Office européen des brevets

(11) **EP 1 122 392 A2** 

(12)

## **EUROPEAN PATENT APPLICATION**

(43) Date of publication: **08.08.2001 Bulletin 2001/32** 

(51) Int CI.<sup>7</sup>: **E06B 1/06**, E06B 1/62, E06B 1/60

(21) Application number: 01300911.3

(22) Date of filing: 01.02.2001

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE TR

Designated Extension States: **AL LT LV MK RO SI** 

(30) Priority: 01.02.2000 GB 0002137

(71) Applicant: Integral Window Systems Limited Rugby, Warwickshire CV21 3RQ (GB)

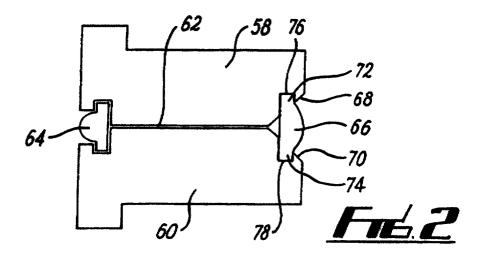
(72) Inventor: Nurcombe, Keith J. Rugby, Warwickshire CV21 2BS (GB)

(74) Representative: Chapman, Helga Claire Swindell & Pearson 48 Friar Gate Derby DE1 1GY (GB)

## (54) Frame system

(57) A frame system comprises two abutting frame members (58,60) with a slot formed between the frame

members. A cover strip (64,66) is provided to fit within the slot so as to cover the join (62) between the abutting frame members.



EP 1 122 392 A2

5

15

35

## **Description**

**[0001]** This invention relates to frames, more particularly but not exclusively this invention relates to a joining system for wooden window frames.

**[0002]** It is usual for two adjoining members of a window frame to be joined together by simply screwing, gluing or nailing. The joints can be unsightly and damaged by the external environment and hence are usually covered by a cap strip or cover mould, pinned, nailed or glued over the joint thus providing a protective and more attractive finish.

**[0003]** This cap strip is usually manufactured from the same material as the window frame. However, such cap strips can be visually obtrusive and expensive to fit.

**[0004]** It is therefore an aim of the present invention to provide an improved frame system which may alleviate the aforementioned problems.

**[0005]** According to the present invention there is provided a frame system comprising at least two abutting frame members forming a join, a slot being formed by the abutting frame members wherein an elongate member is provided to fit within said slot so as to substantially cover said join.

**[0006]** In an embodiment of the present invention said elongate member comprises two protrusions, each protrusion adapted to fit within correspondingly formed slot within a frame member.

**[0007]** Also in an embodiment of the present invention each frame member comprises a protrusion wherein said protrusions are provided opposite one another and are adapted to fit within slots formed within said elongate member.

[0008] In an embodiment said elongate cover is a join cover.

**[0009]** In a further embodiment of the present invention said join cover comprises a rounded side wherein, when in-situ, is externally visible.

**[0010]** In a further embodiment of the present invention, when in-situ, said join cover does not extend beyond said frame members.

**[0011]** In another embodiment of the present invention, the frame members form the corner of a frame system.

**[0012]** In a further embodiment of the present invention said frame members and said join cover are manufactured from wood.

**[0013]** Also in an embodiment of the present invention said join cover fits over said join such that when the frame members are joined together said join cover is provided over said join in a substantially central location. **[0014]** An embodiment of the present invention will be

described with reference to the accompanying drawings, in which:-

Fig. 1 is a section through a corner frame system comprising three frame members and two joins;

Fig. 2 is a section through a frame system comprising two frame members and one join:

Fig. 3 is a magnified view of a join member inserted within a groove between two frame members; and

Fig. 4 is another magnified view of a join cover insitu.

Fig. 5 is a section through a corner frame system according to a further embodiment of the invention;

Fig. 6 is an enlarged view of part of Fig. 5;

Figure 7 is a section through a further example of a frame system comprising two frame members and one join.

**[0015]** Referring to Fig. 1 a frame system 10 comprises three frame members 12, 14, 16 joined together to form the corner portion of a frame system 10. Frame portions 12 and 16 comprise channels 18, 20 which are shaped and formed to receive windows (not shown).

**[0016]** The frame members 12, 14, 16 abut at joins or seals 22, 24. These joins or seals utilise a suitable method of joining the frame members such as screwing or nailing.

[0017] The frame member 14 comprises two similarly formed channels 26, 28 which correspond with channels 30, 32 formed within frame members 12, 16. These channels 32, 26 and 30, 28 are positioned opposite one another so as to form a insert channel or groove 34 and 36. These channels 34 and 36 are shaped so as to receive a cover strip 38 shown in groove 36 but not in groove 34.

