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54 **A rolling shutter.**

57 **A rolling shutter comprising a plurality of wood lists (A) provided:**

- in one side, of a jutting semicylindrical rib tongue (1) connected to a list body (3) by a neck (2) with advanced abutment (5') if compared with the opposite (7) and
- in the opposite side, of a semicylindrical groove (4) with a nib (5) to realize a semicylindrical loose grooving and tonguing articulation with abutments 5, 5' in front and clearance (6) at the rolling back (Figure 2).

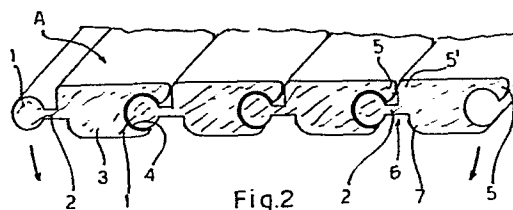


Fig.2

- 1 -

A rolling shutter

The invention relates to a rolling shutter. With the denomination "rolling shutter" is intended all structure to realize an articulated wall or articulated panel constituted with a plurality of elongate lists

5 articulated one another to realize a jointed structure as a rolling shutters for furniture or curtain-walls or articulated and hinged doors and similar structures, rolling shutters or blinds for windows included.

10 Different types of rolling shutters are well known in prior art but all this ones are realized with separate articualted joints. Prefererably each hinging or articulation is realized by a metallic hinge joint that hooks one list to another, this is very complicated  
15 and expensive and cause considerable wear.

The invention as claimed is intended to provide a remedy, realizing a rolling shutter with a plurality of lists jointable ~~one~~ to another in articulation without separate  
20 intermediate hinge joints made in different material.

On this basis the invention solves the problem utilizing

a plurality of lists comprising, in their opposite elongate sides to be jointed in articulation, a semicircular cylindrical loose groove and tongue allowing the transversal rotation of the two opposite jointed  
5 lists, being said elongate groove hollowed out in semicylindrical form in the body of the list with open slot and said tongue juttet from the body of the opposite list in an elongated semicylindrical rib form by an elongate neck connection.

10

The advantages offered by the invention are mainly the production of the rolling shutters in a plurality of wood or plastic lists that can be jointed one another without intermediate hinge joints.

15

One way of carrying out the invention is described in detail below with reference to drawings which illustrate three specific embodiments, in which :

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Figure 1 is a indoor frontal view of the rolling shutter in the rolling side;

Figure 2 is a perspective in transversal section and opposite outside view of the rolling shutter of figure 1;

25

Figure 3 is a transversal section view of an alternative embodiment;

Figure 4 is a transversal section view of a further alternative embodiment.

30

The figures show a plurality of identical shaped lists "A" articulated one another (figures 2, 3), being in alternative embodiment said lists different shaped

one another (A', A", Figure 4).

In the preferred embodiment the lists are identical one another and each list comprise in one side a  
5 protruded rib in semicylindrical form 1 connected to a list body 3 by a neck 2 and in the opposite side a semicylindrical groove 4 to receive the insertion of the semicylindrical opposite identical rib 1 of another list "A" to form the grooving and tonguing  
10 articulation and so on.

In the specific embodiment of Figure 2 the shutter can be rolled only in one direction (arrows direction) because in the opposite direction each list is provided  
15 with a nib 5 abutting on the opposite abutment 5' of the adjacent list, being said abutment 5' advanced if compared with the opposite 7 to realize under the neck 2 in said rolling side a clearance 6 to allow the rolling.

20 If the rolling is desired in both directions, the nib 5 and the abutment 5' can be eliminated and replaced in symmetrical form corresponding to rolling side as represented in Figure 3 utilizing a single type of grooving and tonguing lists "A".

25

In the embodiment represented in Figure 4, the shutter is realized utilizing two different lists being the first one with two opposite semicylindrical tongue ribs 1 connected by a neck 2 and the second one with two  
30 opposite semicylindrical grooves 4.

