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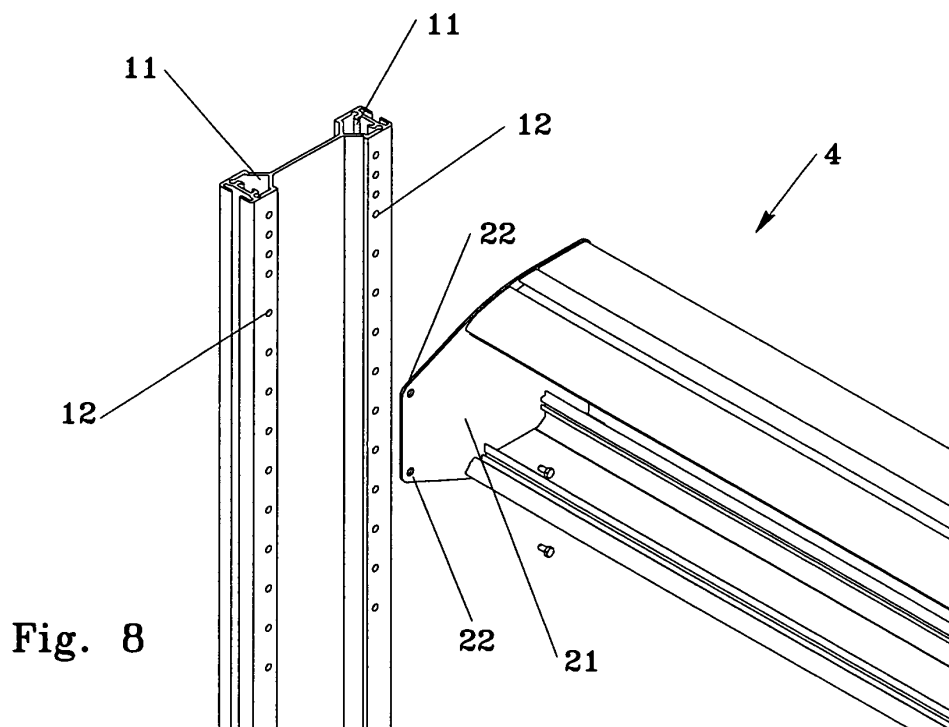
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(54) **Equipped cabinet bench, for laboratories, provided with cantilevered service-holder channel, fixable in different positions**

(57) It is hereby described an equipped cabinet bench, for laboratories, of the kind comprising a structure comprising two uprights to which one worktop and one or more service-holders channels are fitted, on each of which a series of connections for supplying electric current, liquid and fluids and whatever else may be necessary are fitted, wherein the said uprights (8) have two parallel rows of holes (12), equidistant one from the others, and that the said channel (4) has, at the sides, sup-

porting plates (21) provided with holes (22) for fixing the channel to the said upright by means of bolts or the like which fit into the holes of one of the said rows of the uprights and in the holes of the said plate, in such a way as to allow to mount the said channel, depending on which row of the holes on the upright is used, whether cantilevered or in a position in which it remains included inside the overall dimensions of the uprights and/or the worktop.



Description

[0001] This invention proposes an equipped cabinet bench, of the kind used in chemical laboratories or the like, having one or more service-holder channels provided with cantilevered support, the cabinet bench being arranged in such a way as to permit to fix the said channels in different positions, in particular to position each channel at the desired height and to place it in such a way that, in plan view, its overall dimensions are contained inside the worktop or appears cantilevered-fitted, projecting out of the latter.

[0002] More particularly, the bench has a structure which comprises a couple of side uprights, which both the worktop, and the service-holder channels are fitted to, each upright having a box-like structure which provides for two parallel rows of equidistant holes provided for fixing the different components, and in which each channel is closed, at the top ends, by cantilevered supporting plates projecting for a certain portion compared with the channel, and which have, in close proximity to the edge, a couple of holes, whose distance corresponds to the distance between two or more holes of each row on the uprights.

