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(54) Title: KITCHEN ARRANGEMENTS

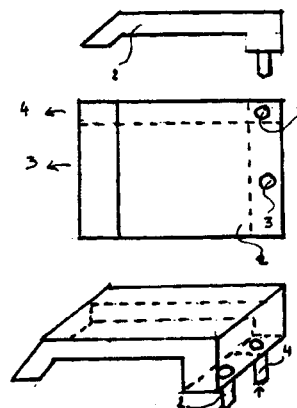
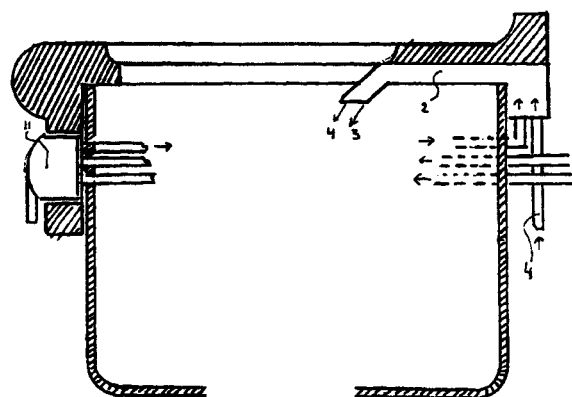
(54) Titre: AMENAGEMENTS DE CUISINES

(57) Abstract

Various elements for kitchen facilities and operation are disclosed. The invention concerns the production of fixed elements, such as kitchen sinks (fig. 1-2-3-4-6-18) and horizontal worktops with water and detergent supply for embedded or integrated sinks (2-3-4-12-13) (fig. 5-7), as well as movable elements such as trays (fig. 9-20), cutting boards (16-20) (fig. 10), for receiving accessories, racks (21-22), plate-racks (23) (fig. 16-17), and glass or cup holders (fig. 19). The elements of the invention (fig. 6) are characterized by their mounting arrangements (1) (fig. 5), the diversity of assembling possibilities (fig. 11-12-13), the removal of cumbersome elements, their decoration capabilities, the stacking of movable elements in order to concentrate with minimal motion all culinary activities, so that different types of kitchens, whether large or small, can be equipped with these elements, notwithstanding the place and conditions of use, and whether in houses, studios, boats, caravans or camping-cars.

(57) Abrégé

Eléments divers pour installations et fonctionnement de cuisines. L'invention concerne la création d'éléments fixes, bacs évier (Fig. 1-2-3-4-6-18), de plans de travail horizontaux avec alimentation en eaux et détergent des bacs encastrés ou intégrés (2-3-4-12-13) (Fig. 5-7). Des éléments mobiles, plateaux (Fig. 9-20). Planches à découper (16-20) (Fig. 10) pouvant recevoir des accessoires, grilles (21-22) râtelier à assiettes (23) (Fig. 16-17), support de verres ou tasses (Fig. 19). Les éléments selon l'invention (Fig. 6) se caractérisent par leur montage (1) (Fig. 5), leur diversité d'assemblage (Fig. 11-12-13), la disparition d'éléments gênants, les possibilités de décoration, de superpositions d'éléments mobiles pour grouper avec un minimum de gestes les travaux culinaires ce qui permet d'équiper les cuisines les plus variées petites ou grandes, quelque soit le lieu et les conditions d'utilisation, maisons, studios, bateaux, caravanes, camping car.



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KITCHEN ARRANGEMENTS

This invention concerns kitchen equipment. The purpose of the invention is to obtain a maximum of solutions on variable, big or small work surfaces to create a high-performance work area whatever the surface and its vocation, houses, studio apartments, boats, caravans, camping cars.

5 The principle of the invention distinguishes itself from usual kitchens by the creation of kitchen sinks which differ from other ones in their design, form and the functional relation between them, FIG 1 main washing sink with a rounded side 5, FIG 2 narrow and deep sink for draining small dishes or food, it can be equipped with a classical plug, a crusher, or a rubbish chute hatch, FIG 3 long and not very
10 deep for soaking, draining, storage. This draining sink is different from classical drainers due to its depth which means that large size utensils can be put on it in perfect stability, FIG 4 marine version main washing sink.

A horizontal worktop intended to be assembled with the sinks. This assembly is characterized by a particular mounting arrangement, the opening in the worktop
15 FIG 5 for access to the sinks is smaller than the sink opening, therefore leaving a border 1 which enables the water movements caused by the different operations in the sink to be retained. In the FIG 4 version, this border 1 allows the water to be retained during the sudden movements and the inclination particular to boats FIG 6. In this precise case the FIG 4 marine version sink of the FIG 1 sink is equipped
20 with a different, double base, a flat part 25 and a cross-shaped funnel base 24. This profile allows a total evacuation of the water from the sink no matter what the listing FIG 6 which would not be the case with the base of the sink FIG 1.

The invention also aims to remove everything which is normally visible on the sinks and worktops, to leave clear surfaces which do not present any problem for
25 cleaning, work, and the use of the mobile elements which are the subject of a patent and which are covered in more detail in another paragraph. This result is

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obtained by removing the classical tap assembly, drain plugs or other accessories. In this invention the classical tap assembly is replaced by a tap assembly 2, FIG 7.

It is embedded in the worktop, in one extra-flat piece with an outlet hole which
5 is very wide and thin to obtain a sheet of water with the advantage, for a water flow rate equal to the classical outlet of a tap, of not causing splashes when the sink has dishes, vegetables, etc. in it... This water outlet can diffuse different types of water, cold, hot, or sea water in the marine environment. The mixing control will be placed on a front band under the worktop 11. This tap is
10 characterized by a double passage, water 3, liquid detergent 4. This arrangement allows a distribution of liquid detergent directly into the washing sink or onto the hands.

The supply of liquid detergent comes from an assembly FIG 8 made up of a storage container 6. It is filled by a pipe whose filler hole 7 is located on a raised
15 part of the worktop. The detergent is directed to the tap assembly by a pipe 8 supplied by an electric pump 9, activated by foot contact 10 so that the hands are left free. The rounded shape 5 of the sink FIG 1 is calculated to obtain sufficient space under the tap assembly to allow the filling of a utensil or washing. The water supply system can also include a mobile spray tap 27, equipped or not with
20 a brush either for washing directly in the sink, or for rinsing if the assembly is equipped with other sinks for this purpose FIG 18. This spray tap would be integrated on the same raised part of the worktop as the detergent filler hole.

The tap part can be made using classical materials, bronze, etc. FIG 7 if it is embedded in the worktop. In the case of an industrialization of the worktops in
25 cast resin based materials it is planned to include the whole assembly of the different water, detergent supply pipes, in the thickness of the worktop. A sufficient space will separate the water outlet, from that of the detergent to avoid

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the risk of undesired mixing. Only the outlet direction spouts will be visible on the edge of the worktop giving the same appearance as the monobloc part 2.

The intention of the invention being to combine with the fixed elements mobile elements which have a complementary usefulness while being perfectly adapted
5 to each other, these mobile elements have a non-captive vocation, which is not the case for the accessories provided in other sinks. These mobile elements FIG 9 - 10 - 14 - 16 - 17 - 19 - 20 are characterized by:

A tray 13 FIG 9 in melamine, a product classified as alimentary, intended to be used on the worktop for all of the household tasks and for the draining of the
10 dishes. Its alimentary quality makes it suitable for holding or leaving different types of food on it. This tray is equipped with a chute 14, intended to let the draining water through, to let the food or waste slide down or to facilitate washing the tray. A cut 15 FIG 9, is provided for in a side, its design serving when the tray is used equipped with the board 16 FIG 10, for cutting work. It permits access to
15 the board without the knives being hindered by the edges of the tray with a certain height useful for other purposes. This tray is placed on the horizontal worktop in any position, no matter what the choice of the sinks equipping the worktop as in 13 FIG 11-12, the tray is placed exactly on the opening in the worktop of the sink FIG 3, no matter what is present in this sink: dishes or other items. This increases
20 the useful surface. In the case of the kitchenette option FIG 13, choice of the sinks FIG 1 and 2, or with the alternative FIG 18 of the food crusher or rubbish chute 26, the chute is placed to the right or the left. Therefore there is the possibility of carrying out culinary tasks which produce waste in the tray with the possibility of evacuating the waste immediately. In this option FIG 18 the opening
25 of the rubbish chute is made up, at the bottom of the sink, of a hatch with a gasket 27. With this option this dual-purpose sink: hatch open - evacuation of the rubbish, hatch closed - draining sink for various kitchen utensils, or equipped with

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a basket 28 for straining food, the base of the sink is equipped with a drain plug 29, permitting the outlet of the draining and rinsing water from the sink.

This solution permits having a classical purpose sink and a rubbish chute which is easier to use, this with a view to space saving and to eliminating from the
5 worktop all that can hinder. This is not the case in the current arrangements of kitchens. The objective also aimed at with the worktop tray is to limit the dirt to this tray only during all culinary tasks, thereby sparing the kitchen elements. This advantage is very appreciable in the case of boat kitchens which are very difficult to clean due to the presence of stabilizer elements or worktops located on the
10 openings of preservation elements for food, thus avoiding the risks of the penetration of contaminated liquids.

This tray for a non-captive use of the sinks and the worktop becomes a classical tray for clearing, carrying. It becomes a large serving dish, its alimentary quality makes it suitable for placing food directly on it.

15 A cutting board FIG 10, also a non-captive element but which is incorporated in the tray, is different from other boards because of its double side 16 - 17, side 16 for cutting with grooves and sauce holder 19, side 17 having a hollow surface 20. Placed in the tray with side 16 up, the cut-out part 15 enables cutting work to be done without hindrance FIG 14, the cutting products are placed in the
20 remaining part 26 of the tray. By turning over the board to side 17, the food waiting in part 26 to be stored can be put in the hollow part 20, either to be transported toward the cooking utensil or else the food stored in part 26 can be slid through the chute directly to an appropriate utensil placed in the sink in order to limit handling. Side 16 of the board is placed for use FIG 15, because of its
25 appropriate dimensions, on the worktop above the washing sink FIG 1 without covering the sink to leave free access for washing the treated food which once washed can be placed in the board turned onto side 20. As in the previous

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example there is the same opportunity, where this side 20 becomes a serving dish in the classical manner for cheese, fruit or other products.

It can also be used fitted with 2 racks 21 and 22, to be transformed into a bread board FIG 10 with a crumb holder or else by placing two parts 23 FIG 16 in the cavities of the racks 21-22, it can be used as a rack to drain plates and can be used on small surfaces 17-21-22, FIG 15. Racks 21 and 22, positioned side by side in the draining tray 13, can be fitted with the two parts 23 FIG 14 to serve the function of a rack for draining the plates, leaving more space for the tray to take other utensils for draining. Adjusting the distance between parts 23 in the cavities of the racks gives the possibility of placing large or small plates in the rack. In a marine environment a part FIG 19 is provided, round with four studs at its base which are placed in the cavities of racks 21-22. This part is used as a support for a glass or a bowl 27. In a boat this system ensures stability. With the board and the racks, the assembly becomes a small serving tray. Tray 13 can take four racks 21-22 and increase the number of glasses. The racks placed on a table in front of each guest can hold their glasses. They can also be used as dish-stands.

The range of mobile elements also includes a second tray which is smaller than tray 13. It is intended for small culinary tasks, peeling, cutting. It has the same characteristics as tray 13, mobile cutting board, cut-out part for cutting 33, chute 31, free part 34 to stock food, but its shape is different. Whereas tray 13 is rectangular but is handled using both hands because of its size, its cant shape FIG 20 is studied so that the cant 35 is held in the left hand, leaving the right hand free to push the prepared food by chute 31 placed on the opposite side into an appropriate utensil. This arrangement ensures a perfect balance during this operation.

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It is planned to manufacture the boards either in wood or in a synthetic material of the alimentary polypropylene type and the trays in alimentary plastic resins.

5 The horizontal worktop, the sinks, may be manufactured in a "VARICOR" type material but also with other modern materials used in the manufacture of kitchen elements without limitation of nature.

10 The different arrangements of the sinks and the worktops described in this invention are only given as examples - they can vary according to the shapes and the needs of the kitchens to be equipped, without however losing the sense and the basic principles sought by this invention.

15 In the case of use in an environment where water savings are of primary importance such as in the boat environment, a special arrangement is provided, on FIG 11. The sink FIG 3 can be linked with the sink FIG 1 by a pipe 30 allowing the water to pass from the sink FIG 3 to the sink FIG 1 due to the difference in depth between the two sinks. This element is the device which allows water savings by proceeding differently to the classical method of washing dishes which consists in filling two sinks with water, one for washing, the other for rinsing. In this case the method consists in putting a small quantity of water with detergent into the washing sink. To start with, a plate for example is washed, it is immediately
20 rinsed in the sink FIG 3 under the very fine spray of mobile spray tap 27 provided for this purpose. The rinsing water is sent to the sink FIG 1 to supply the volume of washing water. The operation is repeated for all of the dishes to be washed. The advantage of this method, apart from the water savings, is that the dishes are always rinsed with clean water. This is not the case with the classical method
25 where the rinsing water becomes gradually loaded with detergent.

The surface of the sink FIG 3 is sufficiently big so that the rinsing can be done on one side and the storage of the dishes on the other.

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CLAIMS

- 1 - Kitchen assembly characterized by a horizontal worktop, independent sinks of different shapes, volumes having precise purposes and relations between them to obtain a functional assembly with the horizontal worktop. Whatever the surface area of the kitchen to be equipped, the assembly is done in a particular manner
- 5 which characterizes the invention to provide a comfort of use in various conditions. The assembly is completed by mobile elements having varied functions linked to each other and direct relations with the worktop and the sinks while maintaining a non-captive nature (this is not the case of other kitchen sink accessories), providing a complementarity to form an assembly with multiple
- 10 useful functions to limit the motions and operations on a minimum space during the culinary tasks, characterized by a horizontal worktop where the tap pipe elements are integrated/embedded for the supply of water and detergent product (2-3-4), eliminating on the worktop that which is normally visible and constitutes obstacles in classical kitchens on the sinks, worktops, leaving a flat surface
- 15 facilitating the cleaning and use of the mobile elements.
- 2 - Kitchen assembly according to claim 1 characterized by the embedded (2) or integrated (12-13) tap assembly having a wide opening with the characteristic of indifferently supplying liquid detergent, cold or hot water, sea water in the marine version.
- 20 3 - Assembly of sinks according to claim 1 characterized by their design functions, single washing, rinsing, draining, storage, mixed uses, draining, rinsing, rubbish chute Fig 18, marine version integrated drain base (6). The sink Fig 1, due to the presence of the round surface (5) allows, by the offset obtained with the worktop where there is the water outlet, to place a utensil for filling, or to carry
- 25 out without hindrance different operations such as washing hands, water economizer function by the presence of a pipe (30) between the sink Fig 1 and the sink Fig 3. The function is explained in the design data.
- 4 - Assembly according to claim 1 of accessories Figs 9-10-14-16-17-19-20 whose characteristics are described in the design data.

