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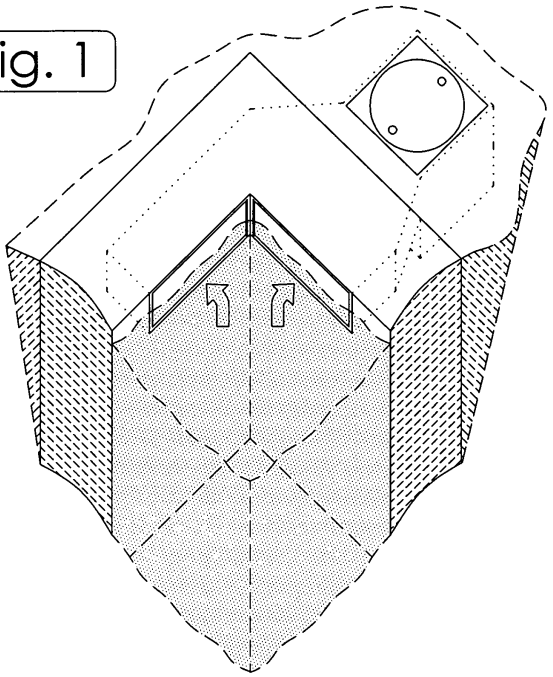
(54) Angular skimmer for the down flow of elements, particles and/or fluid components by conveying and separating material suspended and/or floating

(57) The model in question modifies the current and actual fluid downflow methods from a principal part to a secondary receptor. The advantage of the present angular model, to be manufactured in any material resistant to contact fluid- direct resistance or through the medium of a third material or processing- allows both a modular/repetitive production and a single/sole production, according to the requested sizes.

Fig. 2 is a schematic assonometrical view describing the model. The clasping of the model to the structure can be made in different ways, from bent flaps to screws, from riveting to gluing. etc, according to the materials of the parts to be connected.

The model obtained is particularly suitable for the pool sector.

fig. 1



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Description

[0001] The model of the **angular skimmer**, object of the following description modifies and changes the ordinary and current models of a fluid down flow from a principal part to a secondary receptor.

[0002] In particular the model discussed here is suitable for the water down flow from any pool, both in case of a new system and in case of replacement or repair.

[0003] At present such a down flow is along one or more rectilineal pool walls and it is obtained through ABS skimmers in standard size: with the new model the down flow is in the corners of the tub.

[0004] The execution of the new model of skimmer modifies moreover the ordinary and current productive methods based on ABS processing - an undoubtedly unecological procedure - if compared to the one suggested, which introduces in the productive method a completely ecological methodology, a substitute of such processes as it uses materials different from ABS.

[0005] Present skimmers, ABS manufactured are obtained by pressing different parts, later assembled with methyl ethyl chitin (label CEE 2011590 UN 1193), a toxic and inflammable product, as well as most part of solvents.

[0006] All this connected therefore with the problem of waste, sales containers, security problems and welfare on working place.

[0007] The model described is, on the contrary, a galvanized sheet-steel or stainless steel manufacture, PVC coated. Sheet steels are non-toxic and non-flammable materials, completely recyclable both in the production phase and in the waste phase in case of replacement during the tub repairing phase.

[0008] Such sheet steels, properly manufactured and shaped allow skimmers to be placed in the pool or tub corner/s, so as to increase considerably the concentration of the suspended material, as it is well known that most part of floating stuff gathers in corners.

[0009] The advantage of the use of the above-named sheet-steel, allows both the modular/repetitive production and the single/sole production, according to the sizes requested for the down flow function it is intended to.

[0010] It is moreover clear that the material used in the construction of the model, obtained through mechanical processing and subsequent assembling of the parts, allows the realization of wider down flow mouths, not as high as the ones on the market at present time. In fact, the commercial sizes are notably standard and allow therefore the level of fluid in the pool or tub to grow.

