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(54) A glazing support

(57) A glazing support (1) for use in supporting suspended glazing panels (5) comprises a boss (6) having a central through hole (7) for mounting a support bar (8) which is attached to a structural support (10). A number, in this case four, support arms (11), (12), (13), (14) extend from the boss 6. Mounting discs (15), (16), (17), (18) are mounted at the ends of the respective arms (11), (12), (13), (14) and these discs are used as washers in bolting attachment to the glazing panels (5). The boss (6) is of generally frustroconical shape and has four threaded_sockets (20) which are equi-spaced circumferentially around the conical portion of the boss 6. Each of the support arms (11), (12), (13), (14) has a spigot (25) at one end for screw threading engagement in a socket (20) of the boss (6). A spigot (30) at an opposite end of the support arm is screw threadingly engagable in a corresponding socket (35) of a mounting disc (15), (16), (17), (18). A kit comprising a single boss type (16), a single arm type (11,12,13,14,) and a number of different (15,16,17,18) mounting discs may be used to assemble either on site or off site, appropriate glazing supports for a given structure.

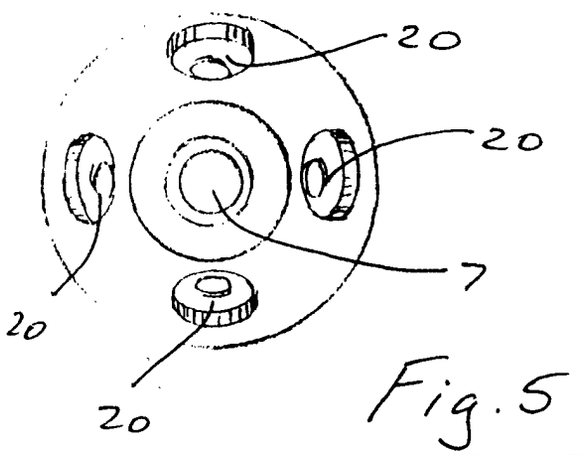

Fig. 5

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Description

Introduction

[0001] The invention relates to a glazing support of the type comprising a boss for mounting to a structural support, the boss having a number of support arms for mounting to suspended glazing panels. Glazing supports of this type are widely used in providing large uninterrupted glass surfaces.

[0002] A problem arises in use of such glazing supports in that a very large number of separate supports must be available to cater for the wide variation in the application of such supports. This is not only expensive but also leads to potential problems if the correct support for a particular structural requirement is not available on site.

[0003] Currently available supports comprise either fully casted support or a combination of part machined and part cast supports. These castings, even when of good quality require some fine machining and polishing to bring them to an acceptable standard both technically and aesthetically.

[0004] This invention is therefore directed providing a glazing support which will overcome at least some of these problems.

Statement of Invention

[0005] According to the invention there is provided a glazing support for suspended glazing panels comprising a boss for mounting to a structural support and a number of support arms extending from the boss for attachment to and support of adjacent glazing panels, at least some of the support arms being releasably mounted to the boss. Preferably the boss has a number of sockets, each for receiving a support arm, most preferably the support arm is threadingly engagable in the socket. Ideally the support arm includes a threaded spigot for engaging a correspondingly threaded socket of the boss.

[0006] In one embodiment of the invention the sockets are substantially equi-spaced circumferentially around the boss.

[0007] In a further embodiment of the invention at least some of the support arms have an outer mounting disc for attachment to glazing. Preferably the mounting disc is releasably mounted to the support arm.

[0008] The invention further provides a glazing support assembly comprising a boss for mounting to a structural support, and a number of support arms which are releasably engagable with the boss, preferably the glazing support assembly includes a number of outer glazing mounting discs which are releasably engagable to the support arms.

Brief Description of the Drawings

[0009] The invention will be more clearly understood from the following description thereof given by way of example only with reference to the accompanying drawings in which:-

Fig. 1 is a perspective view of a glazing support of the invention;

Fig. 2 is a plan view of the glazing support;

Fig. 3 is a cross sectional view of the glazing support;

Fig. 4 is a perspective view of a boss forming part of the glazing support;

Fig. 5 is a top plan view of the boss;

Fig. 6 is a cross sectional view of the boss;

Fig. 7 is a side elevational view of the boss;

Fig. 8 is an elevational view of a support arm forming part of the glazing support;

Fig.9 and Fig. 10 are end views of the arm of Fig. 8;

Fig. 11 and Fig. 12 respectively are cross sectional and elevational views of a mounting disc of the glazing support;

Fig. 13 and Fig. 14 respectively are cross sectional and elevational views of another mounting disc;

Fig. 15 and Fig. 16 respectively are cross sectional and elevational views of a further mounting disc; and

Fig. 17 is a perspective view of the glazing support, in use.

