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(54) **Method for placing a door in an opening in a wall**

(57) A door 1 with a surrounding frame 3 is mounted in a wall opening 5 after which the frame is fixed to the wall in a position where a desired door gap 23, 25 between the door 1 and the frame 3 is maintained. The frame 3 is comprised of a lock jamb 17, a hinge jamb 19 and a head jamb 21. When the frame is being set, first the hinge jamb 19 is vertically aligned and set to the proper height after which the mounting angle brackets 11 are screwed tight. After this the head jamb 21 is set, during which operation the desired door gap 23 between the top of the door and the head jamb is maintained, and screwed tight to the mounting angle brackets 13. Subsequently, the lock jamb 17 is set while again the desired door gap 25 between the door and the lock jamb is maintained, and screwed tight to the mounting angle brackets 11. In this operation the frame 3 is thus set along the contours of the door 1 with the door 1 functioning as a template.

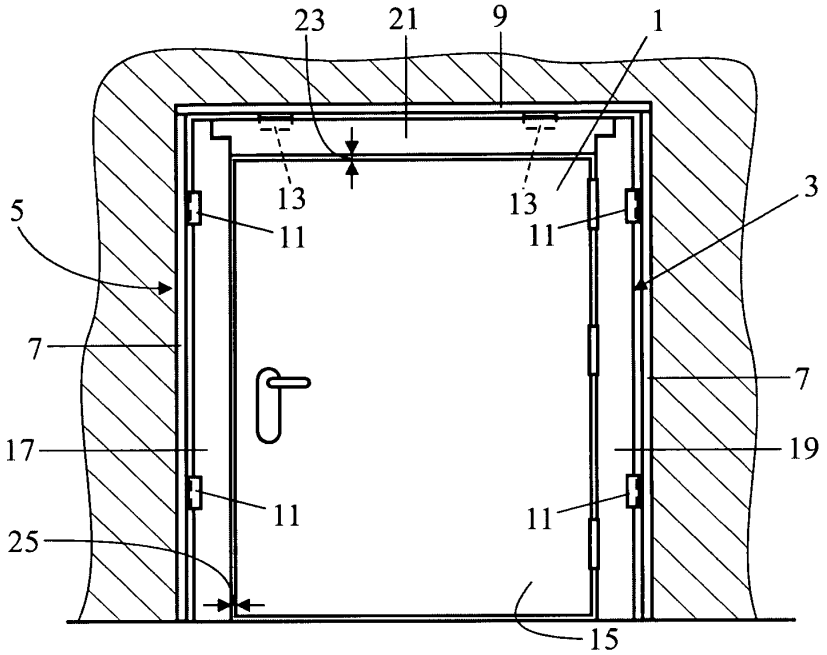

FIG. 1

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Description

Field of the invention.

[0001] The invention relates to a method for mounting a door in a wall opening as well as a frame comprised of a lock jamb, a hinge jamb and a head jamb, a desired door gap being created between the door and the frame portions.

State of the art.

[0002] A method of this type is known from US-A-6 192 638. In this known method the frame is set in the right position and secured to the wall, after which the door is hung on the hinges affixed to the frame. Once the door has been hung it starts drooping in the hinges as a result of the fact that there is always play in the hinges, so that the door will displace relative to the lock jamb and head jamb. In consequence, the door needs to be made fit relative to the frame so that between the door and the lock jamb of the frame the desired door gap is obtained. This making fit usually takes place by planing the door and is a labour-intensive method, which takes up relatively much time and effort.

Summary of the invention.

[0003] It is an object of the invention to provide a method of the type defined in the opening paragraph with which a door can be mounted in a wall opening in a much faster way. For this purpose the method according to the invention is characterised in that, once the frame has been mounted in the wall opening, the hinge jamb is vertically aligned and set to the proper height and fixed to the wall while the door has already been hung on the hinge jamb or is subsequently hung on the hinge jamb, after which the head jamb and the lock jamb are positioned, while the door functions as a template and the desired door gap between the top side of the door and the head jamb and between the door and the lock jamb is maintained and subsequently the lock jamb and the head jamb are fixed to the wall. In contrast to the known method according to which the door is hung on the frame once the frame has been set and fixed to the wall, with the method according to the invention the frame is set relative to the door after the door has been hung on the hinge jamb so that the door can function as a template. The frame is thus set in accordance with the contours of the door. By providing that there is a desired play between the door and the frame while the frame is being fixed to the wall, the door need no longer be planed to fit the contours of the frame.

[0004] Preferably, once the hinge jamb has been set and fixed to the wall, first the head jamb is set and then the end of the head jamb present at the lock jamb is fixed to the wall after which the lock jamb is set and then the lock jamb is fixed to the wall.