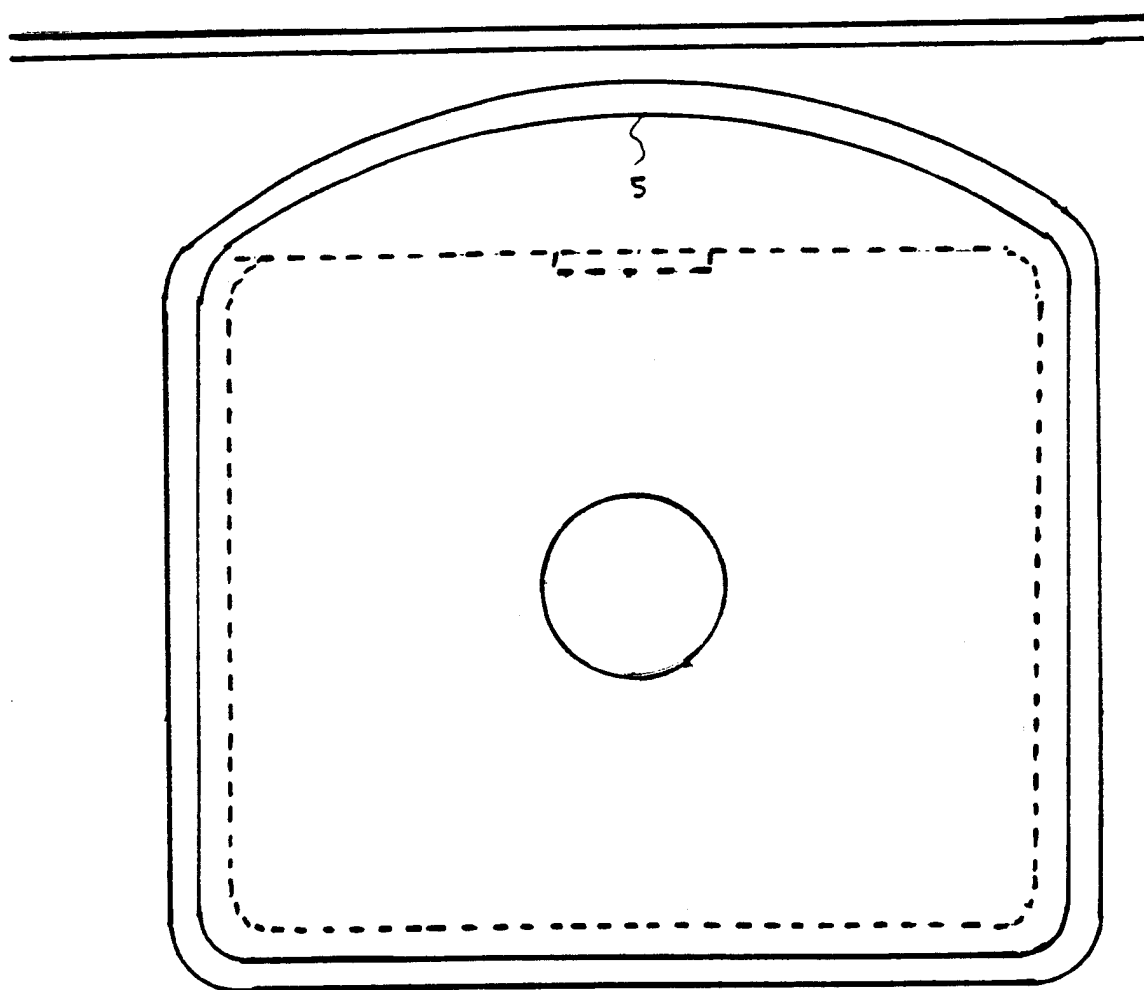


FIG 1A

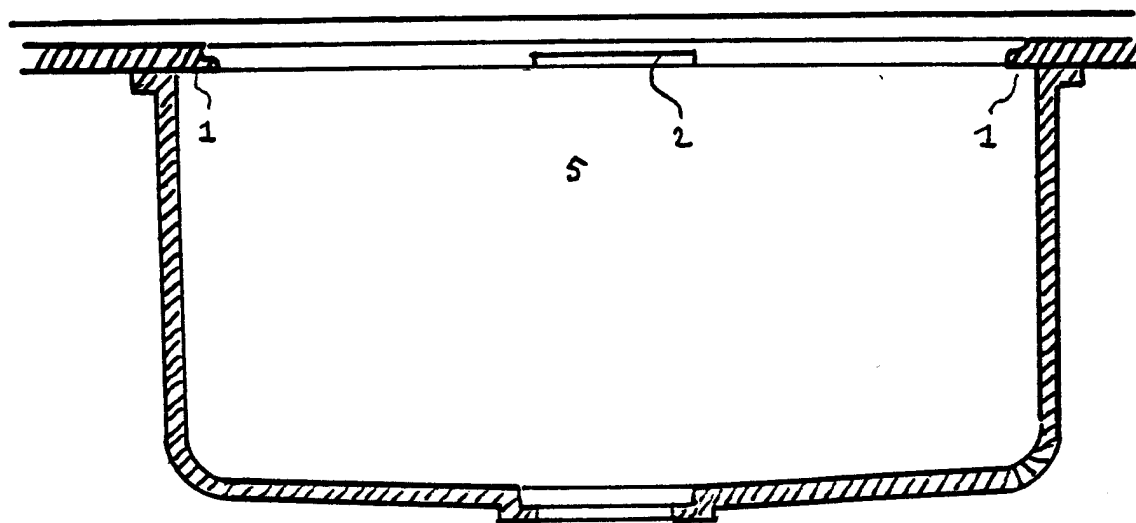


FIG 1B

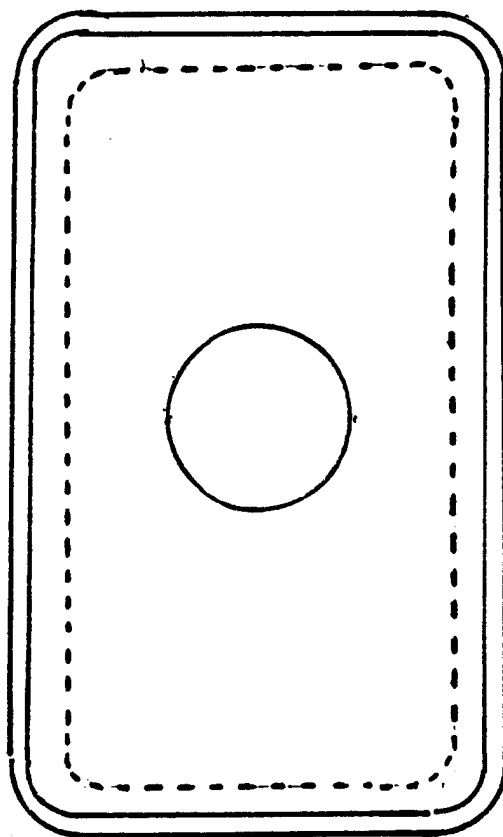


FIG 2 A

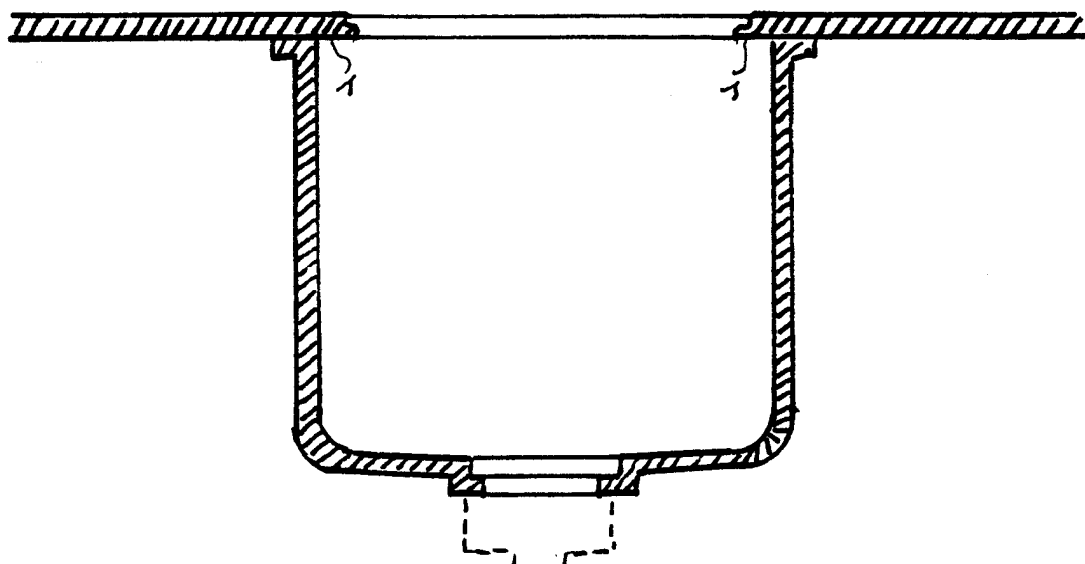


FIG 2 B

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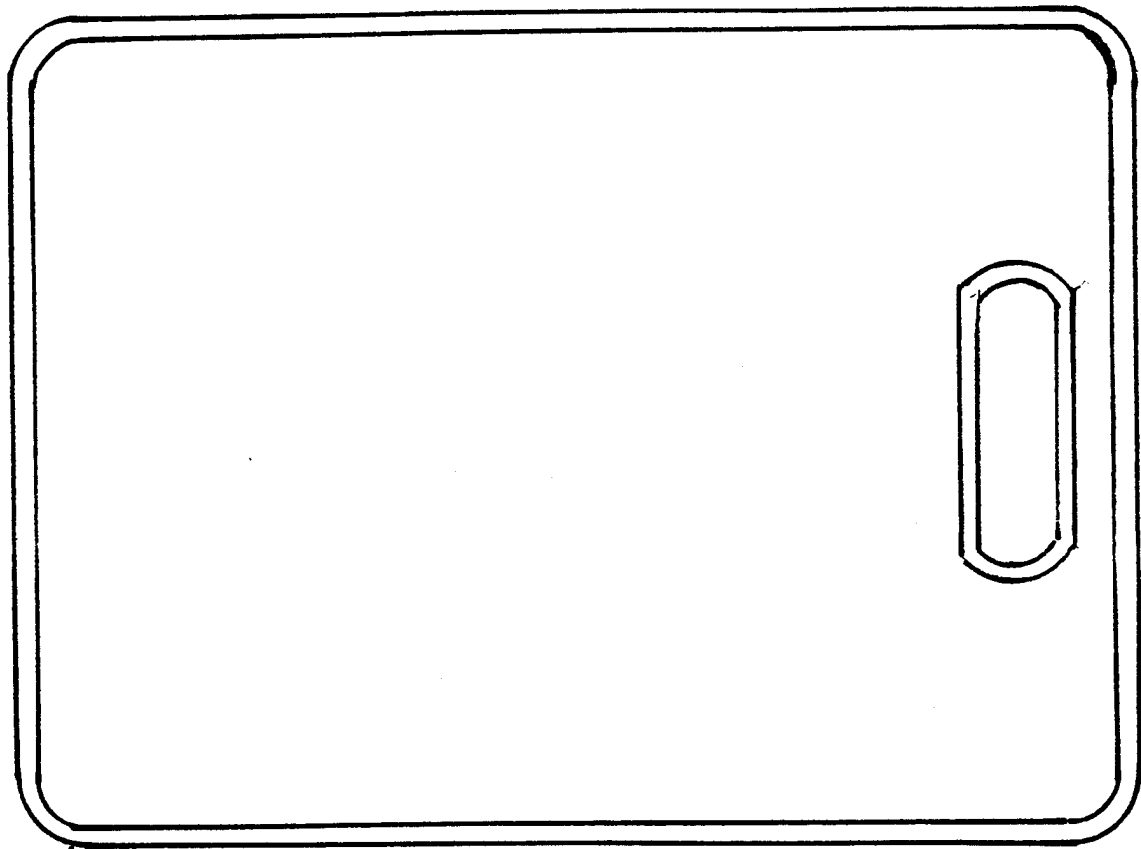


