A doorframe kit includes a head jamb for installation over a top portion of a doorway and a vertical jamb adapted to be joined to the head jamb and extend along a surface of a wall adjacent the doorway. The doorframe kit may include an adjustable spacer having a shaft adjustably engaged with a retaining member. The retaining member may be fixedly mounted to the vertical jamb at an adjustment location spaced below the head jamb. The shaft may be selectively movable relative to the retaining member to project outwardly from the vertical jamb and bear against the surface of the wall, when in use, to thereby define a standoff distance between the vertical jamb and the wall at the adjustment location. Inserting a tool into an access opening formed in the vertical jamb allows the tool to drive the adjustable spacer outwardly thereby increasing the standoff distance.
After Sheetrock Frame and Method for Installing the Same

Related Applications

This application claims the benefit under 35 U.S.C. § 119(e) of U.S. Provisional Application No. 60/743,926, filed Mar. 29, 2006, which is hereby incorporated by reference in its entirety.

Background

This application relates to a field-installable doorframe including an adjustable spacer and to a method for installing a door frame in a rough opening of a wall.

Doors used in residential, commercial, and industrial settings, among other things, help prevent the spread of fire, reduce noise, increase privacy, and provide an aesthetically appealing closure. To accomplish these and other objectives, a doorframe must be square and plumb. Squaring a doorframe typically involves ensuring the front faces of the vertical jambs and head jamb are in the same plane, ensuring the vertical jambs are orthogonal to the head jamb, and ensuring that the vertical jambs are parallel, for example. If the doorframe is not square, the door will probably not fit or hang properly and unsightly gaps may appear between the door and doorframe. Plumbing a doorframe essentially involves ensuring that the vertical jambs are parallel to the force of gravity, which aids a properly weighted door to open and close with ease.

Depending on their purpose, doors and doorframes may take many different forms and can be installed in a number of ways. For example, a door may be hinged to a doorframe to allow it to pivot away from the doorway in one direction, but not the other. FIG. 1 shows a common residential doorframe 10 having a flat-jamb 20, applied T-stop 22, and casing 24. Doorframe 10 is typically installed late in the construction process, such as after gypsum wallboard (GWB) or sheetrock 26 has been secured to wooden stud 28, textured, and painted. During installation, flat-jamb 20 is positioned adjacent wooden stud 28 on each side of the doorway. Gap 30 is left to insert shims (not shown) during the squared and plumbing process. After flat-jamb 20 is secured to wooden stud 28, casing 24 is cut to size and a 45-degree miter is usually cut to form a miter joint with the overhead casing (not shown). Casing 24 is then installed to conceal gap 30. This type of frame requires many parts to be cut, squared and plumbed in the field. In addition, the miter joint is difficult to keep tight, so the overall finished quality largely depends upon the skill level of the installer.

Metal studs are common in commercial and some residential applications. While metal framing offers advantages, such as low cost, dimensional consistency, and resistance to environmental conditions, it is more difficult to position and realign doorframes once they have been secured to a metal stud. A thwarted frame system 40 manufactured by Washington Hardwoods, LLC of Seattle, Wash., USA is shown in FIG. 2 and in U.S. Patent Application Publication No. US 2003/0037507A1, which is incorporated herein by reference in its entirety. This system installs relatively easily to metal studs 42 and offers an abundance of design flexibility compared to the flat jamb and casing detail, but needs to be installed early in the construction process. Generally, thwarted frame 44 is secured to metal stud 42 as the walls are being framed. Because other trades are still completing their jobs, care must be taken to ensure thwarted frame 40 is not damaged.

Brief Description of the Drawings

FIG. 1 is a cross section view of a doorframe with a flat-jamb of the prior art;
FIG. 2 is a cross section view of a thwarted frame system of the prior art;
FIG. 3 is a pictorial view of a doorframe according to one embodiment;
FIG. 4 is an enlarged pictorial view of the upper right hand corner of the doorframe of FIG. 3;
FIG. 5A is a top plan view of a vertical jamb of the doorframe of FIG. 3;
FIG. 5B is a left side elevation of the vertical jamb of the doorframe of FIG. 3;
FIG. 6A is a right side elevation of a head jamb of the doorframe of FIG. 3;
FIG. 6B is a bottom plan view of the head jamb of the doorframe of FIG. 3;
FIG. 7 is a pictorial view of a T-nut according to one embodiment;
FIG. 8 is a pictorial view of a portion of an adjustable spacer according to one embodiment;
FIG. 9 is a cross section view of the doorframe of FIG. 3 showing detail of a jamb; and
FIG. 10 is an enlarged front elevation of a doorframe showing a joint connection according to another embodiment.

