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(54) Door frame

(57) Door frame having a groove for door and for fixing hinges, whereby additionally the frame has a ridge adjacent to the axis of the hinge along the whole length of the frame. The dimension of the ridge is suitable to accommodate the axis of the door hinge between the ridge and the groove of the door frame, the height of the ridge is at least equal to the height of the part of the door hinge protruding out of the door frame surface.

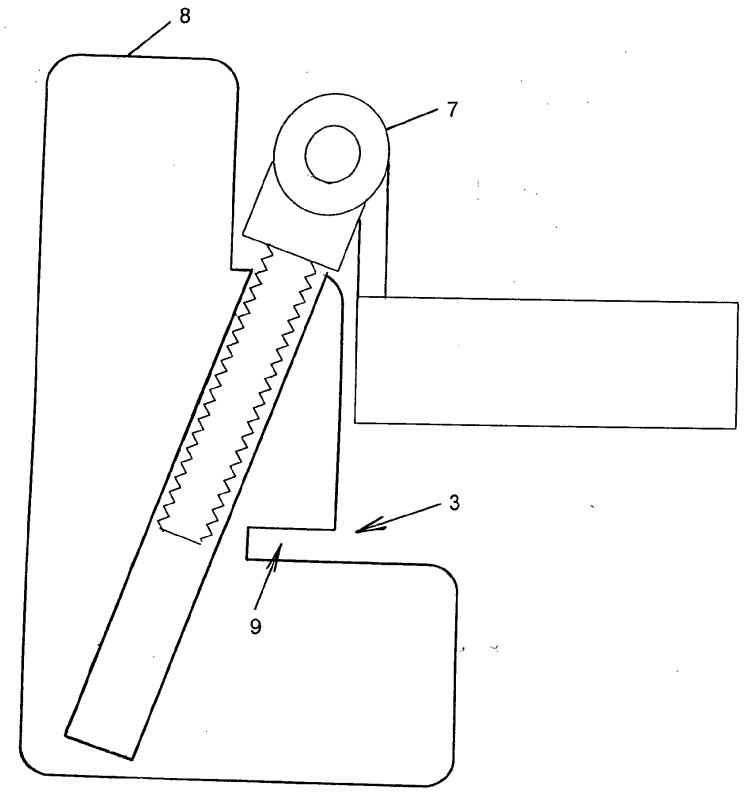

FIG 4

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Description

Field of technology

[0001] This invention is related to the field of construction, and more specifically, it involves a door frame profile.

Prior art

[0002] JP 2007009677 discloses a door frame which guarantees the safety of people passing the door opening or the safety of goods being transported through it. For this purpose, the thickness of the door frame has been designed in a way that it is the thickest above the door leaf and it decreases towards the shorter sides of the frame or towards both lateral surfaces of the door opening.

[0003] From the prior art is known a rectangular door frame with a groove for the door leaf on one of the wider sides. On one of the vertical parts of the door frame, the door hinges are fastened to this groove, whereas the hinge axle part protrudes from the frame surface due to the common hinge construction.

[0004] Door frames are delivered in parts or as assembled in the factory, often as a whole set, i.e. assembled frames, fastened hinges, and a door leaf. In case of pallet delivery of several assembled sets, each set has to be covered with protective material, the thickness of which has to exceed the height of the hinge axle part protruding from the frame surface. The pallet with sets of frames of this construction type includes a significant amount of protective material covering each frame (usually different types of polymeric foams), which limits the number of frames fitting into one pallet. Door frame profile of the present invention provides a solution for this drawback known in the prior art.

[0005] A significant transportation advantage has been achieved as the frame of the invented profile takes up less space on a pallet than an ordinary frame with protruding hinges. The frames of this construction enable a more economical transportation of the products and decrease the possible risks of damaging the products during transportation and installation.

The summary of the invention

[0006] The aim of the current invention is to provide a door frame with a groove for the door and for fastening the hinges, plus the frame has an elevation adjacent to the hinge axle extending the full frame length. The height of the elevation is appropriate for the door hinge axle to be fitted between the elevation and the groove of the door frame; whereas the height of the elevation is at least equal to the height of the part protruding from the door frame.