[0005] Furthermore, preferably the door and the surrounding frame are together simultaneously mounted to the wall after which the frame is set and fixed to the wall. Preferably the frame together with the door is mounted in the wall opening while coupling laths are connected to the frame to mount the frame in a fixed state, after which the coupling laths are removed from the frame and the frame is set in accordance with the contours of the door and fixed to the wall.

[0006] An embodiment of the method according to the invention is characterised in that prior to the frame being mounted in the wall opening, first mounting angle brackets to which the frame is fixed are fixed to the side walls and upper wall of the outline of the wall opening, the mounting angle brackets being fixed with the rolled-back side to the hinge side of the side walls and at least a single further mounting angle bracket being fixed to the upper wall in upside down position. As a result, the door with frame can be mounted in the wall opening in a simple fashion and the door with frame cannot fall over over after being placed.

[0007] The wall opening is preferably bounded by laths which are mounted against the bordering walls of the wall opening or against which the wall is built up, so that the mounting angle brackets can be fixed to the laths.

Brief description of the drawings.

[0008] Hereinbelow the invention will be further explained with reference to the embodiments of the method and the frame construction shown in the appended drawings, in which:

Fig. 1 shows a door and frame which are together mounted in the wall opening according to the invented method;
Fig. 2 shows the situation during the mounting of the door with frame in the wall opening;
Fig. 3 shows a detail of the frame which is locked in position by means of mounting angle brackets in the wall opening;
Fig. 4 shows a first example of the frame construction which can be used for the method according to the invention; and
Fig. 5 shows a second example of the frame construction which can be used for the method according to the invention.

Detailed description of the drawings

[0009] Fig. 1 shows a door 1 and a frame 3 which are together simultaneously mounted in a wall opening 5 with the method according to the invention. Laths 7 and 9 are mounted against boundary walls of the wall opening 5. These laths can be mounted after the wall has been built or can be placed beforehand after which the wall can be bricked up against the laths. Mounting angle brackets 11 and 13 are fixed to the laths. The mounting angle brackets

11 are fixed to the vertical laths 7 with the rolled-back side 12 on the side of the door hinge 15 and against the upper lath 9 in upside down position with the rolled-back side 14 on the other side of the door. As a result, the door 1 with frame 3 can be mounted in the wall opening 5 in a simple manner, for example with the aid of a hand truck, see Fig. 2, and the door with frame cannot fall over after being placed. During this operation the door with frame is preferably maintained in fixed position in the wall opening by means of coupling laths, after which the coupling laths and the frame are disconnected and the frame is set following the contours of the door and fixed to the wall.

[0010] The frame 3 comprises a lock jamb 17, a hinge jamb 19 and a head jamb 21. When the frame is set, first the hinge jamb 19 is set vertically and to the proper height after which it is screwed tight to the mounting angle brackets 11. Subsequently, the head jamb 21 is set while the desired door gap 23 between the top of the door and the head jamb is adhered to, and screwed tight to the mounting angle brackets 13. Then the lock jamb 17 is set and screwed tight to the mounting angle brackets 11 while again the desired door gap 25 between the door and the lock jamb is adhered to. Thus the frame 3 is set following the contours of the door 1.

[0011] Once the frame 3 has been mounted in the way described above, further mounting angle brackets 27 are coupled to the mounting angle brackets 11 already present and screwed tight to the frame, see Fig. 3. The mounting angle brackets 11 are formed such that a portion 11A thereof, adjoining an end, is present in parallel with and at a distance from the lath 7 to which the mounting angle bracket is fixed. The further mounting angle brackets 27 can be inserted into the aperture between the laths 7 and these portions 11A of the mounting angle brackets. In order to avoid the further mounting angle brackets 27 leaving the aperture, the portions 11A of the mounting angle brackets have beards 26 on the side facing the laths and the further mounting angle brackets 27 have recesses 28 which receive the beards and which beards catch on the boundary wall of the recess. After the further mounting angle brackets 27 have been screwed to the frame 3 architraves 29 are installed to add a finishing touch to the whole.

[0012] Fig. 4 shows a first example of a frame construction which can be used for the method according to the invention for mounting a door with frame in a wall opening. The frame construction 31 has a frame 33 and fixing means for fixing the frame to boundary walls 35 of the wall opening. The frame is provided with hinges 36 on which the door (not shown) is hung. The fixing means are formed by clamps which are fastened to the boundary walls. The frame 33 is fixed to a middle portion 39 of the clamps. The clamps 37 each further have two clamp jaws 41 which can individually be drawn to the middle portion by means of a bolt 43 and a nut 45. The clamp jaws 41 are then drawn tight to the boundary walls 35 by tightening up the bolt 43. Finally, architraves 47 and 49 are installed to add the finishing touch to the whole.

