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(54) **Ironing board**

Bügelbrett

Planche à repasser

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**EP-A- 0 126 530** **EP-A- 0 287 985**  
**WO-A-91/09170**

- **PATENT ABSTRACTS OF JAPAN vol. 18, no. 176 (C-1183), 25 March 1994 & JP 05 337299 A (SANYO ELECTRIC CO LTD), 21 December 1993,**
- **PATENT ABSTRACTS OF JAPAN vol. 18, no. 134 (C-1176), 4 March 1994 & JP 05 317599 A (SHIMADA PHYS & CHEM IND CO LTD), 3 December 1993,**

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## Description

**[0001]** The object of this invention refers to a load-bearing monocoque-body ironing-board having a heated working surface, said working surface being permeable to allow suction from a suction apparatus positioned underneath. Said ironing-board being equipped optionally with accessories such as iron and boiler.

**[0002]** This apparatus can be used for industrial ironing as well as for domestic use.

### Prior art

**[0003]** For many years, ironing-boards have been well known in prior art. Traditionally, those for domestic use, are made up of a simple surface, differently shaped, mainly in shaped metal, formerly in wood, to which a support stand is attached on the underside. In more recent solutions an iron back support, optionally removable, could be provided, on which the iron can be rested so as not to interfere with the working surface.

**[0004]** Previous ironing-boards have nearly all been replaced by the professional ones, which, especially recently, have more technical features as they are subject to different needs to carry out various work loads.

**[0005]** A substantial difference between the first and the latter, consists essentially in the fact that the latter ones could offer particular advantages able to better the quality of the ironed product, but above all to increase the working speed.

**[0006]** A typical example of a professional ironing-board could be the association with steam-irons with a separate boiler (E.g. EP 0 287 985 A (BIELLE DI BREDA LORENZO, MAURIZIO & C. S.N.C.).

**[0007]** There are many similar apparatus actually on the market, that could be equipped with one or more accessories, starting from the simplest ironing-board, eventually equipped with heated surface, to the more complex ironing-board equipped with suction system (E.g. WO 91 09170 A (BERNSTEIN, D.S.).

The surfaces of these apparatuses are essentially made from a monocoque metal body, tapering at one end, (some having perimetrical edges for the working surface boiler - E.g. EP 0 287 985 A).

Over said body, supported inside said perimetrical edges, a separation wire net is used, which in turn bears a heating plate generally in aluminium, with holes all over the surface (e.g. WO 91 09170 A, Ref.11-22), and on the side has a connecting power plug for a power derivation box. Said derivation box is plugable to the power network, and is complete with thermostat and eventual electric-taps. It is engaged externally to said working surface and just beneath the body as a separate element from the working surface.

To the side opposite the tapered side of the working surface, an optionally removable carrying wire-grid for a boiler can furthermore be provided, with containing edges that define the boiler hole, preventing it from falling.

The whole ensemble, ironing-board surface and grid for holding boiler, is held up by an underlying stand, with compass type hinge, providing two tube shaped legs whose lower ends open out resulting in the support feet, while the upper ones, a first is firmly propped to said surface by means of transversely passing swivels, and a second opposite to the preceding, is releasable providing a selection of different adjustment degrees, which corresponds to different surface heights (E.g. WO 91 09170 A, Ref.43-44 Fig.2), To obtain such adjustment, on the part underneath the surface, two parallel racks are perpendicularly welded, obtained by cutting an "L" shaped guide.

In this case, the ends of one leg supports at least one cross element which, in turn must to be engaged in the corresponding teeth. Instead of the rack, single ring shaped hooks can be provided with the entry from one side in the direction of return, and generally of two or three, to which other different surface heights correspond.

**[0008]** A more recent apparatus, provides a slightly more complex solution in which, in addition to the heated surface function (EP 0 287 985 A Ref.10), a suction function is provided function (EP 0 287 985 A Ref.50).

The latter contrivance seems to be particularly important, in the professional sector, as It avoids the stagnation of the condensate on the surface of the board because of the steam given out when using the iron, therefore maintaining the surface perfectly dry and smooth.

For this purpose the application of a power unit and the relative rotor suction device is provided, said suction device fixed according to known techniques, rivets, screws, and so on, immediately beneath the metal body, from which It generously protrudes (EP 0 287 985 A Ref. 50), and in which, on the bottom of the body a circular opening is made in correspondence to the said suction rotor device. In such case, modifications also concern the iron support surface, which is eliminated and replaced by the boiler fixed in suspension, by means of hooks provided along a side of the same.

As for the supporting stand, apart from a lower barycentre, It can be noted that the ends of the legs that determine the height of the ironing surface, are slidable along a couple of guides, on the classic rack, and are fixable in the desired position by means of a pivoting knob, which persists in correspondence of references obtained along said guides. Also in this case, the starting and adjustment controls for the functions of the surface are provided in the underlying area, made in boxed elements also fixed by means of screws or the equivalent.

**[0009]** Another recent solution of prior art provides the realization of an ironing-board, particularly for steam irons, which is essentially made of a wire grid surface, which is covered with fabric, joined to an underlying body in plastic material that contains a horizontal sucking motor and a heating resistance. Even in this case, the command unit is separate from the body, and there-

fore engaged singularly to one part of the same side by common screws.

Among the qualities of this ironing-board, it is possible to point out that in connection with one end of the working surface, and underneath this, a container also in plastic material is provided, able to support the boiler of the iron.

In more detail, the container, provided with a handle, is of the removable type, being engaged on lateral sliding guides, to the support body of the working surface.

Finally we have a support stand which, other than the particular shape of the elements that make it up, differently from the others, it adopts a particular leg locking system, providing an adjustable overturned rack for engaging from above towards the bottom and not vice versa as always, of a connecting cross bar between the two upright elements that form the respective leg.

**[0010]** Other noticeable drawbacks, in the solutions of prior art, concern firstly a certain opening difficulty, as well as of positioning and fixing of the support stand.

In fact it must be remembered that we are in front of a heavy apparatus, approximately twenty kilos, which must be raised and handled, often more than once during the day, even by people who are not particularly strong.

The weight, as well as the encumbrance makes all this particularly complex and dangerous, without taking into consideration the physical fatigue, it is enough to think of the fact that while the board is raised or rested, often precariously on the part of static leg and held still as much as possible with one hand, the housewife must be able, with the other hand, to reach the underlying part, grip the mobile part and position it in the corresponding position to the desired height.

An operation that could be carried out more than once until reaching the best position.

In more recent solutions, such adjusting is made easier by screwing means which block the movement, for example of a slide engaging the ends of the movable crossed legs.

However, also in that case the user must find the handle of the screwing means, and for the adjustment of this, operating is difficult, because at the same time, the working surface must be raised.

The same problem, occurs in the closing phase, because one must firstly raise the working surface and then grip the movable leg, disengaging it contextually from the respective locks and close the legs.

Finally, simultaneously, the board is rotated downwards. One of the difficulties, in that case, consists in the fact of putting the legs together, this is an operation that requires an excessive distension of the arm concerned, with the danger of losing equilibrium, falling on the ground.

In conclusion, the combination of these problems can also cause an incorrect adjustment that determines the instability of the table, if not even the accidental disengagement from the locks.

**[0011]** The aim of this invention is also to avoid the above-mentioned drawbacks.

Disclosure of the invention

**[0012]** This and other scopes are reached with the present invention, according to the characteristics of the included claims, solving the arising problems by means of a bearing monocoque body particularly for ironing-board, and ironing-board so obtained, of the improved type, obtained in plastic material, and provided peripherally with a restraining side able to define internally a first opening to the entire surface, to accommodate the components, in which partitioning is provided:

- an internal seat to said first opening provided with aeration grid, the seat, being designed to accommodate a suction engine group with respective fan;
- an adjacent container to said opening regarding an extremity of the working surface, on the inside of which a boiler can be placed, connected to an iron for the delivery of the steam;
- housings, for the relative ironing-board activation commands and/or of the iron, prearranged also to accommodate connection current-taps, said housings being obtained in the part of the body concerning the working surface and/or in correspondence to the container of the boiler;
- support means fixed at the base and perpendicular to the body, for support of the heating surface and perimetrical stops on the inside of the body opening, for the fixing of the cables;

while externally, corresponding to the lower surface, a seat for the anchorage of the static extremity of a compass closable stand leg is obtained at one side, the opposite leg being engaged to a slidably adjustable slide on guides obtained from the body itself.

