

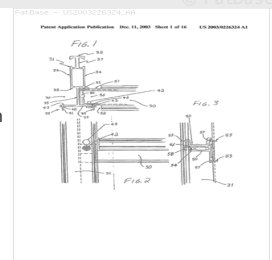
1) Family number: 29770351 (US2003226324A)

TUBE-LOCK CURTAIN WALL SYSTEM

Abstract: Source: US2003226324A A curtain wall including a plurality of mullions each having a pair of glazing pockets, an I-section for supporting an interior trim member and protrusions for supporting an exterior trim member. The curtain wall further includes a plurality of rails including a notched section for insertion into the mullion glazing pockets, and a plurality of protrusions for supporting interior and exterior trim members. A bead having a plurality of protrusions is connected to the mullion in a lengthwise direction thereof, and supports the interior trim member. A plurality of retainers are insertable into notches in the mullions, the beads or the rails for removably retaining glazing infill components (i.e. panels, windows, doors) in the curtain wall. The curtain wall design of the present invention allows for the glazing infill components to be installed and/or removed from either the front side or the back side of the curtain wall.

Probable Assignee: X CLAD INC

Earliest Publication Date: 20031211



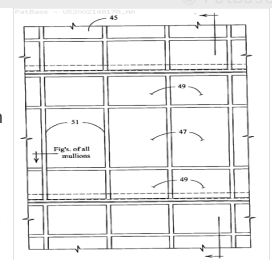
2) Family number: 28323333 (US2002148178A)

FIRE RESISTANT RATED FENESTRATION, INCLUDING CURTAIN WALL SYSTEMS, FOR MULTIPLE STORY BUILDINGS

Abstract: Source: US2002148178A Apparatus and systems for a fire resistant rated fenestration including curtain wall systems for multiple story buildings capable of withstanding a seismic load. Fire resistant panels are mounted in a fire resistant mullion where the mullion may be one element, or may have an inner structural shell and an outer shell. A barrier of fire resistant material is disposed between the inner and outer shells. A sealer compound or a fire resistant compressible filler seals the space between the mullion and the fire resistant panels. The inner structural shell member is connected to an elastic panel fastener that is connected at its opposite end to fire resistant panels. The fastener allows the fire resistant panels to move in response to a seismic load without damage to the mullion or panels.

Probable Assignee: MEDIA CURTAINWALL CORP

Earliest Publication Date: 20021017



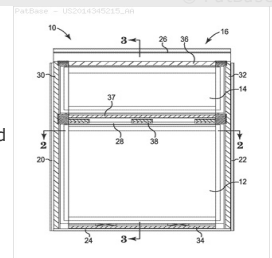
3) Family number: 54123836 (US2014345215A)

THERMAL BREAK FOR CURTAIN WALL

Abstract: Source: US2014345215A A curtain wall panel includes frame with a first frame member defining a channel, a cover configured to extend over the first frame member, a spacer formed of a thermally insulating material, the spacer including a first end, a body, and a second end, the first end being configured to be secured in the channel of the first frame member in a cammed interference fit by rotating a body of the spacer, and the second end being configured to form a cammed interference fit with the cover. An insert is supported from the first frame member by the spacer with the cover fit onto the spacer to capture and secure the insert relative to the frame.

Probable Assignee: PELLA CORP

Earliest Publication Date: 20130620



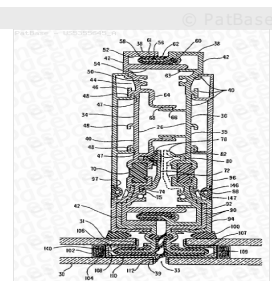
4) Family number: 12868623 (US5355645A)

STOPLESS BUTT-JOINT MULTIPLE CURTAINWALL SYSTEM

Abstract: Source: US5355645A A system and method is employed for installing a curtainwall thermally broken multi-system of four sided stopless butt-joint glazing or facing panels with dry gasketed joints. A retainer clip assembly attaches facing panels of glass, metal, granite, marble, plastic, acrylic, insulation or the like of single, multiple or composite panels. The curtain wall multi-system can have an irregular geometric impression. All field labor for initial installation or replacement takes place from inside the building. A supporting metal grid can include split mullion interlocking halves which are anchored to the building's structure. A retainer clip assembly reduces tension stress and insures a fail-safe thermal break system. Glass, facing panel, louver infills, framed operable window in one plane or multiple planes, dual glazing of glass, acrylic sheets or any combination thereof can be used with the grid. In other embodiment, thermal break spacers are positioned between interlocking portions of a mullion.

