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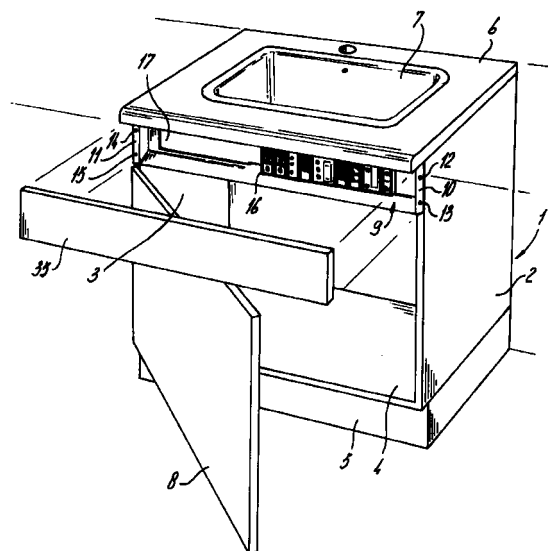
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(54) **Sink unit with sub-distribution board**

(57) Sink unit provided with a sub-distribution board which contains connection means for connecting the sub-distribution board to a group in a central distribution board and connection means for connecting electrical appliances. The sub-distribution board is accommodated in a housing. By means of fixing means, the housing of the sub-distribution board is accommodated at the front of the sink unit and at least partially in the space between the front of the sink unit and the sink. With this arrangement the distance between the rear and the front of at least part of the housing is less than the distance from the sink to the front of the sink unit.

fig - 1



EP 1 060 691 A1

Description

[0001] The invention relates to a sink unit provided with a sub-distribution board which contains connection means for connecting the sub-distribution board to a group in a central distribution board and connection means for connecting electrical appliances, the sub-distribution board being accommodated in a housing and fixing means being present for fixing the housing to the sink unit.

[0002] In Netherlands Patent Application 1 007 455 a sub-distribution board is described which, inter alia, can be used in a kitchen. This known sub-distribution board is provided on the output side with a number of sockets for connecting electrical appliances. On the input side the sub-distribution board is also provided with connection means for connecting to a group in a central distribution board. In this case the sub-distribution board can be accommodated in a kitchen cabinet such that the wiring from the sub-distribution board to the various appliances can be hidden away behind the kitchen cabinet.

[0003] The sub-distribution board used in this way has the disadvantage that useful space in a kitchen cabinet has to be sacrificed.

[0004] The aim of the invention is to provide a sub-distribution board fitted in a kitchen cabinet with which the disadvantage of loss of useful space is avoided.

[0005] This aim is achieved according to the invention in that the distance between the rear and the front of at least part of the housing is less than the distance from the outside wall of the sink to the front of the sink unit and in that the fixing means are equipped for mounting the housing at the front of the sink unit and at least partly accommodated in the space between the front of the sink unit and the sink.

[0006] By means of the correct sizing of the housing of the sub-distribution board, in particular the depth of the housing of the sub-distribution board, it is possible to install the sub-distribution board in a sink unit and specifically to do so as far as possible in the space between sink and front of the sink unit. This space is not regarded as useful space and has been a neglected space for years. Fitting the sub-distribution board according to the invention is therefore associated with no, or as little as possible, adverse loss of space.

[0007] If it is desired to fit the housing of the sub-distribution board with its largest dimension (longitudinal direction) in the horizontal direction in the sink unit it can be that, as a consequence of the dimensions of the components of the sub-distribution board, the vertical dimension of the housing is greater than the vertical dimension of the space between the front of the sink unit and the sink. In this case it is necessary only that for the top part of the housing the distance between the rear and the front thereof is less than the corresponding distance in the said space, so that the housing can as far as possible be accommodated in said space.

[0008] The circumstances described above can also arise if the minimum distance between the front and rear of the housing, which is determined by the components of the sub-distribution board, is greater than the minimum distance between the front of the sink unit and the sink and the housing is therefore not able fully to occupy said space.

[0009] The distance relationship is also understood to mean that the progression in the distance between the front of the sink unit and the sink corresponds to that for the distance between the front and the rear of the housing, in other words is tapered.

[0010] If a vertical position of the housing is desired, that is to say that the largest dimension runs in the vertical direction, the housing can be constructed in a corresponding manner so that the top part of the vertical housing can as far as possible be accommodated in the space between the front of the sink unit and the sink. In general the greatest saving in space will be achieved with a housing fitted horizontally.