**[0013]** In this way, different advantages are achieved through the notable creative contribution, the effect of which realize an immediate technical progress.

It is possible to obtain firstly a substantial reduction in weight, making the ironing-board particularly easy to move, resulting in a greater compactness of the structure, reducing in a congruous way the encumbrances.

In the second place the entire surface is further simplified, facilitating the assembly of the internal components and of their relative wiring with consequent reduction of the working time in advantage of lower production costs.

Under the functional profile one can additionally detect a good thermic insulation, because of the continuous shell, using completely the heating capacity of the surface, and secondly offering a good protection and therefore security of the components so contained, also by eventual accidental contacts with the user and other external agents.

Regarding the housing the boiler, even in that case one can observe a greater sturdiness and on the whole a

greater functionality, avoiding direct contact with the user.

Finally, the special anchorage device of the legs to the monocoque body should be highlighted, which facilitates the adjustment of the ironing board height, and prevents the accidental fall of same. Advantageously externally, corresponding to the lower surface of the working surface, a seat for the anchorage of the static extremity of a compass closable stand leg is obtained at one side, the opposite leg being engaged to a slidably adjustable slide on guides obtained from the body itself; said device consisting essentially in a pulling cable almost parallel to the ironing-board, in which one of the extremities is at one side engaged, if necessary also connected, to a slide on which are keyed the ends of a movable leg; from the other, engaging the extremity of an elastic spring, steadily anchored to the working surface, and in which said eventual connection is effected by a block hinged to the correspondent monocoque body in proximity to the support guides of the slide.

**[0014]** In this way, a substantial facilitation and minor physical fatigue is obtained, above all in the opening phase of the legs. In fact, the presence of a spring that acts on the slide, as in tension, causes the legs to distend by simply raising the ironing board, prearranging itself with rapidity in an open position and therefore stabilizing the surface.

Then in the closing phase, the force of the spring to be stretched, allows the legs to hold out a certain resistance at closure, even if slight, and in any way that bit which suffices to slow the unexpected fall of the ironing board, contextually alleviating the weight, on lack of the support.

**[0015]** These and other advantages appear from the subsequent preferred embodiments, with the help of the included drawings, the details of which are not to be considered limitative, but only supplied as an example. Figure 1, represents a plan-view of a monocoque body of the bearing type, particularly for ironing-board.

**[0016]** Figure 2, represents a side view and in part, in longitudinal section according to axis A-A, of the monocoque body as in preceding Figure.

**[0017]** Figure 3, represents a view taken from the end of the working surface, relatively to the head of the monocoque body.

**[0018]** Figure 4, represents a plan-view of an slide as sociable to a supporting stand leg.

**[0019]** Figure 5, represents a frontal view of the slide as in Figure 4 taken in section along axis A-A.

**[0020]** Figure 6, represents a view of the slide as in Figures 4 and 5 taken in section along axis B-B.

**[0021]** Figures 7 and 8, illustrate respectively, an internal-external view of one side of said slides as in preceding Figures.

**[0022]** Finally, figure 9 represents a cross-sectional view of the monocoque body taken along axis B-B of Figure 1.

**[0023]** Figure 1A, represents a side view of an elastic

return device of at least one leg, in which are highlighted at least two of the possible positions of an adjustable slide of anchorage of the extremity.

**[0024]** Figure 2A, represents an enlarged view of one particular of Figure 1; relative to the connection means to the pulling cable.

**[0025]** Figure 3A, represents a sectional view and a frontal view of the connection means to the pulling cable.

**[0026]** Figure 4A, represents a perspective view and from below, of a possible variation to the monocoque body for ironing-board; the solution of which excludes the presence of the pulling cable connection.

**[0027]** Finally, figures 5A and 6A represent respectively, a schematic plan view and a side view of the monocoque body, and one in longitudinal section.

**[0028]** With reference to the Figures from 1 to 9, it is disclosed that a bearing monocoque body (A) particularly for ironing-board, and ironing-board so obtained is made in rigid plastic material, subdivided in two technical zones, respectively a first (b) corresponding to the working surface to be associated, said first zone (b) being made up of a perforated sheet surface with a heating resistance in it, and a second (c) prearranged to support the iron also of the type with boiler.

**[0029]** The body (A), provides essentially a perimetrical side (1) that protracts perpendicularly in regard to the base (2) for more than a centimetre, delimiting in this way said first technical area (b) and recalls in a certain way, plan-view, the typical elongated shape of a working surface.

Therefore a rather deep and wide housing is obtained, with a base (2) having several levels.

This is because at a greater depth, obtained in an intermediate area, a compartment (3) corresponds, that in plant view has the shape of a cochlea, said compartment (3) being able to contain the entire engine group for the suction including the relative fan.

In this area (3) there are respectively, a first circular wall (3'), always obtained monolithically, able to contain a first part of the engine group, followed by a couple of rectilinear and parallel walls (3''), which delimit an outlet path of the air sucked, closed at the bottom by a grid placed on tilted plane (4).

**[0030]** Regarding the internal surface of the base (2), this provides perpendicular supporting feet (5), said feet having their base inserted in it, and which have the function to support at a certain distance, a perforated heat working surface (not shown), that will then be covered by the flannel and respective cloth.

Even along the perimeter of said first area (b), and internally to the side (1) fins are provided (6) interrupted by vertical spaces, as well as parallel to same, in such a way to obtain a seat to accommodate the respective power wiring.

**[0031]** Regarding the adjacent technical area (c), this is made by a somewhat deep container (7) preferably rectangular in shape, provided with own sides (7') that delimit the area.

Along one side of the container, a niche (9) can additionally be provided, more or less extended, in the case of rectangular shaped type, to accommodate the different commands and eventual electric-taps for the power supply or power net connection.

Said container (7) is joined monolithically to the adjacent part (b) by means of a joint connecting surface (7") to form a single piece, and to which corresponds, in the underlying part, a kind of vault (8) to accommodate an extremity of the fixed leg, as part of a support stand (not shown).

The fixing of the latter, is obtained by associating to the first shaped base (8) by means of screws, a semicircular countershape, realizing the ring that vices the extremity of said leg, in this case have an "L" shape.

**[0032]** Finally the external surface of part (b) of body (A), corresponding to the underlying side of base (2) in particular, is formed in such a way to obtain, always monolithically, a rack, or a fish bone rack (10) obtained centrally in relation to two lateral guides (11) respectively right and left, parallel and coplanar.

Said guides with "C" section (11), that can protrude or can be enclosed inside the body, slidingly engage a box slide (12), provided with longitudinal fins (12'), able to be introduced along said guides (11).

On the side of said slide (12), is a large hole, where the L shaped extremity is introduced and there the end ensured of an opposite movable leg, which is part of the ironing-board compass support stand.

The selective locking, in the desired position, of the slide (12), to which a different height of the surface corresponds, is secured by means of a lever, of the type with elastic return for disengaging from the rack (10). In more detail two holes (13), one through and the other having a pivoting function, made along the sidewalls, allow the centring of the disengaging lever, said lever being centrally shaped like a "U" or realizing a cam the movement of which interferes with the underlying rack (10), and protracted externally for some centimeters in order to favour a comfortable grip for the user.

Referring to the Figures from 1A to 6A, it is disclosed that the bearing monocoque body (A) particularly for ironing-board, and ironing-board so obtained is of the type in rigid plastic material, subdivided in two technical zones, respectively a first zone, corresponding to the working surface to be associated, being made up of a perforated sheet surface in which a resistance is inserted, and eventually a second zone, prearranged for support of the iron and optionally of the type with boiler.

**[0033]** Said body (A), is sustained by a couple of legs, that have a cross connection (X shape) or compass, comprise a first static leg having its end hinged steadily to said body, while the second leg is movable being able to be, (the corresponding end) moved longitudinally and allowing the engagement (stopping and locking) along the underlying braking rack means in said body (A).

In more detail, body (A) is formed in such a way to obtain, always monolithically, a rack (1A) obtained central-

ly in relation to two lateral guides respectively right and left, parallel and coplanar one to the other.