[0003] The channel is fixed to the uprights by the said plates and, depending on the row of holes which these plates are fixed to, the channel will be cantilevered-positioned or included inside the overall dimensions of the worktop.

[0004] Different structures of worktops are known, used, for example, in laboratories and the like, each equipped with all the services required to use different instruments.

[0005] Such worktops often include a structure provided with a worktop and a storage wall equipped with channelling and paths for water and gas pipes, mains cables and whatever else may be necessary.

[0006] The sockets, the switches and the devices for distributing fluids, such as taps or the like, are fitted to the wall or, however, to proper fixed structures.

[0007] The said known solutions, which have been used for a long time, have a number of limitations mainly due to the poor flexibility of the whole, which, once it has been mounted, cannot be easily modified and which would require quite expensive interventions, also in case of modifications before the assembling.

[0008] Such circumstance requires an advance planning of the future position of the different connections and, in order to avoid any excessive increase in costs, the production is often standardised, with consequent difficulties and costs in case of need to customise the products or to create out-of-standard worktops, for example in case of need to fit the sockets or the plugs at a height which is more comfortable for the operator or to adjust the position, for example, of the sockets and the plugs to the layout of the different devices, which can be positioned on the worktop.

[0009] The present invention seeks to overcome these

drawbacks, by proposing an equipped worktop, for laboratories, in which the different connections are placed on a support consisting of a channel having, on its sides, cantilevered supports made in such a way as to permit to fit the channel both in a position in which it remains included inside the overall dimensions of the worktop, thus remaining easily and comfortably accessible for the operator, and cantilevered compared with such worktop, for example to permit to position on the worktop equipment having considerable overall dimensions.

[0010] The same channel may be then fixed to the bench structure at different heights, in order to place it in the position which is more suitable for use.

[0011] The present invention will now be more particularly described, by way of example only, with reference to the accompanying figures, in which:

- figures 1 and 2 are perspective views of the bench according to the invention, assembled and as exploded view, respectively;
- figure 3, 4 and 5 show the bench according to the invention, seen from aside, front and top;
- figure 6 shows, as exploded view, the sections used to create the channel in a bench according to the invention;
- figure 7 shows a cutaway of the sections which form the channel to be fitted to a bench according to the invention;
- figure 8 shows the detail of the end of the channel, which the connections have not yet fitted to, ready to be fixed to the upright of the bench;
- figure 9 shows the prospective view of the channel fitted on the bench structure.

[0012] With reference to figure 1, the bench according to the invention comprises a supporting structure indicated as a whole with 1, fitted on wheels 2, a worktop indicated with 3 and a support 4 of a series of connections for supplying fluids such as gas or water, sockets, etc.

[0013] More particularly (see figure 2), the support 4 consists of a channel or a box-like structure closed on the ends by plates 5 allowing them to be fitted to the bench structure and having, in front, one or more housings 6 for inserting the supporting boards of the aforesaid connections.

[0014] The structure 1 comprises a base 7, a couple of side uprights 8 and a top cross-beam 9.

[0015] Both the worktop 3, which has side walls 10 fitted to the uprights 8, and the support or channel 4 are fixed to the uprights 8.

[0016] The channel is better visible in detail in figures 6-8, the latter also showing a detail of the uprights.

[0017] The said uprights are made in such a way as to have, at least on the edges, a box-like structure 11. On the wall of each box-like structure bent towards the inside of the bench, two parallel rows of holes 12 are provided, equidistant, for fixing the different elements which form the bench.

[0018] The channel or support 4 (see figure 6) consists of a couple of symmetric sections 13, one higher and one lower, which are closed on the bottom by a wall 14 applied, for example, by means of screws and plugs, which are inserted inside the holes 15 in the section.

[0019] The two sections, coupled by the wall 14, create an open channel in proximity of the front side 16, bent towards the inside of the bench.

