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**D E C I S I O N**  
of 4 April 2000

**Case Number:** T 0903/98 - 3.2.3

**Application Number:** 91901594.1

**Publication Number:** 0457896

**IPC:** E06B 9/36

**Language of the proceedings:** EN

**Title of invention:**

Apparatus for suspending lamellar sun-blinds or the like

**Patentee:**

SCHÖN B.V.

**Opponent:**

BENTHIN Aktiengesellschaft

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step (yes)"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 0903/98 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 4 April 2000**

**Appellant:** BENTHIN Aktiengesellschaft  
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**Respondent:** SCHÖN B.V.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 14 July 1998  
rejecting the opposition filed against European  
patent No. 0 457 896 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** J. du Pouget de Nadaillac  
M. K. S. Aúz Castro

## Summary of Facts and Submissions

I. The appeal is directed against the decision dated 14 July 1998 of an opposition division of the European Patent Office, which rejected the opposition filed against the European patent EP-B1-0 457 896.

II. Claim 1 of said patent, as granted, reads as follows:

"Apparatus for suspending lamellar sun-blinds or the like, which apparatus comprises:

a rail (1) having a rectangular profile, comprising a top wall (24), two sides walls (22) and a bottom wall (21), said bottom wall (21) being provided with a longitudinal slit (2), said rail (1) further comprising means (20) defining a guide-way for a number of carriers (5), said guideway means (20) is in the form of an inwardly directed rib on each side wall (22) between the bottom wall (21) and the top wall (24) such that a chamber (23) is formed between the guideway means (20), said bottom wall (21) and said side wall (22);

said number of carriers (5) each having a gear transmission (8), said carriers (5) being movable along the rail (1) by a control means(30);

a rotatable control rod (11) arranged in and parallel to the rail (1), said control rod (11) extending through a gear member of the transmission (8) of each carrier (5);

a vertically rotatable spindle (12) supported by each of the carriers (5) and connected to another member of said gear transmission (8), each said spindle (12) comprising a depending member (3) for receiving said lamellar sun-blind or the like; and

a spacer trip (66) connected to each of the carriers (5) and being guided slidably in a recess (13) of the adjacent carrier,  
**characterized in that** each of the spacer trips (66) is fixed to the side of a respective one of the carriers (5) such that the blade of the strip is vertically oriented and in that the spacer strips (66) are received in said chamber (23) of the rail (1) below the ribs (20)."

Dependent Claims 2 to 8 follow.

III. The opponent (appellant) lodged the appeal, paid the appeal fee, and filed the statement of grounds on 14 September 1998. In this statement, the appellant maintained both objections raised before the first instance, namely that, having regard to the last feature of the preamble of Claim 1, the patent does not disclose the invention in a manner sufficiently clear to be carried out by a person skilled in the art (Article 100(b) EPC), and further that the invention as claimed does not imply an inventive step in view of the teachings of the following documents, referenced D1, D2 and D3 in the opposition proceedings:

D1: Brochure "SUNTECA®-Systemteile-System Hardware", S-2000 System, 1985, from the SUNTECA Sonnenschutztechnik GmbH, Bremerhaven (Germany).

D2: US-A-2 794 502

D3: EP-A-0 081 465

IV. Oral proceedings took place on 4 April 2000.

V. The appellant argued as follows:

The objection under Article 100(b) EPC is no more maintained.

The solution according to the present invention as claimed is said to be characterised by two features: the spacer strips are vertically oriented and they are fixed to the side of the carrier. Vertically oriented spacer strips however are well known in the art, as shown by D2. Therefore, the person skilled in the art, who wishes to reduce the height of the rail disclosed in the apparatus according to D1 and receives from D2 the incentive to bring the spacer strips in a vertical position, reaches inevitably the claimed solution. The spacer strips shown in D1 are already located below the guideway means, which on this side of the rail is formed by a small rib. Any way, regarding the apparatus according to D1, there are not many possibilities, since the person skilled in the art has to find a room for stacking the spacer strips and the only available possibility is the room below the guideway means.

Since D1 already teaches to collect the spacer strips in a room below the guideway means, this prior art alone is in fact sufficient to show that Claim 1 of the patent in suit does not involve an inventive step.

