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(72) Inventor: **Hopkins, Richard Benedict**
Lysways House, Lysways Lane
Longdon Green, Nr. Rugeley Staffs(GB)

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(71) Applicant: **HOPKINS BLIND FITTINGS LIMITED**
Unit 6, Cheston Industrial Estate, Cheston
Road

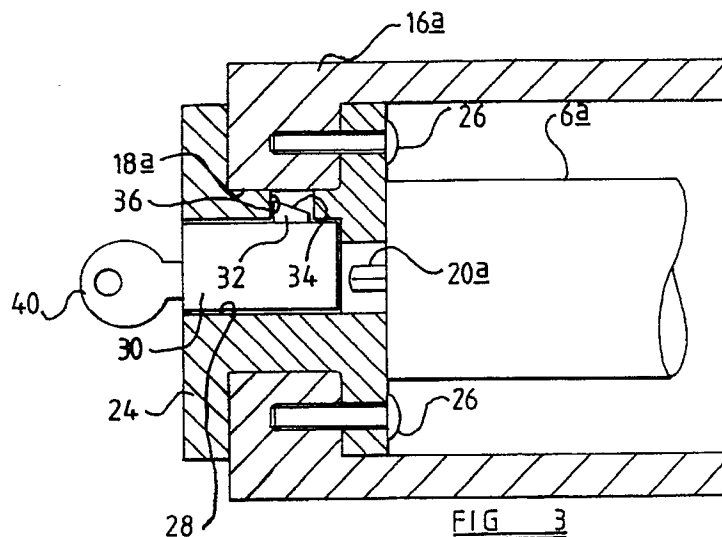
(74) Representative: **Lally, William et al**
FORRESTER & BOEHMERT
Widenmayerstrasse 4/I
W-8000 München 22(DE)

(54) **Roller blind mechanism and closure member therefor.**

(57) A roller blind mechanism comprises a spindle [6] secured for rotation within a housing [8] by a drive motor [10], a roller blind [12] being wound around the spindle and being withdrawn through an aperture [14] of the housing. Provided in an end wall [16] of the housing opposite to the motor is an aperture [18] providing access to the spindle [6] enabling the spindle to be manually rotated, such as by a crank handle inserted through the aperture [18].

Located in the aperture [18] is a closure member

[24], the closure member [24] being provided with an aperture [28], and it is through this aperture [28] that the crank handle may be inserted to manually rotate the spindle. A plug [30] is provided, which may be pressed into the aperture [28] to close the aperture, and prevent unauthorised access to the spindle [6], which may be released by the use of a key, allowing access to the spindle for manual rotation of the roller blind mechanism.



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"ROLLER BLIND MECHANISM AND CLOSURE MEMBER THEREFORE"

This invention is concerned with improvements relating to roller blinds, particularly in relation to drive mechanism for roller blinds.

A conventional drive mechanism for a roller blind comprises a spindle around which the blind may be rolled, conventionally located in a housing provided with an elongate slot through which the blind may be withdrawn, and a motor secured to the housing to rotate the spindle.

For the event that the motor fails to function, manual drive means is provided to enable the spindle to be rotated by hand, such means typically comprising a non-circular stub shaft [e.g. rectangular cross-section] extending from the spindle and which may be rotated by a crank handle, access to the stub shaft being gained through an aperture in the housing.

Difficulty is however encountered in preventing unauthorised access to the stub shaft in a manner which does not unduly complicate authorised use.

According to this invention there is provided a closure member for a roller blind mechanism, the closure member being adapted to be secured to a housing of the mechanism and having an aperture providing access to manual drive means of the mechanism, the closure member comprising closure means for said aperture.

Preferably the closure member is provided with means enabling it be secured [e.g. by bolts] to the housing in which the roller blind spindle is located, such as in or over the aperture conventionally provided for access to the manually operated means. In this manner, a robust and readily openable closure may be provided, to prevent unauthorised access to the manually operated drive means. Preferably the closure member comprises a plug which may be located in the aperture thereof, advantageously the plug comprising a catch member which is key-operated to allow the plug to be released from the aperture when access to the manually operated means is desired.

Advantageously the plug is of non-circular cross-section, conveniently being oval in cross-section.

According to this invention there is also provided a roller blind mechanism comprising a housing, a spindle located in the housing, a drive motor to which the spindle is secured, an elongate slot being provided in the housing through which a blind may be withdrawn from the spindle, and an aperture in the housing providing access to manual drive means, wherein there is provided a closure member for the aperture to prevent unauthorised access to the manual drive means, and key-operated mechanism for release of the closure mem-

ber.

