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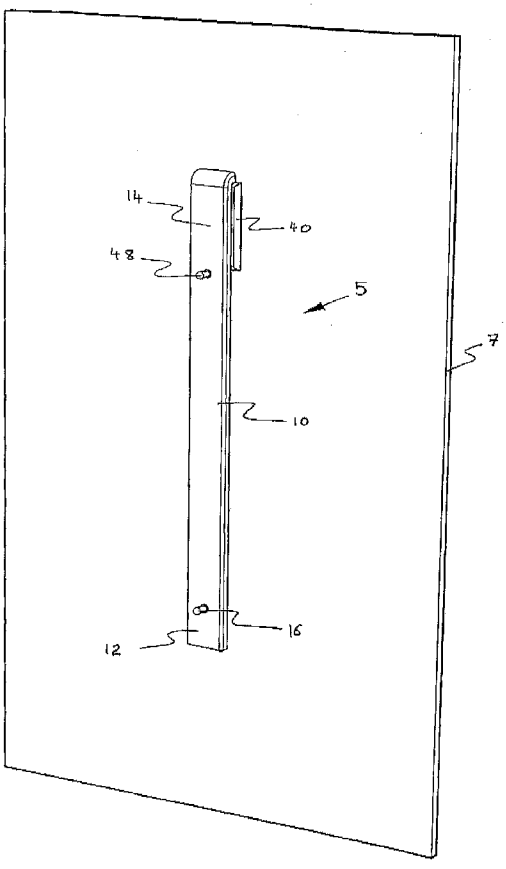
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** REMOTE SWITCH UNIT



(57) **Abstract:** The present invention, describes a remote switch unit, generally for activating a power switch such as a light switch, the unit including a body, having a first and second end, the body adapted to attach securely to a wall mounted switch body, at least a first switch means located at the first end, a switch activating means located at the second end, the first switch means being remotely operatively connected to the switch activating means. Thus the remote switch body is then placed over or in close proximity to a wall mounted switch body by a fastening means and activation of the first switch means operates a switch located on the wall mounted switch body.

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REMOTE SWITCH UNIT

FIELD OF THE INVENTION

The present invention relates to a device for remotely activating a switch.

In particular, the invention relates to a device for remotely activating domestic household switches.

DESCRIPTION OF THE PRIOR ART

Electrical switches, such as light switches or power switches, are conventionally placed at heights that are considered to be ergonomic, depending upon the application, or according to aesthetic convention.

In practice, this means that a light switch on a wall in a domestic application is placed approximately 1250mm above the surface of the floor. This then allows a person of an average height to operate the switch without having to bend too low or reach too high. In older style homes, light switches are more often than not placed approximately 1400mm above the floor and in order to maintain this aesthetic appearance new light switches that are retrofitted into old homes are also placed at this same height.

Of course, in certain applications, a light switch, or electrical switch, may be positioned anywhere on a wall depending upon the intended use of the switch. For example, an electrical switch for an exhaust fan may be placed high up on a wall as it may not need to be turned on and off frequently. The power switches are traditionally placed relatively close to the ground so that there is not an unsightly amount of cord leading to the appliance, hanging down the wall.

As switches can be placed anywhere on a wall, which is best done during the initial installation of the electrical system, houses are traditionally then built to suit particular individuals. In particular, when building housing for people in

wheel chairs, for example, light switches and electrical switches are located within easy reach of a person sitting in a wheel chair so that these switches can be activated without the person having to either reach too high or too low that they may place themselves in a precarious position.

Additionally, wall switches placed at an ergonomic height for an adult, may not be suitable for a child and thus the child may need to stand on a chair for example in order to reach the switch and again may place themselves in a precarious or dangerous position that might even lead to a fall.

