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(71) Applicant: **DT-Vyhybkárna a strojírna, a.s.**
797 11 Prostejov (CZ)

(72) Inventor: **Bayer, Petr**
798 14 Olsany u Prostejova (CZ)

(74) Representative: **Holasova, Hana**
Krizova 4
CZ-603 00 Brno (CZ)

(54) Creeping device of movable frog

(57) Creeping device of the movable toe of frogs consists of the carriage (4) connected via the tenon (5) with the movable toe (2) of the frog (12) and pushed by a spring (6) with the wheels (41) to the cam route (3) on the bottom side of the board (9) detachably connected from bottom to wing rails (1).

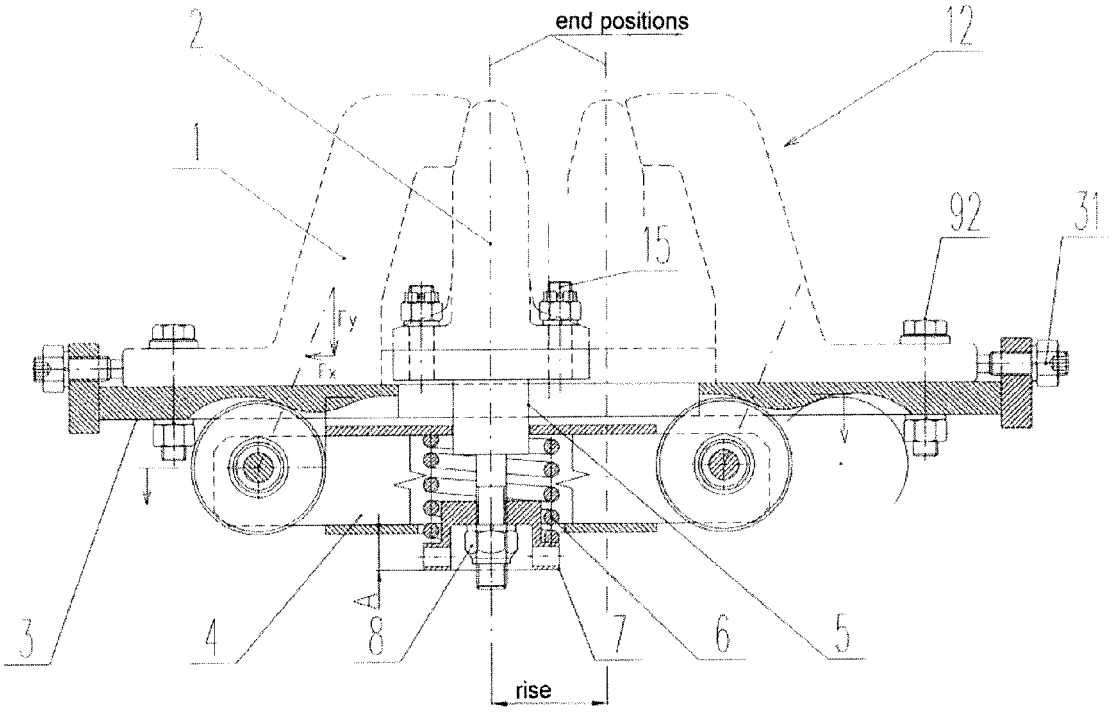

Fig. 1

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Description

Technical Field

[0001] The technical solution concerns the creeping device of the movable frog toe in its end positions.

Contemporary State of the Art

[0002] Up to now, the mechanical vertical and horizontal creeping of the movable frog toe has not been solved. There is known a vertical creeping of the movable toe using a hydraulic device and its disadvantage including the power source necessity. More, another device must be used for horizontal creeping of the movable frogs toe. For this purpose there are used the spring creeping chairs originally designed for creeping the tongues of switches. The device creeps the movable toe of the switches in one direction only and there is also another disadvantage, when during the proper transfer of the movable tongue of the switch, the resistance power must exceed the proper functional creeping power.

