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(54) Device for fixing flowerpot holders to window sills

(57) The device (1) for fixing flowerpot holders to a window sill (3) provided with drip (8) is formed of a plate (2) having quadrangular shape, bent at a right angle with respect to its longer side, having at least one plane resting on said window sill (3) and provided with two vertical slits, wherein two clamps (6) integral with at least one second plate (7) are inserted, said second plate (7) also having quadrangular shape and being bent at a right angle, one end of which is bent backwards, in a manner so as to allow fixing to said drip (8), said first plate (2) and said second plate (7) forming a "C" turned upside down, which like a bracket embraces the external part of the window sill (3). The fixing of the device according to the present invention to the window sill is carried out without invasive works on the wall structure and without the use of tools.

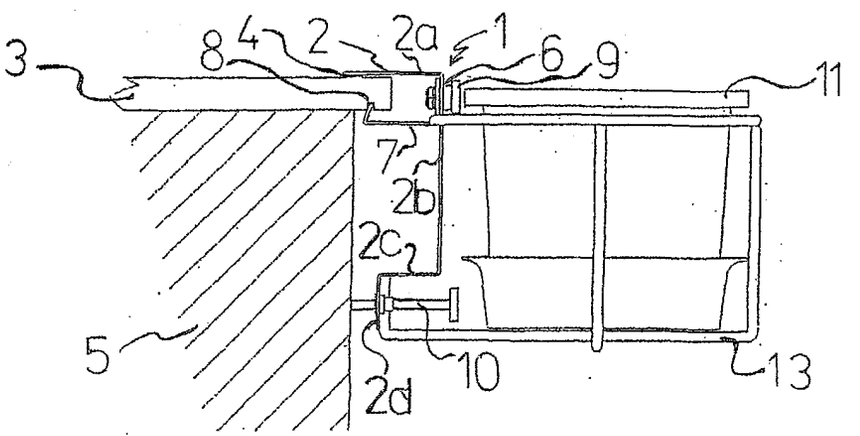

Fig. 1

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Description

[0001] The present invention relates to the field of the accessories for windows and in particular to a device for fixing flowerpot holders to window sills.

[0002] As it is known, both the internal and the external window sill can be used as a bearing surface for pots of flowers and plants, for the stability of which are used, especially externally, blocking members of various kinds such as horizontally-oriented plates or bars, whose ends are fixed to the wall structure around the window. Such solutions are not very safe in terms of stability of the pot positioned externally, since they are in contact with the pot but do not fix it to the window sill. Besides, they are aesthetically not very pleasant since the encumbrance of pot and plant can obstruct the view towards the outside and passage of light towards the inside. Besides, fixing said blocking members always involves an invasive work on said wall structures.

[0003] Object of the present invention is therefore to provide a device for fixing flowerpot holders to window sills which overcomes the above mentioned drawbacks.

[0004] Said object is achieved according to the present invention by means of flowerpot holders provided with a fixing device with clamp which grimps the drip present in the lower surface of the window sill, whose main features are specified in claim 1. Further advantageous features are given in the dependent claims.

[0005] A first remarkable advantage of the fixing device according to the present invention derives from the fixing means shaped as a bracket which allows to fix the flowerpot holder to the window sill without breaking the wall structure and the window sill itself.

[0006] A second remarkable advantage of the present device is the possibility to be adapted to window sills of various thickness, thanks to the arrangement of the clamps along guides which permit their width regulation as a function of the window sill itself.

[0007] Another advantage of the present fixing device is due to the fact that the flowerpots, once inserted into the flowerpot holder, according to the present invention do not represent an encumbrance any more from the physical or visual point of view, since the upper edge of said flowerpots is substantially in line with the window sill, possibly under the upper surface thereof. In this way, it is possible to optimize the exploitation of the window sill as a support for improving the aspect of the house front wall with flowers and ornamental plants, thus leaving free the upper surface of the window sill itself.

[0008] Further advantages of the above mentioned fixing device are given by the quick and safe fixing/removal procedure to/from the window sill which does not require the use of tools and by the possibility to combine more flowerpot holder structures, next to each other, on the same window sill which confers a pleasant continuity aesthetical effect.

[0009] These and other advantages of the fixing device of the flowerpot holder structure according to the present invention will appear to those which are skilled in the art from the following detailed description of an embodiment thereof with reference to the accompanying drawings, wherein:

Fig. 1 is a side view of a preferred embodiment of the device for flowerpot holders fixed to a window sill, wherein a flowerpot provided with dish is positioned;
Fig. 2 is a side view of the fixing device of Fig. 1 with said fixing device in condition of maximum width;
Fig. 3 is a top view of the fixing device of Fig. 2.

[0010] With reference to the above figures, the fixing device 1 for flowerpot holders comprises a quadrangular plate 2, preferably made of press-bent steel, which is rigidly connected to the flowerpot holder, as shown in Fig.1. Said plate 2 has a flat portion 2a resting on the upper surface of the window sill 3, well shown in fig. 3. If needed, said portion can be provided with anti-sliding members 4 between said resting portion 2a and the window sill 3. Following this first portion 2a, there is a second portion 2b bent downwards with a right angle, which is thus parallel to the lateral surface of the window sill 3 and to the wall 5 below. In the preferred embodiment, plate 2, in the final part, terminates with two successive portions 2c and 2d bent at right angle, one towards the inside and therefore perpendicular to the wall 5, the last one again parallel to the wall.