FIG 3A

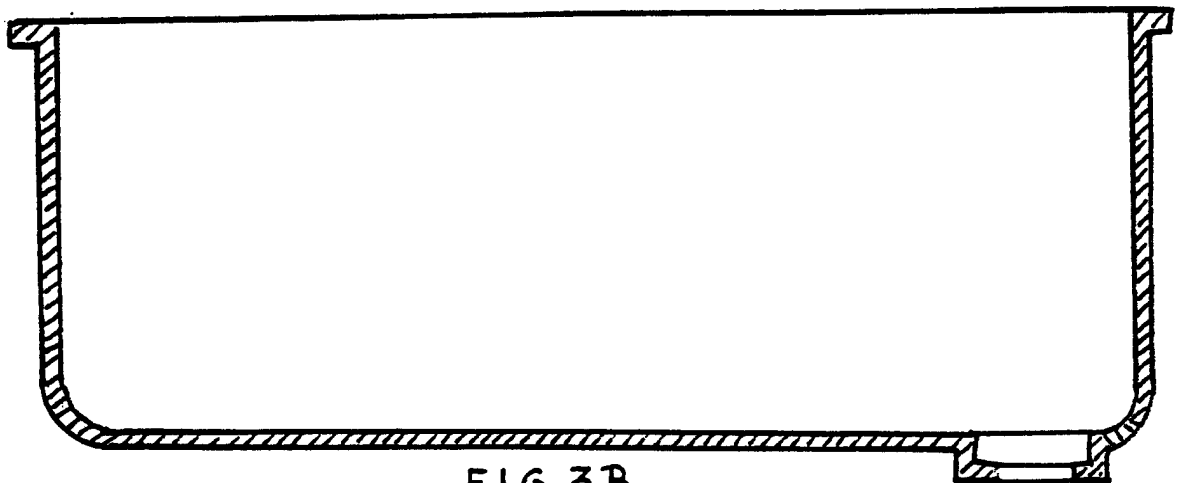


FIG 3B

FEUILLE DE REMPLACEMENT

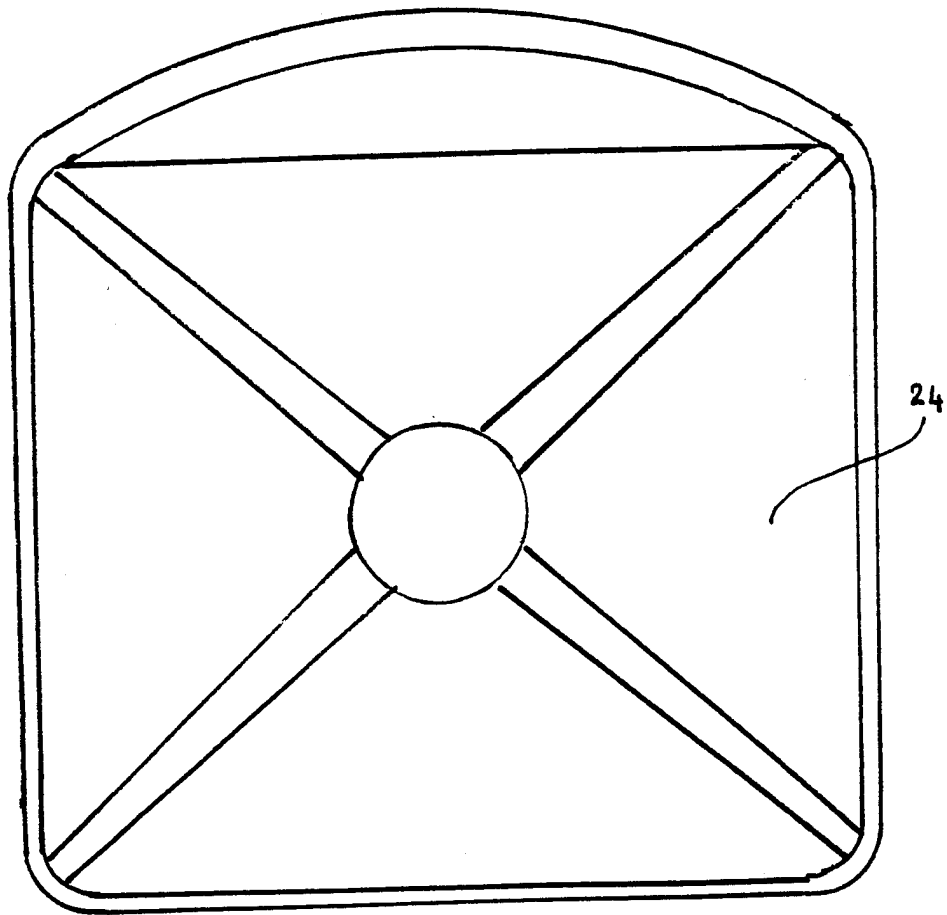


FIG 4 A

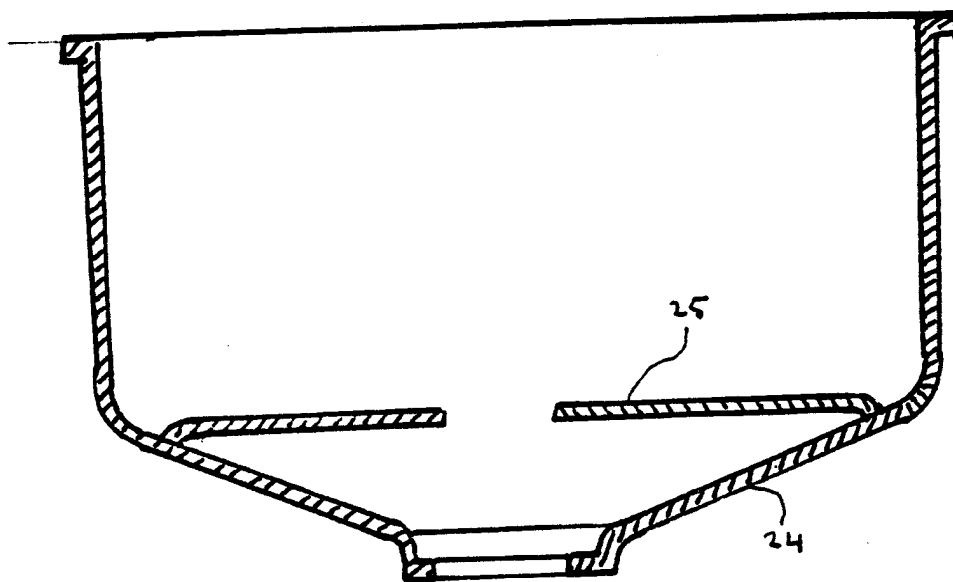


FIG 4 B

FEUILLE DE REMPLACEMENT

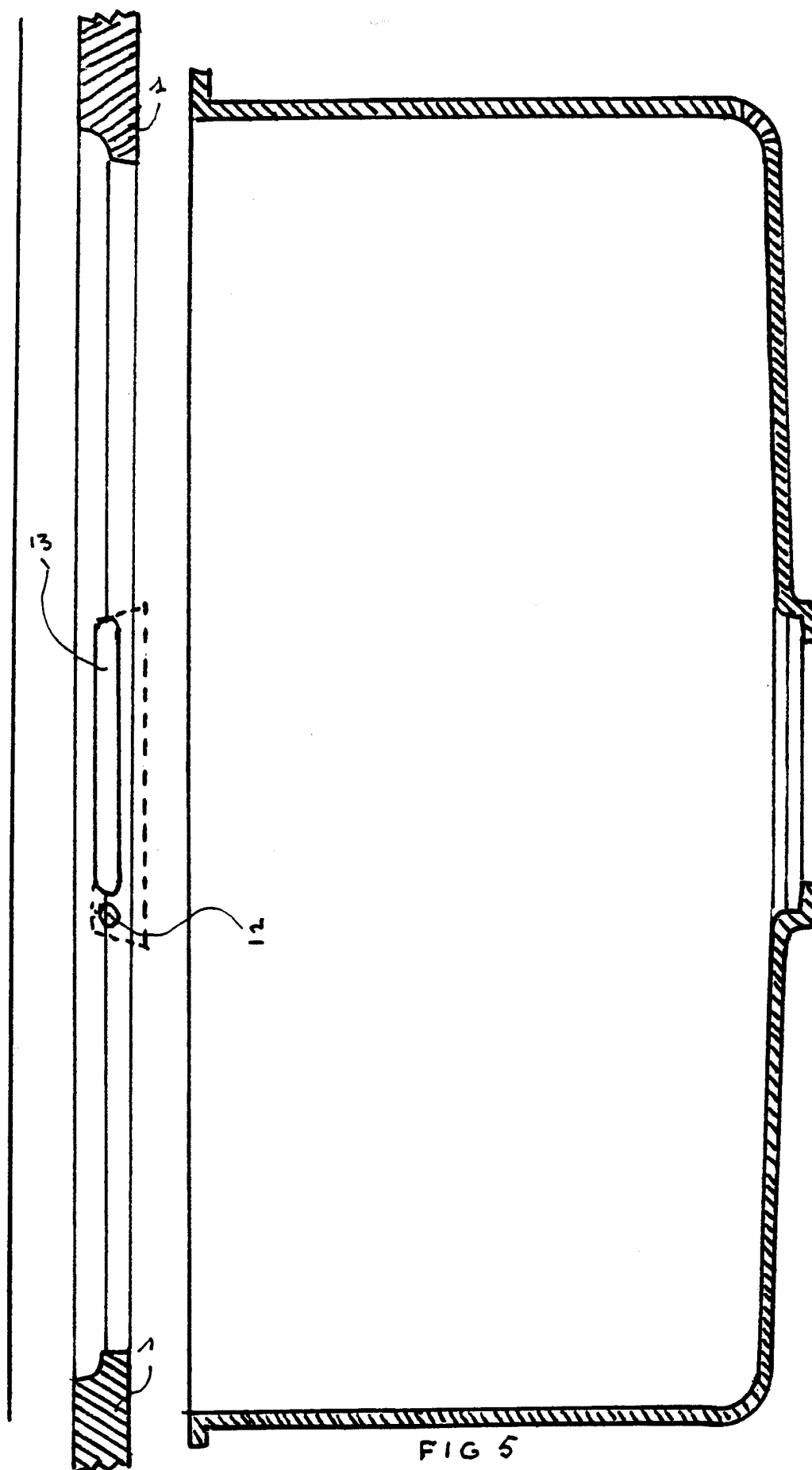


FIG 5

FEUILLE DE REMPLACEMENT

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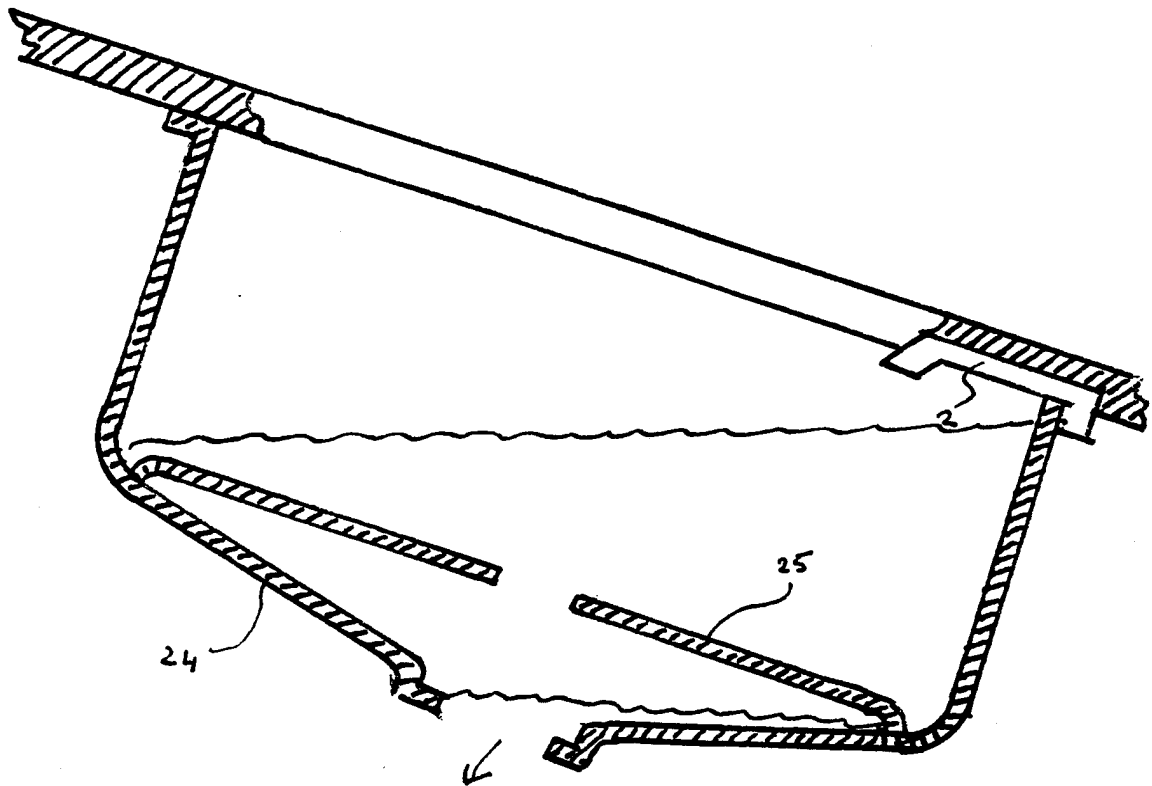