Said guides have a "C" shaped section, and can protrude or be enclosed inside of the body. Said guides slidingly engage a box slide (2A) which is provided laterally of engaging means, and is able to be constrained along said guides.

On the side of said slide (2A), at least one seat (3A) is obtained where is introduced and there ensured, the extremity of an "L" shaped opposite movable leg, as part of the support stand.

The selective locking, in the position desired, of the slide (2A), to which a different height of the surface corresponds, alternatively obtaining the disengagement from the rack (1A), is ensured by means of an elastic return lever (4A).

Near the end of the rack (1A), towards the tapered extremity of the working surface, means are provided, obtained directly from the monocoque body (A), and able to engage a pulley means (5A), said pulley being pivotal rotatably idle and having a "U" groove (5'A) for a pulling cable.

The purpose of said pulley means (5A) is that to allow the change in backwards direction of the cable (6A), to return almost parallel to the structure of monocoque body (A), which receives a part of this.

In particular, a head (6'A) of the cable (6A), by means of the interposition of a stop (8) is associated to the extremity (7'A) of a pulling helical spring (7A), whose opposite extremity (7"A) is anchored steadily inside the structure of the monocoque body (A). The other head (6"A) of the cable (6A) is engaged into the slide (2A), supporting an extremity of the movable leg.

**[0034]** Consequently, when the ironing-board is closed, and therefore with the legs close together, the slide (2A) is in a position (b'A) or at the end of the stroke in respect to the rack (1A). In that case being constrained to the spring (7A), the latter will have a distended configuration.

Raising the ironing-board (A), the lack of obstacles at the lower extremity of the movable leg, causes its release, in contrary obtaining the elastic return (if not locked) of the slide (2A), effected by the spring (7A).

In that case the slide (2A) may be arranged operatively along the rack (1) in a preferential position (b").

Finally, regarding the closing operation and restoring of the initial condition, the disengagement of the slide (1A) is firstly provided, acting on the lever (4A), therefore the reapprach of the movable leg to the static leg, involving the shifting of the slide (2A) at the end of the stroke and contextually reloading the spring (7A). In a possible variation, as illustrated in Figure 4A and subsequent ones, one has a monocoque body (A'A) provided with a linear elasticizing device to elastically hold the slide (2A).

In that case, the encumbrances may be slightly greater, because firstly the realization of a seat (9A) is provided, able to house a couple of helical springs (10A, 10'A), at one side anchored steadily to the structure of the body.

From the other side, the extremities of said springs (10A, 10'A) engage the ends of a couple of cables (11A, 11'A), which protract longitudinally close to the body and parallel one to the other to anchor from the opposite side directly to the slide (2A).

It is possible to see additionally that a part of said pulling cables (11A, 11'A) and springs (10A, 10'A) are enclosed inside the body, preventing even involuntary access.

In this case, the part of body (9A), provides at one side, the realization of a couple of holes (9'A), through which exit the extremities of the cables (11A, 11'A) to be anchored to the corresponding slide (2A), from both sides. To cover the said bearing monocoque case-body in plastic material (A), the respective perforated ironing plate to be fixed in said upper opening (b), by screws in said spacer protrusions (5'), is indicated with (pp).

### Claims

1. Ironing-board, involving a bearing monocoque case-body (A) provided peripherally with a restraining side (1) able to define an upper opening (b) extending to the entire upper heated working ironing surface, said working ironing surface being realized by a metal perforated ironing plate (pp), having beneath it, air suction means placed to suck air across said working ironing surface, characterized in that said bearing monocoque case-body (A) provides:
  - inside it a fan seat for internal complete encasing of suction fan means (3) to suck air across the openings of said heated working ironing surface (b);
  - upwardly support spacer-protrusion means perimetrically provided (6) and integral with said monocoque body and perpendicular to it being provided, to support said heated working ironing surface along a perimetrical upper border (6) on the inside of said upper opening (b), on the underneath being provided fixing means for the fixing respective cables;
  - downwardly and externally, in correspondence to the lower surface of said monocoque body (A), a seat for the anchorage of the static extremity of a compass closable stand leg is obtained at one side (8), the opposite leg, being engaged to leg hinging-slide (2A, 3A) slidably adjustable on guides (11) integrally obtained from the said monocoque body (A) and being further integral with the monocoque, longitudinally and in the middle of said guides (11), a toothed rack (1A) to operate with rack means to engage and release said leg hinging-slide (2A, 3A),
  - said bearing monocoque case-body (A) being realized in moulded plastic material.
2. Ironing-board with bearing monocoque body according to claim 1., characterized in that said working ironing surface is composed of a perforated sheet surface in which a heating resistance is fixed.
3. Ironing-board according to the preceding claims, characterized in that said monocoque body concerning the working surface, around said first opening (b) provides essentially a perimetrical side raised border (1) that protracts perpendicularly, the internal shape being down-graded with more levels with one less deep realizing an intermediate bottom (2) that delimits said seat of air suction means (3), said seat having a cochlear shape.
4. Ironing-board with bearing monocoque body according to claim 3., characterized in that said seat of internal suction (3) has a first circular wall (3') followed by a couple of rectilinear and parallel walls (3''), which delimit an outlet path of the air sucked through said grid (4) that is placed on tilted plane.
5. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that the internal surface of the said intermediate bottom (2), provides perpendicular supporting feet (5) fixed with an extremity into same.
6. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that along the perimeter of said first opening area (b), and internally to the respective side raised border (1) of the monocoque body (A) fins are provided on the respective ironing working plane seat border (6) interrupted by vertical spaces (5'), to allow screwing.
7. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that adjacent technical area (c) to said plastic bearing monocoque (A), a deep heat water container is obtained (7), substantially rectangularly shaped provided with own sides (7') that delimit the area to support the respective iron hand-tool.
8. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that along a side of the container (7), a niche is provided (9).
9. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that said heat water boiler container (7) is joined monolithically to the adjacent part of said upper opening (b) of said bearing monocoque (A), by means of a joint connecting surface (7''), and to which corresponds, in the underlying part, a seat (8) to fixedly hinge an extremity of one of said legs, as-

sociating a closing ring-shaped countershape to the first shaped base (8).

10. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that said lateral guides have a "C" shaped section (11), slidingly engage said slide (12, 2A,3A), provided with longitudinal fins (12'), introduced along said guides (11). 5
11. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that to said slide (12, 2A,3A), the movable end of a supporting leg is engaged, and is provided with lever means for selective adjustment interfering with the said toothed rack (10). 10
12. Ironing-board with bearing monocoque body according to preceding claims, characterized in that two holes (13), one through, the other having a pivoting function, are made along the sidewalls of the slide (12), and inside of which is introduced an elbow lever, realizing a cam, the movement of which interferes with the underlying rack (10), and is protracted externally for some centimeters. 15
13. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that it provides externally, corresponding to the lower surface of the working surface (A), a seat for the anchorage of the static end of a compass closable stand leg, the opposite leg being engaged to an adjustable slide (12-2A) slidably on guiding means (11); consisting essentially in at least one pulling cable (11A, 11'A) almost parallel to the ironing-board, in which one of the extremities is at one side engaged to said slide (12-2A) on which are keyed the ends of a movable leg; from the other side, engaging the extremity of an elastic corresponding spring (10A, 10'A), steadily anchored to said body, the entire mechanism being substantially enclosed in the monocoque body (A), 20
14. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that the tension frame (6A-6') of said slide (12-2A) is oriented backwards by means of a pulley (5A). 25
15. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that said pulley (5A) is equipped with guide groove (5'A-6A). 30
16. Ironing-board with bearing monocoque body according to the preceding claims, characterized in that said monocoque body (A') provides the realization of a seat (9A), able to house a couple of covered helical springs (10A, 10'A), at one side an- 35

chored steadily to the structure.