[0011] In the vertical portion 2b, parallel to the side surface of the window sill 3 and to the wall 5 below, vertical slits have been made (not shown in the figure) preferably two, which function as guides for a corresponding number of clamps 6. These are integral with a second plate 7, which has also a quadrangular shape and is bent at right angle, one end of which is bent backwards, so as to allow the fixing to the grooving 8 or drip, typically present on the lower surface of the window sill 3 and well evidenced in Fig. 2. In this way, the fixing device 1 takes on the profile of a "C" turned upside down which like a bracket embraces the external portion of the window sill 3. Said clamps 6 are formed each of a threaded member (not shown in the figure) and of a hand-grip 9 which, when turned in one direction, blocks plate 2 and said second plate 7 thus ensuring a tight and stable grip of the entire structure to the window sill itself; when turned in the other direction, looses the grip thus allowing clamps 6 as well as plate 9 to slide along the guides, for removing easily the flowerpot holder structure, without the help of any tool.

[0012] Spacer members 10 can be provided at the lower end of the vertical portion 2b of the plate 2, which faces wall 5, preferably in the number of two, having the function, being adjustable according to the distance from the wall, of keeping the flowerpot holder structure in line with the wall, in addition to providing a support for a greater resistance against the deformation due to the weight of flowerpots 11, as shown in Fig. 1. In the pre-

ferred embodiment shown in the above mentioned figures, said spacer members 10 are positioned in the vertical lower portion 2d, which is also closest to the wall, in order to reduce the mechanical loading stresses on the wall itself.

[0013] In the preferred embodiment shown in the above mentioned figures, as floerpot holder is used a structure formed of round bars bent and welded to each other, so as to produce a very light and mechanically resistant flowerpot holder.

[0014] With particular reference to figs. 1 and 2, the versatility of the above mentioned device for fixing flowerpot holders is observed, which is adaptable to window sills both of high and low thickness.

[0015] Besides, with reference to figure 3, it can be seen the possible presence of two holes 12 for the optional fixing to the window sill 6 by means of plugs or similar, in case that a greater safety is required for example by particular regulations of co-ownership.

[0016] In the preferred embodiment shown in the above mentioned figures, the flowerpot holder is formed of a structure similar to an open cage formed of round bars, bent and welded to each other, rigidly connected to plate 2, preferable welded thereto, so that the plane formed by the open upper side of said cage structure is at the same or a lower level with respect to the upper surface of the window sill 3.

[0017] Therefore, it is obvious that the above mentioned device for fixing flowerpot holders to window sills obtains the desired objects, since the fixing to the window sill is obtained without invasive works on the walls, in addition to allowing an adjustable fixing according to the thickness of the window sill.

[0018] It is clear that the embodiment for fixing flowerpot holders to window sills according to the above described and illustrated invention is just one example, which may be subject to a number of variations. In particular, the second plate that is fixed to the drip could be formed of a single member of the same width of the first plate or of a lower width; or, the use of more elements of variable width according to the needs can be foreseen. In addition, the first plate can be bent at different angles from the right, for example a first right angle, then a second obtuse, then an acute, as to reproduce the shape of the flowerpot which will be contained therein. As regards the materials useful for manufacturing the device for fixing flowerpot holders according to the present invention, it is possible to select materials different from steel or plastic materials, provided that they are sufficiently resistant to the loads which can be foreseen for this use. Various aesthetical measures can be taken for improving the aspect of the device for fixing flowerpot holders to window sills, for example in order to bring it into line with the style of the building whereto it will be applied.

[0019] Possible additions and/or modifications can be made to the flowerpot holder structure which is subject-matter of the present invention without departing from the scope of protection of the invention.

Claims

1. A device (1) for fixing flowerpot holders to a window sill (3) provided with drip (8), **characterized in that** it is formed of a plate (2) having quadrangular shape, bent at a right angle with respect to its longer side, having at least one plane resting on said window sill (3) and provided with at least one vertical slit , wherein there is inserted at least one clamp (6) integral with at least one second plate (7), also having quadrangular shape and bent at a right angle, one end of which is bent backwards, in a manner so as to allow fixing to said drip (8), said first plate (2) and said second plate (7) forming a "C" turned upside down, which like a bracket embraces the external part of the window sill (3).

2. A device (1) for fixing flowerpot holders to a window sill (3) according to claim 1, said plate (2) being provided with at least one spacer member (10) from the wall (5).

3. A device (1) for fixing flowerpot holders to a window sill (3) according to claim 1 or 2, **characterized in that** said plate (2) is bent at a right angle in four portions (2a, 2b, 2c, 2d) which follow the profile of the window sill (3) and of the wall (5) below it.

4. A device (1) for fixing flowerpot holders to a window sill (3) according to claim 2, **characterized in that** at least one spacer (10) is positioned in the vertical lower portion (2d).

