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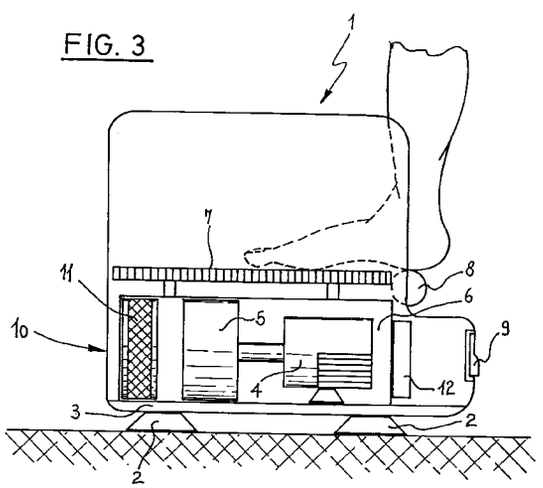
(54) Drying and sterilizing feet appliances.

(57) On a chassis (3) electromechanical components are fit with the purpose of sucking the air in the atmosphere to heat it or not according to the electric resistances (6) and blowing said air, in more or less volume, on the user's sole through the drilled grill (7) with the purpose of drying and sterilizing feet. The device is put into operation slightly touching the ergonomic switch (8) and the temperature of the blown air shall be selected using the temperature selection and speed engine switches (9) (4).

FIG. 3



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The present patent refers to an invention composed of an assembly of electromechanical components (parts) mounted on a chassis and conditioned by a rigid plastic outer cover in order to obtain, in the end, an appliance to be used for the purpose of drying and sterilizing feed by means of hot air blown under the user's feet.

Said invention is therefore included in the technical sector of personal hygiene appliances and devices. The equipping is very comfortable for it is meant to be used on the floor of the room where it has been connected, such as home bathrooms or other public or private clubs, changing rooms, inns, commercial, industrial or other sport unions, etc. It is widely known that dampness remaining in between toes causes a series of dermatologic diseases such as fungi "athlete feet" chilblains, etc. Hence, when the user receives hot air on his/her sole coming from the appliance, his/her feet are consequently dried and sterilized eliminating the fungi and bacteria families norm resistant to heat causing the absence of dampness and the oxygen excess caused by hot air. Moreover, the device is water-resistant, hence increasing its duration and avoiding electric shocks in the user caused by water infiltration in powered parts.

Towards a better understanding of the invention, illustrative drawings of the device are attached as part of the description. These drawings show the construction and working principles of the invention and do not constitute a restrictive form or design but merely an indicative descriptive example considering the configuration or variations within the same basic idea and inventive concept and represent:

- Figure 1 - Overall view of the appliance, shows a rigid plastic outer cover (1). It is shown in operating position and placed on the floor resting on adequate supports (2). It is activated by the user's foot.

- Fig. 2 - Illustration of the main parts and electromechanical assembly. View of the appliance without the rigid plastic outer cover (1) where you can see the chassis (3) on which the engine (4) that activates the vane is fit (5) that shall suck the air from the atmosphere taking it through a series of electric resistances (6). After the heat intensity is modified, the air, now at the temperature chosen by the user, shall be directed to the user's sole through a drilled grill (7) serving the double function: to dry and sterilize feet.

- Figure 3 - Shows the ergonomic switch (8) that switches on and off the engine (4), three vanes and the switches (9) used to increase the temperature of the blown air by supplying energy to the electric resistances (6) and the simultaneous increase of the engine's speed (4) as well as the voltage switch.

- Figure 4 - .Shows the position of the air input (10), the position of the air filter (11) and of the operating control device of the appliance.

Summing up, in more detail, observing the attached drawings, we can see that the drying and sterilizing feet appliance is conformed by a set of electromechanical components so that, in the end the result is a device composed of a chassis 3 on which the electric engine is fixed 4 that shall activate the vane 5 that shall suck the air in the atmosphere through the input 10 which shall be cleaned by a filter 11 to be then conducted through the electric resistances 6 heating the air that shall finally come out at the selected temperature through the drilled grill 7 under the user's feet. The operating control device allows the engine 4 the vane 5 and the resistances 6 to be connected and disconnected, and also the varying functions combined with the speed of the blown air allowing the user to select the heat as desired according to his/her skin sensitivity. To do this, the user shall only have to activate the ergonomic switch 8 the temperature selection switch 9 and the engine speed switch 4 using his/her foot.

