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(54) Height-adjustable footrest

(57) A footrest consisting of a treading plate (1) supported on a frame. The frame consists of two semi-circular plates (2), the diameter of which rests on the floor.

The height of the footrest may be adjusted by moving the treading plate between a number of semi-circular (3) grooves in the gables of the frame.

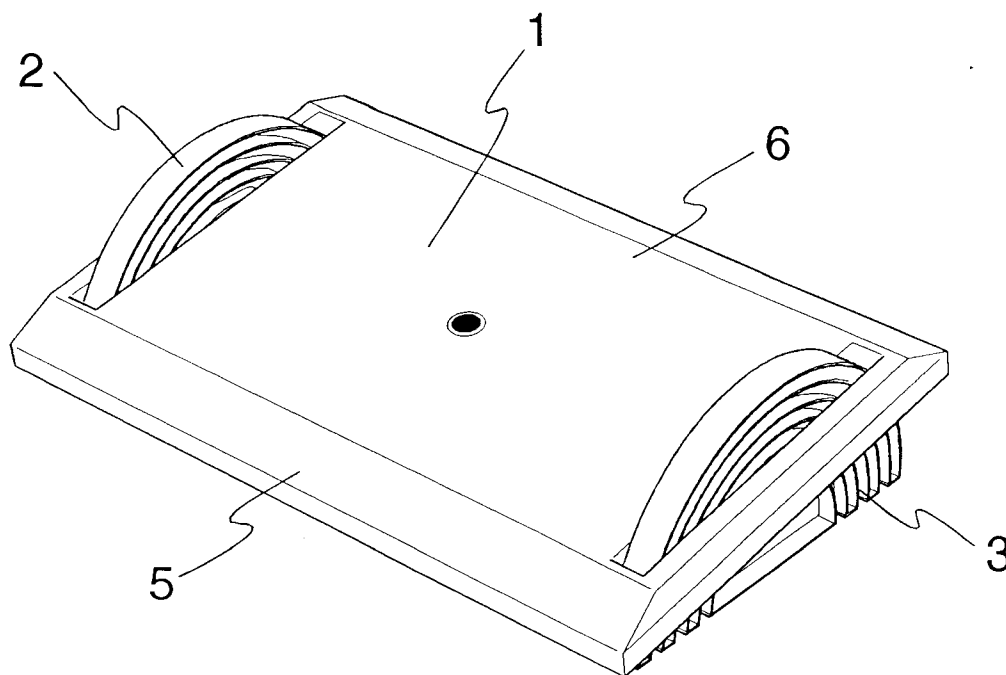


Fig. 1

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Description

The invention relates to a footrest, in which a treading plate supported by a frame may be adjusted to various heights and at the same time be angled by varying the pressure of the feet on the plate.

Footrests adjustable to different heights, e.g. by means of threaded legs or shafts that may be placed in different holes in the frame, are known. It is also known that footrests exist that have a treading plate whose angle relative to the floor changes when the position of the feet changes.

Most of the embodiments of the known footrests in which the treading plate may change its angle relative to the floor have no possibility for regulating the height relative to the floor beyond such height regulation resulting from the angling of the plate, cfr. for instance DK 148,463 B and DE 4304531 A1. In a few cases, limited possibilities are provided for height regulation, for instance by turning the treading plate over in relation to the frame.

The footrest according to the invention is provided with a new type of height regulation allowing the choice of a number of different heights relative to the floor. The heights are chosen by placing the plate in a number of semi-circular grooves in the gables or end walls of the frame. The treading plate may, for all heights, be angled in relation to the floor.

The invention will be described in more detail in the following with reference to the drawings, in which

Figure 1 shows a footrest according to the invention,

Figure 2 shows the treading plate,

Figure 3 shows two different embodiments of the gables in the frame,

Figures 4, 5 and 6 show the footrest adjusted to 3 different heights,

Figure 7 shows another embodiment of the plate, and

Figure 8 shows another embodiment of the frame for use with the plate according to Fig. 7,

The footrest is made from a plate (1) having two rectangular apertures and supported on two gables (2) which are in the form of semi-circular plates, the diameter of which rests on the floor. Arcuate grooves (3) having varying diameters are provided in the surfaces of the gables. In each of the two apertures of the plate there are provided four pins or projections (4). The two gables are arranged in the apertures of the plate by pivoting a groove about the pins in the aperture. Figure 4 shows the plate arranged in one of the grooves in a gable. Figure 5 and Figure 6 show how the other grooves are used to locate the plate at other heights relative to the floor.