[0011] Embodiments of the invention are described in the appended dependent claims.

[0012] The invention will be explained in more detail below with reference to the drawings, in which:

Fig. 1 shows an embodiment of a sink unit with a sub-distribution board according to the invention; Fig. 2 illustrates the housing of the sub-distribution board according to the invention with components taken apart; Fig. 3 shows a section along the line III-III in Fig. 2; and Fig. 4 shows a front view of an embodiment of a sub-distribution board according to the invention.

[0013] Fig. 1 shows a perspective view of a sink unit 1. As is customary, such a unit consists of two side walls 2 and 3 and a base 4. The base 4 is generally some distance above the kitchen floor, the gap between the base 4 of the unit and the floor being closed off by a plinth 5. In a fitted kitchen with multiple cabinets this plinth is as far as possible continuous along the front of the cabinets. The unit 1 is delimited at the top by the worktop 6, which in a fitted kitchen as far as possible covers the tops of a number of cabinets. In the embodiment shown in Fig. 1 said worktop 6 is provided with only one sink 7. However, the invention can, of course, also be used with a sink unit which has more than one sink. Since the required tap and water connections therefor do not form part of the invention, these are not shown.

[0014] The sink unit 1 is also provided with a door 8.

[0015] The sink unit 1 is also provided with a sub-distribution board 9. The distance between the rear and the front of the housing of the sub-distribution board 9 is less than the distance from the sink to the front of the unit so that the sub-distribution board can as far as possible be accommodated in the space between the front of the unit and the forward-facing outside wall of the sink

without protruding beyond the sink unit. It is pointed out that the said distance dimensioning has to apply only for that part of the housing of the sub-distribution board 9 which is accommodated in the said space. The progression in the distance in the vertical direction can correspond to that of the said space.

[0016] The depth of the housing can, if desired, be larger for the part extending beyond the said space than for the part accommodated in the space. Corresponding considerations apply in the case of vertical fitting of the housing. If there is more than one sink in the sink unit, the sub-distribution board will in general not have to extend over the entire width of said unit but, for example, will extend only over half the width, in which case the sub-distribution board can be fixed in the middle of the unit on the stop bar which is already fitted for the doors of the unit.

[0017] The fixing means for the sub-distribution board and the sink unit can be formed by snap-fit elements fitted to the side walls 2 and 3 of the sink unit 1 and the side walls of the housing of the sub-distribution board 9, which snap-fit elements engage in one another when the sub-distribution board has been slid into the space between sink and the front of the sink unit.

[0018] In the embodiment shown in the figures inexpensive fixing means are used which are easy to work with and are formed by housing strips 10 and 11 which extend beyond the housing and run in the plane of the front of the housing. Said housing strips 10 and 11 can have been screwed to the front end of the side walls 2 and 3 of the sink unit 1 by means of screws 12 - 14. Components fitted in the housing of the sub-distribution board can protrude through a recess 17 in the front of the sub-distribution board 9, only one of which components, with reference numeral 16, is indicated by way of example, for the sake of clarity.

[0019] Fig. 2 shows an embodiment of the housing of the sub-distribution board which consists of two housing sections 18 and 19. The advantage achieved by dividing the housing into two sections is that the housing can be manufactured easily in that each section can be bent in one processing step. The one housing section 18 consists of a backplate 20, which forms the rear wall of the housing. The backplate 20 is provided at its edges with side plates 21, 22 which run parallel to one another and perpendicularly to the backplate 20. Said side plates form the side walls of the housing of the sub-distribution board. Said side plates 21 and 22 are flanged outwards at their free ends to form the housing strips 10 and 11 which, as is shown in Fig. 1, serve for fixing the housing to the end faces of the side walls 2 and 3 of the sink unit 1. The housing strips 10 and 11 are provided with holes for the requisite screws to pass through.

[0020] The other housing section consists of a front plate 23, 24, 25, 26 and 27. The front plate sections 23, 25 and 27 run parallel to the front plane of the sink unit, the front plate section 25 being at a greater depth than

the front plate sections 23 and 27 and the front plate section 25 being joined to the front plate sections 23 and 27 via front plate sections 24 and 26 which run at an angle.

[0021] The shape of said front plate sections 23 - 27 can be seen most clearly in Fig. 3.

