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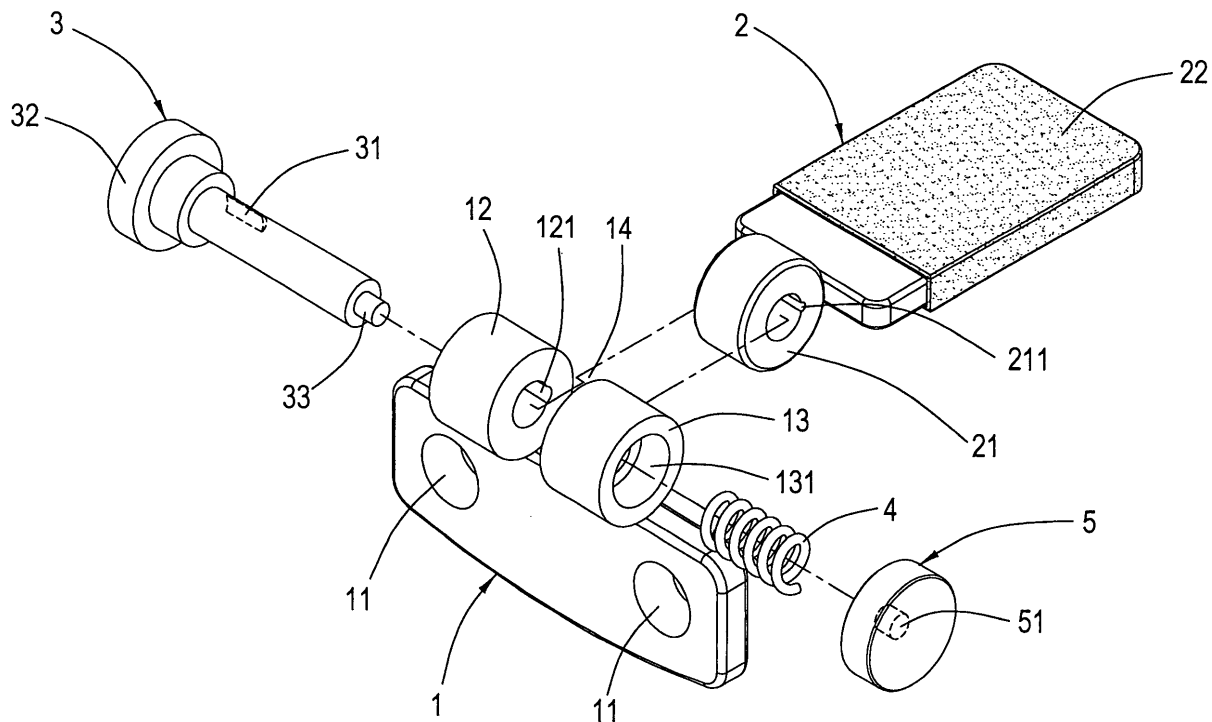
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(54) **Door and window blocking structure**

(57) A door and window blocking structure comprises mainly a fixed seat (1) locked on the edge of the window (50), there settles a first hollow positioning column (12) and a second hollow positioning column (13) on one lateral of said fixed seat (1), and there settles a trench (121) inside the first hollow positioning column (12), and there aparts a spacing (14) between two hollow posi-

tioning columns (12,13) for the allocation of the positioning ring (21) on one lateral of a blocking sheet (2) which penetrates a connecting axis (3) so that the blocking block (31) on one lateral of the connecting axis (3) is allocated within the trench (121) of the first hollow positioning column (12) and the positioning ring (21) so that the blocking sheet (2) is vertically connected with the fixed seat (1).



**FIG. 2**

**Description****BACKGROUND OF THE INVENTION****1. Field of the invention**

[0001] This invention relates to a door and window blocking structure, especially refer to a door and window blocking structure of which it achieves the door and window opening and blocking through the turnover positioning of the blocking sheet.

**2. Description of the prior art**

[0002] Please refer to fig. 1A, 1B, which is the preferred embodiment figure of the conventional door and window blocking structure; the conventional window structure comprises mainly a fixed sheet locked and fixed on the edge of the window, and it penetrates a blocking rod 20 on the fixed sheet 10 wherein there settles the screw; there capped and settles a rubber cap 30 on the front end of the blocking rod 20 and there settles a cylinder body 40; if it requires to close the window 50 to block, it should turn the cylinder body 40 on the rear end of the blocking rod 20 clockwise so that the rod 20 moves ahead and further achieve the effect of blocking ; otherwise, if we want to open the window 50, we should turn the cylinder body counterclockwise so that the blocking rod 20 moves backwardly to successfully open the window 50.

[0003] Although it could achieve the effect of the window through the above-mentioned way; however, it is not only time-consuming but also inconvenient for operation by utilizing the way of turning; in addition, if the window appears opening, the rod is protrude extending outside the edge of the window which also cause dangerous toward the safety of the pedestrian on walking.

[0004] Thus it is obviously that the above-mentioned conventional object still has many drawbacks which requires to be bettered.

[0005] The inventor of this invention, due to the conventional drawback derived for the above-mentioned conventional one, think to better them for many years and finally successfully invented this.

