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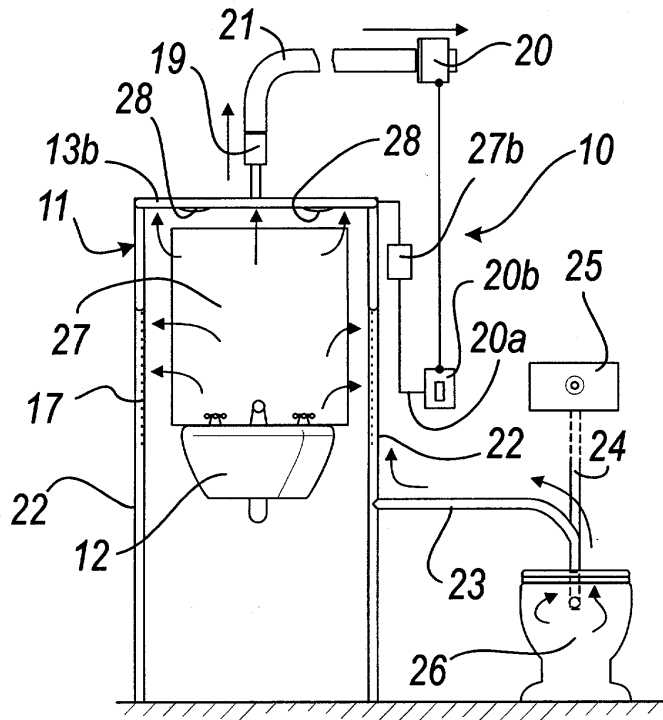
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(54) **Apparatus for increasing user comfort during personal grooming in bathrooms or the like**

(57) An apparatus for increasing user comfort during grooming in bathrooms or the like, comprising a frame (11) that is arranged adjacent to the region occupied by the user's head during grooming; the frame integrates tubular elements (13a, 13b), which form an air

circuit. The tubular elements are provided with a plurality of holes (17) and are further connected, by means of at least one duct (21), to aspirator elements (20), which are connected to an electric power supply (20a) and to actuation elements (20b) that are available to the user.



**Fig. 3**

## Description

**[0001]** The present invention relates to an apparatus for increasing user comfort during personal grooming in bathrooms or the like.

**[0002]** It is by now well known that the time spent on body hygiene and care constitutes a significant fraction of the day.

**[0003]** Rooms dedicated to daily grooming, such as for example bathrooms, are becoming increasingly important in terms of comfort, practicality and safety.

**[0004]** It is important to avoid the presence of bad odors in the bathroom and to have adequate lighting and sufficient heat, and the bathroom must be safe against any domestic accidents.

**[0005]** One of the most widely used methods to make a bathroom comfortable is to be able to ventilate the room so as to eliminate all the odors and gases that form during the day, such as for example organic odors, vapors of lacquers and sprays, and residues of insect-repellent gases.

**[0006]** One widespread means for ventilating a bathroom is a centrifugal extractor, which is typically arranged above the toilet.

**[0007]** Although the extractor is a widely used means, in this arrangement it is not free from drawbacks.

**[0008]** In fact, owing to its position, it takes a long time to extract the amount of air useful for rapid changing.

**[0009]** Lacquer vapors, for example, require rapid extraction in order to prevent them from being inhaled by the user.

**[0010]** A similar argument can be made for organic odors originating from the toilet: the time for which the user remains in the bathroom is shorter than the time required to change the air.

**[0011]** The aim of the present invention is to provide an apparatus for increasing user comfort in grooming operations in bathrooms or the like, which is capable of aspirating rapidly the vapors and odors that form inside the bathroom.

**[0012]** Within this aim, an object of the present invention is to provide an apparatus for increasing user comfort during grooming in bathrooms or the like, which is capable of aspirating the odors that originate from the toilet.

**[0013]** Another object of the present invention is to provide an apparatus that is capable of heating the user during grooming.

**[0014]** Another object of the present invention is to provide an apparatus for increasing user comfort during grooming in bathrooms or the like that increases safety in case of improper use of small electrical appliances such as hair dryers, hair straighteners, and others.