Advantageously the closure member is located in part at least within the aperture of the housing, the closure member itself comprising an aperture providing access to the manually operated means, the aperture of the closure member being closed by a plug, said plug being capable of being released from the closure member by said key-operated mechanism.

There will now be given a detailed description, to be read with reference to the accompanying drawings, of a roller blind mechanism, which is a preferred embodiment of this invention, having been selected for the purposes of illustration by way of example, said roller blind mechanism comprising a closure member which is also illustrative of the invention in certain of its aspects.

In the accompanying drawings:

FIGURE 1 is a schematic sectional view of part of the conventional roller blind mechanism;

FIGURE 2 is an end elevation taken on Figure 1;

FIGURE 3 is a schematic sectional view of the preferred embodiment of this invention; and

FIGURE 4 is an end elevation taken on Figure 3.

As is shown in Figures 1 and 2, conventional roller blind mechanism comprises a spindle 6 secured for rotation within a housing 8, a drive motor 10 being secured to the housing and which may be operated to rotate the spindle, a roller blind 12 being wound around the spindle 6 and being withdrawn through an aperture 14 of the housing. As will be appreciated, the housing 8 need not provide full enclosure of the spindle, and may be of open construction.

Provided in an end wall 16 of the housing opposite to the motor 10 is an aperture 18, providing access to manually operated means 20, enabling the spindle to be rotated manually, such as by a crank handle, in the event of failure of the motor 10. In conventional practice, the manual operated means 20 is afforded by a short stub shaft of non-circular [e.g. rectangular] cross-section.

In accordance with the present invention, in which similar numerals with the suffix a have been utilised to denote those parts which are present in conventional roller blind mechanisms, a closure member 24 is located within the aperture 18a of the housing 16a, the closure member being secured to the housing on the inside thereof by bolts 26. The closure member 24 is provided with an aperture 28, of non-circular [specifically ovoid] cross-section, providing access through the closure member to the manually operated means in the form of the stub shaft 20a.

Locatable in the aperture 28 is a plug 30,

comprising a spring-loaded catch member 32 provided with a leading chamfer 34, allowing the catch member to be depressed when the plug 30 is initially pushed into the aperture 28, and allowing it to rise into a correspondingly-shaped indentation 36 in the body of the closure member. Thus by insertion of plug 30 into the aperture 28, access to the stub shaft 20a is prevented.

The catch member 32 may be retracted by the insertion of a key into the plug 30, allowing the plug 30 to be withdrawn, by an authorised user in possession of the key 40, allowing the stub shaft 20a, and hence the spindle 6a to be rotated manually.

The features disclosed in the foregoing description, or the accompanying drawings, expressed in their specific forms or in the terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, or a class or group of substances or compositions, as appropriate, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

Claims

1. A closure member [24] for a roller blind mechanism, the closure member being adapted to be secured to a housing [8] of the mechanism and having an aperture [28] providing access to manual drive means [20a] of the mechanism, the closure member comprising closure means [30] for said aperture.
2. A closure member according to Claim 1 provided with means [26] enabling it be secured to the housing in which the roller blind spindle is located.
3. A closure member according to Claim 2 wherein the closure member [24] is such as to enable it to be secured in or over an aperture [18a] conventionally provided for access to the manually operated means.
4. A closure member according to any one of the preceding claims wherein the closure means comprises a plug [30] which may be located in the aperture thereof.
5. A closure member according to Claim 4 wherein the plug [30] comprises a catch member [32] which is key-operated to allow the plug to be released from the aperture [28] when access to the manually operated means is desired.
6. A closure member according to one of Claims

4 and 5 wherein the plug [30] is of non-circular cross-section.

7. A closure member according to Claim 6 wherein the plug [30] is oval in cross-section.
8. A roller blind mechanism comprising a housing [8], a spindle [6a] located in the housing, a drive motor [10] to which the spindle [6a] is secured, an elongate slot [14a] being provided in the housing through which a blind [12] may be withdrawn from the spindle, and an aperture [18a, 28] in the housing providing access to manual drive means [20a], wherein there is provided a closure member [24, 30] for the aperture [18a, 28] to prevent unauthorised access to the manual drive means, and key-operated mechanism [32] for release of the closure member [30].
9. A roller blind mechanism according to Claim 8 wherein the closure member [24, 30] is located in part at least within the aperture [18a] of the housing, the closure member [24] itself comprising an aperture [28] providing access to the manually operated means [20a].
10. A roller blind mechanism according to Claim 9 wherein the aperture [28] of the closure member [24] is closed by a plug [30], said plug being capable of being released from the closure member by said key-operated mechanism [40, 32].