Another problem associated with wall switches is that in the event that for example, a wheel chair bound person wants to purchase a house with regular switch fittings then it would be necessary to perhaps relocate those switches to a more suitable height, which adds significant expense. Indeed, the very nature of a switch being in a fixed position on a wall can be quite problematic to certain individuals, be they wheel chair bound or perhaps even suffering back problems that makes kneeling down to low switches uncomfortable.

OBJECT OF THE INVENTION

It is an object of the present invention to provide a device for remotely activating a switch such as a wall switch or power point switch.

It is an object of the present invention to overcome, or at least substantially ameliorate, the disadvantages and shortcomings of the prior art.

Other objects and advantages of the present invention will become apparent from the following description, taking in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

SUMMARY OF THE INVENTION

According to the present invention, although this should not be seen as limiting the invention in any way, there is provided a remote switch unit including a body, having a first and second end, the body adapted to attach securely to a wall mounted switch body, at least a first switch means located at the first end, a switch activating means located at the second end, the first switch means being remotely operatively connected to the switch activating means such that, in use, the remote switch body is placed over or in close proximity to the wall mounted switch body by a fastening means and activation of the first switch means operates a switch located on the wall mounted switch body.

In preference, the at least first switch means is a toggle switch pivotally interconnected to the switch activating means.

In preference, there is a second switch means pivotally interconnected with the switch activating means, located at the second end of the body.

In preference, the switch activating means is a roller.

In preference, the switch activating means is supported by the remote switch unit body.

In preference, the remote switch unit body includes integral guides to accommodate the switch activating means.

In preference, the integral guides urge the switch activating means against the wall mounted switch.

In preference, the fastening means is an adhesive patch.

In preference, the adhesive patches are removable.

In preference, the first switch means is remotely operatively connected to the switch activating means by a connecting member.

In preference, the second switch means is operatively connected to the connecting member.

In preference, the remote switch unit body has an inner face, a portion of which is shaped to accommodate an outer shape of a wall mounted switch body.

BRIEF DESCRIPTION OF THE DRAWINGS

By way of example, an employment of the invention is described more fully hereinafter with reference to the accompanying drawings, in which:

FIG 1 is a perspective view of the remote switch unit according to a first embodiment,

FIG 2 is a plan view,

FIG 3 is a partially transparent view of FIG 1 showing the fitting of the unit to a light switch,

FIG 4 is a side sectional view of the unit, showing the mechanism of operation.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings, one embodiment of the invention includes a remote switch unit 5 having a body 10 and a first end 12 and a second end 14.

Located at the first end 12 is a first switch means, being a toggle switch 16. The toggle switch 16 is then pivotally connected to the connecting member 20 via the pivot join 22.

The connecting member 20 is then directly connected to the shaft 22 passing through the roller 24.

The shaft 22 has a portion 26 that projects outwardly from the roller 24 and fits within slots 30 in the opening 32 of the body 10. The slots 30 are located such

that movement of the shaft 22 within the opening 32 urges the roller 24 against the switch 38 of the wall mounted switch body 40. In this way then by activating the toggle switch 16, the connecting member 20 forces the roller 24 on to the protruding portion of the switch 38 with sufficient force to activate it.

To deactivate the switch, toggle switch 16 is simply reversed so that again the roller 24 urges against the projecting portion of the switch 38 thus deactivating the switch.

Although the current invention is described using toggle switches, other switches may also be utilised.

The body 10 has an inner face 41 having a recessed portion 42 shaped to accommodate a switch body plate 40. As would well be appreciated by those skilled in the art, minor modifications can be made to the recessed portion 42 in order to accommodate different sized switch body plates 40. To ensure correct orientation and alignment of the roller 24 with the switch 38, the body 10 has a protruding portion 44 that abuts a section 43 of the switch body plate 40.

In this manner then the remote switch unit 5 can be quickly and easily orientated onto the switch plate body 40 and held in place by fasteners 46 which can be of the removable type so that the remote switch unit can be removed from the switch body and wall 7 without necessarily leaving damage or unsightly marks. Alternatively, screws, clips or other fastening devices may be employed depending upon needs.