**[0015]** Another object of the present invention is to provide an apparatus that allows good viewing during grooming.

**[0016]** Another object of the present invention is to provide an apparatus for increasing user comfort during

grooming in bathrooms or the like whose costs are in any case competitive with respect to those of apparatuses having a similar functionality.

**[0017]** Another object of the present invention is to provide an apparatus for increasing user comfort in grooming operations in bathrooms or the like that can be manufactured with known systems and technologies.

**[0018]** This aim and these and other objects that will become better apparent hereinafter are achieved by an apparatus for increasing user comfort during grooming in bathrooms or the like, characterized in that it comprises a frame that is arranged adjacent to the region occupied by the user's head during grooming operations, said frame integrating tubular elements which form an air circuit, said tubular elements being provided with a plurality of holes and being further connected, by means of at least one duct, to aspirator means, said aspirator means being connected to an electric power supply and to actuation means that are available to the user.

**[0019]** Further characteristics and advantages of the invention will become better apparent from the following detailed description of a preferred but not exclusive embodiment thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is a perspective view of the apparatus according to the invention;

Figure 2 is a side view of the apparatus according to the invention;

Figure 3 is a front view of the apparatus according to the invention.

**[0020]** With reference to Figures 1 to 3, an apparatus according to the invention is generally designated by the reference numeral 10.

**[0021]** The apparatus 10 comprises a frame 11 which is substantially flat and cantilevers out above the region occupied by the head of a user during his or her grooming, for example the region that lies above a washbasin 12 adjacent to a wall 11a.

**[0022]** The frame 11 is composed of first and second pairs of tubular elements 13a and 13b, which are mutually perpendicular and form a substantially rectangular structure.

**[0023]** The tubular elements can be for example steel tubes.

**[0024]** The tubular elements of the pairs 13a and 13b form a circuit through which air can circulate; such tubular elements, moreover, are provided with a plurality of holes 17 arranged along the longitudinal extension of the tubular elements.

**[0025]** Another tubular element 14 is arranged parallel to the pair of tubular elements 13b, so as to divide the frame into two parts in order to allow the insertion of a first panel 15 and of a second panel 16.

**[0026]** The additional tubular element 14 is functionally connected to the air circuit formed by the pairs of tubular elements 13a and 13b and is provided with the

plurality of holes 17.

[0027] An intake 19 is arranged on the centerline of the tubular element of the pair 13b that lies furthest from the wall 11a and is connected to aspirator means 20, for example a fan-type extractor, by means of a duct 21.

[0028] The fan-type extractor is then connected to the outside by means of suitable ducts.

[0029] In this manner it is possible to aspirate all fluids such as spray gases and lacquers used during grooming.

[0030] The aspirator means 20 are connected to an electric power supply 20a, for example the main power supply of the room in which the apparatus according to the invention is located, and to actuation means 20b that are available to the user, such as for example a power on/off button.

[0031] The frame 11 is supported by supporting means, for example a pair of supporting bars 22, which are arranged vertically and adjacent to the wall 11a, so that their lower ends are fixed to a base that is stable on the ground (not shown in the figure) and the upper ends are fixed to the ends of the tubular element of the pair 13b that lies closest to the wall 11a.

[0032] Two brackets 22a are arranged between each one of the supporting bars 22 and the first pair of tubular elements 13a and support part of the cantilevered portion of the frame 11.

[0033] The supporting bars 22 also can be hollow and be functionally connected to the air circuit, which is formed by the first and second pairs of tubular elements 13a and 13b.

[0034] For example, it is possible to connect one of the two bars 22 to a tube 23 for connection to a discharge duct 24 of a cistern 25 for a toilet 26.

[0035] In this manner, the toilet 26 is connected to the extractor and it is therefore possible to aspirate the bad odors that arrive from the toilet 26 when the cistern 25 is not discharging.

[0036] A mirror 27 can be inserted in the first panel 15.

[0037] It is also possible to provide, on the structure 10, additional electrical devices, functionally connected to the electric power supply 20a, such as light sources and an electrical power socket 27a for small electrical appliances, such as for example hair dryers, hair straighteners and others.

[0038] The electrical outlet can comprise in turn a safety isolation transformer 27b to prevent the flow of short-circuit current through a user as a consequence of improper use of small electrical appliances.

[0039] Those electrical devices can comprise for example a pair of infrared lamps 28 for heating the user, which are arranged on the second panel 16.

