



(51) International Patent Classification:

A61K 8/19 (2006.01) A61K 35/08 (2006.01)
A61K 33/04 (2006.01) A61Q 19/00 (2006.01)
A61K 33/10 (2006.01) A61P 17/06 (2006.01)
A61K 33/14 (2006.01) A61K 45/06 (2006.01)

(21) International Application Number:

PCT/IB2011/000731

(22) International Filing Date:

31 March 2011 (31.03.2011)

(25) Filing Language:

Italian

(26) Publication Language:

English

(30) Priority Data:

AN2010U000018 14 April 2010 (14.04.2010) IT

(71) Applicant (for all designated States except US): **ANTONIOMERLONI S.P.A. IN A.S.** [IT/IT]; 116, Via Vittorio Veneto, I-60044 Fabriano (Ancona) (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CUCCO, Rossano** [IT/IT]; Antoniomerloni S.P.A. in A.S., 116, Via Vittorio Veneto, I-60044 Fabriano (Ancona) (IT). **ALUNNO, Robertino** [IT/IT]; Antoniomerloni S.P.A. in A.S., 116, Via Vittorio Veneto, I-60044 Fabriano (Ancona) (IT).

(74) Agent: **GENTILI, Enrico**; Mar.Bre S.r.l., 2 Via San Filippo, I-60044 Fabriano (AN) (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: FULLY OPENABLE MULTIFUNCTION DRAWER FOR HOUSEHOLD APPLIANCES

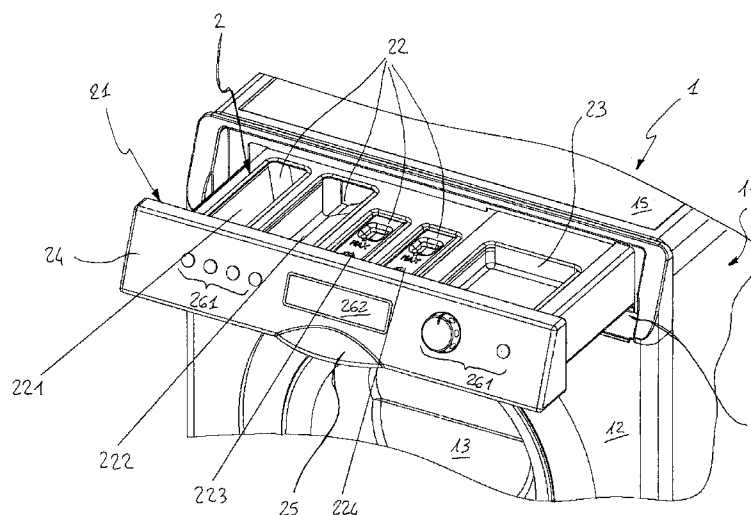


Fig. 3

(57) Abstract: The present invention describes a washing machine (1) comprising an external chassis (11), on the front panel (12) of which are accessible at least one aperture (13), equipped with a door (14), for the loading and/or unloading of garments into or from the rotary drum inside said chassis (11), a soap dispenser (2) of washing agents assembled on the slidable drawer support structure (21) able to additionally contain, adjacent to compartments (22; 221, 222, 223, 224), one or more receptacles (23), able to contain and house various types of useful objects and accessories, and a control panel (26; 261, 262).

FULLY OPENABLE MULTIFUNCTION DRAWER FOR HOUSEHOLD APPLIANCES

DESCRIPTION

The object of the present invention is a washing machine.

More particularly, the object of the invention is a multifunction drawer for washing machines and/or washer dryers.

The invention, therefore, comes within the sector of household appliances, in particular those of domestic washing machines and/or washer dryers. For descriptive purposes, use of the term “washing machine” refers to both washing machines and washer dryers.

As is already known, the washing and treatment of garments in washing machines generally requires the use of liquid and/or powder detergents, fabric softeners and other additives, such as, by way of non limiting example, perfume additives, whiteners and/or stain removers. Such substances are generally and widely known as “washing agents”.

For this purpose, prior to each washing cycle, the washing agents are introduced, in quantities depending on the characteristics and the amount of laundry to be washed, into the relevant compartments of a soap dispenser drawer partially extractable from the front panel of the washing machine, above the washing machine window.

In addition, as already known and widely utilized, base units or raised supports are positioned under the washing machine to raise it off the floor so as to facilitate operations such as the loading or unloading of laundry, or maintenance.

Such base units are increasingly shaped in order to define a cavity within which a drawer is able to slide on the lateral guides provided; said drawer serves a whole host of purposes,

the machine, or said drawer may house extra supplies of washing agents or store any other object and accessory.

