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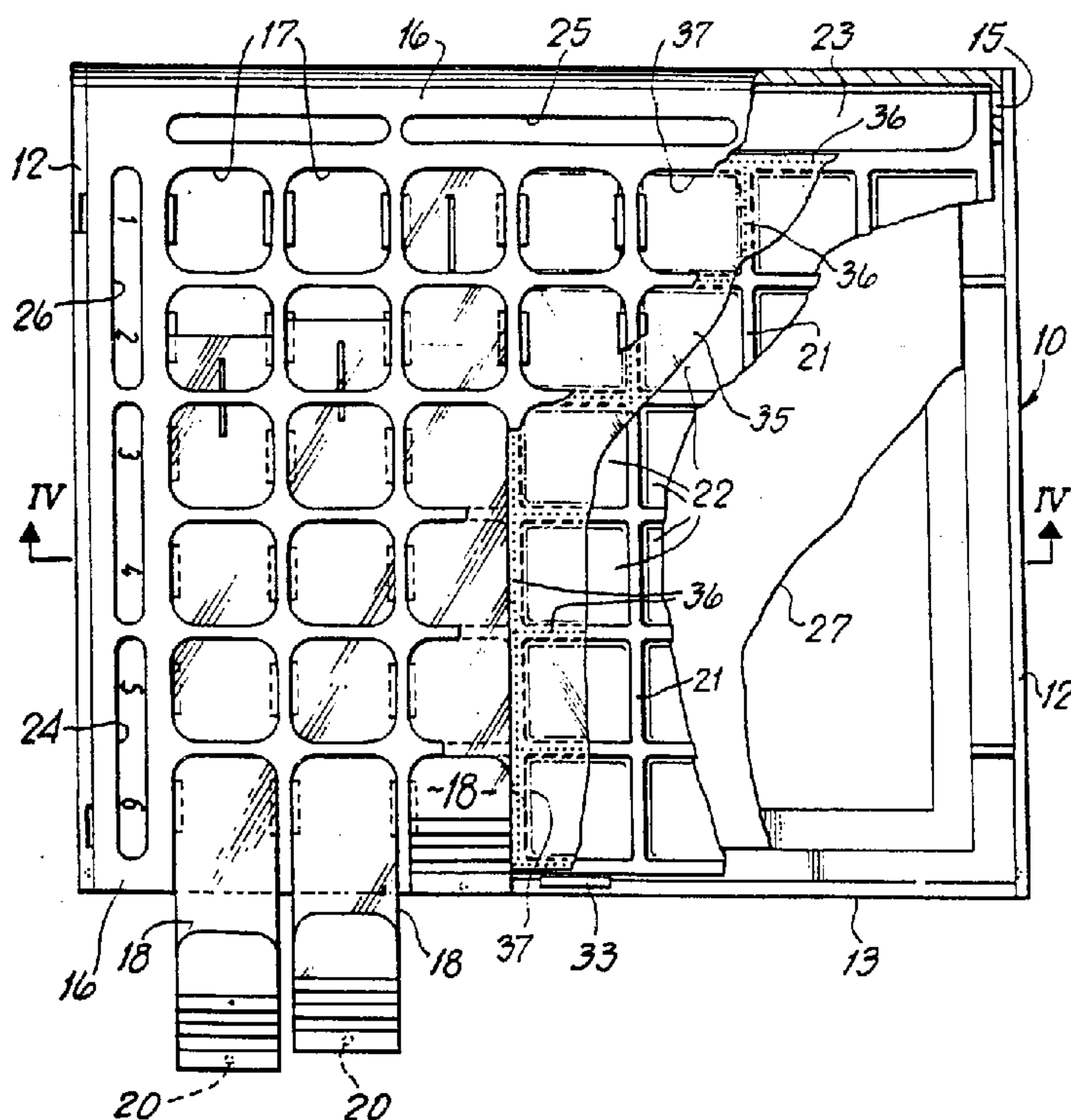
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(54) **CONTENANT POUR LA DISTRIBUTION DE PILULES, DE
COMPRIMES ET DE CAPSULES**

(54) **CONTAINER FOR DISPENSING PILLS, TABLETS AND
CAPSULES**



(57) A container for dispensing pills, tablets and capsules, comprising a box (10) with a hinged lid (16), at least one compartmented tray (21) within the box and having a plurality of rows of compartments (22) to contain the pills or tablets to be taken at predetermined intervals, the lid including parallel rows of windows (17) each aligned with a compartment (22) with the lid closed, and a sheet of acetate film (35) extending across the tray (21) in sealed contact with the upper edges thereof, the sheet (35) being perforated (at 37) over each compartment (22) to enable the contents of the compartments to be selectively discharged through the windows (17) without opening the lid (16). Preferably, also, sliding transparent shutters (18) occlude the windows (17) until opened to permit access therethrough.