#### Patentansprüche

1. Bügelbrett mit einem selbsttragenden Stütz-Gehäusekörper (A), peripher angeordnet mit einer Spannseite (1), die eine obere Öffnung (b) definiert, die sich über die ganze obere beheizte Arbeitsbügelfläche erstreckt, wobei besagte Arbeitsbügelfläche aus einer durchlochtem Metall-Bügelplatte (pp) besteht, mit einem Luftansaugmittel darunter, um Luft über besagte Arbeitsbügelfläche zu saugen, gekennzeichnet dadurch, daß besagter selbsttragender Stütz-Gehäusekörper (A) umfaßt:
- einen Ventilatorsitz in seinem Innern zur vollständigen inneren Umschließung von Saugventilator-Mitteln (3), um Luft durch die Öffnungen besagter beheizter Arbeitsbügelfläche zu saugen (b);
  - ein oberes stützendes vorspringendes Distanzstück (6), am Umfang angeordnet und einstückig mit besagtem selbsttragenden Körper und senkrecht zu diesem angeordnet, um besagte beheizte Arbeitsbügelfläche entlang eines oberen Umfangsrandes (6) an der Innenseite besagter oberen Öffnung zu stützen (b), wobei unterhalb Befestigungsmittel für die Befestigung der betreffenden Kabel vorgesehen sind;
  - nach unten und außen, bei der unteren Oberfläche des besagten selbsttragenden Körpers (A), ist ein Sitz für die Verankerung des statischen Endes eines verschließbaren Umfangsstandbeins auf einer Seite erhalten (8), während das gegenüberliegende Bein in Eingriff mit einem Beinscharniergleitkörper (2A, 3A) ist, der gleitend auf Führungen (11) verstellbar ist, vollständig erhalten aus dem besagten selbsttragenden Körper (A) und außerdem einstückig mit dem selbsttragenden Körper, längs und in der Mitte besagter Führungen (11) ein gezähntes Gestell (1A), das mit Gestellmitteln zusammenarbeitet, um besagten Beinscharniergleitkörper in Eingriff zu bringen und freizugeben (2A,3A),
  - besagter selbsttragender Stütz-Gehäusekörper (A) ist aus geformtem Kunststoff hergestellt.
2. Bügelbrett mit selbsttragendem Stützkörper nach Anspruch 1, gekennzeichnet dadurch, daß besagte Arbeitsbügeloberfläche aus einer durchlochtem Blechfläche besteht, in der ein Heizwiderstand befestigt ist.
3. Bügelbrett nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß besagter selbsttra-

- gender Körper, der die Arbeitsoberfläche betrifft, um die besagte erste Öffnung (b) herum im wesentlichen einen erhöhten Umfangsseitenrand (1) vorsieht, der sich senkrecht erstreckt, wobei die innere Form in mehrere Stufen nach unten abgestuft ist, mit einer weniger tiefen, die einen Zwischenboden (2) darstellt, der den besagten Sitz des Luftansaugmittels (3) begrenzt, wobei besagter Sitz eine Schneckenform aufweist.
4. Bügelbrett mit selbsttragendem Stützkörper nach Anspruch 3, gekennzeichnet dadurch, daß besagter Sitz für die innere Ansaugung (3) eine erste kreisförmige Wand (3) aufweist, gefolgt von einem Paar von geradlinigen und parallelen Wänden (3"), welche einen Ausgang für die Luft bilden, die durch besagtes Gitter (4) angesaugt wird, das sich auf einer schiefen Ebene befindet.
5. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß die Innenfläche des besagten Zwischenbodens (2) senkrechte Stützfüße (5) aufweist, die mit einem Ende an diesem befestigt sind.
6. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß entlang des Umfangs von besagter erster Öffnungsfläche (b) und im Innern des erhöhten Seitenrands (1) des selbsttragenden Körpers (A) Stege am Rand des betreffenden Bügelarbeitsflächensitzes (6) vorgesehen sind, unterbrochen von senkrechten Räumen (5) zwecks Verschraubung.
7. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß [in] der technischen Fläche (c) neben besagtem selbsttragenden Kunststoffkörper (A) ein tiefer Heizwasserbehälter erhalten wird (7), im wesentlichen rechteckig und mit eigenen Seiten (7), der die Fläche zum Tragen des betreffenden Eisenhandwerkzeugs begrenzt.
8. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß entlang einer Seite des Behälters (7), eine Nische (9) vorgesehen ist.
9. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß besagter Hitzewasserboiler-Behälter (7) einstückig mit dem benachbarten Teil besagter oberer Öffnung (b) des besagten selbsttragenden Stützkörpers (A) verbunden ist, mittels einer Verbindungsfläche (7"), und der in dem darunterliegenden Teil ein Sitz (8) entspricht, zur festen Aufhängung eines Ende eines der besagten Beine, mit Verbindung einer schließenden ringförmigen Gegenform mit der ersten geformten Basis (8).
10. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß besagte seitliche Führungen einen "C"-förmigen Abschnitt aufweisen (11), der gleitend in besagten Gleitkörper (12, 2A,3A) eingreift, ausgestattet mit Längsstegen (12), die entlang besagter Führungen (11) eingeführt sind.
11. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß in den besagten Gleitkörper (12, 2A, 3A) das bewegliche Ende eines Stützbeins eingreift, das mit Hebelmitteln zur selektiven Einstellung versehen ist, wobei es mit besagtem gezähnten Gestell (10) interferiert.
12. Bügelbrett mit selbsttragendem Stützkörper nach den vorausgehenden Patentansprüchen, gekennzeichnet dadurch, daß zwei Löcher (13), das eine durchgehend, die andere mit Drehfunktion, entlang der Seitenwände des Gleitkörpers (12) eingebracht werden, und in die ein Kniehebel eingeführt wird, der eine Nocke darstellt, deren Bewegung mit dem darunterliegenden Gestell interferiert (10) und sich nach außen einige Zentimeter weit fortsetzt.
13. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß es außen, entsprechend der unteren Oberfläche der Arbeitsfläche (A), einen Sitz für die Verankerung des statischen Endes des schließbaren Umfangs-Standbeins aufweist, wobei das gegenüberliegende Bein in Eingriff mit einem verstellbaren Gleitkörper (12-2A) ist, das auf Führungen (11) gleitet; bestehend im wesentlichen aus mindestens einem Zugkabel (11A, 11'A), das fast parallel zu dem Bügelbrett liegt, in welchem eines der Enden auf einer Seite in Eingriff mit besagtem Gleitkörper (12-2A) ist, mit dem die Enden eines beweglichen Beines verkeilt sind; auf der anderen Seite in Eingriff mit dem Ende einer elastischen entsprechenden Feder (10A, 10'A), die fest an besagtem Körper verankert ist, wobei der ganze Mechanismus im wesentlichen in dem selbsttragenden Körper eingeschlossen ist (A),
14. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß der Spannrahmen (6A-6) des besagten Gleitkörpers (12-2A) mittels einer Riemenscheibe nach rückwärts orientiert ist (5A).
15. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen gekennzeichnet dadurch, daß besagte Riemenscheibe (5A) mit ei-

ner Führungsrille ausgestattet ist (5'A-6A).

16. Bügelbrett mit selbsttragendem Stützkörper nach den vorherigen Patentansprüchen, gekennzeichnet dadurch, daß besagter selbsttragender Körper (A) einen Sitz (9A) aufweist, der ein Paar von überdeckten Schraubenfedern (10A, 10'A) aufnimmt, die auf einer Seite fest an der Struktur verankert sind.

### Revendications

1. Planche à repasser, avec un boîtier monocoque de support (A) pourvu périphériquement avec un côté de tension(1) apte à définir une ouverture supérieure (b) s'étendant à l'entière surface de repassage de travail chauffée supérieure, ladite surface de travail à repasser étant réalisée par une assiette à repasser en métal perforée (pp), ayant dessous des moyens d'aspiration d'air pour sucer de l'air à travers ladite surface de repassage de travail, caractérisé en ce que ledit boîtier de monocoque de support (A) fournit:

- à l'intérieur un siège de ventilateur pour ensermer complètement ledit ventilateur d'aspiration (3) pour sucer de l'air à travers les ouvertures de ladite surface de repassage de travail chauffée (b);
- une entretoise de support supérieure saillante pourvue périmétralement (6) et intégrale avec ledit corps monocoque et perpendiculaire à ce dernier, étant pourvu pour supporter ladite surface de repassage de travail chauffée le long d'un bord supérieur périmétral (6) à l'intérieur de ladite ouverture supérieure (b), au-dessous étant pourvus des moyens de fixation pour le fixation des câbles respectifs;
- vers le bas et à l'extérieur, en correspondance de la surface inférieure dudit corps monocoque (A), un siège pour l'ancrage de l'extrémité statique d'une jambe de compas fermante est obtenue d'un côté (8), la jambe opposé, s'engrénant avec un dispositif de glissement à gonds de la jambe (2A, 3A) réglable en coulissant sur des guides (11) intégralement obtenus dudit corps de monocoque (A) et étant en outre intégral avec la monocoque, longitudinalement et au milieu desdits guides (11), un chevalet denté (1A) pour opérer avec des moyens de chevalet pour s'engrener à et pour dégager ledit dispositif de glissement à gonds de la jambe (2A,3A),
- ledit boîtier de monocoque de support (A) étant réalisé en matériel de plastique moulé.