It is clear that the utilization of such base units causes problems of an aesthetic nature, since base units are generally sold as a washing machine accessory and, therefore, are often difficult to integrate and also prove incompatible with the “lines” and “geometries” of the washing machine itself.

The increase in the overall dimensions of the washing machine, due to the base unit, creates problems of space where the washing machine is usually positioned, which is generally limited and cramped.

The aim of the present invention is to eliminate at least a part of the above described problems.

In particular, the principle aim of the present invention is to indicate an improved washing machine equipped with suitable “spaces” to place various types of objects and accessories.

These aims, together with other advantageous results, as will become clear, are achieved using a device which conforms to the indications of the principle claims enclosed.

The characteristics of the present invention will be better highlighted by the following description of some preferred embodiments, according to the patent claims and which are illustrated in the enclosed drawing tables by way of a non-limiting example, wherein:

- figure 1 illustrates an axonometric view of a washing machine according to the invention.
- figure 2 illustrates an axonometric view of the washing machine of fig. 1 with the drawer partially extracted.
- figure 3 illustrates, axonometrically, an enlargement of a part of the washing machine of figure 2.

The characteristics of the invention are now described, making use of the references contained in the figures enclosed.

With reference to the figures 1 and 2, of the washing machine 1, is illustrated the external cabinet 11 (or chassis) on the front panel 12 of which are envisaged at least, as is already known, one aperture 13, equipped with a door 14, for the loading (and/or unloading) of the

agents (see also fig. 3).

The enclosed figures, instead, do not illustrate the components of the washing machine 1, inside the chassis 11, since they are known, in themselves, and are not important for the purpose of the invention, except for the fact that their positioning inside the chassis 11 do not prevent as will become clear, the housing and sliding of the soap dispenser 2.

Said soap dispenser 2 is, in fact, assembled on a slidable drawer 21, able to move, by means of relevant lateral guides (not explicitly illustrated), inside a cavity 3, made in the front panel 12 of the washing machine 1 between the door 14 and its flat top 15, and which extends towards the inside of the chassis 11.

By using the handle 25, the drawer 21 is operated by the user between an “opening position” at which it is partially extracted from the cavity 3 to allow the introduction of washing agents into the trays 22 (also said “compartments”) envisaged within (see fig. 2) and a “closing position” at which the drawer 21 is fully inside the cavity 3 and its front panel 24 is basically lying on the same vertical plane as the front panel 12 of the washing machine 1.

According to the invention, the drawer 21 in which is installed the soap dispenser 2 (and as a consequence the cavity 3 in which it is housed) has a width that is basically equal to that (L) of the washing machine 1 itself.

The increased width of the slidable drawer 21 of the soap dispenser 2 enables the creation, adjacent to the compartments 22, of additional receptacles 23 which can house various kinds of objects able to optimise the functionality and usability of the washing machine 1.

As an illustrative and non-limiting example, said additional receptacles 23 are shaped so as to house brushes and solvents to be utilized for the pre-treatment of stained garments, guides relating to the various wash (and/or drying) programmes featured on the machine, and small accessories with which the user can perform ordinary maintenance of the washing machine 1.

According to the invention, on the front panel 24 of the drawer 21 is integrated the aforesaid handle 25 and the control panel 26 (including wiring and connectors, not illustrated) equipped with the selection, activation and programming means 261 and/or

Lastly, figure 3 illustrates, in more detail, a possible embodiment of the soap dispenser 2 comprising a first 221 and second 222 compartment for the introduction of detergents (in liquid and/or powder form), respectively, for the pre-washing and the subsequent washing of garments, and a third 223 and fourth 224 compartment for the introduction, respectively, of softeners and any other additives.

It is clear that several variants to the washing machine 1, object of the invention, are possible for those skilled in the art, without departing from the novelty scopes of the inventive idea, as well as it is clear that in the practical embodiment of the invention the various components described above may be replaced with technically equivalent ones.

For example, it is wholly possible, as an alternative to a single drawer 21 as described above, to envisage a first drawer destined to support only the soap dispenser 2 and a second drawer, adjacent to the first, for the receptacles 23, both housed inside relevant cavities extending from the front panel 12 of the washing machine 1 towards the inside of the chassis 11.

In addition, the drawer 21 may be pulled out from the cavity 3 (or, viceversa, pushed into it) by means of a “push-pull” opening system or automatically by means of a servo-assisted system employing an electric motor. Both of these variants may not require the presence of the handle 25 on the front panel 24 of the drawer 21.

The washing machine 1 of the invention, therefore, achieves the prefixed aims, in particular the possibility to provide the washing machine 1 with “spaces” suitable for housing various types of objects, useful in increasing the functionality of the washing machine 1, without adding to its bulk and/or compromising its appearance.