When the gables have been arranged in the apertures of the plate, the angle of the plate relative to the floor is altered by means of pressure of the feet on the

foremost portion (5) or the rearmost portion (6) of the plate.

In another embodiment, the aperture in the treading plate may be avoided, the pins being arranged at each end of the plate as shown in Figure 7. In this embodiment, the frame is constituted by two gables being held together below the trading plate by means of one or more transverse braces or struts. This embodiment is shown in Figure 8.

Claims

1. A footrest which is adjustable with regard to height and the angle thereof in relation to the floor, comprising a frame constituted by two gables (2) arranged on the floor and a treading plate (1) that may be regulated relative to the frame, characterized in that the treading plate at each end is provided with at least two projections or pins each arranged on a respective side of a longitudinal centre line of the plate and being, at each end thereof, engagable with and slidable along tracks (3) in the gables at different heights relative to the floor, and that the tracks are constructed such that the distance from the floor is largest at the middle of the gable, so that the angle of the treading surface relative to the floor may be altered by pressure by the feet on the foremost or rearmost portion of the plate.
2. A footrest according to claim 1, characterized in that the gables have the form of semi-circles (8).
3. A footrest according to claim 1, characterized in that the gables have the form of triangles (9).
4. A footrest according to claim 1, characterized in that the treading plate is provided with two rectangular apertures (7), each having at least two projections or pins (4) that may slide in the tracks of the gables.
5. A footrest according to claim 1, characterized in that the at least two pins (10) that are able to slide in the tracks of the gables are arranged on the end surfaces of the treading plate, and that the two gables are held together by one or more transverse braces or struts.