**SUMMARY OF THE INVENTION**

[0006] The object of this invention is to provide a door and window structure of which it utilize the principle of mutual cooperation of the trench of the positioning ring and the hollow positioning column and the blocking block of the connecting axis to fasten the blocking sheet and the fixed seat vertically to achieve the better effects.

[0007] Another object of this invention is to provide a door and window structure of which when the window is open, the sheet will not protrude outwardly on the edge of the window to enhance the safety of pedestrian on walking.

[0008] Still another object of the invention is to provide a door and window blocking structure with simple structure, easy fabrication, convenient operation.

[0009] The door and window blocking structure that could achieve the above-mentioned object of invention comprises a blocking sheet, a fixed seat, a connecting axis, a spring and a cap; wherein one end of said blocking sheet is connecting to a positioning ring, and there settles a trench on said positioning ring; on one lateral of said fixed seat there extends a first and second hollow positioning column and there settles a trench inside said first hollow positioning column and there is a spacing between two hollow positioning column; there settles a blocking block on said connecting axis, and there extends a protrude column on the bottom of the connecting axis; when the positioning ring of the blocking sheet is set in the spacing between two hollow positioning column of the fixed seat, the trench of the positioning ring and the first hollow positioning column appears the status of connection; next to allocate the blocking block of the connecting axis within the trench between the positioning ring and the first hollow column and further blocking the door and the window.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0010] The drawings disclose an illustrative embodiment of the present invention which serves to exemplify the various advantages and objects hereof, and are as follows:

FIG. 1 is the preferred embodiment view of the conventional door and window blocking structure;  
 FIG. 2 is the decomposition view of the door and window blocking structure of this invention;  
 FIG. 3 is the composition figure of the door and window blocking structure of this invention;  
 FIG. 4 A, B are the cross-sectional views of the door and window blocking structure of this invention;  
 FIG 5 A, B are the illustrative views of the door and window blocking structure of this invention;

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

[0011] Please refer to fig. 2 & fig. 3, the window blocking structure provided by this invention comprises mainly:

[0012] A fixed seat 1 wherein there digs a plurality of holes 11 and it extends the first hollow positioning column 12 and the second hollow positioning column 13 on one lateral of the fixed seat 1, and there settles a trench 121 inside the first hollow positioning column 12, there settles a blocking portion 131 inside the inner ring of the second hollow positioning column 13; besides, there aparts a spacing between these two hollow positioning columns 12, 13 which forms an allocation space for the allocation of the positioning ring 21 of the blocking

sheet 2;

**[0013]** A blocking sheet 2, wherein on one lateral of which there extends a positioning ring 21, and there also settles a trench 211 inside the positioning ring 21, and there covers a rubber layer 2 providing for sliding-proof effects as well as avoiding damage on moving the framework of the window; which is to put the positioning ring 21 of the blocking sheet 2 within the allocation space of two hollow positioning column 12, 13 so that the blocking sheet 2 is connecting vertically with the fixed seat 1 such that the positioning ring 21 of the blocking sheet 2 is in connection with the trench 121, 211 of the first hollow positioning column of the fixed seat 1;

**[0014]** A connecting axis 3 wherein there settles a blocking block 31 on one lateral, and there settles the blocking portion 32 on the top of the connecting axis 3, besides, there extends a protrude column 33 on the bottom; which is to penetrate the connecting axis 3 through the two hollow positioning column 12, 13 of the fixed seat 1 and the positioning ring 21 of the blocking sheet 2 so that the blocking block 31 on the connecting axis 3 is allocated within the trench 211 of the positioning ring 21 and the trench 121 of the first hollow positioning column 12 such that the blocking sheet 2 is stably connected with the fixed seat vertically;

**[0015]** A spring 4 which is settled and capped outside the connecting axis wherein one end of the spring 4 there pastes the inner wall of the blocking portion 131 of the second hollow positioning column 13;

**[0016]** A cap 5 which is to settle a concave manger 51 on one lateral so that the concave manger is fixed and connected with the protrude column 33 on the bottom of the connecting axis 3; meanwhile one end of the spring 4 is tightly pasted on one end of the cap 5 to fixed and positioning it tightly of the connecting axis 3.

**[0017]** Please refer to fig. 4A, 4B and Fig. 5A, 5B, which are the illustrative figures of this invention; when normally we want to close the window 50 and blocks it, it requires us to turn off the blocking sheet 2 on the rear end of the window 50; meanwhile the blocking sheet 2 appears connection status with the trench 211 of the positioning ring 21, the blocking block 31 on the connecting rod, however, slides into the trench 211 of the positioning ring 21 due to the moving of the compression force of the spring 4 such that the positioning seat 1 is connecting tightly and vertically with the blocking seat 2 and further blocks the window 50; when the user wants to open the door or the window 50, he needs to push forward a step toward the cap 5, at this time the spring 4 is pushed and compressed and generates a spring (an elastic) force which completely allocates the spring 4 within the blocking portion 131 of the second hollow positioning column 13, meanwhile it brings forward the connecting axis 3 to move ahead to make the blocking block 31 on the connecting axis 3 sliding completely within the trench 121 of the first hollow positioning column 12 so that the positioning ring 21 of the blocking sheet 2 does not blocked by the blocking block 31 which

could flip-flop on the fixed seat 1, when the blocking sheet 2 flips-flop to leave the rear end of the door and the window 50, the door and the window 50 could be opened, thus the blocking sheet 2 could be flip-flop to paste tightly on one lateral of the fixed seat 1 so that the blocking sheet 2 will never protrude outward the edge of the window to make sure the safety of the pedestrian on walking.

