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(54) Door stop.

(57) Door stop of the type of those consisting of a cylindrical o prismatic block designed for firm fixture to the floor, provided with a flat oblong laminar plate, swivelling on the block, and fitted with a second block at its free end, where the distance between the first and second blocks is significantly grater than the trickness of a door leaf. Once the first block is fixed to the floor to perform the normal function of door swing limiting stop, the flat laminar plate can rotate around the first block, passing under the door leaf when this is located next to the first block, whereby the second block is situated on the other side of the door leaf and perfoms the function of door check and stops it from closing. The first block may be fitted with a 90° arched circular sector base plate, with the axis of this block lying at its apex, being this block surrounded outside the plate by a flat circular portion, with a radius slightly larger than that of the plug, provided with several teeth pointing down to assist in the anchoring of the foregoing base plate, with this circular portion occupying a slightly raised position in relation to the base plate in order to let the laminar plate pass between it and the block.

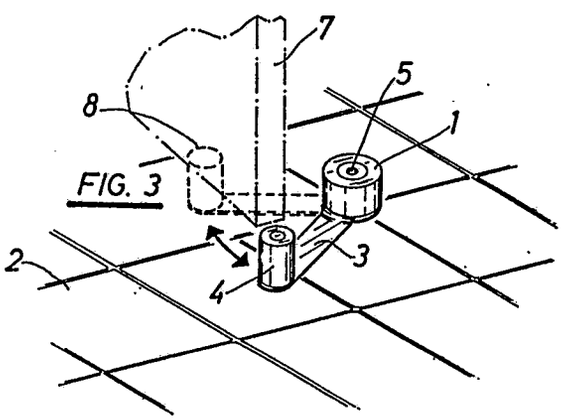

FIG. 3

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Description

"DOOR STOP"

This invention refers to a door stop of the swing limiting type.

Door stop blockS that also perform a check function by means of a spring clamp mechanism are already very familiar.

In some cases these familiar stops have the drawback that the stop function cannot be made independent of the check function. In other cases the check clamp offers considerable resistance to opening and closing, so the action is very stiff, at least until the clamp acquires a certain elasticity. However, with continual use this elasticity finally becomes excessive and the check function is then practically unused.

The door stop referred to in this invention entirely eliminates all the drawbacks of the familiar ones, and its basic distinguishing feature is that, being of the type of those composed of a cylindrical or prismatic block intended for firm fixture to the floor, it is fitted with a thin flat oblong plate that swivels on the block and has a second block at its free end, where the distance between the first and second blocks is noticeably greater than the thickness of the door leaf, with the stop being designed in such a way that, once the first block is fixed to the floor to perform the normal function of door swing limiting stop, the above-mentioned flat laminar plate can be turned around the first block, passing under the door leaf when this is positioned next to the first block, whereby the second block is situated on the other side of the door leaf and performs the function of door check and stops it from closing.

On the other hand, it is very common for the floor in homes, offices, shops and so forth to be covered with carpeting or some other similarly soft or irregular material, whereby this laminar swivel plate rubs against the floor, which makes it hard for it to turn to perform its door swing limitation and check functions.

This rubbing of the laminar plate as it moves over the carpeting or the like produces unwanted wear in it.

In an alternative form of construction the door stop in question in this invention entirely eliminates the afore-mentioned drawbacks for carpeted floors, and its basic distinguishing feature is that the first block is fitted with a 90° arched circular sector base plate, with the axis of this block at its apex. This block is surrounded outside the plate by a flat circular portion, with a radius slightly larger than that of the plug, provided with various teeth pointing down to assist in the anchoring of the base plate, with this circular portion occupying a slightly raised position in relation to the base plate in order to let the laminar plate pass between it and the block, whilst this base plate is also provided with arched reinforcing ribs, with their centre at the apex of the base plate, on which the laminar plate rests as it slides, and the turn of this plate is limited by the respective steps determined by the difference in height between the base plate and the flat circular portion.

By way of example a selection of the different ways in which the door stop in question in this invention may be constructed are illustrated in the drawings attached.

Fig. 1 is a plan view of the stop in question;

Fig. 2 is a cross-sectional view to II-II of Fig. 1;

Fig. 3 shows a perspective view of the working of the door stop in Figs. 1 and 2; and

Figs. 4, 5 and 6 are respective views, analogous to those in Figs. 1, 2 and 3, of a second way in which the stop referred to in the invention may be implemented.

