

Earliest Publication Date: 20030130

17) Family number: 42105634 (IN02891MA1997A)

© PatBase

A **KNOCK-DOWN** FRAME CONSTRUCTION FOR PORTABLE PARTITIONS

Abstract: Source: IN02891MA1997A A **knock-down** portable partition system has cover panels supported on a post and beam framework designed for quick and easy on-site manual assembly. The framework includes vertical posts and structural beams which rigidly, yet detachably interconnect the vertical posts at the upper and lower portions thereof. Utility troughs shaped to retain wires, cabling, etc. therein have opposite ends shaped to be detachably mounted in horizontally aligned pairs of utility trough ports on the posts while the framework is in its assembled condition.

Probable Assignee: STEELCASE INC

Earliest Publication Date: 20070112

18) Family number: 47930648 (US2010325971A)

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STRUCTURAL BUILDING PANELS WITH SEAMLESS CORNERS

Abstract: Source: US2010325971A Systems and methods providing a modular building having pre-fabricated panel wall components are easily assembled to form a predetermined structure including energy efficient corner modular components that provide for seamless, energy-efficient corners with structural strength.

Probable Assignee: ECO PANELS LLC

Earliest Publication Date: 20101230

19) Family number: 62650361 (US2016168863A)

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MODULAR DECORATIVE WALL PANEL

Abstract: Source: US2016168863A A modular decorative wall panel (100) comprises plurality of metal frame (102), plurality of front panel (104), plurality of metal insert (106) configured to assemble the plurality of metal frame (102), plurality of mounting brackets (108) configured to couple the modular decorative wall panel (100) onto a wall, plurality of horizontal hanging extrusion trim (110) configured to insert into the modular decorative wall panel (100) before mounting the modular decorative wall panel (100) onto the wall, plurality of connector (114) configured to couple the plurality of metal frame (102), plurality of extrusion trim (116) configured to clipped into the plurality of connector (114).

Probable Assignee: INNERSPACE SYSTEM SDN BHD

Earliest Publication Date: 20160616

20) Family number: 33496346 (US5301413A)

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MODULAR RECLINING CHAIR AND METHOD OF MAKING

Abstract: Source: US5301413A A modular reclining chair and method for assembling it are disclosed. The modular reclining chair includes a simplified actuation mechanism which significantly reduces system complexity and weight while providing improved comfort to the seat occupant. The construction is such that the pre-assembled actuation mechanism is integrally suspended from and interdependent with box-like modular frame components. In this manner, the frame components can be upholstered prior to final assembly with the actuation mechanism.

Probable Assignee: LA Z BOY INC

Earliest Publication Date: 19921202

21) Family number: 43813147 (US2009251034A)

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SYSTEM OF STAGING PROPS FOR SIMULATING STAGING FURNITURE AND METHOD OF USING SAME

Abstract: Source: US2009251034A A method of involving the erection of foldable flat blanks to construct tubes of predetermined configurations for assembly in combination to form respective mannequin devices to, when draped with a selected cover, simulate furniture to stage a property. The device of the present invention includes one or more blanks in the form of flatten tubes, erected into tubular components and assembled together to simulate the shape of furniture pieces and which may be draped with a fitted cover to mock the desired furniture piece.

Probable Assignee: NEXTSTAGE FURNITURE INC

Earliest Publication Date: 20091008

22) Family number: 43431900 (US2009162141A)

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DOWEL ASSEMBLY FOR A FURNITURE SYSTEM

Abstract: Source: US2009162141A A dowel assembly for a furniture system provides a fastener usable in assembling various components in a furniture system. The dowel may be employed to define the relationship between first and second components of the furniture system, such as the relationship between adjoining planar surfaces of adjacent furniture panels. The dowel is fitted with a cam such that the cam provides a non-uniform radius at the interface between the dowel and one of the components. Through selective positioning of the cam about the longitudinal axis of the dowel, the interface between components of the furniture system may be selectively adjusted to ensure flush alignment of contiguous surfaces.