Moreover, the appliance also has a protection system for the user's safety. In the remote event a short circuit or an overload in the power supply occurs, the device shall automatically cut out protecting the user from an electric shock or a thernmic burn.

The appliance shall start working when the user places his/her foot on the ergonomic switch 8 and gently pushes it down. In this way air shall blow through the drilled grill 7 that shall remain at room temperature. The ergonomic switch 9 is located very near the drilled grill 7 on a slightly upper level, so that when it is pushed down with the foot it shall level with the drilled grill 7 producing feet comfort. If the ergonomic switch is not pushed down, it shall always be in the off position.

Claims

1. A drying and sterilizing feet appliance characterized in that it comprises a rigid plastic outside cover (1) to protect the chassis on which the appliance's electromechanical parts (3), the engine (4) activating the vane (5) blowing into the resistances (6) the operating control device (12), the air input (10) the air filter (11) the ergonomic switch (8) the temperature and engine speed selecting switches (4) the drilled grill (7) and the appliance's supports (2) are fixed.

2. A drying and sterilizing feet appliance characterized by blowing warm or room temperature air in the drilled grill under the user's feet when he/she places his/her foot on the ergonomic switch (8), slightly pressing it down to turn it on, with the switches the user being able to select the temperature of the blown air in the grill (7) and the engine speed (4).

3. A drying and sterilizing feet appliance, according

to claim 1, characterized by having the chassis (3) the nonskid supports (2) the ergonomic switch (8) and the rigid plastic outer cover (1) completely resistant to a pressure/weight of 100 kg, the same being electrically and mechanically isolated of the vibration produced by the engine and the vane (5).

4. A drying and sterilizing feed appliance, according to claim 1, characterized in that the ergonomic switch (8) is located near the drilled grill (7), in a slightly different level so that when the ergonomic switch is activated they shall be levelled resulting in a comfortable position for feet, the voltage used being either 110 or 220 simply by placing the corresponding switch on the desired position (13).