Detailed Description

With reference to the above-listed drawings, this section describes particular embodiments and their detailed construction and operation. The embodiments described herein are set forth by way of illustration only. Those skilled in the art will recognize in light of the teachings herein that variations can be made to the embodiments described herein and that other embodiments are possible. No attempt is made to exhaustively catalog all possible embodiments and all possible variations of the described embodiments.

For the sake of clarity and conciseness, certain aspects of components or steps of certain embodiments are presented without undue detail where such detail would be apparent to those skilled in the art in light of the teachings herein and/or where such detail would obfuscate an understanding of more pertinent aspects of the embodiments.

As one skilled in the art will appreciate in view of the teachings herein, certain embodiments may be capable of achieving certain advantages, including by way of example and not limitation one or more of the following: (1) providing doorframes that are relatively easy to install in the field; (2) providing doorframes that can be installed after sheetrock has been secured to studs, textured, and painted; (3) providing doorframes that do not need to be removed from the stud while squaring and plumbing; (4) providing doorframes that can be easily relocated and reused; (5) providing doorframes that can be assembled in the field; (6) providing an aesthetically pleasing and durable doorframe; (7) providing prefabricated jamb members that may be assembled into a doorframe in the field; (8) reducing or eliminating the need to use shims while squaring and plumbing the doorframe; (9) simplifying installation of doorframes by eliminating the need to separately install casings; (10) reducing installation
time required to install doorframes; (11) reducing the required skill level of the installer; (12) eliminating the need to form miter joints on casings in the field; (13) lowering installation costs; (14) increasing installation efficiency; (15) reducing manufacturing resources needed to pre-assemble doorframes; and (16) reducing the possibility of damaging the doorframes and the walls by installing the doorframes after the walls have been completed. These and other advantages of various embodiments will be apparent upon reading the following.

[0021] FIG. 3 illustrates a doorframe 50 for installation in a rough opening of a wall or doorway 50, such as after sheetrock 26 (FIG. 9) has been secured, textured, and painted to complete wall 90. Doorframe 50 includes a vertical jamb 52 adapted to be joined to a head jamb 54 and extend downwardly from head jamb 54 along a surface 61 of a wall 90 adjacent doorway 59. A 3-sided embodiment of doorframe 50 is shown in FIG. 3 having a strike jamb 60, a hinge jamb 62, and head jamb 54. However, doorframe 50 could include other components, such as a sill (not shown). While doorframe 50 is shown with the jamb members already assembled and joined, doorframe 50 may be supplied as a kit to be assembled on-site, as will be described in more detail below. For example, the kit could include the jamb members, an adjustable spacer 56 (FIGS. 7-9), and a jointing structure (FIGS. 4 and 10).

[0022] Hinge jamb 62 may have one or more hinge recesses 64 sized to fit a hinge (not shown), such as a Butt/Mortise style hinge. After the hinge is attached to hinge jamb 62, a door (not shown) can be hung from the hinges. In one embodiment, one or more sag holes 72 are formed in hinge recess 64 so that a hinge screw may be installed to add rigidity and help prevent the door from sagging over time.

[0023] As described in more detail with respect to FIGS. 7-9, one or more adjustable spacers 56 may be provided to help square and plumb doorframe 50. An access opening 68, such as a T-nut hole, may be formed in hinge jamb 62 at an adjustment location 69 and in alignment with adjustable spacer 56. As described in more detail below, access opening 68 may be sized to accommodate a tool for adjusting a position of the hinge jamb relative to surface 61 of wall 90. One or more securement holes 70 can be formed in hinge jamb 62. In the embodiment shown in FIG. 3, two access openings 68 are formed near hinge recess 64 to receive two adjustable spacers 56. In addition, two securement holes 70 are formed proximate each of the access openings 68. Securement holes 70 can be vertically and laterally offset from each other for maximum stability and may also be countersunk to hide a screw head (not shown). Securement screws inserted into securement holes 70 help fix a standoff distance between hinge jamb 62 and wall 90. Access openings 68 and securement holes 70 may also be formed in strike jamb 60 and head jamb 54. Some or all of the access openings 68, securement holes 70, or sag holes 72 may be formed by the manufacturer, the installer or by a combination of the two.