[0011] The clasping of the model to the principal structure can be made in different ways: bent flaps, screws, riveting, gluing...according to the materials of the pool/tub structure.

[0012] The model is particularly suitable for the use in the pool sector, although other sectors are not to be excluded.

AIMS OF THE IDEATION OF THE MODEL

[0013] **First aim** of our ideation is the removal of the disadvantages of the known techniques, or in use, making a model to be used in different market sectors-even though the pool sector seems to be the ideal one- a model which can be flexible - if compared to the products on the market and, moreover, which is particularly adaptable to the processing with machines of the mechanical sector, less expensive than plastic elements manufactured by pressing and assemblage.

[0014] **Second aim** is the realization of a model which satisfies the requirements of a greater ecological purpose of the products conveyed on the market.

[0015] **Third aim** is to obtain a deeper clearance and hygiene by collecting the suspended and/or floating material, which, as above said, gathers in corners.

[0016] **Fourth aim** is to increase the level of the "catch" basin, by reducing the height of the down flow mouth - if compared to the products on the market , by increasing its width in order to keep fluid volume to be moved unvaried.

[0017] **Fifth aim** is to manufacture a product which is convenient to the different volumes of fluid to move.

[0018] **Sixth aim** is to avoid ABS yellowing due both to solar irradiation and fluid contact, which is possible in this model thanks to the materials used.

[0019] **Seventh aim** is to get a better esthetical view of the invase site as seen from the main basin- or pool, by moving the possible flaps, these ones too to be lined as the wall of the invase -or pool- now placed inside its mouth, towards the visible side of the basin, so as to create a visible running curtain.

[0020] These aims are reached in accordance with the ideation with all the characteristics according to the enclosed independent claims 1 and following ones and in the method according to the independent claims 8 and 9.

[0021] Advantageous realizations of the ideation are clear according to the dependent claims. The angular model realized, independent from the merceological sector of use, although the best use is in the pool sector, according to the idea, implies an angular plate mouth with/without double flaps, a connection point, a basket collecting suspended material and a down flow point for the fluid re-circulation.

[0022] Independent from the material it is made of, the collecting basket, as well as the place it is contained in - can have either a circular, polygonal or close polilineal section, in order to satisfy the requirements, especially in case of repair or renewal.

[0023] Advantages of the model obtained are therefore clear and evident.

[0024] Any appliance or chemical treatment is therefore excluded from the production cycle and a clear ecological priority is to be underlined. No chemical or inflammable product is necessary to its realization. In such a way the model obtained is particularly suitable to be used in the pool sector and, as consequence, in other

merceological sectors.

[0025] Further characteristics of the model will be clearer from the following description, referred to its purely illustrative forms and therefore not restricted to its realization, as illustrated in the enclosed drawings, where:

Fig 1 is a global view of an angular skimmer as obtained from the manufacturing and assemblage of sheets as previously described for the production of the element.

Fig 2 is an assonometric schematic view showing the same model (this assonometry as already said is just indicative and not exhaustive as dimensions are to be defined in accordance with usage). In order that the utility model is not damaged by inappropriate loads, stiffening ribs can be realized.

[0026] The product realized is therefore described with the help of the above said drawings, in particular as far as the pool sector is concerned and the pertinent production method.

[0027] In Fig. 2 a sheet is described, lined with plastic material to be manufactured and formed - numbered with reference number 1, independent from the commercial thickness to use.

[0028] Sheet 1 to be used has got substantially regular geometrical forms.

[0029] With reference to Fig.1 the form of the realization of the project is described.

[0030] It is therefore clear that angular skimmers, object of this description, can also be realized substituting the metal sheets or stainless steel with ABS (the usual material still used for rectilinear skimmers) but the products for this last manufacturing - as said before - do not have any ecological value. Therefore, although the material is ideal to the purpose, its usage is discouraged, though being included in the ideation.

[0031] To the actual forms of the model several variations can be introduced as well as detail variations, made by a specialized technician, these linked in any case to the angular skimmer as expressed in the claims included.