[0020] The sections are linked, always by means of screws, rivets and the like, to a couple of angles 17, which, subsequently, boards 18 will be fixed to, on which boards a series of connections 19 are fitted, for the supply of gas, air, electric current and so on and which are inserted, making them slide, within grooves 25 running in proximity of the edge of the sections.

[0021] A series of closing caps 20, which can be inserted, for example, by snap, are used to close the spaces between the boards 18 (figure 9).

[0022] The channel 4 (see figure 8) is closed at the ends by plates 21 projecting for a portion from the front side of the channel and which have, in proximity of the front edge, two or more holes 22, whose distance is equal to a multiple of the distance between the holes 12 on the upright.

[0023] This way, when the structure is assembled, it is possible to match the holes 22 with any couple of the holes of each row in the uprights.

[0024] This solution, which provides for the supporting plates of the cantilevered channel and the double row of holes on the upright, allows to mount the channel, beside at the desired height, also in two different position on the horizontal position.

[0025] Depending on whether the plates 21 are fixed to the holes of one or the other row on the upright, the channel 4, once the assembling is completed, will be positioned in an internal position, for example completely included inside the overall dimensions, from a plan view, of the worktop, or may be cantilevered-mounted, thus projecting to the outside of bench, thus permitting to place on the bench bulky instruments, while keeping an easy access to the connections on the channel 4.

[0026] The said channel, thanks to the particular embodiment shown, has a box-like structure, which turns out to be really convenient, as it is possible to pass through it all the ducts and the cables to the different connections, thus obtaining the twofold advantage of a considerable improvement of aesthetics and a reduction of the risks which may derive from the presence of non-protected cables and ducts, which may be accidentally bumped and damaged.

[0027] The bench according to the invention is therefore considerably functional, in view of the fact that it can be easily arranged in such a way as to adjust it to specific situations, by positioning the different connections in the more convenient position for the user, also depending on the instruments which will be positioned on the worktop.

[0028] Within the framework of the same idea of solu-

tion, a skilled in the art may provide for different embodiments, which must be all considered included within the scope of this invention.

[0029] So, for example, the length of the worktop, of the cross beam 9 and of the channel 4 may vary depending on the requirements of use, as well as on the materials used.

[0030] The rear closing wall 14 of the channel may be hinged to one of the sections, in such a way that it can be easily opened for inspections and changes, if any.

Claims

1. Equipped cabinet bench, for laboratories, of the kind including a structure to which a worktop and one or more service-holders channels are fitted, on each of which a series of connections for supplying electric current, liquids, fluids and whatever else may be necessary are fitted, **characterised in that** the said uprights have two parallel rows of holes, equidistant one from the others, and that the said channel has, at the sides, cantilevered supporting plates provided with holes for fixing the channel to the said upright by bolts or the like, which fit into the holes of one of the said rows of the uprights and in the holes of the plate, in such a way as to allow to mount the said channel, depending on which row of holes on the upright is used, whether cantilevered or in a position in which it remains included inside the overall dimensions of the uprights and/or the worktop.
2. Equipped cabinet bench according to claim 1, **characterised in that** the cantilevered portion of the supporting plates of the channel and the distance between the two rows of the holes in the uprights have such a dimension as to allow to fit the channel inside the overall dimensions of the worktop or cantilevered with respect to it, projecting in the rear portion compared with the bench.
3. Equipped cabinet bench according to claim 1 or 2, **characterised in that** the said channels have a structure consisting of a couple of sections fixed to the said plates, with a rear closing wall, while the side bent towards the bench is provided with slides for inserting the boards or plates, which the different connections are fitted to, in such a way as to obtain a box-like support, through which the pipes and the cables to the said connections can run.
4. Equipped cabinet bench according to any one of the preceding claims, **characterised in that** the said closing rear wall of the said channel is hinged to the channel structure, in such a way that it can be opened for inspections and/or interventions.