2. Planche à repasser avec corps de monocoque de support selon la revendication 1., caractérisé en ce que ladite surface de travail à repasser est consti-

tuée d'une surface de tôle perforée dans laquelle un conducteur chauffant est fixé.

3. Planche à repasser selon les revendications précédentes, caractérisé en ce que ledit corps de monocoque qui concerne la surface de travail fournit autour de ladite première ouverture (b) essentiellement un bord de côté périmétral soulevé (1) qui s'étend perpendiculairement, la forme interne étant étagée vers le bas avec plusieurs niveaux dont un moins profond réalisant un fond intermédiaire (2) qui délimite ledit siège du moyen d'aspiration d'air (3), ledit siège ayant une forme de cochlée.

4. Planche à repasser avec corps de monocoque de support selon la revendication 3., caractérisé en ce que ledit siège d'aspiration interne (3) a une première paroi circulaire (3') suivie par une paire de parois rectilignes et parallèles (3''), qui délimitent un chemin de sortie de l'air sucé à travers ladite grille (4) qui est placée sur un plan penché.

5. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que la surface interne dudit fond intermédiaire (2) fournit des pieds de support perpendiculaire (5) fixés avec une extrémité dans celle-ci.

6. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que le long du périmètre de ladite première zone d'ouverture (b), et à l'intérieur du côté de bord soulevé respectif (1) du corps de monocoque (A), des arêtes sont pourvues sur le respectif bord de siège de plan de travail de repassage (6) interrompu par des espaces verticaux (5'), pour permettre le vissage.

7. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que dans la zone technique adjacente (c) à ladite monocoque de support en plastique (A), un récipient profond d'eau de chauffage est obtenu (7), façonné substantiellement de manière rectangulaire, pourvu de propres côtés (7') qui délimitent la zone pour supporter l'outil de main de fer respectif.

8. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que le long d'un côté du récipient (7), une niche est pourvue (9).

9. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que ledit récipient de chaudière d'eau de chauffage (7) est joint de façon monolithique à la partie adjacente de ladite ouverture supé-

rieure (b) de ladite monocoque de support (A), à l'aide d'une surface de liaison (7"), et à laquelle correspond, dans la partie sous-jacente, un siège (8) pour lier à gond une extrémité d'une desdites jambes, en associant une contre forme de fermeture à forme d'anneau à la première base façonnée (8).

10. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que lesdites guides latéraux ont une section façonnée en "C" (11), qui s'engrène en coulissant avec ledit dispositif de glissement (12, 2A, 3A), pourvu d'arêtes longitudinales (12'), introduites le long desdits guides (11).

11. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que l'extrémité mobile d'une jambe de support s'engrène avec ledit dispositif de glissement (12, 2A, 3A), et est pourvue d'un levier pour la correction sélective en interférant avec ledit chevalet dentée (10).

12. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que deux forures (13), dont l'une de passage, l'autre ayant une fonction pivotante, sont faites le long des parois latérales du dispositif de glissement (12), et dans lesquelles est introduit un levier articulé, réalisant une came, le mouvement de laquelle interfère avec le chevalet sous-jacent (10), et est prolongé à l'extérieur pour quelques centimètres.

13. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce qu'il fournit à l'extérieur, correspondant à la surface inférieure de la surface de travail (A), un siège pour l'ancrage de l'extrémité statique d'une jambe érigée de compas fermante, la jambe opposée s'engrenant avec un dispositif de glissement réglable (12-2A) coulissant sur des moyens de guide (11); consistant essentiellement d'au moins un câble de traction (11A, 11'A) presque parallèle au planche à repasser, dans lequel l'une des extrémités est d'un côté introduite dans ledit dispositif de glissement (12-2A) sur lequel sont clavetées les extrémités d'une jambe mobile; de l'autre côté, s'engrenant avec l'extrémité d'un ressort correspondant élastique (10A, 10'A), solidement ancré dans ledit corps, le mécanisme entier étant substantiellement inclus dans le corps de monocoque (A),

14. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que la structure de tension (6A-6') dudit dispositif de glissement (12-2A) est orienté en

arrière à l'aide d'une poulie (5A).

15. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que ladite poulie (5A) est équipée d'une rainure de guide (5'A-6A).

16. Planche à repasser avec corps de monocoque de support selon les revendications précédentes, caractérisé en ce que ledit corps de monocoque (A) fournit la réalisation d'un siège (9A), apte à loger une paire de ressorts hélicoïdaux couverts (10A, 10'A), d'un côté ancrés solidement à la structure.