In Figs. 1, 2 and 3 of these drawing we may see that the door stop in question comprises a cylindrical or prismatic block 1, intended for firm fixture to the floor 2 and fitted with a flat oblong laminar plate 3, swivelling on block 1, and provided with a second block 4 at its free end.

The distance between the first block 1 and second block 4 is noticeably greater than the thickness of a door leaf 7.

When the first block 1 is fixed to the floor 2 with a screw that passes through a centre hole 5, or with a self-adhesive material 6, the afore-mentioned laminar plate 3 can rotate around this block 1, passing under the door leaf 7 when this is situated next to the first block 1. Then, the second block 4 is located on the other side of the door leaf 7, in position 8 illustrated by dash line, performing the function of door check and preventing it from closing.

In the form of arrangement in Figs. 4, 5 and 6 block 1 is fixed firmly at the apex of a base plate 9, of a 90° arched circular sector shape, with this block 1 being surrounded, outside the base plate 9, by a flat circular portion 10, with a radius slightly larger than that of the block 1, provided with various teeth 11 pointing down to assist in the anchoring of the base plate 9, with the circular portion 10 occupying a slightly raised position in relation to the base plate 9 which it is linked to by means of steps 12.

The base plate 9 is provided with arched reinforcing ribs 13, with their centre at the apex of base plate 9, on which the laminar plate 3, swivelling on block 1, rests as it slides, with this turn being limited by the steps 12.

When the block 1 is fixed to the floor, for instance by a screw, the teeth 11 stick into the soft flooring material, such as carpeting, in order to anchor the base plate 9 in the right position in relation to the door 7.

It should be pointed out that whatever does not alter, change or modify the essential features of the door stop described may be subject to variations in detail.

Claims

1 .- Door stop of the type of those consisting

of a cylindrical o prismatic block designed for firm fixture to the floor, characterised in that it is provided with a flat oblong laminar plate, swivelling on the block, and fitted with a second block at its free end, where the distance between the first and second blocks is significantly grater than the thickness of a door leaf, with the stop being designed in such a way that, once the first block is fixed to the floor to perform the normal function of door swing limiting stop, the above-mentioned flat laminar plate can rotate around the first block, passing under the door leaf when this is located next to the first block, whereby the second block is situated on the other side of the door leaf and performs the function of door check and stops it from closing.

2 .- Door stop according to claim 1, characterised in that the above-mentioned first block is fitted with a 90° arched circular sector base plate, with the axis of this block lying at its apex, being this block surrounded outside the plate by a flat circular portion, with a radius slightly larger than that of the plug, provided with several teeth pointing down to assist in the anchoring of the foregoing base plate, with this circular portion occupying a slightly raised position in relation to the base plate in order to let the laminar plate pass between it and the block, whilst this base plate is also provided with arched reinforcing ribs, with their centre at the apex of the base plate, on which the laminar plate, swivelling on the first block, rests as it slides, with the turn of this plate being limited by the respective steps determined by the difference in height between the base plate and the flat circular portion.

