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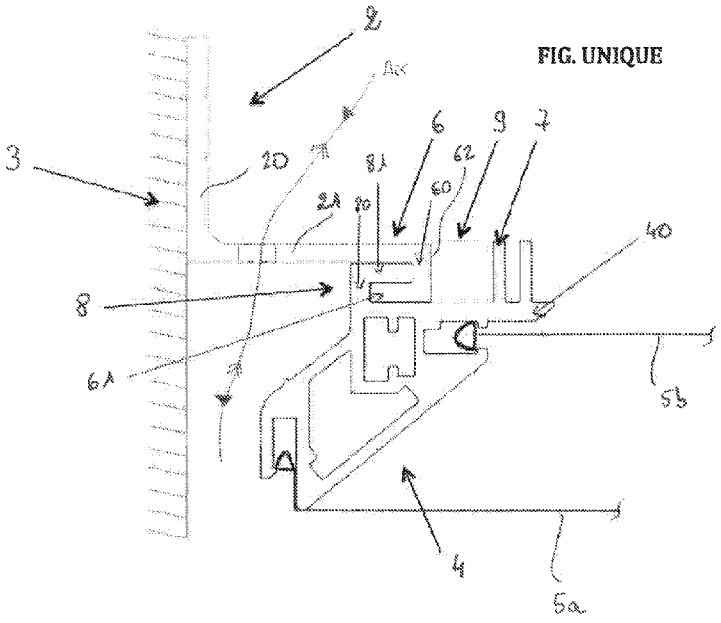
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(54) **Title:** HANGING SYSTEM FOR A STRETCH FALSE CEILING, PERMITTING THE PASSAGE OF AIR

(54) **Titre :** SYSTEME D'ACCROCHE POUR LA REALISATION D'UN FAUX-PLAFOND TENDU PERMETTANT LE PASSAGE D'AIR

FIG. UNIQUE



(57) **Abstract:** The invention relates to a hanging system (1) for a stretch false ceiling, comprising a fastening profile (2) suitable for being fastened to a wall and having at least one air-flow opening, a rail (4) arranged for hanging at least one stretched piece of fabric and suitable for being securely mounted on the fastening profile (2), and blocking means for holding the rail (4) in position on the fastening profile (2) when the rail is mounted on the profile, said hanging system being characterized in that the fastening profile (2) and the rail (4) respectively have, protruding from the wall, reciprocal mating means making it possible to assemble the rail (4) and the fastening profile (2) by insertion of the means into each other, and in that the blocking means have at least one element forming a bolster (9) which is disposed between the fastening profile and the rail.

(57) **Abrégé :** Système d'accroche pour la réalisation d'un faux-plafond tendu permettant le passage d'air L'invention concerne un

[Suite sur la page suivante]

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système d'accroche (1) pour la réalisation d'un faux-plafond tendu comprenant un profilé de fixation (2) apte à être fixé sur une paroi et comportant au moins une ouverture de passage d'air, une lisse (4) arrangée pour permettre l'accroche d'au moins une toile tendue et apte à être montée de manière amovible sur le profilé de fixation (2) et des moyens de blocage en position de la lisse (4) sur le profilé de fixation (2) lorsque celle-ci est montée sur ledit profilé, le système d'accroche étant remarquable en ce que le profilé de fixation (2) et la lisse (4) comportent respectivement, en saillie d'une paroi, des moyens d'association réciproques permettant un assemblage de la lisse (4) avec le profilé de fixation (2) par imbrication et en ce que les moyens de blocage comportent au moins un élément formant calle (9) interposé entre le profilé de fixation et la lisse.

HANGING SYSTEM FOR A STRETCH FALSE CEILING, PERMITTING THE PASSAGE OF AIR

TECHNICAL FIELD OF THE INVENTION

[0001] The invention relates to the field of false ceilings, and in particular that of stretch ceilings.

