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### (54) Wallcoating system

(57) Pertaining to wall coating systems using wooden boards, the invention consists of securing said boards (4) to the wall (3) via metal profiles (1), specifically of sheet metal, which, concealed behind the boards, are secured to the wall by screws and provide the support surface for said boards whereby, they are attached to

the profiles by reusable Velcro® style adhesive strips, making the boards detachable. This achieves that the boards are attached to the wall in a practically uninterrupted manner, and therefore that the metal profiles do not interfere with the decor of the enclosure, and that the boards may easily be dismantled to change the exterior surface or replace.

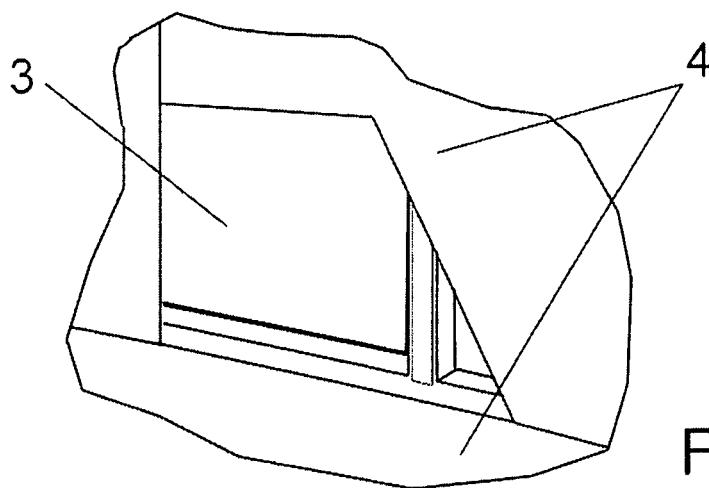


FIG. 3

**Description****OBJECT OF THE INVENTION**

**[0001]** This invention relates to a new coating system for walls, although it may also be used to cover similar surfaces, and is aimed at both embellishing and insulating the enclosure defined by said walls.

**[0002]** More specifically, it has been provided that said coating comes in the form of wooden boards, and the object of the invention is to achieve a fast and simple way of securing said boards, in such a way that they are detachable and may therefore be easily reversed or replaced with either the same kind of board or a similar board.

**[0003]** An additional aim of the invention is to simultaneously achieve an increase in both thermal and acoustic insulation of said enclosure.

**BACKGROUND OF THE INVENTION**

**[0004]** There are innumerable wall coating solutions available that aim to improve or modify the aesthetic appearance thereof, ranging from covering with wallpaper to the use of wooden panels, passing through multiple and varied intermediate solutions, which are not relevant here.

**[0005]** Specifically, when wooden panels are used for coating, these are usually secured using H-shaped profiles, aided by marginal U-shaped profiles, which are adequately secured to the wall, with a reticular distribution, so that the profiles form rectangular frames whose dimensions coincide with those of the panels, frames wherein the profiles are situated with their openings opposite each other, and into which the corresponding edges of the panels fit.

**[0006]** This solution has a set of problems that are fundamentally centred on the following points:

- The fact that the profiles are partially visible means that these must display a perfect finish, and as a result are usually made from aluminium, an expensive raw material that has a considerably negative effect on the final cost of the coating.
- On many occasions, visible profiles are not desired.
- Assembly is relatively complex, as the profiles must be fitted and the panels slotted therein simultaneously.
- If the panels are to be dismantled and replaced with others, it is then necessary to detach the profiles from the wall, a factor which makes operations of this kind considerably complicated.

**[0007]** Because these dimensions of the frames are the same as those of the panels, very large wooden panels must be of substantial thickness in order to prevent buckling therein.

- The wood panels are almost adhered to the wall, separated from it by a distance coinciding with the wall thickness of the profiles, so that it is not possible to create a suitably wide air chamber between the boards and the wall, for which reason use is often made of sandwich-style panels, consisting of two timber sheets of reduced thickness joined by an intervening layer of insulating material, for example expanded polyurethane, which also considerably increases the cost of the coating.

**DESCRIPTION OF THE INVENTION**

**[0008]** The covering system that this invention proposes satisfactorily resolves the problem expounded above, in each and every one of the outlined points.

**[0009]** For this, it is also based on the use of profiles designed to be fastened to the wall, but which, as will be seen below, have the special characteristic of being totally concealed behind the panels, which allows the use of considerably cheaper profiles, such as those made from appropriately formed sheet metal.