Probable Assignee: MEDIA CURTAINWALL CORP

Earliest Publication Date: 19940303



5) Family number: 1387198 (US3719014A)

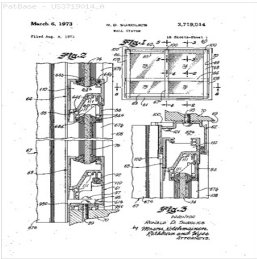
WALL SYSTEM

Abstract: Source: US3719014A ABSTRACT OF THE DISCLOSURE

There is provided an improved wall system wherein the structural portions of the vertical mullions are separate from the remaining portion of the wall. Thus, there is provided a structural mullion portion with horizontal through members wherein the interior mullion portion snaps to the structural mullion portion to lock the through horizontal members in position. The shape of the structural portion may be varied without changing the other members of the system.

Probable Assignee: AMERICAN METAL CLIMAX INC

Earliest Publication Date: 19730203



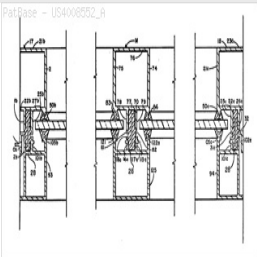
6) Family number: 1511520 (US4008552A)

WALL STRUCTURE AND ELEMENTS THEREFOR

Abstract: Source: US4008552A A wall structure having a framework, for supporting a plurality of panels in horizontal and vertical alignment, the wall structure being installable in an opening of a building structure to close such opening with the panels being installable in the framework either from the exterior or the interior of the building structure. A wall structure may also be installed on the exterior of a building structure as a curtain wall. Frame members are made up of interior and exterior box-like sections, which are connected together by insulating clips, working in connecting flanges on the sections, thus providing thermal isolation of the parts. The panels are gripped by gasketed flanges on the sections. Specific proportioning of the connecting flanges and gasketed flanges provides a metal free zone facilitating deglazing and providing room for internal water diverters.

Probable Assignee: HOWMET CORP

Earliest Publication Date: 19770201



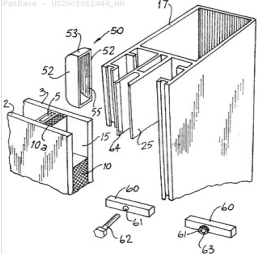
7) Family number: 28129072 (US2001011444A)

GLAZING ASSEMBLY

Abstract: Source: US2001011444A A glazing unit (1) comprises two sheets of glass (2,3) which are separated by a spacer bar (5). An outer secondary seal (10) extends around the periphery of the glazing unit. The seal (10) has a number of peripherally spaced-apart fixing inserts (50) extending around the periphery of the glazing unit for fixing the glazing unit support (17). Each fixing insert (50) has a base wall section (51), parallel side walls (52) and end wall sections (53) which define an arcuate slot (55) closed at both ends. The configuration of the fixing inserts (50) allows simple fitting while ensuring the maximum bulk of material for structural strength. Opposed fixing inserts (50) are engaged, on assembly, by a toggle (60).

Probable Assignee: KENNY SIMON JOSEPH

Earliest Publication Date: 19981202



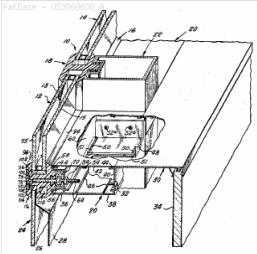
8) Family number: 1302516 (US3968608A)

CURTAIN WALL PANEL SUPPORT

Abstract: Source: US3968608A A support member for connecting panels of a curtain wall to horizontal mullions. Each mullion has a channel formed therein and has shoulders at opposite sides of the channel. The panel support member comprises a rigid bar, positioned in the channel in the mullion, and a tenon extending longitudinally of the bar. Anchor lugs extend outwardly from opposite sides of the tenon. A gasket, having panel receiving slots formed therein, has a groove extending longitudinally thereof to receive the tenon and anchor lugs. As anchor bolts are tightened, drawing the bar into the channel in the mullion, external abutments on the gasket are drawn into the channel such that a portion of the gasket is captured between the shoulders and the lugs to resist deformation of the gasket relative to the load carrying tenon.

