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(54) TRACK MEMBER FOR WALL AND SOFFIT CONSTRUCTION

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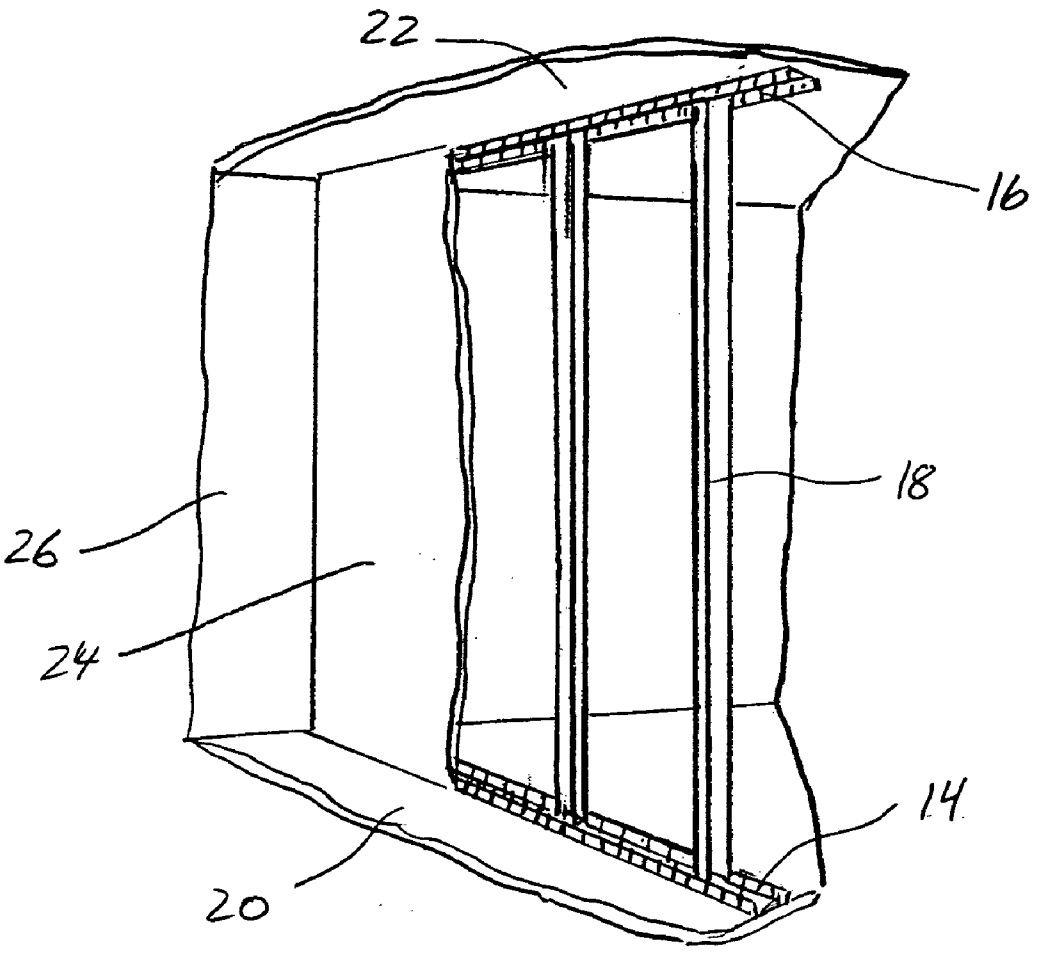
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(57) **ABSTRACT**

An improved track member for use in stud and track wall construction, particularly with metal structural members, that comprises a generally U-shaped track member with a plurality of measurement lines and/or measurement designations along the base or flange portion of the track member to assist in the positioning of the studs in the channel of the track member. In the preferred embodiment, the track member is divisible by both sixteen and twenty-four inches. If vertically disposed slots are utilized, they are positioned evenly along the track member with or without measurement lines or designations. The track member ends have an improved mechanism, having notches and tabs for interlocking engagement, for longitudinally connecting two adjacent track members. A soffit track member comprises two attached track members having their lateral axis in orthogonal relation. The soffit track member can incorporate the measurement lines and/or designations and the connecting mechanism.



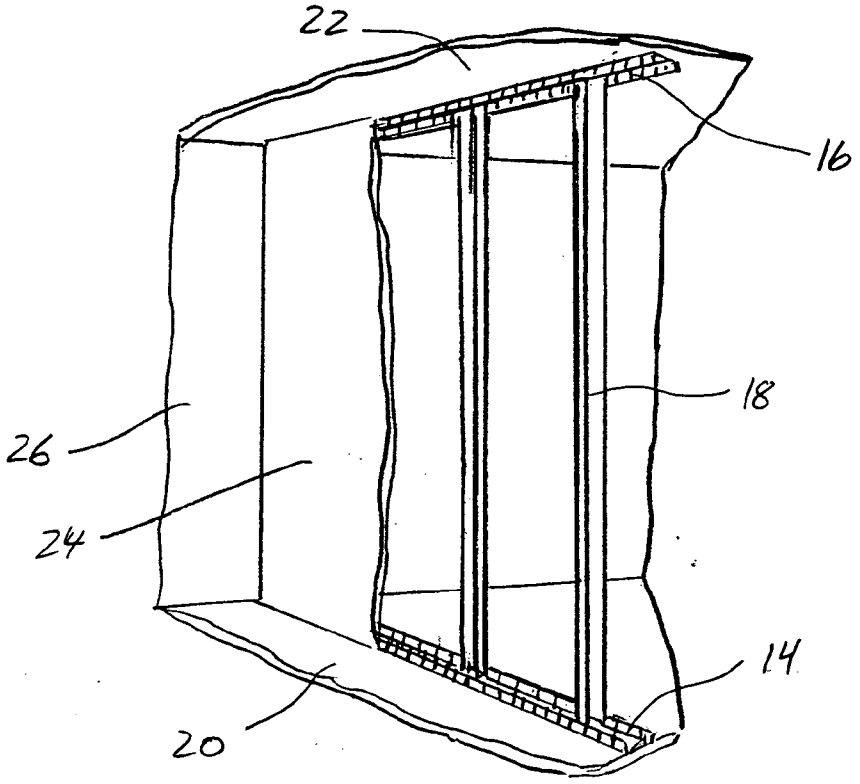

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FIG. 1

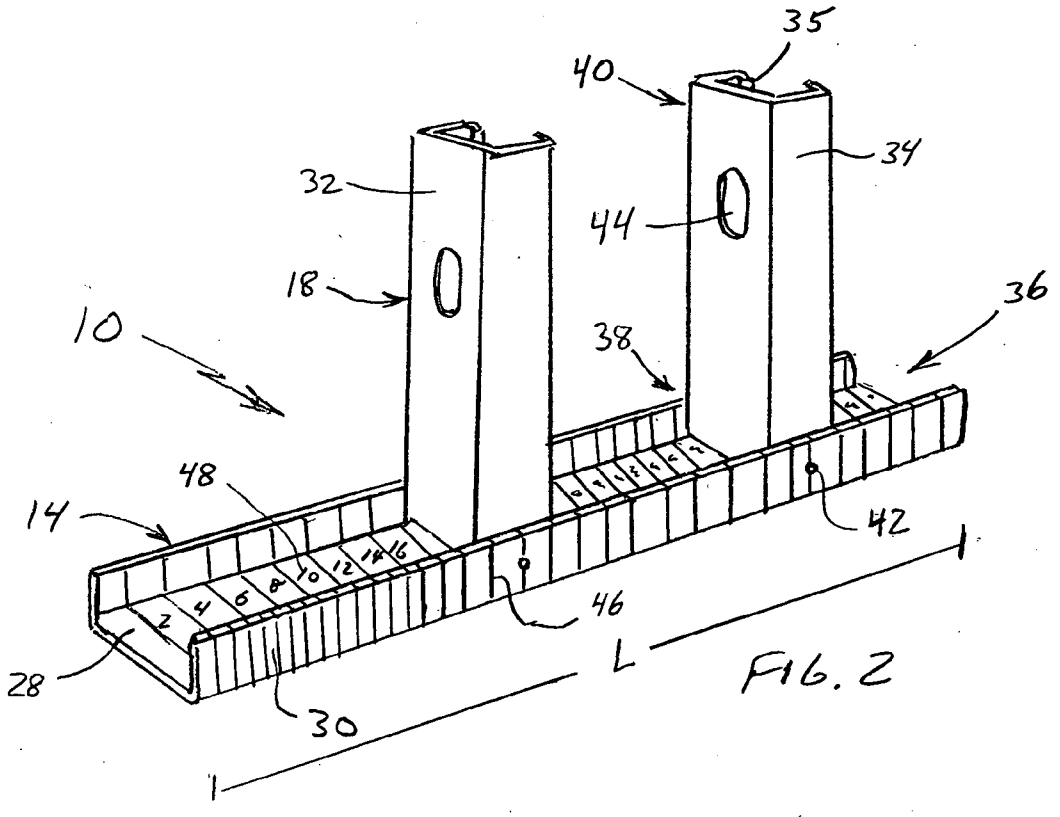

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FIG. 2

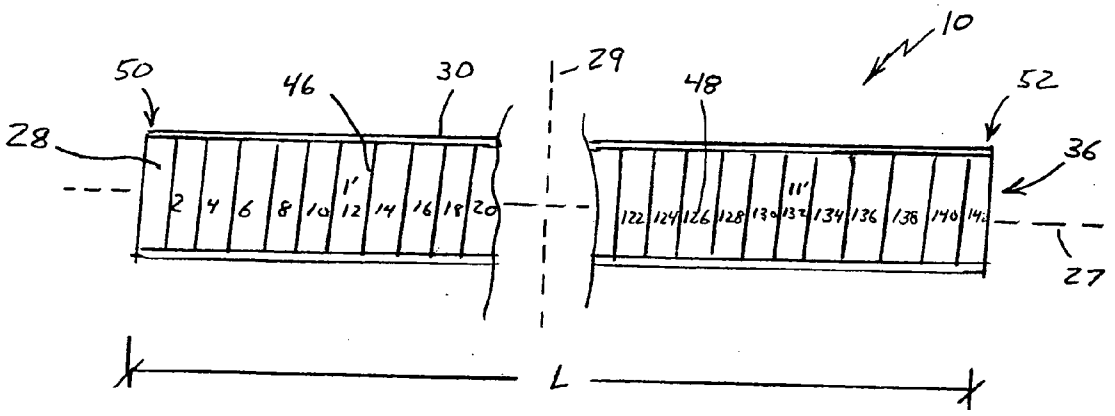

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FIG. 3

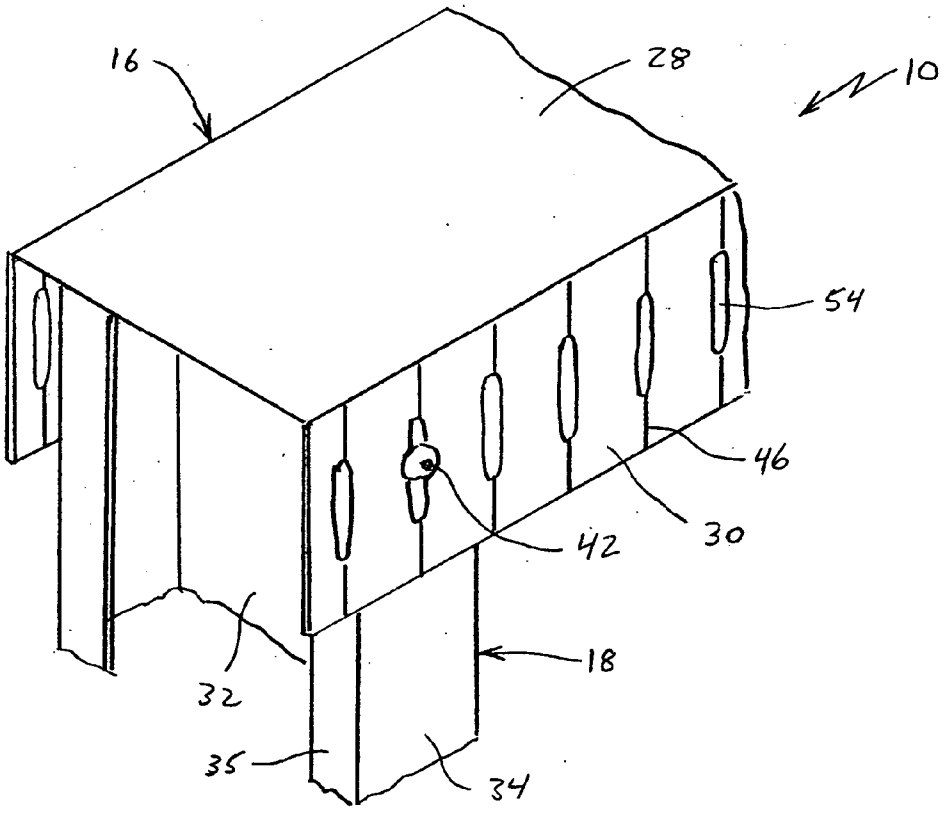

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FIG. 4

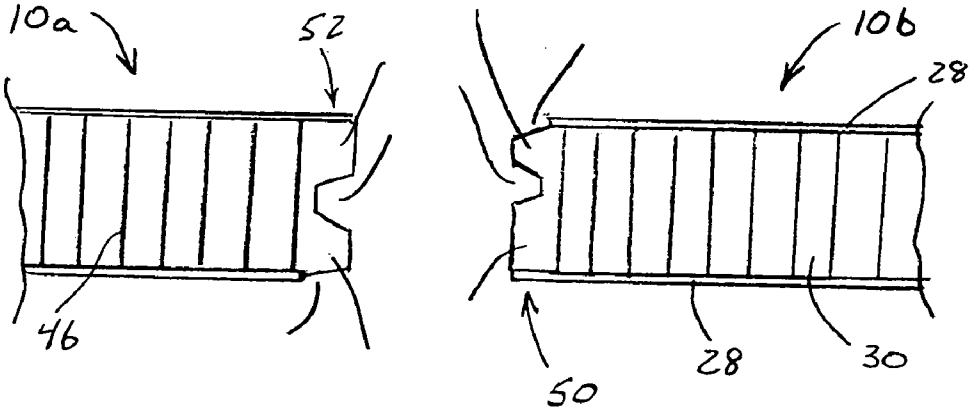


FIG. 5

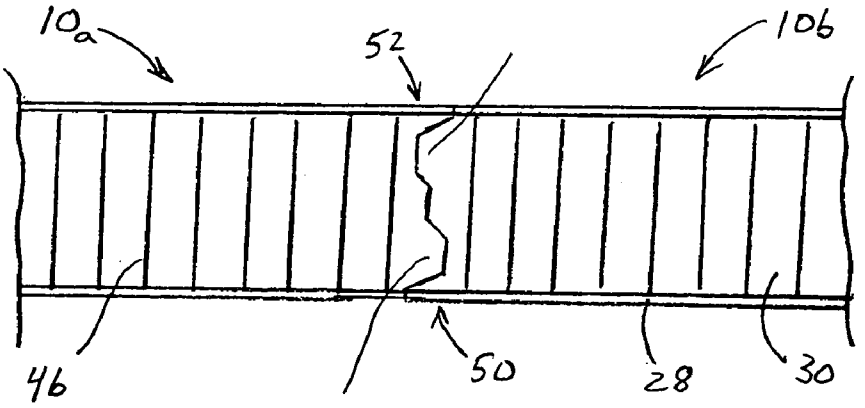


FIG. 6

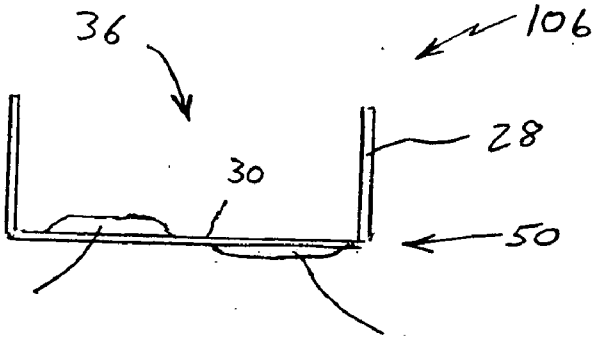


FIG. 7

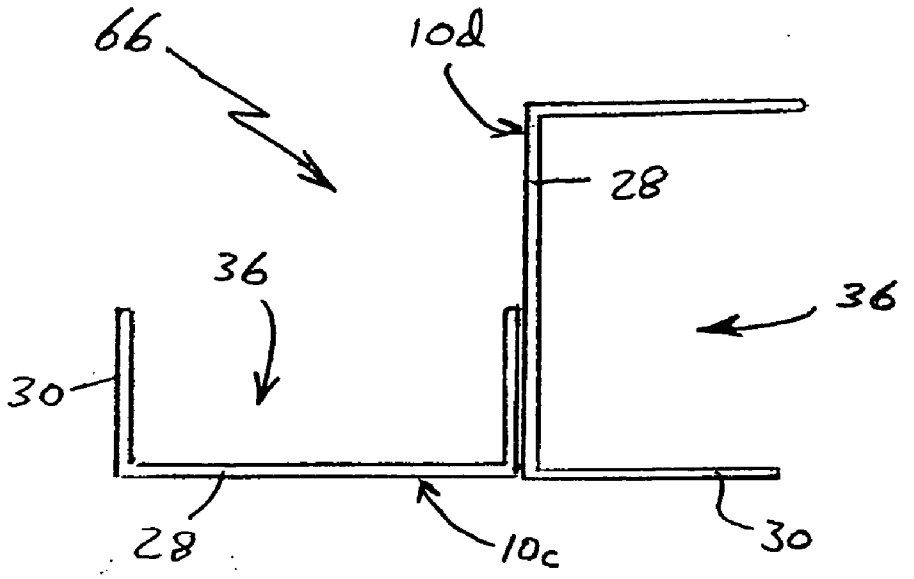


FIG. 8

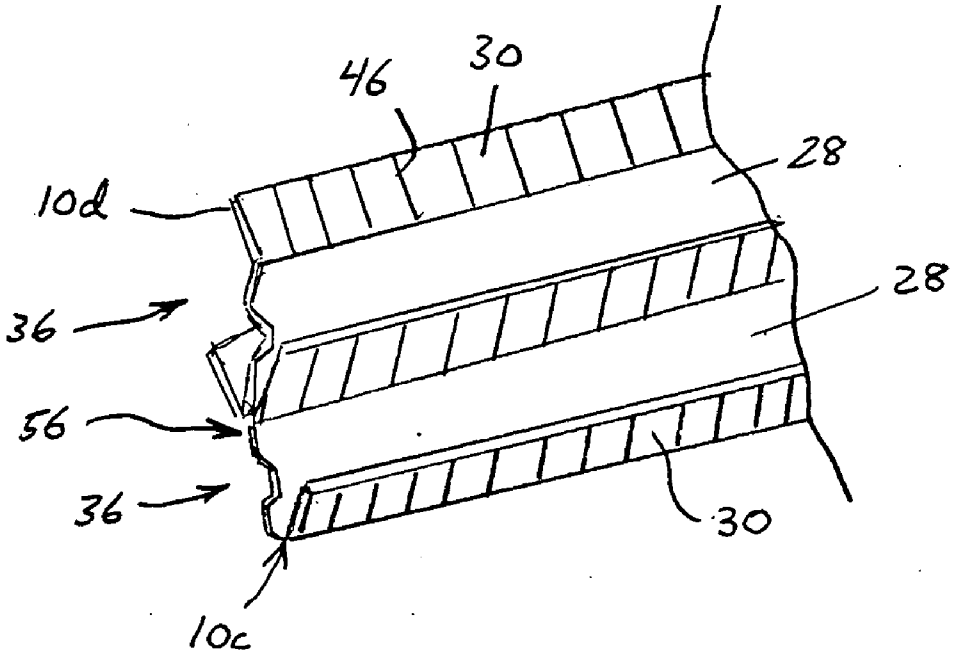


FIG. 9

TRACK MEMBER FOR WALL AND SOFFIT CONSTRUCTION

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] None.

BACKGROUND OF THE INVENTION

[0002] A. Field of the Invention

[0003] The field of the present invention relates generally to structural framing members utilized in building construction. More particularly, the present invention relates to stud and track structural members specially configured for use as wall members in metal frame construction. Even more particularly, the present invention relates to improved track members that are configured to reduce the amount of time and materials necessary for installation of wall members in metal frame construction.

[0004] B. Background

[0005] The use of metal frame members in commercial and residential building construction has increased somewhat in recent years due to a number of factors that make the use of metal, particularly light gauge steel and the like, a more preferred framing material than wood. These factors include the somewhat diminishing supply of good quality lumber, environmental concerns regarding the cutting of trees for lumber, the recyclable nature of most metals, the general resistance of metals to rotting, warping, splitting, cracking or other common wood problems, the relatively consistent quality of metal members, the lack of expansion/contraction due to moisture, the invulnerability to termites, fungi or other organisms, the general non-combustible nature of metals and the improved weight to strength nature of most metals. Due to these factors, as well as others, many building owners and designers are selecting metal as the material for their supporting structural members, particularly structural framing members such as the vertical wall studs and the floor and ceiling plates which attach to the opposite ends of the studs. In metal construction, the vertical metal wall studs are typically configured as C-shaped members having a center web portion with outwardly extending flanges at the opposing ends thereof and a lip at the end of each flange that is directed towards the lip on the opposite flange. Typically, the floor and ceiling plates, which are more commonly referred to as tracks, are configured as a generally U-shaped channel member that is disposed in a generally horizontal manner and sized and configured to receive an end of the vertical stud member inside the open channel. The lower track member is generally configured to attach to the floor of the structure and the upper track member, disposed at the opposite end of the vertical stud, is configured to support and/or attach to the ceiling or roof of the structure. Typically, the studs and tracks are assembled into a wall frame, with the studs usually spaced sixteen or twenty-four inches on center, that is then covered with wall panels, such as drywall panels or other types of wall board, to form the interior rooms of the structure.

[0006] An important consideration with regard to all construction activities is the speed by which the construction progresses. As is well known, the amount of time it takes to construct a structure substantially affects the overall cost of the structure. One important factor in any construction project is the cost of labor required to accomplish the desired objectives. Naturally, the longer it takes to accomplish a task or group of tasks associated with a component or feature of the structure, the more that particular component or feature will impact the overall cost of the structure. In addition, most construction projects have relatively narrow timing goals, often with bonuses given for early completion and meeting of cost objectives and, conversely, penalties imposed for delays and cost overruns. As a result, building owners, designers and contractors are always looking for materials, equipment and processes that will reduce the amount of time and, therefore, cost of building a particular structure. However, as is also well known, it is very important or critical that the quality and integrity of the finished structure is not sacrificed in order to complete the project in a timely manner.

[0007] One known disadvantage of the use of the aforementioned metal stud and tracking system for structural wall components is the increased amount of time and labor associated with the metal-to-metal positioning and fastening of the stud to track connection and with joining the ends of two adjacent track members together. In fact, the positioning/fastening problem is referred to some in the industry as a key factor in why light-gauge steel framing takes up to seventy-fiver percent longer to position and fasten than wood studs and wood upper/lower plate members. Although equipment such as automatic feed screw guns, pneumatic sheathing pin nailers and portable plasma torches have resolved some of the problems with metal studs and track wall systems, there are still a number of known problems that limit the complete acceptance for the use of metal structural members in commercial or residential building construction. One such problem is determining where to place the stud members in the channel of the track member. This is presently accomplished by using a measuring tape or other measurement tool to locate the spacing between adjacent stud members, a process that can be both time consuming and subject to errors in measurement.

[0008] Various improvement to frame structures and systems for constructing walls from metal stud and track members are known in the art. For instance, U.S. Pat. No. 4,805,364 to Smolik describes a wall construction that utilizes track members configured with a plurality of serrations which are bent inward toward the channel on either side of the vertical stud member to confine an end of the stud in the channel. U.S. Pat. No. 5,203,132, also to Smolik, describes a wall assembly that utilizes a ratchet type of engagement between the end of the stud and the channel of the track member to secure the stud in the track member. U.S. Pat. No. 5,325,651 to Meyer, et al. describes a wall frame structure that utilizes eyelets in the sides of the track flanges which are configured to project through the flanges of the stud and then be engaged by a clip that holds the stud in place. U.S. Pat. No. 5,797,233 to Hascall describes an improved track for wall construction that utilizes a plurality of tabs placed at predetermined intervals on the flanges of the track which are bent inward around the lips of the stud members to mount the studs to the track. U.S. Pat. No. 5,222,335 to Petrecca describes an improved track for building wall construction that includes a plurality of sets of spaced apart inward protrusions or dimples in which the flanges of the studs are snapped into so as to interconnect the studs and tracks. U.S. Pat. No. 5,274,973 to Liang describes

a stud spacer and mounting system that has a plurality of upwardly extending flanges on the web or base portion of the track configured to be secured to an end of the stud to secure the stud in the channel formed by the track. Although the foregoing patents describe various improved track members and mechanisms for interconnecting the end of a stud in the channel of the track member, they have not been generally widely accepted or have experienced only limited acceptance by those in the industry.

[0009] An improved upper track member or header which is suitable for use in areas subject to environmental stress loading from the weight of upper floors, snow, earthquakes and similar types of vertical loading is described in U.S. Pat. No. 5,127,760 to Brady (the "'760 Patent"). The vertically slotted header of the '760 Patent, owned by Slip Track Systems, Inc., utilizes the slots to secure the upper end of the vertical studs to the header in a manner that allows the header to rise and fall in response to environmental forces applied to the floor or roof. Once the stud is perpendicularly placed in the header's channel, the stud and header are joined by an attachment mechanism, such as a self-tapping screw. Another seismic resistant wall structure is disclosed in U.S. Pat. No. 5,127,203 to Paqueffe (the "'203 Patent"), owned by Metal Lite, Inc. In the '203 Patent, the upper track member is provided with a plurality of slotted openings in the flange portions of the track to interconnect with the upper end of the stud in a manner that allows the upper track to move in response to seismic or other vertical loading. Although the configuration of the track members set forth in the '760 Patent and '203 Patent are widely utilized, neither patent discloses beneficial placement of the slotted openings for use in determining where to locate a stud along the track.

[0010] One component of stud and track wall construction that remains a particular problem is the joining of the ends of adjacent track members along the floor and ceiling/roof of the structure. A current method of joining two adjacent track members involves placing a small U-shaped joining member that is sized and configured to fit snugly into the channel of the track members over the joint and slightly into both adjacent track members. The joining member is then fixedly attached to the end area of both track members by using appropriate attachment mechanisms, such as screws, or by welding it in place. Another method of joining adjacent track members involves cutting a small V-shaped groove into the ends of both track members, sliding the track members together at the groove and then connecting the two track members together. Unfortunately, this latter method results in a double thick wall in the flange, which is where the drywall or other planar wall board members are attached. This typically creates an undesirable, unattractive bulge in the wall board. In addition, the double thick wall makes it more difficult for the installer as he or she must screw through two pieces of metal to attach the track members together.

[0011] Another component of stud and track wall construction that remains a particular problem for the contractor and his or her framing subcontractors or employees is the soffit. Many buildings, particularly residential structures, have a projecting edge or eave with a short vertical portion, referred to as the fascia, at the outward end thereof. The area under the eave is typically covered with plywood or other planar mater that is attached to horizontal or nearly horizontal members of the support structure on the underside of the eave. The covering is usually referred to as the soffit. In stud and track wall construction, configuration of the soffit requires installation of a section of the track in a generally horizontal configuration (i.e., the channel facing in a horizontal direction as opposed to the usual vertical disposition) with a horizontally disposed stud and then attachment of a second track member to the first track member and stud so as to provide for the vertical portion of the soffit. This process is known to be time consuming and labor intensive due to the fact that each stud has to be screwed into twice and squared. Problems arise with having to twist each stud into position. If any stud is not to the correct length, the track has to be removed, the stud cut and then the track has to be reinstalled at an additional cost to the contractor or subcontractor.

[0012] A particular problem with each of the foregoing patents and the presently available track apparatuses and systems is that they have limited ability for varied placement of the stud in the track, they do not beneficially locate the attachment devices for stud placement, they do not adequately provide for soffit installation and they fail to address the problems associated with connecting the ends of two adjoining track members together. What is needed, therefore, are structural members that reduce the amount of time and labor necessary to position and install structural members for use in wall and soffit construction. In particular, what is needed is an improved track member that simplifies and speeds up the layout and placement of metal studs in the open channel of the track members, the connection of the ends of adjoining track members and the construction of soffit and like structural components used in the building. The improved track members will be configured to reduce the amount of time necessary for installation of the wall and soffit components and, therefore, reduce the cost of such construction.

SUMMARY OF THE INVENTION

[0013] The improved track members for wall and soffit construction of the present invention provides the benefits and solves the problems identified above. That is to say, the present invention discloses an improved track member for use in stud and track wall construction that is configured to substantially reduce the amount of time necessary for laying out the location of the studs in the upper and lower track members. The improved track member of the present invention provides additional installation flexibility for the studs with regard to the location of windows, doors and other wall items. The improved track member of the present invention reduces the cost and time associated with joining the ends of two adjacent track members by facilitating the interconnection of the two abutting ends. In one embodiment of the track member of the present invention, an improved soffit track member is provided to reduce the time and cost of installing a soffit in a building using stud and track wall construction. The track member of the present invention allows for all layout to be done at the floor or floor/ground level. The track layout will be predetermined, cut and installed to match the floor track. In addition, the length of the track with the connections allows for the layout of each track member to maintain layout of any length of wall or soffit.

[0014] In one general aspect of the present invention, the improved track members for wall and soffit construction of the present is utilized in a wall construction having one or

more stud members engaged with one or more track members. The typical wall construction comprises a plurality of stud members having a lower end disposed in a lower track member and an upper end disposed in an upper track member to form a wall section between the floor and ceiling and suitable for attaching drywall or other wall board material. The improved track member has a generally elongated, rectangular base and with a pair of longitudinally extending, substantially parallel flanges that are perpendicularly disposed at the sides of the base to form a generally U-shaped transverse cross-section channel. The channel is sized and configured to receive either the lower end or the upper end of the stud. The track member has a longitudinal axis and a perpendicular lateral axis. In the improved embodiment, the track member has a preferred length, such as twelve feet or other length that is divisible by both sixteen and twenty-four inches to facilitate construction of the wall construction, where studs are typically positioned on sixteen or twenty-four inch centers. The improved track member also has a plurality of measurement lines that are in spaced apart relation substantially along the length of the track member in some evenly spaced amount, such as two inches apart. The improved track member also has a plurality of measurement designations that are utilized to designate the position of the stud members in the channel. In some uses, the upper track member will have a plurality of vertically disposed slots to allow for loading on the wall section. For the improved track member, these vertically disposed slots are positioned in substantially uniform spaced apart relation along the length of the track member, for instance at every two inches. The measurement lines and/or measurement designations can be placed in conjunction with the vertically disposed slots. The improved track member also has a connecting mechanism that is configured for interlockingly engagement of two longitudinally adjacent track members so as to substantially join the two track members. In the preferred embodiment, the connecting mechanism has a center notch, side notch, first tab member and second tab member at the first and second ends of each track member. With this configuration, the center notches of the two track members engage each other and the first tab and second tabs of the track members are configured for slidable engagement with each other. To facilitate the slidable engagement of the tabs, the first tab member is upwardly offset and the second tab member is downwardly offset. Two of the track members described above can be utilized as a soffit track member, with the flange of one of the track members attached to the base of the other track member. The lateral axis of each of the track members are orthogonally disposed relative to each other, such that the channel of one of the track members is generally vertically disposed and the channel of the other of the track members is generally horizontally disposed. The measurement lines, measurement designations, preferred length and connecting mechanism described above can also be utilized with the soffit track member for improved use thereof.

[0015] Accordingly, the primary objective of the present invention is to provide an improved track member for use in wall and soffit construction that provides the advantages discussed above and that overcomes the disadvantages and limitations which are associated with presently available track members and stud/track wall and soffit systems.

[0016] It is also an important objective of the present invention to provide a track member for use in wall and soffit construction which is sized to be more useful and which comprises a plurality of pre-measured track markings that are configured to better facilitate placement of the stud member in the upper and lower track member.

[0017] It is also an important objective of the present invention to provide a track member for use in wall and soffit construction that beneficially places the vertically slotted openings along the flange portion of the track to allow the installer to utilize the openings to assist him or her with placement of the studs in the channel portion of the track.

[0018] It is also an important objective of the present invention to provide a track member for use in wall and soffit construction that comprises an improved mechanism for joining the abutting ends of adjacent track members which reduces the cost and time of such construction.

[0019] It is also an important objective of the present invention to provide a track member for use in wall and soffit construction that comprises an interlocking mechanism for joining the abutting ends of adjacent track members that provides a flatter surface on which to install drywall or other planar members and which does not result in a change in operative length for the track member.

[0020] It is also an important objective of the present invention to provide a single piece soffit track member that comprises a fixedly joined pair of alternating disposed track members that reduces the cost and time associated with installing soffits in stud and track construction.

[0021] The above and other objectives of the present invention will be explained in greater detail by reference to the attached figures and the description of the preferred embodiment which follows. As set forth herein, the present invention resides in the novel features of form, construction, mode of operation and combination of processes presently described and understood by the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] In the drawings which illustrate the preferred embodiments and the best modes presently contemplated for carrying out the present invention:

[0023] **FIG. 1** is a fragmentary side perspective view of a wall constructed utilizing the improved track member of the present invention with portions thereof removed for purposes of illustration;

[0024] **FIG. 2** is a top perspective view of a lower track member configured according to the present invention with two stud members connected thereto;

[0025] **FIG. 3** is a top view of a lower track member configured according to the present invention;

[0026] **FIG. 4** is a side perspective view of a vertically slotted upper track member configured according to the present invention;

[0027] **FIG. 5** is a top view of the ends of a pair of adjacent track members shown spaced apart to illustrate a mechanism for interconnecting the members together according to the present invention;

[0028] **FIG. 6** is a top view of the illustration of **FIG. 5** showing the two track members in interlocking cooperation;

[0029] **FIG. 7** is an end view of the mechanism of **FIGS. 5 and 6**;

[0030] **FIG. 8** is a side view of a soffit member configured according to the principles of the present invention; and

[0031] **FIG. 9** is a end perspective view of the soffit member of **FIG. 8** showing the notched end thereof for interconnecting adjacent soffit members together.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0032] With reference to the figures where like elements have been given like numerical designations to facilitate the reader's understanding of the present invention, and particularly with reference to the embodiment of the improved track member for wall and soffit construction of the present invention illustrated in the figures, various preferred embodiments of the present invention are set forth below. The enclosed description and drawings are merely illustrative of one or more preferred embodiments and represent at least one of several different ways of configuring the present invention. Although specific components, materials, configurations and uses of the present invention are illustrated and set forth in this disclosure, it should be understood that a number of variations to the components and to the configuration of those components described herein and in the accompanying figures can be made without changing the scope and function of the invention set forth herein. For purposes of this disclosure, references are generally to use of the present invention with metal stud framing, however, it is understood that the disclosure herein is likely applicable to other types of framing systems.

[0033] A track member that is manufactured out of the components and configured pursuant to the concepts and principles of the present invention is shown generally as **10** in the figures. As shown in **FIG. 1**, track member **10** is an elongated member that is utilized in wall construction **12** that comprises a lower track member **14** and an upper track member or header **16** that are spaced apart by a plurality of stud members **18** so as to generally span the distance between the floor **20** and ceiling or roof **22**. The framework formed by lower track member **14**, upper track member **16** and stud members **18** is generally covered by wall construction material, such as drywall panels or other wall board **24** on one or both sides of the framework so as to form interior walls **26**. As well known in the art, the drywall panels **24** are attached to lower track member **14**, upper track member **16** and/or stud members **18** using drywall screws (not shown) or other connecting mechanisms appropriate for the particular drywall panels **24** and materials utilized for members **14**, **16** and **18**. As also known in the art, and best shown in **FIGS. 2 through 4**, track member **10** is formed in a generally U-shaped transverse cross-section configuration, formed in an elongated rectangular shape with a longitudinal axis **27** and lateral axis **29** (shown in **FIG. 3**), having a web or base **28** with a pair of longitudinally extending, substantially parallel flanges **30** that are generally perpendicularly disposed at the ends of base **28**. In the embodiment shown in **FIG. 1**, lower **14** and upper **16** track members are configured the substantially the same, just disposed in opposite facing directions. Stud member **18** also comprises a base or web **32** with a pair of generally parallel, outwardly extending flanges **34** that are generally perpendicularly disposed at the ends of web **32**. Unlike track member **10**, however, stud member **18** is typically configured with a generally C-shaped transverse cross-section having a pair of inwardly facing lip members **35** to better support stud members **18** in the channel **36** formed between the pair of flanges **30** of track member **10**. The width of web **32** of stud member **18**, including flanges **34**, is typically sized to be approximately the same as the width of channel **36** between flanges **30** of track member **10** such that the lower end **38** of stud member **18** fits within channel **36** of lower track member **14** (shown in **FIG. 3**) and the upper end **40** of stud member **18** fits within channel **36** of upper track member **16** (shown in **FIG. 4**). Typically, a self tapping screw or like connecting mechanism, shown as **42**, is used to secure stud member **18** in the channel **36** of track members **10**. Stud members **18** usually have one or more apertures **44** on web **32** for receiving electrical and/or plumbing conduits.

[0034] In a preferred embodiment of the present invention, track member **10**, which can be utilized for both lower track member **14** and upper track member **16**, is improved to include one or more marking devices, such as measurement lines **46** and measurement designations **48** thereon to assist in the fast and correct installation of track members **14** and **16** and stud member **18**. In one embodiment, measurement lines **46** are placed on the base **28** and flanges **30** of track members **10**, as shown, at an interval of every two inches so as to facilitate the placement of stud members **18** on the standard sixteen or twenty-four inch centers. As those familiar with the relative placement of stud members **18** to lower **14** and upper **16** track members are very aware, it can be somewhat difficult and time consuming to ensure that stud member **18** is properly placed at the desired location along the track members **10**. With measurement lines **46**, the installer can effectively utilize the track member **10** itself as the tape measure or other measuring device to match up the positioning of stud member **18** on the lower **14** and upper **16** track members, thereby improving productivity with regard to installation of wall construction **12**. If desired, various different configurations of measurement lines **46** can be utilized for periodic (such as at every four or eight inches) or at specific positions (such as at every sixteen and/or twenty-four inches) to further assist the installer with regard to the placement of stud member **18** in channel **36** of track member **10**. For instance, the measurement lines **46** at these locations can be made wider, deeper, of different color and/or different shape so that the user can quickly have an idea where he or she is relative to the previously placed stud member **18**. In conjunction with or as an alternative to specially configured measurement lines **46**, track member **10** can include measurement designations **48** placed at every measurement line **46** or at various measurement lines **46** (i.e., periodic or specific) to distinguish the measurement lines **46** from each other. In one embodiment, shown in **FIG. 2**, measurement designations **48** are numerical designations of the distance measured from a prior reference point, which can be the end of track member **10** or some other location on track member **10**, such as the previous sixteen or twenty-four inch marking. In an alternative embodiment, measurement designations **48** can be symbols or any other type of distinguishing mark that will assist the installer in matching up the position of stud member **18** on lower **14** and upper **16** track members. Use of track member **10** configured as described above will increase productivity and, therefore, reduce cost of framing for wall construction **12**. With the use

of measurement lines **46** and measurement designations **48**, the framing installer will be able to more quickly and accurately adjust the placement of stud members **18** on track members **14** and **16**, particularly around areas in the interior walls **26** where windows, doors and the like will be located.

[**0035**] In addition to the above, the preferred embodiment the length of track member **10**, shown as "L" in **FIGS. 2 and 3**, is selected to be beneficial for the quick and easy layout of stud members **18** relative to lower **14** and upper **16** track members. The presently configured standard length of track members is ten feet. While ten feet is easily divided into equal segments of twenty-four inches, that length is not easily divided into equal segments of sixteen inches. For the track member **10** of the present invention, the preferred effective length L, the distance between first end **50** and second end **52**, is twelve feet, which is divisible by both sixteen and twenty-four. Alternatively, track member **10** can be made into other lengths which are divisible by both sixteen and twenty-four, such as eight feet or sixteen feet. When combined with measurement lines **46**, the preferred twelve foot length L of track member **10** becomes much easier to utilize with regard to matching the placement of stud member **18** at lower track member **14** and upper track member **16**. For additional improvement, measurement designations **48** can also be utilized with track member **10** of length L (preferably twelve feet). Although heretofore such lengths have not been available, it is believed that they can be provided a reasonable additional cost compared to existing ten foot lengths of track members.

[**0036**] In another embodiment of the present invention, shown in **FIG. 4**, the features described above are combined into a vertically slotted upper track member **16** that can be used in wall construction **12** in configurations where vertical loading is a consideration (i.e., earthquake prone areas). As described in the '760 Patent and '203 Patent, upper track member **16** includes a plurality of vertically disposed slots **54** in the flange **30** of track member **16** which are configured to receive connecting mechanism **42** to attach upper track member **16** to stud member **18**. The vertically slotted upper track member **16** is improved over the track members disclosed in the '760 Patent and '203 Patent by including measurement lines **46** thereon at the desired spacing intervals (i.e., every two inches) along the length of flange **30** and/or base **28** (not shown). In addition, also not shown, the improved vertically slotted upper track member **16** can include measurement designations **48** to further assist the framer with properly locating stud member **18** relative to upper track member **16**. In one embodiment, the vertically slotted upper track member **16** does not utilize either measurement lines **46** or measurement designations **48**, but instead strategically places slots **54** at a predetermined spacing (shown as being at measurement lines **46** in **FIG. 4**) to be useful as a measuring device. For instance, slots **54** can be placed on flange **30** such that they are two inches on center. In this manner, the user of upper track member **16** can merely count over the number of slots **54** and multiply that number by two to obtain the distance in inches. As such, the slotted upper track member **16** is itself a measuring tool.

[**0037**] In the embodiment of the present invention shown in **FIGS. 5 through 7**, track member **10** is shown with an improved connecting mechanism **56** for connecting two adjacent track members **10** together, such as the second end **52** of first track member **10***a* and the first end **50** of second track member **10***b*. As stated above, the present mechanisms for connecting the ends **50** and **52** of two adjacent track members generally results in an undesirable and unsightly bulge in the drywall or other wall board **24** and/or requires too much time to configure and then attach stud member **18** thereto. The improved connecting mechanism **56** comprises one or more notches, such as center notch **58** and side notch **60** and one or more outwardly projecting members, such as first tab member **62** and second tab member **64** at each end **50** and **52** of track members **10***a* and **10***b*, as best shown in **FIG. 5**. As will be understood by those skilled in the art, notches **58** and **60** and tab members **62** and **64** are cooperatively configured for interlocking engagement (as best shown in **FIG. 6**) of second end **52** of first track member **10***a* and first end **50** of second track member **10***b* so as to provide a substantially continuous track for use as lower track member **14** and/or upper track member **16**. Connecting mechanism **56** at each of first end **50** and second end **52** of adjacent track members **10***a* and **10***b* are cooperatively configured such that center notch **58** of each end **50** and **52** slide against each other and first tab member **62** slides over second tab member **64**, as shown in **FIG. 6**, to join first **10***a* and second **10***b* track members. To accomplish this connection, first tab member **62** is disposed in a slightly upward offset position relative to the plane through the generally planar surface of base **28** and second tab member is disposed in a slightly downward offset position relative to the plane through base **28**, as shown in **FIG. 7**. The amount of the offset for first tab member **62** and second tab member **64** is preferably only enough to allow first tab member **62** to pass over second tab member **64**, such that the two members **62** and **64** are slidably disposed relative to each other, and place these members in a generally adjacent engagement. Although having both first **62** and second **64** tab member both be offset relative to base **28** is preferred, those skilled in the art will recognize that the aforementioned slidable engagement can be accomplished by having only one of the members **62** or **64** be offset relative to base **28** and the other be substantially in the same plane as base **28**. An advantage of both tab members **62** and **64** being offset is that less of hump or lump is created at the junction of adjacent first **10***a* and second **10***b* track members. In the preferred embodiment of connecting mechanism **56**, side notches **60** are cut away portions of the side of base **28** and a portion of flange **30** of track members **10***a* and **10***b* and are configured to join the opposing uncut area of the adjoining track member **10***a* or **10***b*. Use of side notches **60** as part of connecting mechanism **56** facilitates first tab member **62** sliding over second tab member **64** and provides additional structural support to the area of connecting mechanism.

[**0038**] In the preferred embodiment, connecting mechanism **56** is combined with the measurement features described above, namely measurement lines **46**, as shown in **FIGS. 5 and 6**, and measurement designations **48**. Also in the preferred embodiment connecting mechanism **56** is utilized with track member **10** of length L (preferably twelve feet). To maintain the desired length L when connected with another adjacent track member (such as **10***a* and **10***b*), it is preferred that the overall length of the track member **10** be adjusted to allow for connecting mechanism **56** by providing an overall length that is equal to the desired length L plus the amount of outward extension, shown as E in **FIG. 5**, by first **62** and second **64** tab members at both ends of track member **10**. The overall length for track members **10***a* and **10***b* is the

desired length L plus twice the length E of the outward projection of first **62** and second **64** tab members, or L+(2×E). For instance, in one exemplary configuration, first tab member **62** and second tab member **64** can each have a outward projection of one-half an inch, requiring an overall length (in the preferred embodiment) of twelve feet and one inch. Side notch **60** is cut back into first end **50** and second end **52** an amount equal to the total length of the tab members **62** and **64** for the track member **10***a* or **10***b*, for a total cut of twice E. In the example configuration provided above, the length of side notch **60** would be one inch. Although it is preferred that the connecting mechanism **56** be configured such that first **50** and second **52** ends closely interconnect, those skilled in the art will recognize that the notches and tabs to not have to be exactly the same (i.e., the measurements can be approximate). In a preferred method of making the track member **10** of the preferred embodiment having connecting mechanism **56** described above, track member **10** is made with an overall length of L+(2×E) and then center notch **58** is cut into first **50** and second **52** ends at a depth desired for length of tab members **62** and **64**, represented by E, and then side notch **60** is cut into first **50** and second **52** ends for a length of twice E (2×E). In this configuration and with the tab members **62** and **64** offset as described above, first end **50** of second track member **10***b* will lockingly engage second end **52** of first track member **10***a* to provide a substantially continuous section track for use in wall construction **12**.

[**0039**] In another preferred configuration of the present invention, the principles set forth above are also incorporated into a soffit track member, shown as **66** in **FIGS. 8 and 9**. As set forth above, currently soffits are configured with a horizontally disposed track member that is attached at the end of a horizontally disposed stud or eave to which is then attached another track member that is faced in a substantially vertical direction. This requires installer to attach two separate track members at the end of the same horizontally disposed stud or eave. In the preferred embodiment, soffit track member **66** comprises two track members configured as described above and designated as third track member **10***c* and fourth track member **10***d*, each having the base **28**, flanges **30** and channel **36** discussed above. For soffit track member **66**, the bottom side of base **28** of fourth track member **10***d* is fixedly joined to the outside of one of the flanges **30** of third track member **10***c*, as best shown in **FIG. 8**, such that the lateral axis of third **10***c* and fourth **10***d* track members are generally orthogonally disposed to each other. This configuration can be accomplished by welding or otherwise connecting flange **30** of third track member **10***c* to the bottom side of base **28** of fourth track member **10***d*. As will be recognized by those skilled in the art, various other connecting mechanisms can be utilized to connect third track member **10***c* and fourth track member **10***d*, such as appropriate adhesives and/or connecting members, including rivets, screws, bolts and the like. The connection of these third **10***c* and fourth **10***d* track members will result in the channels **36** of third **10***c* and fourth **10***d* track members being orthogonally disposed to face open in a vertical direction and a horizontal direction to receive the generally vertical fascia stud and the generally horizontal edge or eave stud, respectively. The width of channels **36** in third track member **10***c* and fourth track member **10***d* can be the same (i.e., each being three and five-eights inch) or different (i.e. one being three and five-eights inch and one being six inches). The actual sizes will depend on the stud members used for the eave and fascia sections of the soffit. Use of soffit track member **66** of the present invention will substantially reduce the amount of time necessary to construct the soffit portion of the building by reducing the amount of time necessary to attach the various members forming the soffit.

[**0040**] As best shown in **FIG. 9**, soffit track member **66** can also incorporate the measurement features, namely measurement lines **46** and measurement designations **48**, the preferred length L and the connecting mechanism **56** components described above. As with the single channel **36** configuration of track members **10***a* and **10***b*, use of the measurement features **46** and **48** with the double channel **36** configuration of soffit track member **66** will enable the installer to essentially utilize soffit track member **66** as a measuring tool when placing stud members **18** therein and attaching them thereto. The use of the preferred length of L, preferably twelve feet, will further facilitate installation of the soffit component. Use of connecting mechanism **56** described, with the one or more notches, such as center notch **58** and side notch **60**, and tabs, such as first tab member **62** and second tab member **64**, above will reduce the amount of time necessary to interconnect the ends of two adjacent soffit track members **66**.

[**0041**] In use, track member **10** having measurement lines **46** and/or measurement designations **48** is laid out as the lower track member **14** and the lower end **38** of stud members **18** are placed in channel **36** at the appropriate marking places (typically at sixteen or twenty-four inches on center). A second track member **10**, configured as upper track member **16**, is positioned such that the upper end **40** of stud members **18** is placed in channel **36** thereof at the locations that correspond to those of lower track member **14**. Measurement lines **46** and/or measurement designations **48** will facilitate matching up the locations of stud members **18** in the channels **36** of lower track member **14** and upper track member **16**. If desired, upper track member **16** can comprise the vertically disposed slots **54** of the prior art patents described above. Preferably, the slots **54** are evenly positioned along flange **30** and placed in conjunction with any measurement lines **46** or measurement designations **48** to further assist the installer in matching up the location of the lower **38** and upper **40** ends of the various stud members **18**. Use of connecting mechanism **56** will facilitate joining first **50** and second **52** ends of longitudinally disposed adjacent track members, such as first track member **10***a* and second track member **10***b*, as shown in **FIG. 5**. Preferably, connecting mechanism **56** is configured to interlockingly connect first **50** and second **52** ends of track members **10***a* and **10***b* to provide a substantially continuous track member for use in wall construction **12**. In the preferred embodiment, the center notches **58** engage each other and the first tab member **62** is slidably disposed with regard to second tab member **64** of the adjacent track member **10***a* and **10***b*. Side notches **60** are configured to facilitate first tab member **62** sliding over second tab member **64**. Preferably, the overall length of track member **10** is adjusted to allow for the lengths E of tab members **62** and **64** in order to obtain the desired length L, which is typically twelve feet. Soffit track member **66** is configured with a two connected track members, such as third **10***c* and fourth **10***d* track members, which have their lateral axis being orthogonally disposed relative to each other. Preferably, soffit track member **66** incorporates the

measurement and connecting features to facilitate installation of the soffit component of the building.

[0042] While there are shown and described herein certain specific alternative forms of the invention, it will be readily apparent to those skilled in the art that the invention is not so limited, but is susceptible to various modifications and rearrangements in design and materials without departing from the spirit and scope of the invention. In particular, it should be noted that the present invention is subject to modification with regard to the dimensional relationships set forth herein and modifications in assembly, materials, size, shape, and use. For instance, there are numerous components described herein that can be replaced with equivalent functioning components to accomplish the objectives of the present invention.

What is claimed is:

1. A wall construction, comprising:

a stud member having a lower end and an upper end; and

a track member having a generally elongated, rectangular base and two longitudinally extending, substantially parallel flanges perpendicularly disposed at the sides of said base to form a generally U-shaped transverse cross-section channel configured to receive either said lower end or said upper end of said stud, said track member having a longitudinal axis and a perpendicular lateral axis, said track member having a preferred length to facilitate construction of said wall construction.

2. The wall construction according to claim 1, wherein said preferred length is evenly divisible by both sixteen inches and twenty-four inches.

3. The wall construction according to claim 2, wherein said preferred length is twelve feet.

4. The wall construction according to claim 1, wherein said track member further comprises a plurality of measurement lines in spaced apart relation substantially along the length of said track member.

5. The wall construction according to claim 4, wherein said track member further comprises a plurality of measurement designations.

6. The wall construction according to claim 5, wherein at least one of said measurement designations is utilized to designate the position of said stud member in said channel.

7. The wall construction according to claim 1, wherein said flange of said track member comprises a plurality of vertically disposed slots, said vertically disposed slots positioned in substantially uniform spaced apart relation along the length of said track member.

8. The wall construction according to claim 7, wherein said vertically disposed slots are spaced apart two inches.

9. The wall construction according to claim 7, wherein said flange of said track member further comprises a plurality of measurement lines positioned in conjunction with said vertically disposed slots.

10. The wall construction according to claim 1, wherein said wall construction comprises a first track member and a second track member disposed in longitudinal relation, each of said first track member and said second track member having a first end and a second end, said first end and said second end of each of said first track member and said second track member configured with a connecting mechanism, said connecting mechanism configured for interlockingly engagement of said first track member and said second track member to substantially join said first track member and said second track member.

11. The wall construction according to claim 10, wherein said connecting mechanism comprises a center notch, a side notch, a first tab member and a second tab member at said first end and said second end of each of said first track member and said second track member.

12. The wall construction according to claim 11, wherein said center notch of said first track member is configured to be engaged by said center notch of said second track member and said first tab and said second tab of each of said first track member and said second track member are configured for slidable engagement.

13. The wall construction according to claim 12, wherein said center notch at said second end of said first track member is configured to be engaged in said center notch at said first end of said second track member, said first tab member of said second end of said first track member is configured to be slidably disposed relative to said second tab member of said first end of said second track member and said second tab member of said second end of said first track member is configured to be slidably disposed relative to said first tab member of said first end of said second track member.

14. The wall construction according to claim 12, wherein said first tab member is upwardly offset and said second tab member is downwardly offset.

15. The wall construction according to claim 1, wherein said wall construction further comprises a soffit track member comprising two of said track members, said flange of one of said track members attached to said base of the other of said track members, said lateral axis of each of said track members orthogonally disposed relative to each other, wherein said channel of one of said track members is generally vertically disposed and said channel of the other of said track members is generally horizontally disposed.

16. The wall construction according to claim 15, wherein said soffit track member further comprises a plurality of measurement lines and/or a plurality of measurement designations.

17. The wall construction according to claim 15, wherein the ends of said soffit track member are configured with a connecting mechanism, said connecting mechanism comprising a center notch, a side notch, a first tab member and a second tab member.

18. A wall construction, comprising:

a stud member having a lower end and an upper end; and

a track member having a generally elongated, rectangular base and two longitudinally extending, substantially parallel flanges perpendicularly disposed at the sides of said base to form a generally U-shaped transverse cross-section channel configured to receive either said lower end or said upper end of said stud, said track member having a longitudinal axis and a perpendicular lateral axis, said track member having a preferred length to facilitate construction of said wall construction, said track member having a plurality of measurement lines in spaced apart relation substantially along said length of said track member, said track member having a first end and a second end, each of said first end and said second end configured with a connecting mechanism having one or more notches and one or more tab members.

19. The wall construction according to claim 18, wherein said track member further comprises a plurality of measurement designations.

20. A wall construction, comprising:

a stud member having a lower end and an upper end;

a track member having a generally elongated, rectangular base and two longitudinally extending, substantially parallel flanges perpendicularly disposed at the sides of said base to form a generally U-shaped transverse cross-section channel configured to receive either said lower end or said upper end of said stud, said track member having a longitudinal axis and a perpendicular lateral axis, said track member having a preferred length to facilitate construction of said wall construction, said track member having a plurality of measurement lines in spaced apart relation substantially along said length of said track member, said track member having a first end and a second end, each of said first end and said second end configured with a connecting mechanism having one or more notches and one or more tab members; and

a soffit track member comprising two of said track members, said flange of one of said track members attached to said base of the other of said track members, said lateral axis of each of said two track members orthogonally disposed relative to each other, wherein said channel of one of said two track members is generally vertically disposed and said channel of the other of said two track members is generally horizontally disposed.

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