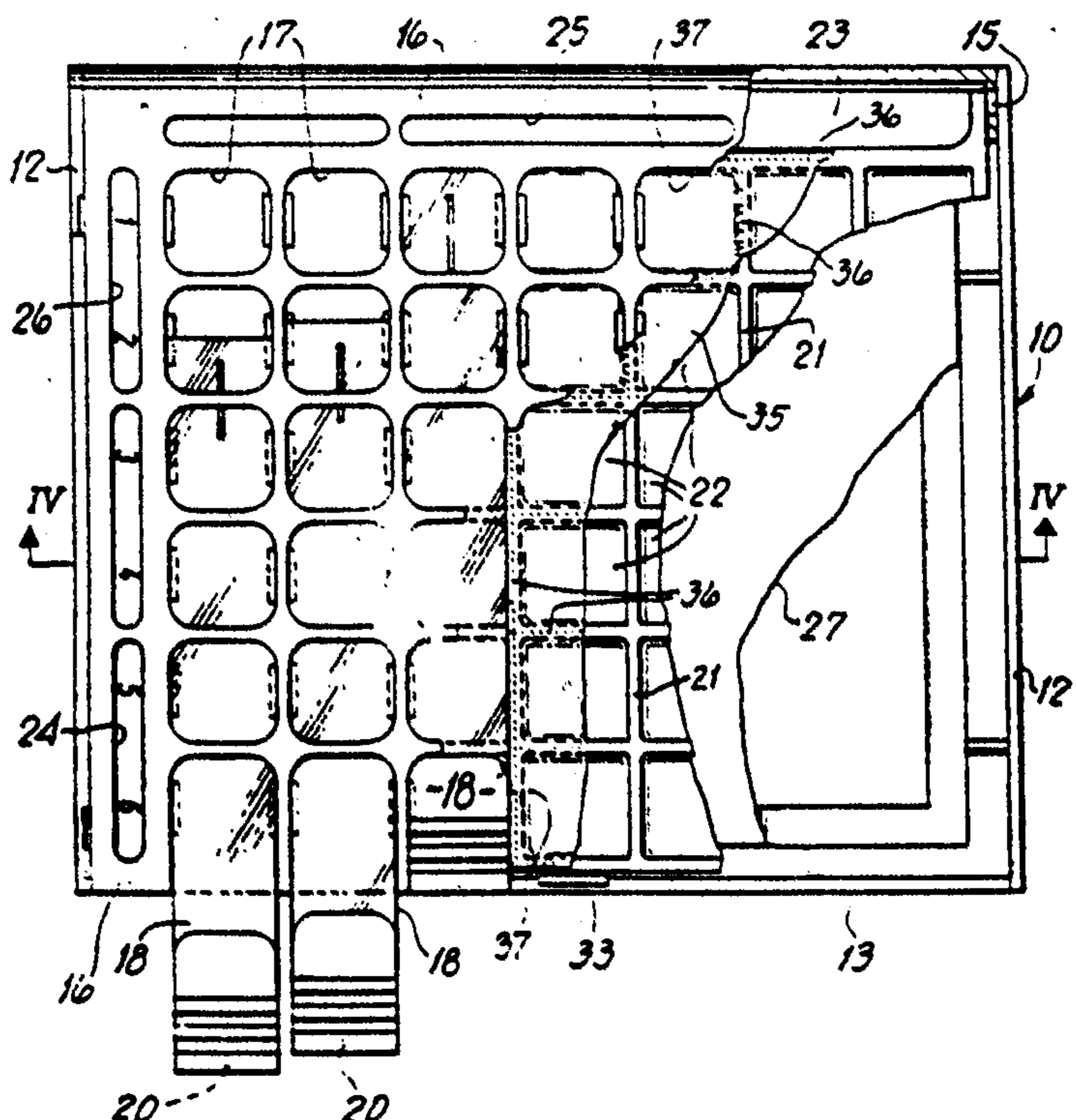
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<p>(21) International Application Number: PCT/GB91/01222</p> <p>(22) International Filing Date: 22 July 1991 (22.07.91)</p> <p>(30) Priority data: 9017006.9 2 August 1990 (02.08.90) GB 9023477.4 29 October 1990 (29.10.90) GB</p> <p>(71) Applicant (for all designated States except US): SURGI-CHEM LIMITED [GB/GB]; Deanwater House, Garfield Street, Portwood, Stockport, Cheshire SK1 2EA (GB).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only) : NIVEN, Norman [GB/GB]; 14 Cliffmere Close, Cheadle Hulme, Cheshire SK8 5JH (GB).</p> <p>(74) Agent: AJELLO, Michael. John; 207 Moss Lane, Bramhall, Stockport, Cheshire SK7 1BA (GB).</p>	<p>(81) Designated States: AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CA, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CI (OAPI patent), CM (OAPI patent), DE, DE (European patent), DK, DK (European patent), ES, ES (European patent), FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), GN (OAPI patent), GR (European patent), HU, IT (European patent), JP, KP, KR, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NL (European patent), NO, PL, RO, SD, SE, SE (European patent), SN (OAPI patent), SU, TD (OAPI patent), TG (OAPI patent), US.</p> <p>Published With international search report.</p>	