[0040] Moreover, the electrical users can comprise, on the same second panel 16, halogen lamps 29.

[0041] A third panel 30, comprised between the wall 11a and the structure 10, can accommodate an additional pair of halogen lamps 31.

[0042] In practice it has been found that the apparatus

according to the present invention has achieved the intended aim and objects.

[0043] In particular, the present invention provides an apparatus for increasing user comfort during grooming in bathrooms or the like that is capable of aspirating rapidly the vapors and odors that form inside the bathroom.

[0044] Moreover, the present invention provides an apparatus that is capable of aspirating the odors that originate from the toilet.

[0045] Moreover, the present invention provides an apparatus that is capable of heating the user during grooming.

[0046] Finally, the present invention provides an apparatus for increasing user comfort during grooming in bathrooms or the like that increases safety in case of improper use of small electrical appliances and allows adequate viewing during grooming.

[0047] The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept; all the details may further be replaced with other technically equivalent elements.

[0048] In practice, the materials employed, so long as they are compatible with the specific use, as well as the dimensions, may be any according to requirements and to the state of the art.

[0049] The disclosures in Italian Patent Application No. PD2002A000052 from which this application claims priority are incorporated herein by reference.

[0050] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such reference signs do not have any limiting effect on the scope of each element identified by way of example by such reference signs.

## Claims

1. An apparatus for increasing user comfort during grooming in bathrooms or the like, **characterized in that** it comprises a frame (11) that is arranged adjacent to the region occupied by the user's head during grooming operations, said frame (11) integrating tubular elements (13a, 13b) which form an air circuit, said tubular elements being provided with a plurality of holes (17) and being further connected, by means of at least one duct (21), to aspirator means (20), said aspirator means (20) being connected to an electric power supply (20a) and to actuation means (20b) that are available to the user.
2. The apparatus according to claim 1, **characterized in that** said frame (11) is substantially flat, cantilevers above the user by way of supporting means, and is composed of first and second pairs of tubular elements (13a, 13b) which are mutually perpendicular.

- lar.
3. The apparatus according to claim 2, **characterized in that** said frame (11) comprises an additional tubular element (14), which is arranged so as to divide said frame (11) into two parts for the insertion of first and second panels (15, 16), said additional tubular element (14) being also provided with said plurality of holes (17) and being functionally connected to said air circuit. 5
  4. The apparatus according to claim 1, **characterized in that** at least one intake (19) is arranged on said tubular elements and is connected to said aspirator means (20) by way of said at least one duct (21). 10
  5. The apparatus according to claim 1, **characterized in that** said aspirator means (20) comprise a fan-type extractor. 15
  6. The apparatus according to claim 1, **characterized in that** said aspirator means (20) are connected to the outside by means of ducts. 20
  7. The apparatus according to claim 2, **characterized in that** said supporting means comprise two supporting bars (22), which are arranged vertically and whose lower ends are fixed to a base that is stable on the ground and whose upper ends are fixed to the ends of a tubular element of said frame (11). 25
  8. The apparatus according to claim 1, **characterized in that** said air circuit is functionally connected to the discharge duct (24) of the cistern (25) for a toilet (26). 30
  9. The apparatus according to claims 1 and 7, **characterized in that** at least one of said supporting bars (22) is hollow and is functionally connected to said air circuit. 35
  10. The apparatus according to claim 8, **characterized in that** said at least one of said supporting bars (22) is functionally connected to said discharge duct (24) of the cistern (25) for a toilet (26) by means of a pipe (23). 40
  11. The apparatus according to claim 3, **characterized in that** a mirror (27) is inserted in said first panel (15). 45
  12. The apparatus according to claim 1, **characterized in that** it comprises electrical devices that are functionally connected to said electrical power supply (20a). 50
  13. The apparatus according to claim 12, **characterized in that** said electrical users comprise at least one electrical outlet (27a) for small electrical appliances. 55
  14. The apparatus according to claim 13, **characterized in that** said at least one electrical outlet (27a) comprises a safety isolation transformer (27b) to avoid the flow of short-circuit current through a user.
  15. The apparatus according to claim 12, **characterized in that** said electrical users comprise at least one infrared lamp (31) for heating the user which is arranged on said second panel (16).
  16. The apparatus according to claim 12, **characterized in that** said electrical devices comprise at least one halogen lamp (29) arranged on said second panel (16).
  17. The apparatus according to claim 12, **characterized in that** said electrical devices comprise at least one additional halogen lamp (31) seated in a third panel (30) which is arranged between said frame (11) and the wall (11a) adjacent to which said apparatus can be arranged.