**[0010]** The panels are secured so they join directly, forming a butt joint, and for this purpose Velcro® style adhesive strips will be used, with the adhesive on the exterior surfaces and provided with strips made from waxed, silicon or similar paper to protect the adhesive, so that after fitting the sheet metal profiles to the wall at the desired distance apart, one half of the Velcro® style adhesive strips is stuck on the profiles, while the other half is stuck on what will be the rear surface of the panels, performing the definitive fixation of the latter with no more than the simple front adaptation of the panels to the wall, with interposition of the profiles, in a situation of opposition between the "male" adhesive strips of one of these elements and the "female" adhesive strips of the other.

**[0011]** This system not only achieves very considerably accelerating the speed of wall coating work, but the detachable character of said wooden boards, without the need to manipulate the metal profiles in any way, allows the easy detachment of said panels to reverse the position thereof when the exterior surface becomes damaged, for example due to marks left by chairs or any other cause, or simply to change the decor, when using boards with different appearance on each side.

**[0012]** Moreover, the boards are substantially distanced from the wall, coinciding with the width of the metal profiles, creating substantially wide air chambers, which improve the thermal and acoustic insulation conditions of the coating.

**[0013]** These sheet metal profiles are undoubtedly considerably cheaper than the classic aluminium profiles, making this system more economically attractive.

**DESCRIPTION OF THE DRAWINGS**

**[0014]** In order to complement the description being made and with the object of helping towards a better un-

derstanding of the invention's characteristics, in accordance with a preferred practical embodiment thereof, a set of drawings has been included as an integral part of said description, wherein the following has been represented with an illustrative and non restrictive character:

Figure 1. Shows, according to a perspective view, an example of the practical embodiment of the metal profiles used in the wall coating system which constitutes the object of the present invention.

Figure 2. Also shows a detail in perspective, of part of one of the "Velcro®" style adhesive strips also used in the system.

Figure 3. Also shows, according to a perspective view, a wall belonging to a certain closure, in the intermediate phase of the coating process using the system of the invention, wherein one of the boards has been partially sectioned to show the arrangement of the profiles that serve to attach the boards to the wall.

Figure 4. Lastly, shows a detail in cross-section of the assembly represented in figure 3.

#### PREFERRED EMBODIMENT OF THE INVENTION

**[0015]** In view of the said figures, it can be observed that the following are included in the system: profiles (1) which can be configured in a "Ω" as shown in figure 1, with two coplanar side ribs (2) adapted to the wall (3), to which they are secured by plugs and lag screws, or any other means that are suited to the characteristics of the wall (3).

**[0016]** These profiles (1) are secured to the wall (3) with a reticular distribution, totally separate from the dimensions of the wooden boards (4) used, so that these are not only secured by their outer edges, as in conventional systems, but may also be secured by intervening lines at any distance apart, as is also shown in figure 3.

**[0017]** On the centre rib (5) of these profiles (1) a "Velcro®" style adhesive strip is placed (6), for example the hooked side of the Velcro®, using a layer of adhesive on said strip (6), while the other strip (6') is fitted with the complementary loops whereto the hooks of the other side can be attached and removed.

**[0018]** As mentioned above, both halves (6-6') of this Velcro® style adhesive strip have external surfaces with layers of contact adhesive, duly protected by their corresponding strips (7) of silicon or similar paper, which are easily detached when one wishes to secure the self-adhesive strip (6-6'), whereon as ha previously been stated, half (6) of said self-adhesive strip is stuck to the centre branch (5) of the profiles (1), while the other half is stuck to the rear surface of the boards (4) so that the two sides interlock to achieve assembly.

**[0019]** This means that once the profiles (1) are secured to the wall (3) with screws and the adhesives are suitably stuck on both the profiles (1) and the boards (4), fitting the boards is extraordinarily easy and fast, with the

possibility of repositioning as many times as necessary, the wooden boards (4) fitting together in coplanar butt joints, as can be observed in figure 3.

**[0020]** In accordance with this, the boards (4) are easily detached to reverse their visible side, when the conditions of use make it advisable, as well as for the replacement of said boards (4) as deemed necessary.

**[0021]** In any case, and as can be seen in the section of figure 4, because the profiles (1) act not only as the means for securing the panels (4) to the wall (3), but also as spacings between these elements, there are air chambers (8) between the panels (4) and the wall (3) that, along with the fact that the panels (4) themselves are made from wood, considerably increase both the thermal and acoustic insulation of the enclosure in question.

