Claims

1. An arrangement ~~(001; 101; 202; 302; 402) for fastening an element on a support surface (002; 102; 202; 302; 402), the arrangement~~ comprising:

–at least one rail ~~(020; 120; 220; 320; 420)~~ comprising a lower face ~~(021; 121; 212; 312; 421)~~, an upper face ~~(022; 122; 222; 322; 422)~~ and a protruding part ~~(028, 128, 228)~~, the lower face ~~(021; 121; 212; 312; 421)~~ coming into contact with athe support surface ~~(002; 102; 202; 302; 402)~~;

–at least one substantially rectangular mounting part ~~(030; 130; 230; 330; 430)~~ comprising a base plate ~~(031; 131; 231; 331; 431)~~ which defines a lower face ~~(032; 132; 232; 332; 432)~~ and an upper face ~~(032; 132; 232; 332; 432)~~, the upper face ~~(032; 132; 232; 332; 432)~~ comprising an anchor~~ing means (040; 140; 240; 340; 440)~~;

–at least one element to be fastened ~~(110)~~, the element having a lower face ~~(111)~~, which comprises at least one recess ~~(112)~~, the recess being arranged so as to engage with the anchor~~ing means (140)~~ of thea mounting part ~~(030)~~;

wherein the protruding part of the rail ~~(020; 120; 220; 320; 420)~~ comprises a C-profile ~~(024; 124; 224; 324; 424)~~ which is open on the upper-face side ~~(022; 122; 222; 322; 422)~~ and defines a profile width ~~(025; 125; 225; 325; 425)~~ and a profile height ~~(026; 126; 226; 326; 426)~~, the C-profile ~~(024; 124; 224; 324; 424)~~ being configured~~adapted~~ to receive thea mounting part ~~(030; 130; 230; 430)~~, and wherein the rail comprises a toothed surface ~~(027; 127; 227; 327)~~ extending on saidits upper-face;

wherein the base plate ~~(031; 131; 231; 331; 431)~~ of the mounting part ~~(030; 130; 230; 330; 420)~~ has a width ~~(034; 134; 234; 334; 434)~~ which corresponds substantially to the profile width ~~(025; 125; 225; 325; 425)~~ of the rail ~~(020; 120; 220; 320; 420)~~, and a thickness ~~(033; 133; 233; 333; 433)~~ which corresponds substantially to the profile height ~~(026; 126; 226; 326; 426)~~ of the rail, making it possible to slide the mounting part ~~(030; 130; 230; 330; 430)~~ along the C-profile ~~(024; 124; 224; 324; 424)~~ and to hold the mounting part ~~(030; 130; 230; 330; 430)~~ in the rail ~~(020; 120; 220; 320; 420)~~; ~~and~~

wherein the base plate ~~(031; 131; 231; 331; 431)~~ comprises, on its lower face ~~(032; 132; 132; 332, 432)~~, a structure comprising at least one tooth ~~(043; 143; 343; 434)~~, said at least one tooth cooperating with said toothed surface when the mounting part is held by the rail;

wherein the mounting part comprises at least one stop on the upper face of the base plate, the at least one stop being situated at an edge of the base plate; and

wherein, when the element is mounted on the anchor, a part of the element that is disposed between the anchor and the at least one stop contacts the at least one stop.

~~2. A rail device for fastening an element on a support surface (002; 102; 202; 302; 402), the rail (020; 120; 220; 320; 420) comprising a lower face (021; 121; 212; 312; 421) and an upper face (022; 122; 222; 322; 422), the lower face (021; 121; 212; 312; 421) coming into contact with the support surface (002; 102; 202; 302; 402);~~

~~wherein the rail (020; 120; 220; 320; 420) comprises a C-profile (024; 124; 224; 324; 424) which is open on the upper face side (022; 122; 222; 322; 422) and defines a profile width (025; 125; 225; 325; 425) and a profile height (026; 126; 226; 326; 426), the C-profile (024; 124; 224; 324; 424) being adapted to receive an adapted mounting part (030; 130; 230; 330; 430), and~~