[0022] A cut-out 17 through which electrical components, which must remain accessible and capable of operation, are able to protrude outwards has been made in the front plate section 25. The fact that the front plate section 25 is at a greater depth and that the front plate sections 24 and 26 run at an angle has the associated advantage that the protruding electrical components are more easily accessible, whilst an aesthetically pleasing appearance is also obtained with this arrangement.

[0023] The front face sections 23 and 27 merge into top and bottom plates 28, 29 which run perpendicularly thereto. Said top and bottom plates 28 and 29 are provided with holes for screws to pass through which, after sliding the two housing sections 18 and 19 into one another, can be screwed into corresponding holes in the flanged edge strips 30, 31, 32, 33 and 34 of the side plate 22, the backplate 20 and the side plate 21, respectively. One edge strip of the side plate 21 cannot be seen in the drawing.

[0024] Fig. 4 also shows a front view of an embodiment of a sub-distribution board 9. The housing strips 10 and 11 for fixing the sub-distribution board to the sink unit are shown again in this figure. Furthermore, the front plate sections 23, 27 and the cut-out 17, through which electrical components such as the component 16, shown as a block, protrude are also visible here. The components can be fixed to the backplate of the housing of the sub-distribution board in a known manner, which is not shown, by means of a conventional top-hat section. Furthermore, some wiring of the components is indicated diagrammatically by broken lines.

[0025] The sink unit is also provided with a faceplate 35 which can be detachably fixed to the sink unit, the height of which faceplate 35 virtually corresponds to that of the sub-distribution board 9. The detachable fixing of said faceplate 5 is not shown, since such a fixing can easily be conceived by a person skilled in the art.

Claims

1. Sink unit provided with a sub-distribution board which contains connection means for connecting the sub-distribution board to a group in a central distribution board and connection means for connecting electrical appliances, the sub-distribution board being accommodated in a housing and fixing means being present for fixing the housing to the sink unit, characterised in that the distance between the rear and the front of at least part of the housing is less than the distance from the outside wall of the sink to the front of the sink unit and in

that the fixing means are equipped for mounting the housing at the front of the sink unit and at least partly accommodated in the space between the front of the sink unit and the sink.

to the sink unit, the height of which faceplate corresponds to the height of the sub-distribution board.

2. Sink unit according to Claim 1, characterised in that the fixing means comprise snap-fit elements which engage in one another and are mounted on the side wall of the unit and the housing.

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3. Sink unit according to Claim 1, characterised in that the fixing means comprise housing strips to be fixed to the front end face of the side walls of the sink unit, which housing strips extend beyond the housing and run in the plane of the front of the housing.

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4. Sink unit according to Claim 1, 2 or 3, characterised in that the housing consists of two housing sections, the rear wall being accommodated in the one section and the front wall being accommodated in the other section.

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5. Sink unit according to Claim 4, characterised in that the one housing section comprises a backplate forming the rear wall of the housing, which backplate merges at the two edges running parallel to the side wall of the unit into side plates which extend perpendicularly to the backplate, which side plates are flanged outwards at their free ends to give housing strips running parallel to the backplate.

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6. Sink unit according to Claim 4 or 5, characterised in that the other housing section comprises a front plate and top and bottom plates running perpendicularly thereto.

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7. Sink unit according to Claim 6, characterised in that the front plate is provided with a cut-out through which components of the sub-distribution board can protrude.

