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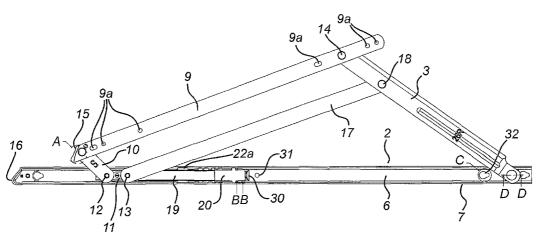
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(54) Title: SASH HINGE



(57) **Abstract:** A hinge for supporting a sash between a closed position, in which it lies within a fixed frame, and a plurality of open positions, in which it extends at an angle to the fixed frame. The angles of the plurality of open positions being determined by a restricting means between a support track (2) and a slider (11) mounted thereon. A support block (1) provides increased bearing surface and support for the fixing means (5) between the support track (2) and a link (3). A stay open restrictor device for preventing closure of a sash into a fixed frame.

#### INTERNATIONAL SEARCH REPORT

International application No PCT/GB2006/002213

A. CLASSIFICATION OF SUBJECT MATTER E05D15/44 E05D5/10 E05D5/12 E05C17/28 INV. 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) E05D E05C 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 practical, search terms used) **EPO-Internal** C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with Indication, where appropriate, of the relevant passages Relevant to claim No. X US 5 735 021 A (BRIGGS JEFFREY M [US]) 1-4,7 7 April 1998 (1998-04-07) Υ column 6, line 27 - line 45 5,6,8 column 6, line 62 - column 7, line 26 column 7, line 59 - column 8, line 5 figures 1-5 Υ US 5 083 344 A (PETTIT DEAN A [US] ET AL) 5,6 28 January 1992 (1992-01-28) column 2, line 49 - line 54 column  $_3$ , line 34 - line 43column  $_3$ , line 60 - 1ine 68figure 1 Y 8 FR 2 667 347 A (EUROMOND LTD [GB]) 3 April 1992 (1992-04-03) page 13, line 8 - page 14, line 25; figures 8-10 -/**--**Further documents are listed In the continuation of Box C. X See patent family annex. Special categories of cited documents : "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 "A" document defining the general state of the art which Is not considered to be of particular relevance Invention "E" earlier document but published on or after the International "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority clalm(s) or which Is cited to establish the publication date of another Involve an Inventive step when the document Is taken alone "Y" document of particular relevance; the claimed Invention cannot be considered to Involve an Inventive step when the document is combined with one or more other such document is combined with one or more other. citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means In the art. "P" document published prior to the International filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the International search Date of mailing of the International search report 26 November 2007 03/12/2007 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL-22SO HV RIJSWIJK Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Van Kessel, Jeroen

## INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2006/002213

		PCT/GB2006/002213
C(Continua	ation). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*,-	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 226 002 A (DAVIS RONALD P) 7 October 1980 (1980-10-07) column 3, line 54 - column 4, line 6 column 6, line 17 - line 21 column 6, line 45 - line 53 figures 3,13,15	1,3,5
X Y A	GB 2 307 944 A (COTSWOLD ARCHITECT PROD [GB]) 11 June 1997 (1997-06-11) page 1, line 4 - line 11  page 3, line 23 - page 5, line 19	9-12,21 13,18, 20,22 17
X A	figures 1-3  GB 2 246 393 A (SECURISTYLE LTD [GB]) 29 January 1992 (1992-01-29) page 1, line 6 - line 19 page 4, line 12 - line 26 figures 1-4	9-12
Y	GB 2 262 308 A (SECURISTYLE LTD [GB]) 16 June 1993 (1993-06-16) page 4, line 9 page 4, line 18 - line 29 page 5, line 9 - line 11 page 5, line 26 - line 29 page 6, line 11 - line 13 figures 1-3	13,18, 20,22

International application No. PCT/GB2006/002213

# INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain clalms were found unsearchable (Continuation of Item 2 of first sheet)
This International search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. I Claims Nos.:  because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No. III Observations where unity of invention Is lacking (Continuation of Item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable rlaimn.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. I No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest  The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.  The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
No protest accompanied the payment of additional search fees.

### FURTHER INFORMATION CONTINUED FROM POT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8,22,23

Hinge for supporting a sash

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2 . claims: 9-21

Stay open restrictor device

#### INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2006/002213

Publication Patent document Patent family Publication cited in search report date member(s) date US 5735021 07-04-1998 2228794 Al 18-08-1998 Α CA 2036308 **A1** 28-02-1992 US 5083344 Α 28-01-1992 CA 2052388 **A1** 29-03-1992 FR 2667347 03-04-1992 Α CA 06-05-1992 GB 2249343 **A** US 4226002 Α 07-10-1980 519016 B2 05-11-1981 ΑU 03-04-1980 ΑU 4028078 A 15-05-1979 7806477 A BR17-11-1981 CA 1112405 Al 31-03-1979 DK 432278 A ΕP 0001487 Al 18-04-1979 ΕP 0024491 Al 11-03-1981 ΙE 48170 Bl 17-10-1984 IT 1099658 B 28-09-1985 JΡ 1273439 C 11-07-1985 OР 54058932 A 12-05-1979 JΡ 59049994 B 05-12-1984 MY 7185 A 31-12-1985 NO 783306 A 02-04-1979 SG 76583 G 15-02-1985 GB 2307944 11-06-1997 NONE Α GB 2246393 29-01-1992 55695 A 21-04-1995 Α HK GB 2262308 16-06-1993 Α NONE