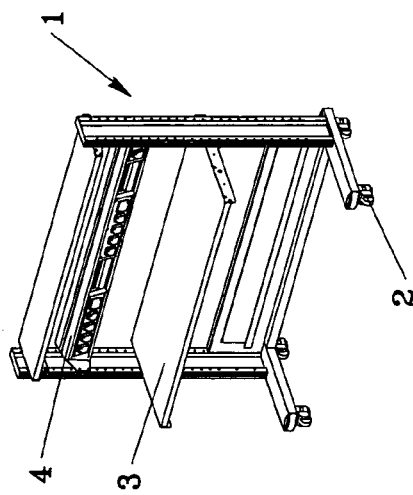


Fig. 1

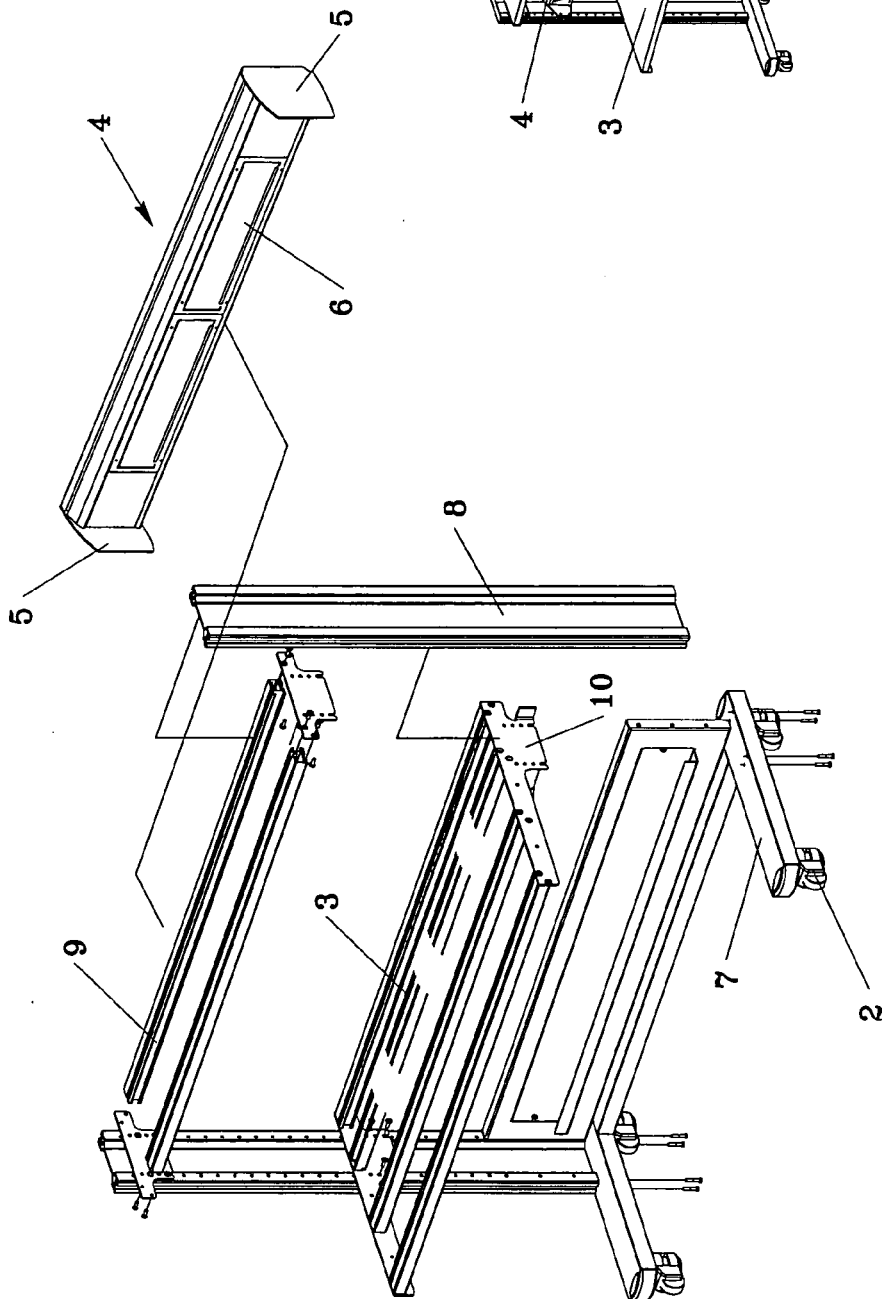


Fig. 2

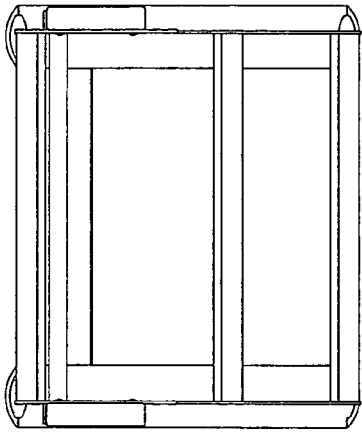


Fig. 5