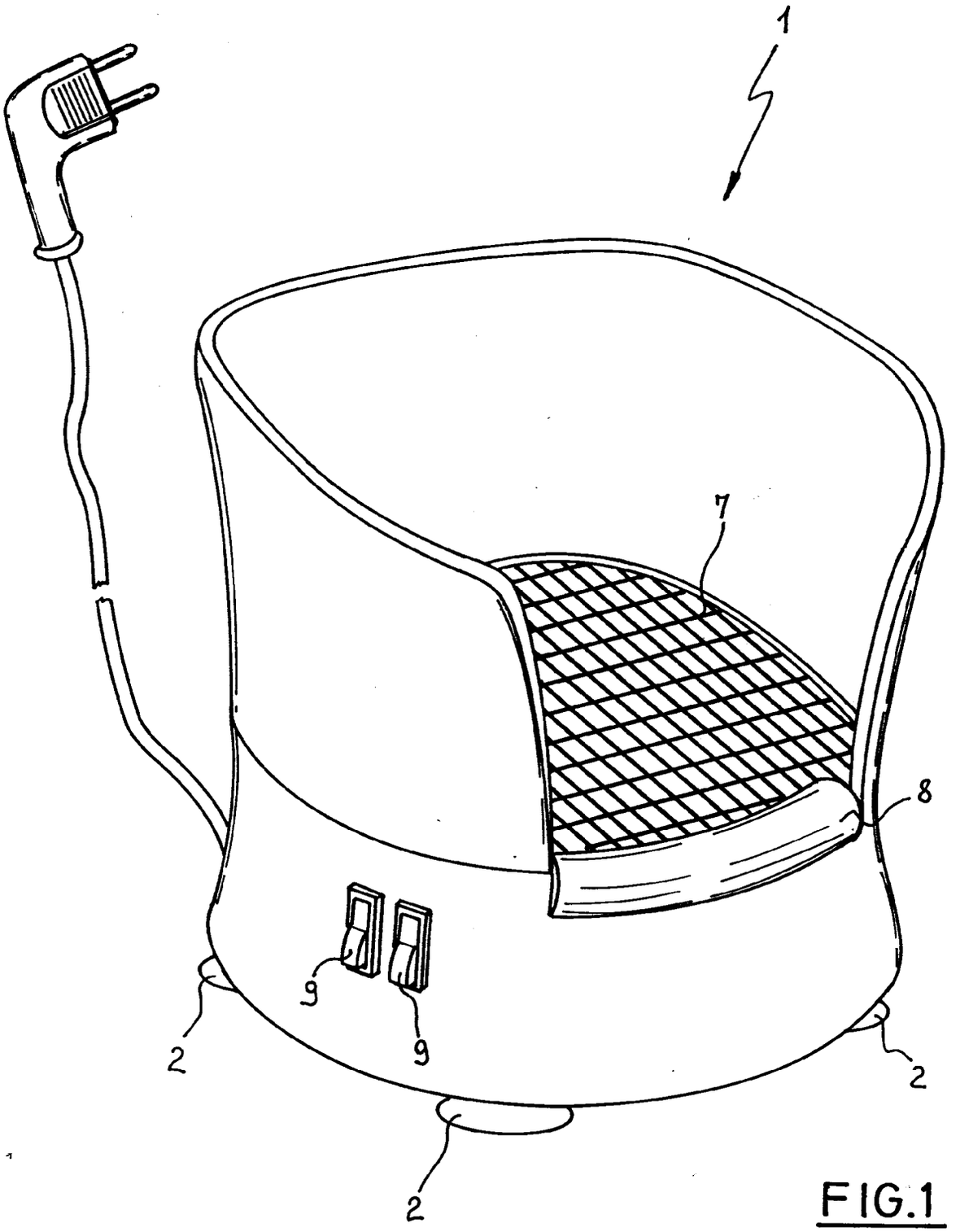


FIG.1