Technical Solution Base

[0003] The task of the technical solution is to create a creeping device that is as simple as possible, pushing the movable frog toe in vertical and horizontal direction and allowing pressure regulation. This can be reached to a significant extent by the creeping device of the movable frogs toe according to the technical solution based mainly on the fact that it consists of a carriage connected via a tenon with the movable frog toe and pushed by a spring with its wheels to the cam route on the bottom side of the board, fixed detachably from below to the wing rails.

[0004] In consideration of the adherence pressure regulation acting on the carriage in the direction of the cam route it is advantageous for the spring to be slipped on the tenon, with one end falling back on the carriage and the other end falling back on the adjustment nut, secured by another nut.

[0005] In consideration of exact horizontal position setting of the board with the can route it is advantageous for the board to house adjustment screws falling back on the wing rails.

Drawings Explanation

[0006] The technical solution will be explained in detail using a drawing, showing in Fig. 1 the creeping device in cross section and in Fig. 2 the creeping device in partial section with bottom view.

Technical Solution Sample Description

[0007] As it can be seen in Fig. 1, the creeping device consists of the carriage 4, kinematically connected via a tenon 5, which is detachably connected by screws 15 with the movable toe 2 of the frog 12. The carriage 4 is pushed with the wheels 41 to the cam route 3, developed on the bottom side of the board 9 equipped with a hole 91 for passage of the tenon 5. The board 9 is detachably connected from the bottom with screws 92 to the wing rails 1 and the toe 2 of the frog 12 moves between them.

[0008] In horizontal direction, the board 9 is adjustable using adjustment screws 31. The pressure of the wheels 41 of the carriage 4 to the cam route 3 is reached using the spring 6 slipped on the tenon 5 and falling back with one end on the carriage 4 and the other end on the adjustment nut 7 screwed on the tenon 5 and secured with a counter-nut 8.

[0009] The carriage 4 has only two wheels 41, placed on the carriage 4 in bearings 42 slipped on the axes 43.

[0010] The above described creeping device of the toe 2 of the frog 12 is advantageously installed on not-shown switch, next to also not-shown idler.

[0011] When moving the movable toe 2 of the frog 12, the carriage 4 moves on the cam route 3 from one reversal point to another, while in reversal points the wheels 41 of the carriage 4 fit - as it can be seen in Fig. 1 - the ascending part of the cam route 3, which distributes the power of the spring 6 to horizontal part Fx and vertical part Fy, creeping the toe 2 of the frog 12 in horizontal and vertical direction to the appropriate wing rail 1.

Claims

1. Creeping device of the movable toe of frogs, **characterised by** the fact that it consists of the carriage (4) connected via the tenon (5) with the movable toe (2) of the frog (12) and pushed by a spring (6) with the wheels (41) to the cam route (3) on the bottom side of the board (9) detachably connected from bottom to wing rails (1).

2. Creeping device according to claim 1, **characterised by** the fact that the spring (6) is slipped on the tenon (5) and it is falling cack on the carriage (4) with one end and falling back on adjustment nut (7) secured by another nut (8) with the other end.

3. Creeping device according to claim 1 or 1 and 2, **characterised by** the fact that the board (9) houses two adjustment screws (31) falling back on the wing rails (1).