Probable Assignee: HAWORTH INC

Earliest Publication Date: 20090625

23) Family number: 56249369 (US2014102590A)

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MONOCOQUE FURNITURE ASSEMBLY AND METHOD OF MANUFACTURE

Abstract: Source: US2014102590A A monocoque furniture assembly and method of manufacture is provided that utilizes modular wood segments connected by interlocking mating joints that are self-registering for ease of assembly and elimination of the need for special assembly tools. The monocoque structure achieves structural integrity with much thinner sheet material. The system can further include a series of reinforcing struts, trusses, ribs and doublers where required that distribute loads as well as a labeling protocol identifying mating assembly points and orientation thereby eliminating the need for lengthy assembly instructions, special skill or training.

Probable Assignee: TOWEY MICHAEL

Earliest Publication Date: 20140417

24) Family number: 4654331 (US4497524A)

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KNOCK-DOWN FURNITURE ASSEMBLY

Abstract: Source: US4497524A A **knock-down furniture** assembly comprises substantially identical top frame and bottom frame members. Fasteners are coupled to the top and bottom frame members a side wall member rotatably receives an elongate mating fastener extending substantially from top to bottom thereof. The elongate mating fastener is configured for mating with the respective fasteners of both top and bottom frame members for defining an assembled condition of the furniture assembly. A **knock-down** drawer assembly comprises an end panel and two complimentary side panels and hinges for hinged joining the complimentary side panels with the end panel. A preformed drawer guide assembly is also provided for mounting one or more assembled drawer to the assembled frames and sides of the furniture assembly.

Probable Assignee: BP PLC

Earliest Publication Date: 19850205

25) Family number: 57413103 (US2014270320A)

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PORTABLE SOUND SYSTEM

Abstract: Source: US2014270320A A system for enhancing sound provided by a pair of speakers relative to a listener includes a support structure, a first panel, and a second panel. The first panel is a material having a sound reflective surface and is disposed upright relative to the ground and the listener by the support structure. The first panel extends between a first area proximate a first speaker and a second area proximate the listener. The second panel is a material having a sound reflective surface and is disposed upright relative to the ground and the listener by the support structure. The second panel extends between a third area proximate a second speaker and a fourth area proximate the listener. The first panel and the second panel are shaped such that sound waves emitted laterally from the first speaker and the second speaker are reflected and focused toward the listener.

Probable Assignee: O POLKA RICHARD

Earliest Publication Date: 20140918

26) Family number: 13159521 (US5282341A)

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DYNAMIC WORKSPACE MODULE

Abstract: Source: US5282341A A dynamic workspace module is provided for open plan spaces, and the like, and includes a compact footprint, comprising a freestanding framework supporting a three-sided partition to form an interior workspace and a portal opening for user ingress and egress. A door partition shaped to selectively close the portal opening is movably mounted on the framework. The door partition preferably has an arcuate plan shape, and is positioned adjacent one side of the portal opening, such that shifting the door partition from the fully open position to the fully closed position both increases the amount of the interior space in the workspace module, and alters the plan shape thereof for improved freedom of user movement, while alleviating any sense of user claustrophobia.

Probable Assignee: STEELCASE INC

Earliest Publication Date: 19930711

27) Family number: 4842340 (US4326760A)

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WORK STATIONS OF **KNOCK-DOWN MODULAR** COMPONENTS

Abstract: Source: US4326760A A pair of identical side panels are arranged in spaced relationship with a cross panel to form the vertical support for a work surface which is disposed on top of the cross panel and between the side panels to provide a basic work station in the form of a desk. These components: are pre-finished; can be stored and shipped **knock-down** (k-d); and are secured directly to each other with simple tools to provide the completed and assembled work station. Additional full or half-size side panels can be added to the basic desk to form vertical supports for additional work surfaces, to provide other work stations such as a desk and secretarial run-off combined, and/or a desk, run-off, and return combined. Individual drawers and/or open, shelved, door or drawer cabinets can thereafter be secured beneath the work surfaces and between the side panels of the return, run-off, and/or desk to provide the desired form of storage space, which can include, conventional type desk pedestals. Such drawers or cabinets are securable beneath the work surface and between the side panels for access from either the rear of the desk (the side where the user usually sits and works from), or the front of the desk (the side opposite the side where the user usually sits and works). The side panels, work surfaces, cabinets, and drawers are also secured together into a top unit which is set upon a desk, run-off, or return to provide yet other configurations of work stations.