Claims

1. Sheet or stainlessi sheet steel product to be used particularly in the fitting sector such as pools or tubs, for competitive, playful or decorative usage, made principally of a sheet wrought in order to be placed in the corners of pools. Such part is sheet done, with convenient thickness to support with safety working loads, coated - for the part in contact with the fluid - with plastic or vinilic material, in any colour or combination of colours, not last the possibility of gluing decorative mosaics.

2. Sheet or stainless sheet steel product, according to claim 1 peculiar because such form can get convenient sizes to meet functions it is destined to.

3. Sheet or stainless sheet steel product, according to claim 1 and/or 2 peculiar because the basket, collecting suspended stuff in the fluid can be realized in form, material and sizes resulting from the pool/tub building and/or renewal process.

4. Sheet or inox-sheet steel product, according to any of the previous claims peculiar because such sheet or inox sheet steel has a few millimetres of thickness and these plastic membranes, created in origin, have got a thickness according to use, of few microns in any case.

5. Sheet or inox-sheet steel product, according to any of the previous claims peculiar because such plastic coating can be substituted or inglobated, by overlapping , in case an improvement of the material is being developed, all this preserving the whole functions of the angular model ideated.

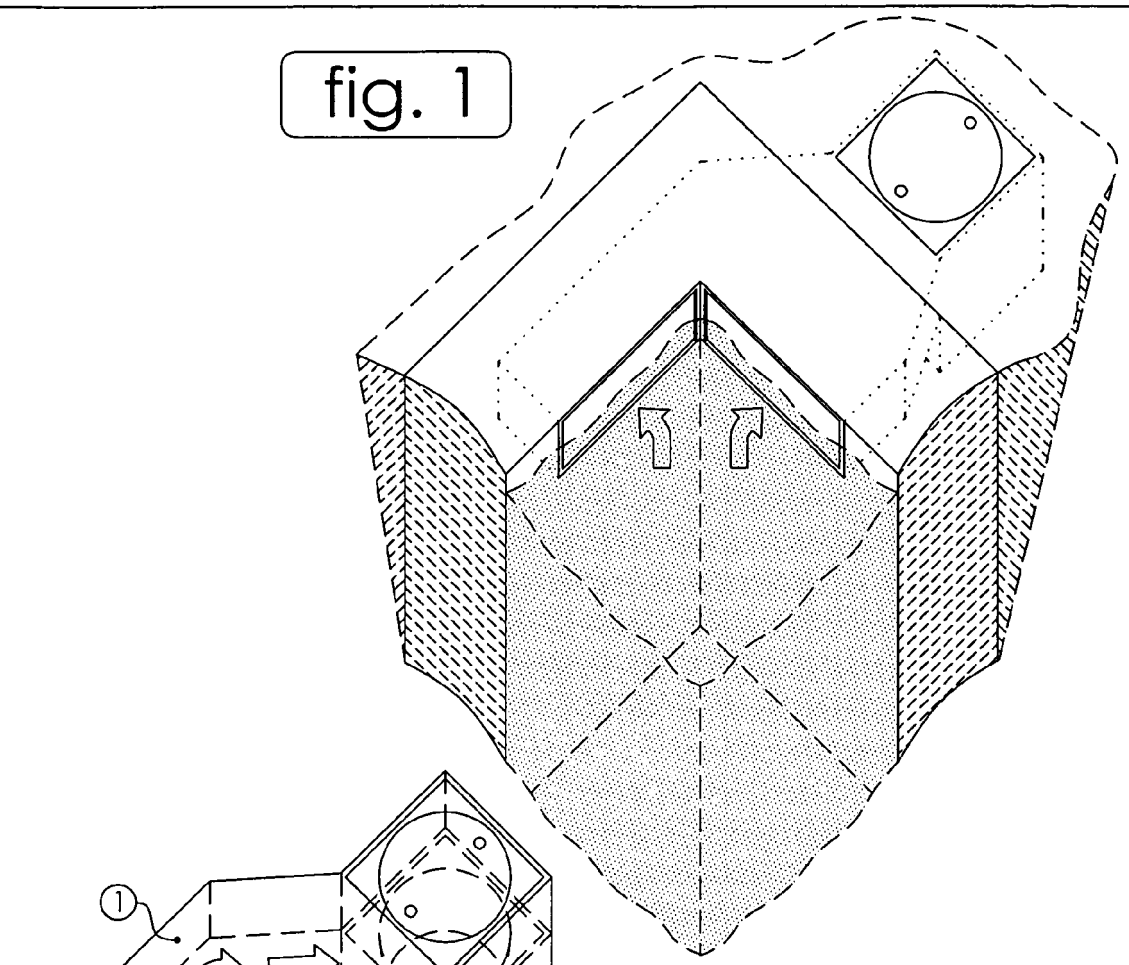
6. Sheet or stainless sheet steel product, according to any of the previous claims peculiar because it can be used also in sectors and spheres different from invases and pools.