(54) Title: A CONTAINER FOR DISPENSING PILLS, TABLETS AND CAPSULES

(57) Abstract

A container for dispensing pills, tablets and capsules, comprising a box (10) with a hinged lid (16), at least one compartmented tray (21) within the box and having a plurality of rows of compartments (22) to contain the pills or tablets to be taken at predetermined intervals, the lid including parallel rows of windows (17) each aligned with a compartment (22) with the lid closed, and a sheet of acetate film (35) extending across the tray (21) in sealed contact with the upper edges thereof, the sheet (35) being perforated (at 37) over each compartment (22) to enable the contents of the compartments to be selectively discharged through the windows (17) without opening the lid (16). Preferably, also, sliding transparent shutters (20) occlude the windows (17) until opened to permit access therethrough.



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A CONTAINER FOR DISPENSING PILLS, TABLETS AND CAPSULES

THIS INVENTION concerns a container for dispensing pills, tablets and capsules.

It is known to provide such a device which includes a tray having a plurality of compartments to contain the pills, tablets and capsules to be taken at predetermined intervals, the tray being removably located within a drawer slidable within an outer container having a partially transparent front face so that the pills within the compartments may be viewed without opening the drawer. In the front face there are a number of sliding shutters which may be withdrawn selectively and progressively for the discharge of the contents of individual compartments. Also on the front face there is provided indicia representing, for example, the days of the week and period during each day.

On a rear face of the container further information is visible to identify the patient and the medicines to be taken together with such further information as may be required including, for example, the name of the administering doctor, the dosage and the number of tablets to be taken in each day.

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This kind of device may be used by individual patients within the community but more usually in hospitals and other establishments where the dosage of medicines for patients may be made up, say, once a week from a central dispensary.

An object of the present invention is to provide an improved device of this general kind which is more universally adaptable to different situations, and which contains a greater amount of information for use by the dispensing staff and/or by the patient.

According to the present invention there is provided a container for dispensing pills, tablets and capsules, comprising a box with a hinged or removable lid, a compartmented tray within the box having a plurality of rows of compartments to contain the pills or tablets to be taken at predetermined intervals, the lid including a plurality of windows each aligned with one or more compartments with the lid closed, and a sheet or film extending across at least some of the compartments of said tray in sealed contact with at least some of the upper peripheral edges thereof to occlude same, said sheet or film being capable of selective removal or rupturing thus to permit the contents of one or more compartments to be discharged

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through said windows without opening the lid.

Preferably, there are provided shutters to occlude the windows, which may be opened selectively to permit access to one or more compartment for the discharge of the contents.

An embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:-

Fig. 1 is a plan view of a container made in accordance with the invention.

Fig. 2 is an underneath view;

Fig. 3 is a view of one end;

Fig. 4 is a vertical cross-section taken along line IV-IV of Fig. 1;

Fig. 5 is a cross-sectional view similar to Fig. 4 but incorporating a modified internal configuration.

A container for dispensing pills, tablets or capsules, made in accordance with the invention comprises a box 10 having a base, side and front walls.

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12 and 13 respectively, and a rear wall 14.

Hingedly attached at 15 to the rear of side walls 12 is a lid 16 which when closed covers the interior of the box. The lid 16 includes rows of windows 17 through which the interior of the box is visible, and in the example shown there are 7 rows representing the days of the week and each containing 6 separate windows representing 6 periods of each day.