Probable Assignee: DISCOVERY CONCEPTS INC

Earliest Publication Date: 19800123

28) Family number: 62055462 (US2016095429A)

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MODULAR RECONFIGURABLE CARCASS SYSTEM FOR FURNITURE

Abstract: Source: US2016095429A At least two vertical supports have vertical arrays of edge shelf-receiving protrusions and notches that support shelving in the notches with bottom recessions to fit over the protrusions. Top tabs and bottom tab receiving caps enable vertical expansion of the vertical supports in vertically stacked arrays. The caps also attach to horizontal tie members which may expand horizontally in horizontal linear arrays. The components secure together in rectangular configurations of various shapes and sizes forming a modular reconfigurable furniture carcass system. Shelves, drawers or doors are added to the carcass to form variety of different furniture pieces.

Probable Assignee: MIRANDA PEDRO A

Earliest Publication Date: 20160407

29) Family number: 69192020 (US2018098629A)

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FURNITURE DRAWER LOCKING MECHANISM AND METHOD FOR IMPLEMENTING THE SAME

Abstract: Source: US2018098629A Furniture, such as bookcases and dressers, are child-proofed against tipping forward by being mounted to a wall by a combination of a rail attached to the furniture, the rail having an angled undercut, and a cleat. The rail and cleat have corresponding angled cuts so that, when the furniture is properly installed, the rail rests on the cleat and the furniture is prevented from tipping or falling forward. The cleat should be attached to a structural member, such as a stud behind drywall. An additional safety device for furniture having drawers is a retainer that, in an engaged position, holds existing drawers in place, and prevents the full insertion of drawers, unless the furniture is installed on a firmly attached cleat. The cleat disengages the retainer during proper installation of the furniture on the cleat, whereby drawers can be fully inserted and removed as desired by the user. Thus, a child climbing on open drawers in a dresser, or on shelving in a storage unit, will not be subjected to injury or death by the furniture tipping forward on to the child.

Probable Assignee: KNEPPER RONALD L

Earliest Publication Date: 20180412

30) Family number: 3884138 (US4421366A)

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SELF-ASSEMBLY FURNITURE

Abstract: Source: US4421366A Apparatus for forming any selected one of a plurality of different articles of furniture, such as seating, storage, and sleeping units comprising a plurality of panels each having inner and outer faces terminating in a perimetrical edge, and mechanism for detachably coupling any selected number of the panels together in angular relation such that the perimetrical edge of each panel is positioned inwardly of the outer face of an adjacent angularly related panel and the outer face of each panel is positioned outwardly of the perimetrical edge of the adjacent angularly related panel to provide outwardly opening openings adjacent the adjacent perimetrical edges of adjacent panels. One aspect of the invention includes a coupling for coupling adjacent angularly related panels to form outwardly opening openings at the adjacent ends of adjacent panels.

Probable Assignee: NIZIOL CHESTER

Earliest Publication Date: 19831220

31) Family number: 51337843 (IN01562MU2012A)

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KNOCK DOWN KITCHEN ASSEMBLY

Abstract: Source: IN01562MU2012A This invention relates to a **knock down** assembly for kitchen and in particular, is used for kitchen basket having drawer type. More particularly, this present invention relates to a **knock down** assembly for kitchen with multi utility and cost effective. Furthermore, this invention also relates to a **knock down** assembly which is used for wardrobe drawers. The **knock down** assembly in which all the parts are in folding system so that it is more convenient to supply to the consumers in good condition and cheaper cost.