FIG 6A

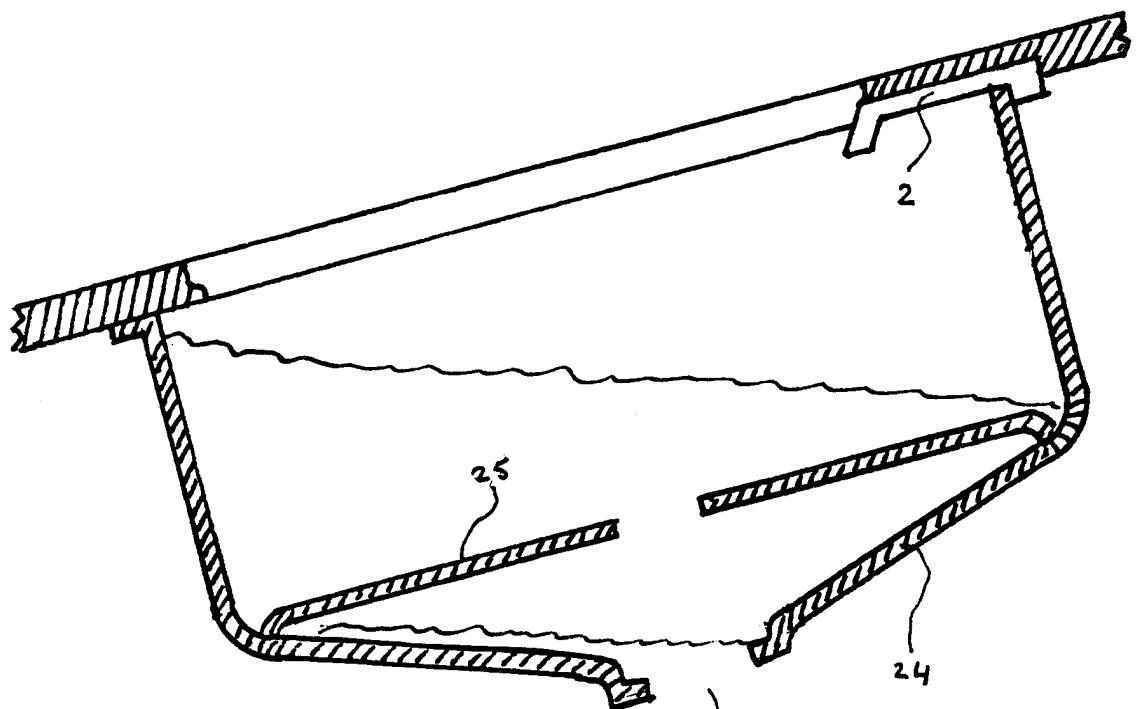


FIG 6B

FEUILLE DE REMPLACEMENT

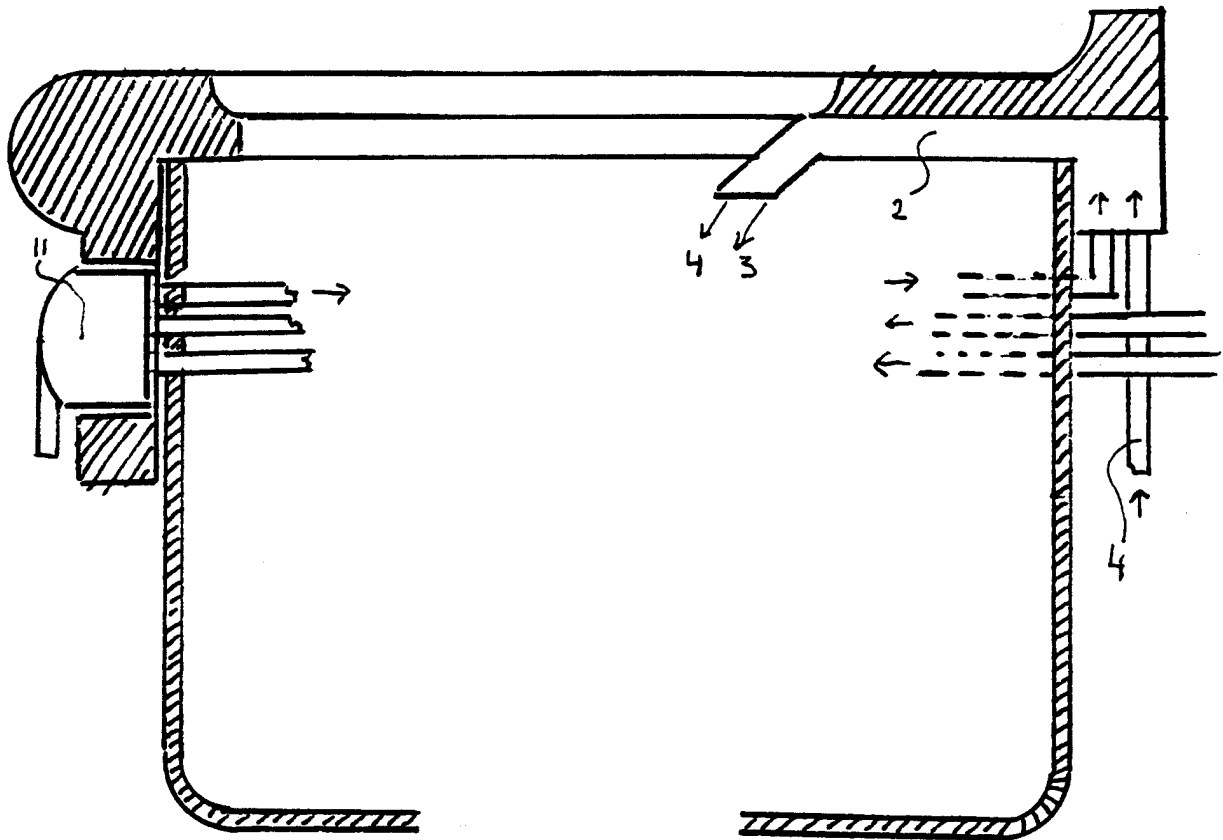


FIG 7A

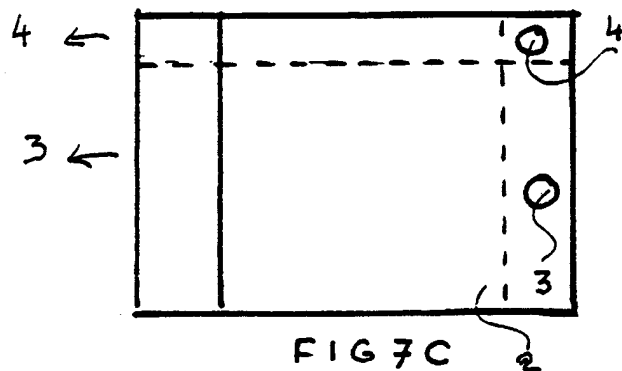
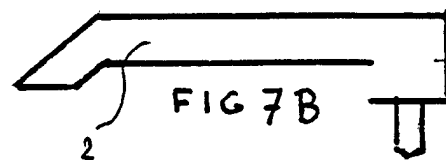


FIG 7C

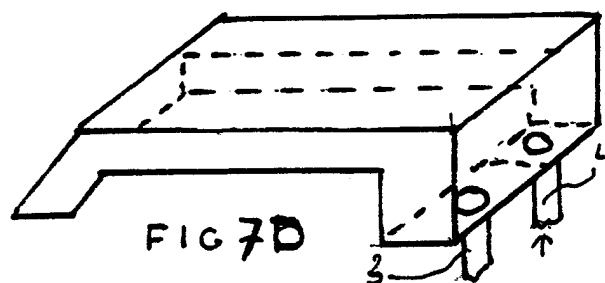
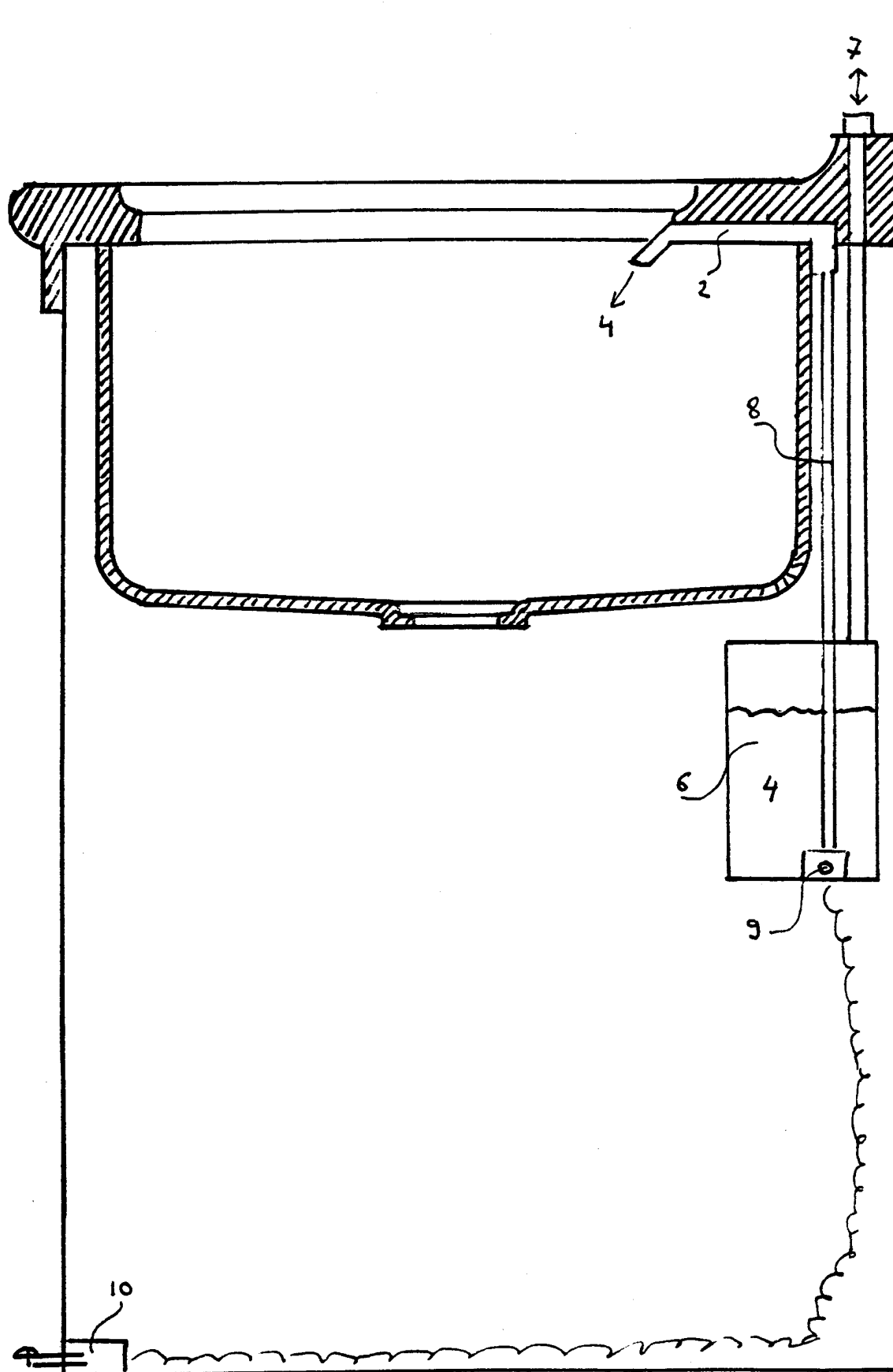


FIG 7D



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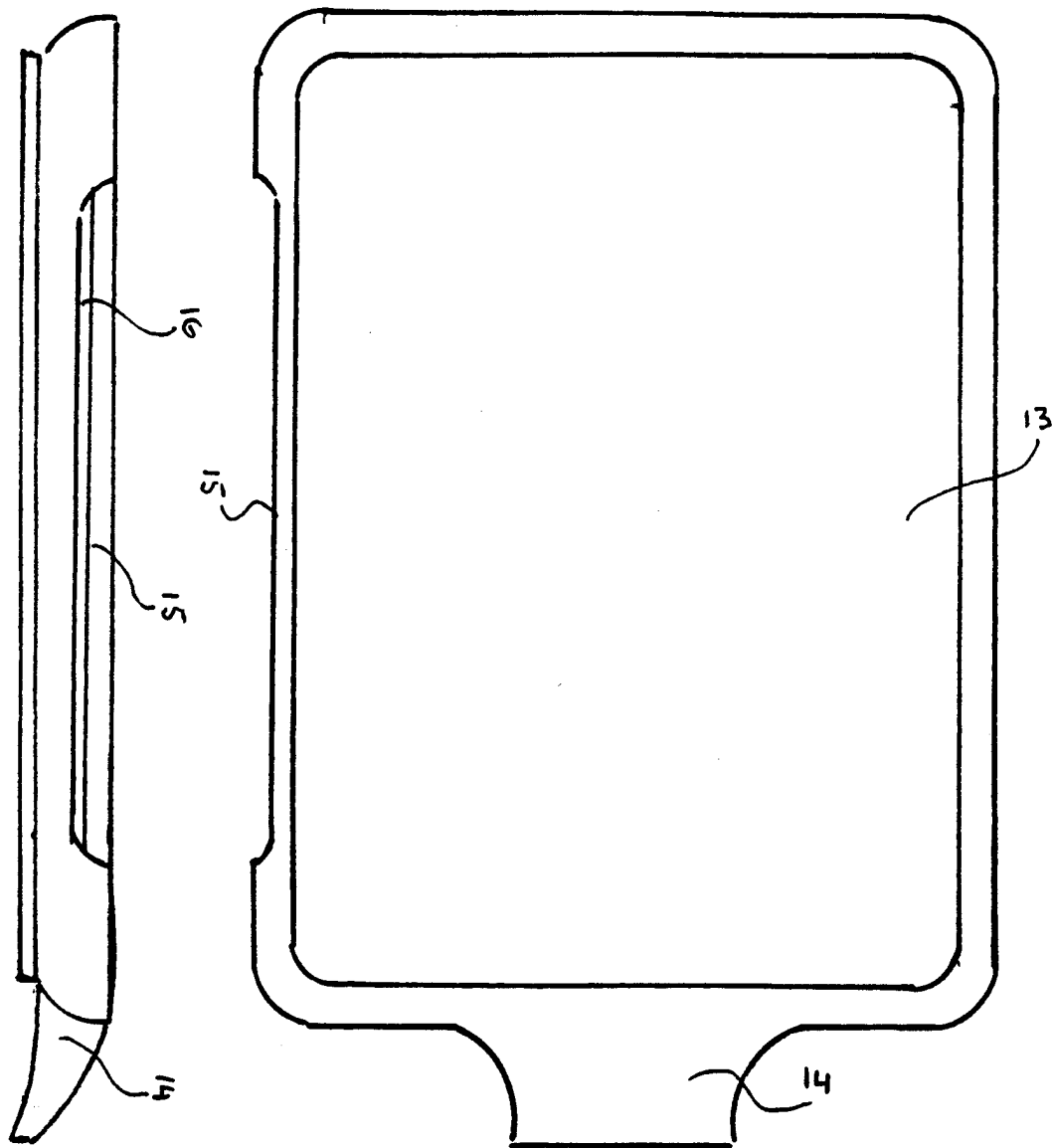