Detailed Description

[0010] Referring to the drawings there is illustrated a glazing support 1 according to the invention for use in supporting suspended glazing panels 5. The support 1 comprises a boss 6 having a central through hole 7 for mounting a support bar 8 which is attached to a structural support 10. A number, in this case four, support arms 11, 12, 13, 14 extend from the boss 6. Mounting discs15, 16, 17, 18 are mounted at the ends of the respective arms 11, 12, 13, 14 and these discs are used in a conventional manner as washers in bolting attachment to the glazing panels 5.

[0011] In this case the boss 6 is of generally frustroconical shape and has four threaded sockets 20 which

are equi-spaced circumferentially around the conical portion of the boss 6.

[0012] Each of the support arms 11, 12, 13, 14 has a spigot 25 at one end for screw threading engagement in a socket 20 of the boss 6. A spigot 30 at an opposite end of the support arm is screw threadingly engagable in a corresponding socket 35 of a mounting disc15, 16, 17,18.

[0013] It will be noted that there are a number of different mounting discs 15, 16, 17, 18 one with a relatively small hole, others with larger holes and one with an elongate slot. The arrangement of Fig. 2 is typical to facilitate attachment to four adjacent glazing panes as illustrated in Fig. 17.

[0014] A kit comprising a single boss type, a single arm type and a number of different mounting discs may be used to assemble either on site or off site, appropriate glazing supports for a given structure. This is achieved by simply screwing the support arms to the boss and screwing the appropriate discs to the ends of the support arms.

[0015] This arrangement has considerable advantages in that a relatively simple kit may be used to assemble the very large number of different glazing supports required. On-site assembly is also optimised as the supports can be very quickly assembled as required.

[0016] All the individual parts of the support assembly of the present invention are manufactured by machining process and therefore they are capable of achieving acceptable standard both technically and aesthetically directly from the machine without any further enhancement by polishing or otherwise.

[0017] Other advantages include the more economical stocking arrangement where bosses, arms and mounting discs can be procured in economical quantities and taken from stock and assembled as required.

[0018] Similarly - lead in times for procurement are much improved as the raw material (solid SS tube) is a standard off the shelf item. Castings must be produced in large quantities to be economical due to set up charges involved. With the present invention, even small quantities can be procured quickly and at economic cost.

[0019] It will be appreciated that while it is preferred that the mounting discs be releasably mounted to the support arms it may be possible to achieve some of the advantages of the invention by providing a plurality of different arms, each provided with a disc type.

[0020] The invention is not limited to the embodiments hereinbefore described which may be varied in construction and detail.

Claims

1. A glazing support (1) for suspended glazing panels (5) comprising a boss (6) for mounting to a structural support (10) and a number of support arms (11, 12, 13, 14) extending from the boss for attachment to and support of adjacent glazing panels (6), at least some of the support arms being releasably mounted to the boss.

2. A support as claimed in claim 1 wherein the boss has a number of sockets (20), each for receiving a support arm.

3. A support as claimed in claim 2 wherein the support arm is threadingly engagable in the socket (20).

4. A support as claimed in claim 3 wherein the support arm includes a threaded spigot (25) for engaging a correspondingly threaded socket (20) of the boss.

5. A support as claimed in any of claims 2 to 4 in which the sockets (20) are substantially equi-spaced circumferentially around the boss.

6. A support as claimed in any preceding claim wherein at least some of the support arms have an outer mounting disc (15, 16, 17, 18) for attachment to glazing.

7. A support as claimed in claim 6 wherein the mounting disc is releasably mounted to the support arm.

8. A glazing support (1) assembly comprising a boss (6) for mounting to a structural support (10), and a number of support arms (11, 12, 13, 14) which are releasably engagable with the boss.

9. A glazing support assembly as claimed in claim 8 including a number of outer glazing mounting discs (15, 16, 17, 18) which are releasably engagable to the support arms (20).