**[0018]** The door and window blocking structure provided by this invention has the following advantages in comparison with the conventional technologies:

1. this invention utilizes the flip-flop positioning of the blocking sheet which could easily achieve the effect of door and window blocking to elevate the operation efficiency.

2. this invention utilizes the positioning ring and the trench of the first hollow positioning column and the blocking block of the connecting axis so that the blocking sheet is vertically connected with the fixed seat which enhances its effects of blocking.

3. this invention utilizes the principle when the door and window is open, the blocking sheet could be flip flop and pasted on one lateral of the fixed seat so that the blocking sheet will not drop out of the edge of the window to make sure the safety of the pedestrian on walking.

4. this invention has the advantage of simple structure, easily fabrication in addition to high degree of practicability.

**[0019]** Many changes and modifications in the above described embodiment of the invention can, of course, be carried out without departing from the scope thereof. Accordingly, to promote the progress in science and the useful arts, the invention is disclosed and is intended to be limited only by the scope of the appended claims.

## Claims

1. A door and window blocking structure comprising:

a fixed seat with a first hollow positioning column and a second hollow positioning column extending on one lateral, and a trench settling inside the first hollow positioning column, a blocking portion on the inner ring of the second hollow ring, and an allocation space formed between said two hollow space positioning column for allocation of a positioning ring of a blocking sheet;

a blocking sheet, wherein there extends a positioning ring on one lateral, and there settles a trench inside said positioning ring; to place said positioning ring of said blocking sheet on the allocation space of two hollow positioning column so that there is connection between the

positioning ring of the blocking sheet and the trench of first hollow positioning column of the fixed seat;

a connecting axis, there settles a blocking block on one lateral, and there settles a blocking portion on the top of said connecting axis, and there extends a protrude column on the bottom; to penetrate said connecting axis onto the hollow positioning ring so that the blocking block is allocated within the positioning ring and the trench of the first hollow positioning column to connect said blocking sheet the fixed seat; a spring, which is to envelop itself outside the connecting axis, wherein one end of the spring is pasted on the inner wall of the blocking portion of the second hollow positioning column; a cap, which is tightly connected with the convex column on the bottom of the connecting axis, wherein one end of the spring is pasted tightly on one end of said cap to fix said cap with the connection axis;

2. the door and window blocking structure as mentioned in claim 1, wherein there covers a layer of rubber on the outer layer of said blocking sheet to provide the effect of sliding-proof which also prevents the framework of the door and the window from damage on sliding.

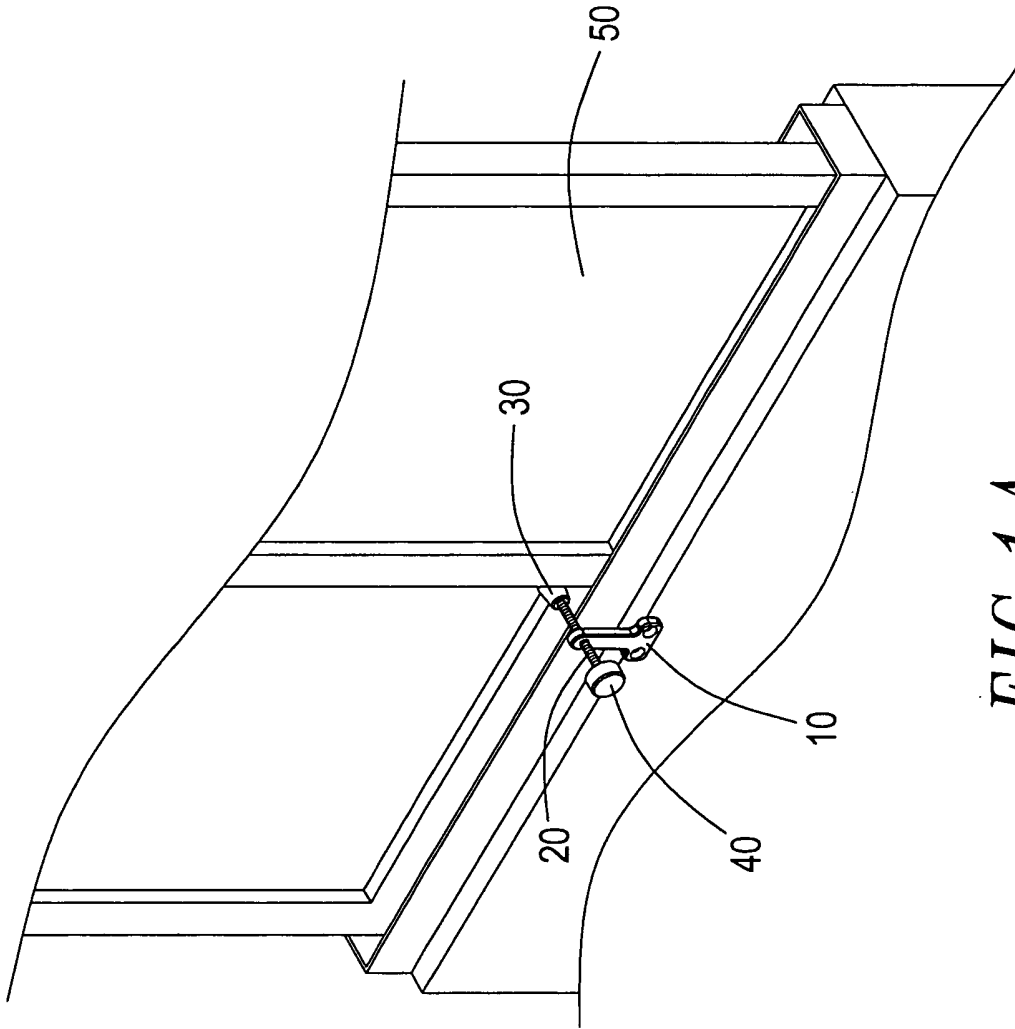
3. the door and window blocking structure as mentioned in claim 1, wherein there settles a plurality of hole on said fixed seat so that it could lock on the edge of the window.