Udine, October 28, 1981

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Claims :

1. A rolling shutter constituted by a plurality of identical elongate lists "A" or different elongate  
5 lists A', A", articulated one another, characterized in that said articulation is realized by an elongate semicylindrical loose groove and tongue wherein said groove is hollowed out in total length, in the body of said lists (4) and said tongue is jutted in total  
10 length from the body of the opposite adjacent list (1).
2. A rolling shutter as claimed in claim 1, in which said semicylindrical jutting rib tongue (1) is connected to the body (3) by a neck (2) in total length of the  
15 list.
3. A rolling shutter as claimed in claims 1, 2 in which said semicylindrical groove (4) is hollowed out in the body (3) in the opposite side of the rib tongue (1).  
20
4. A rolling shutter as claimed in claim 2 in which said neck (2) of semicylindrical jutting rib tongue (1), connect an identical semicylindrical jutting rib tongue (1) in the opposite side and in which said  
25 list body (3) hollowing said semicylindrical groove (4), hollow out in the opposite side an identical semicylindrical groove (4).
5. A rolling shutter as claimed in claim 1, 2 and 3, in  
30 which said body (3) of the list (A), near the neck (2) of the jutting rib tongue (1), is provided with an advanced abutment (5') if compared with the opposite (7),

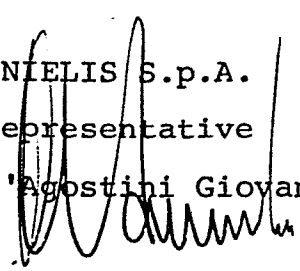
being the grooved side further provided in opposite  
direction of a nib (5) to allow the abutment (5-5')  
in the articulation with another list (A) and to  
realize a clearance (6) on the other side of the neck  
5 to allow the rolling only in one direction.

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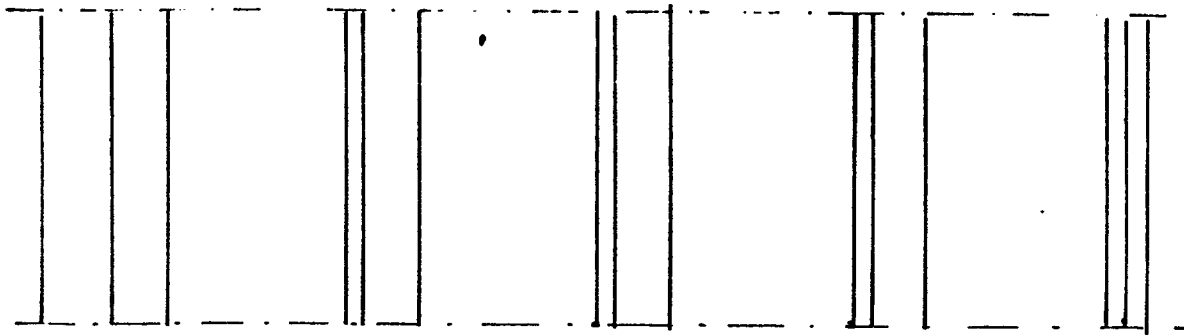