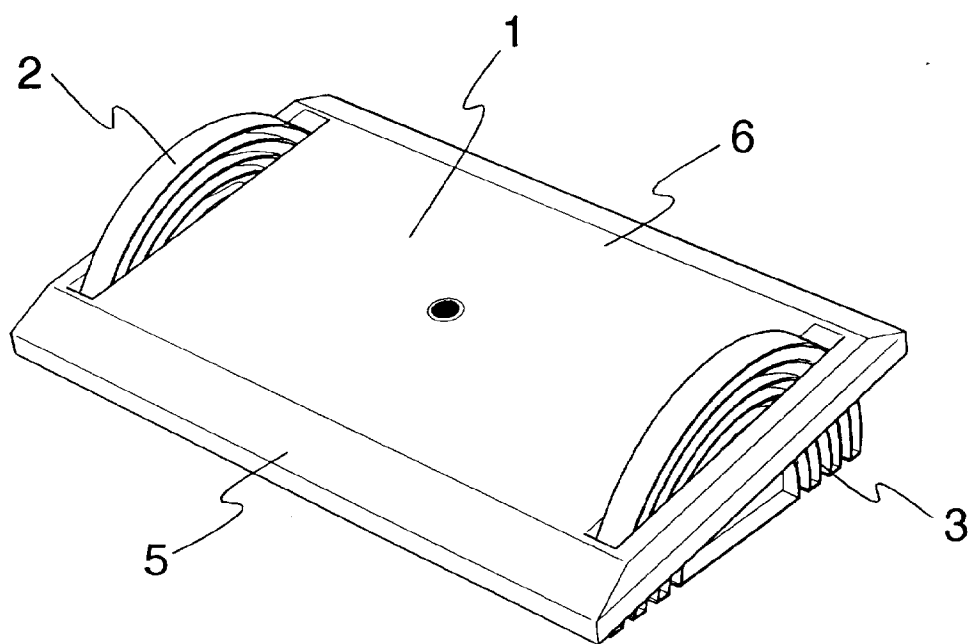


Fig. 1

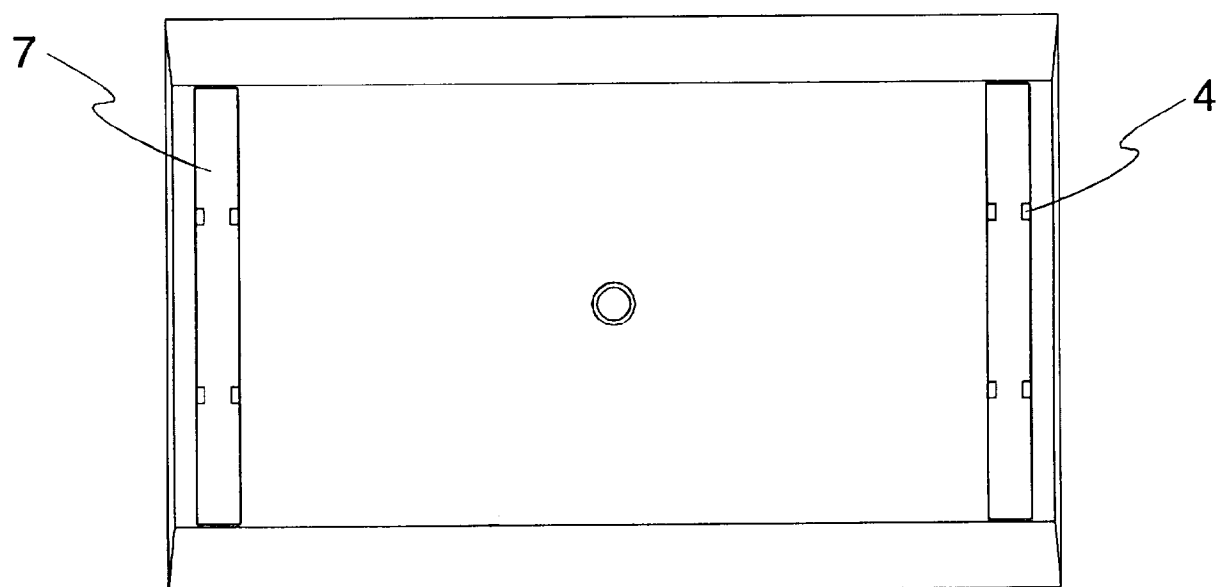


Fig. 2

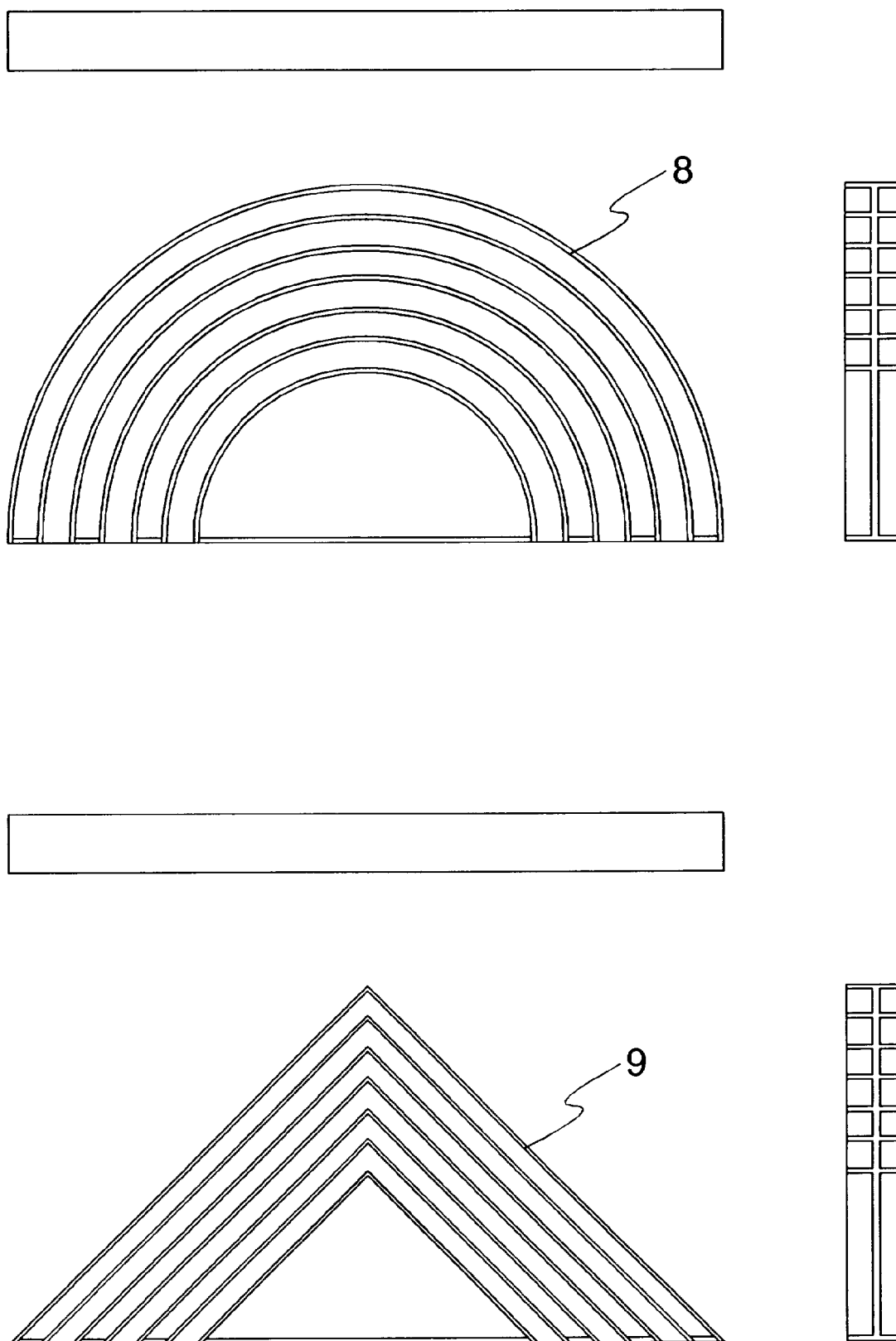


Fig. 3

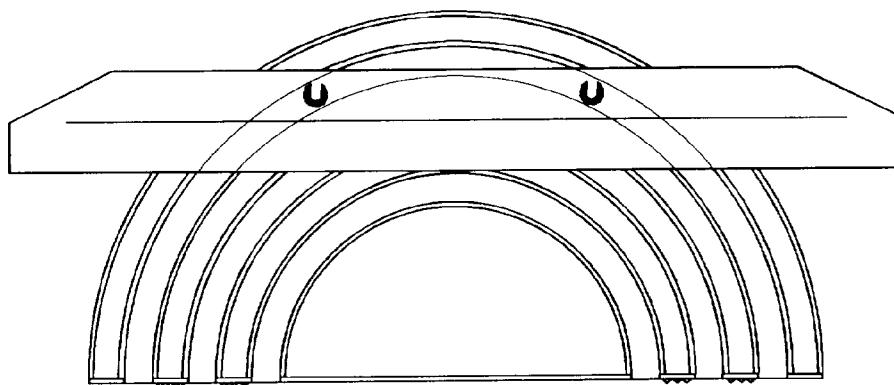


Fig. 4

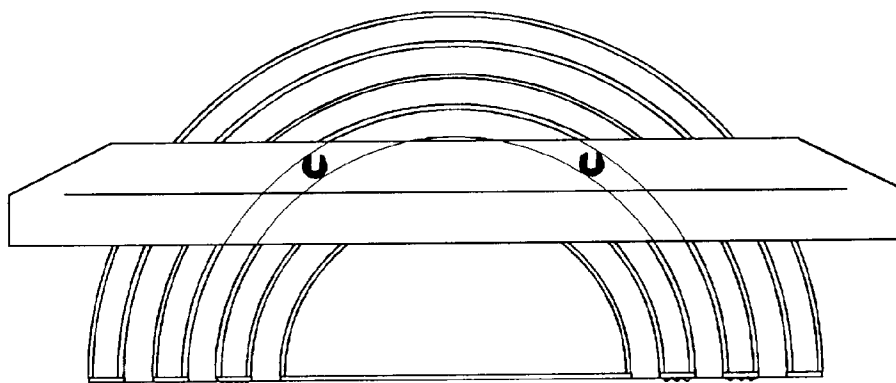


Fig. 5