Probable Assignee: SILVER INC

Earliest Publication Date: 20120622

32) Family number: 30130193 (US2003089066A)

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SUB-RIGID FAST-FORM BARRIER SYSTEM

Abstract: Source: US2003089066A The invention disclosed herein is remarkable in its simplicity and promises wide commercial application as the labor costs for construction become increasingly prohibitive. The extraordinary absence of nails, screws, bolts, welds or any other fastening device allows these barriers to compete with many conventional barrier systems, such as those employed for fencing, vehicular trailer beds, removable stages, and scale models or toys of all fabrications mentioned plus many more. In this age time is money and the erection speed this barrier system offers may well revolutionize conventional "post and beam" framing. The invention is specifically aimed at eccentric beam loading where barriers must be economically fabricated to withstand hurricane force winds, earthquake reactions, or liquid concrete pressure in a sub-rigid manner. The Fast-Form System will offer insurers building products that will protect their interests for any and all applications. When the barriers disclosed herein are utilized for concrete formwork, contractors will have a new option that embraces standard building products, with barrier fabrication accomplished in half the time of the systems that precede it.

Probable Assignee: NELSON THOMAS P

Earliest Publication Date: 20030515

33) Family number: 3483459 (WO9119863A1)

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BUILDING MATERIALS

Abstract: A modular structural assembly (100) is disclosed for use in construction and for connection with other neighboring generally identical modular structural assemblies (100) to create a building structure. The modular structural assembly (100) includes a structural subassembly having an inner volume and being mechanically connectable with the neighboring structural assemblies to define a building structure. The structural subassembly has a plurality of conduit connection apertures (110) distributed at least about the periphery thereof. The modular structural assembly also includes a utility subassembly (112) locatable within the inner volume. The utility subassembly (112) has a plurality of conduits extending from at least one junction in a plurality of directions, where the conduits are selectably connected together and locatable through the conduit connection apertures (110) for connection to corresponding utility subassemblies of the neighboring generally identical modular structural assemblies.

Probable Assignee: CHARLES D ZWEIBACH

Earliest Publication Date: 19911226

34) Family number: 31463010 (GB2419813A)

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KNOCK-DOWN FURNITURE

Abstract: Source: GB2419813A A furniture assembly 1 comprising modular sections 2, 3, 4, 5, 6 to define a required ready to assemble furniture profile, each modular section including an abutment surface reciprocal with the abutment surface in adjacent modular sections within the furniture profile, the abutment surfaces including apertures 8 preferably countersunk 9 to receive securing pegs 7 to retain association between the abutment surfaces in the furniture profile. Preferred securing pegs 7 are threaded bolts of various designs including expansive bolts, see figure 6. Additional securing means include hook and loop fasteners, adhesives and press studs. Abutment surfaces may be inclined to the horizontal to improve shear characteristics of the securing pegs.

Probable Assignee: BARLOW MICHAEL D

Earliest Publication Date: 20060510

35) Family number: 30572563 (US2004095000A)

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APPARATUS AND METHOD FOR ASSEMBLING COMPONENTS OF KNOCK-DOWN FURNITURE

Abstract: Source: US2004095000A Components of **knock-down furniture** and modules of sectional furniture are equipped with interlocking brackets, connector frames and a shelf assembly at the time of manufacture to provide for a method of assembling the components that avoids the difficulty heretofore experienced in adjusting the positions of components when needed to align and connect brackets to interlock the furniture components.

Probable Assignee: DURLING WALTER E

Earliest Publication Date: 20040520

36) Family number: 44343762 (IN00174MU2005A)

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A MODULAR SHELVING ASSEMBLY UNIT AND ITS COMPONENTS THEREOF

Abstract: Source: IN00174MU2005A The said modular shelving assembly unit comprises of an expandable and contractible shelving system used with multiple adjustable fittings flexible enough to secure the shelving panel in a transverse plane by means of longitudinal threaded rods, which are further assembled together to form a variety of shelving configurations of various sizes according to one's own requirements and tastes in an inexpensive manner. The said invention is completely modular for providing maximum flexibility as it arises from the specific design of the various connector shelving components and structural shelving components that are contained in this modular shelving system. In this modular shelving assembly system, structural shelving components are joined together using various connector shelving components allowing for configurations of any variety of widths and heights. Also the various shelves and cabinets can be adjusted in height by even a millimeter due to the specific design of the multiple adjustable fittings.

