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(54) **A METHOD AND APPARATUS FOR FORMING A DECORATION ON A WALL**

VERFAHREN UND VORRICHTUNG ZUM HERSTELLEN EINER DEKORATION AUF EINER WAND

PROCEDE ET APPAREIL DE CREATION D'UNE DECORATION SUR UN MUR

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Description

[0001] The present invention relates to a method and apparatus for use in forming a decoration on a wall.

[0002] In many instances, where outer walls of buildings are plastered with a cementitious mixture, it is desirable to form decorative features on the plastered outer surface. For example, it is common practice to stucco a wall to form an imitation stone finish, and in particular, to create imitation corner stones adjacent external and/or internal corners of the building. In general, stuccoing the walls of a building to form corner stones requires that the walls should first be plastered. After setting of the plaster a plurality of laths are then secured to the plaster surface adjacent the corner formed by the walls to define the outline of the corner stones. The spaces between the laths are then plastered with a cementitious mixture and the surface is levelled off according to the level of the laths. On removal of the laths the corner stones are formed. However, in general, further plastering is required, particularly, between the grooves of adjacent corner stones for finishing off the appearance of the corner stones.

[0003] This is rather a time consuming task, and in many cases does not provide an adequate finish.

[0004] Other decorative type finishes which are also desirable are ashlar or ribbed plastering. In general, the method for forming ashlar or ribbed plastering is similar to that described for forming a stucco finish, and accordingly, is likewise rather time consuming, and in many cases fails to provide an adequate finish.

[0005] In many cases it is also desirable to form a decorative finish on a floor, such as, for example, a patio to simulate a stone, tile or other similar type finish. Known methods for forming such finishes on floors and patios are likewise time consuming, and also do not always provide an adequate finish.

[0006] In the prior art U.S. 2,602,232 discloses apparatus for simulating a brick finish on a wall. The apparatus comprises a horizontal support fixed to a wall above an area to which a brick design is to be applied. A framework of spaced-apart parallel horizontal bars is suspended from the horizontal support by a pair of hangers. A gouging tool is drawn along the slots between the horizontal bars to form horizontal slots in the outer surface of the wall. A second vertical tool guide is suspended from the horizontal support and has vertical slots for marking brick ends with the gouging tool.

[0007] In U.S. 4,733,476 there is disclosed apparatus comprising a pair of vertical hangers which are nailed spaced-apart to a wall. The hangers have notches to support a horizontal guide in the form of a plank of wood or the like between the hangers. A scoring knife is drawn along a top horizontal edge of the guide to provide horizontal scoring lines in the surface of the wall plasters. Vertical scoring lines are later formed by hand.

[0008] In U.S. 4,497,114 there is disclosed a gouging tool for producing an imitation brick wall in a wall coated with plaster or the like. The tool has a frame with four spaced-apart blades which, when drawn along the wall, scores four parallel horizontal lines in the wall, each adjacent pair of lines being spaced-apart by the depth of a brick. The two inner blades can be removed so that only the two outer blades remain, these being spaced-apart by the length of a brick so that when drawn vertically through the plaster vertical joints are formed in the plaster.

[0009] U.S. 4,793,586 describes a mould for applying stucco at a corner of a wall. The mould is nailed to the wall for use. The mould forms a design frame against the wall with openings into which cement is filled to form quoins on the wall.

[0010] There is therefore a need for a method and apparatus for use in decorating a wall, floor, patio and the like, which facilitates the forming of the decorative finish relatively quickly and easily with an acceptable finish.

[0011] The present invention is directed towards providing such a method and apparatus, and the method and apparatus are defined in claims 1 and 10.

[0012] Hereinafter for convenience, the term "wall" is used to mean any type of wall, floor, patio or the like.

[0013] In one aspect of the invention the locating means comprises a plurality of spaced apart parallel locating ridges formed on the respective abutment surfaces by adjacent parallel locating grooves arranged in such a way that each abutment surface is provided with a series of parallel alternate locating ridges and grooves, the locating ridges of one abutment surface being engagable with the locating grooves of the other abutment surface. Preferably, the locating ridges of each abutment surface of the engagement members extend parallel to the guide means. Advantageously, the locating ridges of the abutment surfaces of the respective engagement members extend transversely of the guide means. Ideally, the locating means also act for retaining the guide means parallel to each other.

[0014] In a further aspect of the invention an elongated fastener receiving slot extends through one of the engagement members for accommodating the securing means and for facilitating relative movement of the engagement members for varying the spacing between the guide means. Preferably, an elongated fastener receiving slot is provided in each engagement member. Advantageously, each fastener receiving slot extends in a direction generally transversely of the guide means.

[0015] Preferably, and advantageously each fastening means comprises a screw.

[0016] In another aspect of the invention a spigot extends from each engagement member for engaging the corresponding guide means. Preferably, each spigot extends parallel to the guide means for engaging a bore extending longitudinally into the corresponding guide means, which is parallel to the guide means.

[0017] Ideally, the guide members of each guide means are of similar length.

[0018] In a preferred aspect of the invention the guide

members of the respective guide means are pivotal through at least 90° relative to each other from an inoperative position whereby the guide members of the respective guide means lie parallel to each other through a plurality of operative positions with the guide members of the respective guide means extending at an angle to each other to a maximum angle of 90° relative to each other. In one aspect of the invention the guide members of the respective guide means are pivotal through an angle of at least 180° relative to each other from the inoperative position. Preferably, the guide members of the respective guide means are pivotal through an angle of at least 270° relative to each other from the inoperative position.

[0019] In one aspect of the invention the working surfaces of the trowel diverge from each other for forming a substantially V-shaped groove in the plaster or grouting.

[0020] In another aspect of the invention the trowel is provided with three working surfaces, a first working surface which in use extends substantially parallel to the surface of the plaster or grouting, and a pair of second working surfaces diverging from the first working surface for forming a groove of truncated V-shaped cross-section.

[0021] In a further aspect of the invention the template is pivoted intermediate its ends for facilitating placing of the template on a pair of adjacent surfaces of respective walls which extend at an angle to each other.

[0022] In another aspect of the invention the method is for forming a decoration, wherein the decoration simulates corner stones at a corner of a building, the method comprising the steps of plastering a portion of each wall surface forming the corner of the building where the simulated corner stones are to be formed, sequentially placing the template at vertically spaced apart locations on the surfaces of the walls adjacent the corner with the template abutting the adjacent plastered surfaces, engaging the trowel through the guide opening and urging the trowel along the respective guide means for forming horizontally extending grooves in the plaster for defining upper and lower edges of the respective simulated stones.

[0023] In a further aspect of the invention the method further comprises the steps of sequentially placing the template on the plastered surfaces of the walls for forming vertically extending grooves in the plaster for forming vertical edges of the simulated stones, engaging the trowel through the guide opening and urging the trowel along the guide means for forming the vertical grooves.

[0024] In another aspect of the invention the portions of the plaster bounded by a vertical and spaced apart horizontal groove are removed from the wall for forming the simulated corner stones with a staggered effect

[0025] The advantages of the invention are many. The apparatus permits a decorative pattern to be formed on a plastered wall quickly and easily with the minimum amount of setting up. All that is required is to place the template on the plastered surface of the wall before the plaster has set and by inserting an appropriately shaped trowel between the guide means and urging the trowel along the guide means, a groove of the pattern can readily easily be formed. Provided the surface of the trowel is relatively smooth, the surface finish of the groove should be adequate and should not require further trowelling.

[0026] The invention will be more clearly understood from the following description of some preferred embodiments thereof which are given by way of example only with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of apparatus according to the invention for use in the decoration of a wall, in this case, for stuccoing a wall to create an imitation cut stone finish,

Fig. 2 is a plan view of the apparatus of Fig. 1 in one position,

Fig. 3 is an elevational view of a portion of the apparatus of Fig. 1 in another position,

Fig. 4 is a partly cut away perspective view of a portion of the apparatus of Fig. 1,

Fig. 5 is an exploded perspective view of a detail of the portion of Fig. 4 of the apparatus of Fig. 1,

Fig. 6 is a perspective view of a trowel for use with the apparatus of Fig. 1,

Fig. 7 is a cross-sectional end elevational view of the apparatus of Fig. 1 and the trowel of Fig. 6 in use,

Fig. 8 is a perspective view of another trowel for use with the apparatus of Fig. 1,

Fig. 9 is a cross-sectional end view of the trowel of Fig. 8,

Fig. 10 is a perspective view of still another trowel for use with the apparatus of Fig. 1,

Fig. 11 is a perspective view of a portion of a wall illustrating the apparatus of Fig. 1 in use,

Fig. 12 is a perspective view of a portion of a corner of a wall of a building illustrating the apparatus of Fig. 1 in use,

Fig. 13 is a perspective view of the corner of the wall of Fig. 12 illustrating the apparatus of Fig. 1 in use, and

Fig. 14 is an exploded perspective view of a portion

of apparatus according to another embodiment of the invention.

[0027] Referring to the drawings and initially to Figs. 1 to 7 there is illustrated apparatus according to the invention which in this case comprises a template according to the invention indicated generally by the reference numeral 1 for guiding a trowel 2 for use in forming a decorative pattern 5 on a wall 3 of a building. The pattern 5, in this case is a stucco pattern which simulates cut stone work on the wall 3, see Fig. 11. In Figs. 12 and 13 the apparatus 1 is also illustrated in use stuccoing a corner 4 of a wall 3 of another building to form a simulated staggered cut corner stone appearance. Before describing the template 1 in detail the method for using the template 1 for stuccoing the wall 3 will first be described briefly with reference to Fig. 11. A more detailed description of the method for stuccoing the wall 3 using the template 1 will be given after the template 1 has been described.

[0028] Briefly, the wall 3 is plastered with a layer 6 of cementitious mixture and finished to a finished level surface 7. Prior to the layer 6 of cementitious mixture setting, the template 1 is placed along the wall 3 as illustrated in Fig. 11 for guiding the trowel 2 along a predetermined path. The trowel 2 is urged along the predetermined path using the template for guiding the trowel 2, and as the trowel 2 moves along the predetermined path a portion 8 of the cementitious layer 6 is removed by the trowel 2 thereby forming a groove 9 of the cut stone pattern 5. The template 1 is progressively moved along the wall and aligned with respective appropriate predetermined paths for forming the horizontal and vertical grooves 9 of the pattern 5 until the pattern 5 on the wall simulates a cut stone wall.