VI. The respondent essentially replied as follows:

In the apparatus according to D1, only an empty room can be seen below the guideway means. However, this room is located on the one side of the carrier which is opposite to the side of the carrier on which the spacer strips are positioned. Because of the small rib on said

other side of the carrier, it cannot be said that a room is provided below the guideway means. Thus, for the person skilled in the art, at least two steps are necessary in order to arrive at the solution as claimed, namely a shifting of the strips from one side to the other and their vertical orientation. The problem of sagging and bending of spacer strips, which had been imagined by the appellant, is not relevant, since also with vertically oriented strips a similar problem occurs due to the pivotable fixing pin of the strips. Moreover, D2 cannot be combined with D1 because of the quite different design of its carrier.

- VII. The appellant requested that the decision under appeal be set aside and that the European patent No. 0 457 896 be revoked.

The respondent requested that the appeal be dismissed.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Inventive step*

2. The apparatus for suspending lamellar sun-blinds disclosed in D1 represents the prior art closest to the present invention. It comprises all the features of the preamble of Claim 1 of the patent in suit. As is known in this technical field, the spacer strips, which are usually made of a thin elongate blade of metal or plastic, determine the interval between two adjacent carriers. One end of a spacer strip is fixed to its respective carrier and the other end has a stop, which

prevents the strip from being pulled out of the recess of the following adjacent carrier and further tows said adjacent carrier, as soon as the respective carrier of the strip has reached the maximum distance or interval between both carriers. Each of the spacer strips in this prior art is fixed to the underside of a carrier besides the pivotable spindle, so that the blade of the strip is horizontally oriented. The figures on the first and last pages of the brochure show that the right vertical side of the carrier has a horizontal slot which cooperates with a small internal rib of the rail in order to guide the carrier, whereas the left side of the carrier on its upper half carries a roller, which can roll on a broad internal rib of the rail. Thus, inside the rail besides the space for the spacer strips underneath the carriers, it is only on the left side of the carriers that, depending on the broadness of the internal rib for the roller, an empty room can be left laterally, below as well as above this broad rib.

3. The horizontal positioning of the spacer strips on the underside of the carriers is not satisfactory, since the spacer strips have to stack onto each other when the lamellar sun-blinds are in their closed position at one end of the window, that is to say when the sun-blinds and thus their carriers are retracted into a closely adjacent position. This requires a certain distance between the underside of each carrier and the bottom wall of the rail and consequently increases the height of said rail.

The object of the present invention is to obviate this drawback and to provide an apparatus having a profile size which is aesthetically well-considered and

requires small dimensions.

4. According to the characterising part of Claim 1, the patent in suit solves this problem by positioning the spacer strips vertically on the lateral side(s) of the carriers, and this at such a level that they are received into the chamber of the rail below the inwardly directed ribs, which form the guideway means for the carriers.

This solution makes good use of the internal space or chamber, which can be provided on one side of the carrier below the upper guiding portion of the rail according to D1. In the case of two spacer strips according to the embodiment of Figures 4 and 5 of the patent in suit, it is necessary to provide another identical chamber on the other side of the carrier. Another advantage of this solution is that, as indicated in the description of the patent in suit, thinner strips can be used because of the self-supporting effect of the vertical position of the strips, reducing further the thickness of the set of spacer strips in the closed position of the lamellar sun-blinds. The patentee has recognised that, if the height of the rail is substantially diminished, the rail however may be a bit broader than according to the prior art embodiments.

5. Among the documents cited by the appellant, two of them, namely D2 and D3, disclose "vertical standing" spacer strips arranged on carriers travelling in a casing (D2) or in a rail (D3) and supporting lamellar sun-blinds. The appellant has mainly mentioned these prior art documents to show that, before the priority date of the patent in suit, the use of vertically as



well as horizontally oriented spacer strips was part of the general knowledge of the skilled person in this technical field. The respondent has not contested this fact and the board agrees with it, so that it is quite unnecessary to examine in detail the content of these two documents and to see whether each of them can be combined with D1 or not, particularly in the case of D2 which is an old prior art of the year 1975 and discloses a carrier merely of metal sheet without gear transmission, thus not comparable with the much more sophisticated modern carriers. This prior art moreover does not indicate that vertical spacer strips can help to improve the size of the casing of the vertical blind apparatus. On the contrary, Figure 6 of this prior art D2 shows a rather voluminous casing with dimensions well above those of the carrier, so that an incentive to bring the spacer strips in a vertical position in order to solve the above-mentioned object of the patent in suit cannot be found in this document. D3 shows vertical spacer strips located externally on the top side of the carriers and protruding therefrom, requiring consequently a rail with a great height, so that here also the claimed solution is not suggested.