Probable Assignee: SWANGO BILLY J

Earliest Publication Date: 19760713



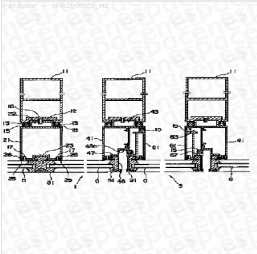
9) Family number: 13672070 (JP8209829A)

GASKET FOR FITTING CURTAIN WALL AND PLATE MATERIAL

Abstract: Source: JP8209829A PURPOSE: To provide a gasket capable of fitting a curtain wall having a wide visual field of a projected window and a plate material by forming the curtain wall with a mullion fixed to a skeleton, the first and second vertical sash bars, the first and second horizontal sash bars, a window frame, and a plate material. CONSTITUTION: Mullions 11 are fitted to a building skeleton. The projection 22 of a vertical sash bar 21 is inserted into the recess 12 of each mullion 11 and fixed by a screw 16. Vertical sash bars 41 are fixed at the position where a projected window 5 is provided. A horizontal sash bar is arranged between the vertical sash bars 21, 41. The second horizontal sash bar is fixed at the position where the projected window 5 is provided. The protruded stripe of a gasket 81 is inserted into the recessed groove 23 of the vertical sash bar 21, a presser plate 25 is inserted into an insertion groove, and a lock pawl 26 is locked on the lock groove of the vertical sash bar 21. The tip section of a fitting piece 48 is hooked on the lock groove on the vertical sash bar 41 and the second horizontal sash bar, the protruded stripe is inserted into a recessed groove 47, and a gasket 91 is fitted like the gasket 81. Parts are used in common, and the stock management and process control can be facilitated.

Probable Assignee: TATEYAMA ALUMINUM KOGYO KK

Earliest Publication Date: 19960813



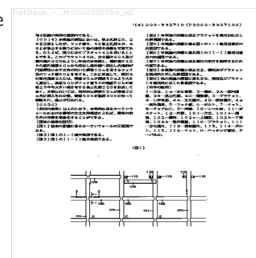
10) Family number: 27957222 (JP2002332710A)

MULLION SUPPORT STRUCTURE FOR CROSSPIECE IN CURTAIN WALL

Abstract: Source: JP2002332710A PROBLEM TO BE SOLVED: To provide a mullion support structure of a crosspiece in a curtain wall capable of simplifying crosspiece installation work.SOLUTION: This structure for installing the crosspiece 2 disposed over mutually adjacent mullions 1 for supporting a panel P by an upper side surface or a lower side surface of it comprises a hook part 5 provided on a bracket 4 connected to the mullion 1 to protrude toward the outside of the room, with a tip part directed horizontal, and a lock hole part 2B provided in a room side wall 2A of the crosspiece 2 for the hook part 5 to be inserted. As the hook part 5 is inserted into the lock hole part 2B, the crosspiece 2 is moved in the opposite direction to the direction of the tip part of the hook part 5, thereby the hook part 5 and the lock hole part 2B are locked to each other.

Probable Assignee: SHIN NIKKEI CO LTD

Earliest Publication Date: 20021122



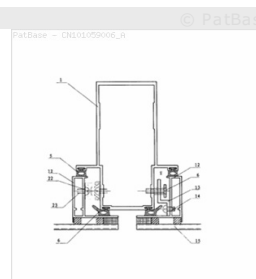
11) Family number: 41095919 (CN101059006A)

CURTAIN WALL SYSTEM CAPABLE OF DISCRETIONARILY BEING DEMOUNTED, MOUNTED AND CHANGED

Abstract: Source: CN101059006A A baffle wall system can be disassembled, installed and replaced arbitrarily indoor or outdoor. It includes mullion components, fixed unit components, opening unit components and beam of sealed opening unit components. The mullion is equipped with hanging bar; the fixed unit components are equipped with hook and locking device; the opening unit components are equipped with sealed beam. The fixed unit components is hanged on the mullion to press the mullion sealing adhesive tape and realize confinement, the horizontal frames of the fixed unit components are inserted and connected with each other to press the sealing adhesive tape and realize confinement; the beam on the opening unit components, the mullion and the horizontal frames on the fixed unit components combine the opening window frame. The opening unit components are linked with the mullion through butt hinge, the sash lock locks and presses the sealing adhesive tape tightly and realizes sealing, opening can realizes window-opening and ventilation. The whole baffle wall system realizes the sealing and water discharging function of whole baffle wall through the interaction between the mullion and unit components. The advantages of the invention are: achieving the disassembling, installation and replacement arbitrarily indoor or outdoor; materials consumption is less, the outside need not be sealed by anti-weather sealant and the costs are reduced.

Probable Assignee: QIU JIANPING

Earliest Publication Date: 20071024



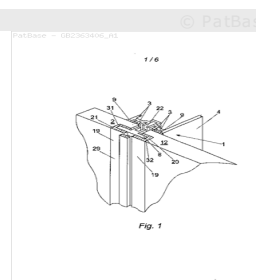
12) Family number: 14591063 (GB2363406A)

SEALING, E.G. OF CURTAIN WALL.

Abstract: Source: GB2363406A Apparatus for sealing a building material, e.g. a curtain wall panel 2,12, comprises a sealing member, 20, 21, and fixing means 6 which retains the seal 20, 21, against the panel 2, 12 and against a load-bearing member 4, e.g. a mullion or transom. A screw member (not shown) urges plate 6 toward mullion 4; a cover strip 29 covers the screw; a rear seal 9 may be present.