[0029] Turning now to the template 1, and referring in particular to Figs. 1 to 7, the template 1 comprises a pair of spaced apart parallel elongated guide means, which in this embodiment of the invention are formed by respective pairs of elongated guide members 10 of hollow section aluminium, which are pivotally connected together by hinges 12 secured to the corresponding guide members 10 of each pair. A pair of connecting means comprising two adjustable connecting members 14 connect the pairs of guide members 10 at respective opposite ends, and retain the pairs of guide members 10 in parallel spaced apart relationship. Each guide member 10 comprises a flat wall engaging surface 15 for abutting the surface 7 of the plaster layer 6 on the wall 3, and a guide surface 16. The guide surfaces 16 of the pairs of guide members 10 diverge away from each other from the wall engaging surface 15 for slidably engaging respective smooth working surfaces 17 of the trowel 2. In this embodiment of the invention the guide surfaces 16 diverge from each other to define an included angle of approximately 70°. Elongated side edges 18 defined by the wall engaging surface 15 and the guide surface 16 of the pairs of guide members 10 define a guide opening 20 which accommodates the trowel 2 into the plaster layer 6 of the wall 3 for removing the portion 8 of the plaster as will be described in more detail below.

[0030] The hinges 12 of the pairs of guide members 10 define a common pivot axis 22 about which the respective guide members 10 of the pairs of guide members 10 are pivotal. The pivot axis 22 defines two parts 24 and 25 of the template 1 which are pivotal about the pivot axis 22 for accommodating placing of the parts 24 and 25 of the template 1 on adjacent surfaces of adjacent walls which extend at an angle to each other, for example, adjacent surfaces of the wall 3 forming the corner 4 as illustrated in Figs. 12 and 13. In this embodiment of the invention ends of the guide members 10 adjacent the hinges 12 are bevelled at 27 to accommodate pivoting of the parts 24 and 25 of the template 1 from an inoperative position with the two parts 24 and 25 side by side and extending parallel to each other as illustrated in Fig. 2 through 270° through a plurality of intermediate operative positions to the operative position illustrated in Fig. 3 with the two parts 24 and 25 of the template 1 extending at right angles to each other for engaging adjacent surfaces of a corner 4 of a wall 3.

[0031] Each connecting member 14 comprises a pair of cooperating engagement members 29 and 30 of cast aluminium. Spigots 31 extending from the respective engagement members 29 and 30 engage bores 32 in the corresponding guide members 10. The transverse cross-section of the spigots 31 is substantially similar to that of the bores 32, and the spigots 31 engage the bores 32 with a tight interference fit. If necessary, a grub screw may be provided through the guide members 10 for engaging and retaining the spigots 31 in the bores 32. Abutment faces 34 of the respective engagement members 29 and 30 abut each other and a screw 35 through slots 36 in the engagement members 29 and 30 secure the engagement members 29 and 30 together. The abutment faces 34 of the respective members 29 and 30 are moveable over each other in the directions of the arrows A and B for varying the spacing between the guide members 10, and in turn, for varying the width of the guide opening 20. A locating means for locating the engagement members 29 and 30 in a desired position with the guide members 10 spaced apart from each other to form the guide opening 20 of a desired width comprises a plurality of parallel spaced apart locating ridges 42. The locating ridges 42 are formed by adjacent parallel grooves 43 formed in the abutment faces 34. The grooves 43 are formed so that the abutment faces 34 are provided with a series of alternate locating ridges 42 and grooves 43. The locating ridges 42 of the abutment face 34 of one of the engaging members 29 engage the grooves 43 of the other engagement member 30 and vice versa thereby locating the guide members 10 at a desired spacing on the engagement members 29 and 30 being tightly secured together by the screw 35. The locating ridges 42 and grooves 43 extend parallel to the guide members 10 for locating the guide

members 10 parallel to each other. The slots 36 in the engagement members 29 and 30 extend perpendicularly to the guide members 10 for accommodating movement of the guide members 10 towards and away from each other.

[0032] First and second indicating means for indicating the orientation of the parts 24 and 25 of the template 1, and in particular, for indicating when the parts 24 or 25 are horizontal and vertical, respectively, comprise respective pairs of spirit levels 45 and 46. The two spirit levels 45 are located in the respective guide members 10 of one pair of guide members 10 for indicating when the guide members 10 of the template 1 of the respective parts 24 and 25 are horizontal. The two spirit levels 46 are located in the guide members 10 of the other pair of guide members 10 for indicating when the guide members 10 of the template 1 of the parts 24 and 25 are vertical.

[0033] The template 1 may be used with trowels 2 of many shapes and construction. The shape and construction of the trowel 2 used will largely be determined by the shape of the grooves 9 which are to be formed in the wall 3. In Figs. 6 and 7 the trowel 2 comprises a handle 50 onto which a blade 51 of V-shaped cross-section is secured. The blade 51 defines the working surfaces 17, which slidably engage the guide surface 16 of the guide members 10 and form the grooves 8 of the pattern 5. The trowel 2 illustrated in Figs. 6 and 7 is used where it is desired to form grooves 8 of V-shaped cross-section. A trowel 2 for forming a groove of truncated V-shaped cross-section is illustrated in Figs. 8 and 9. The blade 51 of the trowel 2 of Figs. 8 and 9 is shaped to form three working surfaces, namely, a first working surface 52 from which the working surfaces 17 extend and diverge. In general, it is envisaged that the included angle α defined by the working surfaces 17 of the trowels 2 of Figs. 6 and 7, and Figs. 8 and 9 will be in the order of 70°. Accordingly, the working surfaces 17 of the trowels 2 of Figs. 6 and 7 and Figs. 8 and 9 snugly and slidably engage the guide surfaces 16 of the guide members 10. The depth and width of the grooves 9 formed in the plaster layer 6 on the wall 3 is determined by the width of the guide opening 20. The wider the guide opening 20 is, the deeper and wider will be the grooves 9 formed by the respective trowels 2.

[0034] Referring now to Fig. 10 a trowel 2 for forming a groove of square cross-section is illustrated. The trowel 2 comprises a portion 54 for forming the groove of square-shaped cross-section, and portions 55 diverging from the portion 54 define working surfaces 17 which define an included angle of 70° for engaging the guide surfaces 16 of the guide members 10. When using the trowel 2 of Fig. 10, the spacing between the guide members 10 is adjusted so that the width of the guide opening 20 is substantially similar to the width of the portion 54 for forming the grooves of square cross-section. The trowel 2 of Fig. 10 is particularly suitable for forming an ashlar pattern on a wall.

[0035] The method according to the invention for forming a pattern on a wall will now be described, and will initially be described with reference to Fig. 11. The wall 3 is plastered with the layer 6 of a cementitious mixture, typically, a mixture of sand and cement, and the plaster layer 6 is finished to a level finished surface 7 by trowelling or any other suitable means, which will be well known to those skilled in the art. The width of the guide opening 20 of the template 1 is adjusted by varying the spacing of the guide members 10 by adjusting the abutment members 29 and 30 so that the width of the guide opening 20 is sufficient to provide grooves 9 in the plaster layer 6 of the desired depth and width on the surface 7. In this embodiment of the invention since the grooves 9 are to be of V-shaped cross-section, the trowel 2 of Figs. 6 and 7 is used.

[0036] A predetermined path along which the first of the grooves 9 is to be formed is marked on the surface 7 of the plaster layer 6. The template 1 with the two parts 24 and 25 extending at 180° to each other, in other words, longitudinally aligned is placed with the wall engaging surface 15 of the guide members 10 abutting the level surface 7 of the plaster layer 6. The positioning of the template 1 on the surface 7 of the layer 6 is adjusted so that one of the side edges 18 coincides with a line marking the predetermined path along which the groove 9 is to be formed. Any final adjustment of the template to ensure that the guide members 10 of the template 1 are horizontal is achieved by checking the spirit levels 45. With the template 1 held in position, the trowel 2 is engaged through the guide opening 20 to one end of the guide opening 20, so that the working surfaces 17 of the blade 51 of the trowel 2 slidably engage the guide surfaces 16. In this position the blade 51 of the trowel 2 is located for forming the groove 9 in the plaster layer 6. The trowel 2 is then urged in the direction of the arrow C along the guide opening 20 with the working surfaces 17 of the trowel 2 remaining in slidable engagement with the guide surfaces 16 for forming the groove 9. The trowel 2 is urged in the direction of the arrow C by pushing the trowel 2 by hand. As the trowel 2 is urged along the guide opening 20 the portion 8 of the plaster layer 6 is removed thereby forming the groove 9. By virtue of the fact that the blade 51 of the trowel 2 has a smooth working surface 17 the surface of the groove 9 is smooth, and requires no further working by trowel. When the trowel 2 has been urged to the opposite end of the template 1 the template is then moved further along the predetermined path and the trowel is again urged along the guide opening 20 from one end to the other, and so on until the first of the horizontal grooves 9 in the wall 3 has been formed. The remaining horizontal grooves 9 are sequentially formed in this manner.

[0037] The vertical grooves 9 are formed in similar fashion by placing the template 1 on the surface 7 of the plaster layer 6 in a vertical orientation. The final adjustment of the template 1 to ensure that the guide members 10 are extending vertically is carried out by checking the

spirit levels 46. The formation of the vertical grooves 9 is similar to the formation of the horizontal grooves 9.

[0038] Referring now to Figs. 12 and 13, a method also according to the invention for forming a pattern of simulated staggered cut corner stones 53 will now be described. Initially, the wall 3 of the building is plastered with a cementitious mixture, which is levelled to a smooth finished surface 60. This surface may or may not be stuccoed as described with reference to Fig. 11 to form a simulated cut stone pattern. After the surface 60 has been finished and is set, a pair of vertically extending laths 61 are secured to the surface 60 for forming outer edges 63 of the simulated corner stones 53. Edges of the laths 61 which form the edges 63 of the corner stones 53 are bevelled at an angle of 35° for forming a corresponding bevel on the edges 63 of the corner stones 53. The area between the laths 61 and the corner 4 is then plastered with a layer 65 of cementitious mixture similar to the layer 6 described with reference to Fig. 11. The layer 65 is finished to a smooth level surface 66.