Fig. 1

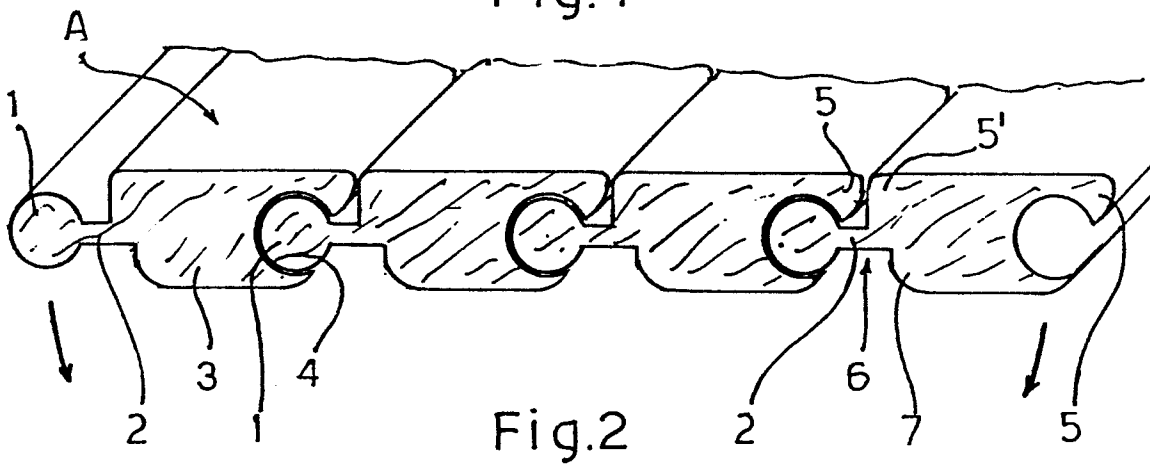


Fig. 2

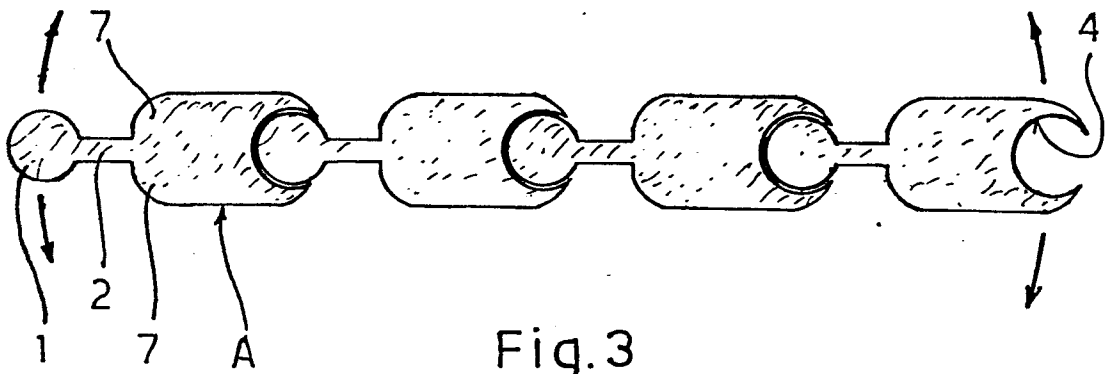


Fig. 3

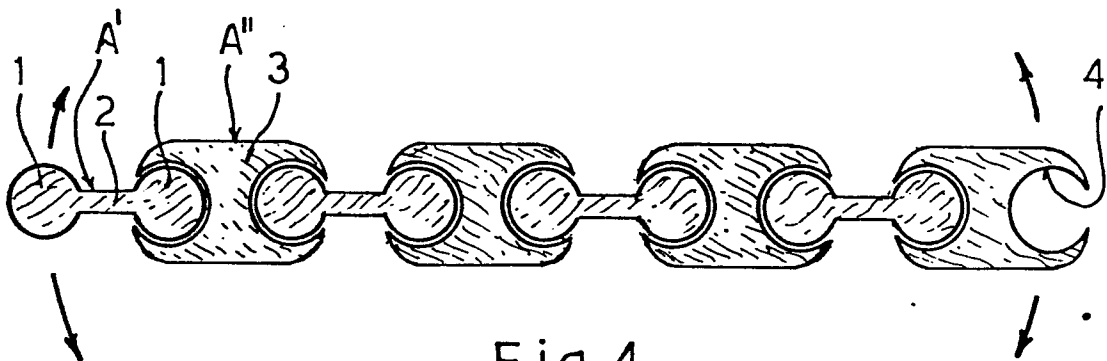


Fig. 4



European Patent  
Office

# EUROPEAN SEARCH REPORT

0076785

Application number

EP 82 83 0032.7

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	FR - A1 - 2 417 623 (PLASTIL S.A.) * claims; fig. * --	1-3,5	E 06 B 9/14
X	DE - A - 1 779 226 (N. PITTEI) * fig. * ---	1-3,5	
X	DE - U - 1 708 540 ( F. SOENNECKEN) * fig. * --	1-5	
X	GB - A - 593 961 (M.H. ROBIN) * fig. * ----	1-5	TECHNICAL FIELDS SEARCHED (Int.Cl. 3)
			E 06 B 9/00
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons
			&: member of the same patent family, corresponding document
<div style="display: flex; justify-content: space-between;"> <div> <p>X</p> <p>The present search report has been drawn up for all claims</p> </div> <div> <p>Place of search</p> <p>Berlin</p> </div> <div> <p>Date of completion of the search</p> <p>23-12-1982</p> </div> <div> <p>Examiner</p> <p>WUNDERLICH</p> </div> </div>			