~~wherein the rail (020; 120; 320; 420) comprises a toothed surface (027; 127; 227; 327) extending on its upper face.~~

~~3. Mounting part device, wherein the mounting part has a substantially rectangular shape (030; 130; 230; 330; 430), the mounting part comprising a base plate (031; 131; 231; 331; 431) which defines a lower face (032; 132; 232; 332; 432) and an upper face (032; 132; 232; 332; 432), the upper face (032; 132; 232; 332; 432) comprising anchoring means (040; 140; 240; 340; 440) adapted to fasten the element to be fastened;~~

~~wherein the base plate (031; 131; 231; 331; 431) of the mounting part (030; 130; 230; 330; 420) has a width (034; 134; 234; 334; 434) which~~

~~corresponds substantially to a profile width of a rail, and a thickness (033; 133; 233; 333; 433) which corresponds substantially to the profile height of an adapted rail, making it possible to slide the mounting part along said profile and to hold the mounting part (030; 130; 230; 330; 430) in an adapted rail; and~~

~~wherein base plate (031; 131; 231; 331; 431) comprises, on its lower face (032; 132; 132; 332, 432), a structure with at least one tooth (043; 143; 343; 434), so as to cooperate with said toothed surface when the mounting part is held by said adapted rail.~~

~~4. Element to be fastened (110) to a surface, for use as a siding element, the element having a lower face (111) provided with at least one recess (112) and wherein said at least one recess is adapted to cooperate with anchoring means (140) of an adapted mounting part (130)~~

2~~5~~. The arrangement~~Device~~ according to ~~any one of~~ claims 1~~, 3 or 4~~, wherein the anchor~~ing means (140)~~ of the mounting part ~~(130)~~ comprises at least one foot ~~(141)~~ which is substantially perpendicular to the base plate ~~(131)~~, the foot being equipped on one face with at least one tenon ~~(142)~~ which projects at right angles to the foot ~~(141)~~, said tenon being dimensioned so as to cooperate with a counterpart profile groove ~~(113)~~ in a wall of the recess ~~(112)~~ of the element to be fastened ~~(110)~~.

3~~6~~. The arrangement~~Device~~ according to claim 2~~5~~, wherein the foot ~~(141)~~ of the mounting part and the recess ~~(112)~~ of the element to be fixed are dimensioned so that at least a part of the lower face ~~(111)~~ of the element to be fixed rests on the upper surface ~~(128)~~ of the rail ~~(120)~~, when said foot is engaged in said recess ~~(112)~~.

4~~7~~. The arrangement~~Device~~ according to claim 3~~6~~, wherein the anchor~~ing means (140)~~ and the grooved recess ~~(112)~~ are ~~preferably~~ configured in such a way that the element to be fastened is~~(110) may be~~ attach~~ableed~~ to the mounting part ~~(130)~~ by a first movement, said first movement engaging the foot

~~(141)~~ in the recess without the tenon ~~(142)~~ penetrating the groove, and in such a way that the element ~~(110)~~ may then be displaced in a direction perpendicular to the first movement to engage the tenon ~~(142)~~ in the groove ~~(113)~~.

5 58. The arrangement~~Device~~ according to ~~any one of~~ claims 36 ~~to 7~~, wherein the tenon ~~(142)~~ is arranged in an~~the~~ upper part of the foot ~~(141)~~.

~~9. Device according to any one claims 7 to 8, wherein the mounting part (230) comprises at least one stop (235) on the upper face (239) of the base~~
10 ~~plate (231), the at least one stop (235) being situated on the side opposite the side of the foot (241) carrying the tenon (242).~~

610. The arrangement~~Device~~ according to claim 19, wherein the stop ~~(235)~~ is replaceable.

15

711. The arrangement~~Device~~ according to ~~any one of~~ claims 1~~, 3, or 5 to 10~~, wherein the mounting part ~~(330)~~ comprises a tongue ~~(337)~~ at one of its ends, and at the opposite end a recess ~~(338)~~ suitable for receiving the tongue of an adjacent mounting part.