Additionally, the remote switch unit 5 may also include a second toggle switch 48 pivotally connected to the connecting member 20 by pivot 50. In this way it is then possible for a first person to activate the switch via a first toggle switch 16 and a second person may then choose to use the second toggle switch 48.

As would now be obvious, the remote switching unit 5 can be used in situations where it is desirable to place a switch at a point lower than that that exists on the wall, or in the alternative should the switch on the wall be too low then the

remote switching unit can be applied upside down to place the switch higher up on the wall so that the user does not necessarily need to bend too far down in order to activate it.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures can be made within the scope of the invention, which is not to be limited to the details described herein.

CLAIMS

1. A remote switch unit including a body, having a first and second end, the body adapted to attach securely to a wall mounted switch body, at least a first switch means located at the first end, a switch activating means located at the second end, the first switch means being remotely operatively connected to the switch activating means such that, in use, the remote switch body is placed over or in close proximity to the wall mounted switch body by a fastening means and activation of the first switch means operates a switch located on the wall mounted switch body.

2. The remote switch unit as claimed in claim 1, wherein the at least first switch means is a toggle switch pivotally interconnected to the switch activating means.

3. The remote switch unit as claimed in claims 1 or 2, wherein there is a second switch means pivotally interconnected with the switch activating means, located at the second end of the body.

4. The remote switch unit as claimed in claim 2, wherein the switch activating means is a roller.

5. The remote switch unit as claimed in claim 1, wherein the switch activating means is supported by the remote switch unit body.

6. The remote switch unit as claimed in claim 5, wherein the remote switch unit body includes integral guides to accommodate the switch activating means.

7. The remote switch unit as claimed in claim 6, wherein the integral guides urge the switch activating means against the wall mounted switch.

8. The remote switch unit as claimed in claim 7, wherein the fastening means is an adhesive patch.

9. The remote switch unit as claimed in claim 8, wherein the adhesive patches are removable.

10. The remote switch unit as claimed in claim 9, wherein the first switch means is remotely operatively connected to the switch activating means by a connecting member.

11. The remote switch unit as claimed in claim 10, wherein the second switch means is operatively connected to the connecting member.

12. The remote switch unit as claimed in claim 11, wherein the remote switch unit body has an inner face, a portion of which is shaped to accommodate an outer shape of a wall mounted switch body.