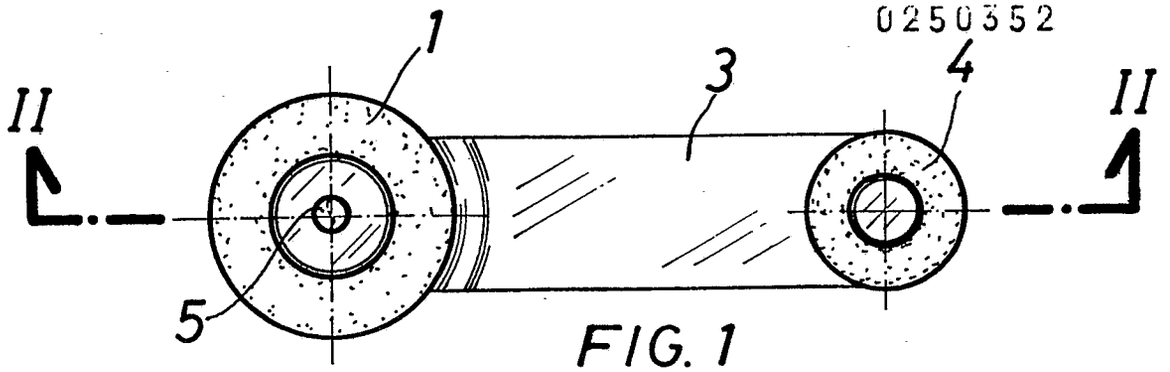

FIG. 1

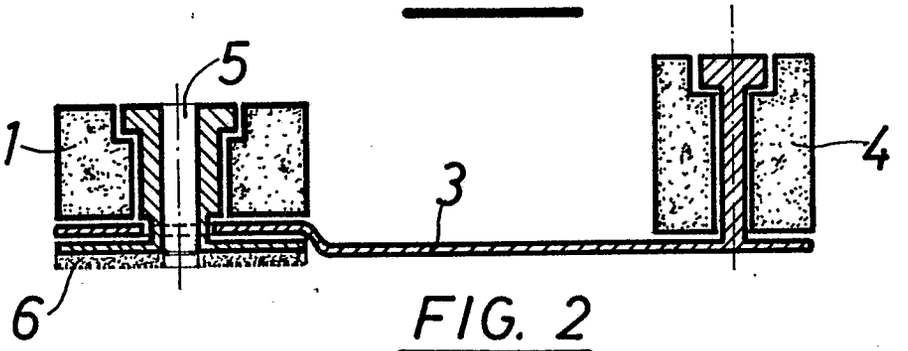

FIG. 2