List of drawings

[0007] Preferred implementation of the invention has been described referring to the drawings attached:

FIG 1 is the front view of the complete door frame known from the prior art;
FIG 2 is the door frame profile known from the prior art;
FIG 3 is the door frame profile of the present invention;
FIG 4 is the door frame profile of the present invention with the preferred implementation;
FIG 5 is the profile of the alternative variant of the door frame of the present invention.

Example of the invention implementation

[0008] The door frame includes vertical posts 1, which are connected with the upper horizontal part 2. Posts 1 and the horizontal part 2 have the same profile as in the common constructions and they have a groove 3 (see Figure 2) for the door leaf. The lower part 4 usually has a cross-section different from the posts 1 and the horizontal part 2, and it is not the object of the current invention. Besides, the lower part of the frame 4 is very often omitted for the sake of convenience. The objective of the door frame is to fasten the door into the door opening. The door frame is fastened into the door opening in accordance with the accepted technical standards. The door frame supports the door and the door can usually be turned with two or three hinges 5 that are fastened to one vertical post 1. The door frame known from the technical standard has the surface of shorter side of the door leaf sided frame (see the drawing Fig 2) on the same level with the door leaf surface, and it can also be lower than the door leaf in case of rebated doors. In case of a door frame of the current invention, the surface of shorter side of the door leaf sided frame 6 partly extends further than the door leaf surface. The frame has an elevation 8 adjacent to the hinge 5 axle 7 extending the full frame length (see the drawings Fig 2 - Fig 5). The size of the elevation 8 is appropriate for the door hinge axle 7 to be fitted between the elevation 8 and the groove of the door frame 3; whereas the height of the elevation is at least equal to the height of the part protruding from the door frame. The width of the elevation 8 is in accordance with the dimensions of the hinge 5 axle 7, so that the hinge 5 can be installed on the door frame according to the requirements. In case of preferred implementation, the door frame has groove 9 for the door gasket. The alternative variant may be missing groove 9. In case of preferred implementation, door frame profile has rounded external corners, but alternatively they can be sharp, phased, or of other suitable shape.

Claims

1. Door frame comprising vertical posts (1) which are connected with the upper horizontal part (2) and the hinges are fastened to one vertical post (1), **characterized in that** the frame has an elevation (8) adjacent to the hinge (5) axle (7) extending the full frame length.

2. Door frame according to claim 1, **characterized in that** the height of the elevation (8) is at least equal to the height of the hinge (5) axle (7) protruding from the surface of the shorter side of the door leaf sided frame (6).

3. Door frame according to claim 1, **characterized in that** the elevation width (8) has been chosen to guarantee the proper installment of the hinge to the door frame.

4. Door frame according to claim 1, **characterized in that** the external corners of the door frame profile are one of the following type: rounded, sharp, phased.

5. Door frame according to claim 1, **characterized in that** the door leaf groove (3) has a slit (9) for the door gasket.

6. Door frame according to any one of the preceding claims, **characterized in that** the external surface is one of the following types: stained, lacquered, painted, wood veneered, laminate veneered.