Slidably located beneath the windows of each of the 7 rows is a transparent sliding shutter 18 supported beneath the underside of the lid 16 by shelf supports 19 (see Figs. 4 and 5) formed integrally with the lid. Click stops 20 or similar catch devices are provided such that the shutters 18 may be slid open incrementally to expose one or more of the six windows in each daily row and to prevent the shutters from being easily removed entirely from the lid.

As may be seen from the cutaway illustration in Fig 1, the box 10 contains a removable tray 21 which is formed to provide a plurality of compartments 22 each beneath one of the windows 17 in the lid when closed. Two edge regions of the tray 21 include ledges 23 and 24 to which may be adhered printed strips of paper on which the days of the week and either a series

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of numbers or times of the day, respectively are visible. For this purpose, slots 25 and 26 respectively are provided in the lid 16 so that when it is closed the printed material is visible through the slots.

Referring now to Figs. 2 and 3, a card 27 is placed in the bottom of the box 10 beneath the tray 21 and contains printed material which is visible through one or more cut-outs or windows 28 in the bottom of the box. The printed material may provide information, for example, as to the patient's name, his doctor and the medicines, dosages and times appropriate to that patient. The card 27 is loosely located in a recessed portion of the bottom of the box and may be readily replaced by first removing the tray 21, but it is otherwise held captive therein by the tray. Therefore, by turning the box over the printed material may be easily read.

In one end wall 12 of the box there is provided a further window 29 and a slot 30 (see Fig. 4) to contain a further label on which the patient's details may be printed and perhaps containing a photograph of the patient as illustrated at 31 so that basic information concerning the patient may be viewed from the side of the container when a number of such containers are stacked together.

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Slots 25 and 26 may be closed by replaceable plugs 32 (see Fig. 3) so that the information otherwise visible beneath the slots may be interchangeable. In this way, alternative information may be provided without changing the information printed on the sides of the tray 21. For example, information in different languages or in braille may be provided on the device for specialised use.

A catch 33 is provided at the front of the box whereby the lid may be normally retained in the closed position but it will be seen that when the lid is opened, the tray 21 may be filled without the tray being removed from the box containing the patient's details. This avoids the likelihood of incorrect medicines being dispensed to patients.

As will be seen from Figs. 1 and 4, a thin acetate sheet or film 35 may be placed in sealed contact with the upper edges of the tray 21. The sheet 35 may be sealed only around the outer peripheral edges of the tray or alternatively also around the top edges of each compartment, by the application of an adhesive as indicated by dotted lines 36 applied either to the top of the tray or to the sheet, or both, before the sheet is applied. The sheet is applied after the tray

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is filled.

The sheet 35 may be translucent or transparent and may be of such material as to be capable of being punctured selectively to permit the contents of one or more compartments to be discharged through the windows 17. Zone perforation 37 of the sheet 35 along one or more edges of the compartments 22 is preferable to assist opening in this way. The perforation 37 may alternatively be over the central regions of the compartments.

In some cases, the need for the sliding shutters 18 will be avoided by the use of such a sheet or film. In practice, the sheet or film 35 may be applied with the tray 21 in situ or before insertion into the box.

Again, in some cases the sheet or film 35 may be reusable indefinitely or until the adhesive strips 36 become ineffective. In this case, dispensing of the contents would be not be puncturing but by peeling back the sheet 35, perhaps at the start of a week in which case the shutters 18 would be required to occlude the compartments 22 until the contents of each compartment are required.

When required, with the lid hinged open, the

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entire tray 21 may be withdrawn from the box for cleansing or replacement, and so the card 27 may be replaced or updated after removal of the tray.

The other card may be removed from slot 29 in the side wall 12 of the box once the lid is hinged open.

The box and lid are preferably made from a rigid plastics material and the shutters 18 from a transparent plastics material, whilst the tray 21 is preferably vacuum formed from a semi-rigid lightweight plastics so as to be inexpensively replaceable when worn or broken. The cards carrying patient information may be of paper and thus replaceable when amendment is required, or alternatively of a so-called wipe-clean plastics which may be written upon using an indelible pen.

Referring now to Fig. 5, in a modified form, the box may contain two (or more) trays 22 stacked in superimposed relationship, each filled with pills or tablets, and each sealed with a separate sheet or film 35. For this purpose the box may be made deeper, or the trays shallower. With this modification, two or more weeks' supply of medication can be stored in the container, and when each uppermost tray becomes empty

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it should be placed at the bottom of the stack.

