

The subject of the present invention is a device for fixing logo or model-type plates onto a cabinet or bodywork.

5 In order automatically to fix plates, such as model-type, logo or identification plates onto an apparatus or machine cabinet or onto motor vehicle bodywork, it is possible to screw them, but the screwing operation is not easy to automate and requires automats for handling screws. The French Patent Application 10 2,307,167 shows how a plate is fixed onto a partition with a screw. Another pertinent technique without the use of screws is disclosed by the British Patent Application GB-A-2,047,452. Yet another technique consists in equipping the plates with tabs inserted into corresponding 15 holes in the cabinet or in the bodywork. If these tabs are made of plastic, they are twisted or their ends are crushed, hot, or they are immobilized with the aid of stop clips with elastic tongues, and if they are made of metal, they are also immobilized with these clips. In 20 this case, it is necessary to gain access to the internal face of the cabinet or of the bodywork, which is not always easy or possible, and requires additional handling (crushing with heating or installation of the clips, or twisting the tabs).

25 The subject of the present invention is a device for fixing plates of the abovementioned type onto a partition, which device allows the fixing of these plates to be automated easily without requiring any screwing operation or requiring access to the rear face of the 30 partition, and which is very economical. These plates may be made of plastic or metal (obtained, for example, by upsetting metal) as long as the material of the partition is softer than their own.

35 The fixing device of the invention includes at least one solid and rigid fixing pin, this pin including, at the periphery of its base, fine longitudinal lugs made in a material which is harder than that of the partition. In the case where the plate is to be inclined with respect to the surface of the partition onto which it is

to be fixed, the fixing device may include an intermediate plate made of plastic formed with at least one tab secured to the intermediate plate, the ends of the tab being shaped into at least one clip-in tongue, this
5 tab including a hole, the diameter of which is substantially equal to the diameter of the pin.

The present invention will be better understood upon reading the detailed description of two embodiments, taken as non-limiting examples, and illustrated by the
10 appended drawing, in which:

- Figure 1 is a view in partial section of a plate-fixing device in accordance with the invention;

- Figure 2 is a sectional view on II-II of a pin of the plate of Figure 1, and

15 - Figure 3 is a sectional view of a variant of a fixing device in accordance with the invention, for a metal plate.

The invention is described hereinbelow with reference to the fixing of a logo plate onto the front
20 face of a cabinet for electrical or electronic apparatus, but it is clearly understood that it is not limited to such an application, and that it can be implemented for any quick and simple automatable fixing of any object onto a partition. Of course, this object must not require
25 a very strong fixing (such as fixing by screwing for heavy and/or bulky objects), which is the case of logo plates and similar objects.

The logo plate 1 is made of metal or plastic.

In order to fix it against a partition 2, it is
30 equipped with at least one pin 3 which may be formed with it or welded on.

One or more holes such as the hole 4, alone represented in Figure 1, are formed in the partition 2, in correspondence with the pin or pins 3. In order to
35 anchor each pin 3 into the corresponding hole 4 it is equipped, at its base, with longitudinal lugs, for example three in number, referenced 5 to 7. These lugs are, for example, in the form of very fine triangular fins, the vertex of which is located more or less midway

along the pin 3, and the base of which, at the plate 1, has a width of approximately 0.5 to 2 mm. The cross-section (in a plane perpendicular to the axis of the pin 20) of these fins has a substantially triangular shape.

5 When the pins 3 are put in place in the corresponding holes 4, the fins dig into the material of the partition 2 bordering the hole 4, and become sufficiently embedded therein to hold the plate 1 firmly in the partition 2.

10 In order to retain the pins 3 in the holes 4 still better, the lugs of these pins may be given other shapes, for example forming teeth on their edges, the tips of these teeth pointing towards the partition 2.

The embodiment of Figure 3 relates to the fixing onto a partition 17, including a rectangular spot facing 18, the bottom of which is parallel to the front face of the partition 17, of a metal logo plate 19, the plate 19 having to be inclined with respect to the partition 17 in order to be seen better. The plate 19 is equipped with pins 20. These pins, which number at least two, may
20 either be formed integrally with the plate 19 or fixed onto it by screwing or welding.

In order to fix the plate 19 onto the partition 17, an intermediate plate 21 is used, the front face (the one to which the rear face of the plate 19 is applied) of which is inclined with respect to its rear face (the one applied to the bottom of the spot facing 18).
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The intermediate plate 21 includes at least one tab such as the tab 22, alone represented in Figure 3. The tab 22 has a hollow circular cylindrical overall shape and its length is slightly greater than the thickness of the wall 17 at the spot facing 18. It is slit over practically its entire length, starting from its free end, into three longitudinal slits. The three tongues 11, 12, 13 thus obtained exhibit, on their outer face, near to their free end, a slight swelling in the form of a peripheral bead 14, 15, 16 respectively. The outer diameter of the tab 22 at its base (that is to say close to the plate 19) is equal to or slightly less than the diameter of the hole 10 made in the intermediate
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plate 17 for the passage of the tab 22. The maximum diameter of the beads 14 to 16 is slightly greater than the diameter of this hole 10. Thus, the tab 22 clips firmly into the hole 10.

5 For each tab such as the tab 22, the intermediate plate 21 includes a hole 24 coaxial with the tab. The diameter of the hole 24 is practically equal to the diameter of the pin 20. In order to anchor the pin 20 into the hole 24 securely, it is equipped, at its base,
10 with longitudinal lugs similar to those of the pin 3 of the embodiment of Figure 1.

 Of course, the holes 24 are not necessarily made at the locations of the tabs 22, but may be made at any point on the plates 21 provided that these holes are
15 sufficiently deep for the pins 20 to be passed therein, it even being possible for these holes to extend into the partition 17.



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CLAIMS

1. Device for fixing plates (1, 19) onto a partition (2, 17), particularly logo plates or identification plates onto a cabinet or bodywork, these plates including
5 at least one fixing pin (3, 20) penetrating into a corresponding hole (4, 24) of the partition, characterized by the fact that this pin is solid and rigid, and includes at the periphery of its base, fine longitudinal lugs (25 to 27) in a material which is harder than that of the
10 partition.
2. Fixing device according to Claim 1, characterized by the fact that it includes an intermediate plate (21) made of plastic formed with at least one tab having at least one clip-in tongue, the intermediate plate including
15 holes (24) corresponding to the said pins.
3. Device according to Claim 2, characterized by the fact that the holes in the intermediate plate are formed in the axis of the tabs.