[0002] The invention relates more particularly to a hanging system for a stretch false ceiling, comprising a fastening profile suitable for being fastened to a wall and comprising at least one air-flow opening, a rail arranged for hanging at least one stretched piece of fabric, said rail being suitable for being securely mounted on the fastening profile, and blocking means for holding the rail in position on the fastening profile when the latter is mounted on said profile.

[0003] The system is intended in particular, but not exclusively, for a stretch ceiling in a room equipped with a ventilation and/or air conditioning system (heating, cooling, dehumidification, humidification) in order to allow air circulation in the room in question.

PRIOR ART

[0004] Known from application WO2018037184 is a hanging profile for a piece of fabric for a stretch ceiling in a room, of the type comprising air-flow openings to allow ventilation of the room in which the false ceiling is installed. According to a particular configuration, the hanging profile is formed by two independent portions which are able to be fastened to one another, one of the portions being intended to be fastened to a wall, the other serving to hang stretched pieces of fabric. The two parts are fastened by inserting the end of a horizontal flange of the portion intended to be fastened to the wall into a longitudinal groove provided for this purpose in the portion of the profile serving to hang the pieces of fabric. The two portions are locked together using through locking screws. While producing a hanging profile in two separate portions makes it possible to facilitate the installation of the false ceiling, the assembly of the portions relative to one another remains tedious, in particular through the installation of the locking screws, and requires manufacturing precision of the two profile portions so as to allow the installation of the locking screws. Moreover, since the tension forces exerted by the pieces of fabric on the concerned portion of the profile are directed in the direction opposite the direction in which the portion of the profile carrying the pieces of fabric is assembled with the portion of the profile fastened to the wall, the risk of separation of the portion of the profile carrying the pieces of fabric from the wall fastening profile cannot be ruled out.

[0005] The invention aims to remedy these problems by proposing a hanging system formed by two independent parts which are capable of being fastened to one another in order to produce a stretch false ceiling, said hanging system allowing on the one hand the circulation of air in the room in which the hanging system is located and on the other hand a simple, quick and easy installation of the false ceiling while guaranteeing the maintenance of the two parts relative to one another whatever the tension exerted by the pieces of fabric.

SUBJECT MATTER OF THE INVENTION

[0006] To this end, and according to a first aspect, the invention provides a hanging system for a stretch false ceiling, comprising a fastening profile suitable for being fastened to a wall and having a wall provided with at least one air-flow opening, a rail arranged for hanging at least one stretched piece of fabric and suitable for being securely mounted on the fastening profile, and blocking means for holding the rail in position on the fastening profile when the latter is mounted on said profile, the hanging system being remarkable in that the fastening profile and the rail respectively have, protruding from a wall, reciprocal mating means making it possible to assemble the rail and the fastening profile by insertion of the means into each other, and in that the blocking means have at least one element forming a bolster which is disposed between the fastening profile and the rail.

[0007] The presence of reciprocal mating means carried directly by the fastening profile and the rail, and protruding from a wall of the latter, on the one hand, and blocking means in the form of one or more blocking elements disposed between the fastening profile and the rail on the other hand makes it possible to guarantee that the rail is held on the fastening profile regardless of the tension exerted on the rail by the pieces of fabric. Furthermore, due to bolster elements disposed between the fastening profile and the rail, the installation of the hanging system is simplified and the blocking of the parts relative to each other is improved.

[0008] Advantageously, the reciprocal mating means are elements forming a hook positioned head to tail with respect to each other when the rail is mounted on the fastening profile.

[0009] Advantageously, the hook-forming element carried by the fastening profile is oriented in the direction opposite the tension force exerted by the piece of fabric.

[0010] Advantageously, the hook-forming elements of the rail have a shape which matches those of the fastening profile.

[0011] According to a particular configuration, the hook-forming elements of the fastening profile define a longitudinal hanging track. Likewise, provision may be made for the hook-forming elements of the rail to define a longitudinal groove which is complementary to the longitudinal hanging track.