It is not intended to limit the invention to the above example only. For example, shutters 18 may be other than transparent, the numbers and sizes of the windows in the lid and the compartments in the tray may be different from those illustrated and described, and the patient information to be provided on the underside of the container may be written in indelible ink on a panel of wipe-clean material.

The tray 21 may be in the form of compartmental walls formed, perhaps integrally, within the box.

The plugs 32 which are interchangeable to provide different information may be colour-coded for identification.

The lid 16 may be slidable or fully removable with respect to the box to expose the compartments of the tray, provided that the tray need not be removed from that part of the box or lid containing the patient information.

CLAIMS

1. A container for dispensing pills, tablets and capsules, comprising a box with a hinged or removable lid, a compartmented tray within the box having a plurality of rows of compartments to contain the pills or tablets to be taken at predetermined intervals, the lid including a plurality of windows each aligned with one or more compartments with the lid closed, and a sheet or film extending across at least some of the compartments of said tray in sealed contact with the upper peripheral edges thereof to occlude and individually seal said at least some compartments, said sheet or film being capable of selective removal or rupturing thus to permit the contents of said one or more compartments to selectively be discharged through said windows without opening the lid.
2. A container according to claim 1, including shutters to occlude the windows, which may be opened selectively to permit access to a selected region or regions of said sheet or film.
3. A container according to claim 1 or claim 2, wherein said compartmented tray is removable from the box with the lid open, and wherein said sheet or film extends across all of the compartments in the tray and is in sealed contact with the upper peripheral edges of the compartments.
4. A container according to any one of claims 1 to 3, wherein said sheet or film is perforated in zones such as to provide selective access separately to each one of said compartments.
5. A container according to claim 2, wherein each said shutter is disposed slidably with respect to one row of windows in the lid and includes a catch device whereby the shutter may be slid open incrementally to expose one or more of the windows in said row.

6. A container according to claim 2, wherein said shutters are transparent.

7. A container according to any one of claims 1 to 6 wherein said sheet or film is of a thin transparent acetate material such that it may be removably attached to said tray by a previously applied adhesive along the upper compartmental edges and the peripheral edges of the tray.

8. A container according to any one of claims 1 to 7, wherein said tray is formed from a semi-rigid lightweight plastic which may be removed from the container when the lid is opened.

9. A container according to any one of claims 1 to 8, including at least two removable compartmented trays located in superimposed relationship within the box, each said tray having a sheet or film extending across and sealing the compartments.

