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(11)

EP 2 942 446 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
11.11.2015 Bulletin 2015/46

(51) Int Cl.:
E04C 3/00 (2006.01) **E04C 3/04** (2006.01)
E04F 13/06 (2006.01) **E04B 9/06** (2006.01)
E04B 2/74 (2006.01)

(21) Application number: **15166766.4**

(22) Date of filing: **07.05.2015**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
MA

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(30) Priority: **09.05.2014 IT VE20140029**

(54) **DEFORMABLE UPRIGHT FOR FORMING ARCHED FALSE CEILINGS AND NON-LINEAR OPENINGS**

(57) A deformable upright to obtain arched ceilings and nonlinear openings said upright being constituted by a strip of sheet metal punched and folded along two parallel fold lines to form a U-shape consisting of a base (10) and wings (12), the wings being provided with flaps, said upright being constituted by a plurality of symmetrical modules with respect to the longitudinal axis of the upright, wherein each module has:

- on the wings (12) two hourglass shaped openings (16) which do not extend over the fold line (8) and which ex-

tend over the folding lines (18) of the flaps (14) with respect to the wings (12),

- on the base (10) a central slot (22) formed from a substantially elliptical portion (24) which extends on both sides in two slotted openings (26),

- on the base (10), externally to the central slot (22), four slotted inclined cutouts (28) which has one end close to the elliptical portion (24) and the other end near the ends of the base of the hourglass shaped openings (16).

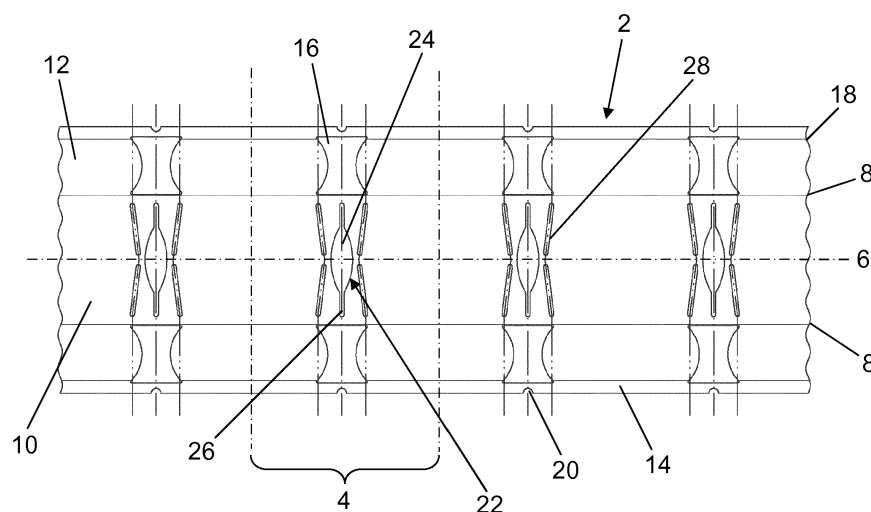


FIG. 2

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Description

[0001] The present invention relates to a deformable upright for forming arched false ceilings and non-linear openings.

[0002] Currently, to form partitions, furnishing walls or false ceilings, metal structures are used, fixed to the masonry, to support panels of plaster board or other similar materials.

[0003] These structures generally consist of a U-bent profile provided with a plurality of apertures to form an assembly of U-shaped modules joined together by appendices provided on the bottom and on the two sides. The appendices are then bent inwards to form a plurality of U-shaped elements joined together by portions of their lower and lateral surfaces.

[0004] During use, each deformable guide is used as it is or is adapted to the curved shape to be produced, by opening out or bending the connection appendices. In particular, the guides are adapted to the plan development of the walls to be formed, are fixed or mounted vertically, fixed at their ends to the floor and ceiling respectively.

[0005] In other cases they are adapted to the development of the ceiling and fixed at their ends to the walls. Curved or flat panels connected together are applied to the guide and upright assembly.

[0006] These uprights have however been shown to be susceptible to improvement for their use as arched false ceilings or non-linear openings in partitions.

[0007] This improvement is attained according to the invention by a deformable upright for forming arched false ceilings and non-linear openings as described in claim 1.

[0008] The present invention is further clarified hereinafter in terms of a preferred embodiment thereof, with reference to the accompanying drawings, in which:

- Figure 1 shows a perspective view of an upright according to the invention,
 Figure 2 shows a portion of the upright according to the invention before being bent to U-shape,
 Figure 3 shows it in frontal view,
 Figure 4 shows it in partial lateral view, and
 Figure 5 is a plan view showing it in curved configuration.

[0009] As can be seen in Figure 2, the upright 2 according to the invention consists of a strip of sheet metal die-cut to form a plurality of modules 4 symmetrical about the longitudinal axis 6 of the upright, each module being provided with two bending lines 8 for forming a U-shaped piece consisting of a base 10 and two flanges 12, with the edges 14 bent inwards and downwards.

