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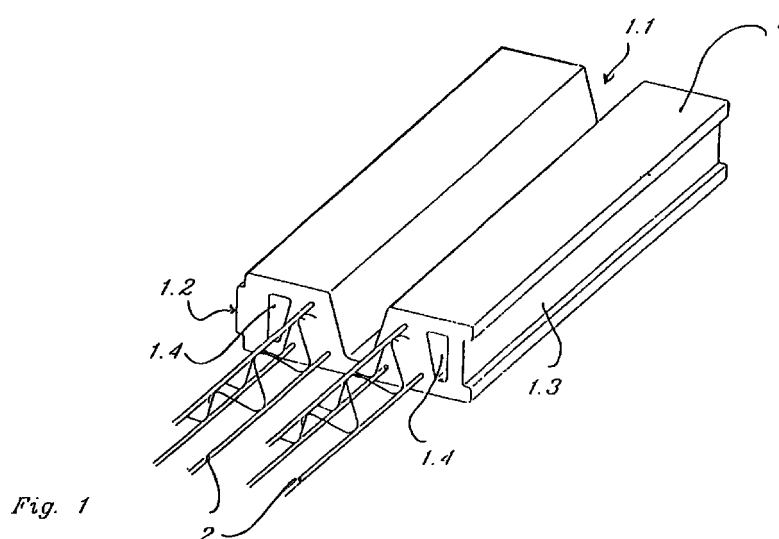
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(54) **Expendable form for floors**

(57) The invention is a new expendable form made of foamed material for concrete floors with a generically rectangular section and provided, in the upper part, with a V-shaped seat and, on the two sides with complementary projections and flutes; said expendable form conglomerates, in the foamed material, two or more reticulated triangular rods made of iron. Said expendable for can be provided with lightening holes. As an alternative to the V-shaped seat, the new expendable

form can be provided with a generically rectangular section with some lateral chamfers so that a V-shaped notch can be obtained positioning two expendable forms side by side. When the new expendable forms are positioned directly on the lateral abutments of the floor they immediately made up the ribs on which the false-work of the beams is inserted.



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## Description

[0001] This patent relates to the field of building components and particularly concerns a new prefabricated panel to obtain floors and roofs in general.

[0002] Known are expendable forms for floors. They consist of boards or prefabricated wooden elements which are being removed when the concrete is strengthened.

[0003] Known are also expendable panels or forms consisting of foamed plastic material, usually polystyrene, having a rectangular parallelepiped shape.

[0004] Said expendable forms are being laid on a temporary support frame for casting the floors.

[0005] The concrete lays on said expendable forms and on the falsework of the beams forming, in this way, ribbed-concrete floors.

[0006] The expendable forms are very useful since they replace the classical hollow floor bricks but, on the other hand, it is necessary to fit out a complex temporary support frame for the falsework of the beams and for the expendable forms.

[0007] The subject matter of the present invention is a new panel or an expendable form with shapings.

[0008] The new expendable form is preferably made of foamed material both for economic reasons and ease of realization and for the great lightness of the material, moreover it is provided with a conglomerated metallic falsework in order to be self supporting during the transport and the casting phase.

[0009] The expendable form has a rectangular plan with modular width (for example 60 cm.), or a different plan corresponding to the distance between the centres of the main falsework of the floor, said plan is three-five metres long in connection to the clear span.

[0010] The vertical section of the expendable form is particularly conformed, that is, generically rectangular and with a central V-shaped seat which is in upper position. The width and the depth of said seat are as to house the falsework of the main beams of the floor for carrying out concrete ribbed floors.

[0011] The two sides of the section of the new expendable form have some parts with projection or flute shapes, in this way it is possible to position the expendable forms side by side inserting the projection of an expendable form to the flute of the adjacent one.

[0012] A falsework is conglomerated in the expendable form and in line with its length, said falsework supports the expendable form and the additional weight of the casting concrete of the slab and of the beams. Said conglomerated falsework of the expendable form consists of one or more rods arranged in a triangle with the top vertex (or the bottom one) joined by means of rods with a smaller diameter.