4. the door and window blocking structure as mentioned in claim 1, wherein when the trench of said positioning ring is connecting with the trench of the first hollow positioning column, there is vertical connection between the fixed seat and the blocking sheet.

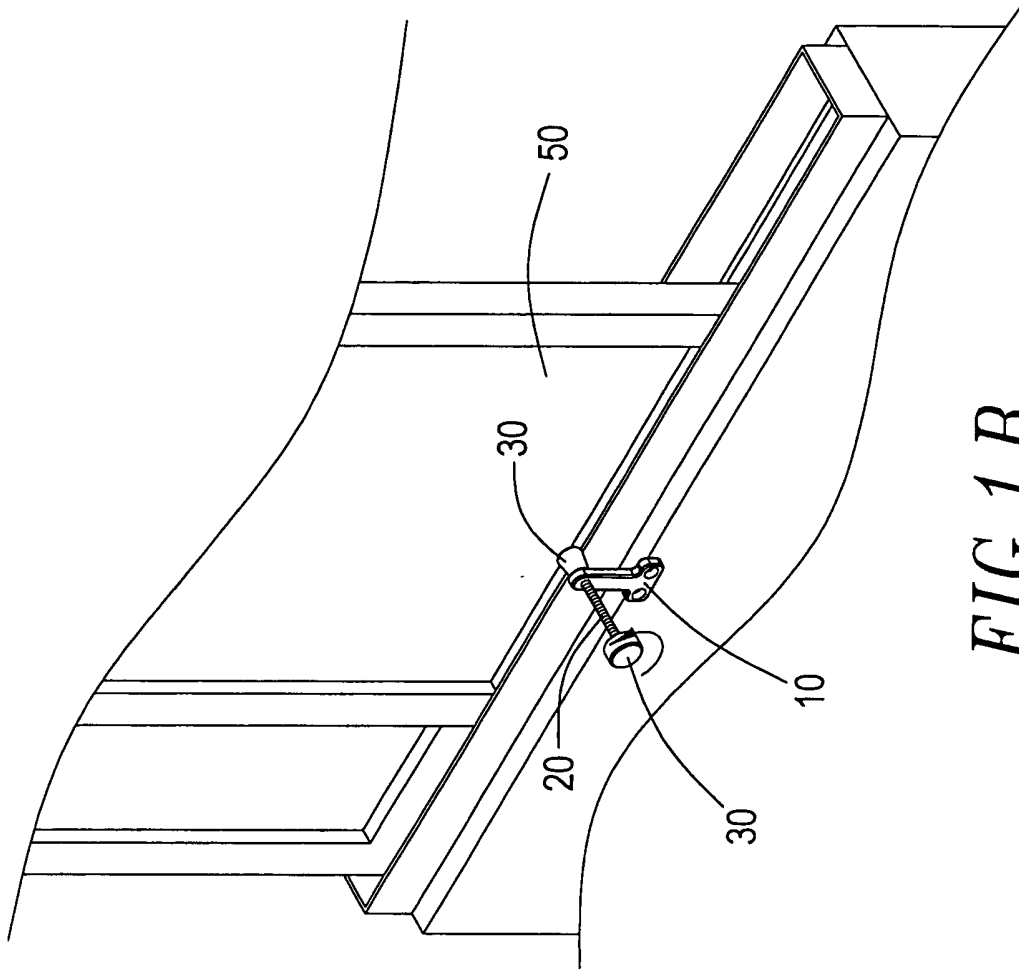
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*FIG. 1 A*