[0010] Each module 2 is die-cut to define:

- in the two flanges 12, two apertures 16 of sand-glass shape which cease before the bending line 8 and

which extend beyond the bending lines 18 about which the edges 14 are bent relative to the flanges 12,

- in the edge 14, a semicircular incision 20,
- in the base 10, a central incision 22 formed substantially from a elliptical portion 24 which extends at both ends into two slotted apertures 26 aligned with the incisions 20,
- in the base 10, outside the central incision 22, four inclined slotted apertures 28 having one end close to the elliptical portion 24, and the other end close to the ends of the base of the sand-glass shaped aperture 16.

[0011] In particular, the distance between the ends of those slotted incisions 28 closer to the axis 8 substantially corresponds to the width of the sand-glass shaped aperture 16.

[0012] To curve the upright, the zone comprising the central incision 22 has merely to be pressed.

Claims

1. A deformable upright to obtain arched ceilings and nonlinear openings said upright being constituted by a strip of sheet metal punched and folded along two parallel fold lines to form a U-shape consisting of a base (10) and wings (12), the wings being provided with flaps, said upright being constituted by a plurality of symmetrical modules with respect to the longitudinal axis of the upright, wherein each module has:
 - on the wings (12) two hourglass shaped openings (16) which do not extend over the fold line (8) and which extend over the folding lines (18) of the flaps (14) with respect to the wings (12),
 - on the base (10) a central slot (22) formed from a substantially elliptical portion (24) which extends on both sides in two slotted openings (26),
 - on the base (10), externally to the central slot (22), four slotted inclined cutouts (28) which has one end close to the elliptical portion (24) and the other end near the ends of the base of the hourglass shaped openings (16).
2. Upright according to claim 1 **characterized in that** the two wings (12) have the flaps (14) folded inward and angled downwards.
3. Upright according to claim 1 **characterized in that** the distance between the ends of the slotted cutouts (28) closest to the axes (8) is substantially corresponding to the distance of the base of the hourglass shaped openings (16).
4. Upright according to claim 1 **characterized in that**

each flap (14) is provided with a semicircular notch (20) aligned with the slotted openings (26).

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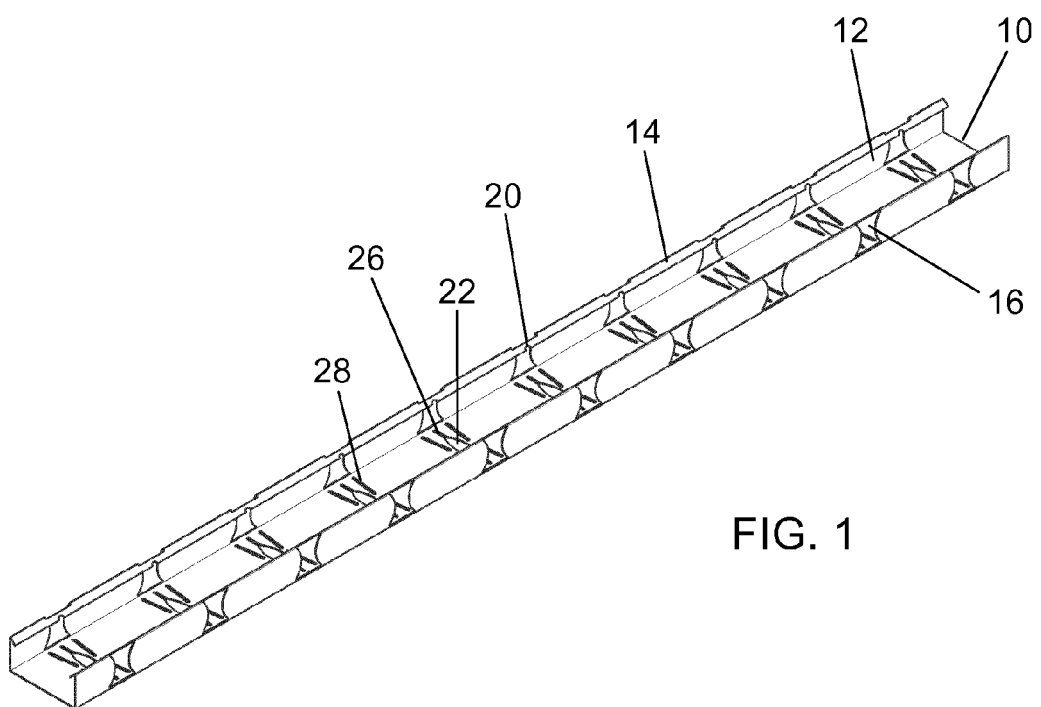