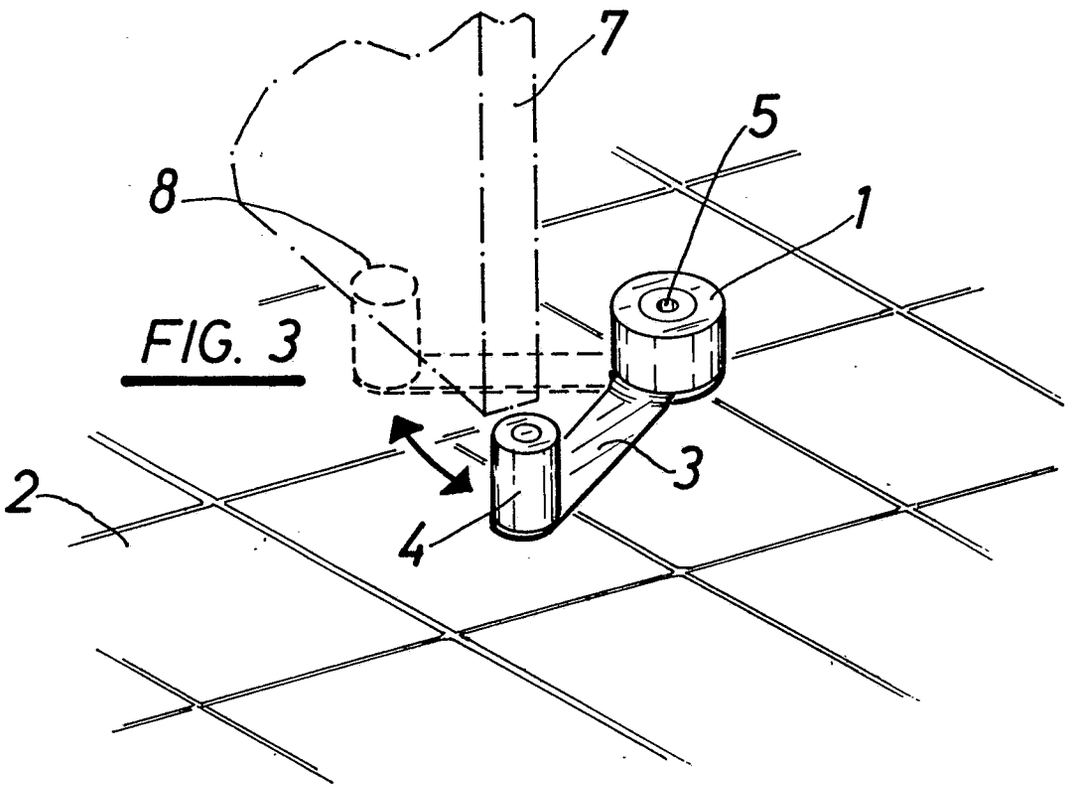

FIG. 3

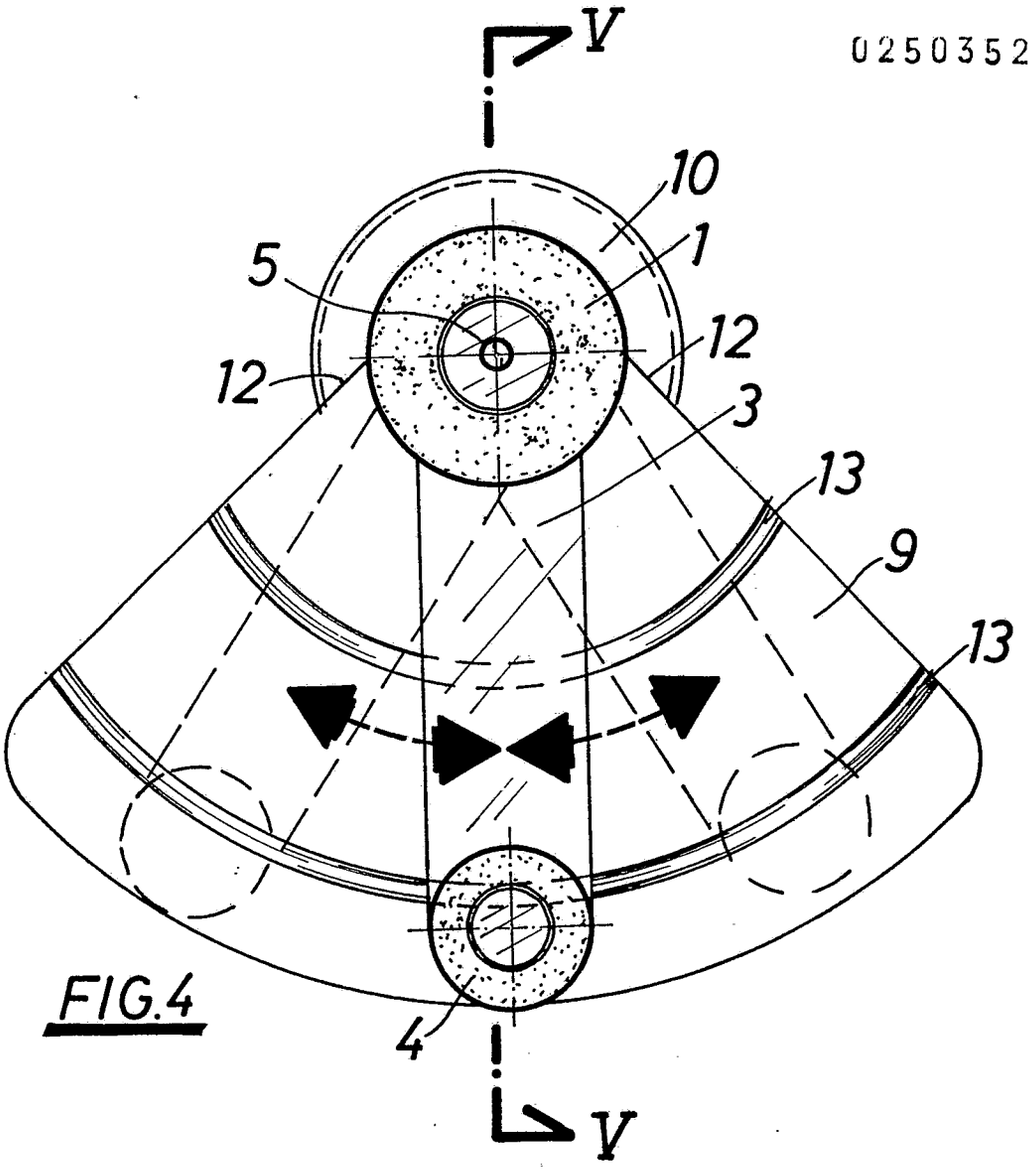

FIG.4