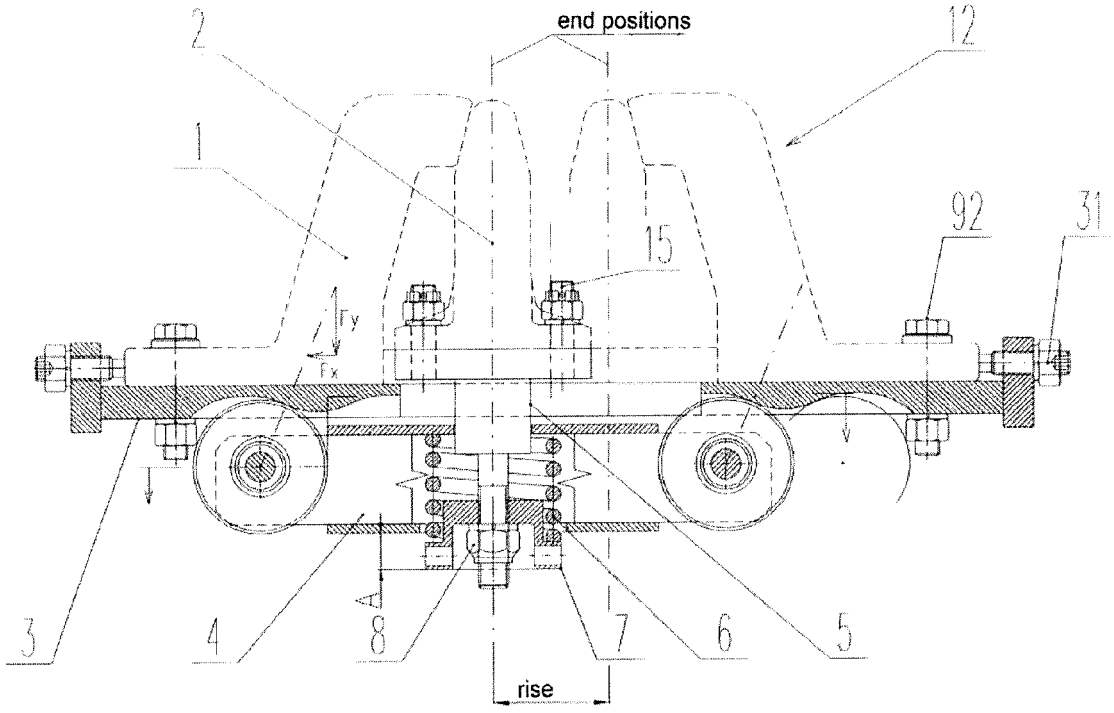

Fig. 1

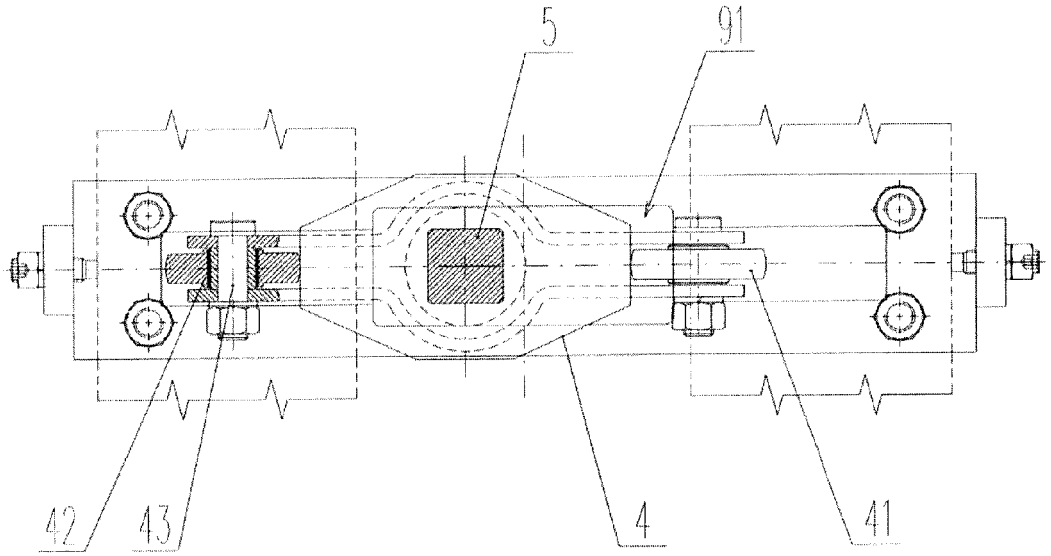

Fig. 2