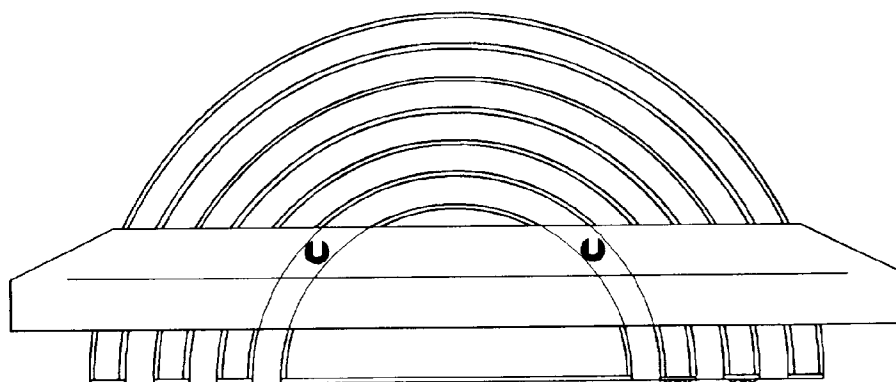


Fig. 6

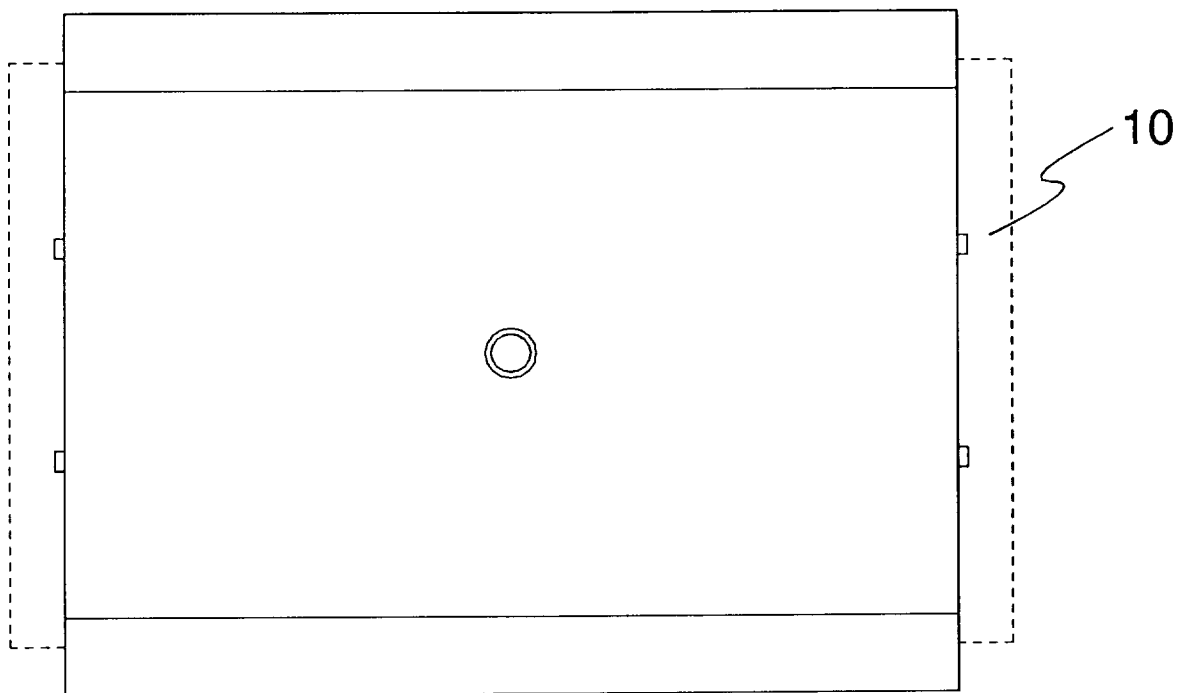


Fig. 7

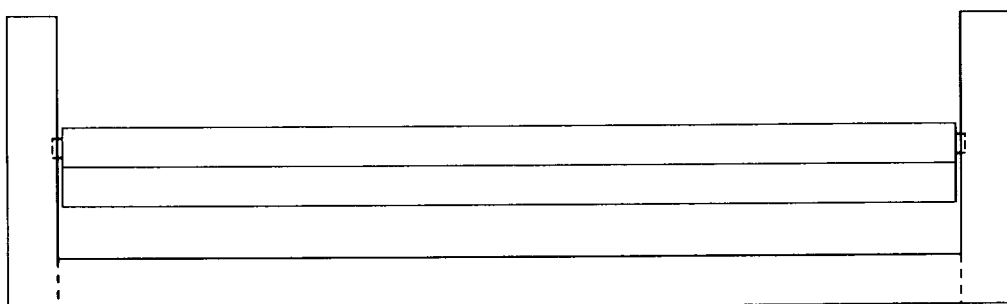


Fig. 8