7. The product can be manufactured in any convenient material, apt to the contact with fluid,in any case to be placed in the pool or tub corner.

8. Method of production of an angular skimmer model to be used particularly in the pool sector, but not exclusively, which needs: sheet cut or stainless steel cut, coated with plastic material according to the sizes of the assembled parts, so as to obtain a model in the dimensions requested. Dry assemblage of the above said sheet or stainless steel sheet, so as to obtain a model of angular skimmer in the dimension requested.

9. Method of production of an angular skimmer model, Fig.1, Fig.2 and Fig.3 manufactured according to an altogether ecological methodology.

fig. 1



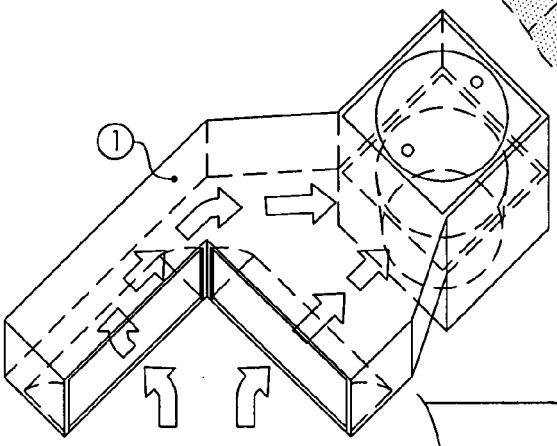


fig. 2

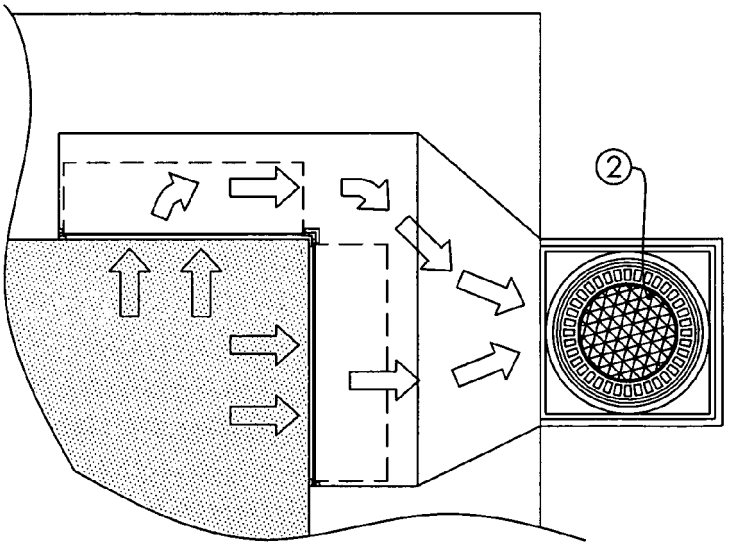


fig. 3