[0024] When the door is closed, one side will abut strike jamb 60 and a latching mechanism (not shown) could secure the door in place. Head jamb 54 is sized to fit the door and helps maintain the relative position of the top portion 66 of doorframe 50. According to one embodiment, head jamb 54 has a length of thirty-six inches and a height of one and a half inches, and strike and hinge jams 60 and 62 have a height of eighty-six inches and a width of one and a half inches. However, doorframe 50 can be sized to fit any size opening. For example, doorframe 50 could be sized to fit a single door or double hung door of various dimensions.

[0025] Referring now to FIG. 4, an enlarged pictorial view of the upper right hand corner of doorframe 50 of FIG. 3 is shown. Dovetail slots (FIGS. 5A, 51, 6A, and 613) 86 and 86' may be formed in abutting portions of vertical jamb 52 and head jamb 54. Upon installing a double dovetail key 58 into dovetail slots 86 and 86' vertical jamb 52 and head jamb 54 are pulled together. Dovetail keys 58 may be used to assemble doorframe 50 in the field, such as when head jamb 54 and vertical jamb 52 are positioned in doorway 59. In addition, dovetail keys 58 may help keep doorframe 50 square and plumb.

[0026] With reference to FIGS. 5A, 513, 6A and 61B, the general construction of strike and hinge jams 60 and 62 and head jamb 54 are shown according to one embodiment. According to one embodiment, hinge jamb 62, head jamb 54, and strike jamb 60 each comprise a prefabricated one-piece construction that may be assembled and connected onsite to provide an aesthetically pleasing and durable frame. FIG. 5A shows a top view of vertical jamb 52 while FIG. 51A shows a side view of vertical jamb 52. FIG. 6A shows a side view of head jamb 54 while FIG. 6B shows a bottom view of head jamb 54. Solid wood casings 80 and 80' are glued to cores 82 and 82'. A recess 83 may be formed in vertical jamb 52 by selecting solid wood casings 80 having a depth greater than that of core 82. In one embodiment, recess 83 is sized to receive a portion of wall 90. Likewise, a recess 83' may be formed in head jamb 54 by selecting solid wood casings 80 having a height greater than that of core 82'. In one embodiment, recesses 83 and 83' help define internal surfaces of vertical jamb 52 and head jamb 54, respectively. For example, the internal surface of vertical jamb 52 may face surface 61 of wall 90. Likewise, the internal surface of head jamb 54 may face a surface of wall 90 near the top portion of doorway 59. Accordingly, the generally U-shaped surfaces surrounding the perimeter of recesses 83 and 83' may define the internal surfaces of vertical jamb 52 and head jamb 54, respectively, such as those surfaces that are interposed between doorframe 50 and wall 90. The other surfaces of vertical jamb 52 and head jamb 54 may be considered external surfaces, such as those surfaces that are not interposed between doorframe 50 and wall 90. For example, dovetail slots 86 and 86' are shown formed in external surfaces of vertical jamb 52 and head jamb 54, respectively. Likewise, pocket hole 96 is shown formed in an external surface of head jamb 54.

[0027] Solid wood casings 80 and 80' can be made from most wood material, such as hardwood, but can also be made from other materials such as metal or plastic. Cores 82 and 82' can be made from most types of materials, such as Timberstrand Laminated Strand Lumber (LSL) or a fire resistant medium density fiberboard (MDF) having a Class 1 Underwriters Laboratories classification. Solid wood casings 80 and 80' and cores 82 and 82' may be surfaced, such as by sanding, so that face veneers 84 and 84' will lay flat. After surfacing, face veneers 84 and 84' may be glued to solid wood casings 80 and 80' and cores 82 and 82'.

[0028] These parts may then be milled in a molder and profiled to the finished dimensions. For example, recesses 83 and 83' may be formed to run along surfaces of vertical jamb 52 and head jamb 54 that face wall 90. By way of another
example, dovetail slots 86 and 86' can be machined into both the strike and hinge jambs 60 and 62 and head jamb 54 and be sized to accept dovetail key 58. In one embodiment, dovetail slots 86 and 86' are formed in a top edge of solid wood casings 80 and 80'. In addition, relief 88 can be formed in the top portion of each the strike and hinge jambs 60 and 62 to facilitate wrapping doorframe 50 around wall 90 proximate head jamb 54. The parts can then be finish sanded, such as with 150 grit sandpaper, cut to length, prepared for hardware, assembled and possibly finished with a stain. FIGS. 53 and 63 illustrate dovetail slots 86 and 86' formed in abutting portions of vertical jamb 52 and head jamb 54 according to one embodiment. After dovetail slots 86 of vertical jamb 52 are aligned with slots 86' of head jamb 54, dovetail keys 58 may be installed therein to secure vertical jamb 52 to head jamb 54, as shown in FIG. 4.

