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(54) **ELECTRIC STRIKE FOR PANIC BARS**

(57) The invention relates to an electric strike for panic bars applicable in emergency exit doors, comprising a case (1) housing an electromechanical mechanism for blocking and unblocking a swivelling latch (2) assembled in the case by means of a swivelling shaft (3). The latch (2) comprises a body (4) bearing the shaft (3), provided with a front surface (41), and a latch front portion (5) provided with a rear surface (51) facing the front surface

(41) of the body (4) and adjustable in height. Said latch front portion (5) comprises: vertically elongated openings (52) for height adjustment with respect to screws (6) for the front tightening and fixing to the body (4), and a curved front surface (53) having a generatrix parallel to the swivelling shaft (3) of the latch (2), suitable for receiving a panic bar once the position of the front portion (5) is height adjusted with respect to the body (4).

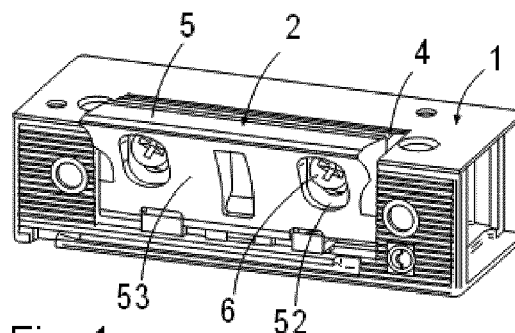


Fig. 1

## Description

### Technical field

[0001] The present invention relates to an electric strike for panic bars applicable in emergency exit doors which are provided with panic bars for opening same in case of emergency and which can in turn be part of fire protection systems in emergency exits.

### Prior state of the art

[0002] Electric strikes for panic bars used in emergency doors comprise a case in which a mechanism for blocking and unblocking a pivoting latch is housed. These strikes for panic bars are made with latches having a fixed height which do not allow for height adjustment.

[0003] These electric strikes for panic bars are often assembled in cases and arranged such that they are superimposed on the door frame.

[0004] The current solution used for adapting and ensuring optimal installation and proper contact of the panic bars with the latch consists of placing plastic sheets or lifts between the case of the strike and the door to enable adjusting the closure.

[0005] The latch in these strikes has a large angle of rotation to facilitate the opening of the emergency doors provided with panic bars.

[0006] Therefore, the technical problem being considered relates to the simplification of the assembly and adjustment of the electric strike with respect to the panic bars of emergency doors.

### Description of the invention

[0007] The electric strike for panic bars object of the invention presents features intended for solving the problem being considered and for facilitating the adjustment of the latch for blocking the panic bars, without having to include any plastic sheets or lifts between the door and the case of the strike when installing said strike in the door.

[0008] This electric strike is of the type described in the preamble of claim 1, and comprising a case housing an electrically operated mechanism for blocking and unblocking a swivelling latch assembled in the case by means of a swivelling shaft.

[0009] According to the invention, the swivelling latch comprises: a body bearing the swivelling shaft and provided with a front surface, and a latch front portion provided with a rear surface facing the front surface of the body of the latch and adjustable in height with respect to said body.

[0010] According to the invention, said latch front portion comprises vertically elongated openings for height adjustment with respect to screws for the front tightening and fixing of said front portion to the body of the latch, and a curved front surface having a generatrix parallel

to the swivelling shaft of the latch and suitable for receiving a panic bar once the position of said front portion is height adjusted with respect to the body of the latch.

[0011] The openings for assembling the screws for the fixing of the front portion have vertically an elongation suitably sized to allow moving and adjusting the height of the front portion of the latch by less than 5 mm, and preferably less than 3.5 mm.

[0012] This technical feature ensures that the contact area of the front and rear surfaces of the body and of the front portion of the latch is sufficient to establish a stable and firm fixing of both parts in all the height adjustment positions of the front portion of the latch.

[0013] The front surface of the body and the rear surface of the front portion of the latch comprise respective groups of complementary protrusions for coupling the body and the front portion of the latch in different positions of said front portion of the latch which are height adjusted with respect to the body thereof.

[0014] Said complementary protrusions are arranged vertically equidistant from one another so as to allow mutual coupling and prevent vertical movement of the front portion with respect to the body once the position of said front portion is height adjusted.

### Brief description of the contents of the drawings

[0015] As a complement to the description provided herein, and for the purpose of helping to make the features of the invention more readily understandable, the present specification is accompanied by a set of drawings which, by way of illustration and not limitation, represent the following:

- Figure 1 shows a perspective view of an exemplary embodiment of the electric strike for panic bars according to the invention.
- Figures 2a and 2b show respective profile views of the electric strike of the preceding figure, partially sectioned, with the latch in the closed position and the open position, respectively, and in which the front portion of the latch is fixed to the body of the latch in a lower end position.
- Figures 3a and 3b show respective views of the electric strike similar to Figures 2a and 2b, with the front portion of the latch fixed to the body of the latch in an upper end position.

### Detailed description of embodiments of the invention

[0016] In the exemplary embodiment shown in the attached figures, the electric strike for panic bars object of the invention comprises a case (1) in which an electrically operated mechanism for blocking and unblocking a pivoting latch (2) is housed.

[0017] The latch (2) is assembled in the case (1) by means of a shaft (3) with the possibility of pivoting be-

tween a closed position shown in Figures 2a and 3a and an open position shown in Figures 2b and 3b.

[0018] Said latch (2) comprises: a body (4) bearing the shaft (3) and provided with a front surface (41), and a front portion (5) provided with a rear surface (51) facing the mentioned front surface (41) of the body (4).