[0018] The cover strip 38 comprises two protrusions 40, 42 which fit snugly within the grooves 28 and 30. The base portion of the cover strip 40 is substantially flat and covers one end of join 36 although any suitable profile may be utilised. The top portion of the cover strip 38 comprises a rounded portion 44 which provides an aesthetically pleasing surface visible externally of the frame system.

**[0019]** The cover strip 38 may be slotted into place or comprise a flexible material which enables a push fit to be achieved. Once in place, the cover strip 38 provides protection for the join 24 from the ingress of water and other environmental hazards.

**[0020]** The joins 22 and 24 meet at an apex 46 and again similarly shaped channels 48 and 50 are formed within the frame members 12 and 16. A further cover strip 52 is provided within the slot formed between the channels 50 and 48. The frame members 12 and 16 are therefore able to pivot about a second cover strip 52 so that frame members 12 and 16 may be positioned with any suitable angle from 90° to 180° therebetween at their pivot point. The frame members 12 and 16 are formed with wedges 54 and 56 each abutting either side

of the second cover strip 52, to retain the cover strip 52 within the slot.

[0021] Fig. 2 illustrates a further embodiment of the invention, however in this arrangement only two frame members 58, 60 are utilised and hence only a single join 62 is required to be concealed by first and second cover strips 64, 66. The first cover strip 64 is utilised in the same manner as shown in Fig. 1. The second cover strip 66 is mounted within a notch formed by two corner chamfers 68, 70 of frame members 58 and 60 respectively. The cover strip 66 is mounted within the notch formed by these abutting frame members 58 and 60 at their chamfered ends. The ends 72, 74 of the cover strip 66 are mounted in correspondingly shaped slots 76, 78 formed within frame members 58 and 60 respectively. This cover strip 66 is mounted in a notch rather than a substantially rectangular slot as is the case with cover strip 64.

**[0022]** Fig. 3 shows a further embodiment of the present invention. Again a join 80 is covered by cover strip 82 mounted within notch 84 formed by chamfered corners 86, 88 of frame members 90 and 92 respectively. In this embodiment of the invention cover strip 82 is substantially hemispherical in shape and slots into notches 94 and 96 formed within frame members 90 and 92 respectively. Fig. 4 shows a further envisaged shape of a cover strip 98 mounted similarly in a shaped slot 100

**[0023]** Now referring to Figures 5 to 7 further embodiments of the invention are shown. The frame system is similar to those shown in Figures 1 and 2. In each of the embodiments shown in Figures 5 to 7 the cover strips are formed with indentations 102, 104 which cooperate with protrusions 106,108 formed in the frame members 12, 14, 16, 58 and 60.

**[0024]** The cover strips shown in the embodiments of the present invention may be manufactured from any suitable material, usually of the same material as the frame members such that an aesthetically pleasing external appearance is provided. Also it is desirable but not essential, that the cover strips do not extend beyond the profile of the frame members so as to further enhance the aesthetic appearance of the frame structure.

## Claims

- 1. A frame system comprises at least two abutting frame members forming a join, a slot being formed by the abutting frame members wherein an elongate member is provided to fit within said slot so as to substantially cover said join.
- 2. A frame system according to claim 1 wherein said elongate member comprises two protrusions, each protrusion adapted to fit within a correspondingly formed slot within a frame member.

- 3. A frame system according to claim 1 or claim 2 wherein each frame member comprises a protrusion and wherein said protrusions are provided opposite one another and are adapted to fit within slots formed within said elongate member.
- A frame system according to any one of the preceding claims wherein said elongate cover is a join cover.
- **5.** A frame system according to any one of the preceding claims wherein said join cover comprises a rounded side which, when in-situ, is externally visible
- **6.** A frame system according to any one of the preceding claims wherein, when in-situ, said join cover does not extend beyond said frame members.
- 20 7. A frame system according to any one of the preceding claims wherein the frame members form the corner of a frame system.
  - **8.** A frame system according to claims 4 to 7 wherein the frame members and said join cover are manufactured from wood.
  - 9. A frame system according to claim 4 wherein said join cover fits over said join such that when the frame members are joined together said join cover is provided over said join in a substantially central location
  - 10. A frame system according to claim 1 wherein said frame members comprise at least one corner and are angled toward each other at one of their corners such that they abut each other at one of their corners so as to form a notch therebetween, said elongate member being positioned within said notch so as to cover the join formed by the abutting frame members.
  - **11.** A frame system according to claim 10 wherein said corners are chamfered.

45

35

40

3