Probable Assignee: MR SAIFUDDIN SHAHPURWALA ; MR MURTUZA SHAHPURWALA

Earliest Publication Date: 20051014

37) Family number: 55473921 (US2014000038A)

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WALL HUNG SLIPCOVER HEADBOARD TO INCORPORATE ART INTO A BED

Abstract: Source: US2014000038A A wall-mounted slipcover headboard for a bed combines comfort of an upholstered headboard with the ease of removable covers while it solves the problem of hanging art above the bed by incorporating art into the bed. The headboard has a modular, frame, a cushioning pad and a removable slipcover. For example, the removable slipcover features printed art. The headboard's back side has horizontal dowels that slide on to a hanging medium, allowing for flexibility in mounting the hanging medium in the strongest place on a wall with the least amount of damage to the wall, while allowing the headboard to slide horizontally to be centered above a bed.

Probable Assignee: OYO HOFFMANN ASTRID

Earliest Publication Date: 20140102

38) Family number: 8490575 (US5361454A)

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SNAP-ON SWIVEL WHEEL ASSEMBLY

Abstract: Source: US5361454A A modular wheel assembly for use with apparatus having a weight-bearing frame, such as a baby stroller, includes a mounting unit consisting of a cylindrical tubular member having an open upper end and a closed lower end wall. The tubular member is dimensioned to receive the lower end of a tubular frame member of the apparatus. A wheel supporting unit includes a cylindrical sleeve portion dimensioned to receive the tubular member of the mounting unit in close tolerance, freely rotating fashion. The sleeve portion and mounting unit are dimensioned so that the weight supported by the frame member is transferred through the bearing flange of the mounting unit to the cylindrical sleeve portion of the wheel supporting unit. An axle tube extends perpendicularly through lower end portions of the web members to be supported thereby. The axle tube is adapted to receive an axle therethrough, with a pair of wheels secured to opposed ends of the axle. A fastener comprised of a disc and a barb-like fastener extending coaxially therefrom is dimensioned to extend compressively through a hole in the lower end wall of the mounting unit, and to expand therein and be retained in a snap-engagement.

Probable Assignee: GRACO CHILDREN S PRODUCTS INC

Earliest Publication Date: 19941108

39) Family number: 12639802 (US5088180A)

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METHOD FOR ASSEMBLING A MULTI-PART ARTICLE OF FURNITURE

Abstract: Source: US5088180A A multi-part article of furniture, such as a chair or table, capable of being assembled without tools or glue is disclosed. The legs of the table or chair can be rigidly, but removably, attached to the table top or chair seat by slideably engaging an elongated dowel protruding from an upper side surface of the leg into a mating slot formed in the end wall of an apron attached to the underside of the table top or chair seat. Alternatively, the elongated dowel may protrude from the apron and the upper side surface of the leg may contain a mating slot. Fastening clips may provide additional attachment between the legs and aprons and a separate dowel protruding from the upper end surface of the leg may mate with a bore in the underside of the seat or table top. In one embodiment, the length of the legs is varied either by replacement with longer-length legs or by the addition of leg-extension members.

Probable Assignee: INTEREX INC

Earliest Publication Date: 19920218

40) Family number: 28285799 (US2002190614A)

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MODULAR STORAGE CABINET

Abstract: Source: US2002190614A A modular storage cabinet which can be shipped in a **knocked-down** condition and assembled on site with a minimal number of mechanical fasteners. Arcuate end connectors are provided for the side panels, which end connectors engage a tube at the corner connections. A sleeve slides over the arcuate end connectors, securely locking the side panels to the tube without the need for screws or any other fasteners. Top and bottom panels are attached at the corner connection assemblies. The cabinet includes a front panel which pivotally receives one or more doors, or the doors can be directly connected to the top and bottom panels. The side walls in the preferred embodiment are manufactured by a plastic injection molding process. The interior of the side walls may include screw bosses integrally formed therein for attachment of drawer slides, shelving or other accessories. The corner connection assembly can be used for any type of corner connections, such as for modular office panel systems.

