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- **Méndez Corbacho, Antonio**
06340 Fregenal de la Sierra, Badajoz (ES)
- **Méndez Montero, Immaculada**
06380 Jerez de los Caballeros, Badajoz (ES)
- **Méndez Comas, Maria Luisa**
06340 Fregenal de la Sierra, Badajoz (ES)

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(72) Inventor: **MENDEZ CORBACHO, Antonio**
E-06340 Fregenal de la Sierra, Badajoz (ES)

(71) Applicants:

- **Méndez Montero, Yolanda**
06380 Jerez de los Caballeros, Badajoz (ES)

(54) **CONSTRUCTION BRICK OR BLOCK**

(57) The invention relates to bricks which are made from expanded clay, plaster and gypsum, using all classes and varieties of plaster and gypsum and all varieties and sizes of clay. All versions of the inventive bricks are produced, solid and perforated, and the bricks are available in a wide range of sizes, such as 60x30x10, 60x30x7, 40x20x10 and 40x20x7, said measurements being the main measurements with much larger measurements also being available. The bricks are also produced with extremely diverse special

measurements which are outlined in the description of the invention. Said material is designed for the construction of internal walls owing to its light weight, good thermal and acoustic insulation properties and resistant finish. Moreover, given that it is made with active materials, the invention is subjected to virtually no wear or scratches and it performs like mortar, lime or cement. Said material is placed on top of floors, once the vaults have been put in place.

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Description

DESCRIPTIVE MEMORANDUM OF THE INVENTION

1° STATE OF THE TECHNIQUE

[0001] Tarciyola: Is a brick or block for internal partitions in houses, offices and commercial sites, etc..

[0002] Prior to presentation of this documentation, searches made in data bases available to the public in Internet of the offices of the OEPM were made.

[0003] The most similar item found in searches made is as follows: Utility model no. ° U 200101335 dated 16-11-01, consisting in a day brick covered in plaster.

Another item found was utility model no. U 9202478 dated 16-03-93, which consists in a day brick with an insulation covering plus a coat of plaster.

Another item found was utility model no. U 9202479 dated 16-03-93, which consists of a day brick with a plaster covering.

Another item found is utility model no. U 9202796 dated 01-04-93, consisting in a day brick covered in plaster.

And the last item found is utility model no. U 9502619 dated 16-04-96, consisting in a day brick with almost all the orifices filled in plaster and covered by plaster on all sides..

Thus, not having found anything sufficiently dose to the product I have created, I believe it is a product that can cover a need in the construction market.

2° OBJECT OF THE INVENTION

[0004] The main object of the invention leads to covering a possible commercial niche in the construction sector and easing work in the construction of inner partitions that are necessary in any type of construction.

This brick or block has been designed to ease construction work as it can be placed once the vaults have been finished and the entire flooring has been installed, with subsequent advantage of having to cut few flooring pieces and if at some further moment it is necessary to move a partition there are no typical problems in which the floor is not on the same level and as well as this it is necessary to place pieces with subsequent ugliness of the floor, not to mention rack backs to be solved in the vaults as the finish they have is not at the same height. This item is also designed for finishes to be much stronger than those currently used which are done in plaster or chalk with very soft surfaces that are easily scratched.

[0005] At the same time it was also designed to insert electrical wiring conductions in the hollows of the bricks and these are designed to communicate with each other in such a way as to make possible placement of conductions without having to make cuts into the wall for inserting them, it is only necessary to carry out small breakages to place the mechanism boxes and registers and before placing these, the conductions tubes are passed through the hollows in the bricks.

[0006] It is also very necessary for air conditioning conduits as there are specially designed pieces for carrying out these installations and they also are used for installing the plumbing conduits with subsequent construction cost reductions.

As it was being developed new advantages were found for it, such as no need for pre-frames for installation of doors and windows with subsequent reductions in building costs.

3° MANUFACTURING PREFERENCES

[0007] Manufacturing preference is as follows: Preferently manufactured with an external coating of live plaster and the inside a mixture of plaster or chalk with expanded clay pelletes in a proportion of 75% of clay and 25% of plaster or chalk approximately.

Another form is to substitute expanded clay by perlite.

Another form is to substitute the clay with volcanic rock, natural cork in small pieces or small pellets of Rockwool.

4° DESCRIPTION OF THE INVENTION

[0008] This is a brick made with an external coating of plaster or chalk that is pre-fabricated or made at the same time as the interior and its interior is made out of a mixture of plaster or chalk with expanded clay in the proportion of 75% of expanded clay and 25% of plaster or chalk, it can also be manufactured with materials in other proportions.

[0009] Another material it can be made out of is with perlite in substitution of the expanded clay.

[0010] It can also be manufactured substituting expanded clay for volcanic rock, or natural cork in small pieces or pellets of Rockwool or other pellets of insulation that can be used in this type of material.

[0011] It is to be manufactured in the sizes considered as to be of most interest depending on the function it will be carrying out, both in length, height and thickness that are approximately of, 60x30x10, 60x30x7, 40x20x10, y 40x20x7 which are the main dimensions and may be in many others.

[0012] Special parts will be manufactured for upper parts of doors and windows with several measurements in length, height and thickness, these will incorporate steel rods of the type used in bracing inside it.

[0013] Special pieces will be manufactured for air conditioning pre-installation and these will also be used for installing plumbing conduits.

[0014] Special parts will be made to avoid having to make too many cuts as cuts create losses in piping communications.

[0015] Due to its characteristics, this brick is very lightweight, resistant and hard as it is manufactured out of live materials and is also a thermal and acoustic insulation.

[0016] Due to the shape of its orifices which communicate with each other, it is possible to pass conductions

for electrical wiring, telephone, television and many others through these holes without having to make cuts to insert the cabling in the wall, it is only necessary to open small breakages for placing the mechanism boxes and registers.

[0017] Due to its good finish, it does not leave imperfections in exteriors and is much better for paint finish and uses much less paint.

[0018] This material is installed once the vaults have been treated and the flooring is installed.

[0019] For perfect placement of this material it is advisable to place it with a system of special rules or traditional ones.

[0020] This material is installed with glue of the type used for plaster and it is only necessary to gather the ends with plaster or plaster glue.

Claims

1. It is a brick made with an external coat of pre-fabricated live plaster or chalk or made at the same time as the interior and the interior is made out of a mixture of live plaster or chalk with expanded day in a proportion of 75% expanded day and 25% plaster or chalk, it can also be manufactured in other proportions of materials.
2. Another material used to manufacture it is perlite thanks to its lightweightedness as a substitute of expanded day.
3. It can also be manufactured substituting expanded clay by volcanic rock or natural cork in small pieces or other insulation pellets useable in this type of materials.
4. It is to be manufactured in the sizes considered of most interest depending on the function they will carry out, both in length, height and thickness of the bricks specified approximately by 60x30x10, 60x30x7, 40x20x10, y 40x20x7 which are the main sizes there being many more other ones.
5. Special pieces will be manufactured for upper parts of door and window frames in several sizes of length, height and thickness; these parts will have steel rods inside such as those used in bracing inside it.
6. Special parts will be made for pre-installation of air conditioning and these same pieces will be used for installation of plumbing conduits.
7. Special parts will be made for several sizes to avoid having to carry out too many cuts as cuts create losses in communications for tubing.

8. Because of its characteristics, this brick is very light, resistant and hard as it is made out of live materials and is also a thermal and acoustic insulator.

9. Due to the shaping of its orifices which communicate with each other, it is possible to pass tubes for electrical wiring, telephone cabling, television and many others through its holes without having to make insets in the walls for these conduits and it is only necessary to open small breakages for placement of the mechanism boxes and registers.

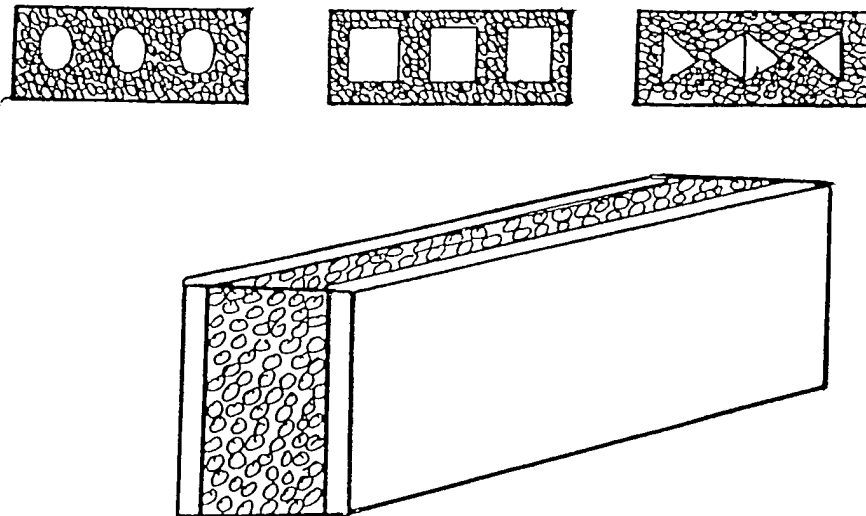
10. Due to its good finish it does not leave imperfections in exteriors and paint finish is much better and requires much less paint

11. This material is installed once the vaults have been finished and the flooring is installed.

12. For perfect placement of this material it is advised to install it with a system of special rules or traditional ones..

13. This material is installed with glue of the type used for plaster and it is only necessary to gather the joints for installation a little with plaster or plaster glue.

FIGURE *N° 1*



INTERNATIONAL SEARCH REPORT

International application No.
PCT/ ES 03/00549

A. CLASSIFICATION OF SUBJECT MATTER		
IPC7 E04C 1/39, 1/40 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC7 E04C		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
CIBEPAT, EPODOC, WPI		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ES 1032279 U (HILAYES S.L.) 16.04.1996 Column 4, lines 3-40	1-13
A	ES 2010636 A (ERIC N. PINILLA) 16.11.1989. Column 2, lines 10-26, Figures	1-13
A	ES 1049218 U (HILAYES S.L.) 16.11.2001. Column 2, line 53, column 3, line 4	1-13
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
02 January 2004 (02.01.2004)		28 January 2004 (28.01.2004)
Name and mailing address of the ISA/ U.S.P.T.O		Authorized officer
Facsimile No.		Telephone No.

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT
 Information on patent family members

 International Application No
 PCT/ ES 03/00549

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
ES 1032279 U	16.04.1996	NONE	
ES 2010636 A	16.11.1989	NONE	
ES 1049218 U	16.11.2001	NONE	

Form PCT/ISA/210 (patent family annex) (July 1992)