5. A device (1) for fixing flowerpot holders to a window sill (3) according to one or more of the preceding claims, **characterized in that** said plate (2) is made of steel.

6. A device (1) for fixing flowerpot holders to a window sill (3) according to one or more of the preceding claims, **characterized in that** said second plate (7) is made of steel.

7. A device (1) for fixing flowerpot holders to a window sill (3) according to one or more of the preceding claims, **characterized in that** said plate (2) is provided with at least one anti-sliding member (4) on the surface contacting the upper surface of the window sill (3).

8. A device (1) for fixing flowerpot holders to a window sill (3) according to one or more of the preceding claims, **characterized in that** said plate (2) is provided with at least one hole (12) suitable for receiving means for the fixing to the window sill.

9. A flowerpot holder provided with a device (1) according to one or more of the preceding claims, **characterized in that** it is formed of a structure like an open cage formed of round bars (13) bent and welded to each other, rigidly connected to the plate (2) so that the plane formed by the open upper side of said cage like structure is at the same or a lower level with respect to the upper surface of the window sill (3).

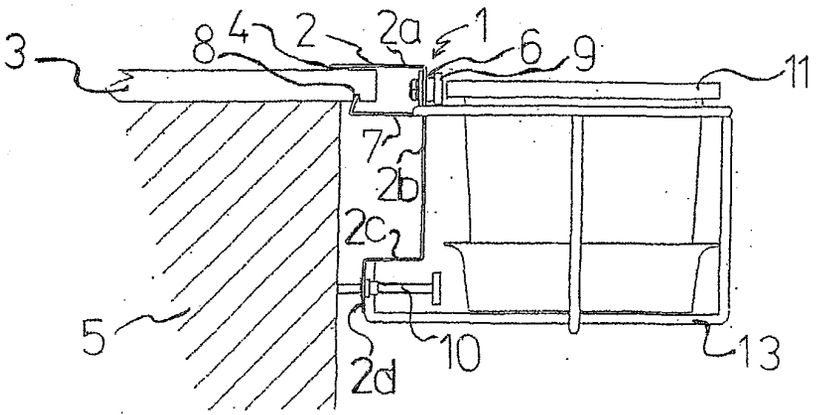

Fig.1

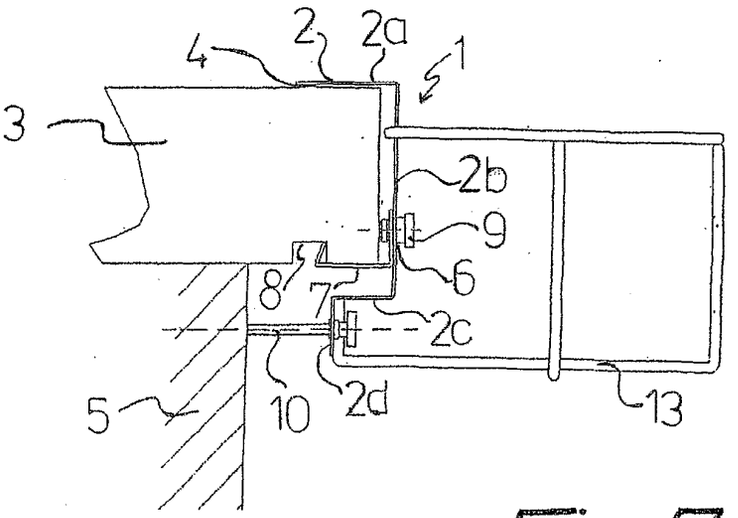

Fig.2

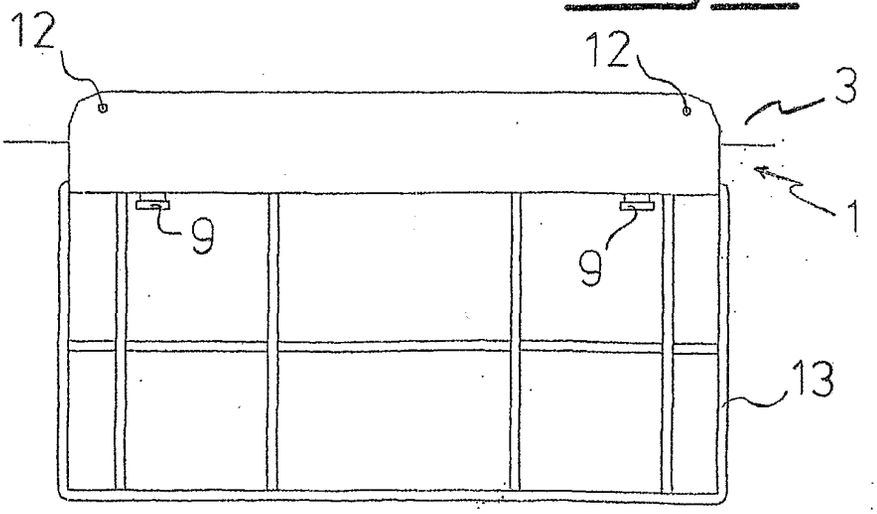

Fig.3