Probable Assignee: KNOLL INC

Earliest Publication Date: 20021213

41) Family number: 34115304 (WO07010526A2)

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MODULAR KNOCKDOWN FURNITURE

Abstract: The present invention discloses a knockdown put-together article of furniture, comprising at least two modules, and at least one module-connecting component; said at least one of said at least two modules comprises two horizontal panels and two vertical panels; said horizontal panels are identical to each other and said vertical panels are identical to each other; at least one of said horizontal panels is connected to at least one of said vertical panels, and said module-connecting component is either connected to at least two of said horizontal panels, or connected to at least two of said vertical panels. The present invention also discloses a method of manufacturing a knockdown put-together modular article of furniture, constructed of horizontal and vertical panel components.

Probable Assignee: LACHISH DORON

Earliest Publication Date: 20070125

42) Family number: 10592795 (GB2269313A)

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"MODULAR FURNITURE UNIT"

Abstract: Source: GB2269313A A modular furniture unit comprises at least two storage modules 10 wherein the storage modules are shaped and movable relative to each other between a first configuration in which the storage modules are placed adjacent one another to form a base for a bed (Fig. 1), and a second configuration in which the storage modules are stacked one on top of another to form a chest (Fig. 2). Each storage module has an opening which is accessible in both the first and second configurations.

Probable Assignee: TECHNOLOGY FINANCE CORP

Earliest Publication Date: 19940201

43) Family number: 12231305 (US6058667A)

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MODULAR WINDOW FOR PARTITION PANELS

Abstract: Source: US6058667A A **knock-down** transparent module includes a module frame with a pair of vertical side frame members, each having an upper end and a lower end. Upper and lower horizontal frame members have opposite ends and extend generally horizontally between the vertical side frame members adjacent the upper and lower ends thereof and interconnect the same adjacent the upper and lower ends to define a central opening through the module frame. A transparent sheet is secured to the module frame and extends across the central opening. The module frame defines outer faces having at least one hook shaped to engage an opening in a partition frame member, thereby permitting the module frame to be removably supported within a partition.

Probable Assignee: STEELCASE DEVELOPMENT INC

Earliest Publication Date: 20000509

44) Family number: 28321419 (US2002179558A)

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MODULAR OFFICE FURNITURE

Abstract: Source: US2002179558A A modular office cubicle system includes multiple vertical members each having lower ends designed to rest on a floor. Multiple horizontal members extend between the vertical members such that the vertical and horizontal members cooperate to form a skeletal work cubicle at least partially surrounding a work area. Structural connection fittings removably interconnect the horizontal members with the vertical members. Removable and replaceable polymerized sheathing surrounds at least some of the vertical members and some of the horizontal members. A generally planar work top may be supported by some of the members in a generally horizontal position.

Probable Assignee: VENEGAS FRANK

Earliest Publication Date: 20021205

45) Family number: 33496723 (EP0645975B1)

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MODULAR WALL PROXIMITY RECLINING CHAIR AND METHOD

Abstract: Source: EP0645975B1 (Claim 1) 1. A method for assembling a wall reclining chair (10) comprising: providing means for defining a chair frame (21) having side frame members (24) interconnected with cross rail members (26, 28); suspending an actuation mechanism (12) between said side frame members (24); pivotally interconnecting a seat (20) and seat back (18) to form a seat assembly (14); operably connecting said seat assembly (14) to said chair frame (21) for reclining movement; providing a base assembly (22), said base assembly (22) including support means (134) for supporting said chair frame (21) for translational movement in response to reclining movement of said seat assembly (14); and supporting said chair frame (21) on said support means (134).