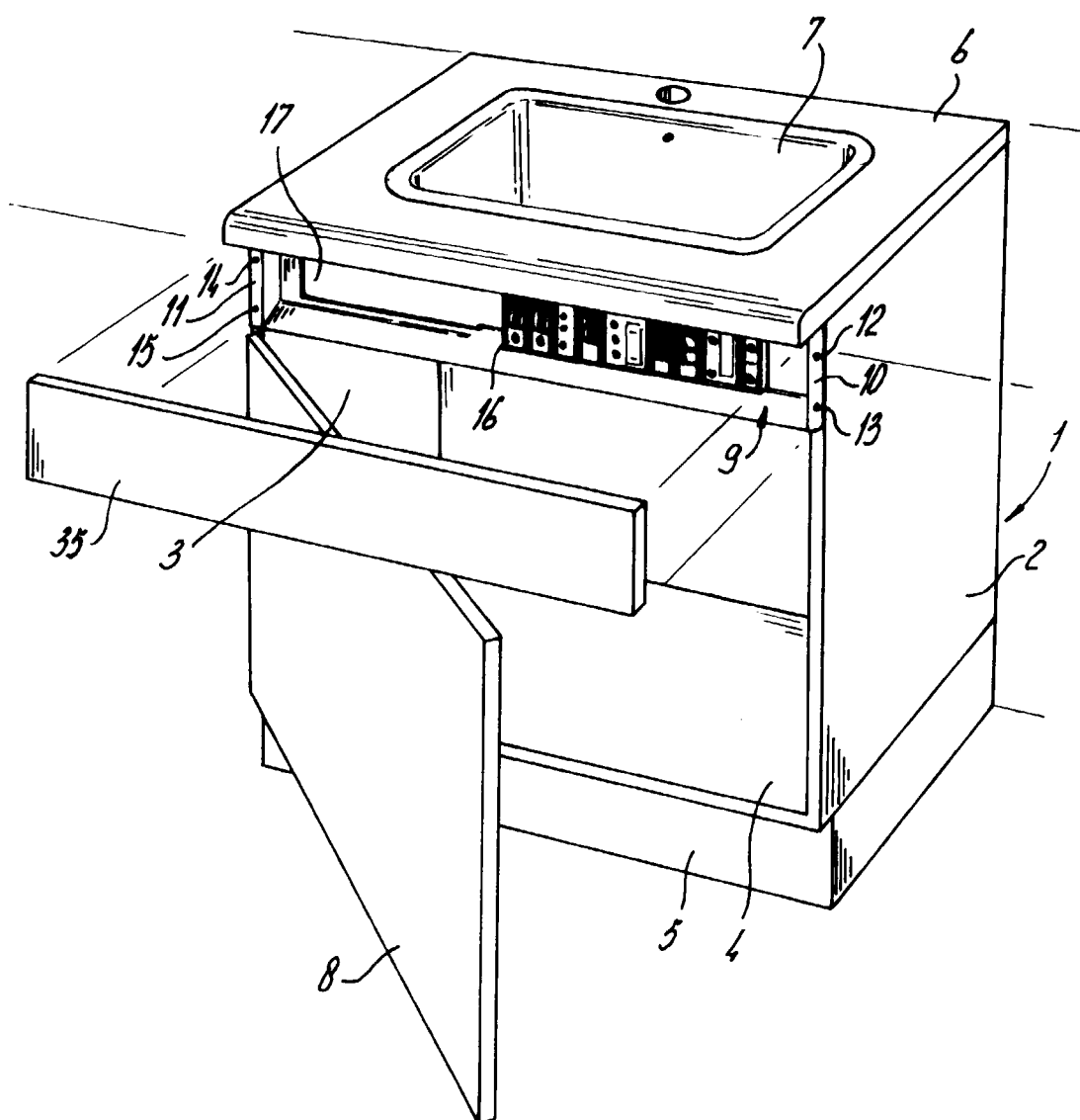
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8. Sink unit according to Claim 7, characterised in that the front plate section directly adjoining the cut-out is located at a greater depth than the front plate sections directly adjoining the top and bottom plates, which plate sections are joined to the first-mentioned front plate section via front plate sections running at an angle.

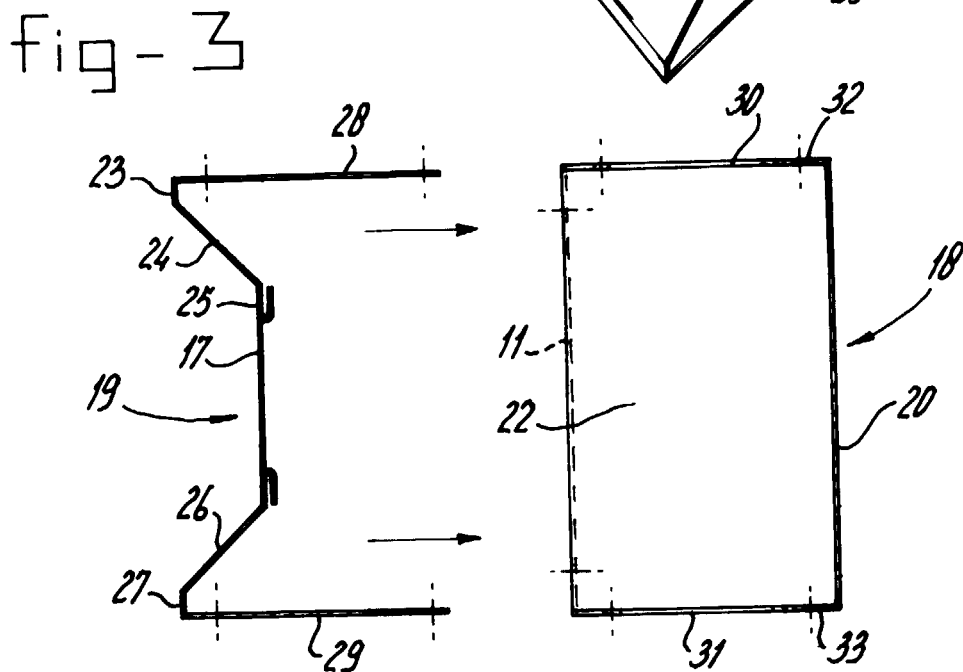
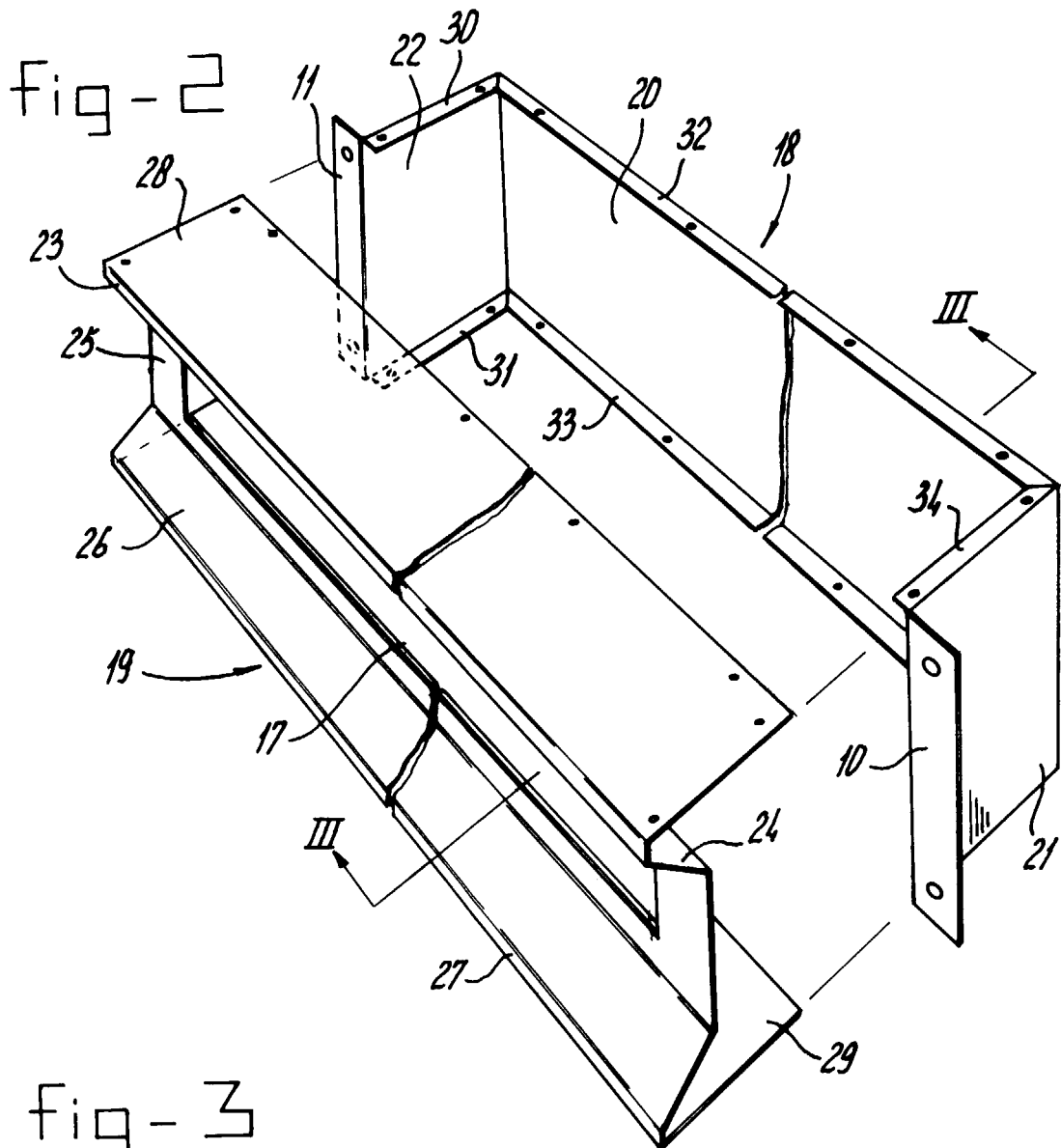
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9. Sink unit according to one of Claims 4 - 8, characterised in that the housing sections are fixed to one another by screwing flanged strips of one of the housing sections to parts of the other housing section.