CLAIMS

1. Washing machine (1) comprising an external cabinet (11) on the front panel (12) of which are accessible at least:
 - one aperture (13) equipped with door (14) for the loading and/or unloading of garments from the rotary drum inside said chassis (11)
 - a soap dispenser (2) of the washing agents mounted on a first slidable drawer support structure (21) able to move inside a cavity (3) made in said front panel (12) of the washing machine (1) between said door (14) and its flat top (15) and extending towards the inside of said chassis (11), said washing agents being introduced into the relevant compartments (22; 221, 222, 223, 224)characterised in that
on said front panel (12) are subsequently accessible one or more receptacles (23) able to contain and house various kinds of useful objects and accessories, said one or more receptacles (23) being realised adjacent to said compartments (22; 221, 222, 223, 224).
2. Washing machine (1) according to claim 1
characterised in that
said one or more receptacles (23) are made in a second slidable drawer support structure adjacent to said drawer support structure (21) of the soap dispenser (2).
3. Washing machine (1) according to the previous claim
characterised in that
on the front panel (24) of said second slidable drawer support structure (21), comprising said one or more receptacles (23), is integrated the control panel (26; 261, 262).
4. Washing machine (1) according to any previous claim
characterised in that
said first slidable drawer support structure (21) of said soap dispenser (2) and said second slidable drawer support structure comprising said one or more receptacles (23) basically extend for the entire width (L) of said washing machine (1).
5. Washing machine (1) according to any previous claim

said first slidable drawer support structure (21) of said soap dispenser (2) and said second slidable drawer support structure comprising said one or more receptacles (23) constitute a single slidable drawer support structure (21).