13. The remote switch unit as defined with reference to the accompanying drawings and described within the text.

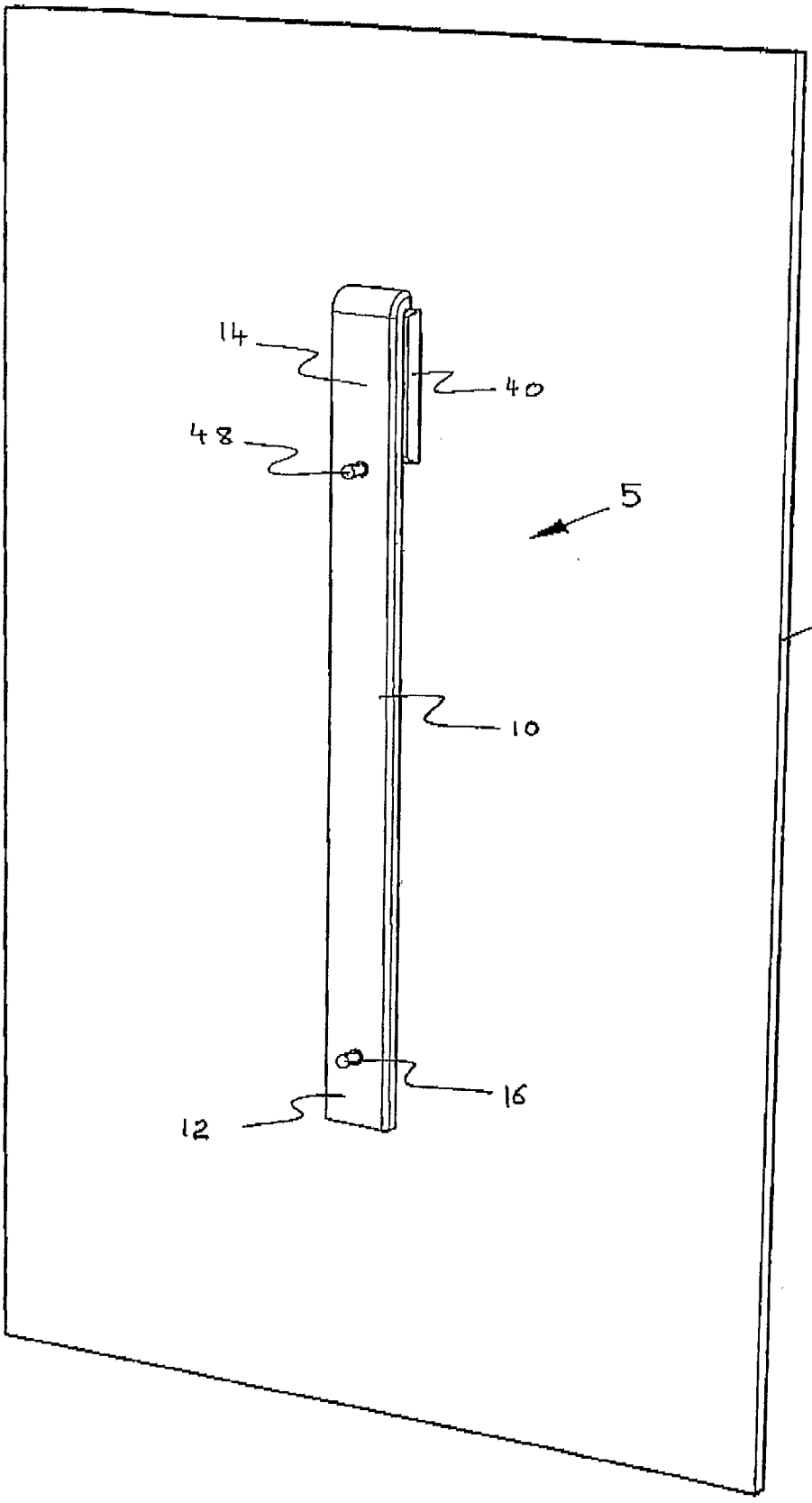

Fig 1

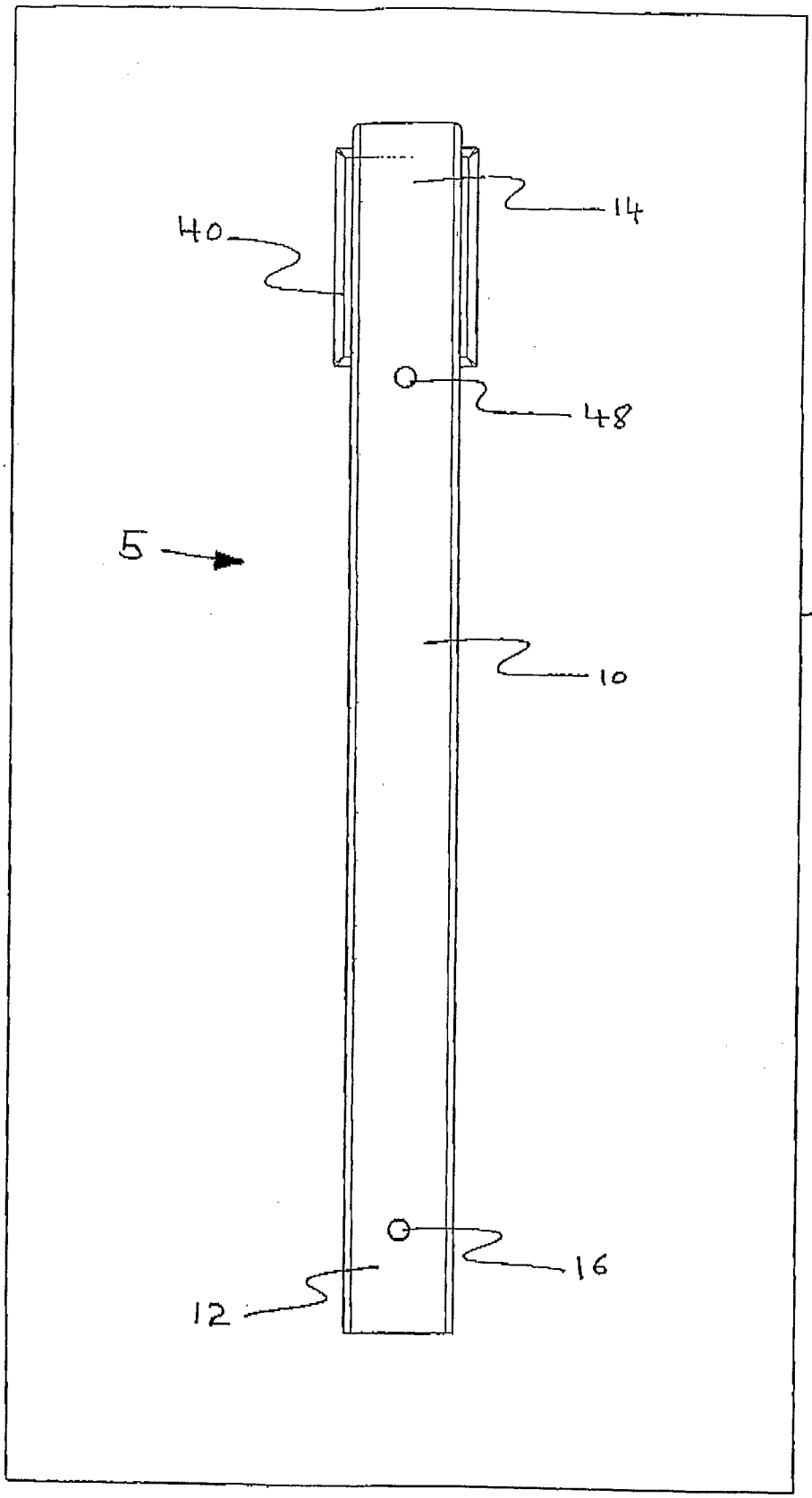

Fig 2

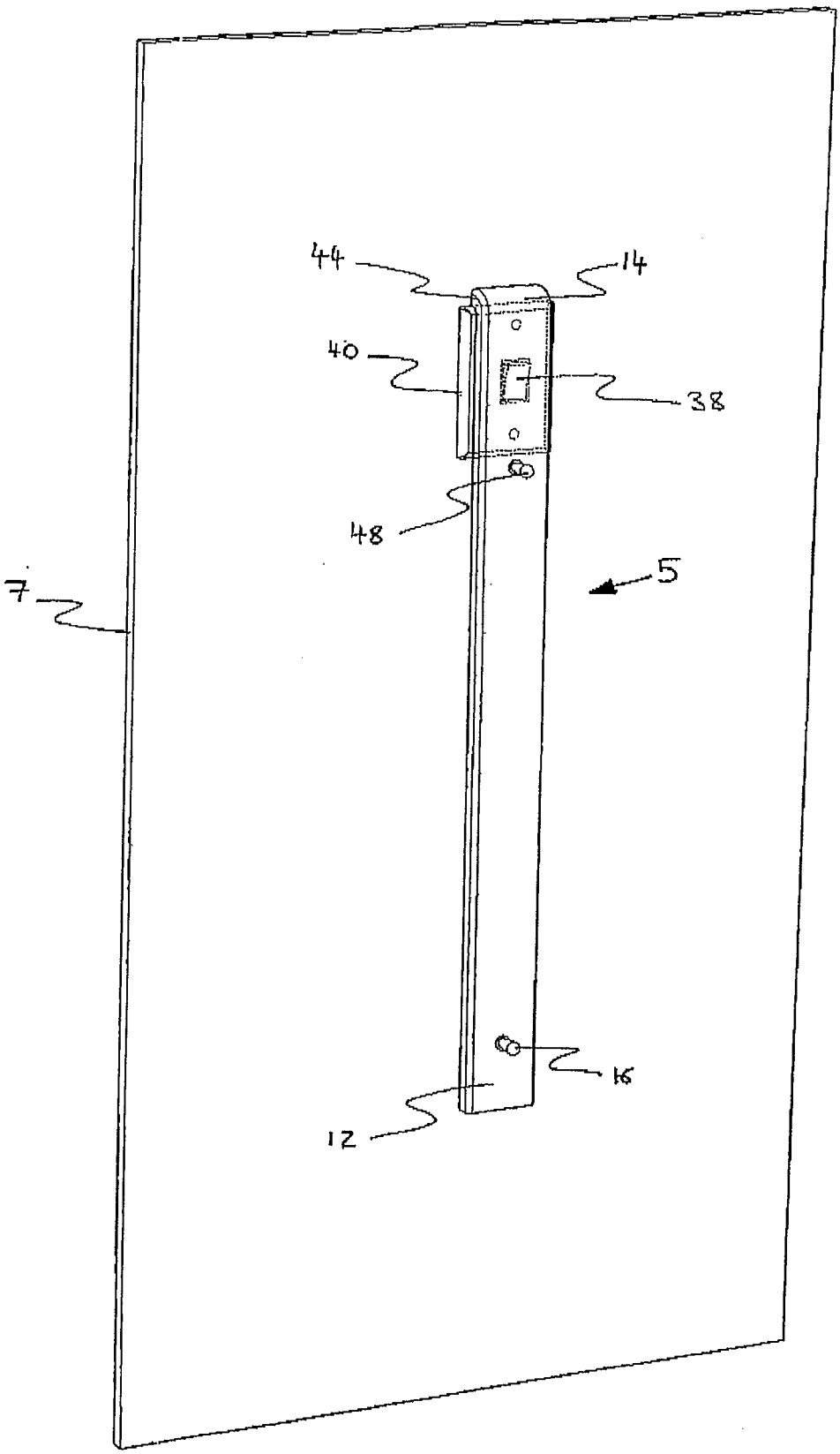

Fig 3

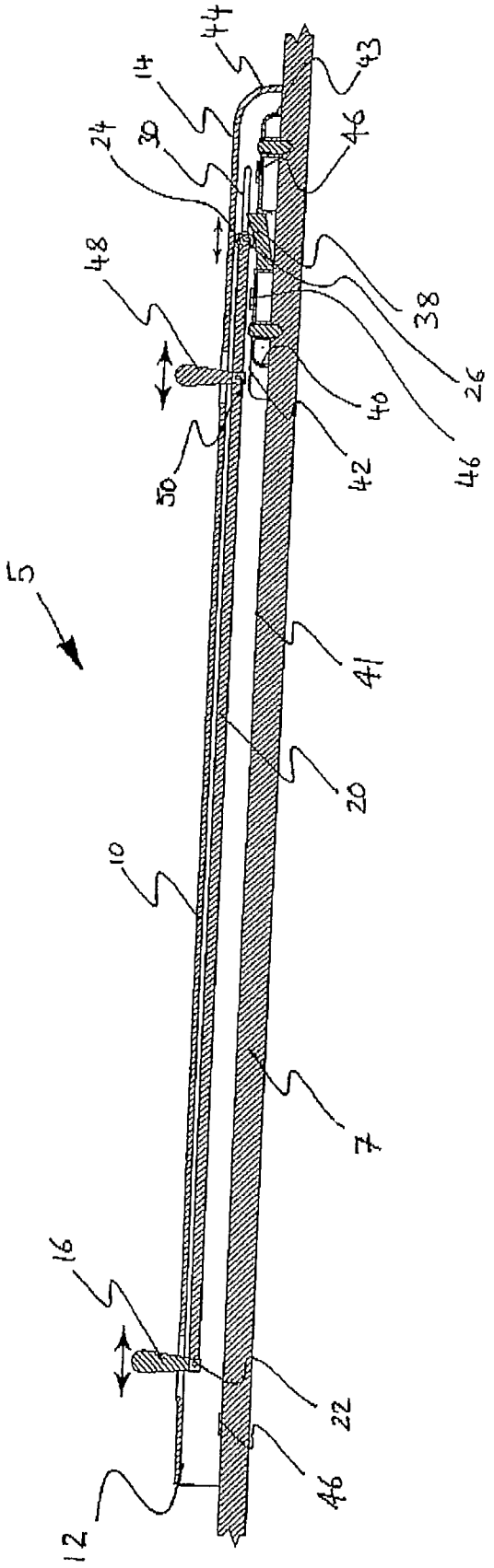

Fig 4

INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl.

H01H 3/46 (2006.01) ***H01H 23/14*** (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPOQUE, ESP@CE & IPC H01H And Keywords (remote, child, switch, cover) And Similar Words

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation Of Document, With Indication, Where Appropriate, Of The Relevant Passages	Relevant To Claim No.