[0029] With reference to FIGS. 7, 8, and 9, an adjustable spacer 56 may include a shaft 78, 78' of dovetail slot 88, 88' adjustably engaged with a retaining member 74, such as a T-nut. In one embodiment, shaft 78 is selectively moveable relative to retaining member 74 to project outwardly from vertical jamb 52, such as strike jamb 60 or hinge jamb 62, and bear against surface 61 of wall 90, when in use, to thereby define a standoff distance between vertical jamb 52 and wall 90 at an adjustment location 69. Adjustable spacer 56 may be installed in access opening 68 (FIG. 3) and be used to hold square and plumb doorframe 50, possibly without using wood shims and without removing doorframe 50 from the rough opening in wall 90.

[0030] Referring now to FIG. 7, retaining member 74 may be set in access opening 68 from the back of the doorframe 50. For example, one or more barsbs 75 of a T-nut may be pounded into the material of doorframe 50 with a hammer to hold the T-nut in place. In one embodiment, the T-nut is a 1/2 inch T-nut having at least one barbs 75 and threads sized to fit corresponding threads formed on shaft 78. However, the T-nut may have any number of barsbs 75 (or the barsbs may be omitted), have any dimension or shape, and can accept any thread count (TPI) or thread pitch size. Shaft 78 can be threaded into the T-nut to help square and plumb doorframe 50. Threading shaft 78 into retaining member 74 facilitates a two-way adjustment. For example, rotating shaft 78 in one direction increases a distance between a flange 76 and retaining member 74, while rotating shaft 78 in an opposite direction decreases the distance. Retaining member 74 may include other components and take other forms to accomplish a similar two-way adjustment.

[0031] Adjustable spacer 56 may also include a one-way adjustment between shaft 78 and retaining member 74. According to another embodiment, retaining member 74 may include a ratcheting device. For example, shaft 78 may include a radially deformable pin that engages a toothed interior surface of retaining member 74. As shaft 78 is pushed toward wall 90 (FIG. 9), the pin deforms inwardly to engage the next tooth. A two-way adjustment is possible by including a releasing mechanism on shaft 78 that allows shaft 78 to be moved in an opposite direction. For example, a trigger may be provided on shaft 78 that causes a spring loaded pin to deform inwardly while the trigger is depressed and extend outwardly when the trigger is released. By way of another example, shaft 78 may include ridges that mesh with corresponding ridges on retaining member 74. The ridges on retaining member 74, shaft 78, or both may be formed of an elastomeric material that allow shaft 78 to be held in retaining member 74 while allowing a relative position of shaft 78 and retaining member 74 to be adjusted by applying sufficient force.

[0032] Referring now to FIG. 8, shaft 78 may include a driving feature 77 on one end and flange 76 on the other end. Flange 76 may have a smooth surface facing wall 90. This may help flange 76 to rotate freely as it presses against wall 90. In one embodiment, flange 76 has a two inch diameter and has a thickness of 1/2 inch. However, other sizes and dimensions are possible depending on the application. Flange 76 could be stamped from sheet metal but can also be formed using any manufacturing process, such as die casting, cold forging, or laser cutting, by way of example. In one embodiment shaft 78 has a 1/4 inch diameter and a length of 3 inch. However, other sizes and dimensions are possible. Shaft 78 may be threaded with a thread count (TPI) or thread pitch sized to fit threads of retaining member 74. Driving feature 77 allows a tool (not shown) to rotate shaft 78. Driving feature 77 may be recessed or can project away from shaft 78. In one embodiment driving feature 77 is a slot sized to receive a flat head screwdriver. Other recessed forms of driving feature 77 include notches, sockets, and cavities, for example, sized to receive a driver tool of corresponding size and shape, such as a flat head screwdriver, a Phillips head screw driver or hex driver, for example. Driving feature 77 may alternatively project away from shaft 78, in which case the driver tool would be designed to receive the projection, such as a hex driver or socket wrench, for example. In another embodiment, flange 76 may be a thumbwheel accessible from a front or rear face of doorframe 50. This may allow the adjustable spacer 56 to be adjusted without using a tool inserted into access opening 68 and allow access opening 68 to be eliminated. Flange 76 and shaft 78 may be formed from a single piece of material or can be secured together, such as by welding or using a bolt. While flange 76 and shaft 78 can be made from metal, such as steel, copper, or aluminum, they may also be made from other materials, such as plastic.

[0033] Referring now to FIG. 9, wall 90 is shown with metal studs 42, sheetrock 26, and wood buck 92 secured together according to a preferred embodiment. Before doorframe 50 is installed, sheetrock 26 can be textured and painted. In addition, wood buck 92 can be secured to the metal studs 42 that surround the perimeter of the doorway. Furthermore, wall 90 may be constructed from different materials, such as G1W, drywall, paneling, plastic, metal, or wooden studs, or could be a bulkhead or partition of a ship or recreational vehicle. FIG. 9 also shows one embodiment of an assembled doorframe 50. Solid wood casings 80, core 82, and face veneer 84 can all be secured together. Retaining member 74 can be inserted and secured in access opening 68. In addition, shaft 78 can be threaded into retaining member 74 to form adjustable spacer 56. Flange 76 is interposed between wall 90 and retaining member 74 and is operable to bear against wall 90 to increase a standoff distance between vertical jamb 52 and wall 90.

[0034] Manufacturing doorframe 50 may include forming a joining structure in head jamb 54 to facilitate joining vertical jamb 52 to an end of head jamb 54. For example, dovetail slots 86 (FIG. 6A) may be formed in a portion of head jamb 54 that abuts vertical jamb 52 and dovetail slots 86 (FIG. 59) may be formed in a portion of vertical jamb 52 that abuts head jamb 54. As previously discussed, dovetail slots 86 and 86' may be aligned and sized to receive dovetail
key 58 such that vertical jamb 52 and head jamb 54 are pulled together by dovetail key 58. By way of another example, and as described in more detail with reference to FIG. 10, a pocket hole 96 can be formed in head jamb 54 proximate a portion of head jamb 54 adapted to abut vertical jamb 52 such that a pocket hole screw 98 inserted into pocket hole 96 locks head jamb 54 to vertical jamb 52.

[0035] As previously described, adjustable spacer 56 may include shaft 78 and may be adjusted with retaining member 74. Attaching adjustable spacer 56 to vertical jamb 52 may include mounting retaining member 74 to vertical jamb 52 at adjustment location 69 (FIG. 3). An access opening 68 may be formed in vertical jamb 52 so that access opening 68 in is alignment with shaft 78. Access opening 68 may be sized to admit a tool for driving shaft 78 relative to retaining member 74 so that a position of vertical jamb 52 relative to surface 61 of wall 90 is adjustable.

[0036] While there are many ways to install doorframe 50, the following is a method according to one embodiment. Initially, strike jamb 60, hinge jamb 62, and head jamb 54 are moved into position. Strike jamb 60 and hinge jamb 62 are stood up and placed over the wall. For example, recesses 83 and 83' may accept a portion of wall 90. A screw can then be temporarily inserted into one of the securement holes 70 (FIG. 3) to hold strike jamb 60 and hinge jamb 62 in place. Head jamb 54 can be placed over the wall and held in place with two screws, one screw on each end in one of the securement holes 70. Strike jamb 60, hinge jamb 62, and head jamb 54 can then be joined together, such as with fasteners.

[0037] In one embodiment, strike jamb 60, hinge jamb 62, and head jamb 54 are joined by inserting dovetail keys 58 into corresponding dovetail slots 86 and 86' on each side of the framing joints as shown in FIGS. 3 and 4. As the two parts are held together (such as strike jamb 60 and head jamb 54 or hinge jamb 62 and head jamb 54), dovetail keys 58 can be tapped into place. While in one embodiment dovetail keys 58 are molded from plastic, any material can be used, such as wood or metal, for example. In addition, even though double dovetail keys 58 are shown as having two dovetail tenons sharing a common surface, dovetail keys 58 can take other shapes. Dovetail keys 58 may be designed to grip and pull the two parts (such as strike jamb 60 and head jamb 54 or hinge jamb 62 and head jamb 54) together. Once installed, a tensile force transmitted through dovetail keys 58 helps secure the parts together. Other devices may also be used to accomplish the same objective. For example, a single dovetail may be formed on a portion of vertical jamb 52 that abuts head jamb 54 and a dovetail slot may be formed on a portion of head jamb 54 that abuts vertical jamb 52. Once vertical jamb 52 is positioned in doorway 59, head jamb 54 may be installed from below so that the single dovetail on the vertical jamb 52 is inserted into the dovetail slot on head jamb 54.

[0038] In another embodiment, strike jamb 60, hinge jamb 62, and head jamb 54 are joined by inserting a pocket hole screw 98 (FIG. 10) into a pocket hole 96 formed in head jamb 54. Pocket hole 96 can be formed in the center of head jamb 54 so it will be covered by stop 100. However, more than one pocket hole 96 could be formed in other locations of head jamb 54 for additional reinforcement. In addition, pocket holes 96 could be formed in strike jamb 60 or hinge jamb 62. Pocket hole screws 98 help lock the joints. This process could be used at each joint or anywhere two pieces of framing material need to be joined together. Pocket hole screw 98 may be used in addition to dovetail keys 58 to provide additional reinforcement to help keep the parts locked together.

[0039] Once strike jamb 60, hinge jamb 62, and head jamb 54 are moved into position and joined together, doorframe 50 can be squared, plumbed and secured to wall 90. Many different methods may be used to square and plumb doorframe 50. For example, head jamb 54 can first be checked to ensure it is level. If head jamb 54 needs adjustment, strike jamb 60 or hinge jamb 62 can be vertically adjusted, such as by placing shims under the bottom of each, as needed. Next, one or more sides of hinge jamb 62 can be checked to ensure it is plumb using a level or a plumb bob and string. If hinge jamb 62 needs adjustment, adjustable spacers 56 can be fine-tuned. In one embodiment, driving feature 77 of adjustable spacer 56 is accessible by inserting a tool, such as a flat head screwdriver, into access opening 68. By rotating adjustable spacer 56, shaft 78 pushes flange 76 against wooden stud 28, metal stud 42, or wood buck 92 causing hinge jamb 62 to move away from the stud. By rotating adjustable spacer 56 in the opposite direction, shaft 78 will loosen, allowing hinge jamb 62 to be pushed toward the stud. Adjustable spacers 56 essentially allow hinge jamb 62 to be adjusted from behind. In one embodiment, vertical jamb 52 pivots about the structure that joins head jamb 64 to vertical jamb 52, such as dovetail keys 58 or pocket hole screw 98, while adjustable spacer 56 is adjusted. After hinge jamb 62 has been plumbed, it can be secured by placing screws in securement holes 70, which may be above and below each access opening 68. These screws can also be loosened at a later time for additional adjustments. After hinge jamb 62 has been plumbed, strike jamb 60 can be plumbed in a similar manner. Likewise, the same process could be used for head jamb 54.

[0040] For additional rigidity and to help keep the door in place and eliminate door sag over time, the installer can drill sag holes 72 in each hinge recess 64. A screw, such as a three inch drywall screw, could be inserted into sag holes 72 and secured to wall 90. Stop 100 can then be secured to doorframe 50, such as by using finishing nails. By placing the nails (not shown) about every 16 inches on center, stop 100 should remain stationary upon impact, such as when a door slams into it. Stop 100 can be made from any type of wood, such as hardwood. Finally, the door may be hung to complete the opening.

[0041] Doorframe 50 may be removed from doorway 59 by removing dovetail keys 58 from corresponding dovetail slots 86 and 86' and/or pocket hole screw 98 from pocket hole 96. Additional components may need to be removed, such as screws inserted into securement holes 70 and sag holes 72. Once removed from doorway 59, doorframe 50 may be relocated to another doorway and be reused.

[0042] While various embodiments of doorframe 50 have been herein described, strike jamb 60, hinge jamb 62, and head jamb 54 may be combined to create any type of architectural doorframe opening. For example, doorframe 50 could be used for openings including, a single door, pairs of doors and doors with various sidelight configurations. Although these different configurations would contain different framing profiles, the connections and custom spacers that have been described may still be used.

[0043] It will be obvious to those having skill in the art that many changes may be made to the details of the
above-described embodiments without departing from the underlying principles of the invention. The scope of the present invention should, therefore, be determined only by the following claims.

1. A doorframe kit, comprising:
   a head jamb for installation over a top portion of a doorway, the head jamb having an internal surface for facing a first surface of a wall bordering the doorway and an external surface that is accessible after the head jamb is placed adjacent the first surface;
   a vertical jamb adapted to abut the head jamb and extend downwardly from the head jamb along a second surface of the wall bordering the doorway;
   an adjustable spacer including:
   a retaining member fixedly mounted to the vertical jamb at an adjustment location on the vertical jamb, the adjustment location spaced below the head jamb; and
   a shaft adjustably engaged with the retaining member so that the shaft is selectively movable relative to the retaining member to project outwardly from the vertical jamb and bear against the surface of the wall, when in use, to thereby define a standoff distance between the vertical jamb and the wall at the adjustment location; and
   a joining structure formed in the external surface of the head jamb proximal of where the vertical jamb abuts the head jamb and adapted to receive a fastener for joining the head jamb and the vertical jamb together after the head jamb and the vertical jamb are positioned in the doorway.

2. The doorframe kit of claim 1 wherein the shaft includes a drive feature at an end of the shaft and further comprising:
   an access opening formed in the vertical jamb in alignment with the shaft and sized to admit a tool from a side of the vertical jamb opposite the wall for engaging the drive feature and adjusting a position of the vertical jamb at the adjustment location relative to the surface of the wall.

3. The doorframe kit of claim 1 wherein the shaft includes external threads and the retaining member includes a nut having internal threads that mesh with the external threads of the shaft.

4. The doorframe kit of claim 1 wherein the shaft includes a flange at a distal end of the shaft outside of the vertical jamb, the flange interposed between the wall and the vertical jamb when in use.

5. The doorframe kit of claim 1 further comprising:
   a recess running along the internal surface of the head jamb, the recess sized to receive a portion of the wall.

6. The doorframe kit of claim 1 wherein the fastener includes a double dovetail key and the joining structure includes a first dovetail slot formed in a top edge of a casing of the head jamb that abuts the vertical jamb when installed and further comprising:
   a second dovetail slot formed in a portion of the vertical jamb that abuts the head jamb when installed, the first and second dovetail slots adapted to receive the double dovetail key such that the vertical jamb and the head jamb are aligned and pulled together as the double dovetail key is inserted into the dovetail slots.

7. The doorframe kit of claim 1 wherein the fastener includes a pocket hole screw and the joining structure includes a pocket hole formed in the head jamb proximate abutting portions of the head jamb and the vertical jamb, the pocket hole adapted to receive the pocket hole screw.

8. The doorframe kit of claim 1 wherein the retaining member includes a T-nut having a barb, the barb embedded in the vertical jamb.

9. The doorframe kit of claim 1 further comprising:
   a second vertical jamb with an adjustable spacer.

10. The doorframe kit of claim 1 further comprising:
   a second adjustable spacer adjustably engaged with the vertical jamb below the adjustment location.

11. The doorframe kit of claim 1 further comprising:
   a securement hole formed in the vertical jamb proximate to and offset from the adjustment location and sized to receive a securement screw.

12. A method of constructing a doorframe having a head jamb adapted to be installed over a top portion of a doorway and a vertical jamb adapted to abut the head jamb and extend downwardly from the head jamb along a first surface of a wall bordering the doorway, the head jamb having an internal surface for facing a second surface of the wall bordering the doorway and an external surface that is accessible after the head jamb is placed adjacent the second surface, the method comprising:
   forming a joining structure in the external surface of the head jamb proximal of where the vertical jamb abuts the head jamb, the joining structure adapted to receive a fastener for joining the head jamb and the vertical jamb together after the head jamb and the vertical jamb are positioned in the doorway; and
   attaching to the vertical jamb an adjustable spacer having a retaining member and a shaft adjustably engaged with the retaining member so that the shaft is selectively movable relative to the retaining member to project outwardly from the vertical jamb and bear against the surface of the wall, when in use, to thereby define a standoff distance between the vertical jamb and the wall at an adjustment location, including:
   mounting the retaining member to the vertical jamb at an adjustment location, the adjustment location spaced below the head jamb.

13. The method of claim 12 further comprising:
   forming an access opening in the vertical jamb in alignment with the shaft, the access opening sized to admit a tool for driving the shaft relative to the retaining member so that a position of the vertical jamb relative to the surface of the wall is adjustable.

14. The method of claim 12 wherein the fastener includes a double dovetail key and forming the joining structure in the head jamb includes forming a first dovetail slot in a portion of the head jamb adapted to abut the vertical jamb and further comprising:
   forming a second dovetail slot in a portion of the vertical jamb adapted to abut the head jamb, the first and second slots being aligned and sized to receive the double dovetail key so that the vertical jamb and head jamb are aligned and pulled together by the key.

15. The method of claim 12 wherein the fastener includes a pocket hole screw and forming the joining structure includes forming a pocket hole in the head jamb proximate a portion of the head jamb adapted to abut the vertical jamb such that the pocket hole screw inserted into the pocket hole locks the head jamb to the vertical jamb.
16. The method of claim 12 further comprising: attaching a second adjustable spacer to the vertical jamb below the adjustment location.

17. The method of claim 12 further comprising: forming a securement hole proximate to and offset from the adjustment location, the securement hole sized to receive a securement screw.

18. A method of installing a doorframe in a rough opening of a wall, comprising: placing a strike jamb and a hinge jamb in the opening along opposite sides thereof; the hinge jamb having an adjustable spacer mounted to a side of the hinge jamb facing the wall at an adjustment location and an access opening extending therethrough in alignment with the adjustable spacer; placing a head jamb in the opening so that the head jamb abuts the strike jamb and the hinge jamb, the head jamb having an internal surface facing a first surface of the wall, an external surface that is accessible after the head jamb is placed adjacent the first surface, a first joining structure formed in the external surface of the head jamb proximal of where the head jamb abuts the strike jamb, and a second joining structure formed in the external surface of the head jamb proximal of where the head jamb abuts the hinge jamb; joining the head jamb to the strike jamb, including inserting a first fastener in the first joining structure after the head jamb and the strike jamb are placed in the opening; joining the head jamb to the hinge jamb, including inserting a second fastener in the second joining structure after the head jamb and the hinge jamb are placed in the opening; and adjusting a standoff distance of the hinge jamb relative to the wall at the adjustment location, including: inserting a tool into the access opening; and driving the adjustable spacer outwardly to increase the standoff distance of the hinge jamb relative to the wall at the adjustment location.

19. The method of claim 18 wherein the strike jamb, the hinge jamb, and head jamb are placed in the opening so that a recess formed in each of the strike jamb, the hinge jamb, and the head jamb receives a portion of the wall.

20. The method of claim 18 wherein the first fastener includes a first double dovetail key, the first joining structure includes a first dovetail slot formed in a portion of the head jamb abutting the strike jamb, the strike jamb includes a second dovetail slot formed in a portion of the strike jamb abutting the head jamb, and the head jamb is joined to the strike jamb by inserting the first double dovetail key into the first and second dovetail slots such that the head jamb and the strike jamb are aligned and pulled together by the first key, and the second fastener includes a second double dovetail key, the second joining structure includes a third dovetail slot formed in a portion of the head jamb abutting the hinge jamb, the hinge jamb includes a fourth dovetail slot formed in a portion of the hinge jamb abutting the head jamb, and the head jamb is joined to the hinge jamb by inserting the second double dovetail key into the third and fourth dovetail slots such that the head jamb and the hinge jamb are aligned and pulled together by the second key.

21. The method of claim 18 wherein the first fastener includes a first pocket hole screw, the first joining structure includes a first pocket hole formed in the head jamb proximate abutting portions of the head jamb and the strike jamb, and the head jamb is joined to the strike jamb by inserting the first pocket hole screw in the first pocket hole such that the head jamb is locked to the strike jamb, and the second fastener includes a second pocket hole screw, the second joining structure includes a second pocket hole formed in the head jamb proximate abutting portions of the head jamb and the hinge jamb, and the head jamb is joined to the hinge jamb by inserting the second pocket hole screw in the second pocket hole such that the head jamb is locked to the hinge jamb.

22. The method of claim 18 wherein the head jamb has a second adjustable spacer mounted to a side of the head jamb facing the wall at a second adjustment location and a second access opening extending therethrough in alignment with the second adjustable spacer and further comprising: leveling the head jamb by inserting a tool into the second access opening and driving the second adjustable spacer outwardly to increase a standoff distance of the head jamb relative to the wall at the second adjustment location.

23. The method of claim 18 wherein the strike jamb has a second adjustable spacer mounted to a side of the strike jamb facing the wall at a second adjustment location and a second access opening extending therethrough in alignment with the second adjustable spacer and further comprising: plumbing the strike jamb by inserting a tool into the second access opening and driving the second adjustable spacer outwardly to increase a standoff distance of the strike jamb relative to the wall at the second adjustment location.

24. The method of claim 18 further comprising: inserting a securement screw into a securement hole formed proximate to and offset from the adjustment location such that the standoff distance between the corresponding jamb and the wall is fixed.

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