[0039] Prior to the layer 65 setting, a plurality of spaced apart horizontal grooves 67 are formed which form top and bottom edges of the simulated corner stones 53. The grooves 67 are similar to the grooves 8 of the wall 3 of Fig. 11 and are similarly formed. The width of the opening 20 of the template 1 is adjusted to form the grooves 67 with the desired depth and width, and the parts 24 and 25 of the template 1 are pivoted through an angle of 270° from the inoperative position so that the parts 24 and 25 of the template 1 extend at right angles to each other to embrace the plaster layer 65 at the corner 4. The template 1 is placed on the surfaces 66 with the portion of the template 1 adjacent the pivot axis 22 engaging the corner 4 of the wall 3. The template 1 is adjusted as already described so that the guide members 10 extend horizontally. The trowel 2 with the V-shaped blade 51 is inserted through the guide opening 20 adjacent the corner 4 with the working surfaces 17 engaging the guide surfaces 16 of the guide members 10 at the ends of the guide members 10 adjacent the hinges 12. The trowel 2 is then urged in the direction of the arrow C along the guide opening 20 and the groove 67 is formed as already described. The remaining horizontal grooves 67 are then sequentially formed in like manner.

[0040] Vertical grooves 69 are then formed in alternate simulated stones 53 for forming the staggered effect of the stones 53. The vertical grooves 69 are formed in similar fashion as the vertical grooves 9 which have already been described with reference to Fig. 1. On the formation of all the vertical grooves 69, a portion 70 of the plaster layer 65 which is bounded by the vertical grooves 69, the vertical laths 61 and horizontal grooves 67, is removed from the finished surface 60, and thus the simulated staggered corner stone pattern is formed.

[0041] Referring now to Fig. 14 there is illustrated a pair of engagement members 29 and 30 of an adjustable connecting member 14 for use with a template according to another embodiment of the invention. The engagement members 29 and 30 are identical to those already described with the exception that the locating ridges 42 and grooves 43 extend at right angles to the guide members 10 rather than parallel to the guide members 10 as in the case of the template 1 described with reference to Figs. 1 to 7. The fact that the ridges 42 and grooves 43 extend perpendicularly to the guide members 10 likewise retains the guide members 10 parallel to each other once the ridges 42 and grooves 43 of the respective abutment faces 34 of the engaged members 29 and 30 securely engage each other. One of the advantages of providing the locating ridges 42 and grooves 43 at right angles to the guide members 10 is that the width of the guide opening 20 is infinitely variable between its minimum and maximum width, while in the case of the template 1 of Figs. 1 to 7 the width of the guide opening 20 is variable in incremental steps corresponding to the pitch of the locating ridges 42. However, it is essential that the screw 35 be securely tightened for preventing relative slippage between the engagement members 29 and 30 in the embodiment of the invention of Fig. 14.

[0042] While the template has been described as being of aluminium material, the template may be of any other suitable material, for example, plastics material, wood or the like.

[0043] It will also be appreciated that while each guide means of the template has been described as being formed by a pair of elongated guide members which are pivotally connected together, each guide means may be formed by a single elongated guide member. In which case, the template would not comprise two parts 24 and 25 which would be pivotal relative to each other. Where the guide members are pivotally connected together, any other suitable pivotal connecting means may be used besides a hinge.

[0044] It will also be appreciated that while the connecting means have been described as being adjustable, while it is preferable, it is not essential that the connecting means be adjustable. Where adjustable connecting means are provided, other suitable adjustable connecting means besides pairs of engagement members may be used.

[0045] It will of course be appreciated that the template may be used for forming other patterns on a wall besides those described. It will also be appreciated that the template may be used for forming patterns on a floor, a patio, or indeed, any other surface which may be plastered with a plaster layer. Needless to say, the plaster layer may be of any material besides a cementitious material, for example, it may be of plaster, of the type normally used for interior plastering and the like.

[0046] It is also envisaged that the template may be used with a trowel for finishing grouting between blockwork and brickwork. The template would be used in similar fashion as already described. Prior to the grouting

setting, the template would be placed on the wall with the guide opening aligned with the grouting. An appropriately shaped trowel would be inserted between the guide openings for engaging the grouting for finishing thereof.

Claims

1. Apparatus for use in decorating a wall (3) comprising a template (1) for placing on a surface (7) of the wall (3) for guiding a trowel (2) for removing plaster or grouting (8) from the wall (3) prior to setting of the plaster or grouting (6) for forming the decoration (5), the template (1) comprising a pair of spaced apart elongated guide members (10) forming therebetween an elongated guide opening (20) for accommodating the trowel (2) and for guiding the trowel (2) along a predetermined path along the wall surface (7) for removing the plaster or grouting (8) along the predetermined path, each guide member having a flat wall engaging surface (15) for abutting the surface (7) of the wall and a guide surface (16) for slidable engagement by the trowel (2), elongated side edges (18) defined by the wall engaging surfaces (15) and the guide surfaces (16) of the pair of guide members (10) defining said guide opening (20), and a connecting means (14) for connecting and retaining the guide means (10) in spaced apart relationship parallel to each other, **characterised in that** level indicating means (45, 46) is provided on one of the guide members (10) for indicating the orientation of the template (1), and the connection means (14) is an adjustable connecting means (14) for facilitating varying of the spacing between the guide means (10), the connecting means (14) comprising a pair of engagement members (29,30) extending from respective guide means (10), the engagement members (29,30) being movable relative to each other for varying the spacing between the guide members (10), and a securing means (35) cooperable with the engagement members (29,30) for securing the engagement members (29,30) together with the guide means (10) in a desired relative position.

2. Apparatus as claimed in claim 1 wherein each engagement member (29,30) has an abutment surface (34), the abutment surfaces (34) of the respective engagement members (29,30) being inter-engagable with each other, the abutment surfaces (34) of the respective engagement members (29,30) being provided with complementary inter-engagable locating means (42,43) for locating the engagement members (29,30) in a plurality of different relative positions, preferably the locating means (42,43) comprising a plurality of spaced apart parallel locating ridges (42) formed on the respective abutment surfaces (34) by adjacent parallel locating grooves (43) arranged in such a way that each abutment surface (34) is provided with a series of parallel alternate locating ridges (42) and grooves (43), the locating ridges (42) of one abutment surface (34) being engagable with the locating grooves (43) of the other abutment surface (34).

3. Apparatus as claimed in claim 2 wherein the locating ridges (42) of each abutment surface (34) of the engagement members (29,30) extend either parallel to the guide means (10) or transversely of the guide means (10).

4. Apparatus as claimed in claim 2 or 3 **characterised in that** the locating means (42,43) also act for retaining the guide means (10) parallel to each other, an elongated fastener receiving slot (36) extending through one of the engagement members (29,30) for accommodating the securing means (35) and for facilitating relative movement of the engagement members (29,30) for varying the spacing between the guide means (10), an elongated fastener receiving slot (36) being provided in each engagement member (29,30), each fastener receiving slot (36) extending in a direction generally transversely of the guide means (10).

5. Apparatus as claimed in any preceding claim **characterised in that** the securing means (35) comprises fastening means (35), each fastening means (35) comprising a screw (35), a spigot (31) extending from each engagement member (29,30) for engaging the corresponding guide means, each spigot (31) extending parallel to the guide means (10) for engaging a bore (32) extending longitudinally into the corresponding guide means (10), which is parallel to the guide means (10).

6. Apparatus as claimed in any preceding claim **characterised in that** a pair of connecting means (14) are provided, the connecting means (14) being provided at opposite ends of the guide means (10), each guide means (10) comprising an elongated guide member (10), each guide means (10) comprising a pair of elongated longitudinally aligned guide members (10), the guide members (10) of each guide means (10) being pivotally connected together by a pivotal connecting means (12), the respective pivotal connecting means (12) of the respective guide means (10) defining a common pivot axis (22) so that the template (1) is pivotal intermediate its ends for facilitating placing of the template (1) on adjacent surfaces (66) of respective walls (3) extending at an angle to each other, the guide members (10) of each guide means (10) being of similar length, the guide members (10) of the guide means (10) being pivotal through at least 90° relative to

each other from an inoperative position whereby the guide members (10) of the respective guide means (10) lie parallel to each other through a plurality of operative positions with the guide members (10) of the respective guide means (10) extending at an angle to each other, preferably the guide members (10) of the respective guide means (10) are pivotal through an angle of at least 180° relative to each other from the inoperative position and most preferably the guide members (10) of the respective guide means (10) are pivotal through an angle of at least 270° relative to each other from the inoperative position.

7. Apparatus as claimed in any preceding claim **characterised in that** each guide means (10) defines a wall engaging surface (15) for abutting a wall in use, and a longitudinally extending guide surface (16) defining one longitudinally extending side edge (18) of the guide opening (20) for engaging a corresponding working surface (17) of the trowel (2), the guide surface (16) of at least one of the guide means (10) diverging from the guide surface (16) of the other guide means (10) from the wall engaging surface (15), the guide surfaces (16) of the respective guide means (10) diverge from each other from the wall engaging surface (15), the wall engaging surface (15) and the guide surface (16) of each guide means (10) define an acute included angle.

8. Apparatus as claimed in any preceding claim wherein the level indicating means (45,46) comprises a spirit level (45,46).

9. Apparatus as claimed in any preceding claim **characterised in that** the apparatus (1) comprises a trowel (2) for locating within the guide opening (20) and for slidably engaging the respective guide means (10).

10. A method for decorating a wall using the apparatus as claimed in any preceding claim, the method comprising the steps of plastering or grouting the wall (3), placing a template (1) on the surface (7) of the wall (3) prior to the plaster or grouting (6) setting, aligning the template (1) on the wall surface (7) with the indicating means (45, 46), placing a trowel (2) in the guide opening (20), the trowel (2) having a pair of working surfaces (17), and placing the trowel (2) in the guide opening (20) with the working surfaces (17) slidably engaging the guide surfaces (16) of the respective guide members (10) and portions of the working surfaces (17) engaging the plaster or grouting (6), urging the trowel (2) through the plaster or grouting (6) along the guide members (10) for removing plaster or grouting (8) along the predetermined path for forming the decoration (5).

Patentansprüche

1. Vorrichtung zur Verwendung beim Dekorieren einer Wand (3), die eine Schablone (1) zum Platzieren auf einer Oberfläche (7) der Wand (3) zum Führen einer Maurerkelle (2) zum Entfernen von Putz oder Vergussmaterial (8) von der Wand (3) vor Erstarrung des Putzes oder Vergussmaterials (6) zum Bilden der Dekoration (5), wobei die Schablone (1) ein Paar voneinander beabstandeter länglicher Führungselemente (10) aufweist, die zwischen sich eine längliche Führungsöffnung (20) zum Aufnehmen der Maurerkelle (2) und zum Führen der Maurerkelle (2) entlang eines vorbestimmten Weges entlang der Wandoberfläche (7) zum Entfernen des Putzes oder Vergussmaterials (8) entlang des vorbestimmten Wegs bilden, wobei jedes Führungselement eine flache Wandangriffsfläche (15) zum Anstoßen an der Oberfläche (7) der Wand und eine Führungsfläche (16) für verschiebbaren Eingriff mit der Maurerkelle (2) umfasst, längliche Seitenkanten (18), die durch die Wandangriffsflächen (15) und die Führungsflächen (16) des Paars von Führungselementen (10) begrenzt werden, welche die Führungsöffnung (20) definieren, und ein Verbindungsmittel (14) zum Verbinden und Halten der Führungsmittel (10) in voneinander beabstandetem Verhältnis parallel zu einander aufweist, **dadurch gekennzeichnet, dass** ein Niveauanzeigemittel (45, 46) an einem der Führungselemente (10) zum Anzeigen der Ausrichtung der Schablone (1) vorgesehen ist, und das Verbindungsmittel (14) ein einstellbares Verbindungsmittel (14) zum Vereinfachen der Änderung des Abstands zwischen den Führungsmitteln (10) darstellt, wobei das Verbindungsmittel (14) ein Paar Eingriffselemente (29, 30), die sich von dem jeweiligen Führungsmittel (10) erstrecken, wobei die Eingriffsmittel (29, 30) in Bezug zueinander zum Ändern des Abstands zwischen den Führungselementen (10) bewegbar sind, und ein Sicherungsmittel (35) aufweist, das mit den Eingriffselementen (29, 30) zum Befestigen der Eingriffsmittel (29, 30) mit dem Führungsmittel (10) in einer gewünschten relativen Position zusammenwirken kann.

2. Vorrichtung nach Anspruch 1, bei der jedes Eingriffselement (29, 30) eine Anlagefläche (34) aufweist, wobei die Anlageflächen (34) der jeweiligen Eingriffselemente (29, 30) miteinander in Eingriff gebracht werden können, und die Anlageflächen (34) der jeweiligen Eingriffselemente (29, 30) mit komplementären, miteinander in Eingriff zu bringenden Lokalisierungsmitteln (42, 43) zum Lokalisieren der Eingriffselemente (29, 30) in einer Mehrzahl verschiedener relativer Positionen versehen sind, wobei die Lokalisierungsmittel (42, 43) vorzugsweise eine Mehrzahl von beabstandeten, parallelen Lokalisierungsstegen (42) aufweisen, die auf den jewei-

ligen Anlageflächen (34) durch benachbarte, parallele Lokalisierungsnuten (43) ausgebildet sind, die derart angeordnet sind, dass jede Anlagefläche (34) mit einer Reihe paralleler abwechselnder Lokalisierungsstege (42) und Nuten (43) versehen ist, wobei die Lokalisierungsstege (42) einer Anlagefläche (34) mit den Lokalisierungsnuten (43) der anderen Anlagefläche (34) in Eingriff gebracht werden können.

3. Vorrichtung nach Anspruch 2, bei der sich die Lokalisierungsstege (42) jeder Anlagefläche (34) der Eingriffselemente (29, 30) entweder parallel zu den Führungsmitteln (10) oder quer zu den Führungsmitteln (10) erstrecken.

4. Vorrichtung nach Anspruch 2 oder 3, **dadurch gekennzeichnet, dass** die Lokalisierungsmittel (42, 43) auch zum Halten der Führungsmittel (10) parallel zueinander wirken, wobei sich ein länglicher Befestigungsaufnahmeschlitz (36) durch eines der Eingriffselemente (29, 30) zum Aufnehmen des Sicherungsmittels (35) und zum Vereinfachen relativer Bewegung der Eingriffselemente (29, 30) zum Variieren des Abstands zwischen den Führungsmitteln (10) erstreckt, und ein länglicher Befestigungsaufnahmeschlitz (36) in jedem Eingriffselement (29, 30) vorgesehen ist, wobei sich jeder Befestigungsaufnahmeschlitz (36) in einer Richtung allgemein quer zu den Führungsmitteln (10) erstreckt.

5. Vorrichtung nach einem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** das Sicherungsmittel (35) Befestigungsmittel (35) aufweist, wobei jedes Befestigungsmittel (35) eine Schraube (35) umfasst, wobei sich ein Zapfen (31) von jedem Eingriffselement (29, 30) zum Ergreifen des entsprechenden Führungsmittels erstreckt und jeder Zapfen (31) sich parallel zu den Führungsmitteln (10) zum Eingreifen in eine Bohrung (32) erstreckt, die in Längsrichtung in das entsprechende Führungsmittel (10) verläuft und parallel zu den Führungsmitteln (10) ist.

6. Vorrichtung nach einem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** ein Paar Verbindungsmittel (14) vorgesehen ist, wobei die Verbindungsmittel (14) an entgegengesetzten Enden der Führungsmittel (10) vorgesehen sind und jedes Führungsmittel (10) ein längliches Führungselement (10) aufweist, wobei jedes Führungsmittel (10) ein Paar länglicher, in Längsrichtung ausgerichteter Führungselemente (10) aufweist und die Führungselemente (10) jedes Führungsmittels (10) schwenkbar miteinander durch ein Schwenkverbindungsmittel (12) verbunden sind, wobei das jeweilige Schwenkverbindungsmittel (12) des jeweiligen Führungsmittels (10) eine gemeinsame Schwenkachse (22) definiert, so dass die Schablone (1) schwenkbar zwischen seinen Enden zum Vereinfachen der Platzierung der Schablone (1) auf benachbarten Oberflächen (66) jeweiliger Wände (3) ist, die sich bei einem Winkel zueinander erstrecken, wobei die Führungselemente (10) jedes Führungsmittels (10) die gleiche Länge haben, und die Führungselemente (10) der Führungsmittel (10) über wenigstens 90° in Bezug zueinander aus einer nichtoperativen Position schwenkbar sind, wodurch die Führungselemente (10) der jeweiligen Führungsmittel (10) parallel zueinander durch eine Mehrzahl von Arbeitspositionen mit den Führungselementen (10) des jeweiligen Führungsmittels (10) liegen, die sich in einem Winkel zueinander erstrekken, wobei die Führungselemente (10) des jeweiligen Führungsmittels (10) vorzugsweise über einen Winkel von wenigstens 180° in Bezug zueinander von der nichtoperativen Position schwenkbar sind und die Führungselemente (10) des jeweiligen Führungsmittels (10) am stärksten bevorzugt über einen Winkel von wenigstens 270° in Bezug zueinander von der nichtoperativen Position schwenkbar sind.

7. Vorrichtung nach einem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** jedes Führungsmittel (10) eine Wandangriffsfläche (15) zum Anliegen an eine Wand in Gebrauch, und eine sich in Längsrichtung erstreckende Führungsfläche (16) definiert, welche eine sich in Längsrichtung erstreckende Seitenkante (18) der Führungsöffnung (20) zum Ergreifen einer entsprechenden Arbeitsfläche (17) der Maurerkelle (2) begrenzt, wobei die Führungsfläche (16) wenigstens eines Führungsmittels (10) von der Führungsfläche (16) des anderen Führungsmittels (10) von der Wandangriffsfläche (15) divergiert, die Führungsflächen (16) des jeweiligen Führungsmittels (10) voneinander von der Wandangriffsfläche (15) divergieren und die Wandangriffsfläche (15) und die Führungsfläche (16) jedes Führungsmittels (10) einen spitzen einbeschriebenen Winkel definieren.

8. Vorrichtung nach einem vorhergehenden Anspruch, bei der das Niveauanzeigemittel (45, 46) eine Nivellierwaage (45, 46) aufweist.

9. Vorrichtung nach einem vorhergehenden Anspruch, **dadurch gekennzeichnet, dass** die Vorrichtung (1) eine Maurerkelle (2) zum Anordnen innerhalb der Führungsöffnung (20) und zum verschiebbaren Ergreifen des jeweiligen Führungsmittels (10) aufweist.

10. Verfahren zum Dekorieren einer Wand unter Verwendung der Vorrichtung nach einem vorhergehenden Anspruch, wobei das Verfahren die Schritte

umfasst, die Wand (3) zu verputzen oder mit Vergussmaterial zu bearbeiten, eine Schablone (1) auf der Oberfläche (7) der Wand (3) vor der Erhärtung des Putzes oder Vergussmaterials (6) anzuordnen, die Schablone (1) auf der Wandoberfläche (7) mit den Anzeigemitteln (45, 46) auszurichten, eine Maurerkelle (2) in der Führungsöffnung (20) vorzusehen, wobei die Maurerkelle (2) ein Paar von Arbeitsflächen (17) aufweist, und die Maurerkelle (2) so in der Führungsöffnung anzuordnen (20), dass die Arbeitsflächen (17) verschiebbar die Führungsflächen (16) der jeweiligen Führungselemente (10) ergreifen und Teile der Arbeitsflächen (17) den Putz oder das Vergussmaterial (6) ergreifen, die die Maurerkelle (2) durch den Putz oder das Vergussmaterial (6) entlang der Führungselemente (10) zum Entfernen des Putzes oder Vergussmaterials (8) entlang des vorbestimmten Wegs zum Ausbilden der Dekoration (15) pressen.

Revendications

1. Dispositif destiné à être utilisé dans la décoration d'un mur (3) comprenant un gabarit (1) destiné à être placé sur une surface (7) du mur (3) pour guider une truelle (2) afin d'enlever du plâtre ou du jointoiement (8) du mur (3) avant le séchage du plâtre ou du jointoiement (6) pour former la décoration (5), le gabarit (1) comprenant une paire d'éléments de guidage allongés espacés (10) formant entre eux une ouverture de guidage allongée (20) pour recevoir la truelle (2) et pour guider la truelle (2) le long d'un trajet prédéterminé le long de la surface de mur (7) pour enlever le plâtre ou le jointoiement (8) le long du trajet prédéterminé, chaque élément de guidage ayant une surface plate d'engagement de mur (15) destinée à jouxter la surface (7) du mur et une surface de guidage (16) destinée à être engagée de manière coulissante par la truelle (2), des bords latéraux allongés (18) définis par les surfaces d'engagement de mur (15) et les surfaces de guidage (16) de la paire d'éléments de guidage (10) définissant ladite ouverture de guidage (20), et un moyen de connexion (14) pour connecter et retenir les moyens de guidage (10) en une relation espacée parallèle l'un par rapport à l'autre, **caractérisé en ce qu'**un moyen d'indication de niveau (45, 46) est fourni sur l'un des éléments de guidage (10) pour indiquer l'orientation du gabarit (1), et le moyen de connexion (14) est un moyen de connexion réglable (14) pour faciliter la variation de l'espacement entre les moyens de guidage (10), le moyen de connexion (14) comprenant une paire d'éléments d'engagement (29, 30) s'étendant depuis les moyens de guidage respectifs (10), les éléments d'engagement (29, 30) étant mobiles l'un par rapport à l'autre afin de faire varier l'espacement entre les éléments de guidage (10), et un moyen de fixation (35) pouvant coopérer avec les éléments d'engagement (29, 30) pour fixer les éléments d'engagement (29, 30) et les moyens de guidage (10) dans une position relative désirée.

2. Dispositif selon la revendication 1, dans lequel chaque élément d'engagement (29, 30) a une surface de butée (34), les surfaces de butée (34) des éléments d'engagement respectifs (29, 30) étant inter-engageables l'une avec l'autre, les surfaces de butée (34) des éléments d'engagement respectifs (29, 30) étant munies de moyens de positionnement inter-engageables complémentaires (42, 43) pour positionner les éléments d'engagement (29, 30) dans une pluralité de positions relatives différentes, de préférence les moyens de positionnement (42, 43) comprenant une pluralité de nervures de positionnement parallèles espacées (42) formées sur les surfaces de butée respectives (34) par des rainures de positionnement parallèles adjacentes (43) disposées de manière à ce que chaque surface de butée (34) soit munie d'une série de nervures (42) et de rainures (43) de positionnement alternées parallèles, les nervures de positionnement (42) d'une surface de butée (34) étant engageables avec les rainures de positionnement (43) de l'autre surface de butée (34).

3. Dispositif selon la revendication 2 dans lequel les nervures de positionnement (42) de chaque surface de butée (34) des éléments d'engagement (29, 30) s'étendent soit parallèlement aux moyens de guidage (10), soit transversalement aux moyens de guidage (10).

4. Dispositif selon la revendication 2 ou 3, **caractérisé en ce que** le moyen de positionnement (42, 43) sert aussi à retenir les moyens de guidage (10) parallèlement l'un par rapport à l'autre, une fente de réception d'attache allongée (36) s'étendant à travers un des éléments d'engagement (29, 30) pour recevoir le moyen de fixation (35) et pour faciliter le mouvement relatif des éléments d'engagement (29, 30) afin de faire varier l'espacement entre les moyens de guidage (10), une fente de réception d'attache allongée (36) étant fournie dans chaque élément d'engagement (29, 30), chaque fente de réception d'attache (36) s'étendant dans un sens généralement transversal aux moyens de guidage (10).

5. Dispositif selon l'une quelconque des revendications précédentes, caractérisé en que le moyen de fixation (35) comprend un moyen d'attache (35), chaque moyen d'attache (35) comprenant une vis (35), un emboîtement (31) s'étendant depuis chaque élément d'engagement (29, 30) pour engager les moyens de guidage correspondants, chaque

emboîtement (31) s'étendant parallèlement aux moyens de guidage (10) pour engager un alésage (32) s'étendant longitudinalement dans les moyens de guidage correspondants (10), lequel est parallèle aux moyens de guidage (10).

6. Dispositif selon l'une quelconque des revendications, **caractérisé en ce qu'**une paire de moyens de connexion (14) sont fournis, les moyens de connexion (14) étant fournis à des extrémités opposées du moyen de guidage (10), chaque moyen de guidage (10) comprenant un élément de guidage allongé (10), chaque moyen de guidage (10) comprenant une paire d'éléments de guidage alignés longitudinalement allongés (10), les éléments de guidage (10) de chaque moyen de guidage (10) étant connectés de manière pivotante ensemble par un moyen de connexion pivotant (12), le moyen de connexion pivotant respectif (12) du moyen de guidage respectif (10) définissant un axe pivot commun (22) de telle sorte que le gabarit (1) pivote entre ses extrémités afin de faciliter le placement du gabarit (1) sur des surfaces adjacentes (66) de murs respectifs (3) s'étendant à un certain angle l'un par rapport à l'autre, les éléments de guidage (10) de chaque moyen de guidage (10) étant de longueur semblable, les éléments de guidage (10) des moyens de guidage (10) pouvant pivoter d'au moins 90° l'un par rapport à l'autre depuis une position inopérante où les éléments de guidage (10) des moyens de guidage respectifs (10) reposent parallèlement l'un par rapport à l'autre en passant par une pluralité de positions opérantes avec les éléments de guidage (10) des moyens de guidage respectifs (10) s'étendant à un certain angle l'un par rapport à l'autre, de préférence les éléments de guidage (10) des moyens de guidage respectifs (10) pivotent d'un angle d'au moins 180° l'un par rapport à l'autre depuis la position inopérante et de préférence surtout les éléments de guidage (10) des moyens de guidage respectifs (10) pivotent d'un angle d'au moins 270° l'un par rapport à l'autre depuis la position inopérante.

7. Dispositif selon l'une quelconque des revendications précédentes, **caractérisé en ce que** chaque moyen de guidage (10) définit une surface d'engagement de mur (15) pour jouxter un mur traité, et une surface de guidage s'étendant longitudinalement (16) définissant un bord latéral s'étendant longitudinalement (18) de l'ouverture de guidage (20) pour engager une surface de travail correspondante (17) de la truelle (2), la surface de guidage (16) d'au moins un des moyens de guidage (10) divergeant de la surface de guidage (16) de l'autre moyen de guidage (10) à partir de la surface d'engagement de mur (15), les surfaces de guidage (16) des moyens de guidage respectifs (10) divergent l'une de l'autre à partir de la surface d'engagement de mur (15), la surface d'engagement de mur (15) et la surface de guidage (16) de chaque moyen de guidage (10) définissent un angle inclus aigu.

8. Dispositif selon l'une quelconque des revendications précédentes, dans lequel le moyen d'indication de niveau (45, 46) comprend une nivelle (45, 46).

9. Dispositif selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le dispositif (1) comprend une truelle (2) destinée à être positionnée à l'intérieur de l'ouverture de guidage (20) et à engager de manière coulissante les moyens de guidage respectifs (10).

10. Procédé pour décorer un mur en utilisant le dispositif tel que revendiqué dans l'une quelconque des revendications précédentes, le procédé comprenant les étapes de plâtrage ou jointoiement du mur (3), placement d'un gabarit (1) sur la surface (7) du mur (3) avant le séchage du plâtre ou du jointoiement (6), alignement du gabarit (1) sur la surface de mur (7) avec le moyen d'indication (45, 46), placement d'une truelle (2) dans l'ouverture de guidage (20), la truelle (2) ayant une paire de surfaces de travail (17), et placement de la truelle (2) dans l'ouverture de guidage (20) avec les surfaces de travail (17) engageant de manière coulissante les surfaces de guidage (16) des éléments de guidage respectifs (10) et des parties des surfaces de travail (17) engageant le plâtre ou le jointoiement (6), poussée de la truelle (2) à travers le plâtre ou le jointoiement (6) le long des éléments de guidage (10) pour retirer le plâtre ou le jointoiement (8) le long du trajet prédéterminé afin de former la décoration (5).

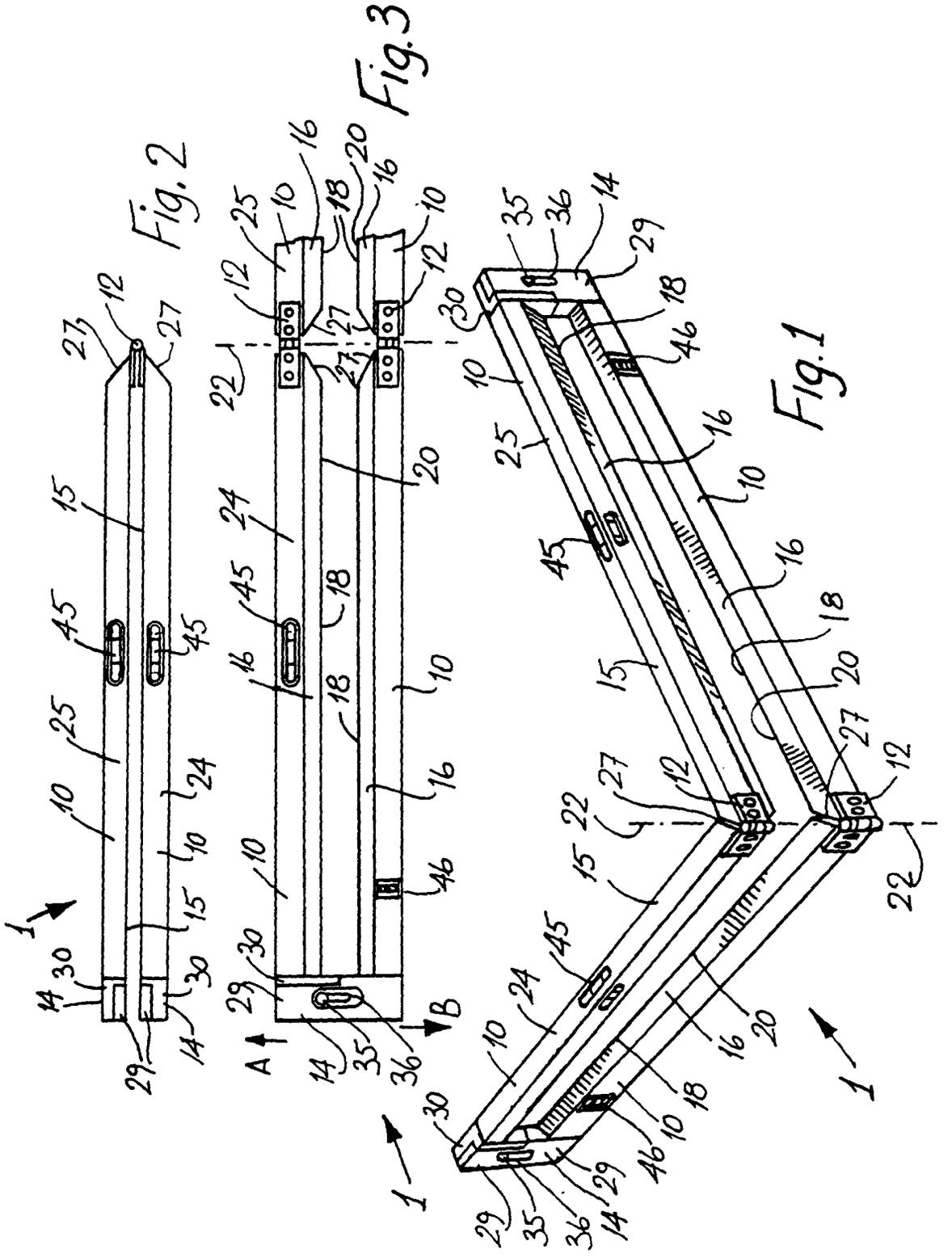

Fig. 2

Fig. 3

Fig. 1

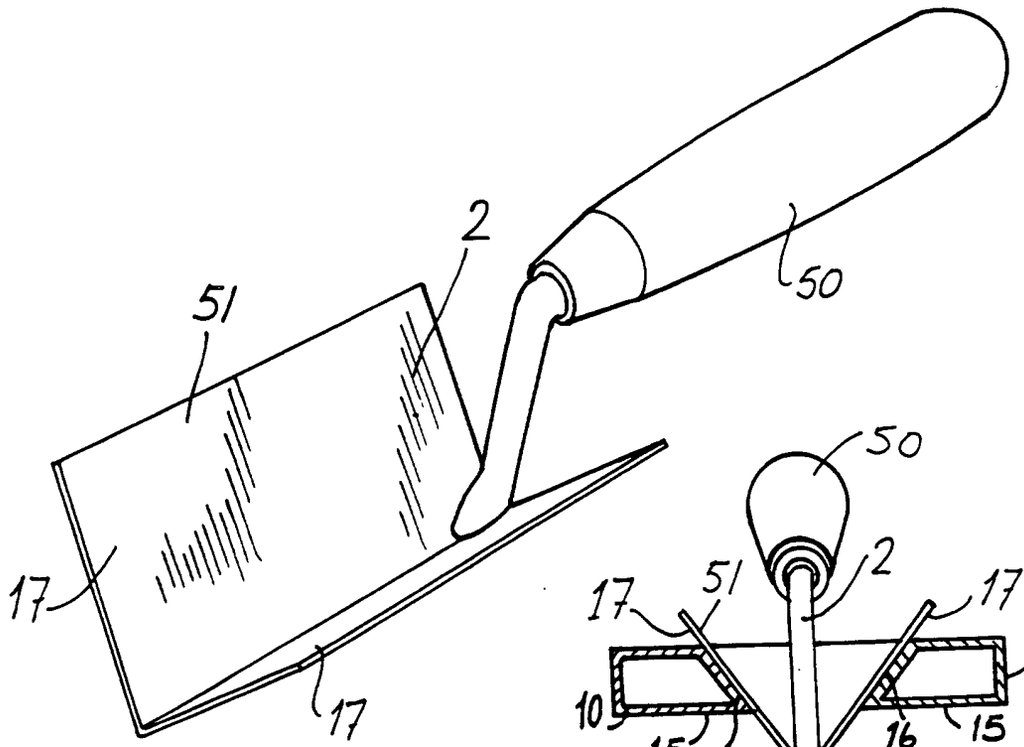

Fig.6

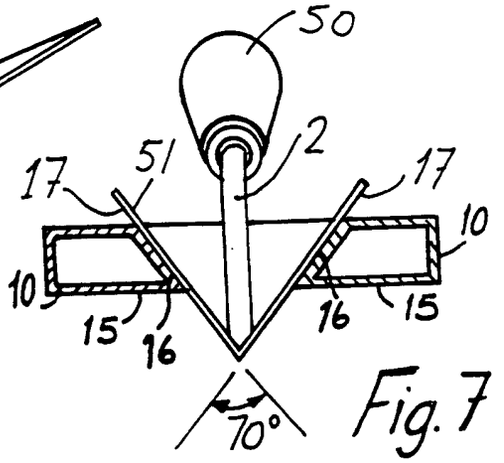

Fig.7

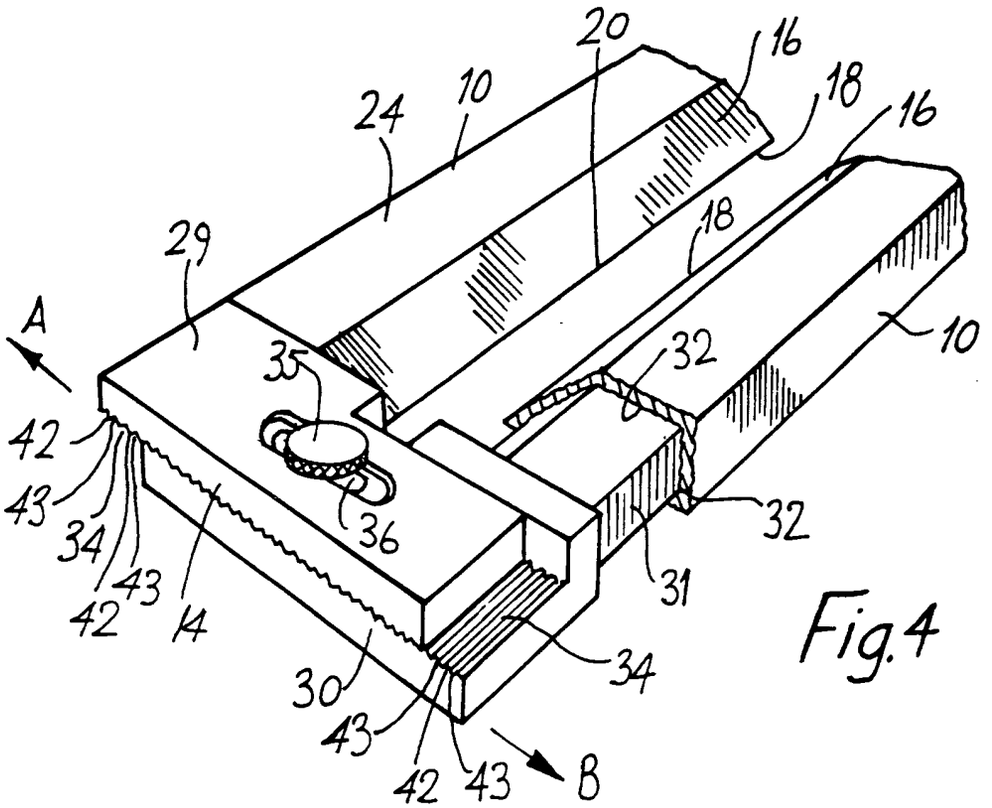

Fig.4

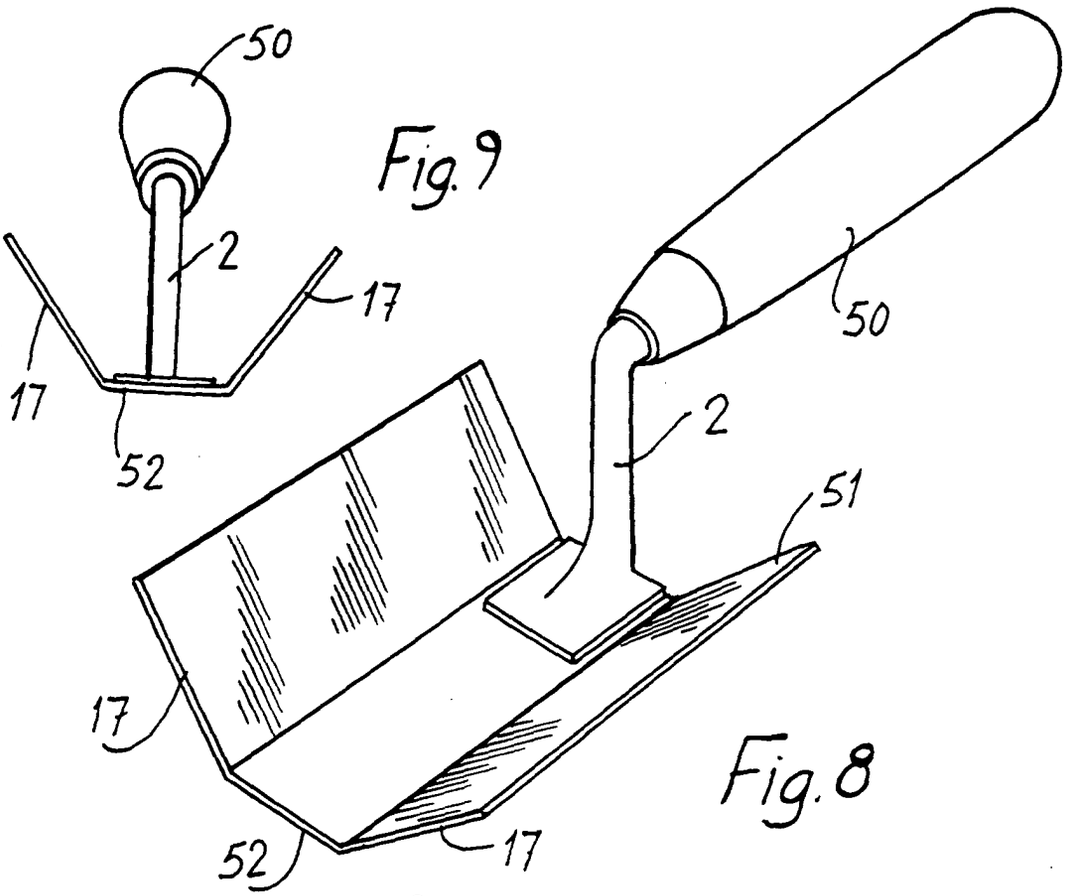

Fig. 9

Fig. 8

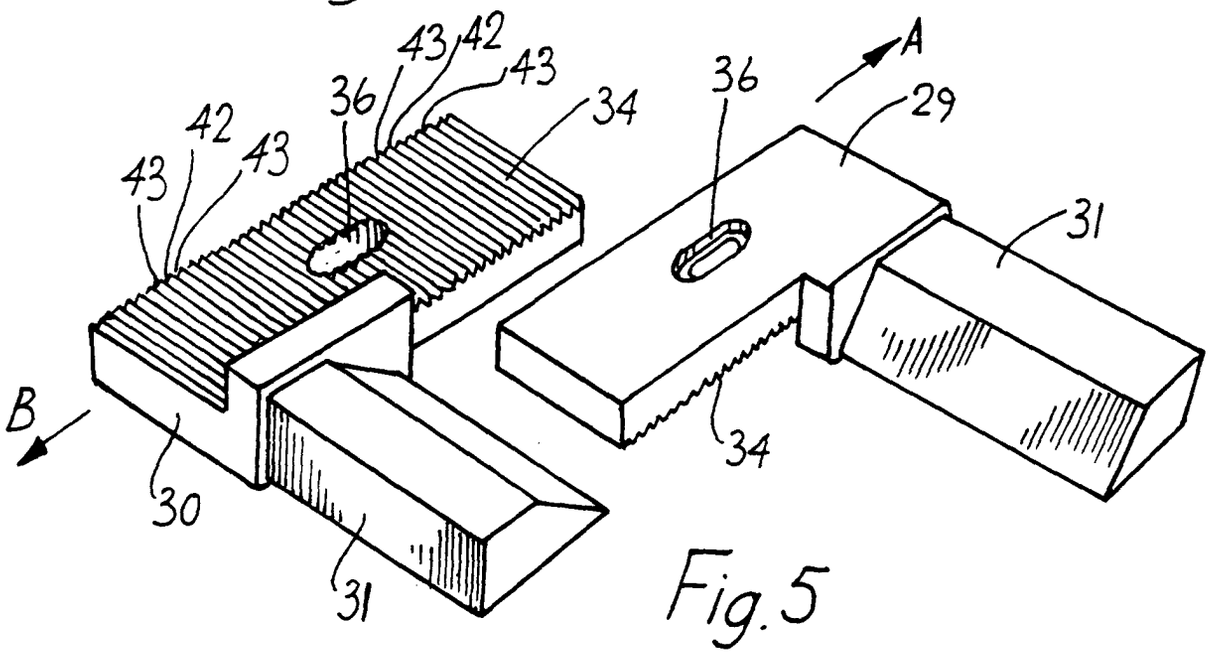

Fig. 5

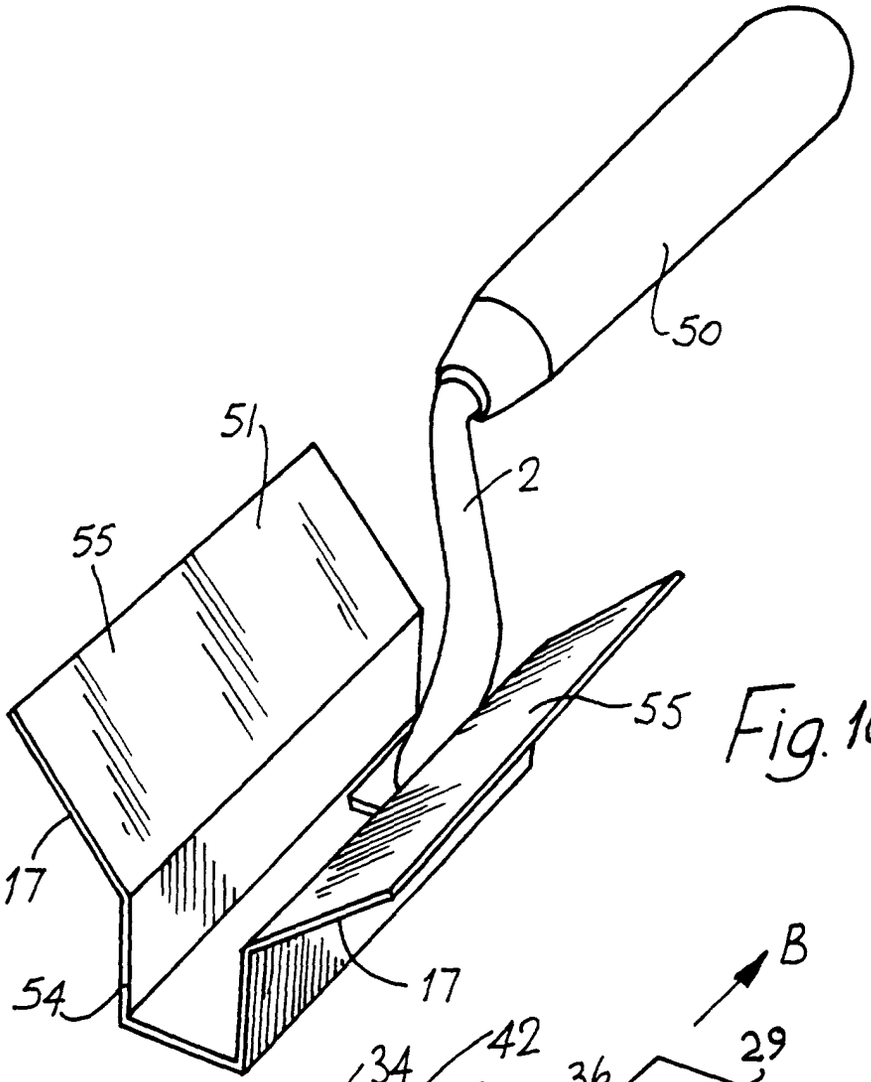

Fig. 10

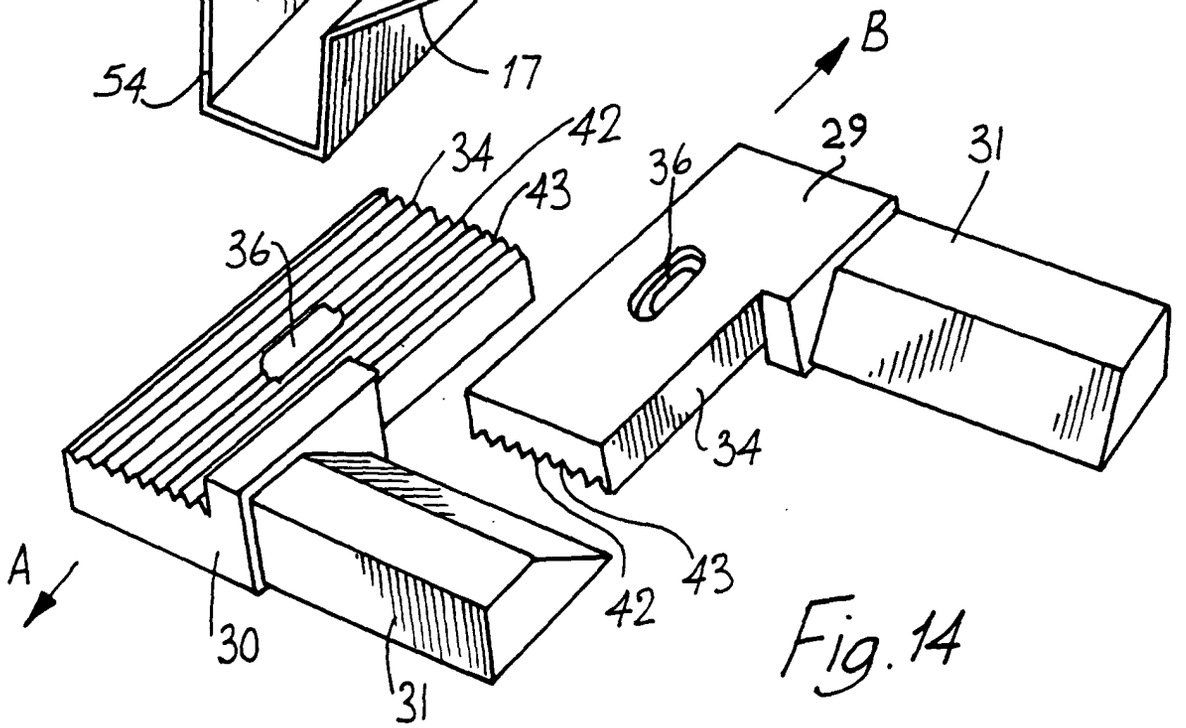

Fig. 14

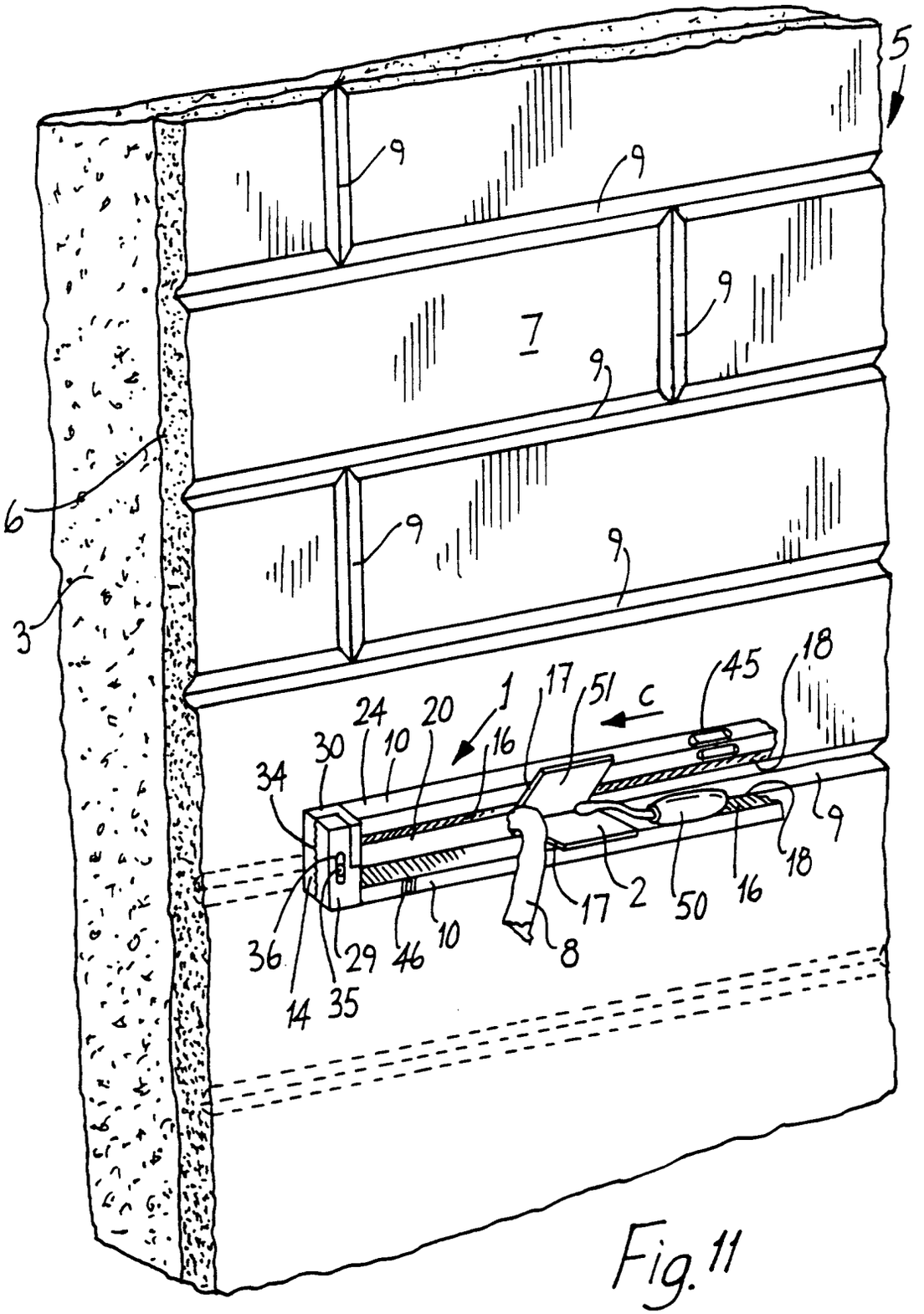

Fig. 11

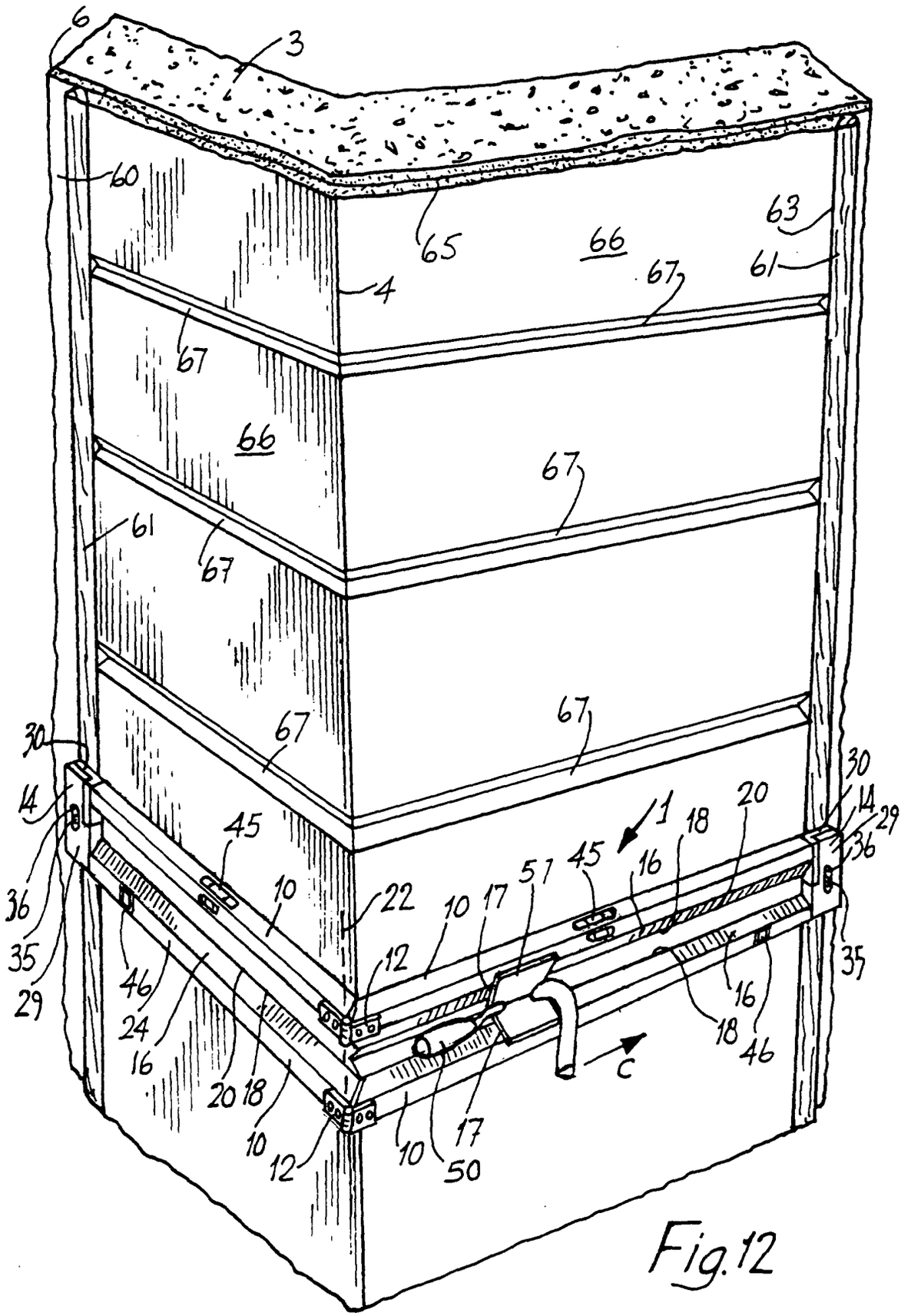
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Fig.12

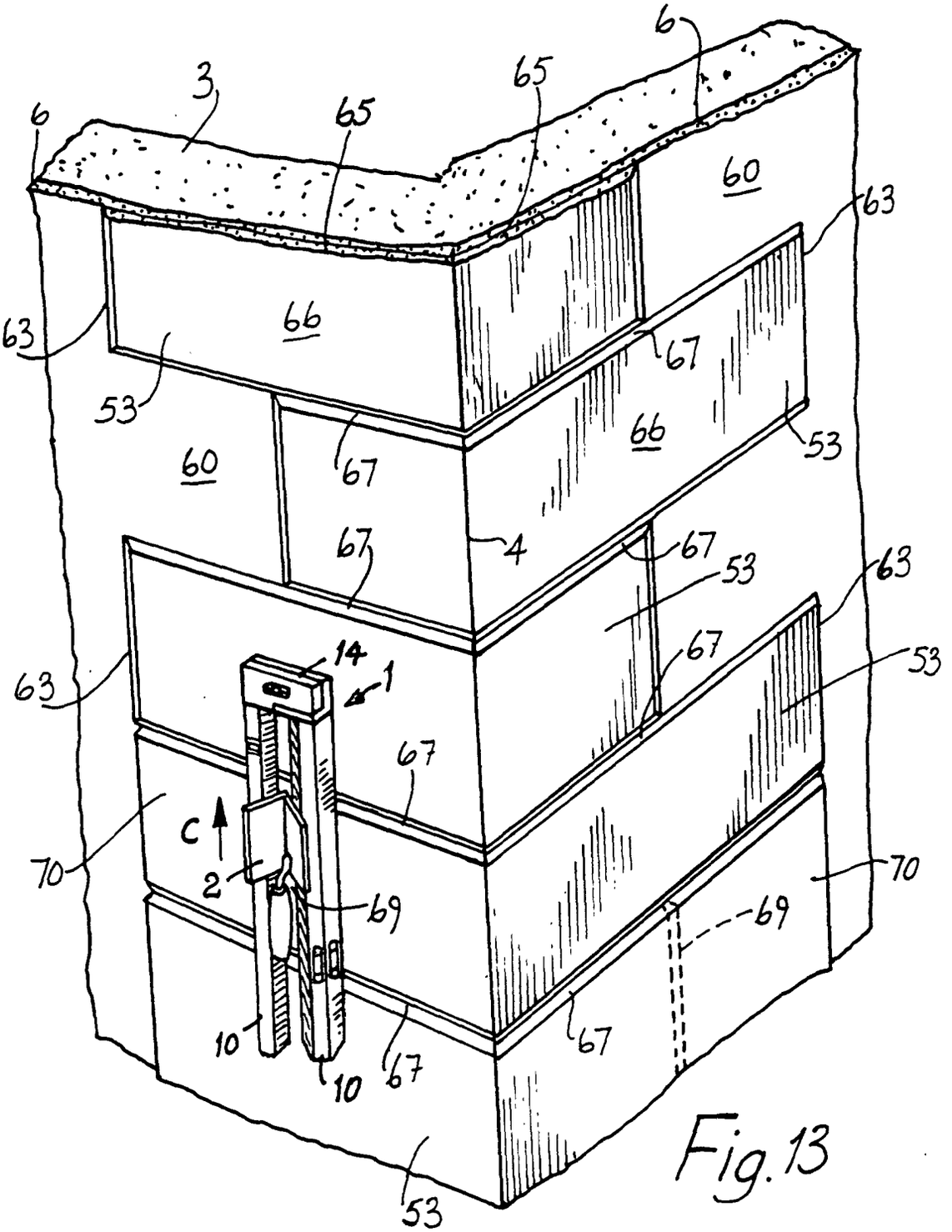
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Fig. 13