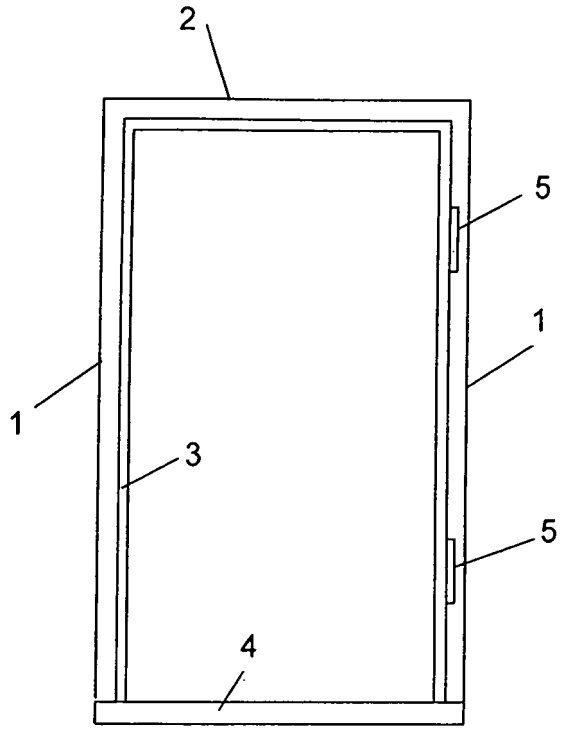

FIG 1

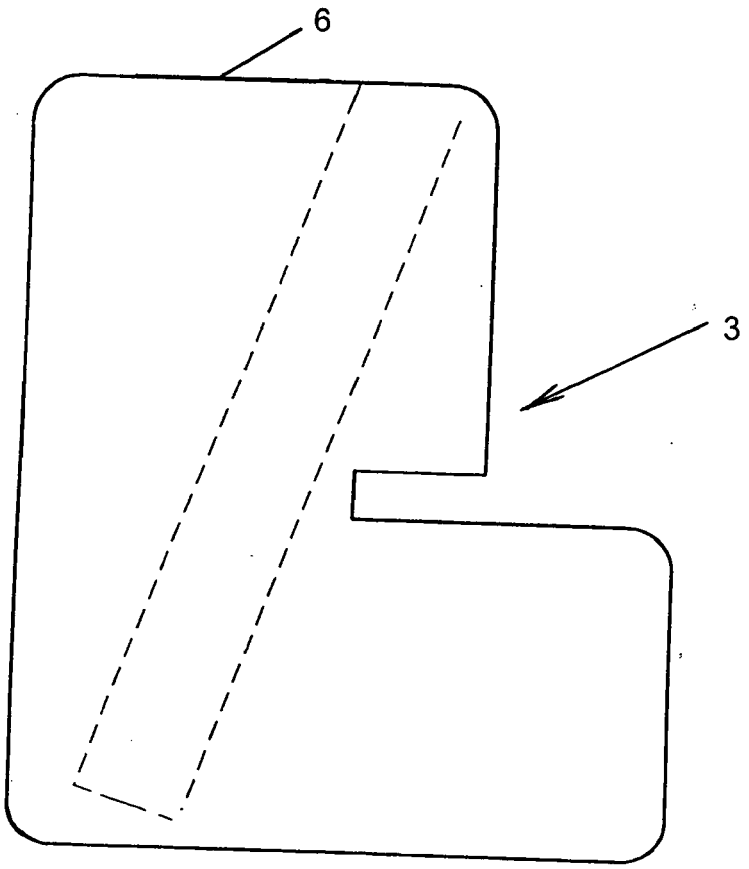

FIG 2