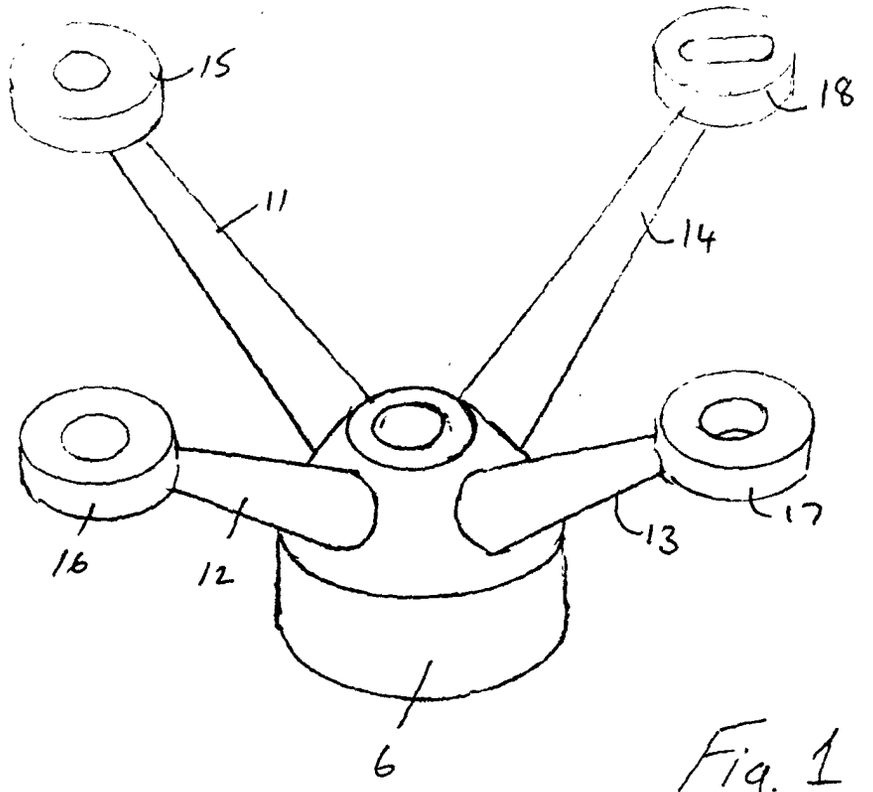


Fig. 1

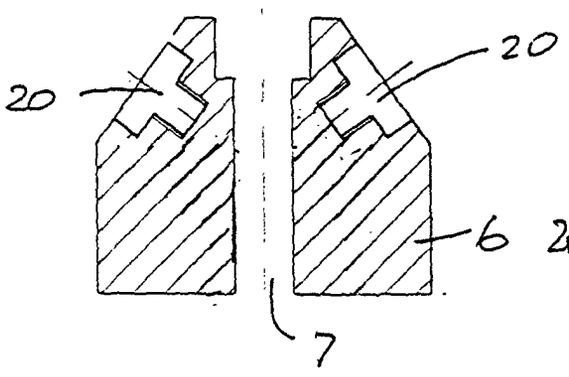


Fig. 6

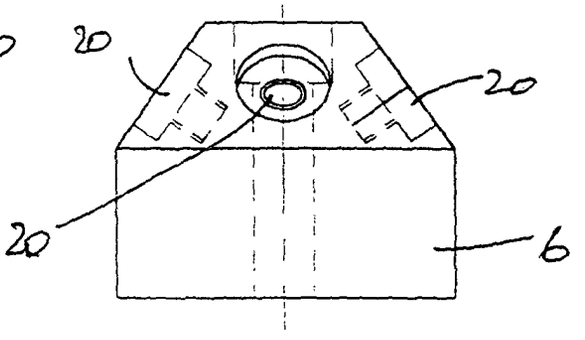