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10. Sink unit according to one of the preceding claims, characterised by a faceplate to be fixed detachably

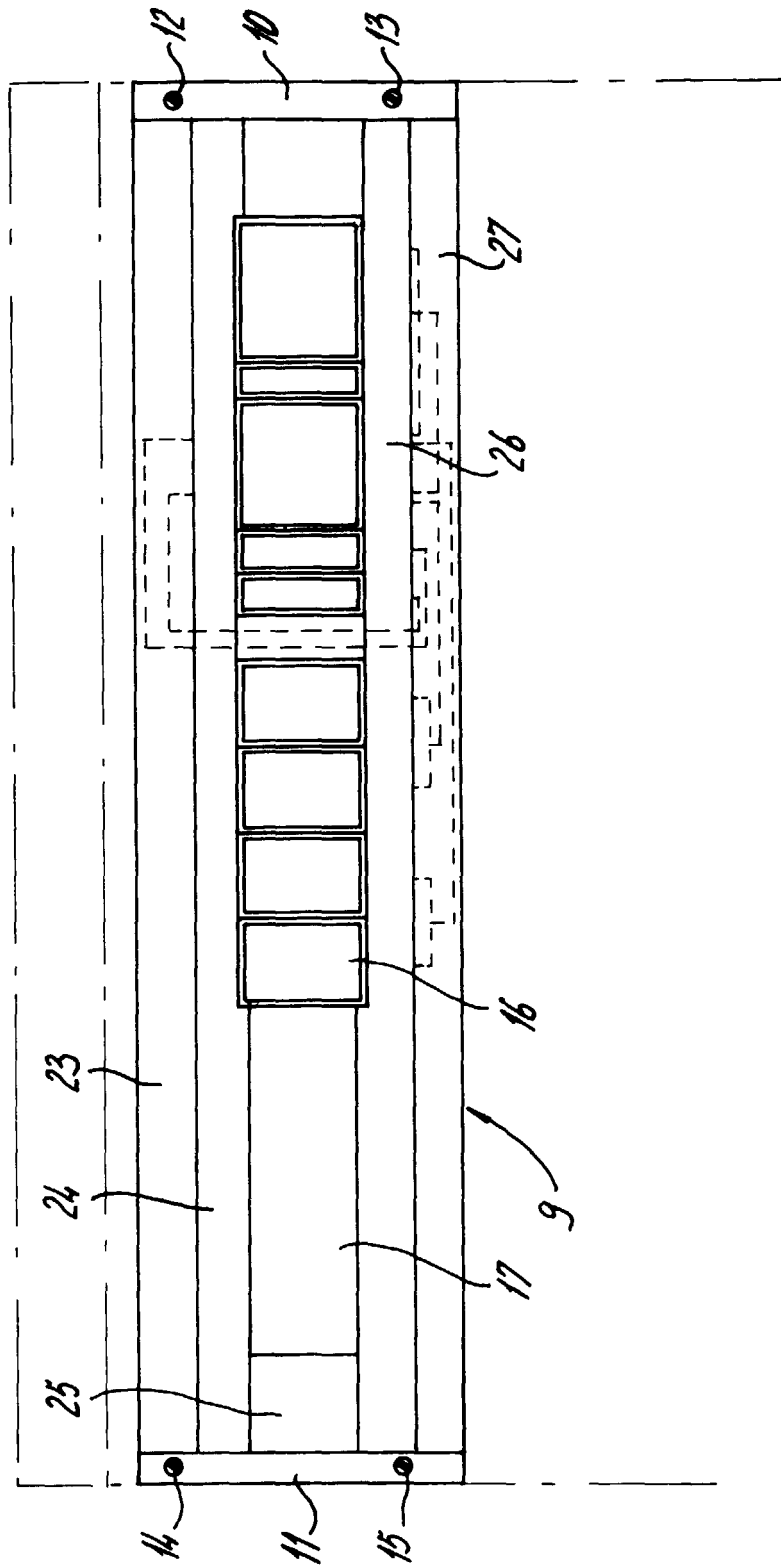
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fig- 1





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EUROPEAN SEARCH REPORT

Application Number
EP 00 20 2117

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CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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