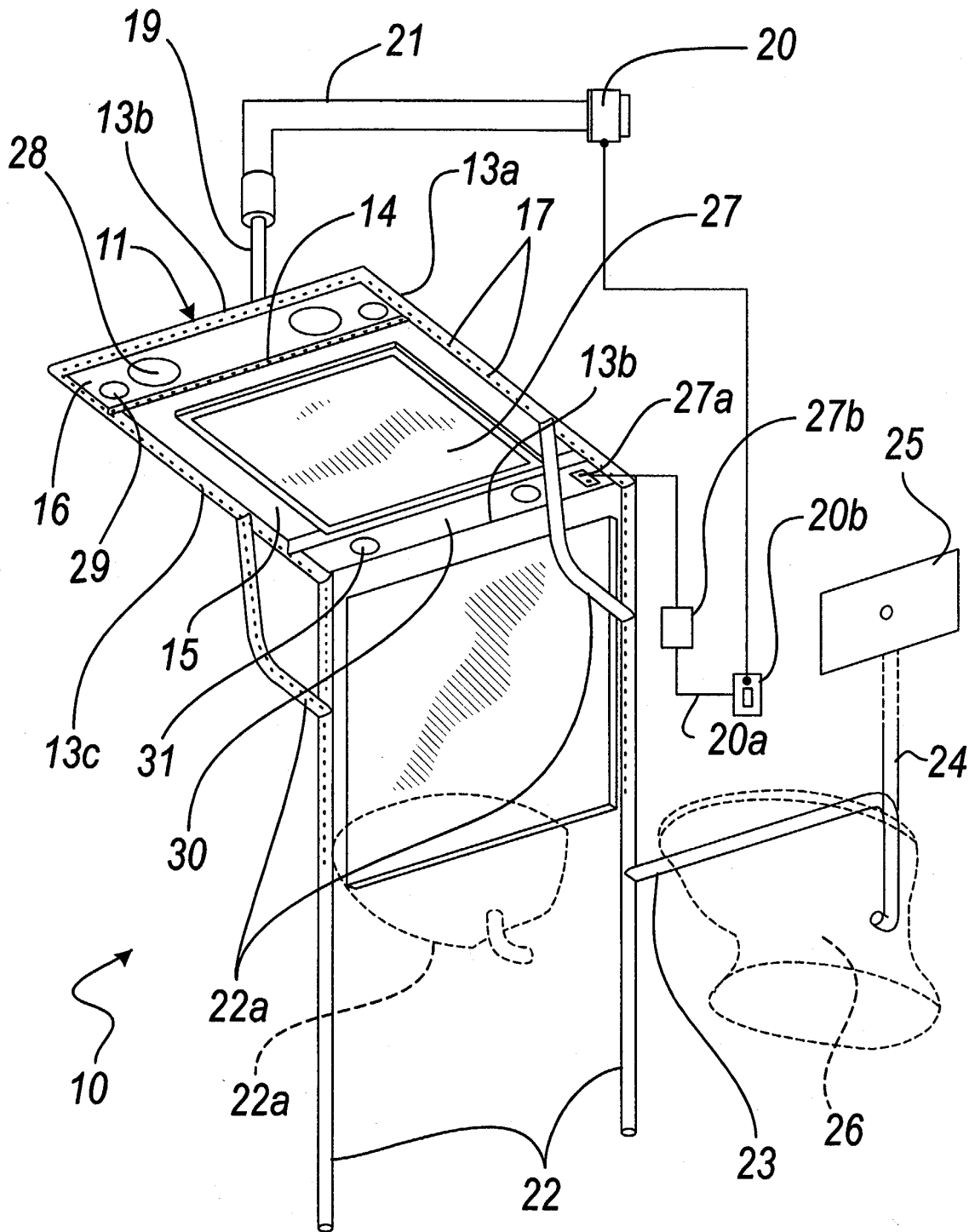


Fig. 1