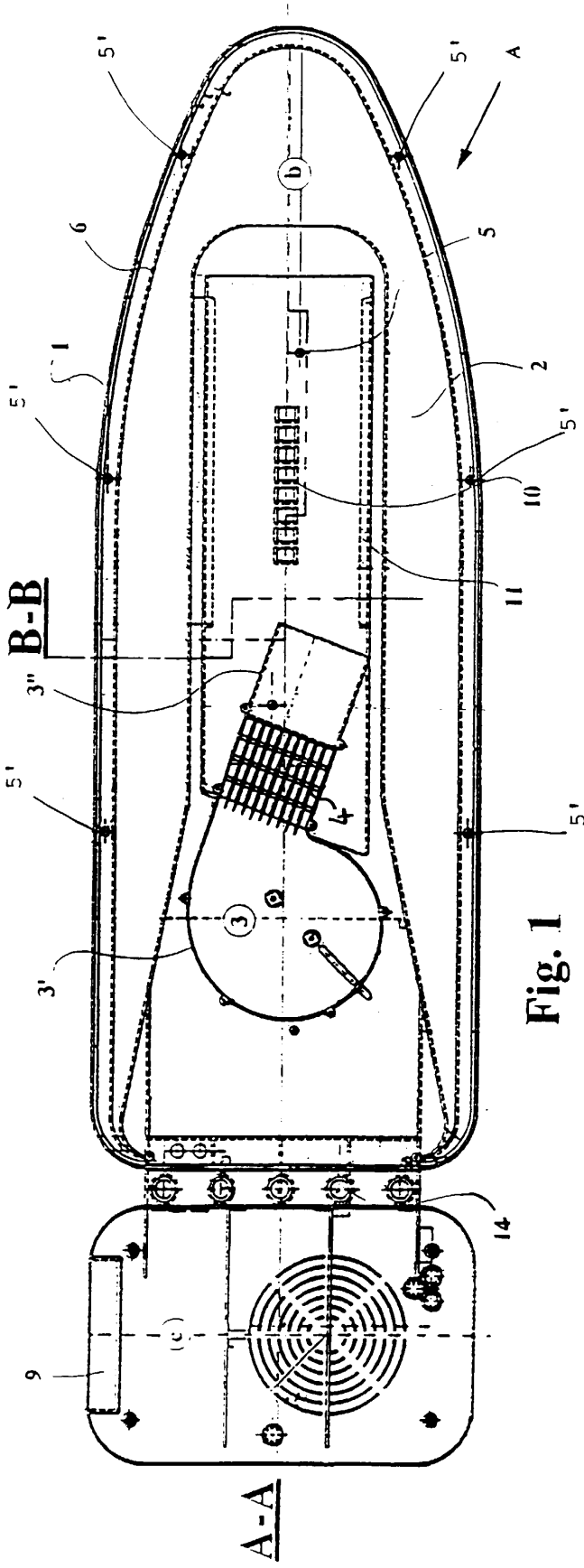


Fig. 1

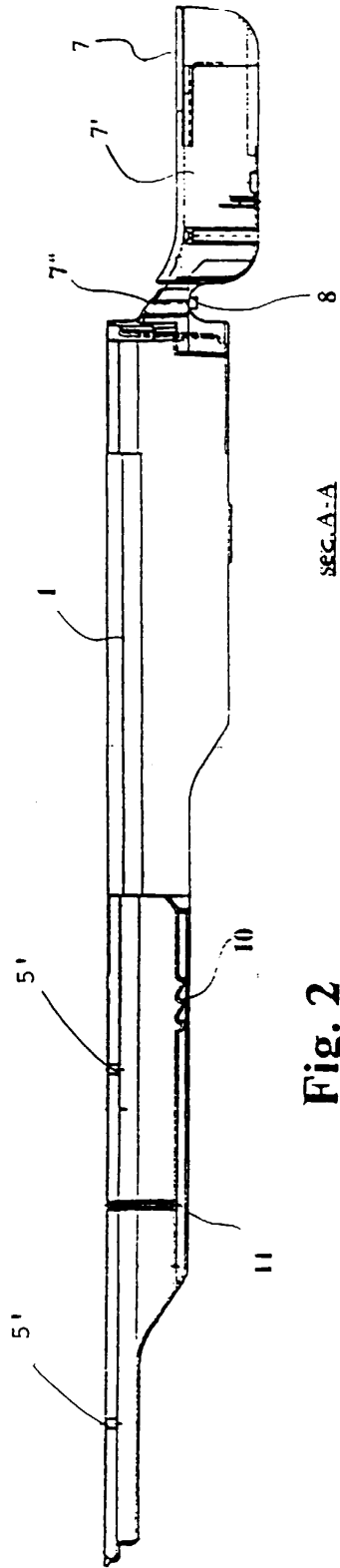
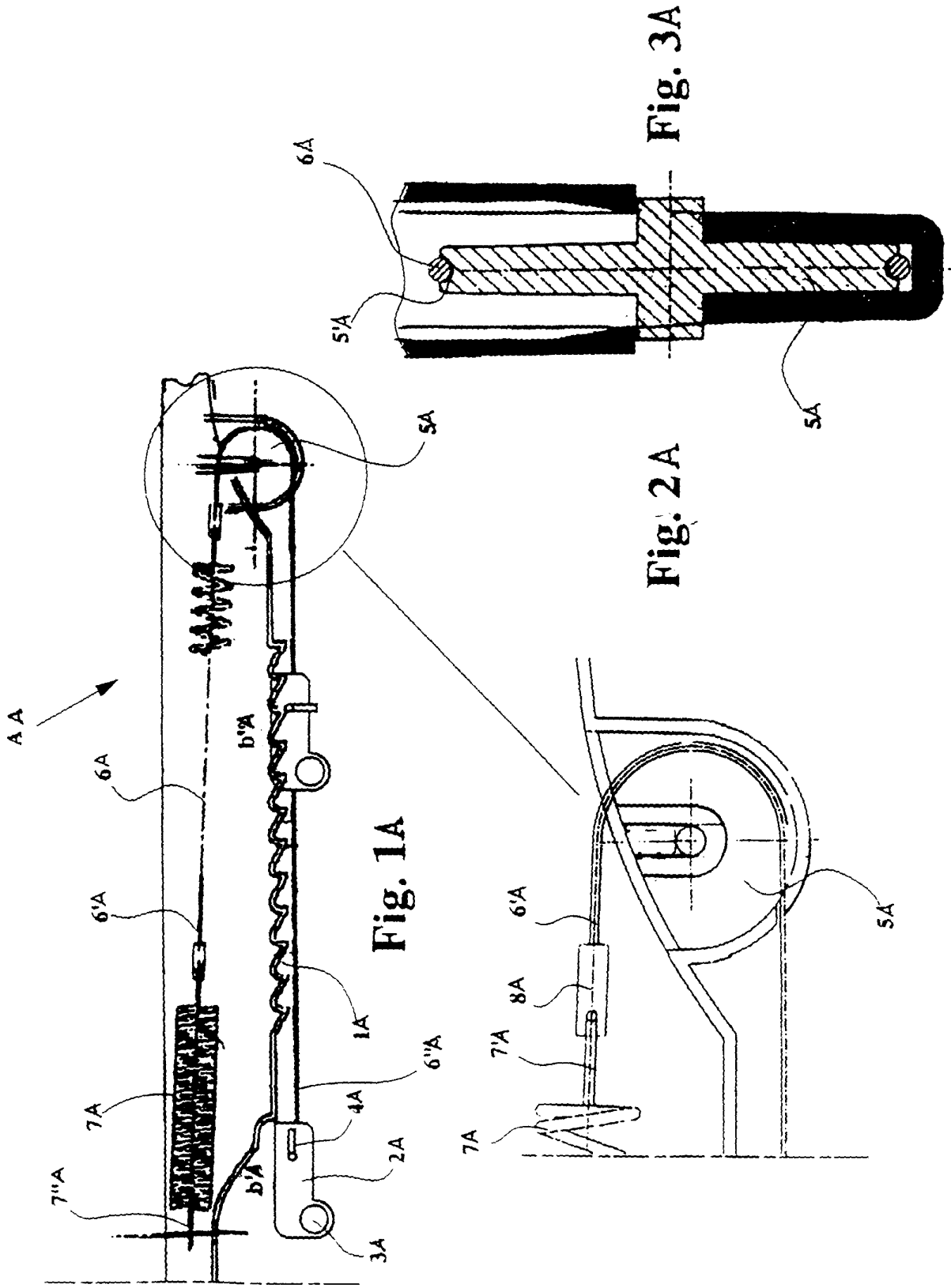


Fig. 2



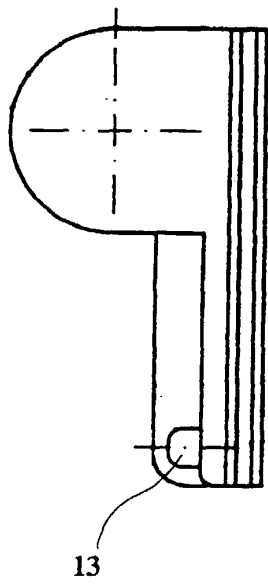
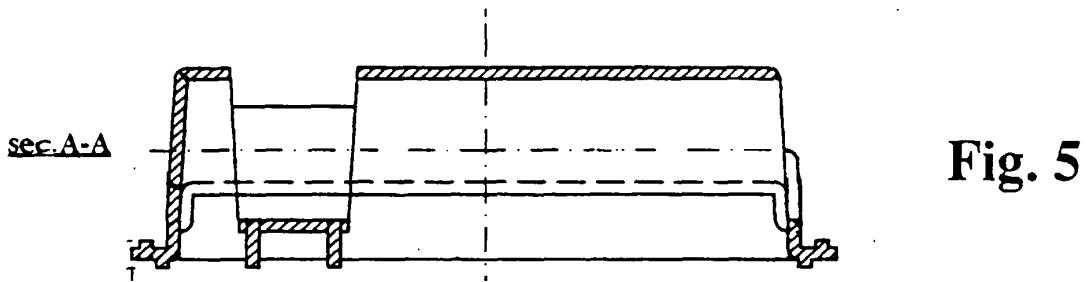
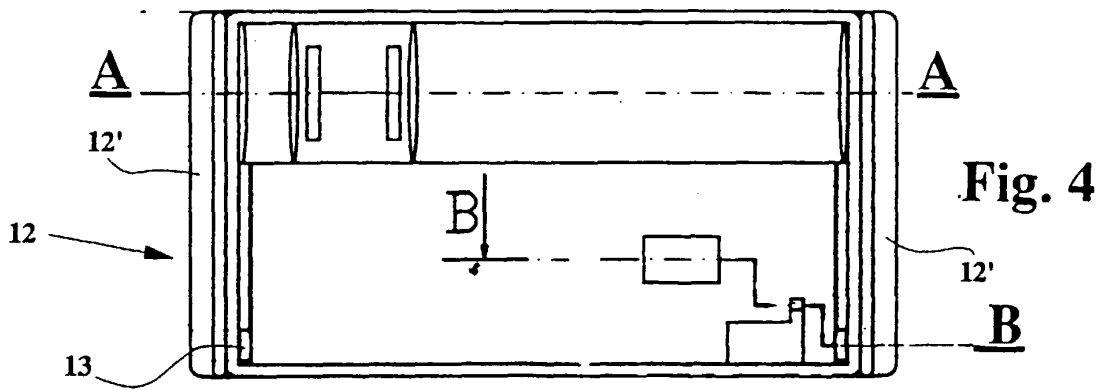