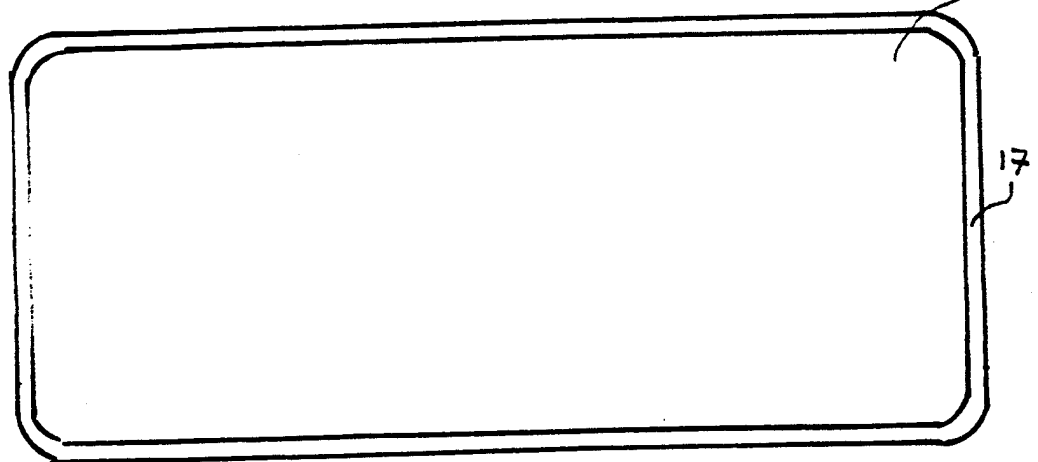
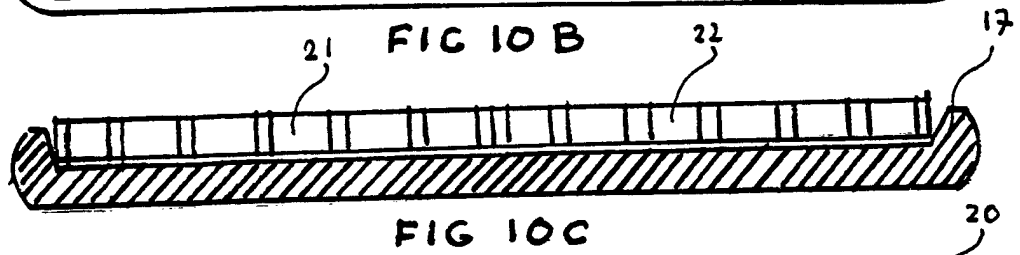
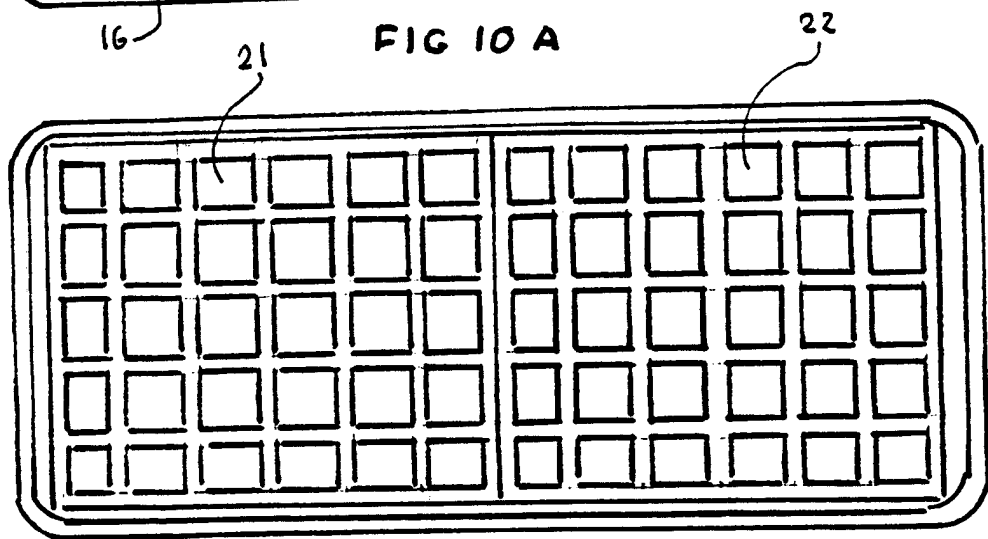
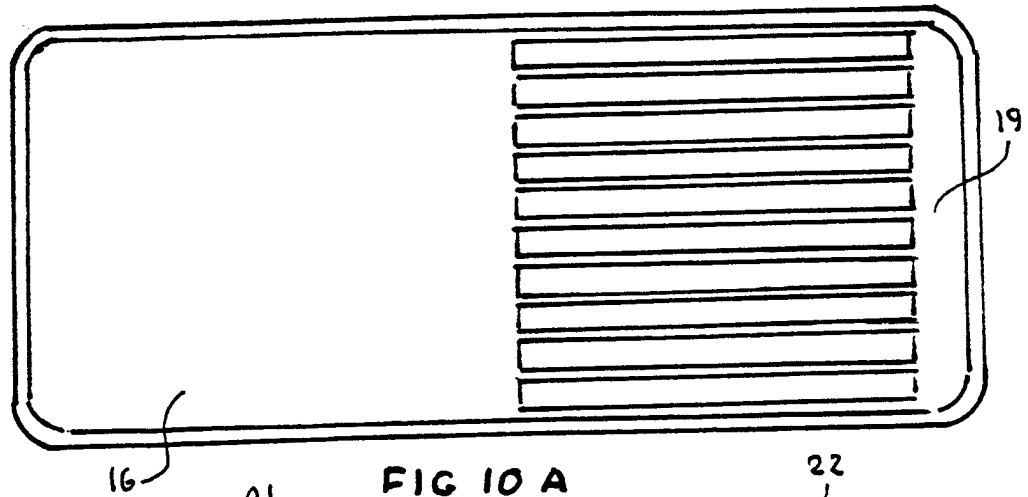
FIG 9C