[0012] According to a particularly advantageous embodiment, the wall of the rail carrying the mating means comprises a stop located at a distance determined so as to delimit with the fastening profile, when the rail is mounted on the latter, a receiving area of at least one bolster-forming element, of dimension corresponding to the section of said bolster-forming element, the stop and the bolster-forming element constituting the means for blocking the rail in position on the fastening profile.

[0013] Advantageously, the hanging system has a plurality of elements forming a bolster positioned at intervals from each other.

[0014] According to a particular configuration, the reciprocal mating means are arranged to allow suspended mounting of the rail on the fastening profile.

[0015]

BRIEF DESCRIPTION OF THE FIGURES

[0016] Other objects and advantages of the invention will become apparent from the following description, given with reference to the sole figure, which shows a schematic sectional view of a hanging system for a false ceiling, the hanging system being shown fastened to a wall.

DETAILED DESCRIPTION OF THE FIGURES

[0017] In relation to the sole figure, a hanging system 1 is disclosed for a stretch false ceiling comprising two distinct and independent parts, namely a fastening profile 2 suitable for being fastened to a wall and a rail 4 for hanging at least one stretched piece of fabric, said rail being suitable for being fastened to the fastening profile. The hanging system 1 is shown fastened to a wall 3, two stretched pieces of fabric 5a, 5b being hung on said system.

[0018] In the disclosed embodiment, the fastening profile 2 is a longitudinal profile with an L-shaped main section, the vertical flange 20 of which constitutes a flange for fastening to the

wall. The horizontal flange 21 has at least one opening to allow the passage of air once the false ceiling has been produced as shown by the arrow line.

[0019] The rail 4, when it is mounted on the fastening profile 2 in turn fastened to the wall 3, has a horizontal upper wall and a vertical wall located under the upper wall and connected to the latter not two inclined side walls so as to form a rail having a cross-section which is substantially in the form of a trapezoid. The rail 4 has two grooves respectively arranged so as to hang a piece of fabric which is provided with a hanging means provided for this purpose of the harpoon type. The grooves are arranged to allow the hanging of two stretched pieces of fabric 5a, 5b parallel to each other. One of the grooves has an opening which opens onto the side wall located furthest from the wall, in the vicinity of the upper wall, while the other groove is arranged in the vertical wall with an opening which opens downwards.

[0020] The rail 4 is mounted suspended on the fastening profile 2, its side walls extending under the horizontal flange 21 of the fastening profile 2, in the direction of the wall 3, the side wall of the rail 4 of shorter length being located on the side of the wall 3.

[0021] The fastening profile 2 and the rail 4 respectively have, protruding from a wall, reciprocal mating means 6, 8 allowing a removable assembly of the rail 4 with the fastening profile 2 by insertion into each other.

[0022] In the illustrated embodiment, the reciprocal mating means are carried respectively by the upper wall 40 of the rail 4 and by the horizontal flange 21 of the fastening profile 2. They assume the form of a hook. Reference will be made hereinafter to hook-forming elements.

[0023] Advantageously, the hook-forming elements of the rail 4 have a shape that matches those of the fastening profile 2. They are positioned head to tail, with an opening oriented in a direction opposite that of the fastening profile 2.

[0024] In the illustrated embodiment, the hook-forming elements come respectively from the upper wall 40 of the rail and from the horizontal flange 21 of the fastening profile 2. In the illustrated embodiment, the hook-forming elements from the horizontal flange 21 are made up of a material extension 60 which extends vertically, provided at the free end of the horizontal flange 21 and oriented downward, and a lug 61 which extends in the continuation of the extension 60, perpendicular to the latter on the side of the vertical flange 20. The hook-forming elements coming from the upper wall 40 are made up of a material extension 80 which extends vertically, formed at the junction of the upper wall 40 with the side flange of the rail located on

the side closest to the wall (here the side flange of shorter length) and oriented upward, and a lug 81 which extends in the continuation of the extension 80, perpendicular to the latter on the side of the other side flange. The extension 60 and the lug 61 define, with the lower face of the horizontal flange 21, a groove which has a shape that matches that of the lug 81. Likewise, the extension 80 and the lug 81 define, with the upper face of the upper wall 40, a groove which has a shape that matches that of the lug 61.