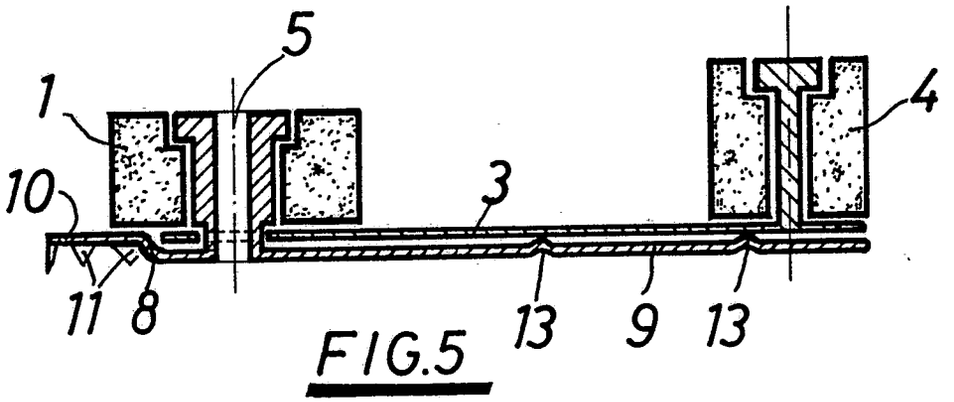

FIG.5

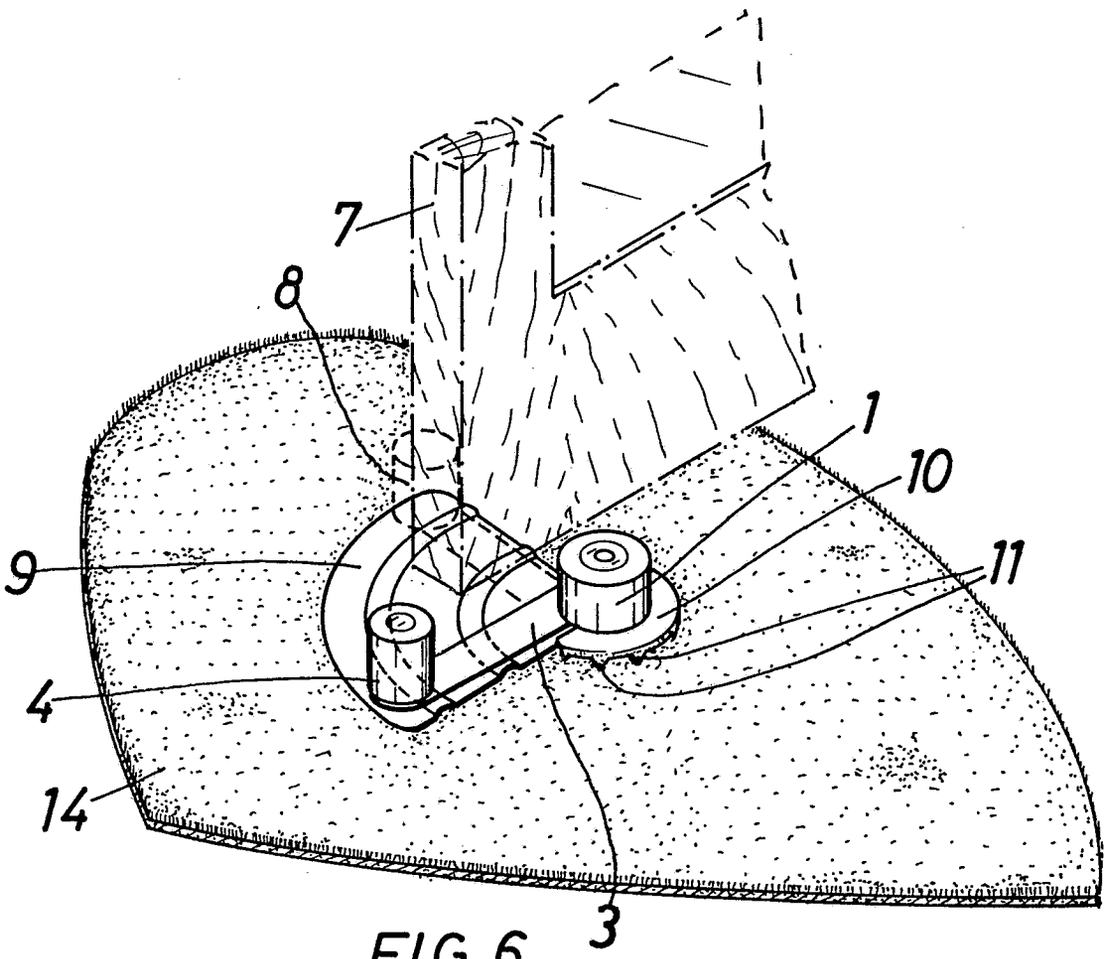

FIG. 6