20

812. The arrangement~~Device~~ according to ~~any one of~~ claims 1~~, 3 or 5 to 11~~, wherein the mounting part ~~(330)~~ is moulded in a single piece from one of a plastics and a~~or~~ composite material.

25 913. The arrangement~~Device~~ according to ~~any one~~ claims 1 ~~or 2~~, wherein the rail ~~(320)~~ comprises a tongue ~~(328)~~ at one of its ends, and at the opposite end a recess ~~(329)~~ suitable for receiving the tongue of an adjacent rail.

1014. The arrangement~~Device~~ according to ~~any one of~~ claims 1~~, 2 or 13~~,
30 wherein the rail is moulded in a single piece from one of a plastics material and~~or~~ a composite material.

11~~15~~. The arrangement~~Device~~ according to ~~any one of the preceding~~ claims 1, wherein one or both of the rail and/~~or~~ the mounting part is/are produced by extrusion of one of a plastics material and a~~or~~ composite material.

12~~16~~. The arrangement~~Device~~ according to ~~any one of the preceding~~ claims 1, wherein the element to be fastened is a siding strip having a lower face provided with at least one longitudinal trench, the trench having ~~with~~ a groove in one of its walls, the groove being dimensioned so as to cooperate with at least one tenon of the~~an adapted~~ mounting part.

13~~17~~. The arrangement~~Device~~ according to claim 12~~16~~, wherein the siding strip is made of wood.

14. A rail assembly comprising:

a rail comprising:

a lower face and an upper face, the lower face coming into contact with a support surface;

a C-profile which is open on the upper-face side and defines a profile width and a profile height, the C-profile being configured to receive an adapted mounting part, and

a toothed surface extending on its upper-face;

an element to be fastened; and

a mounting part having a substantially rectangular shape, the mounting part comprising a base plate which defines a lower face and an upper face, the upper face comprising an anchor configured to fasten the element to be fastened, the upper face further comprising at least one stop situated at an edge of the base plate;

wherein the base plate of the mounting part has a width which corresponds substantially to the profile width of the rail, and a thickness which corresponds substantially to the profile height of the rail, making it possible to slide the mounting part along a profile of the rail and to hold the mounting part in the rail; and

wherein the base plate of the mounting part comprises, on its lower face, a structure with at least one tooth, so as to cooperate with the toothed surface of the rail when the mounting part is held by said rail; and

wherein, when the element is mounted on the anchor, a part of the element that is disposed between the anchor and the at least one stop contacts the at least one stop.

~~18. Facade comprising siding strips fastened to a vertical support, further comprising rails and mounting parts according to any one of the preceding claims.~~

~~19. Method for fastening an element based on a device comprising rails and mounting parts as defined in any one of claims 1 to 17, the method comprising the following steps:~~

~~- fastening a rail on a support;~~

~~- sliding a first mounting part into the rail;~~

~~- installing the element on the mounting part by engaging the foot of the mounting part into the recess provided in the lower face of the element, and~~

~~- displacing the element towards the tenon on said foot so as to push said tenon into said counterpart groove in a wall of said recess.~~

~~20. Method according to the preceding claim, wherein another similar mounting part is slid onto the rail, contacting the first mounting part, to support another adjacent element, this other mounting part being positioned such that the stop thereof prevents a displacement of the first element along the rail's axis.~~

~~21. Method according to either claim 19 or claim 20, wherein another similar rail element is fastened to the support so as to extend the first rail.~~

~~22. Method according to any one of claims 19 to 21, wherein the elements to be fastened are siding strips having a lower face provided with at least one longitudinal trench, said trench having a groove in one of its walls, and said~~

~~groove being dimensioned so as to cooperate with at least one tenon of said mounting part.~~