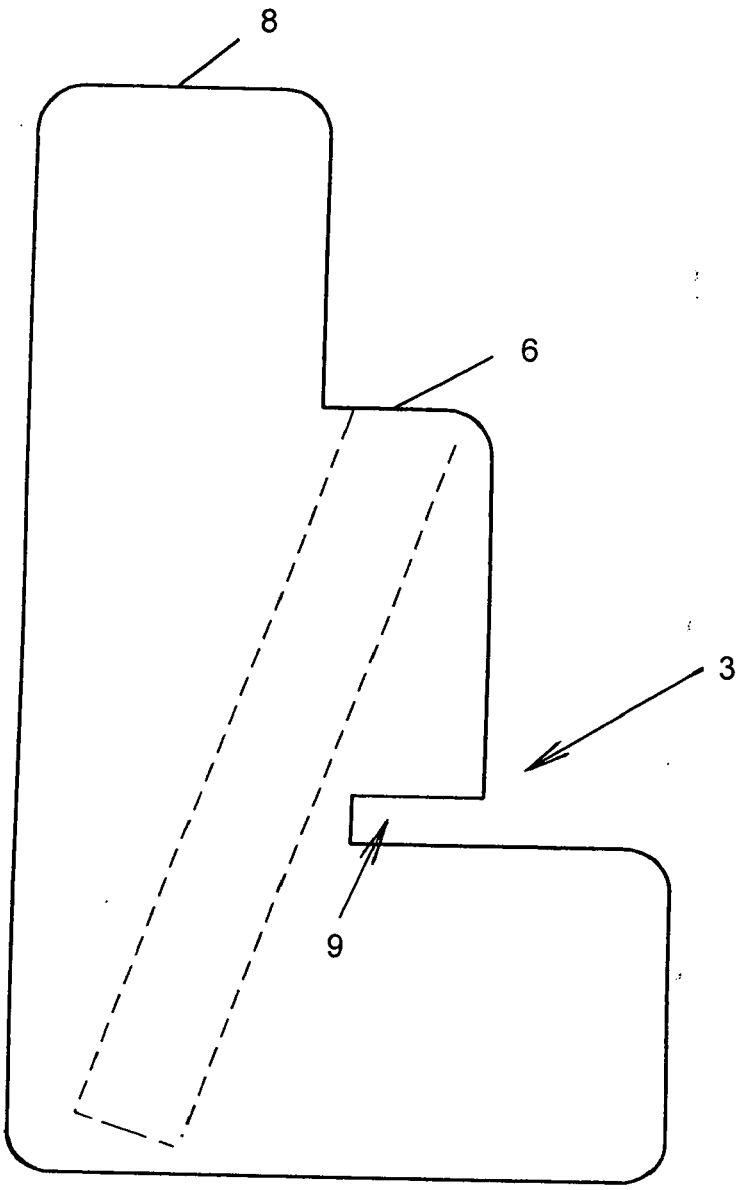

FIG 3

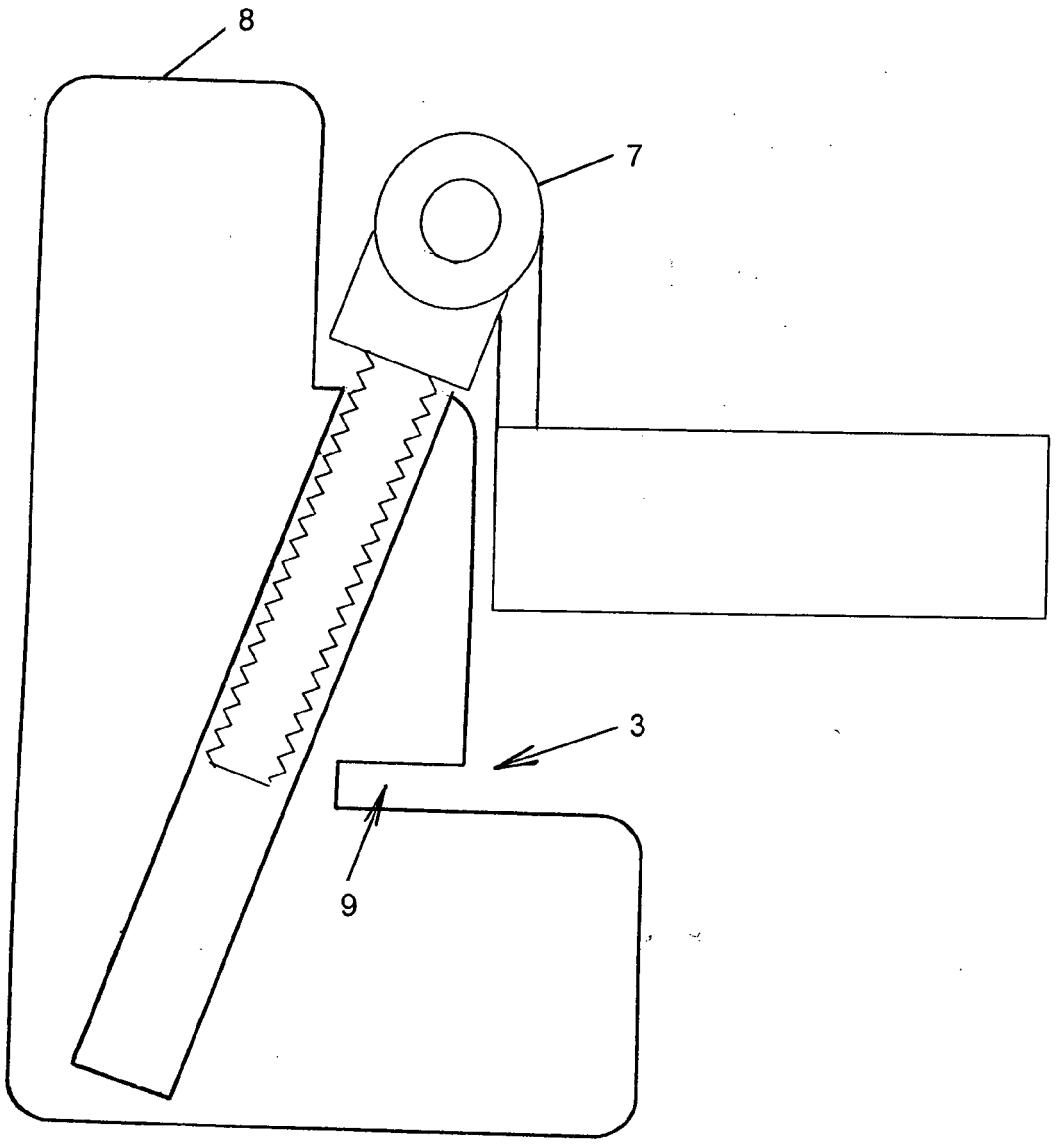

FIG 4