FIG 9A

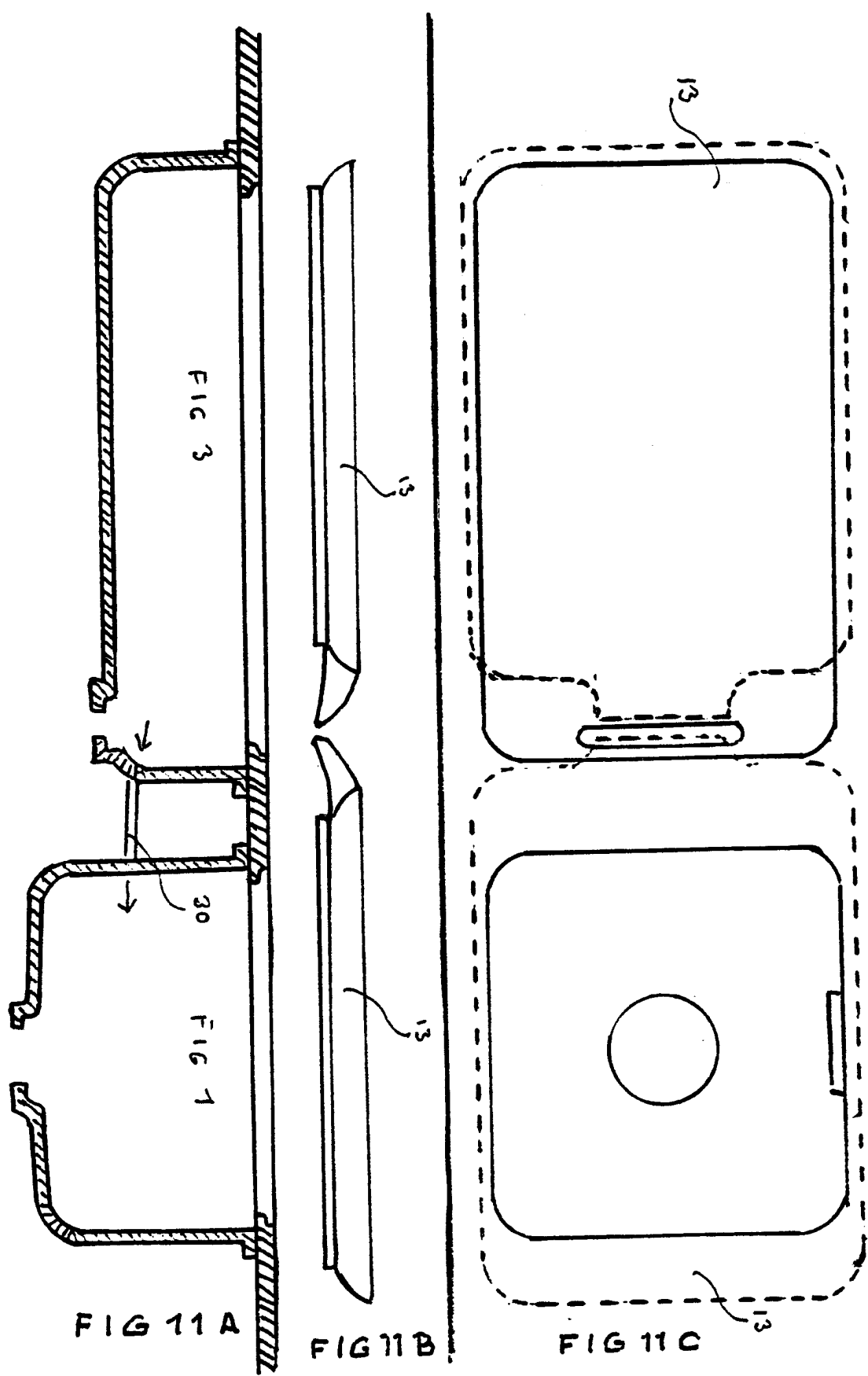
FIG 9B

FEUILLE DE REMPLACEMENT

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FEUILLE DE REMPLACEMENT



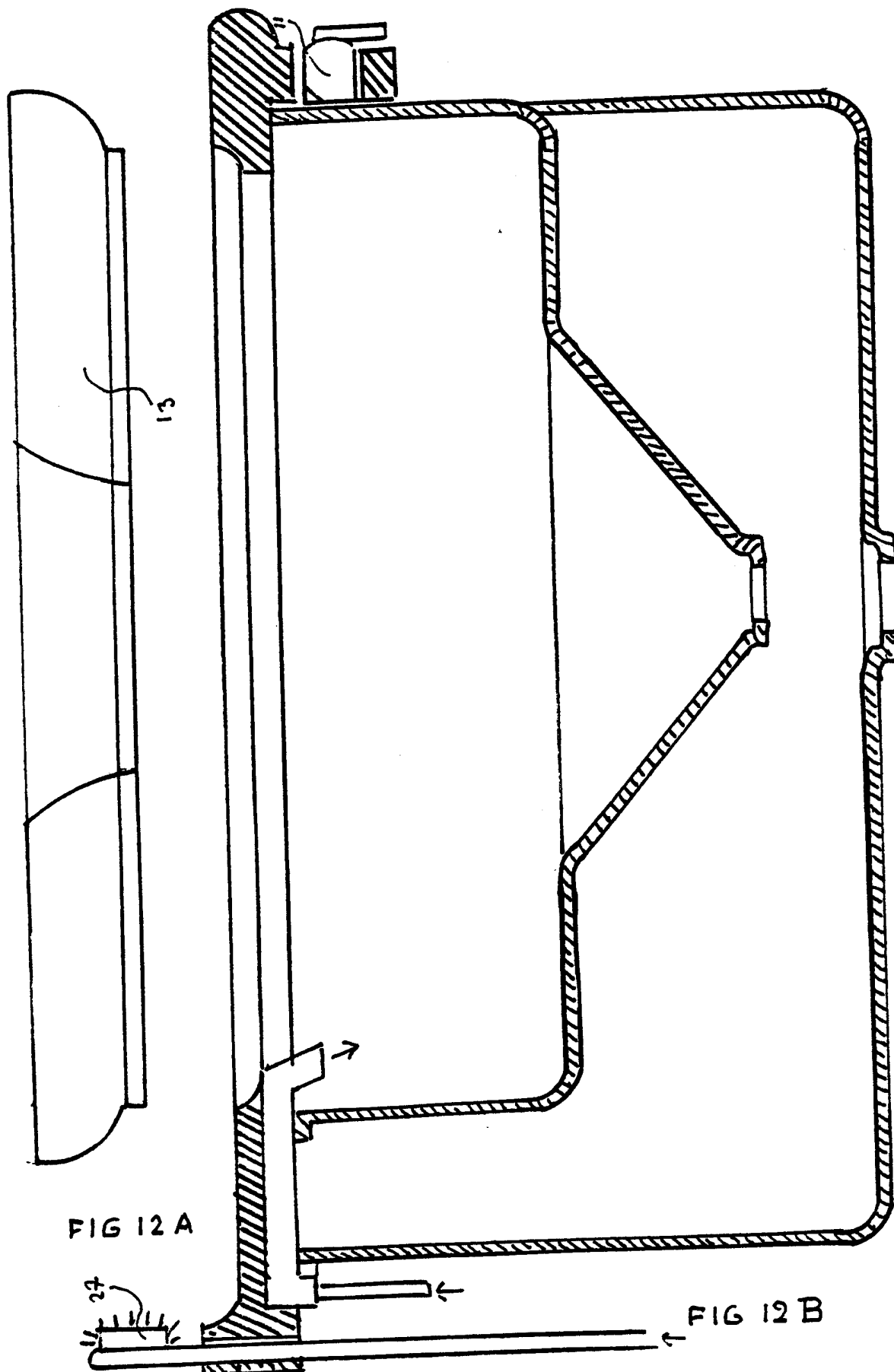


FIG 12 A

FIG 12 B

FEUILLE DE REMPLACEMENT

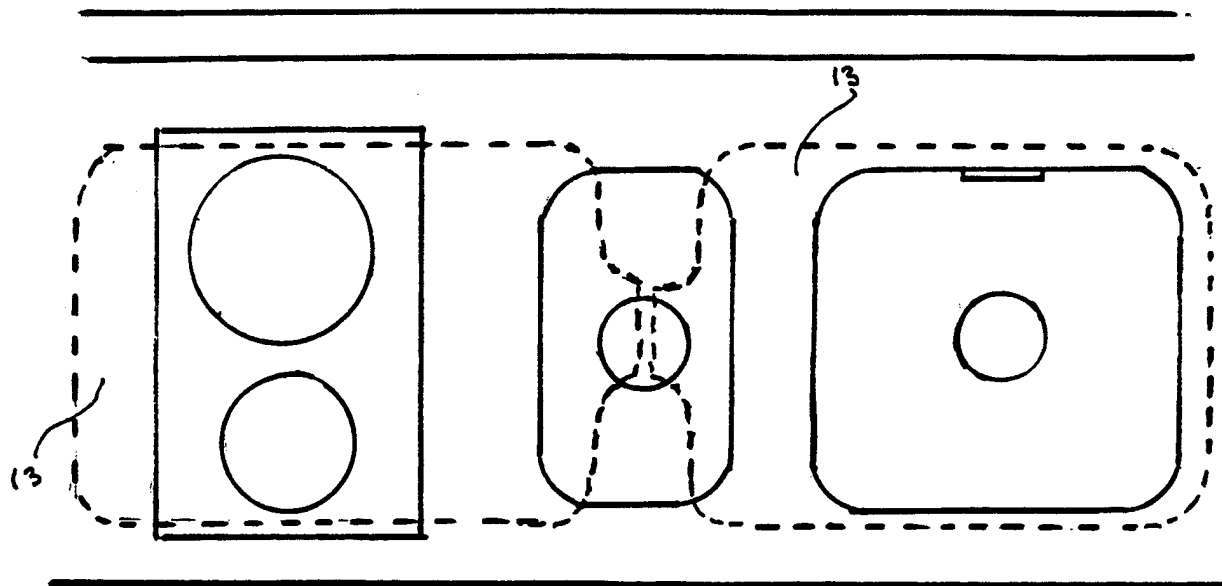


FIG 13 A



FIG 13 B

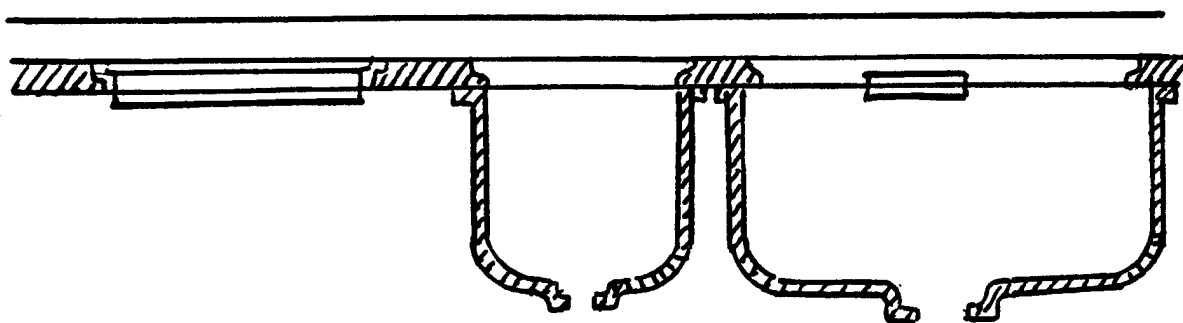
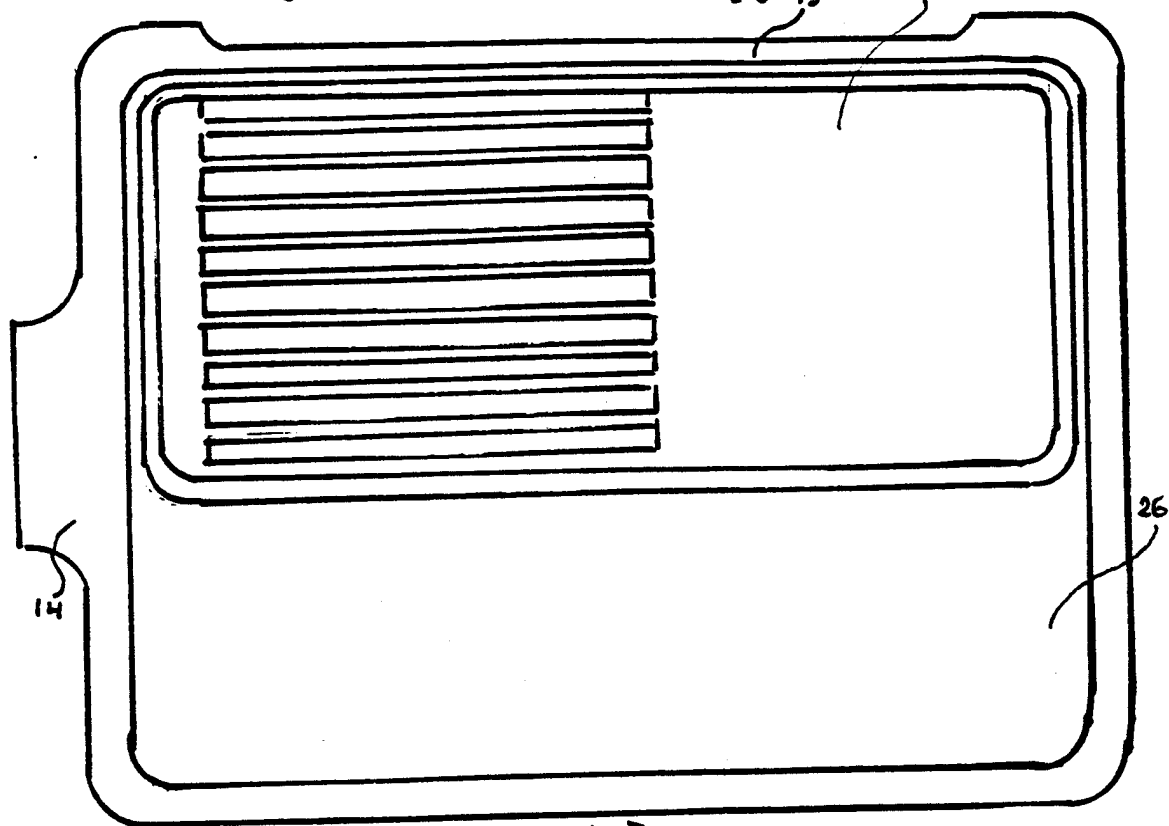
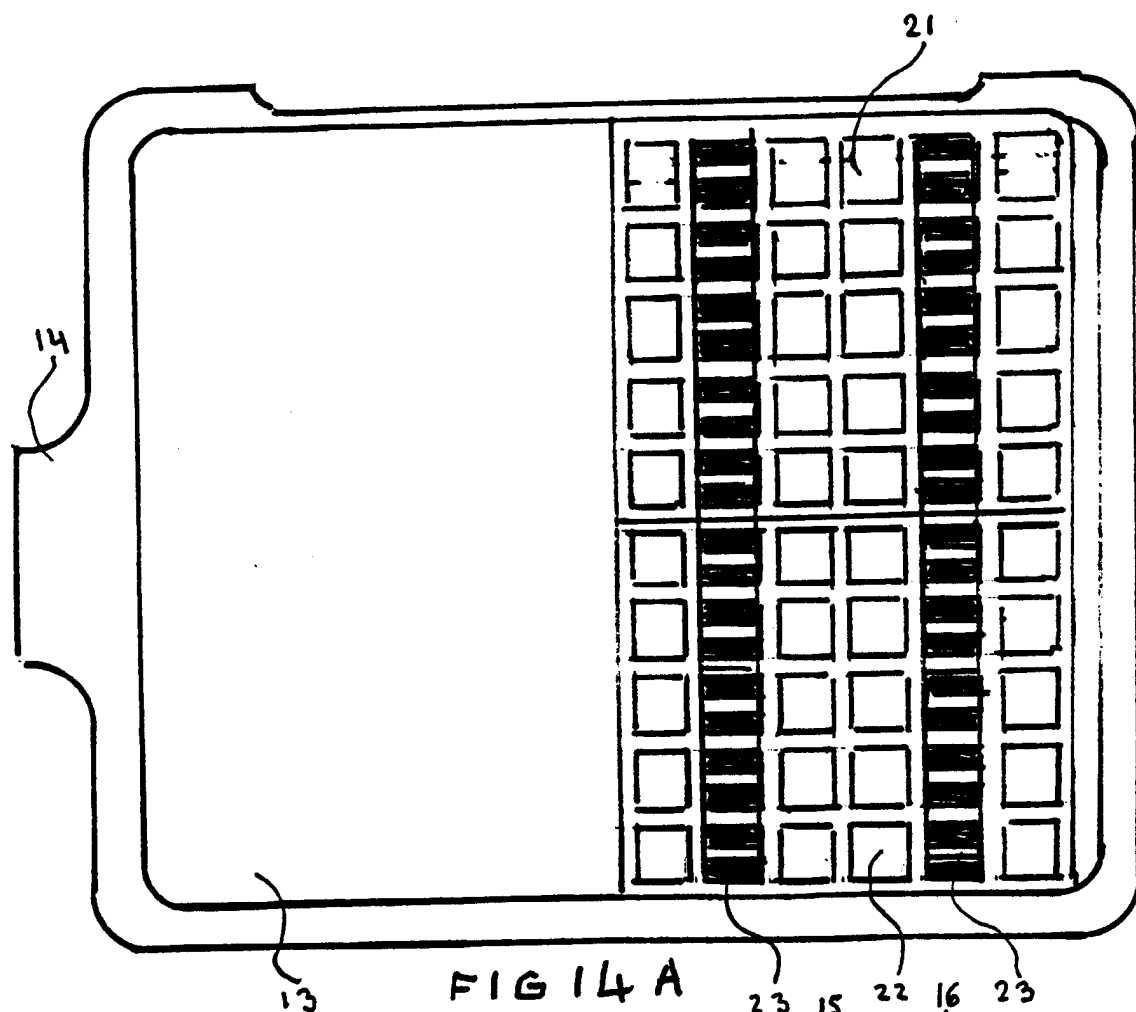
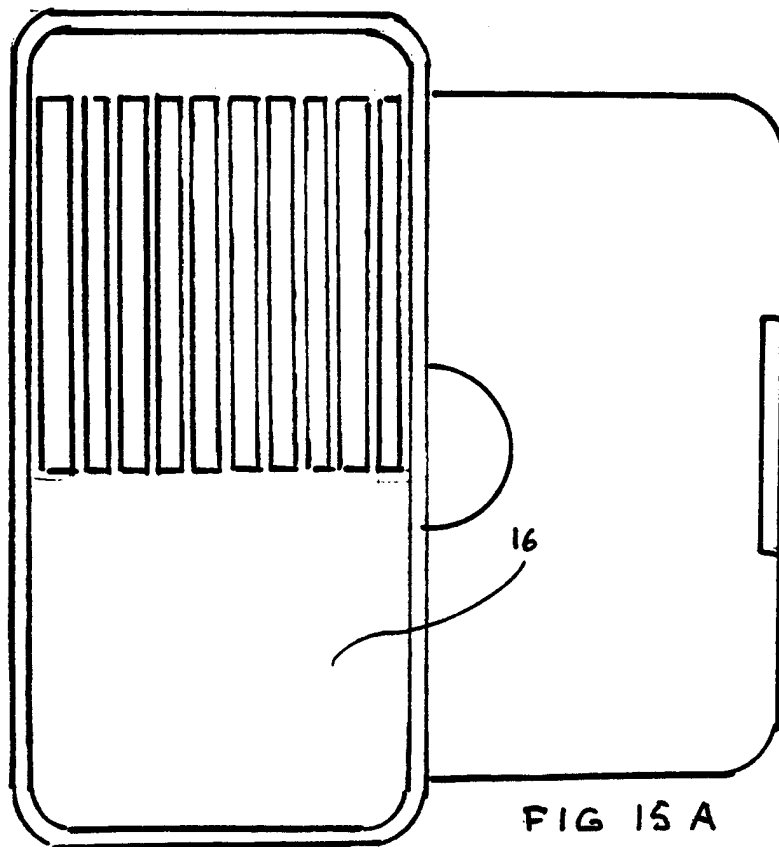
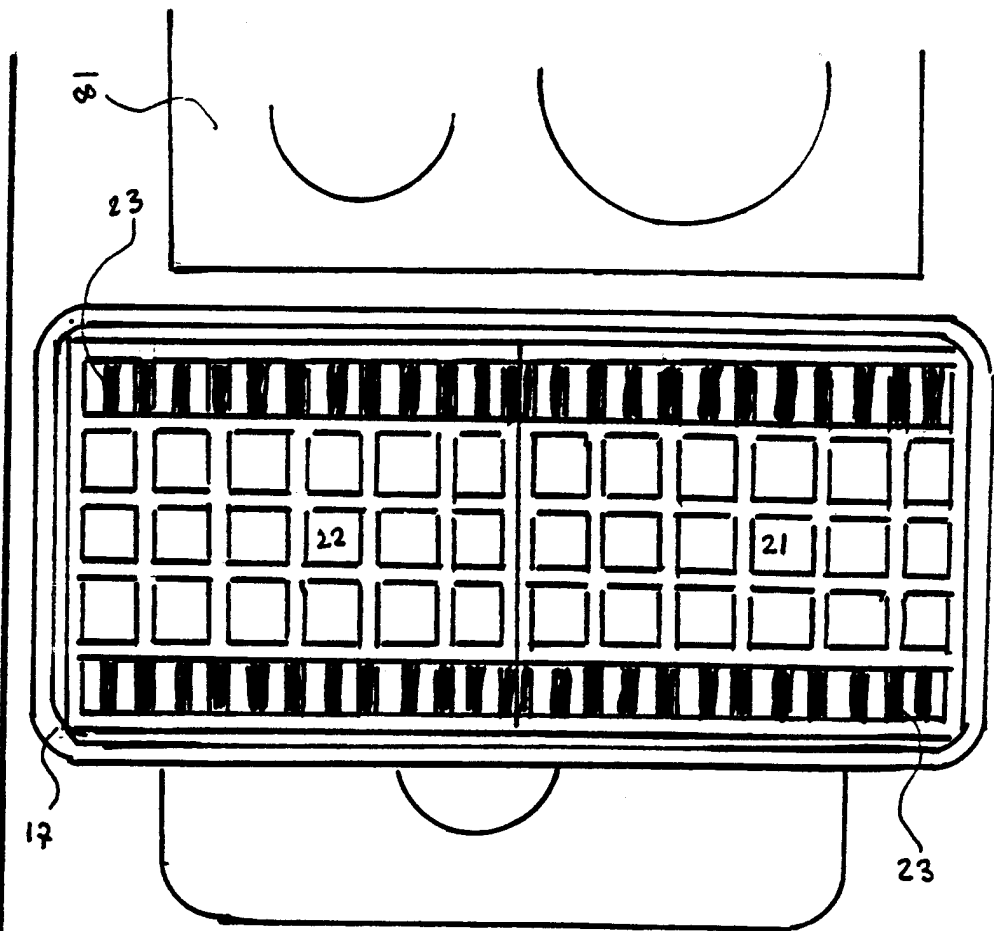
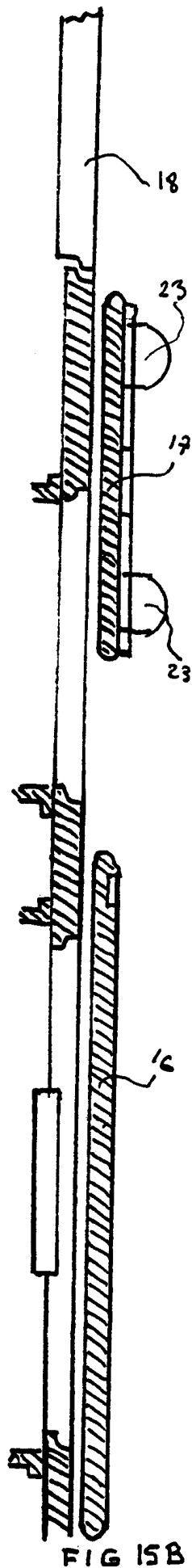