[0019] As shown in Figure 1, the front portion (5) is provided with vertically elongated openings (52) for height adjustment with respect to screws (6) which are introduced in the threaded openings of the body (4) and establish the tightening and fixing of the front portion (5) with respect to said body (4) once the position of the front portion is height adjusted.

[0020] The position of the front portion (5) can be height adjusted between a lower position depicted in Figures 2a and 2b and an upper position depicted in Figures 3a and 3b. The openings (52) are vertically elongated to allow adjusting the front portion (5) between the two upper and lower positions which are spaced apart by 3 mm in this exemplary embodiment.

[0021] The front portion (5) of the latch has a curved front surface (53) the generatrix of which is parallel to the swivelling shaft (3) of the latch (2) and suitable for receiving a panic bar of an emergency door therein when the latch (2) is in the closed position and once the position of the front portion (5) has been height adjusted when installing the electric strike.

[0022] As can be seen in Figures 2 and 3, the front surface (41) of the body (4) and the rear surface (51) of the front portion (5) of the latch (2) comprise respective groups of complementary protrusions, vertically spaced apart from one another, for coupling the body (4) and the front portion (5) of the latch (2), without any possibility of vertical slipping, in different positions of the front portion (5) which are height adjusted with respect to the body (4).

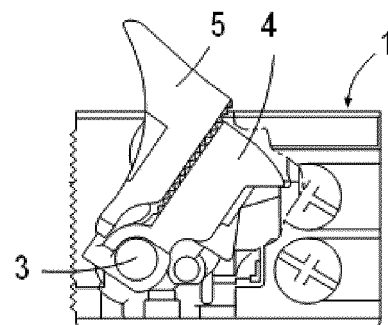
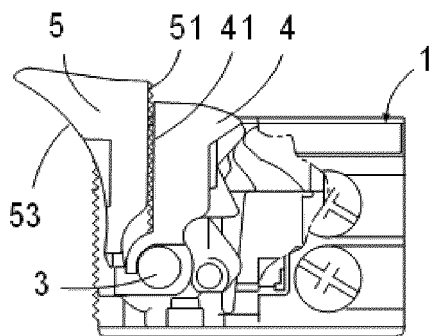
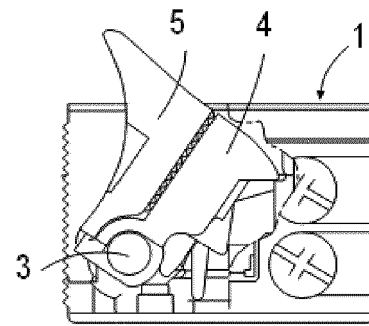
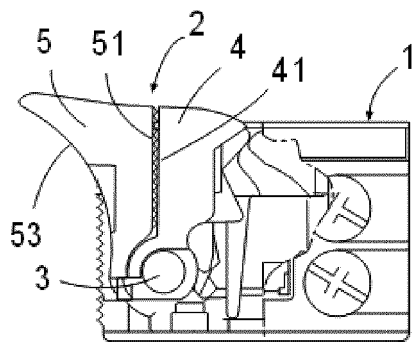
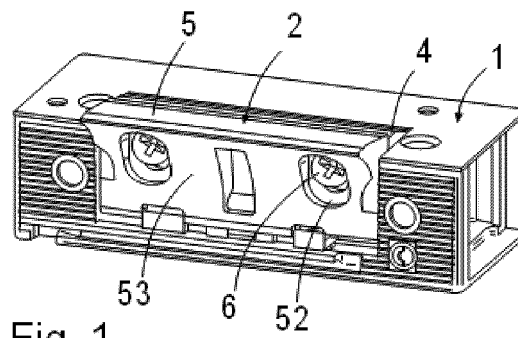
[0023] Having sufficiently described the nature of the invention, in addition to a preferred exemplary embodiment, it is hereby stated for the relevant purposes that the materials, shape, size and layout of the described elements may be modified, provided that it does not imply altering the essential features of the invention claimed below.

## Claims

1. An electric strike for panic bars applicable in emergency exit doors, comprising a case (1) housing an electromechanical mechanism for blocking and unblocking a swivelling latch (2) assembled in the case by means of a swivelling shaft (3); **characterised in that** the latch (2) comprises a body (4) bearing the shaft (3), provided with a front surface (41), and a latch front portion (5) provided with a rear surface (51) facing the front surface (41) of the body (4) and adjustable in height with respect to said body (4) of the latch (2); said latch front portion (5) comprises: vertically elongated openings (52) for height adjust-

ment with respect to screws (6) for the front tightening and fixing of said front portion (5) to the body (4), and a curved front surface (53) having a generatrix parallel to the swivelling shaft (3) of the latch (2), suitable for receiving a panic bar once the position of said front portion (5) is height adjusted with respect to the body (4) of the latch.

2. The strike according to claim 1, **characterised in that** openings (52) for assembling the screws (6) for the fixing of the front portion (5) have vertically an elongation suitably sized to allow moving and adjusting the height of the front portion of the latch by less than 5 mm, and preferably less than 3.5 mm.
3. The strike according to the claim 1, **characterised in that** the front surface (41) of the body (4) and the rear surface (51) of the front portion (5) of the latch (2) comprise respective groups of complementary protrusions for coupling the body (4) and the front portion (5) of the latch (2) in different positions height adjusted with respect to the body (4) thereof.





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Application Number

EP 21 38 3236

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The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>30 June 2022</b>	Examiner <b>Goddard, Claudia</b>
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	

# **ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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