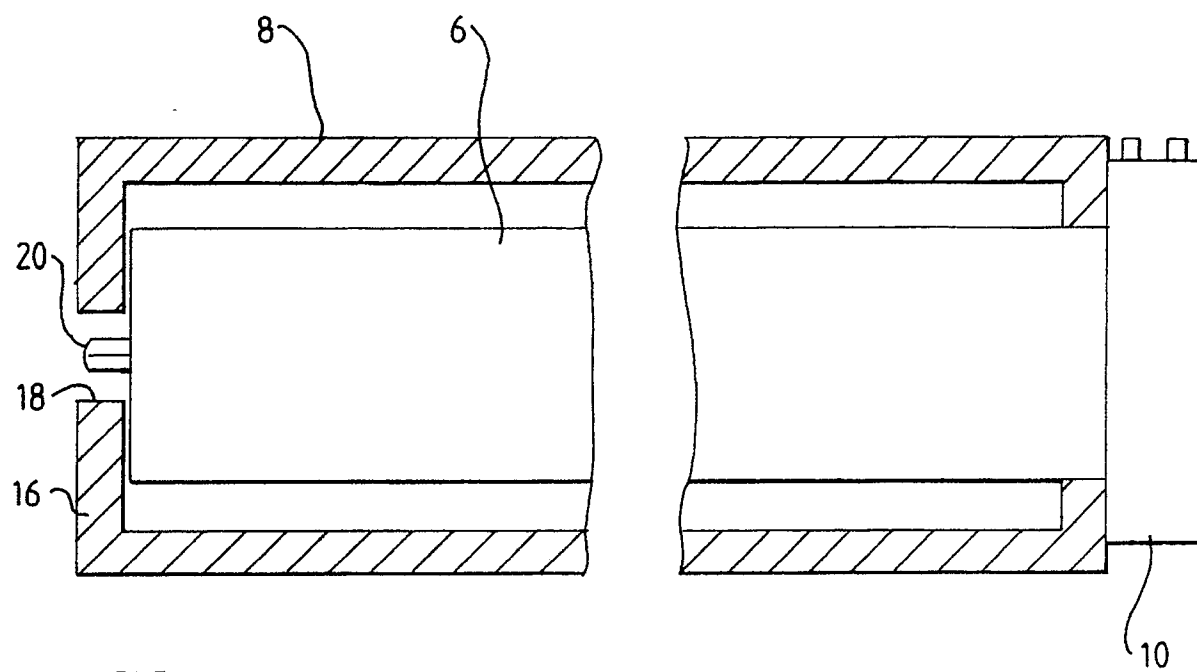


FIG 1

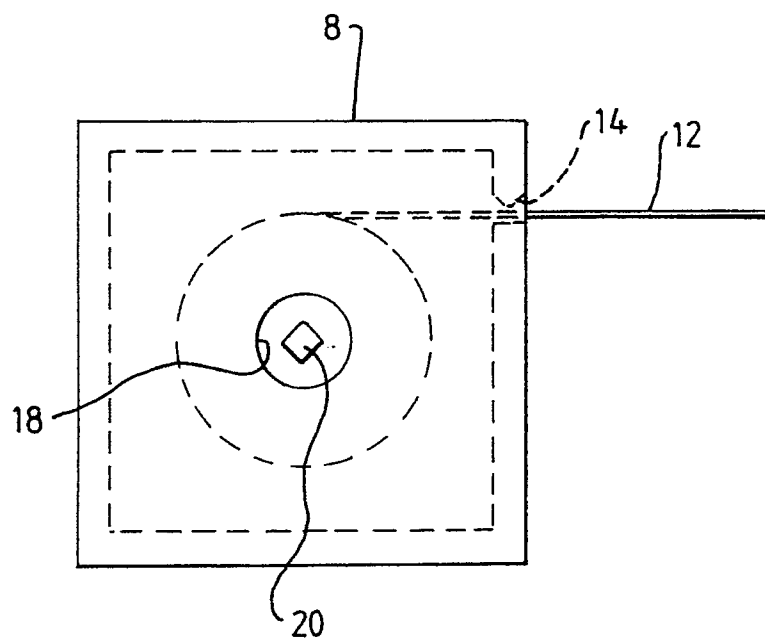


FIG 2

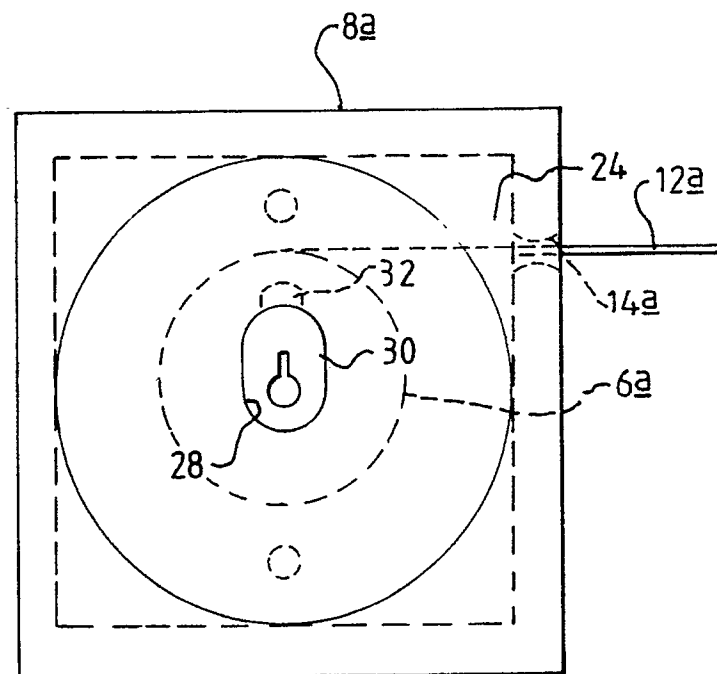
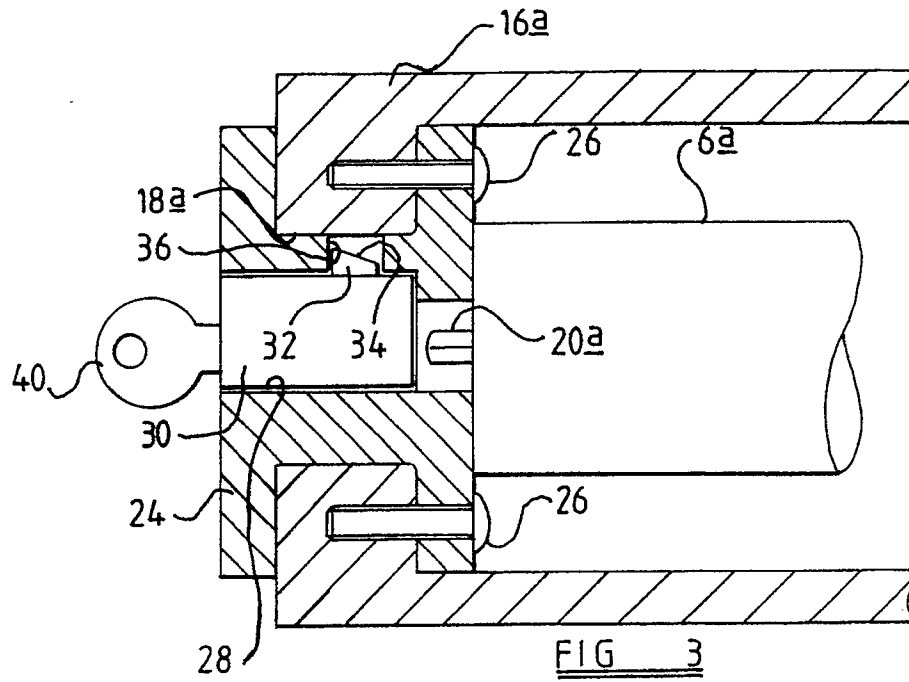


FIG 4



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EUROPEAN SEARCH REPORT

Application Number

EP 90 12 4742

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.5)
A	FR-A-2 112 787 (ETABS P.MARCHE-ROCHE) * page 3, line 33 - page 4, line 7; figure 2 * - - -	1,8	E 06 B 9/17 E 06 B 9/174 E 06 B 9/68
A	FR-A-2 631 076 (HAZA) * page 3, line 21 - line 36 * - - - - -	1,8	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 06 B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 21 March 91	Examiner KUKIDIS S.
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