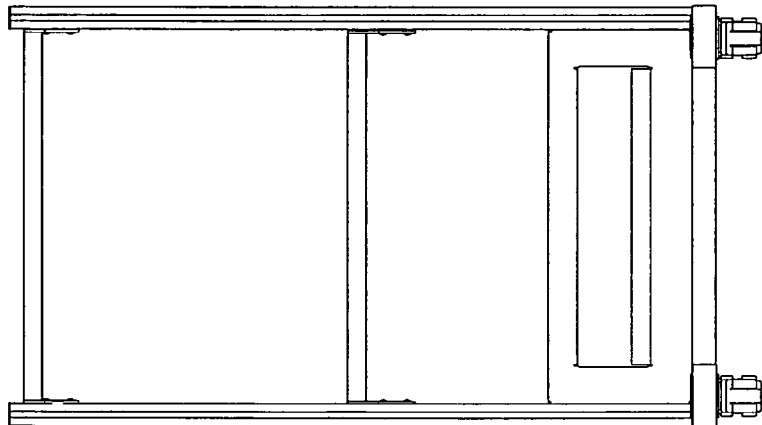


Fig. 4

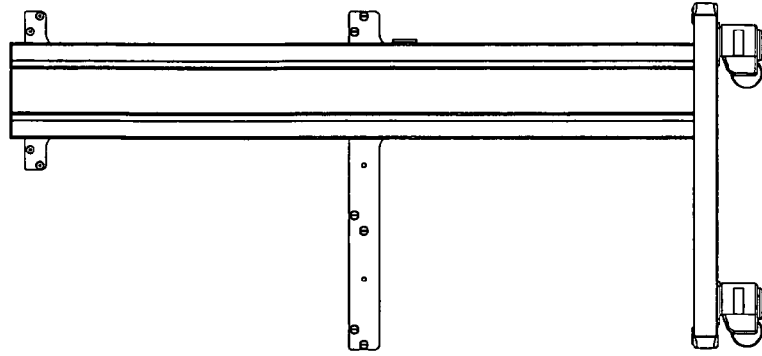
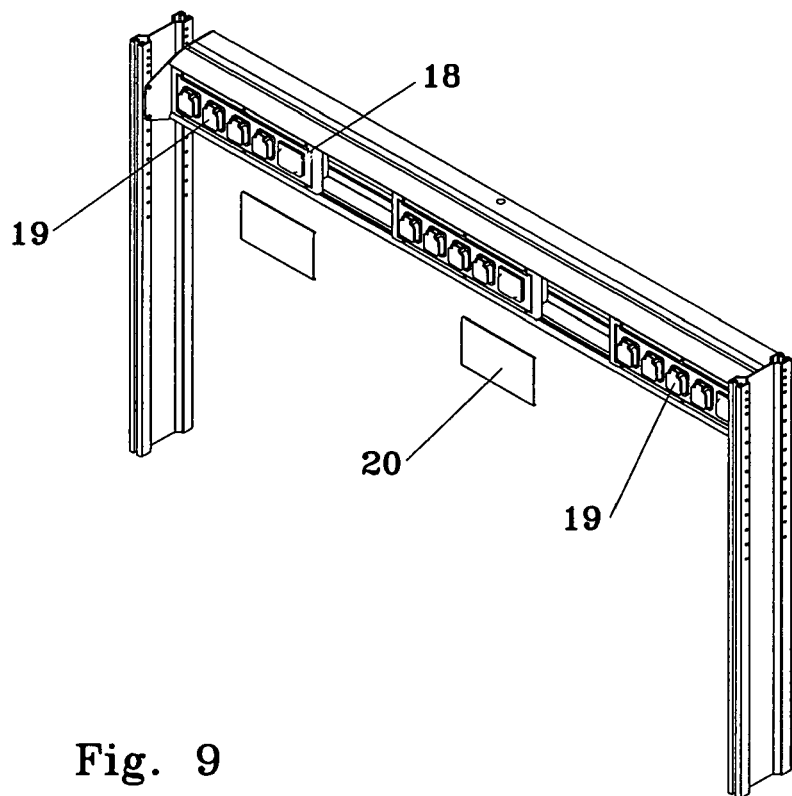
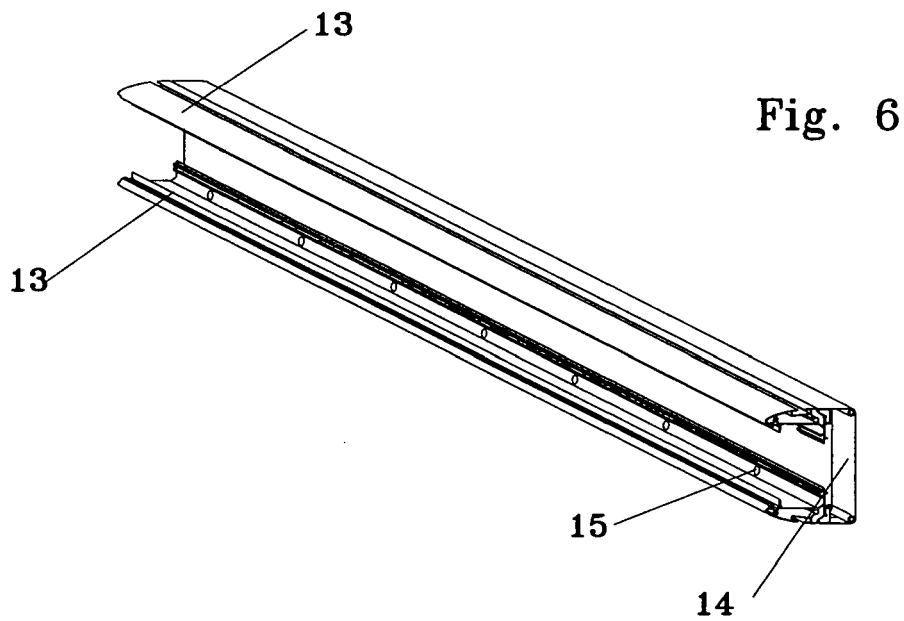