[0025] Advantageously, the hook-forming elements extend over the entire length of the fastening profile 2, to define a longitudinal hanging track, the hook-forming elements of the rail 4 also extending over the entire length of the rail 4, defining a longitudinal groove which is complementary to the hanging track. When assembling the rail 4 on the fastening profile 2, the track of the rail 4 is plugged into the groove of the fastening profile 2 while the track of the fastening profile 2 is plugged into the groove of the rail 4 delimited by the associated track.

[0026] In order to ensure that the rail 4 is held on the fastening profile 2 and to avoid any risk of the rail 4 becoming detached, the hanging system 1 has blocking means.

[0027] In the illustrated embodiment, the blocking means have at least one element forming a bolster 9 positioned in the space located between the bearing end face 62 of the fastening profile 2 and the vertical protrusion 7 carried by the upper wall 40 and located at a distance from the mating means 8, said protrusion constituting a stop 7 of the blocking means.

[0028] As shown, the bolster-forming element 9 has a section which corresponds, except for a clearance, to the area delimited by the stop 7 and the bearing end face 62 of the fastening profile 2. The term “except for a clearance” means that there is sufficient space to allow forcible insertion of the bolster element 9 into the space located between the stop 7 and the fastening profile 2 so as to ensure that the bolster element 9 is held in the receiving area by the force exerted on the bolster-forming element 9 in the direction of the stop 7.

[0029] Advantageously, the bolster-forming element 9 is formed by a plurality of bolster portions arranged at a distance from each other over the width of the rail 4. However, according to another embodiment, it may be provided for the bolster-forming element 9 to form one and the same part and to be dimensioned so as to extend over all or part of the length of the rail 4.

[0030] The invention is described in the foregoing by way of example. It is understood that a person skilled in the art is in a position to produce various variant embodiments of the invention without thereby departing from the scope of the invention.

CLAIMS

1. Hanging system (1) for a stretch false ceiling, comprising a fastening profile (2) suitable for being fastened to a wall and having a wall provided with at least one air-flow opening, a rail (4) arranged for hanging at least one stretched piece of fabric and suitable for being securely mounted on the fastening profile (2), and blocking means for holding the rail (4) in position on the fastening profile (2) when the latter is mounted on said profile, characterized in that the fastening profile (2) and the rail (4) respectively have, protruding from a wall, reciprocal mating means making it possible to assemble the rail (4) and the fastening profile (2) by insertion of the means into each other, and in that the blocking means have at least one element forming a bolster (9) which is disposed between the fastening profile and the rail.

2. Hanging system (1) according to claim 1, characterized in that the reciprocal mating means are elements forming a hook positioned head to tail with respect to each other when the rail (4) is mounted on the fastening profile (2).

3. Hanging system (1) according to claim 2, characterized in that the hook-forming elements of the rail (4) have a shape which matches those of the fastening profile (2).