6. Thus, the issue of inventive step is reduced to the question, whether a person skilled in the art having this technical knowledge and confronted with the problem underlying the present invention would have reached the claimed solution on the sole basis of the teaching of D1.
  
7. This document D1 is a brochure of a firm. It only shows photos of the whole apparatus or of the various elements thereof without any explanation apart from the naming of the shown item of each photo. This prior art

is therefore totally silent about the problem of improving the height of the rail and provides as a consequence at least no explicit hint to improve the spacer strips.

Faced with the problem to be solved, the person skilled in the art can either think about modifying the kind of spacer strip or their arrangement. Therefore, contrary to the opinion of the appellant, he had many possibilities and nothing in D1 directs him to one or the other kind of solution in particular.

Even assuming that the idea of modifying the arrangement of the spacer strips would have been a natural choice, it was still not necessarily obvious that said skilled person would have then chosen, as a solution, to change the position itself of the spacer strips. He could have thought of gaining place for the height by modifying the position of a first hole, which in the carrier according to D1 is provided just above the spacer strips for the passage of a part of the apparatus pull cord.

The appellant has argued that, in view of the room provided inside the rail on one side thereof it was obvious to try to stack the spacer strips in this room. It is however noticed that the presence of an available room does not clearly appear on the photos of D1. Moreover, as indicated above in Point 2, the spacer strips are located on the right half of the carriers, which are shown on the last page of the brochure, that is to say the half which does not comprise the single guiding roller and is quite contiguous to the vertical wall of the rail, leaving consequently no empty room on this part of the rail inside. A possible empty room of

the rail could only exist on the other side of the carrier and thus, in order to reach the claimed solution, the skilled person must think about displacing the spacer strips from one side to the other side of the carrier according to D1. D1, however, shows that on this other side of the carrier, below the roll, there is still a substantial large part of the carrier, which serves to provide a second hole for the other part of the pull cord of the apparatus, limiting therefore the possibility of reducing the height of the rail, even if the spacer strips are brought to this side. Thus, the presence of a possible room on one side of the carrier according to D1 does not mean that a clear suggestion is given to bring the spacer strips into this room in order to solve the problem underlying the present invention.

In order to reach the claimed solution, the person skilled in the art has still to decide to arrange the spacer strips vertically, since in the room the possibility of maintaining the strips horizontally remains and can even be seen as logical in view of the available height on this side of the carrier, which is greater than that on the original side of the spacer strips, as this can be seen on the three photos located at the top of the last page of the prospect D1. That the person skilled in the art on the mere basis of his technical knowledge will think about arranging the spacer strips vertically is therefore quite doubtful. Moreover, supposing that he does, he will see at once that at this level and on this side of the carrier there is the already mentioned pull cord, the course of which could be disturbed by the vertical spacer strips. A horizontal arrangement of the spacer strips on the other hand avoids this danger. The person skilled in

the art is therefore not led by D1 towards the claimed solution.

It has to be concluded that, in view of all these steps which are necessary to reach the claimed invention, particularly since no explicit suggestion of any of them is given in D1, the subject-matter of Claim 1 involves an inventive step as is required by Articles 52 and 56 EPC.

8. A further sign that the present invention is not obvious is given by the various documents of the appellant himself, namely, besides document D1, documents D4, D5, D6 and D9 (D4, D5 and D9 are prospects or assembling instructions and D6: EP-A-0 242 071). All the vertical blind apparatuses according to D1 to D5 comprise horizontally arranged spacer strips located at the bottom of the carriers. The appellant with the apparatuses according to D6 and D9 has later on changed the position of these spacer strips. However, he has brought them onto the top of the carriers, and still in a horizontal position. D6, at the end of its description, shows that the object of reducing the size of the rail was envisaged. The appellant nevertheless did not reach the claimed solution.

## **Order**

**For these reasons it is decided that:**

The appeal is dismissed

The Registrar:

The Chairman:

A. Counillon

C. T. Wilson