X	US 3839615 A (***BRADFORD***) 1 October 1974 Abstract, Drawings, Col. 1, Line 53 – Col. 2, Line 14 & Claim 1	1 – 13
X	US 2668456 A (***MEISTRELL***) 9 February 1954 Abstract, drawings, Col. 2, Line 15 – Col. 3, line 38 & Claims	1 – 13
X	US 5374797 A (***MCMILLAN***) 20 December 1994 Abstract, Drawings, Col. 2, Line 40 – Col. 3, Line 25, Col. 5, Lines 1 – 20 & Claims	1 – 13

[X] Further Documents Are Listed In The Continuation Of Box C [X] See Patent Family Annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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Date Of The Actual Completion Of The International Search	Date Of Mailing Of The International Search Report
13 July 2007	23 JUL 2007
Name And Mailing Address Of The ISA/AU **AUSTRALIAN PATENT OFFICE** PO Box 200, Woden ACT 2606, AUSTRALIA E-Mail Address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer **AMOD PRADHAN** **AUSTRALIAN PATENT OFFICE** (ISO 9001 Quality Certified Service) Telephone No : (02) 6283 2510

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation Of Document, With Indication, Where Appropriate, Of The Relevant Passages	Relevant To Claim No.
X	CA 1242236 A (LAFOND) 20 September 1988 Abstract, Drawings (Fig. 2), Page 2, Lines 2 – 15 & Claims	1 – 13
X	US 4295026 A (WILLIAMS et al.) 13 October 1981 Abstract, Drawings, Col. 2, Line 30 – 66, Col. 3, Line 55 – Col. 5, Line 10 & Claims	1 – 13
X	CA 930780 A (KELLAND) 24 July 1973 Abstract, Drawings, Page 1, Lines 20 – 25 & Claim 1	1 – 13
A	US 3581037 A (SCHIFFELBEIN) 25 May 1971 Entire Document	
A	US 2493581 A (HOOD) 3 January 1950 Entire Document	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU2007/000834

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	3839615		NONE				
US	2668456		NONE				
US	5374797		NONE				
CA	1242236		NONE				
US	4295026		NONE				
CA	930780		NONE				
US	3581037		NONE				
US	2493581		NONE				

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX