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(54) Gypsum drywall

(57) Gypsum drywall on profiles for building walls, which wall is formed by a metal structure of profiles (3,5,7) and a plurality of gypsum panel (10) attached to them by screws (6), the structure of profiles (3,5,7) being "U" section profiles.

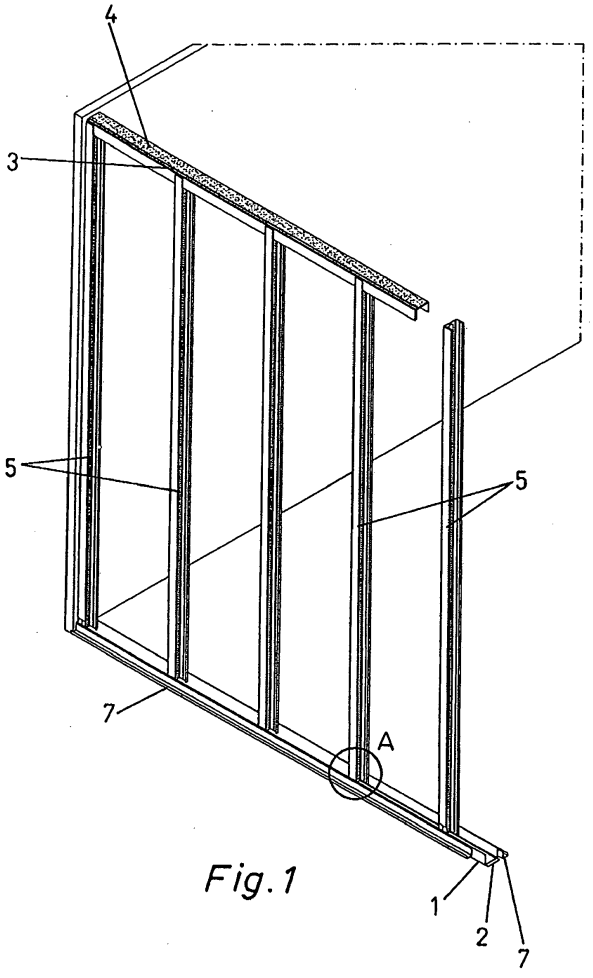

Fig. 1

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Description

OBJECT OF THE INVENTION

[0001] The following invention, as expressed in the statement of the present specification, relates to a gypsum drywall on profiles for building walls, which gypsum drywall with tongued fiberglass is useful for building sheeting of a wall, ceilings and partition walls, which large-format gypsum drywall is attached to a base structure of some profiles that make up the contour of the wall to be built.

[0002] Thus, the metal structure defines the contour covering the wall and there will be fixed thereto, by means of screws, the large format gypsum drywalls, the panels being able to be mounted on one side of the metal structure if it is sheeting of a wall or false ceiling or on both sides if it is a partition wall.

[0003] Thus, the fixing of the large format gypsum drywalls with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, will be carried out to some free jack studs profiles, arranged between a first profile fixed to the floor and a second profile fixed to the ceiling, the attached vertical union of the panels not being necessary to materialize in the jack studs profiles.

FIELD OF APPLICATION

[0004] In the present specification a gypsum drywall on profiles for building walls is described, which gypsum drywalls apply in the building of both partition walls and claddings and ceilings, so that the large format gypsum drywalls with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, will be able to be mounted on one side of the metal structure or on both sides.

[0005] Both in one case and the other the placement of a thermal and acoustic insulation is allowed.

BACKGROUND OF THE INVENTION

[0006] As is known, conventionally, both the enclosing walls and the partition walls have been made of clay bricks which can have different sizes and configurations, so that it may be solid or hollow.

[0007] Thus, in the building of the enclosing walls the clay bricks can be facebricks, without requiring any other operation, on the outside, during assembly, while by its inner side, at least, carrying out a covering with plaster for its subsequent painting is required.

[0008] Similarly, in certain constructions, in order to achieve best thermal and acoustic insulation the internal face of the enclosing walls include an insulating material and is closed with a brick wall of small thickness, which increases labor and cost.

[0009] Likewise, once the corresponding partition wall has been built, carrying out a plaster coating for its subsequent painting is required, since clay bricks do not show the suitable aesthetic for being visible. Thus, these buildings require investment of considerable labor that affects the cost of the construction.

[0010] In order to reduce labor and consequently the cost, over time building elements have been introduced consisting of a clay core covered with gypsum or plaster or prefabricated gypsum plasterboard, useful mainly in the building of partition walls which by having larger dimensions than clay bricks facilitate the rapid building of the partition walls.

[0011] Moreover, by presenting the exposed faces of gypsum or plasterboard it can be practically painted directly on them.

DESCRIPTION OF THE INVENTION

[0012] In the present specification a gypsum drywall for profiles on building walls is described, being useful both in the building of partition walls and sheeting of a wall and ceilings, which wall is formed by a metal structure of profiles and a plurality of large format gypsum drywalls with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, associated thereto, so that the profiles form the wall to be closed by the gypsum drywalls fixed to them by screws.

[0013] Thus, the building of the profile structure is based on a first "U" section profile which is fixed to the floor by its core with the interposition of an adhesive tape and a second profile, also with "U" section which is fixed to the ceiling by its core with the interposition of adhesive tape, a series of "U" section jack studs profiles being between said profiles attached to the floor and ceiling, respectively, having envisaged that a plurality of large format gypsum drywalls are fixed by screws on the aforementioned profiling.

[0014] On the other hand, a "U" section guide profile is fixed to the outer face of at least one of the wings of the first "U" section profile fixed to the floor, the outer wing of which is shorter than the inner wing attached to the first profile.

[0015] The bottom row of the large format gypsum drywalls having some dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is placed in the guide profile and the panels are fixed to the wing of the jack stud profile to which they are attached.

[0016] The top row of the large format gypsum drywalls with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is arranged at a small distance from the ceiling for the interposition of a silicone cord or a strip of insulating material.

[0017] Thus, by using large format gypsum drywalls the materialization of the walls is achieved in a simple and quick manner, representing considerable savings.

[0018] To complement the description that will be carried out in the following, and in order to help to a better understanding of the features of the invention, a set of drawings is attached to the present specification, whose figures represent in an illustrative and not limiting manner, the most characteristic details of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019]

Figure 1. Shows a perspective view of a base metal structure of the wall being able to observe the first profile fixed to the floor, the second profile fixed to the ceiling and the jack studs between them, as well as the guide profiles attached to the wings of the first profile fixed to the floor.

Figure 2. Shows a perspective view of a wall under construction, being able to observe the large format gypsum drywalls with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, fixed by means of screws, to the jack studs profiles of the metal structure.

Figure 3. Shows a perspective view of detail A of Figure 1, being able to observe how the first "U" section profile is fixed to the floor by the outer face of its core, with the interposition of an adhesive tape as well as the placement of a jack stud profile and some guide profiles attached to the outer face of the wings of the first profile.

Figure 4. Shows a sectional detailed view of the fixation of the second "U" section profile to the ceiling with respect to its core with the interposition of an adhesive tape as well as the positioning of an free jack stud profile and the fixation of some gypsum drywalls attached to the wings of the second profile and a silicone cord or similar being between the top side of the gypsum drywalls and the ceiling.

Figure 5. Shows a perspective view of a large format tongued gypsum drywall with fiberglass, having been cross-sectioned.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0020] In view of the mentioned figures and according to the adopted numbering we can see how the plurality of large format gypsum panels 10 are placed on a profile-based structure consisting of a first "U" section profile 1 which is fixed to the floor by the outer face of its core with the interposition of an adhesive tape 2 and a second profile 3, also with "U" section which is fixed to the ceiling being attached by the outer face of its core with the interposition of an adhesive tape 4, so that these first and second profile are in the same vertical plane and placed between them there is a diversity of jack studs profiles 5, in order to later on assemble the plurality of large format gypsum panels 10 with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm..

[0021] Thus, by having the large format gypsum panels 10 dimensions of 1,000 x 60 mm and a variable thickness of 20, 25 or 30 mm, with a tongue and groove joint, carrying out a quick building of the corresponding wall is allowed.

[0022] Also, to the first profile 1 fixed to the floor, to the outer face of at least one of its wings, a general "U" section guide profile 7 is fixed, so that the inner wing 9 attached to the corresponding wing of the first profile 1 has a greater length than the outer wing 8.

[0023] On the other hand, the jack stud profiles 5 are positioned freely without any restraint and with its upper end in proximity to the core of the second profile 3 attached to the ceiling 11 materializing a small gap which will allow absorbing the possible expansion.

[0024] In addition, the face to which the large format gypsum panels 10 with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm are attached and fixed by screws 15, which materialize the enclosure.

[0025] In Figure 2 of the drawings it can be seen how the large format gypsum panels 10 with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, materializing the wall are fixed by bonding between them and by means of screws 6 to the jack stud profiles 5.

[0026] In the case of a partition wall between the drywall panels 10 of both sides of the wall insulation 13 may be provided. Also, in case of a cladding or ceiling an insulator 13 between the jack stud profiles could also be placed.

[0027] The bottom row of the large format gypsum panels 10 with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is placed in the guide profile 7 and is fixed to the wing of the jack stud profile 5 to which they are attached.

[0028] The top row of the large format gypsum panels 10 with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is arranged at a small distance from the ceiling for the interposition of a silicone cord or a strip of insulating material.

[0029] Once installed all the large format gypsum panels 10 bonded by their attachment faces and bolted to the jack studs profiles we will proceed to the placement of a paste in the joints of the large format gypsum panels 10 and in the holes created during the placement of locking screws 6 thereof.

Claims

1. GYPSUM DRYWALL ON PROFILES FOR BUILDING WALLS, being useful in the building of both partition walls and sheeting of a wall and ceilings and which wall is constituted by a profiles-based structure wherein the gypsum drywalls are fixed, **characterized in that** the tongued and grooved gypsum panels (10) are fixed by bonding between them and by screws (6) on some profiles that make up the contour of the wall to be closed, so that in its building a first "U" section profile (1) is fixed to the floor by its core with the interposition of an adhesive tape (2) and a second "U" section profile (3) is fixed to the ceiling (11) by its core with the interposition of adhesive tape (4), a series of jack stud profiles (5) being between said profiles (1) and (2).

2. GYPSUM DRYWALL ON PROFILES FOR BUILDING WALLS, according to claim 1, **characterized in that** a guide profile (7) with "U" section is fixed to the outer face of at least one of the wings of the first "U" section profile (1) fixed to the floor, the outer wing (8) of which is shorter than the inner wing (9) attached to the first profile (1).

3. GYPSUM DRYWALL ON PROFILES FOR BUILDING WALLS, according to claims 1 and 2, **characterized in that** the bottom row of large format gypsum panels (10) have a size of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is placed in the guide profile (7) and is fixed to the wing of the jack stud profile (5) to which it is attached.

4. GYPSUM DRYWALL ON PROFILES FOR BUILDING WALLS, according to claim 1, **characterized in that** the top row of large format gypsum panels (10) with dimensions of 1,000 x 600 mm and a thickness of 20, 25 and 30 mm, is arranged at a small distance from the ceiling (11) for the interposition of a silicone cord (12) or a strip of insulating material.

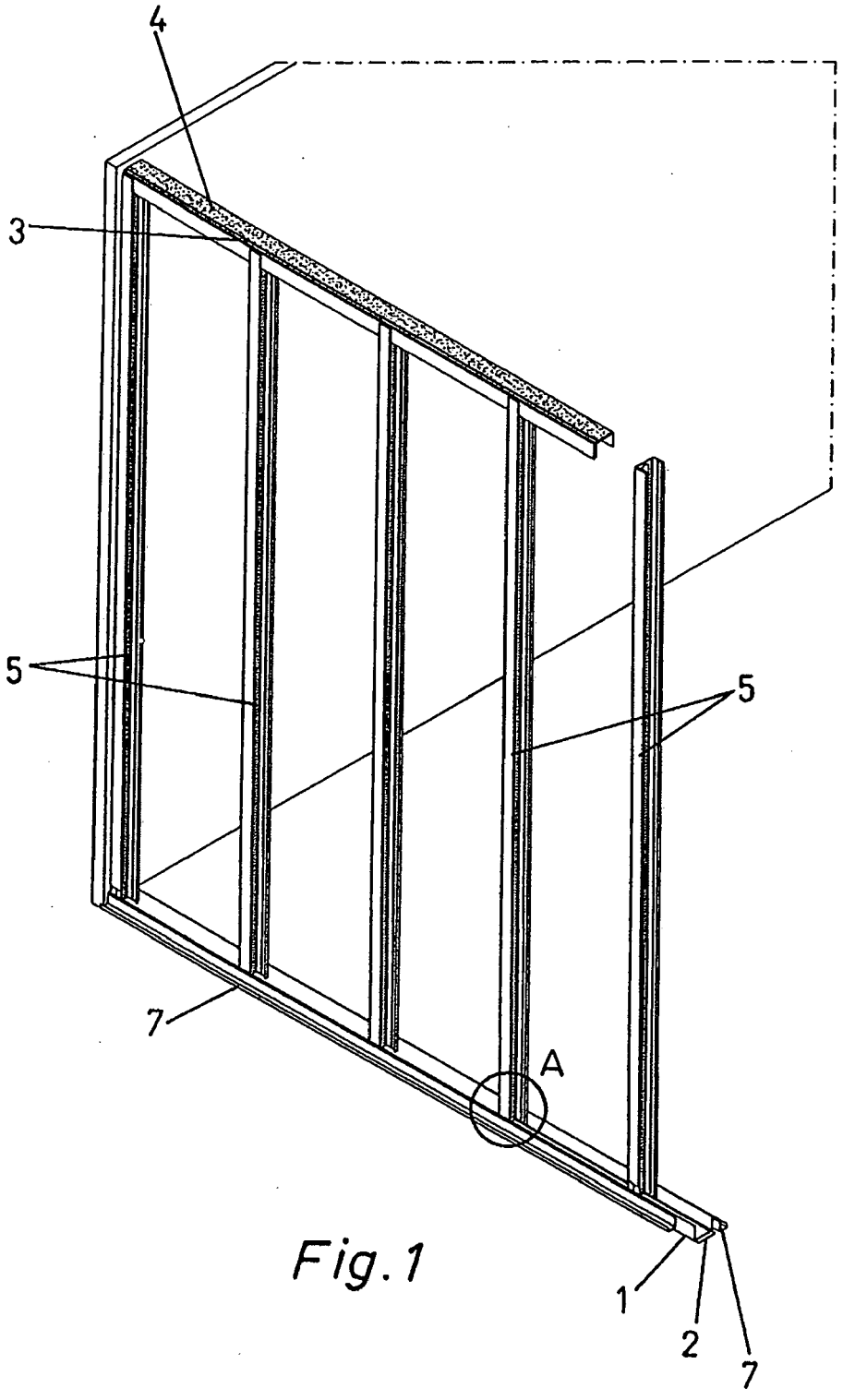

Fig. 1

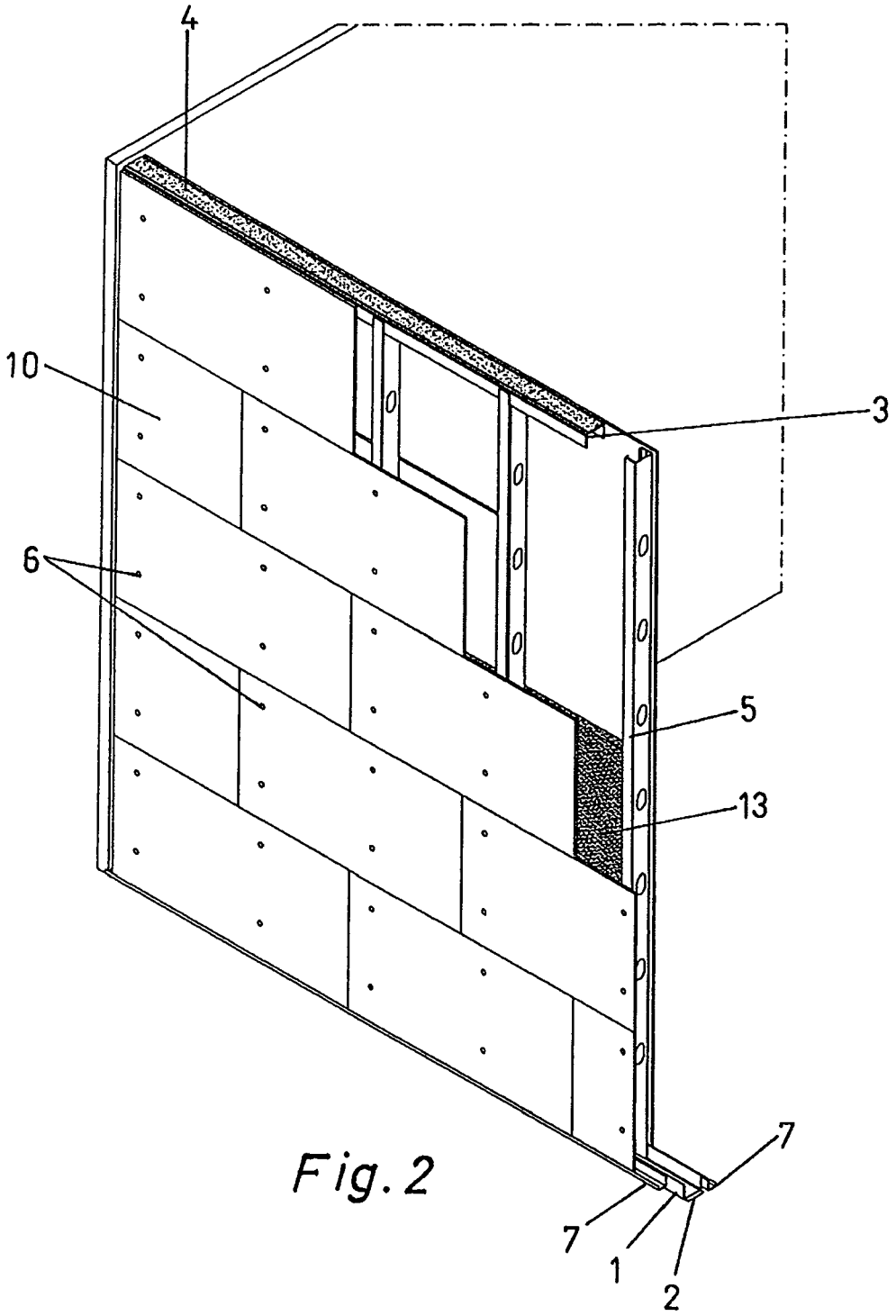

Fig. 2

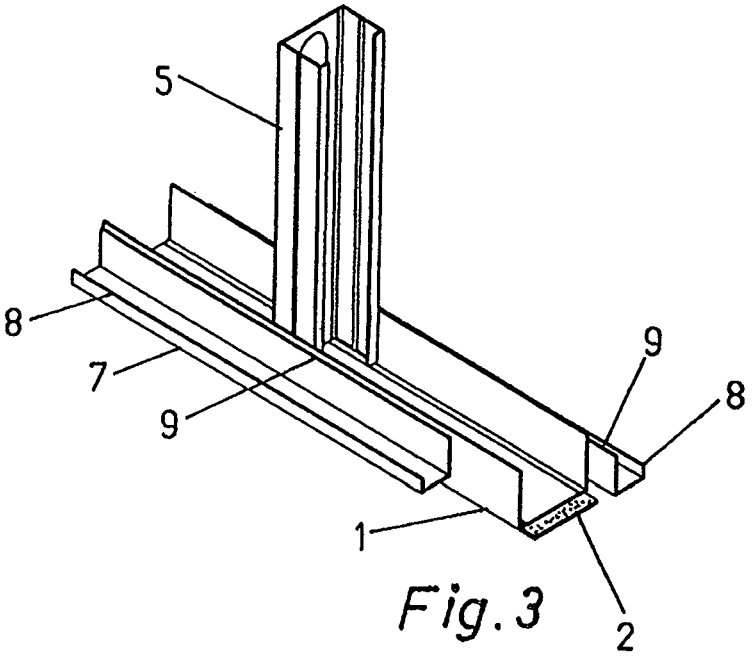

Fig. 3

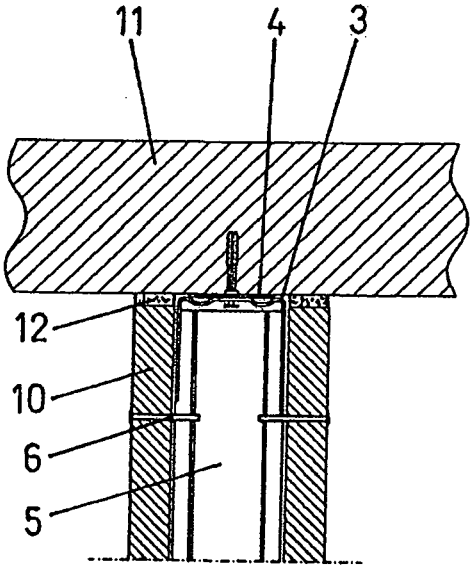

Fig. 4

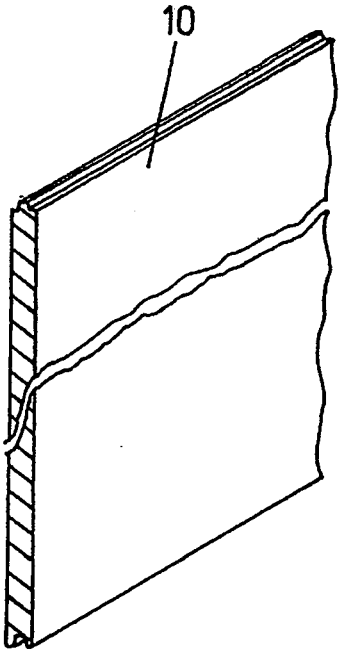

Fig. 5