Fig. 7

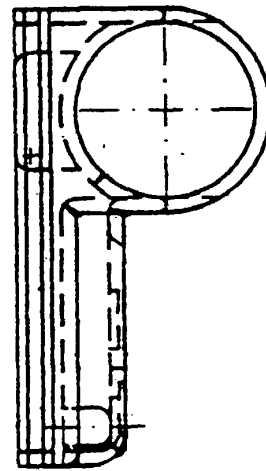


Fig. 8

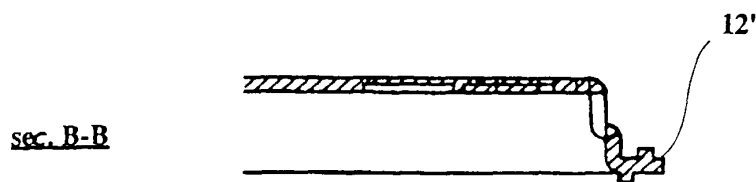


Fig. 6

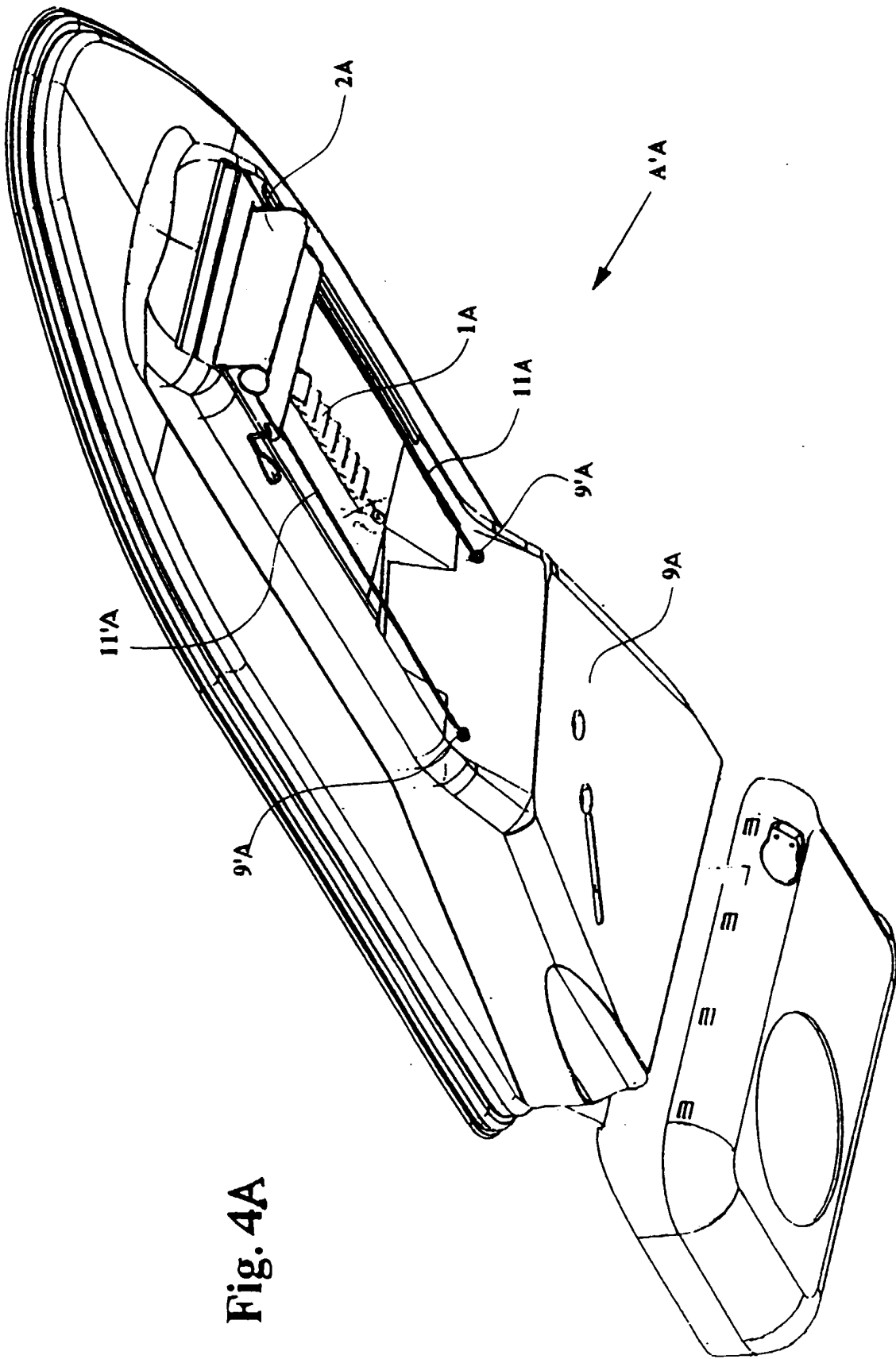


Fig. 4A

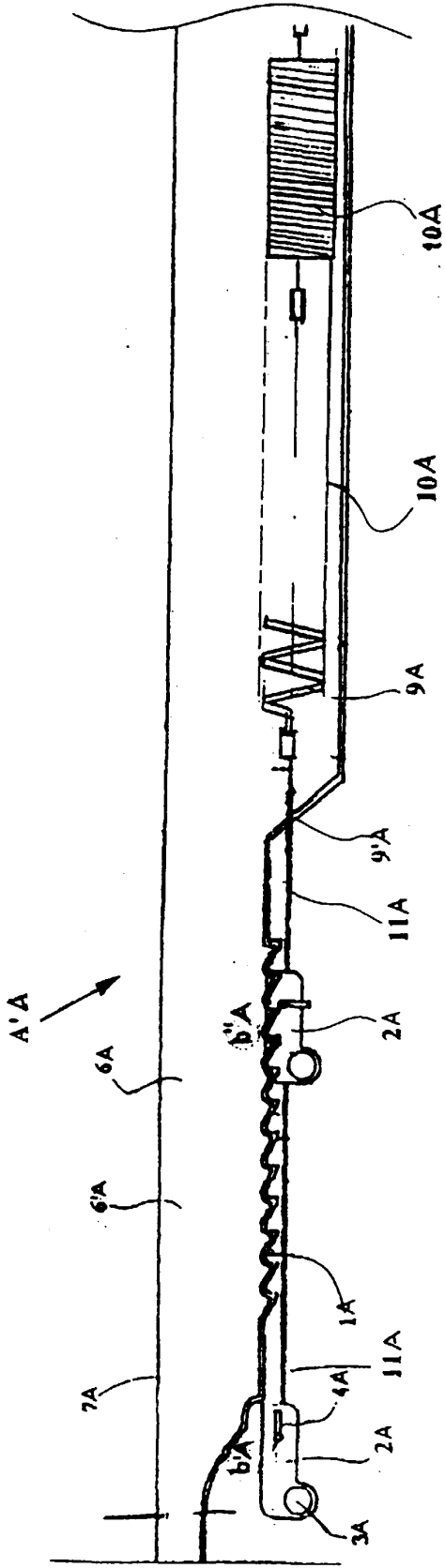