Probable Assignee: LAU PETER

Earliest Publication Date: 20011219



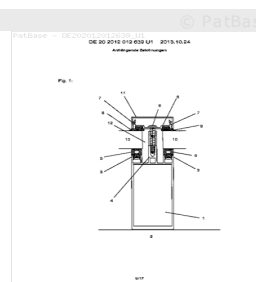
13) Family number: 53979049 (DE202012012639U1)

SYSTEM AUS ELEMENTEN ZUR SANIERUNG VON GEBAEUDEFASSADEN IN PFOSTEN-RIEGELBAUWEISE

Abstract: Source: DE202012012639U1 System aus Elementen zur Sanierung von Gebaeudefassaden in Pfosten-Riegelbauweise umfassend Pfosten- und Riegelemente, Daemmmaterialien und Fassadenfuellelemente, dadurch gekennzeichnet, dass das System auch Adapterprofile (21) und Dichtungen (23, 32) umfasst, wobei bereits zuvor schon fuer eine Fassade genutzte Pfosten- und Riegelprofile (1, 13) mit den Adapterprofilen (21) fest oder loesbar verbunden werden, wobei die Adapterprofile (21) auf der dem Gebaeude (2) abgewandten Seite Adapterverbindungselemente (22) aufweisen, an die standardisierte Dichtungen (23, 32) angebracht werden koennen, und die Adapterprofile (21) auf ihrer dem Gebaeude (2) zugewandten Seite an die aeussere Form des vorhandenen Pfosten-Riegelsystems angepasst sind.

Probable Assignee: KRUEGER JENS

Earliest Publication Date: 20130606

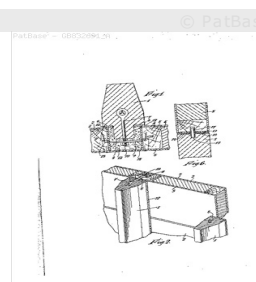


14) Family number: 20634300 (GB832691A)

IMPROVEMENTS IN FIRE-RESISTING BUILDING CONSTRUCTION

Abstract: Source: GB832691A 832,691. Walls etc.; building panels. GARDINER SONS and CO. Ltd. July 22, 1957 [July 23, 1956], No. 22733/56. Classes 20(4) and 87(1) In building construction of concrete or other fire-resisting material comprising one or more panels supported along one or more margins by supports to which the panels are clamped, fire-resisting material is sandwiched between the panel or panels and the supports. As shown in Fig. 1, the prestressed concrete mullions or joists 1 are rebated to provide shoulders 6 which receive the edges of panels 2 comprising a timber frame 3 and asbestos-cement facings 5, and a filling 4 of wood wool or cement, or the panels are of concrete, stone or other fire-resisting material alone or in combination with facing materials. Tie bolts 7 anchored in the mullions extend through metal clips 9 secured by nuts 10, the clips spanning the space between neighbouring panels and bearing on shoulders 11 provided in the ends of the panels; wood screws 15 secure the clips to the panels. A layer 12 of asbestos or fibre glass tape is disposed between the edges of the panels and the mullions, and the space between the edges of the panels is packed with fire-resisting material 13 and masked by a strip 14 also of fire-resisting material. The horizontal butt joints between adjacent panels include a layer 16, Fig. 6, of fire-resisting material, the panels having grooves 17 in which is received a steel bar 18. Where the panels have a wooden frame a fire-resisting material 19 is applied to opposed faces of adjacent panels. Specification 814,801 is referred to.

Probable Assignee: GARDINER SONS AND CO LTD



CURTAIN WALLING ASSEMBLY

Abstract: Source: GB2024908A The requirement to be met is the provision of a curtain walling assembly with neither transoms nor mullions exhibiting, from outside a building, any form of securing means. The mullions of a curtain walling assembly are provided with an integral T-section portion defining two recesses arranged to receive edge portions of adjacent panels. The transoms 50 have a detachable T- section facing strip 80 likewise defining recesses and include hook section members 78 interengageable with a hook-section projection 70 of the transome. A load bearing strip 84, a spacer 86 and a sealant 88 serve together to lock the facing strip in position.

Probable Assignee: NORCROS INVESTMENTS LTD

Earliest Publication Date: 19800116

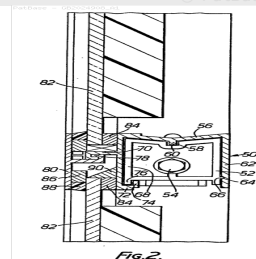


FIG. 2.