#### Claims

- 20 1. Wall coating system, of the kind using wooden boards secured to the wall with the collaboration of metal profiles, **characterised in that** said metal profiles (1) adopt a suitable configuration so that, after being secured to the wall (3) with screws or other means, they provide a flat surface (5), parallel to the wall and appreciably distanced from it, to support the wooden boards (4), which are placed on said profiles and joined by coplanar butt joints, so that said profiles are invisible, and attached to said profiles preferably by removable Velcro® style adhesive strips, which allow the boards to be easily installed and dismantled.
- 25 2. Wall coating system according to claim 1, **characterised in that** the profiles (1) adopt a "Ω" section, so that they may be secured with screws via their side branches, its centre branch constituting the flat surface whereon the wooden boards are supported and attached.
- 30 3. Wall coating system according to the previous claims, **characterised in that** the metal profiles (1) have a reticular distribution on the wall, without depending on the size of the boards for their position, so that the latter are attached to the profiles by their entire perimeter, in addition to by any intermediate line considered convenient.
- 35 4. Wall coating system, according to the previous claims, **characterised in that** the external surfaces of the Velcro® style adhesive strips are provided with contact adhesive, protected by strips of waxes, silicon or similar paper.
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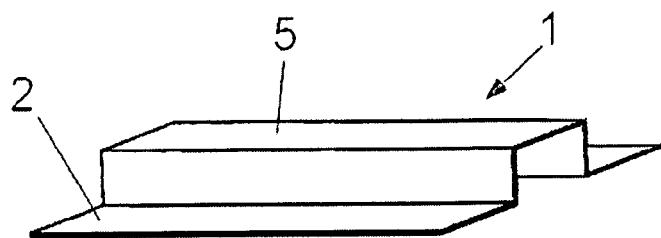


FIG. 1

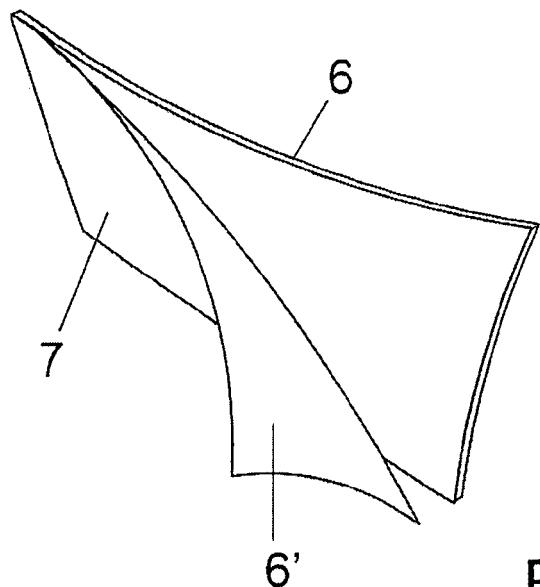


FIG. 2

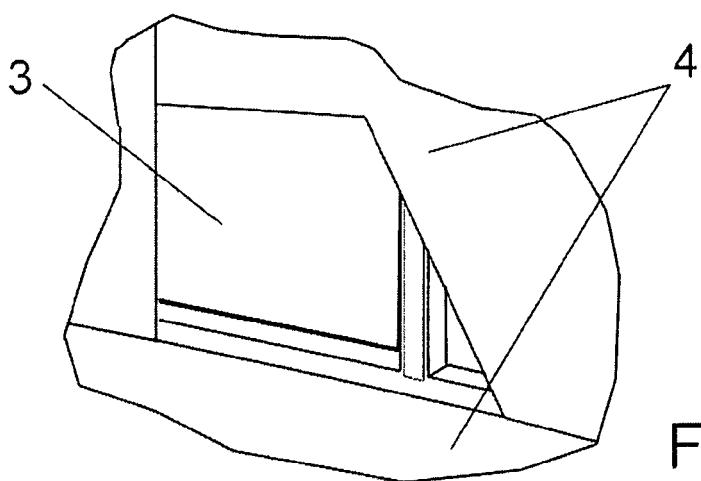


FIG. 3

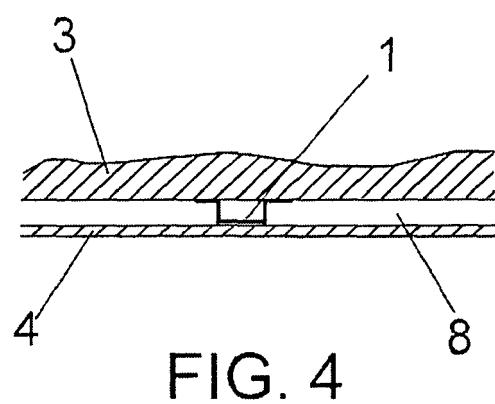


FIG. 4