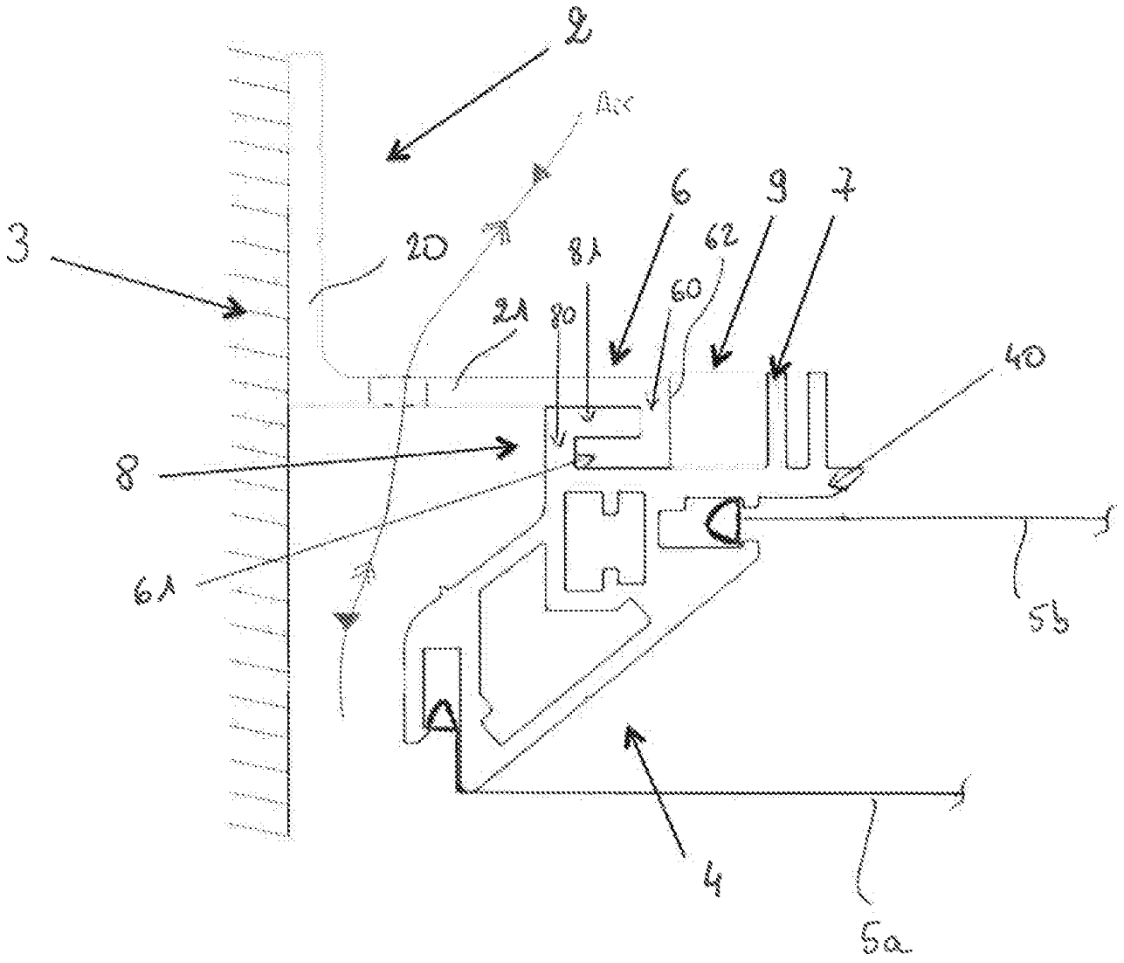
4. Hanging system (1) according to claim 2 or claim 3, characterized in that the hook-forming elements of the fastening profile (2) define a longitudinal hanging track.

5. Hanging system (1) according to claim 4, characterized in that the hook-forming elements of the rail (4) define a longitudinal groove which is complementary to the longitudinal hanging track.

6. Hanging system (1) according to one of the preceding claims, characterized in that the wall of the rail (4) carrying the mating means comprises a stop (7) located at a distance determined so as to delimit with the fastening profile (2), when the rail (4) is mounted on the fastening profile (2), a receiving area of the bolster-forming element (9), of dimension corresponding to the section of said bolster-forming element (9), the stop (7) constituting, with the bolster-forming element (9), the means for blocking the rail (4) in position on the fastening profile (2).

7. Hanging system (1) according to the preceding claim, characterized in that it has a plurality of elements forming a bolster (9) positioned at intervals from each other.

8. Hanging system (1) according to one of the preceding claims, characterized in that the reciprocal mating means are arranged to allow suspended mounting of the rail (4) on the fastening profile (2).



SOLE FIGURE