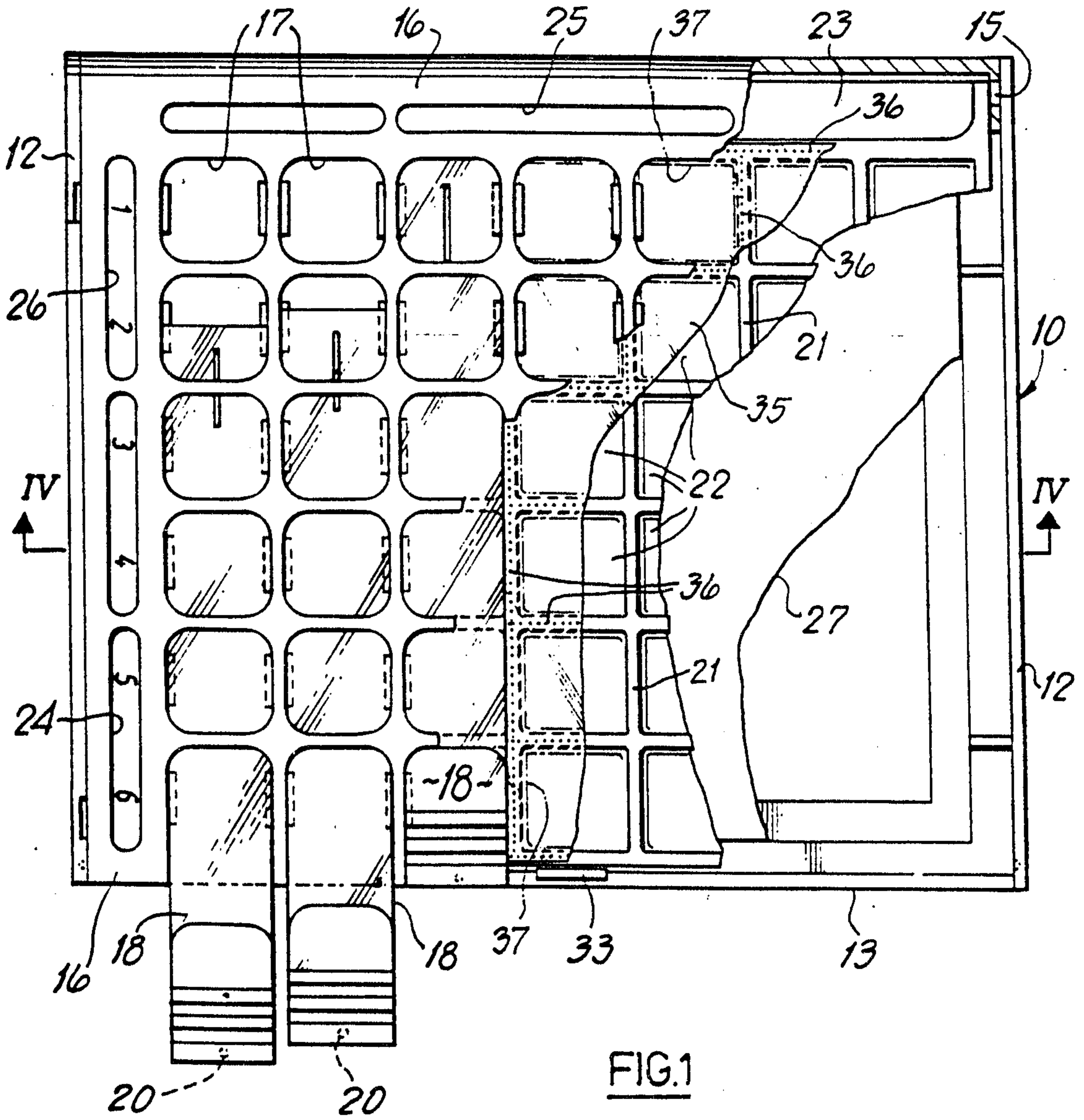


FIG.1

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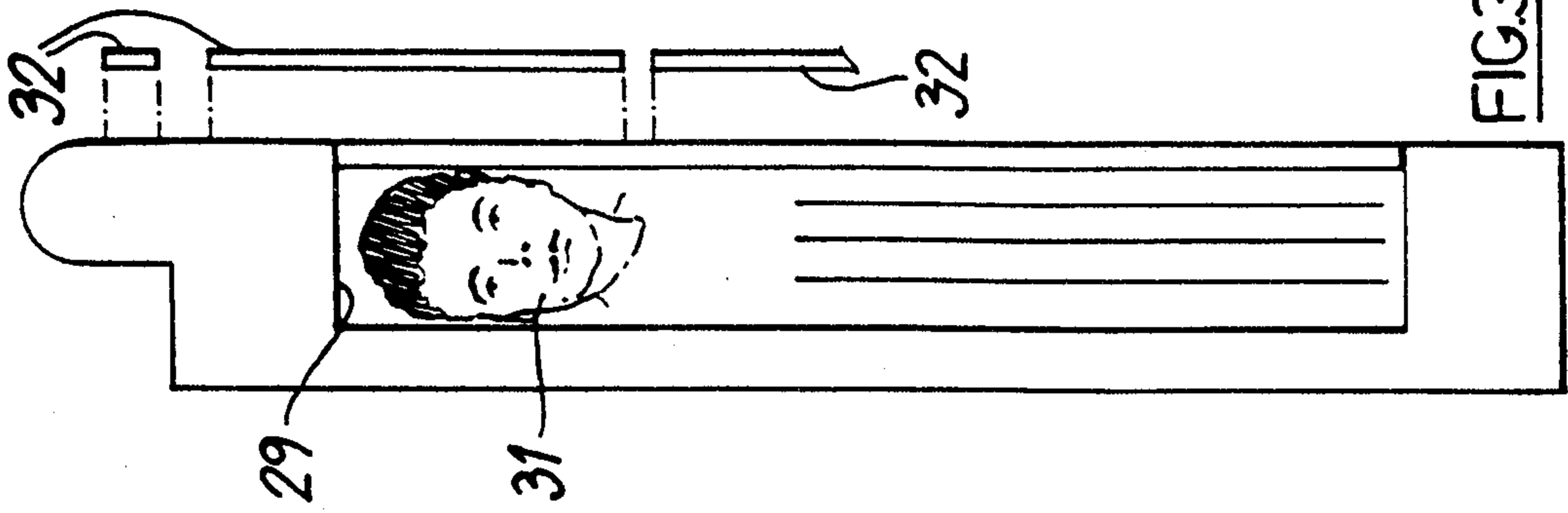