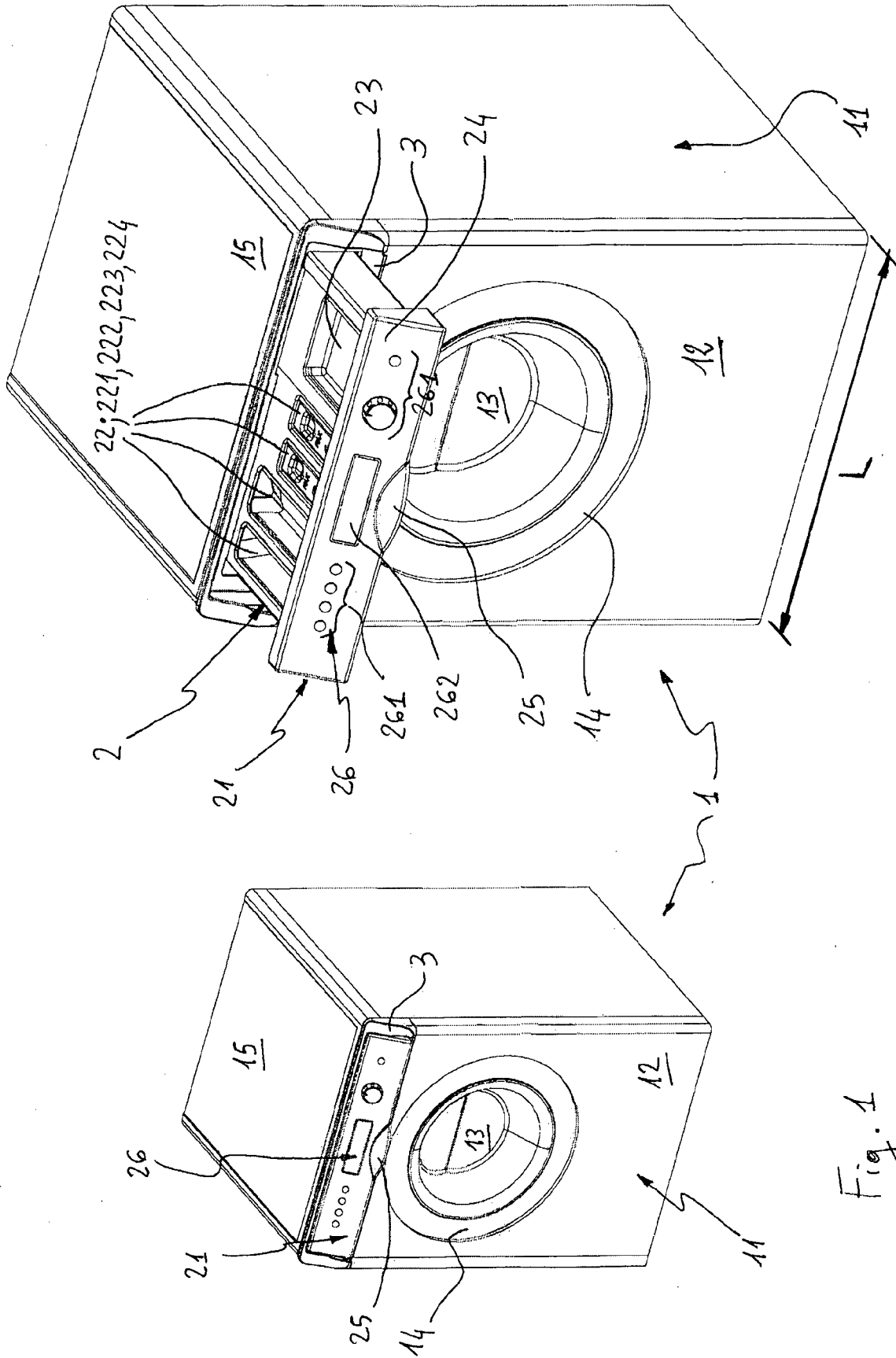


Fig. 2

Fig. 1

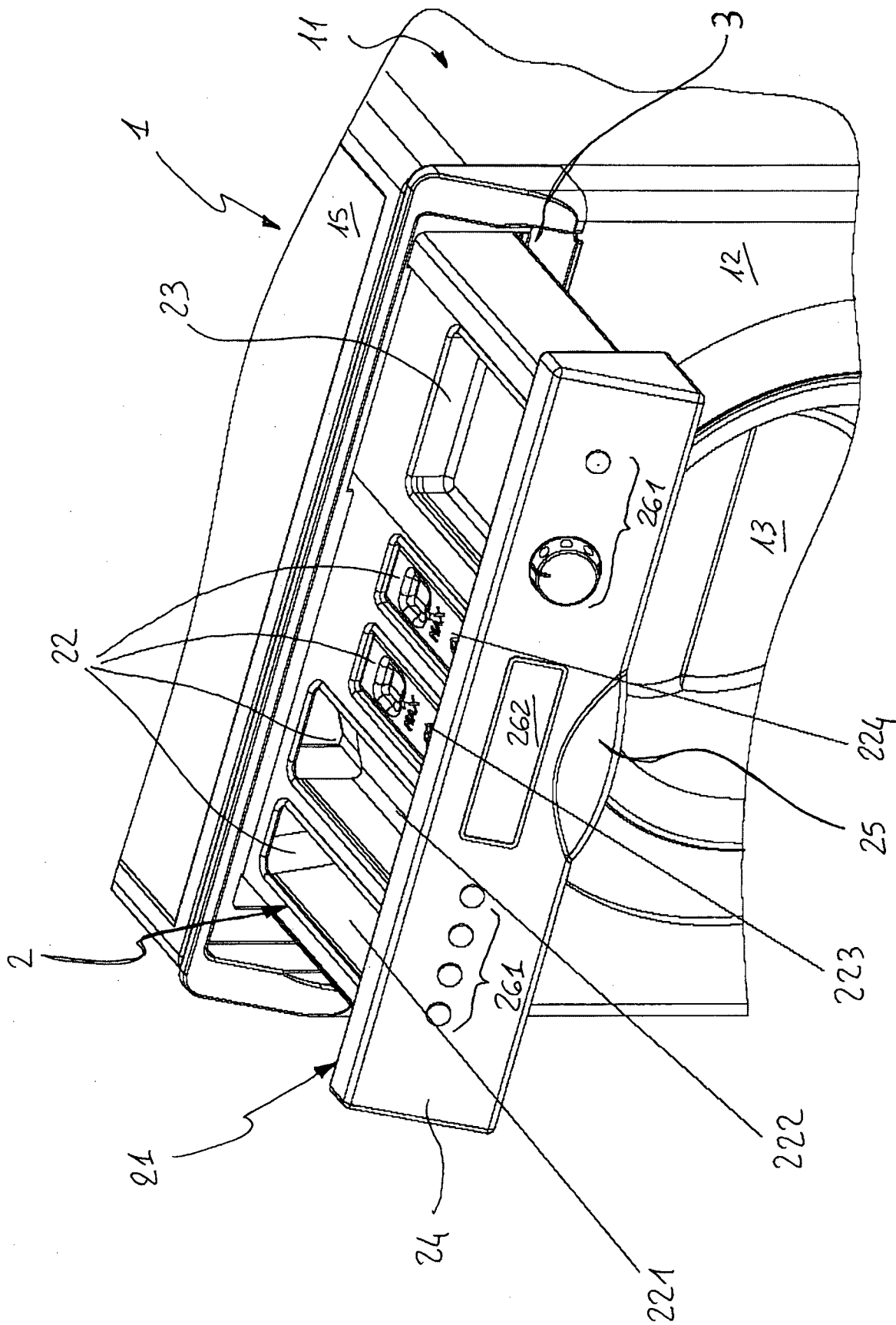


Fig. 3