[0013] Fig. 5 shows a second example of ae frame construction which can be used for the method according to the invention for mounting a door with frame in a wall opening. All component parts which are identical or have identical functions to those of the embodiment shown in Fig. 4 are indicated by the same reference numerals. In this frame construction 51 the middle portion 39 of the clamp 37 and the clamp jaws 41 are formed differently. The clamp jaws 41 can individually be moved by means of nuts 53. These nuts 53 are located on threaded ends 55 which are fixed relative to the middle portion 39.

[0014] Albeit the invention has been described in the foregoing with reference to the drawings, it should be pointed out that the invention is not by any manner or means restricted to the embodiments shown in the drawings. The invention also extends over any embodiments deviating from the embodiments shown in the drawing Figures within the spirit and scope defined by the claims.

Claims

1. A method for mounting a door in a wall opening as well as a frame comprised of a lock jamb, a hinge jamb and a head jamb, a desired door gap being created between the door and the frame portions, **characterised in that,** once the frame has been mounted in the wall opening, the hinge jamb is vertically aligned and set to the proper height and fixed to the wall while the door has already been hung on the hinge jamb or is subsequently hung on the hinge jamb, after which the head jamb and the lock jamb are positioned, while the door functions as a template and the desired door gap between the top side of the door and the head jamb and between the door and the lock jamb is maintained and subsequently the lock jamb and the head jamb are fixed to the wall.

2. A method as claimed in claim 1, **characterised in that** after the hinge jamb has been set and fixed to the wall, first the head jamb is set after which the end of the head jamb present at the lock jamb is fixed to the wall after which the lock jamb is set and then the lock jamb is fixed to the wall.

3. A method as claimed in claim 1 or 2, **characterised in that** the door and the surrounding frame are together simultaneously mounted in the wall after which the frame is set and fixed to the wall.

4. A method as claimed in claim 3, **characterised in that** the frame together with the door is mounted in the wall opening while coupling laths are connected to the frame to mount the frame in a fixed state after which the coupling laths are removed from the frame and the frame is set in accordance with the contours of the door and fixed to the wall.

5. A method as claimed in any one of the preceding claims, **characterised in that** prior to the frame being mounted in the wall opening, first mounting angle brackets to which the frame is fixed are fixed to the side walls and upper wall of the outline of the wall opening, the mounting angle brackets being fixed with the rolled-back side to the hinge side of the side walls of the opening and at least a single further mounting angle bracket being fixed to the upper wall in upside down position.

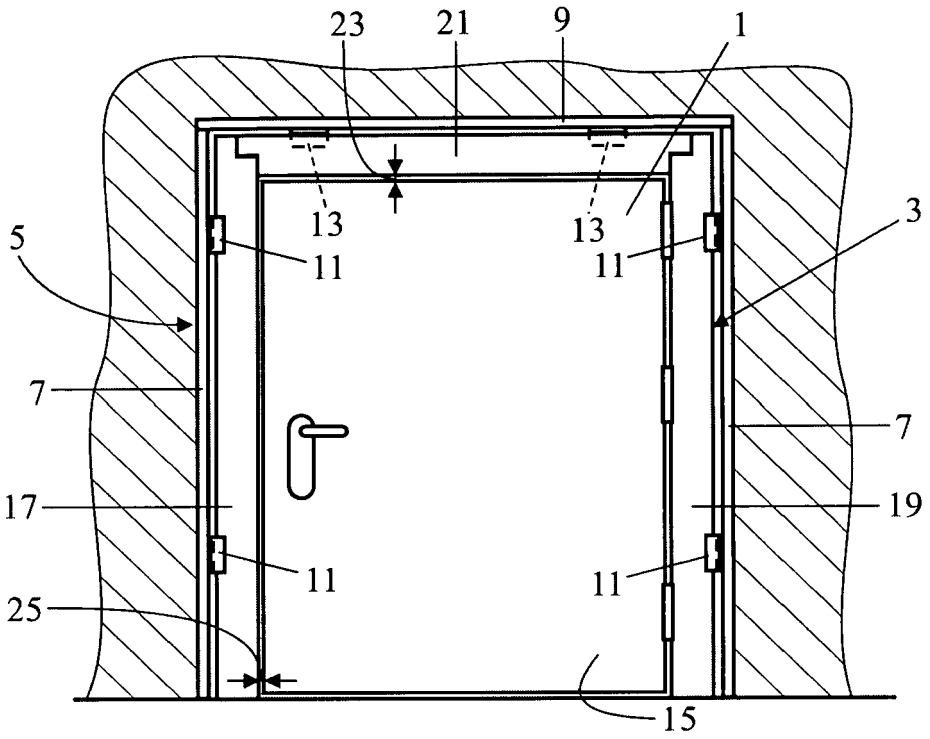

FIG. 1

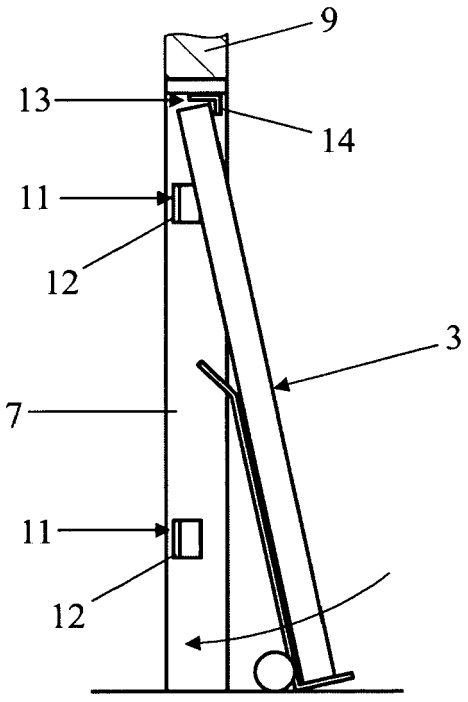

FIG. 2

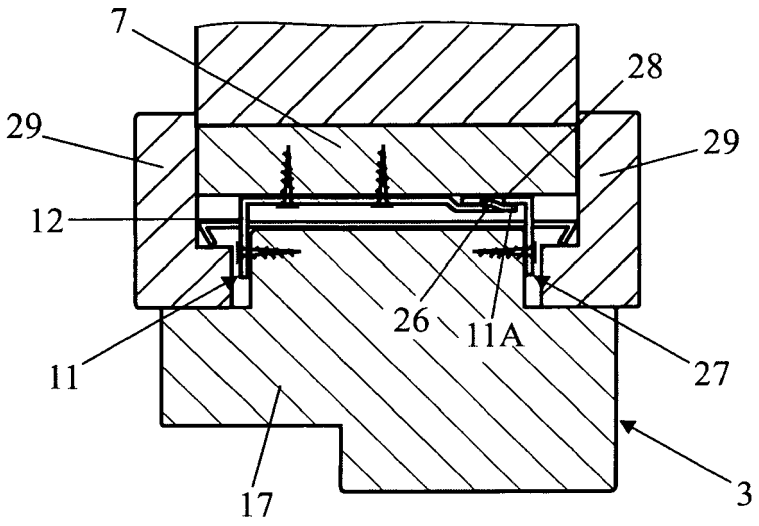

FIG. 3

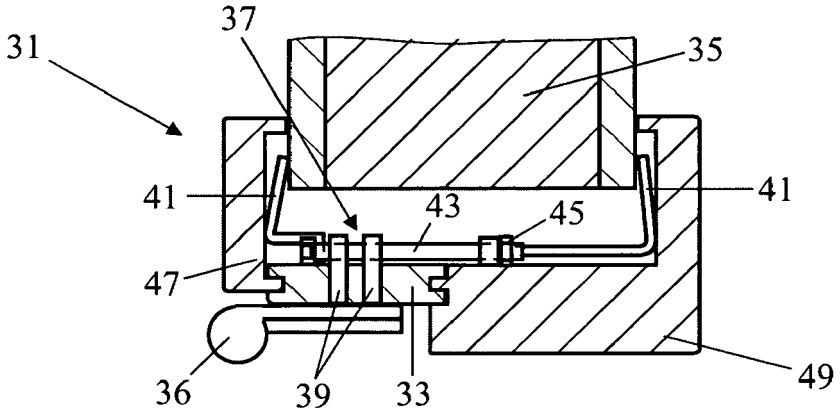

FIG. 4

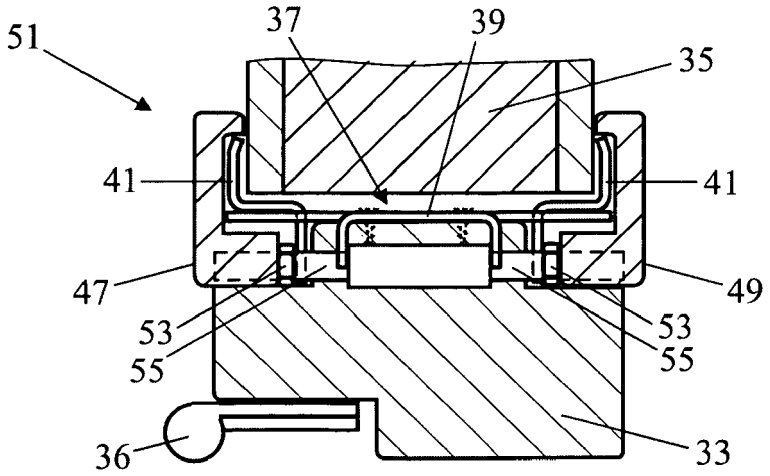

FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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