Probable Assignee: LA Z BOY INC

Earliest Publication Date: 19940124

46) Family number: 49433162 (US2013319297A)

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VERTICALLY ELEVATED FOLDABLE FRAME

Abstract: Source: US2013319297A A vertically foldable frame is disclosed. The frame comprises: a base; a first fixing post; a second fixing post; a sliding frame; at least one table surface; wherein the first fixing post and the second fixing post are respectively fixed on both ends of the base; a first guide rail and a second guide rail are provided on the first fixing post and the second fixing post respectively and opposite to each other, the sliding frame is provided between the first guide rail and the second guide rail and adapted to slide up and down along the first guide rail and the second guide rail; the table surface is horizontally connected to a side of the sliding frame and adapted to be rotated in a vertical plane around a joint between the table surface and the sliding frame, the table surface is adapted to be horizontally positioned.

Probable Assignee: NG KIN CHUNG

Earliest Publication Date: 20110817

47) Family number: 20681670 (US6128877A)

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VARIABLE WIDTH END PANEL

Abstract: Source: US6128877A A variable width panel includes a frame having a **knock-down** construction adapted for on-site assembly. The frame includes a first rigid stile adapted to be disposed in a generally vertical assembled orientation along a first side of the frame. At least two rigid cross-members having first ends thereof rigidly attached to the stile are disposed in a vertically spaced-apart relationship, and extend in a generally horizontal assembled orientation. The cross-members having predetermined full width with a construction which permits the cross-members to be cut to a custom width at a second end thereof during the on-site assembly for use in a special width panel that is adapted for connection with the standard width panels. The frame also includes fasteners for detachably connecting the second ends of the cross-members with the second stile to define a pocket therebetween. The panel kit further includes a core panel shaped to be received in the pocket, and having a predetermined full width with a construction which permits the core panel to be cut to a custom width during the on-site assembly for use in the special width panel. The variable width panel kit further includes at least one cover panel configured to be detachably mounted on the frame, and enclose an associated portion of the same. The cover panel has a predetermined full width with a construction which permits the cover panel to be cut to a custom width during the on-site assembly for use in the special width panel.

Probable Assignee: STEELCASE DEVELOPMENT INC A OF MICHIGAN CORP

Earliest Publication Date: 19990916

48) Family number: 44046224 (US2009288253A)

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KNOCK DOWN HEADBOARD

Abstract: Source: US2009288253A A ready to assemble, expandable headboard that is capable of fitting different size mattresses and is packaged compactly so that a store and the resulting customer can easily carry the packaged headboard. A ready to assemble headboard and kit where the headboard is expandable yet easily assembled to result in a cushioned, fabric slipcovered headboard with a custom look.

Probable Assignee: E AND E CO LTD

Earliest Publication Date: 20091126

49) Family number: 30063234 (US2004098943A)

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MODULAR STRUCTURES AND CONNECTOR ASSEMBLY APPARATUS

Abstract: Source: US2004098943A Disclosed is a modular, **knock down** structure construction system illustrated by three structures, each having connecting portions detachably secured to one another by Trapezoidal Quick Slide Connector Assemblies, also disclosed, that enable a user to erect, without tools, a pre-designed structure. Additionally disclosed is a manufacturing apparatus for accurately and efficiently mounting connector assemblies on structural parts for later assembly.

Probable Assignee: TURNER CAROL SUE

Earliest Publication Date: 20031127

50) Family number: 24860363 (US5255478A)

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MODULAR INSTITUTIONAL WORKSTATIONS

Abstract: Source: US5255478A Workstations with the look and feel of millwork but with the flexibility of systems furniture comprise modules constructed from a relatively few number of elements. The modules are based on several basic geometries, and comprise a horizontal work surface, a forward support panel assembly, and end panel assemblies. In addition, each module can be equipped with transactional shelves and various accessories, e.g. pull-out writing shelves and pencil drawers, drawer pedestals, courtesy shelves, lighting, etc. The elements of the modules are constructed from durable materials that are easy to maintain and clean. Certain embodiments of these workstations are particularly well adapted for use in health care settings.

Probable Assignee: BAY VIEW IND INC

Earliest Publication Date: 19931026