[0013] Said falsework of the expendable form is completely buried in the plastic material of the form; a lower section bar or channel can be arranged and buried in the plastic material as well. In this second chance the

application of a false ceiling, as a plasterboard, to the form is made easier.

[0014] As a matter of fact, said section bar constitutes a solid seat for fastening the assembly screws of the panels of the false ceiling.

[0015] The expendable form can be provided with lightening holes lined up with the largest dimension of said form. Said holes reduce the weight of the form as well as the quantity of plastic material used for carrying out a form.

[0016] The new expendable forms carried out in this way show many advantages, first of all when they are being laid directly on the lateral abutments of the floor they instantly make up the ribs on which the falsework of the beams is inserted.

[0017] A further advantage is that said form is self-supporting. In case of great distance between the points of support a temporary support (intermediate support) can be inserted.

[0018] Another important advantage is the insulating capacity of the form, both from a thermic point of view and a from an acoustic one, without the presence of thermic conductions.

[0019] The new form can be realized with a different shape, as an option to the central seat V-shaped in which the main falsework of the floor is housed, it is possible to have two half seats or ribs so that the two forms positioned side by side can generate a seat or a whole rib between them. In this case, the section of the new form has an isosceles trapezoid shape with lateral ribs on the edges of the main base so as to space properly the two adjacent forms.

[0020] The accompanying illustration shows by way of example, but not limitative, an embodiment of the invention.

[0021] Figure 1 partially shows an axonometric view of the new form.

[0022] The shape of the part made of plastic material (1) is clearly shown with a generically rectangular section and a central upper section V-shaped (1.1), a projection (1.2) on one side and a flute (1.3) on the other side.

[0023] In the part made of foamed material (1) there are some lightening holes (1.4) whereas two falseworks (2) consisting of metallic rods cross the length of said part made of plastic material.

[0024] Figures 2 and 3 show two further forms of making the part made of plastic (1) in which in place of the central V-shaped seat there are two half-seats (1.5) so that two expendable forms positioned side by side can generate a whole seat between them. In these cases the section of the part made of plastic material is isosceles trapezoid shaped with lateral rib (1.6) on the edges of the main base so as to space properly the two adjacent forms.

[0025] Particularly figure 3 shows a version of the new form in which there is a section bar (3) supporting the false ceiling.

**[0026]** The above are the basic outlines of the invention, on the basis of which the technician will be able to provide for implementation; therefore, any change which may be necessary upon implementation is to be regarded as completely protected by the present invention. 5

**[0027]** With reference to the above description and the attached drawing, the following claims are put forth.

**Claims** 10

1. Expendable form made of foamed material for concrete floors characterized in that it conglomerates one or more reticulated triangular rods iron in the plastic material and wherein the generically rectangular section is provided in the upper part with a V-shaped seat and on the two sides is provided with complementary projections and flutes. 15
2. Expendable form made of foamed material for concrete floors characterized in that it conglomerates one or more reticulated triangular rods in the plastic material and wherein the generically rectangular section is laterally provided with chamfers so that it is possible to obtain a V-shaped notch between two expendable forms positioned side by side. 20 25
3. Expendable form according to claims 1 or 2, characterized in that it is provided with lightening holes in the part made of foamed material. 30
4. Expendable form according to claims 1 or 2, 3, characterized in that it is provided with one or more section bars completely buried for fastening the false ceiling, in addition to the inner self-supporting falsework. 35

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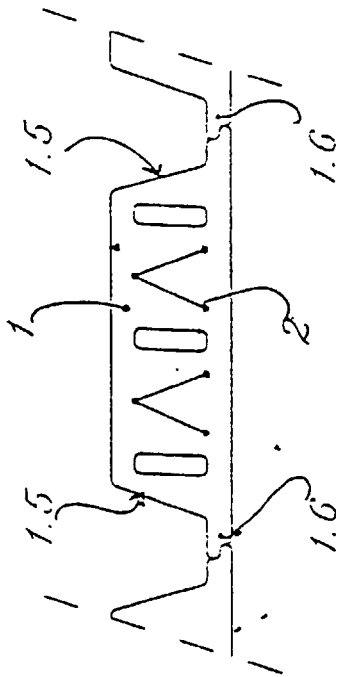