*FIG. 1 B*

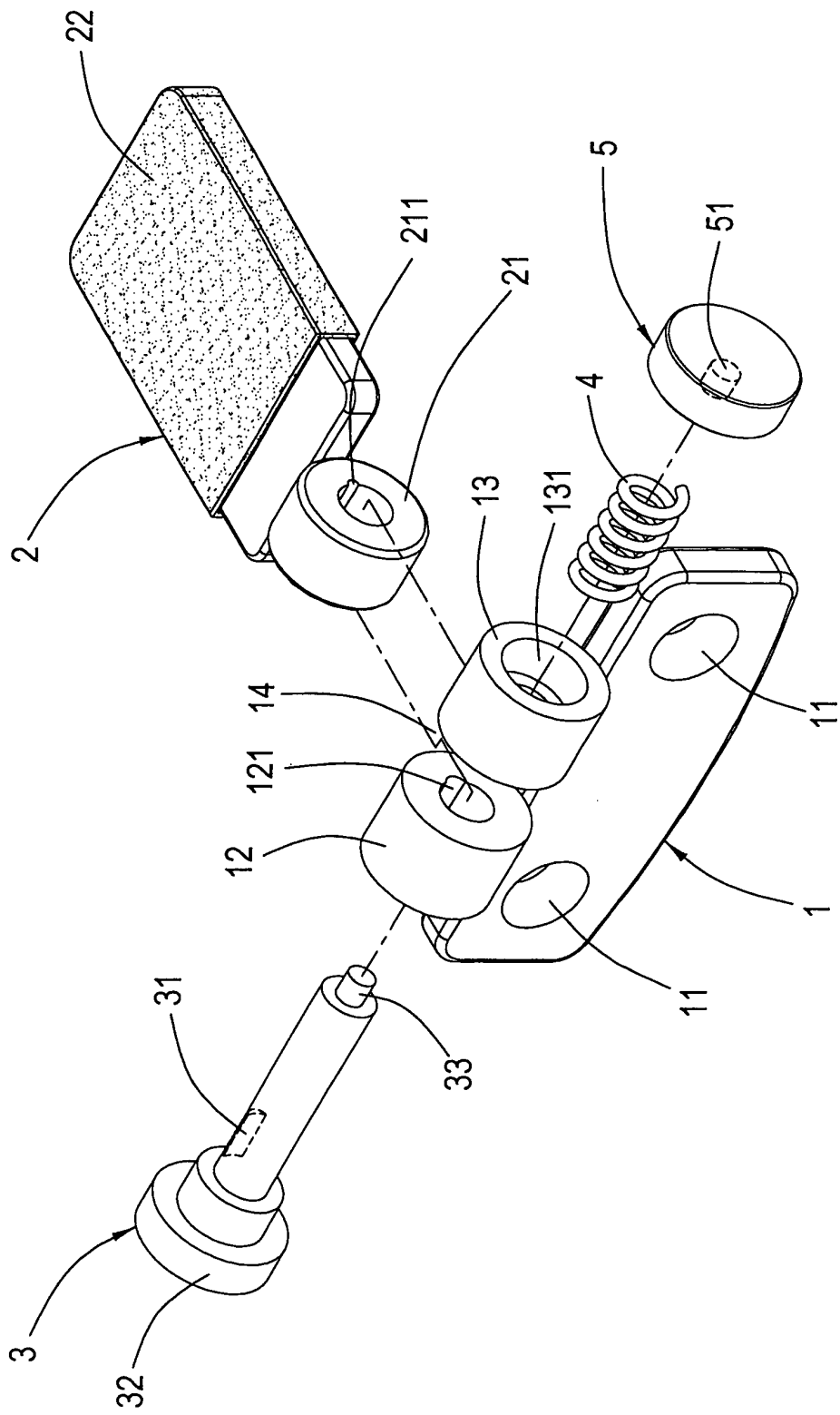


FIG.2

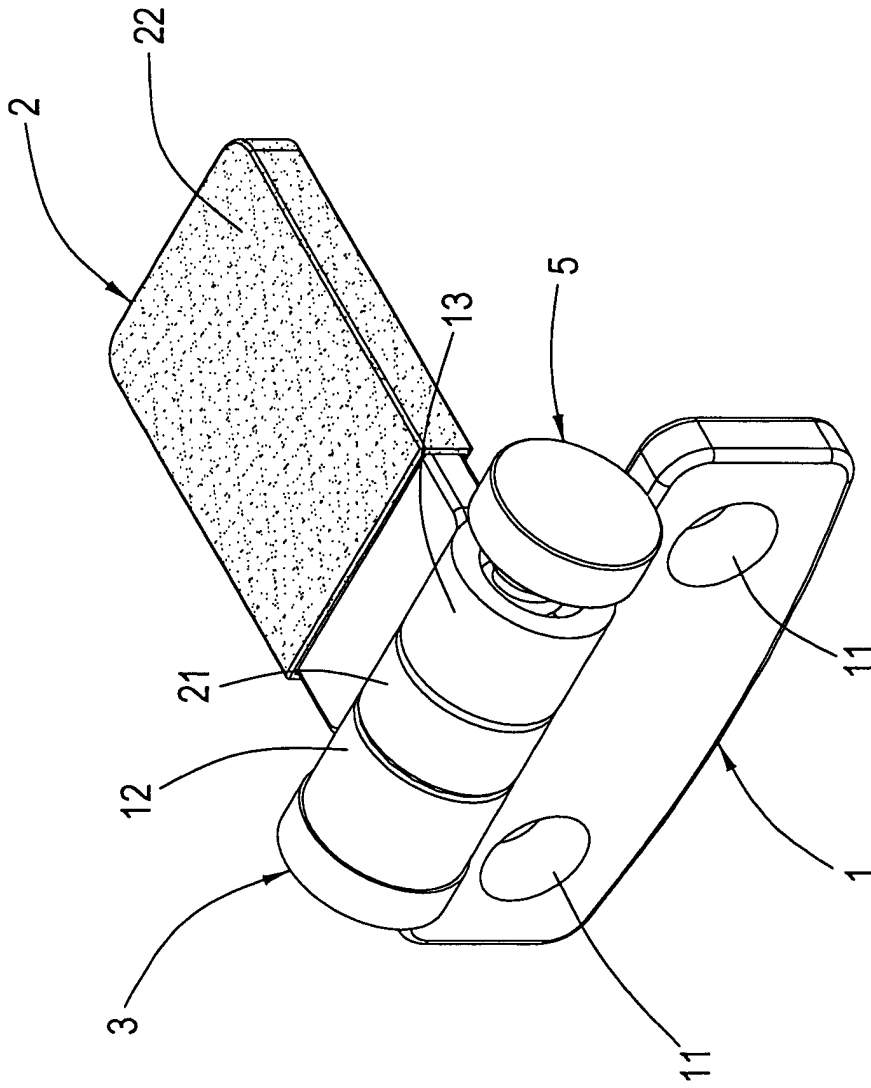


FIG. 3

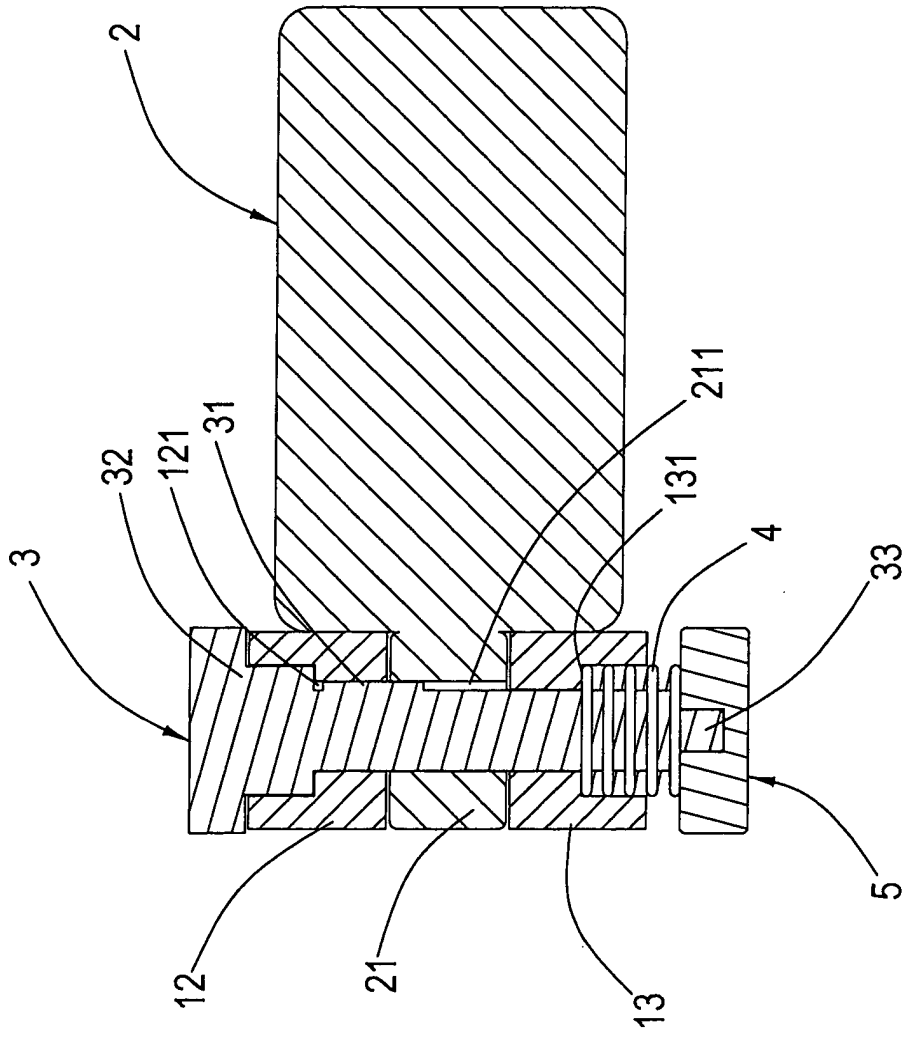


FIG. 4A

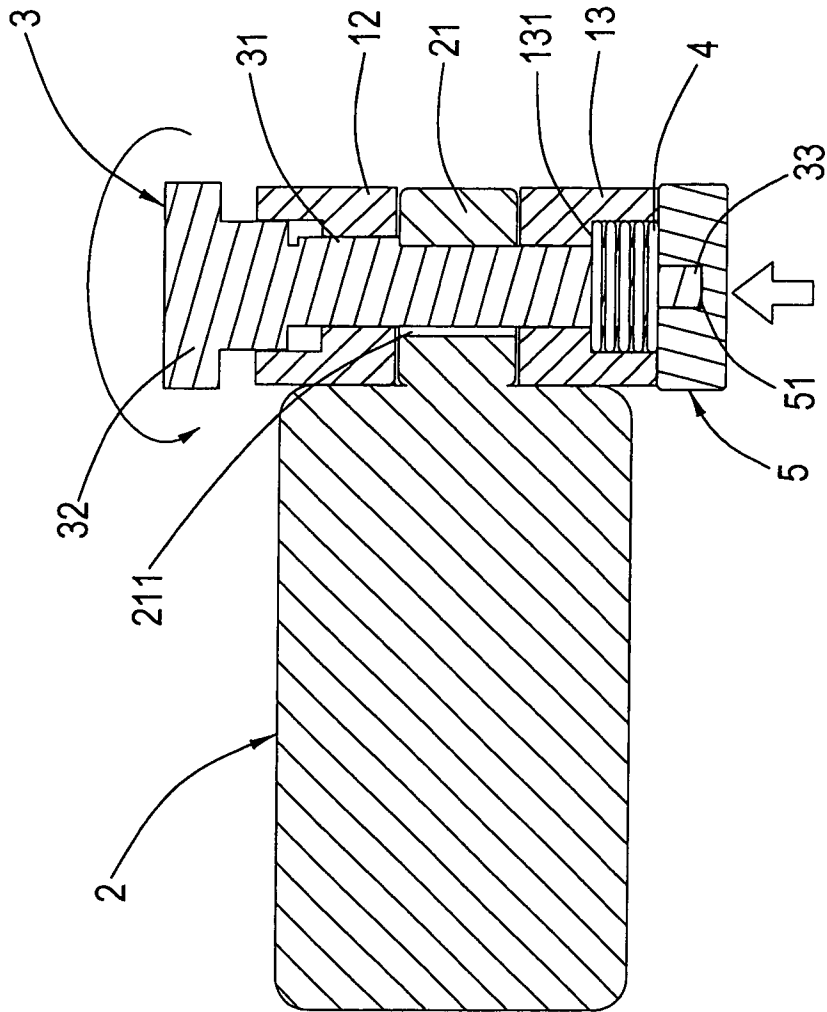
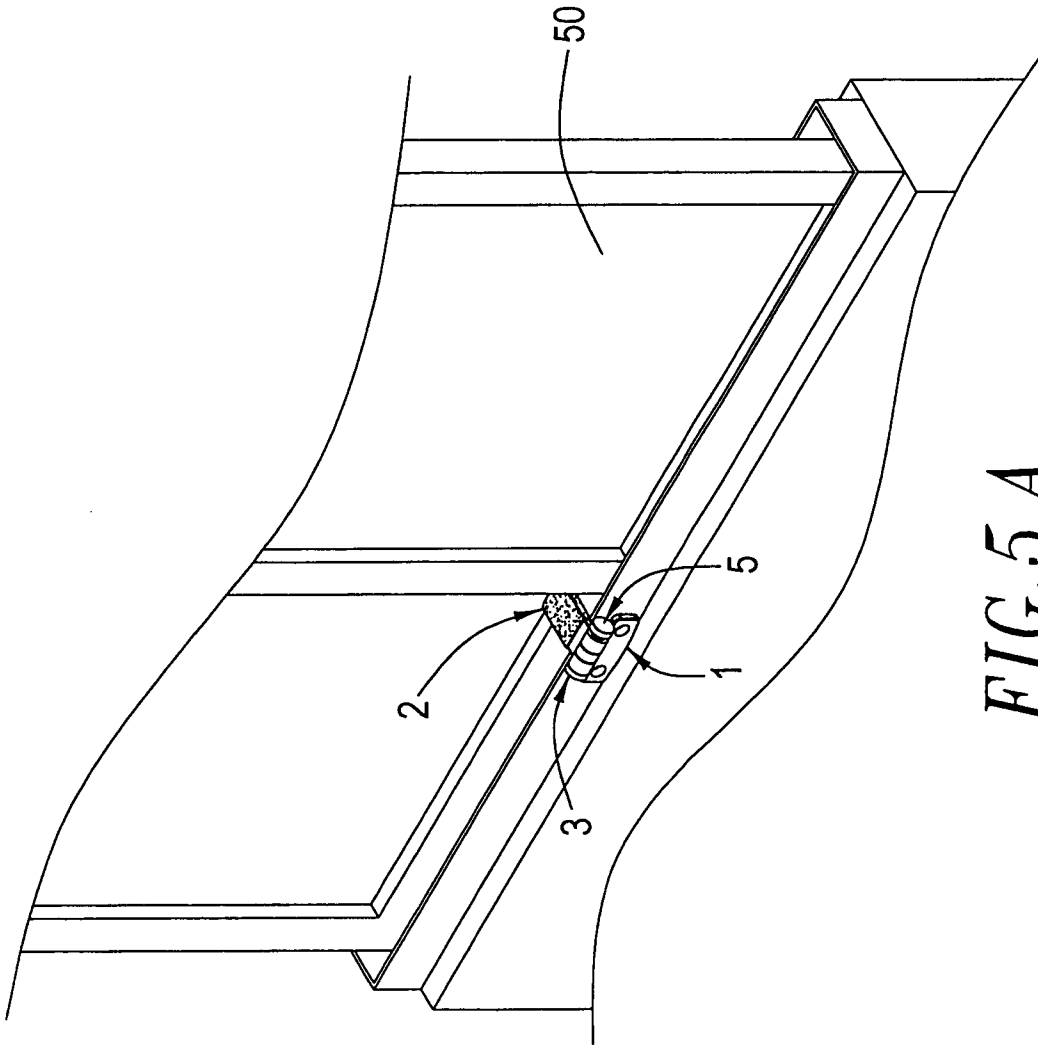