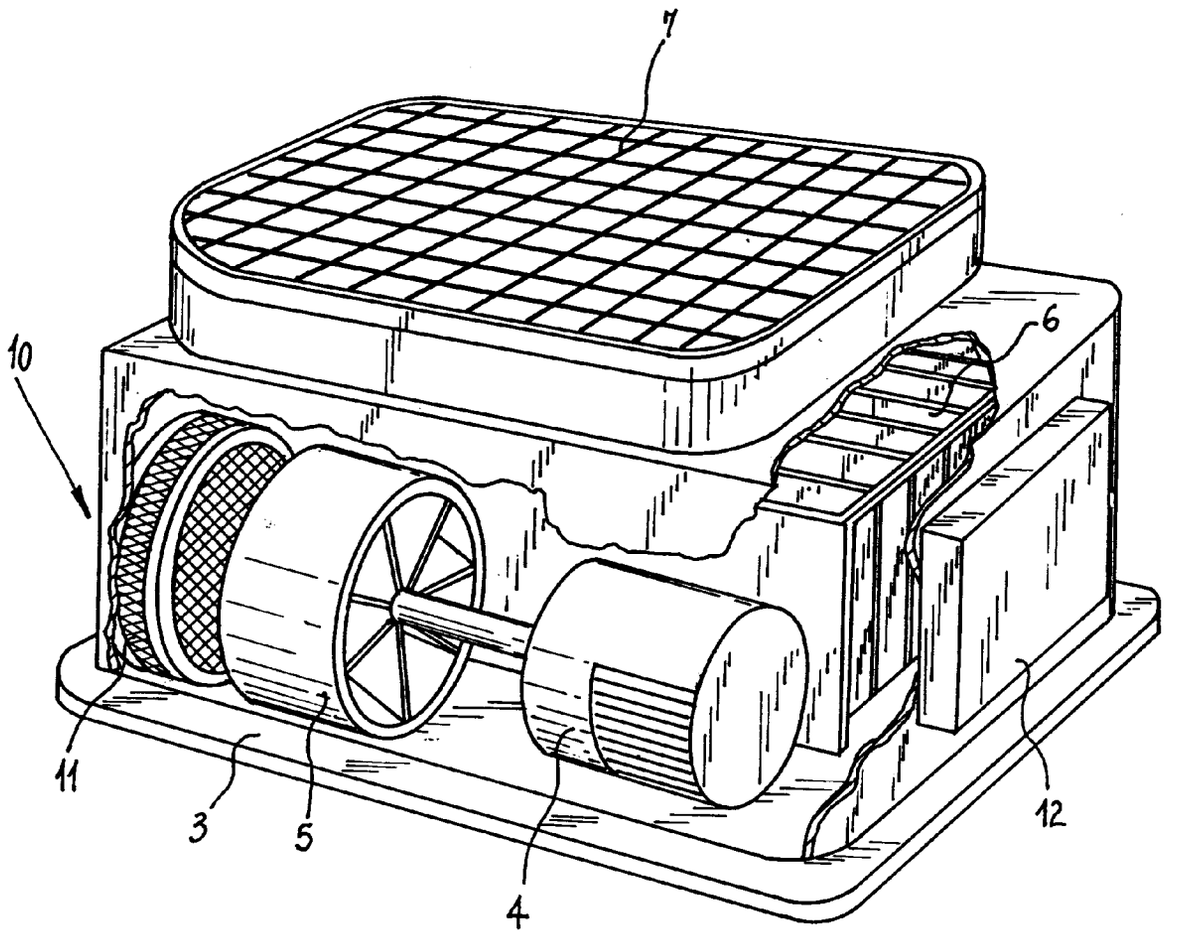
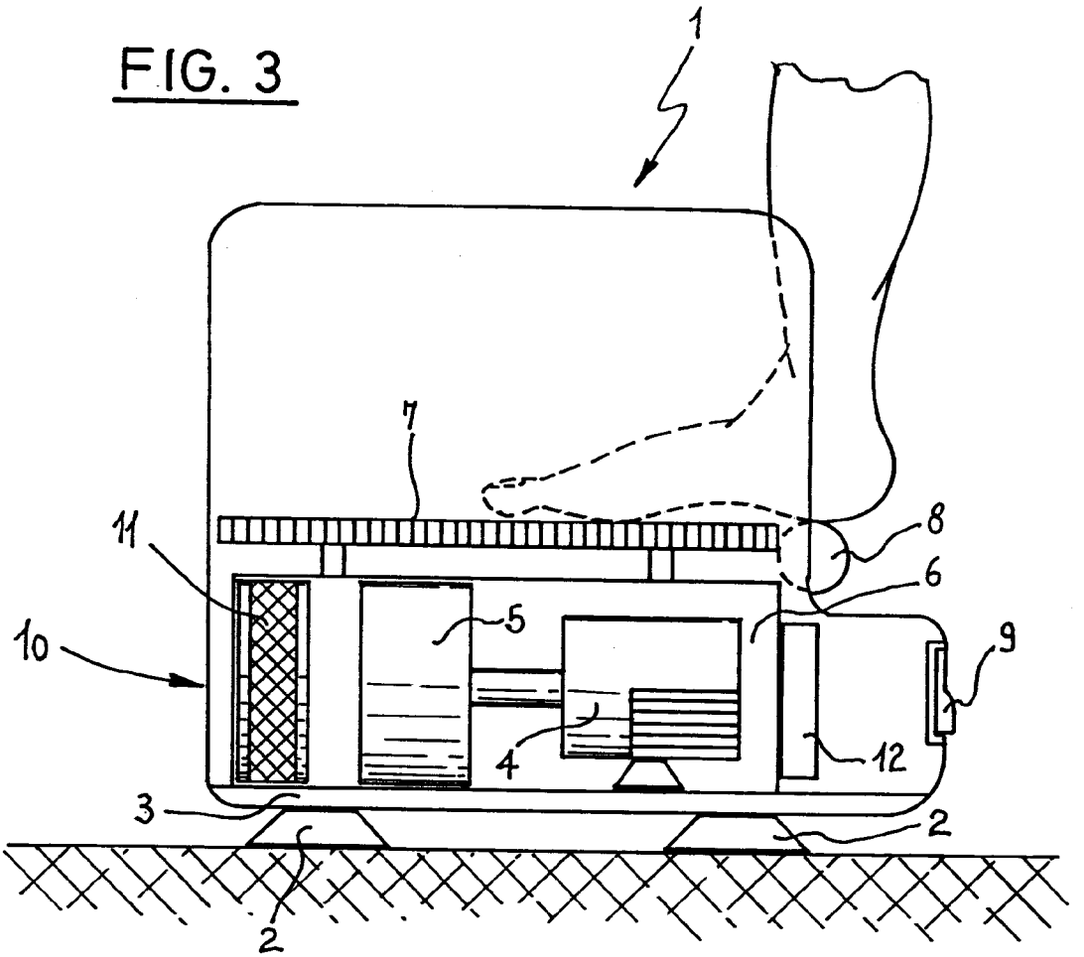