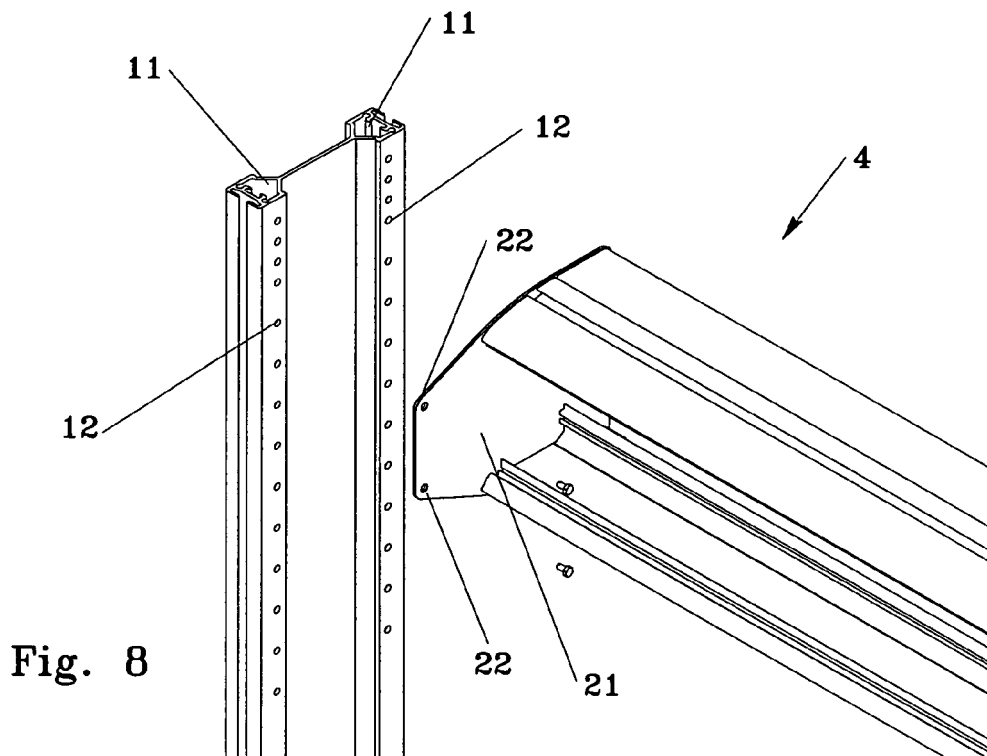
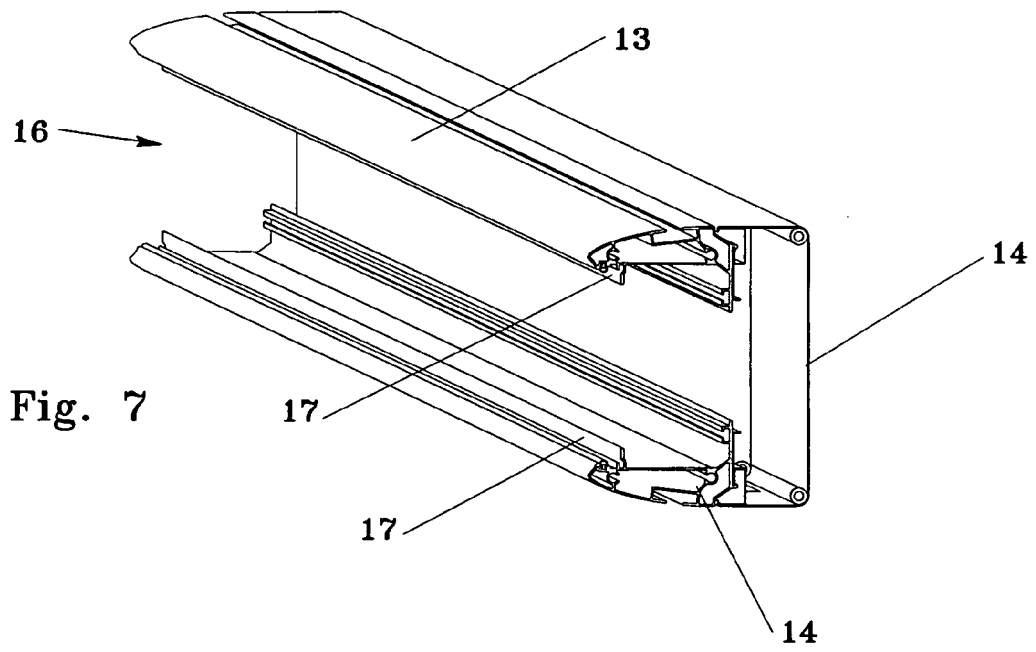


Fig. 3





**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 02 7054

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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16-03-2007

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