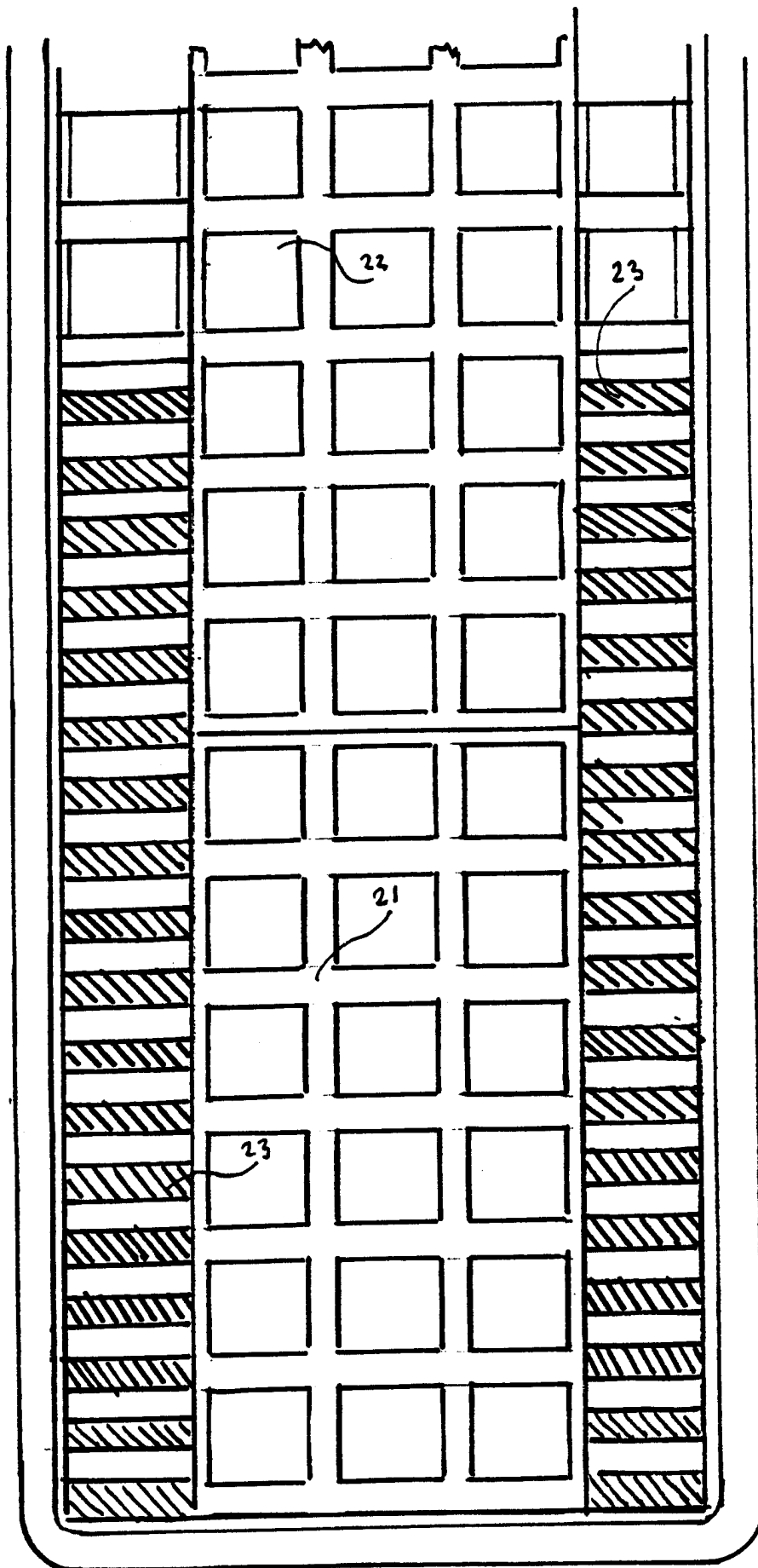
FIG 13 C

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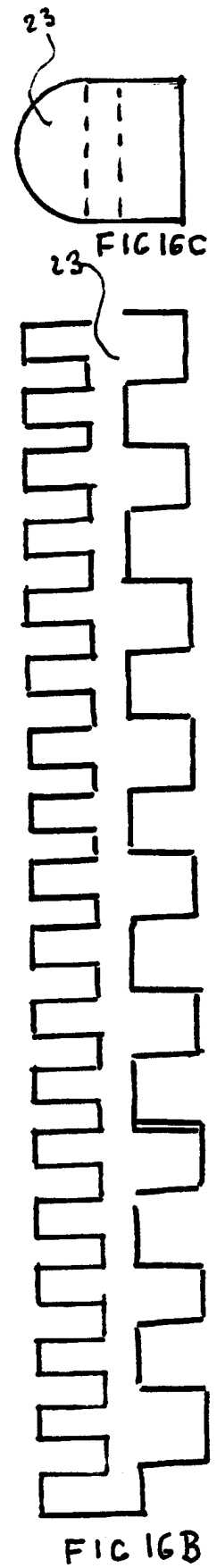