FIG.3

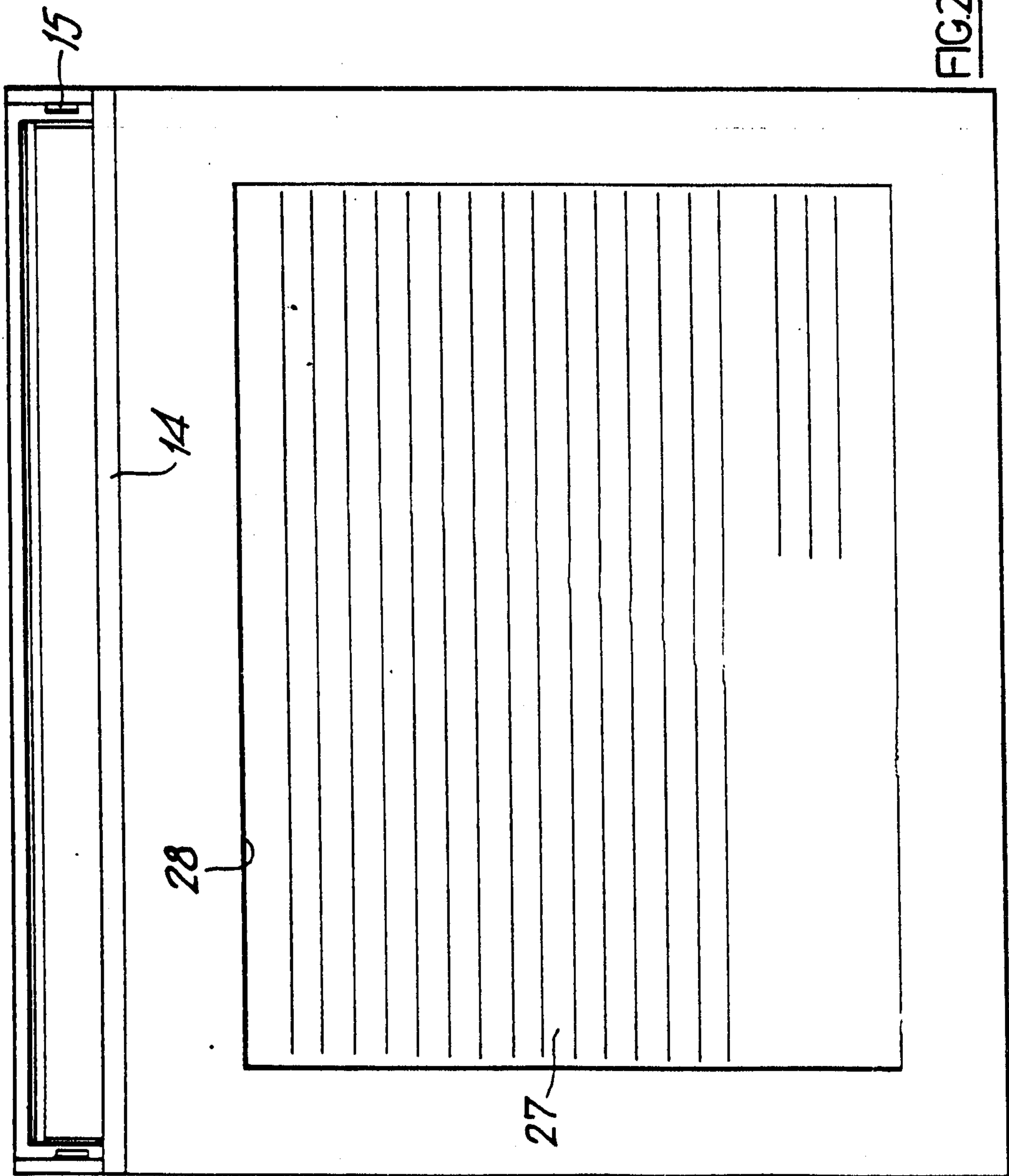


FIG.2

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