Fig. 6A

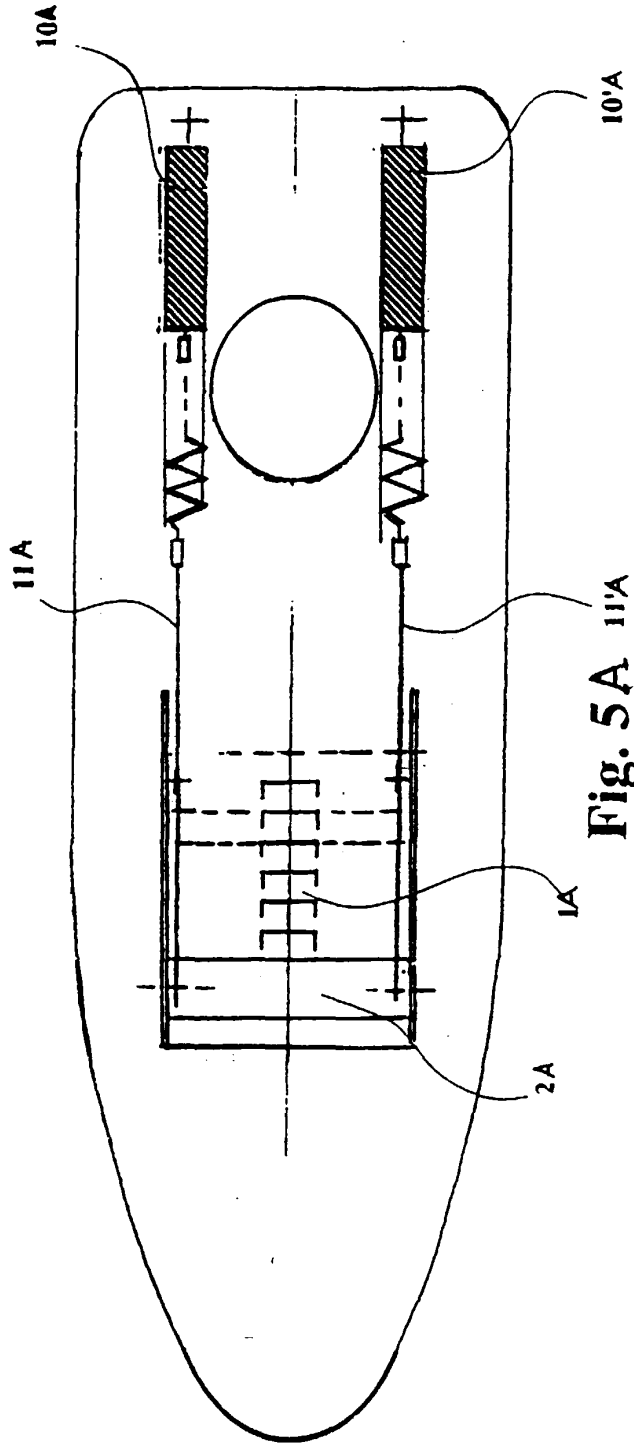


Fig. 5A 11'A

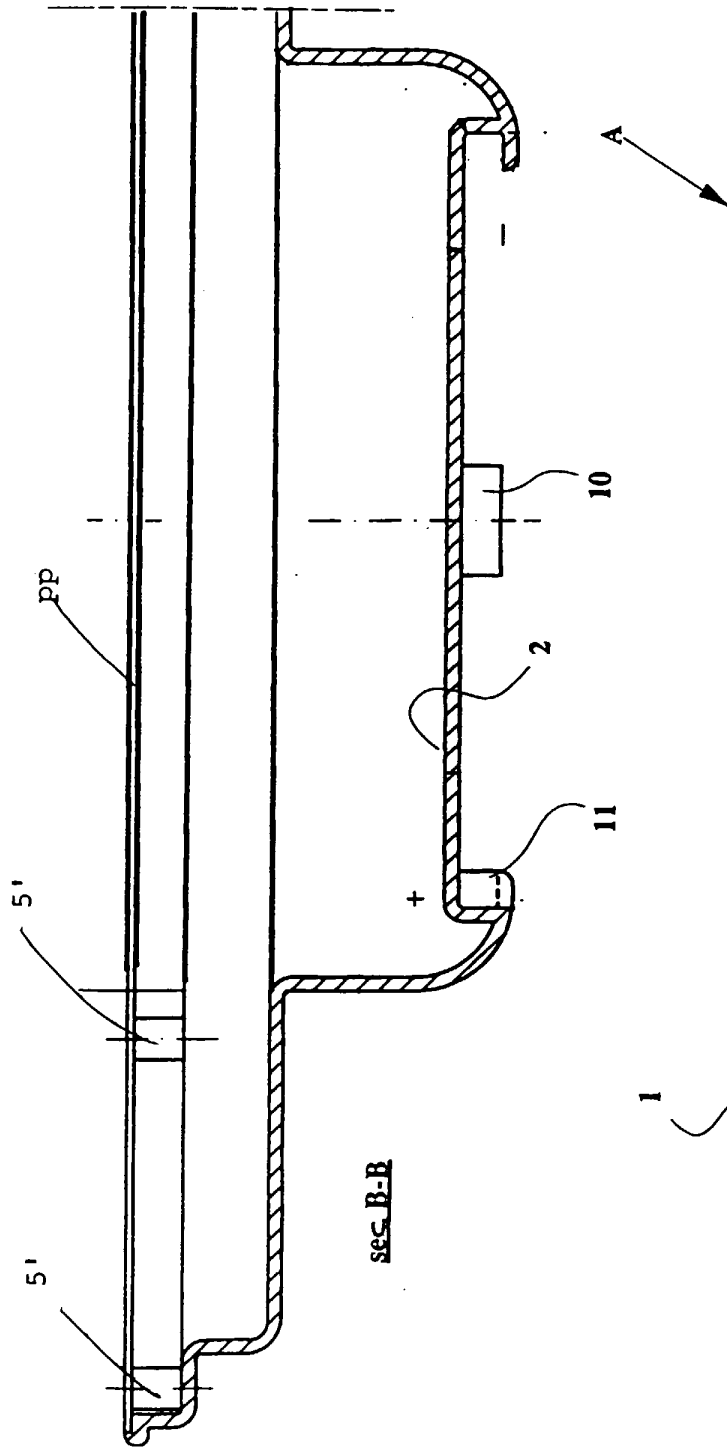


Fig. 9

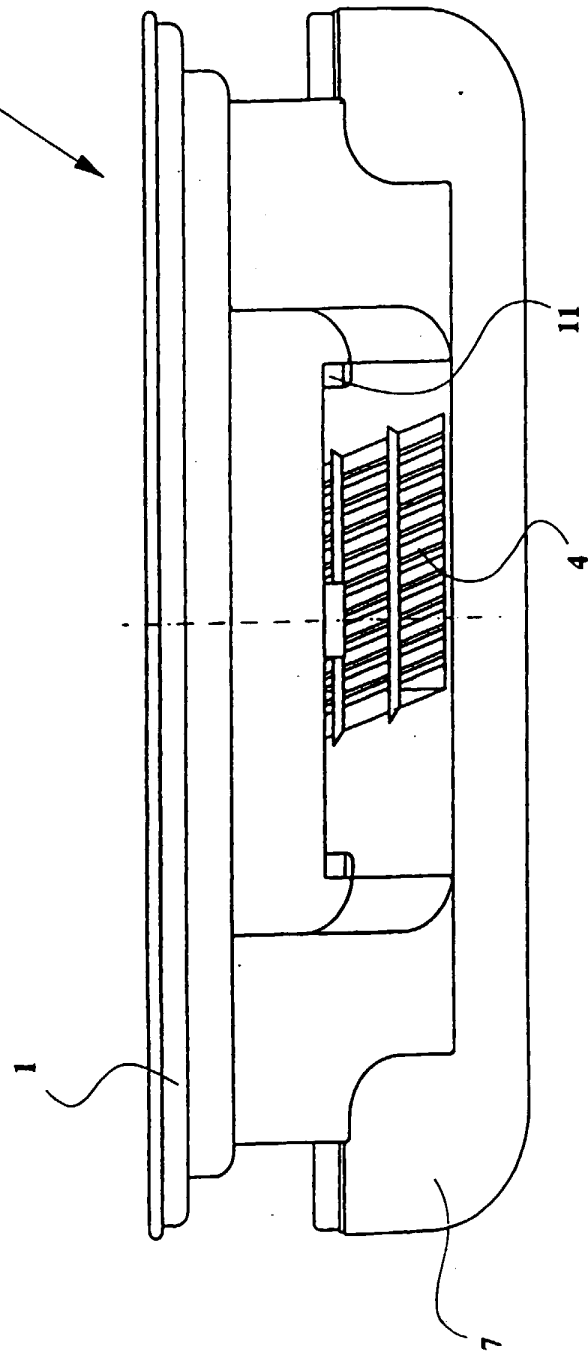


Fig. 3