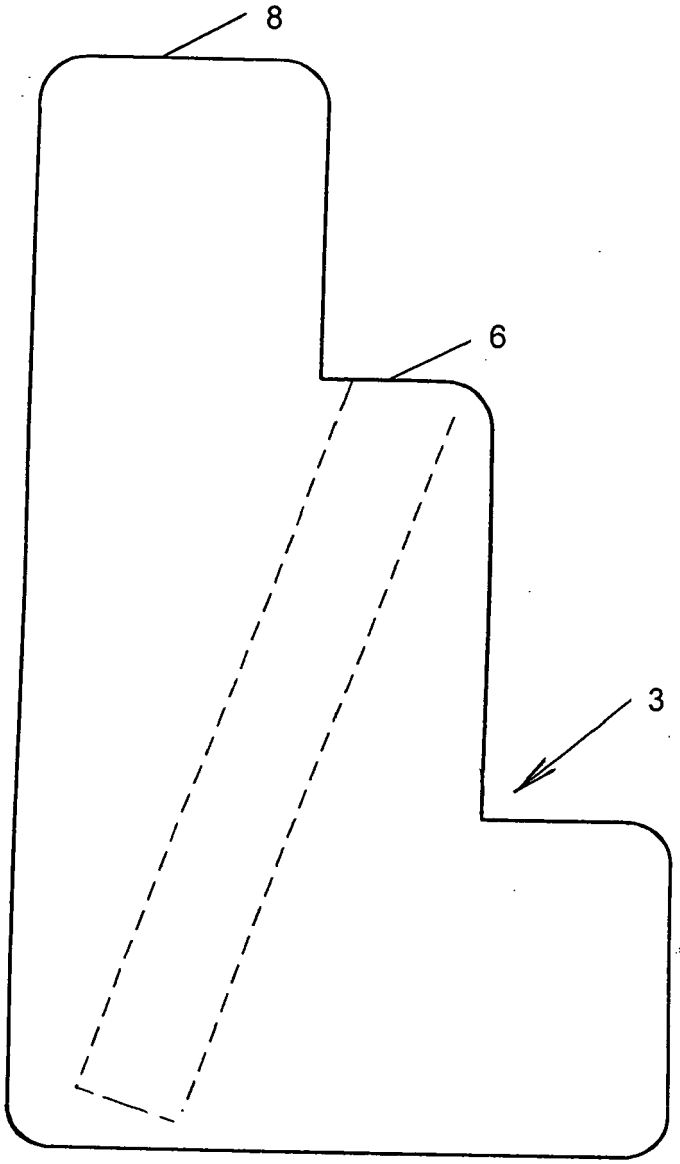

FIG 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2007009677 B **[0002]**