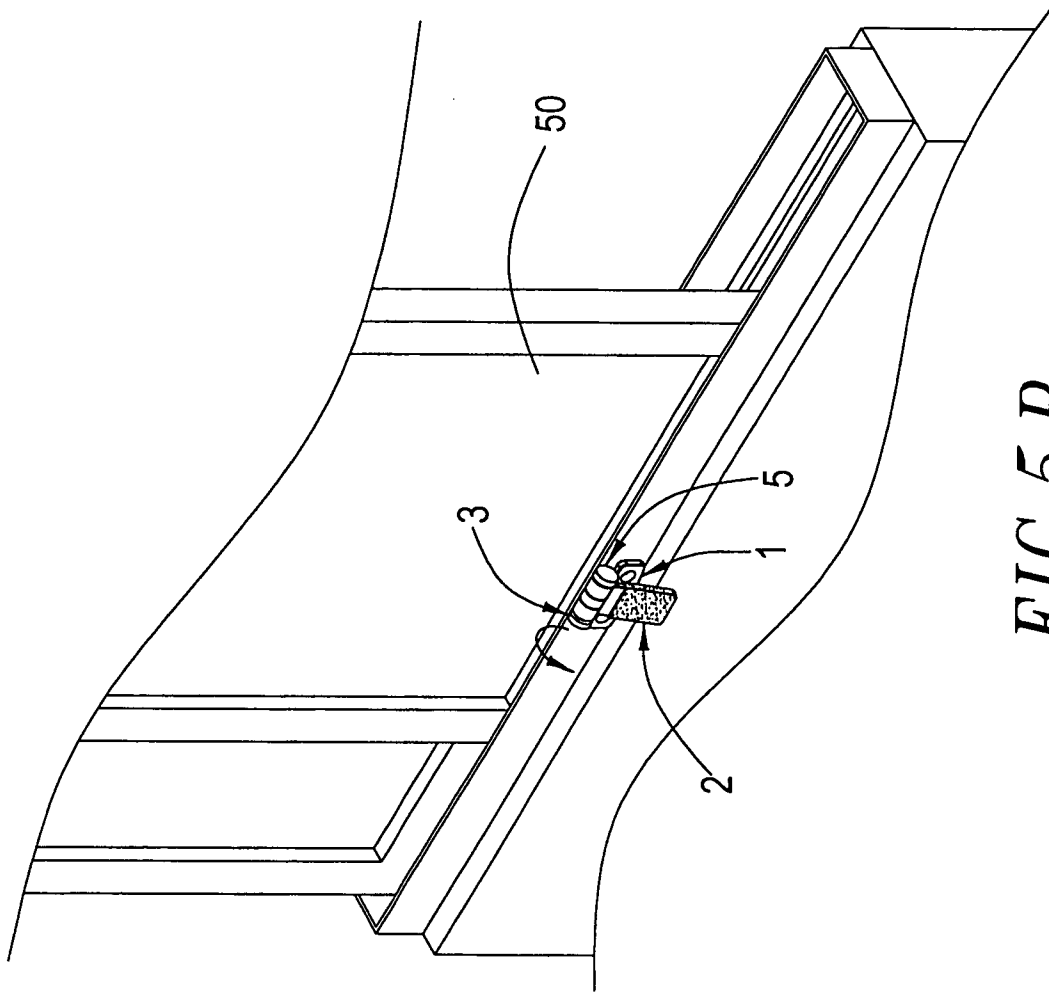


FIG. 4B



*FIG. 5 A*



*FIG. 5 B*



European Patent Office

EUROPEAN SEARCH REPORT

Application Number  
EP 03 01 3868

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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X	EP 0 028 544 A (ADLER SA) 13 May 1981 (1981-05-13) * page 4, line 5 - page 9, line 11; figures 1-5 *	1,3,4	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			E05B E05C E05D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		14 November 2003	PEREZ MENDEZ, J
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 03 01 3868

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14-11-2003

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