FIG.2

FIG. 3



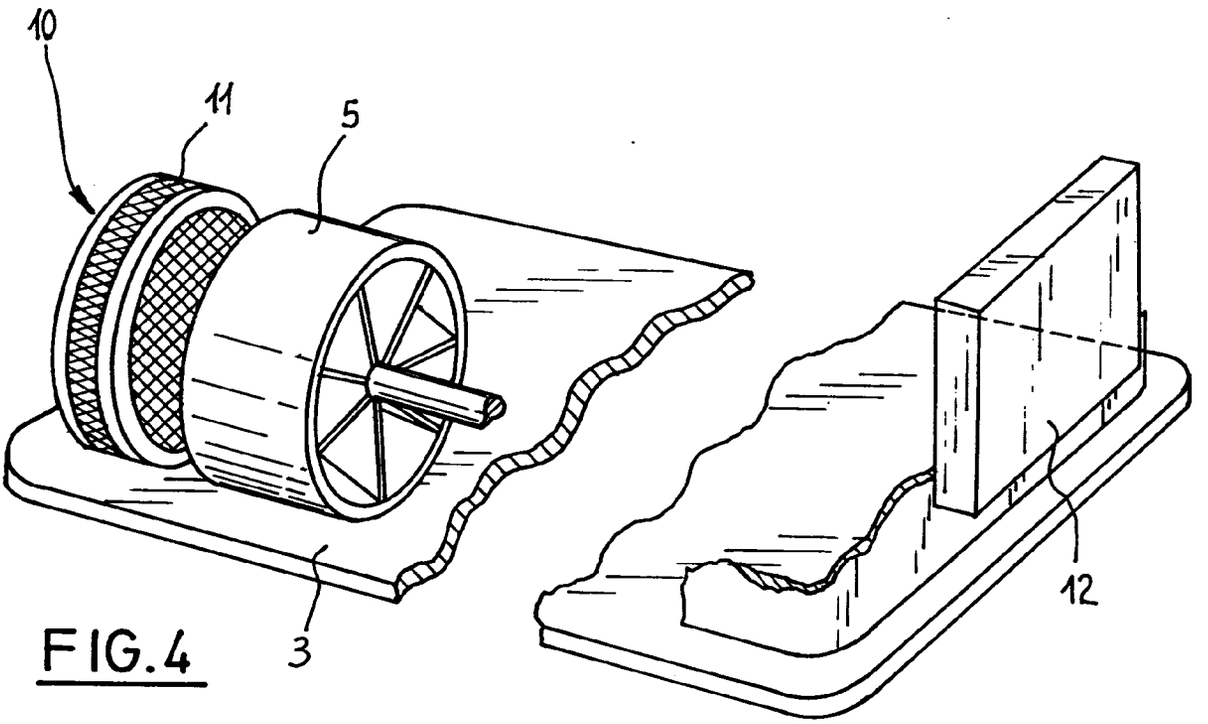


FIG.4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 83 0362

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X Y	US-A-4 782 601 (GONZALEZ) * the whole document * ---	1,3 2	A47K10/48
Y A	FR-A-2 216 529 (SIMONIN) * the whole document * ---	2 1,3	
A	DE-A-3 610 560 (LEUTHEUSER) * the whole document * ---	1,2,3	
A	US-A-1 658 489 (LINDSTROM) * the whole document * ---	1,2,3	
A	DE-A-3 502 401 (ADAM) ---		
A	CH-A-670 368 (DURST ET AL) -----		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A47K F26B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	20 JANUARY 1992	SILVIS H.

CATEGORY OF CITED DOCUMENTS

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