Fig. 2

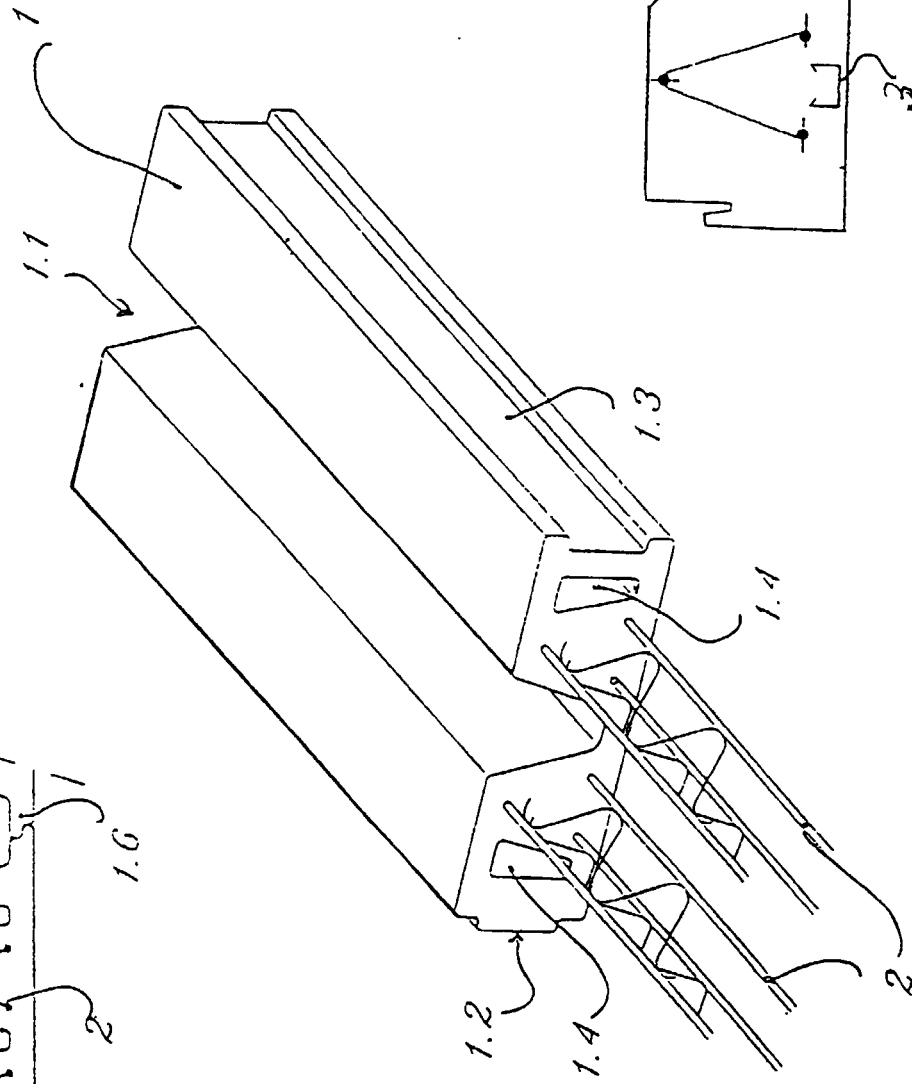


Fig. 1

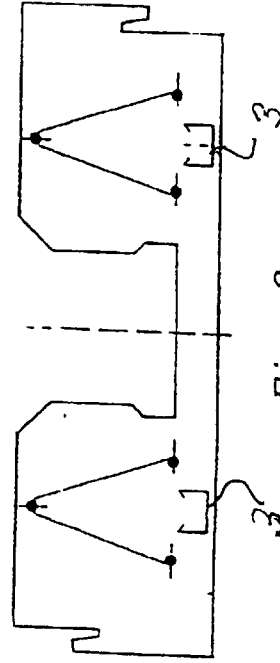


Fig. 3