FEUILLE DE REMPLACEMENT





FEUILLE DE REMPLACEMENT



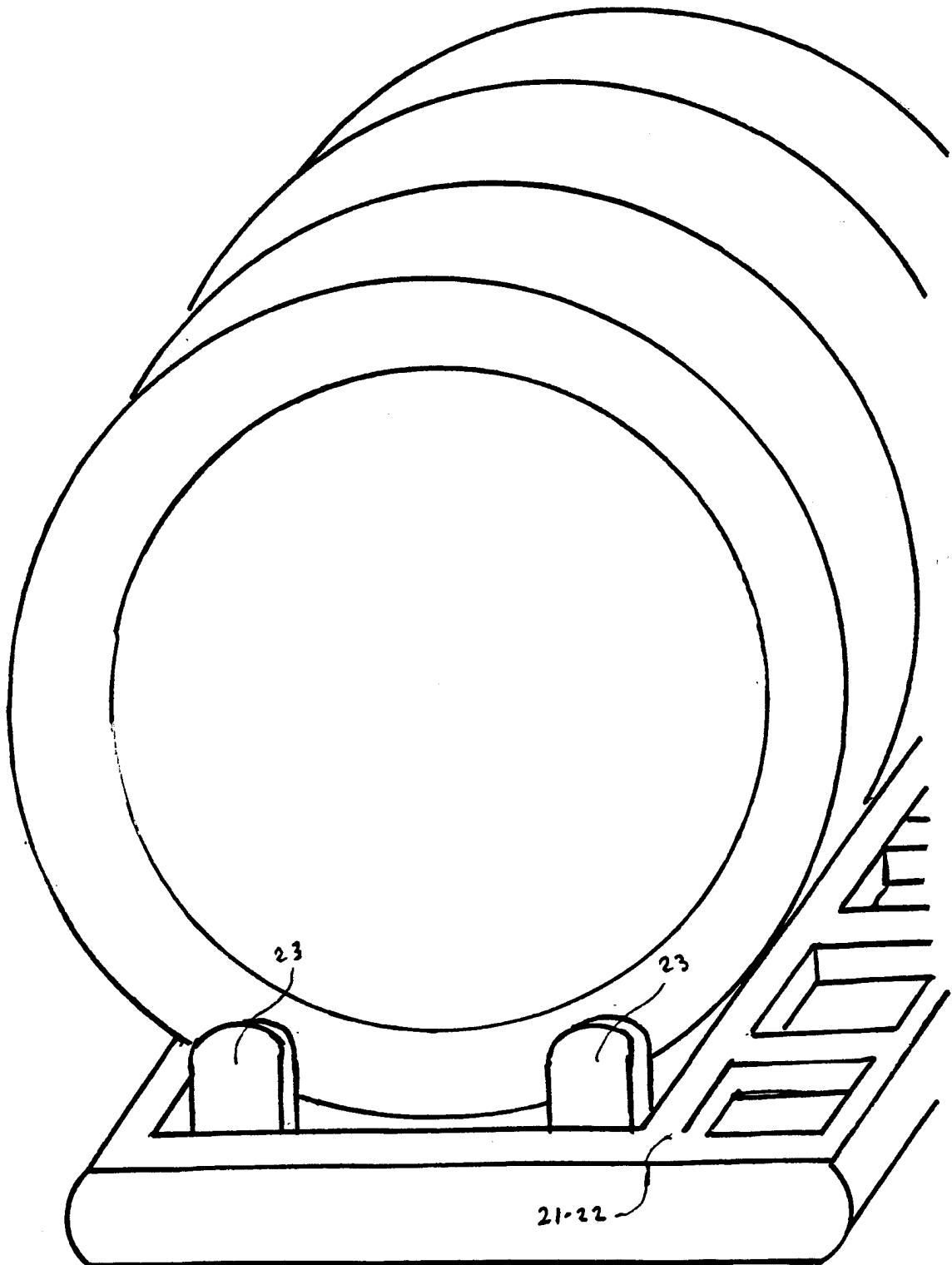


FIG 17

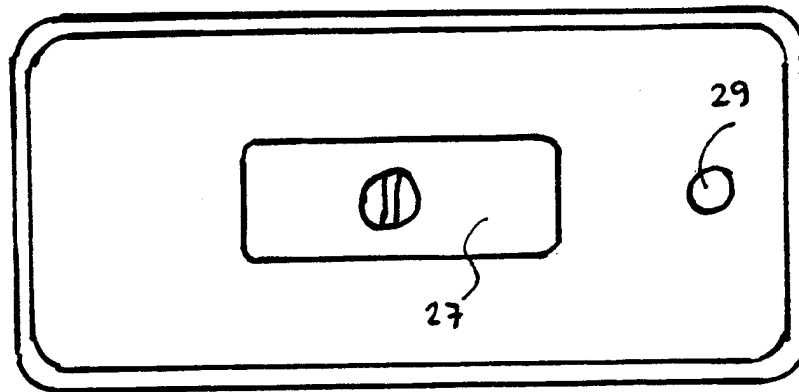


FIG 18 A

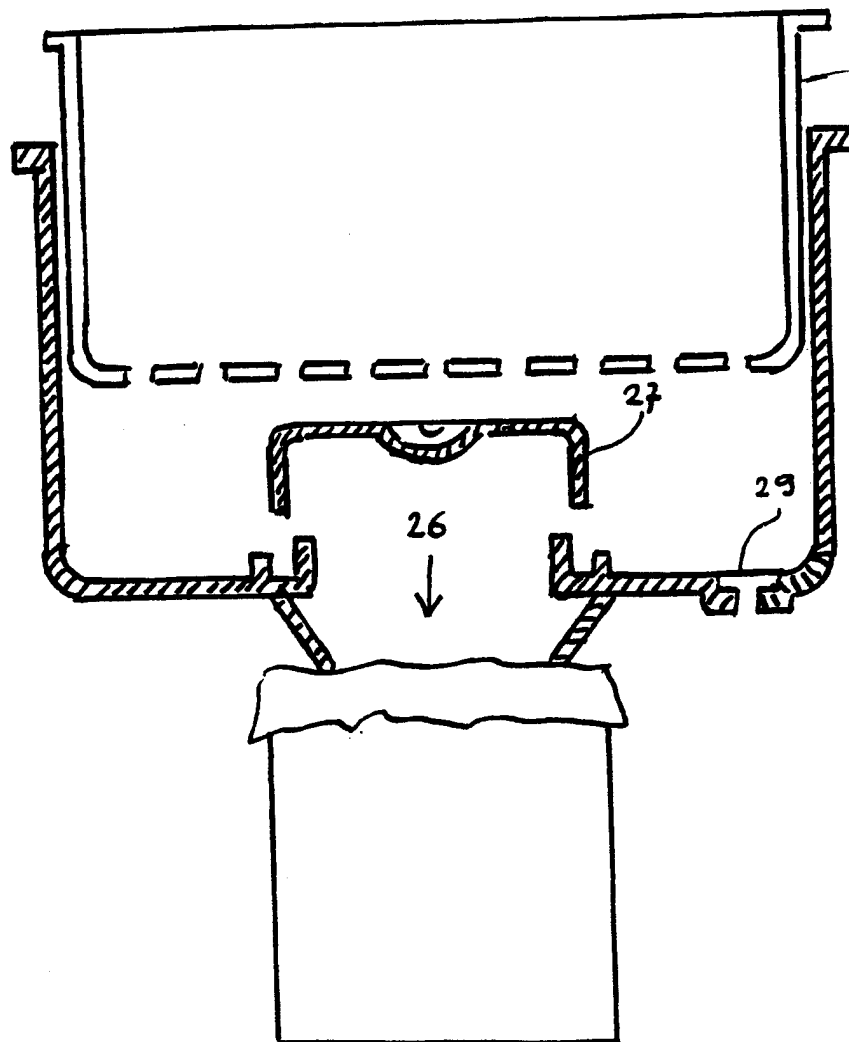
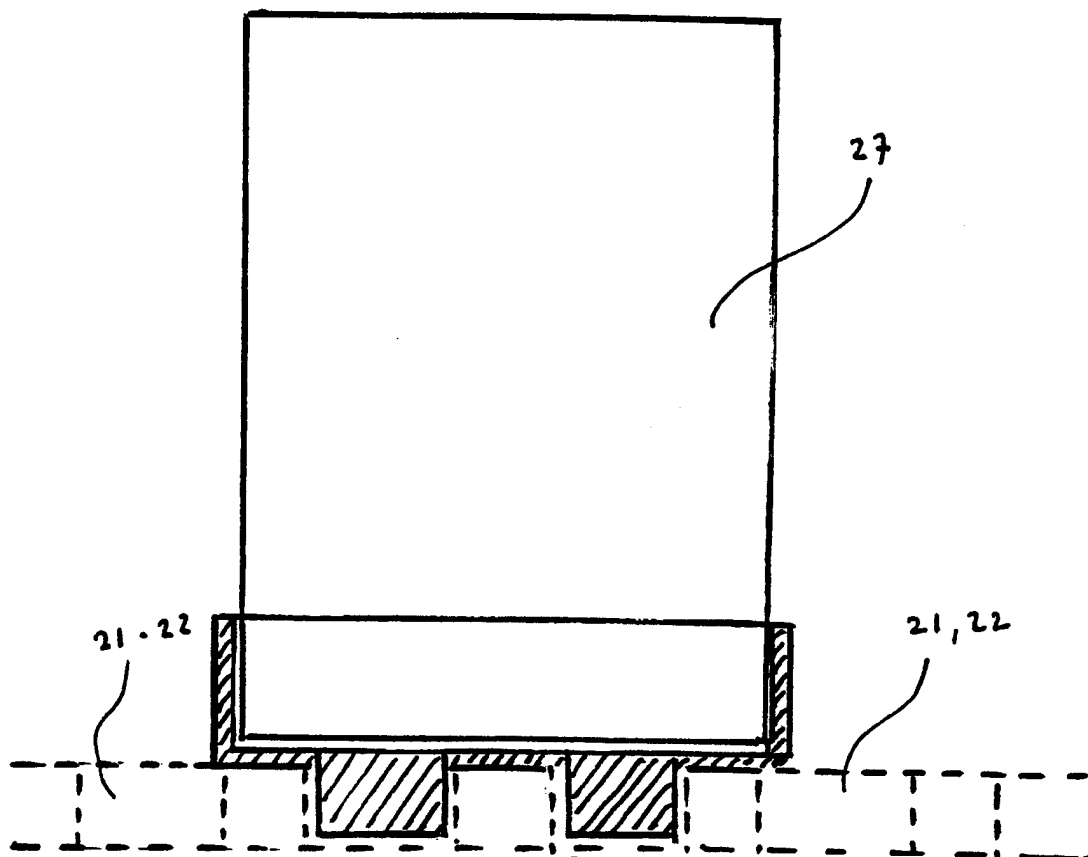
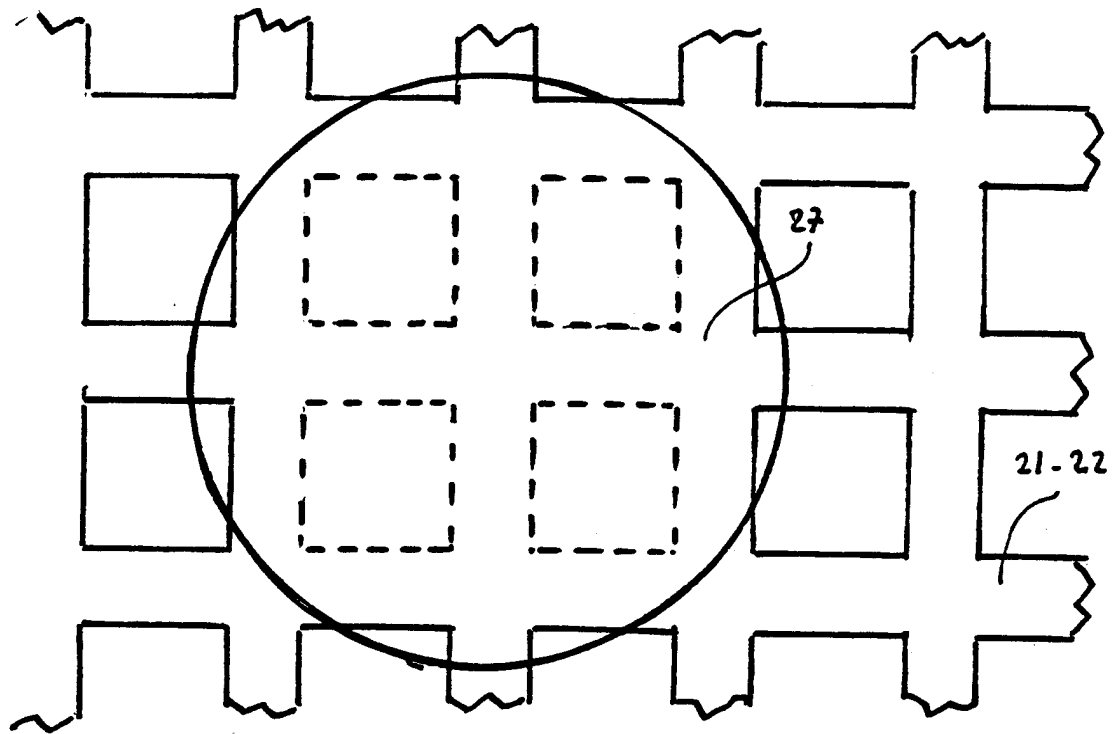
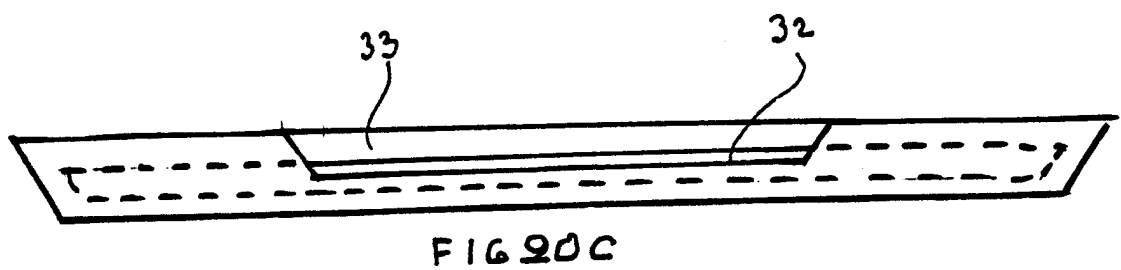
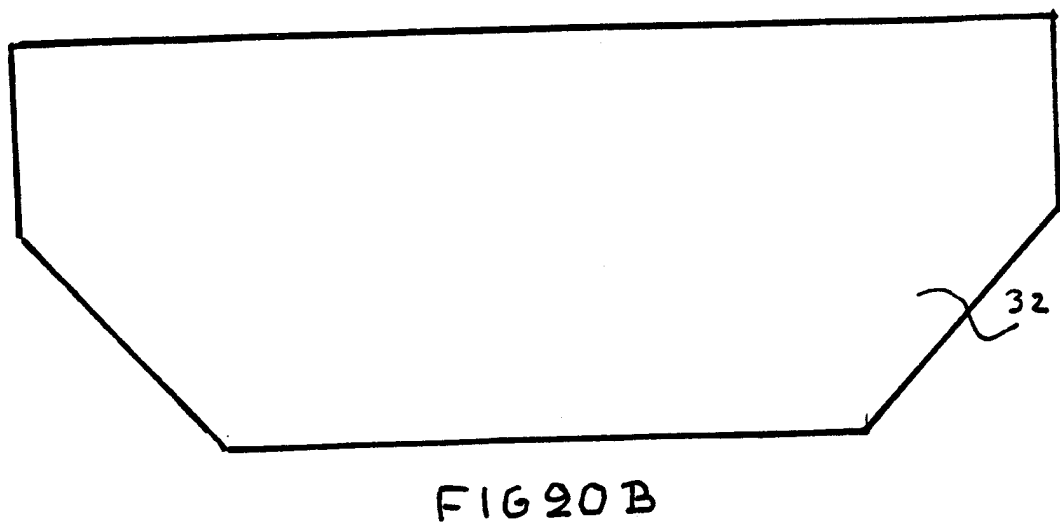
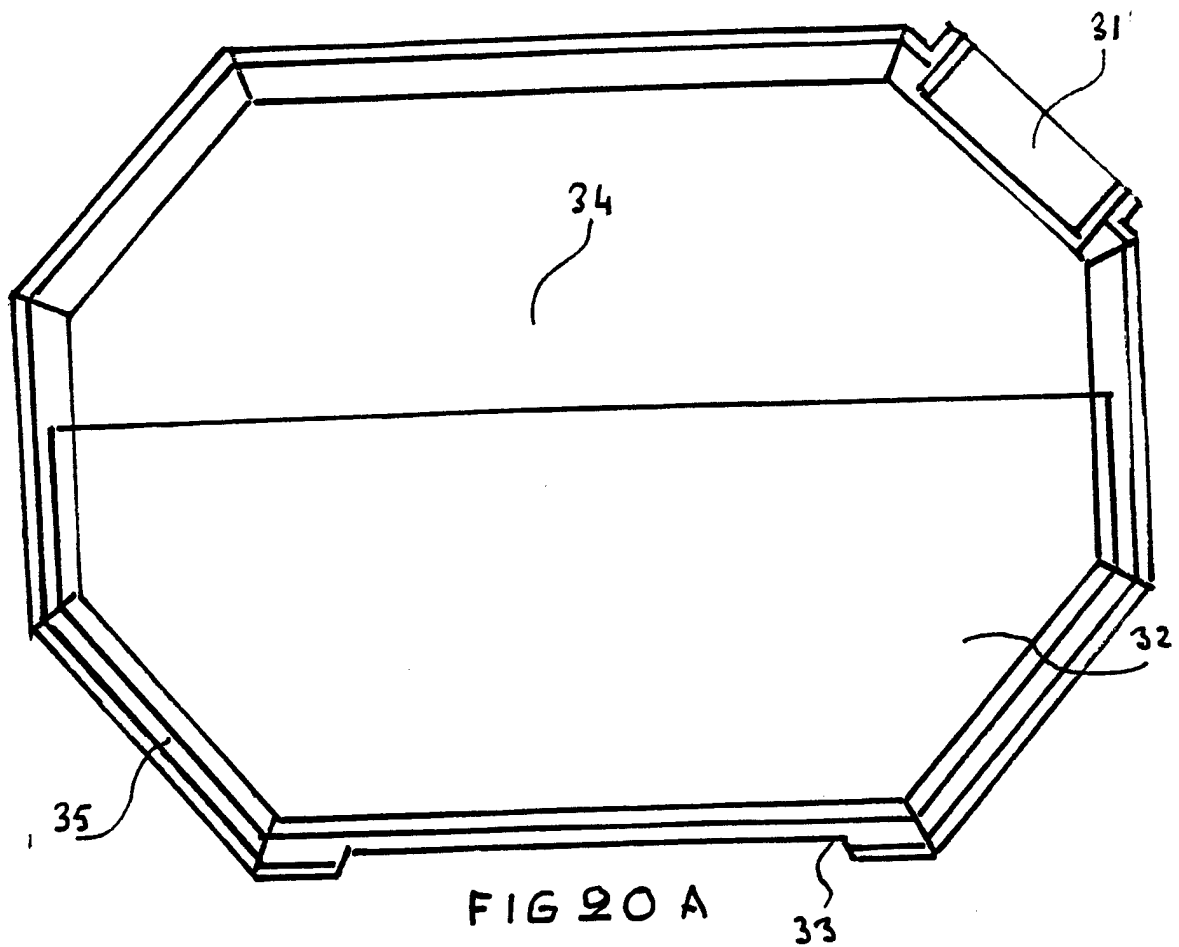


FIG 18 B





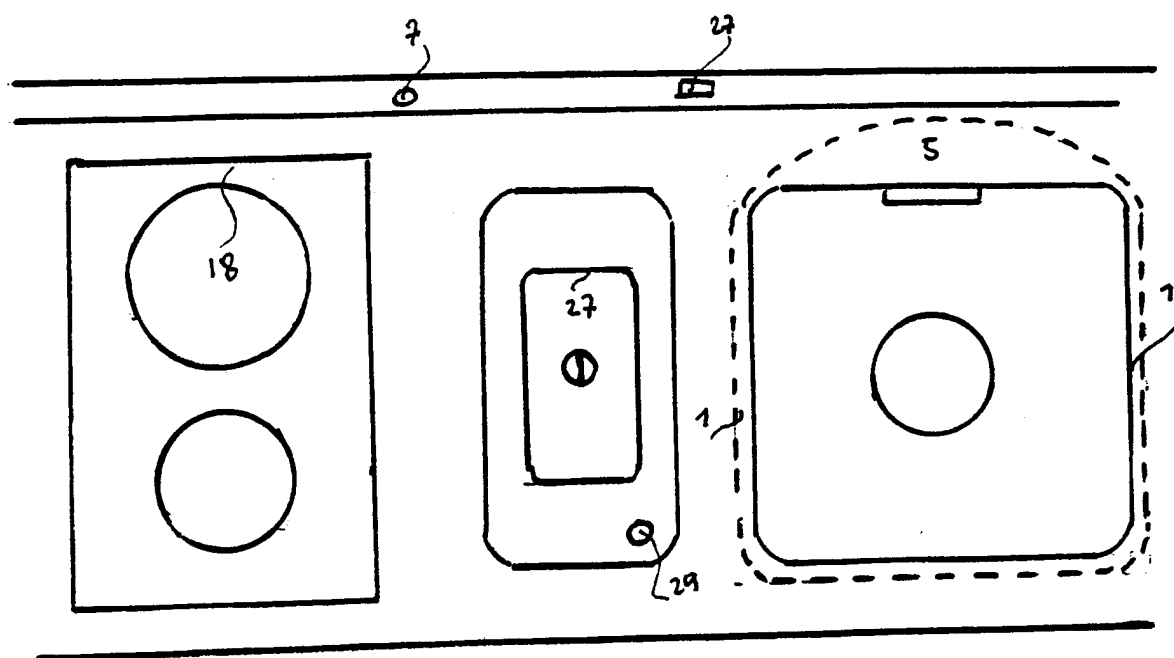


FIG 91 A

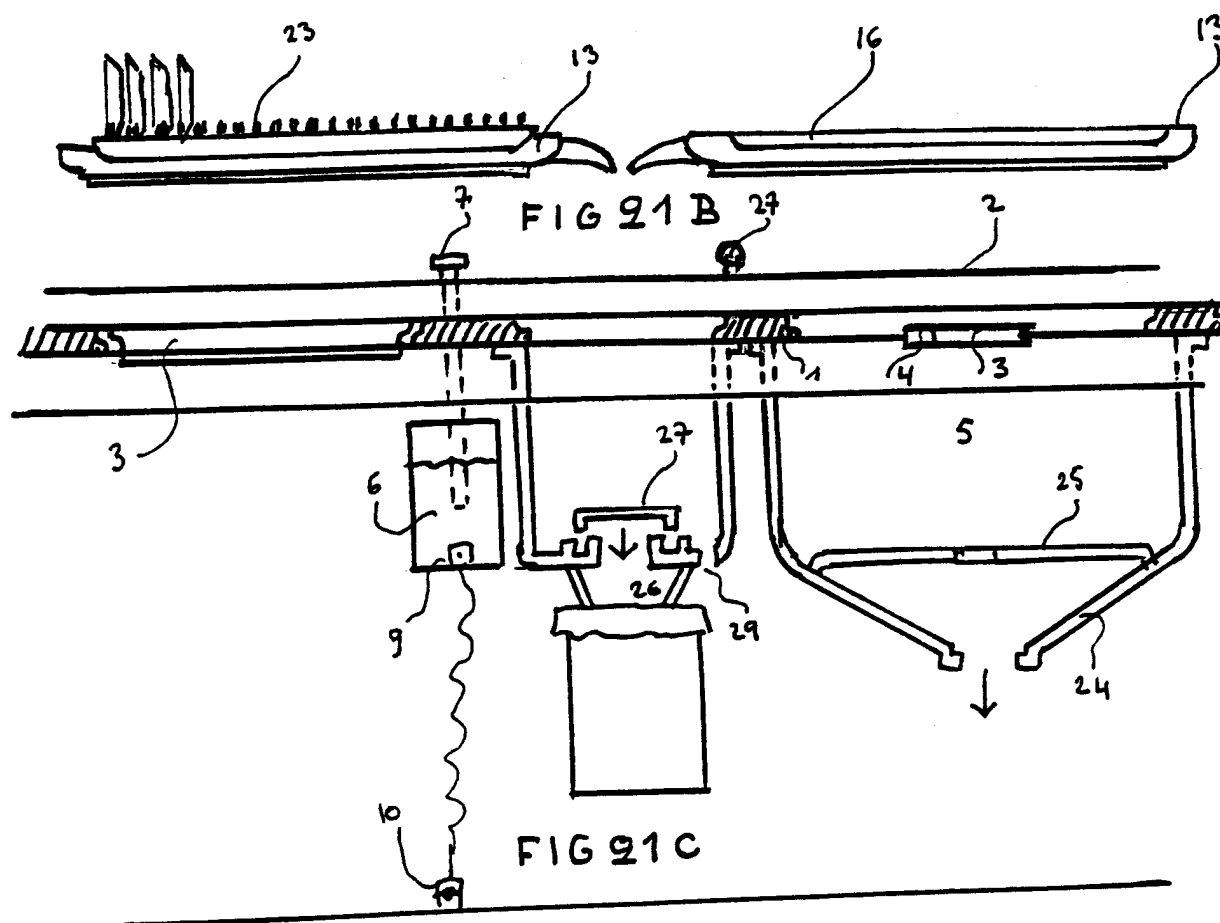


FIG 91 C