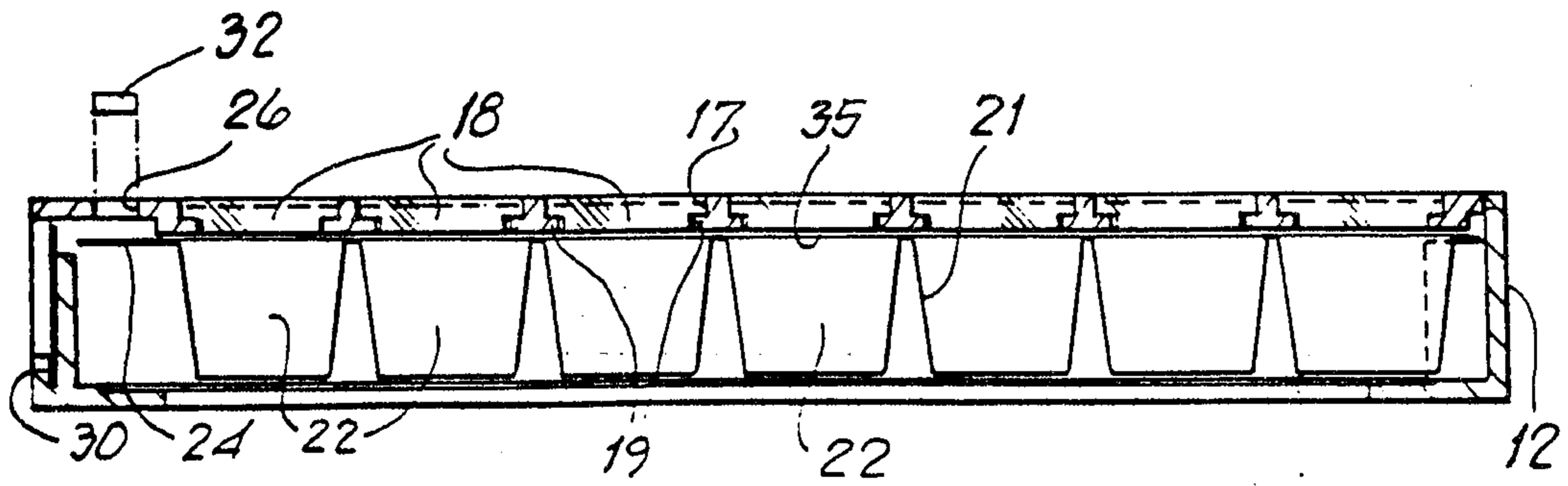


FIG. 4

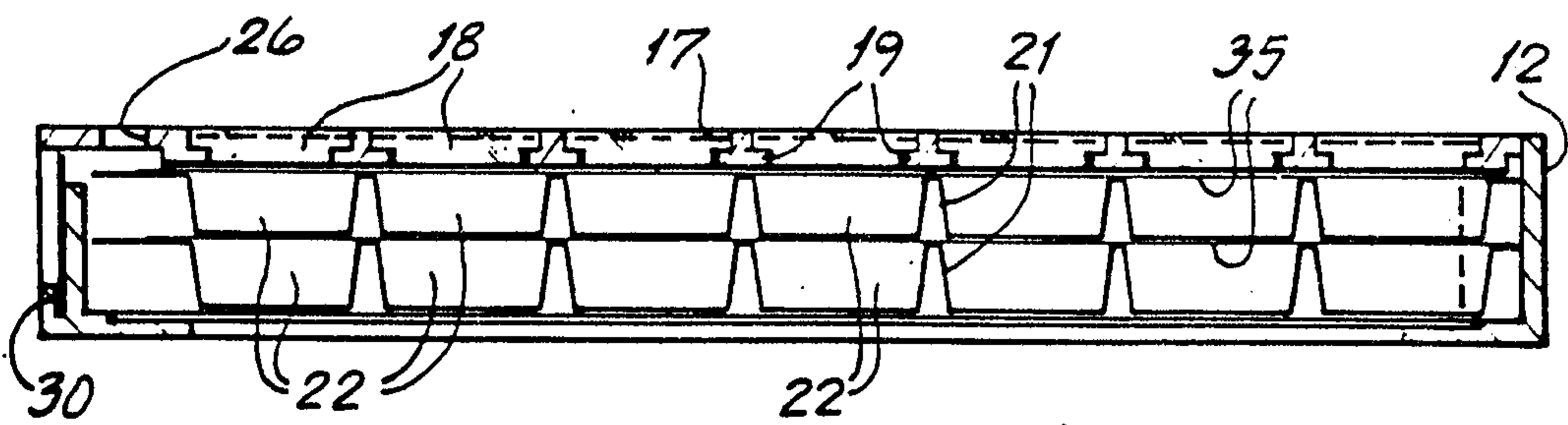


FIG. 5