FIG. 1

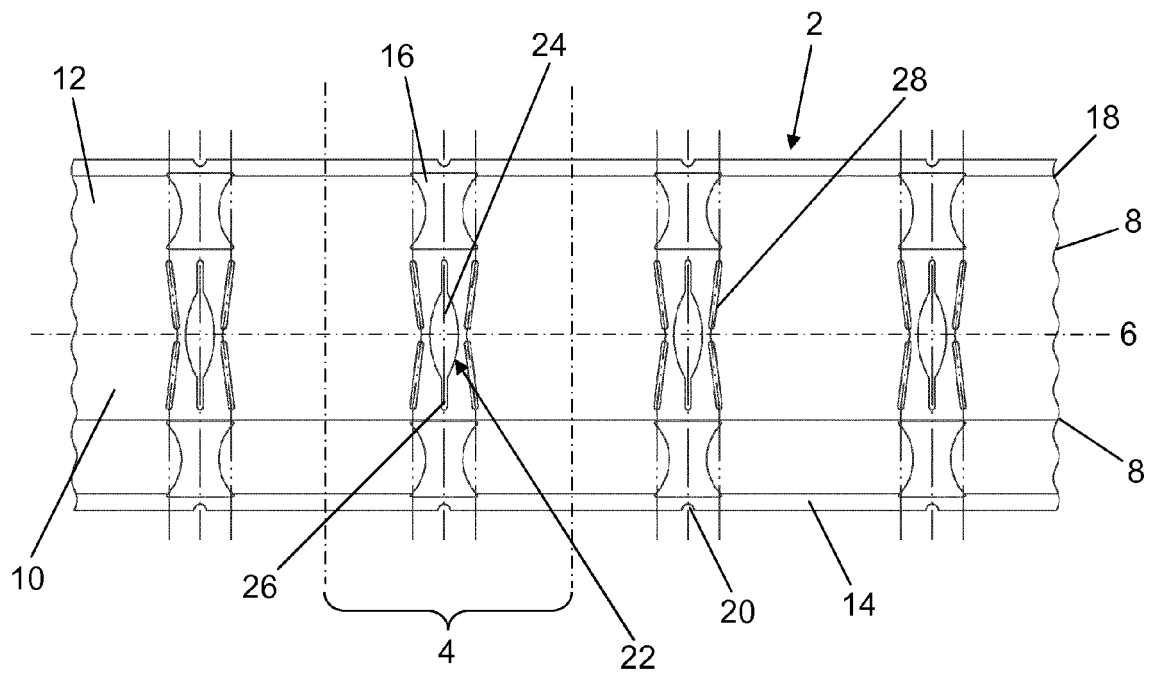
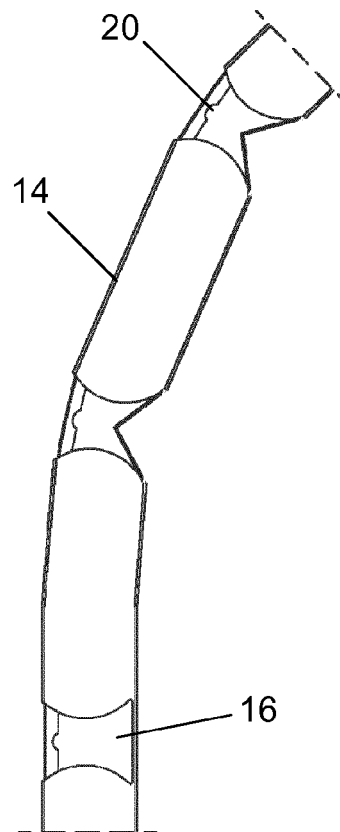
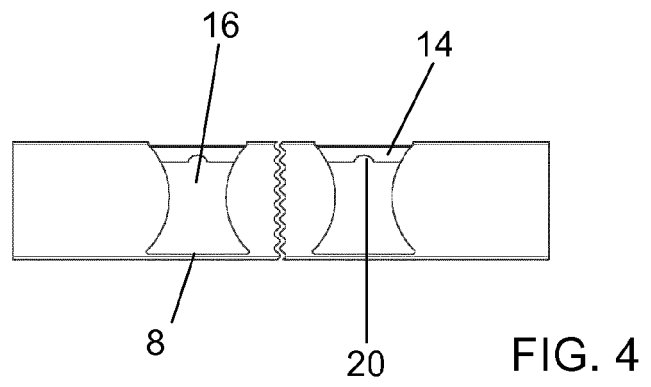
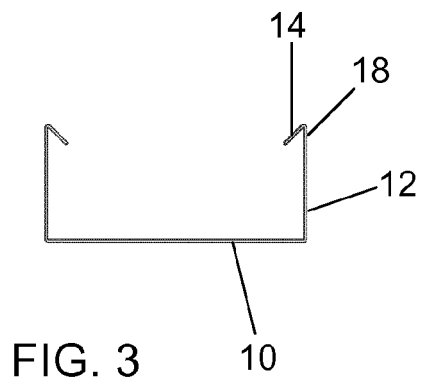


FIG. 2





EUROPEAN SEARCH REPORT

Application Number
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			E04F E04B E04C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 6 July 2015	Examiner Dieterle, Sibille
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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