Fig. 7

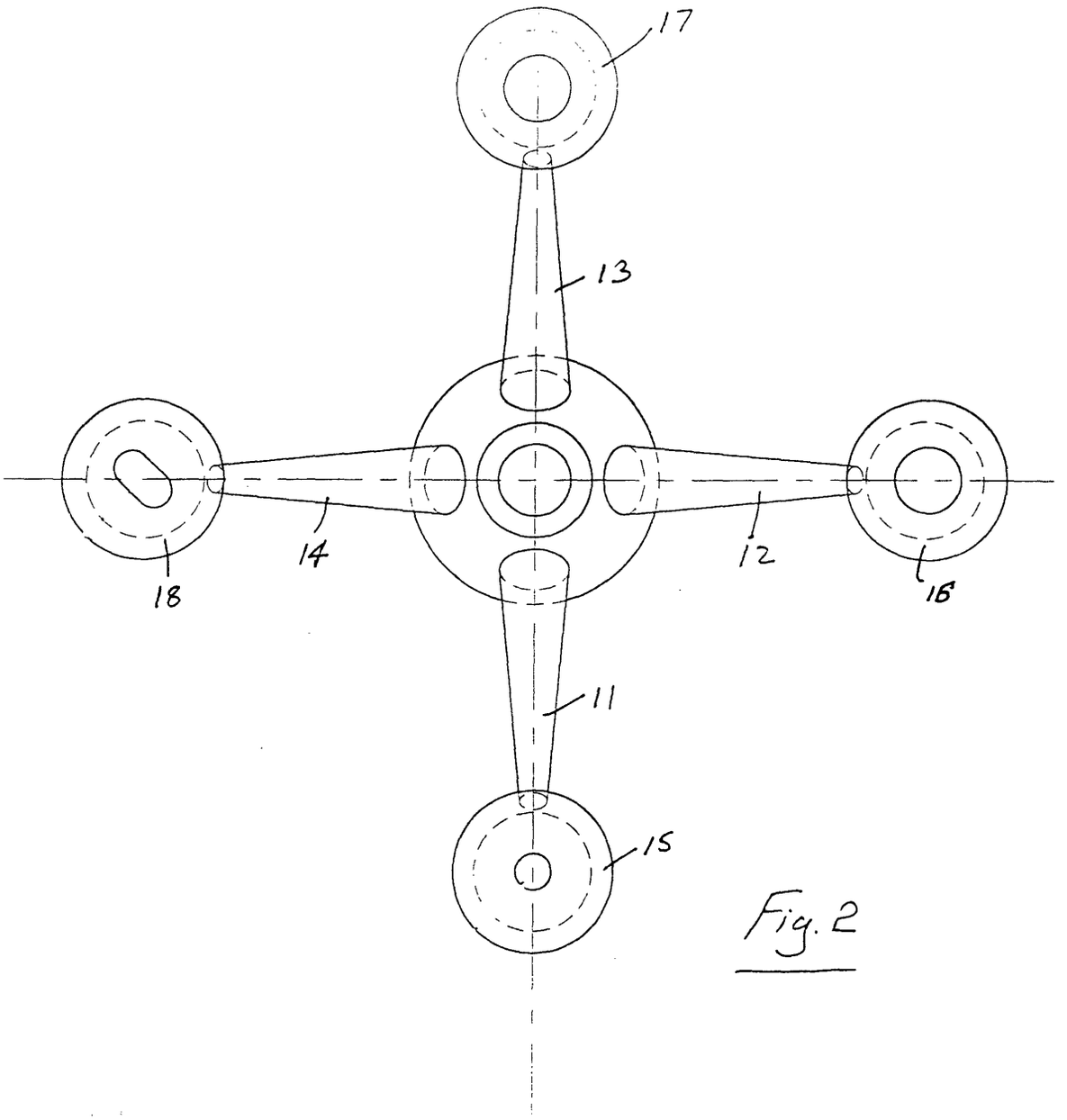


Fig. 2

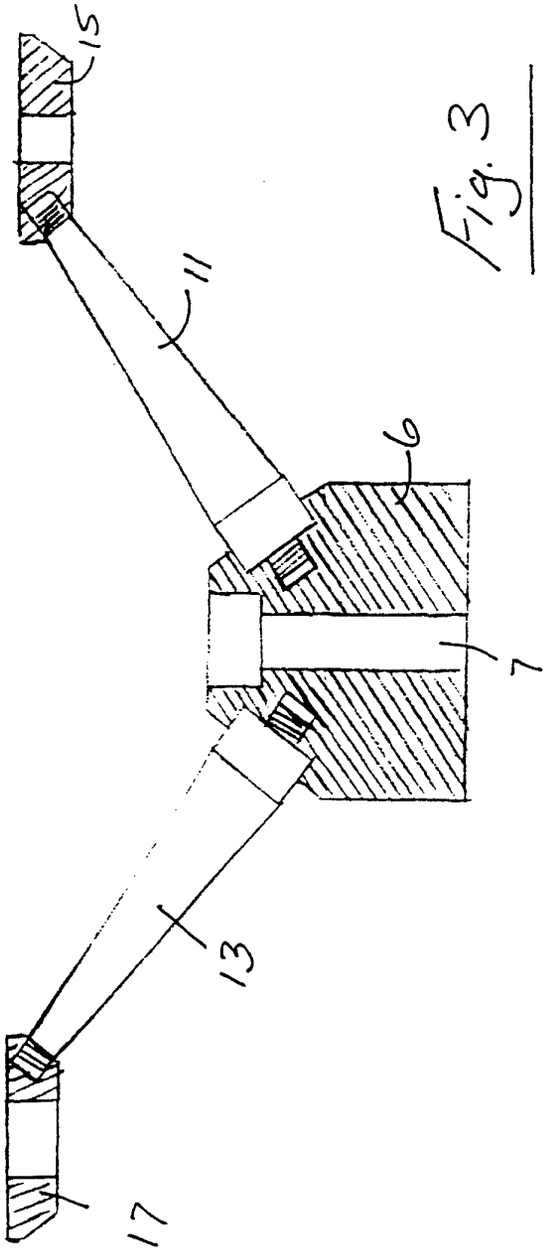


Fig. 3

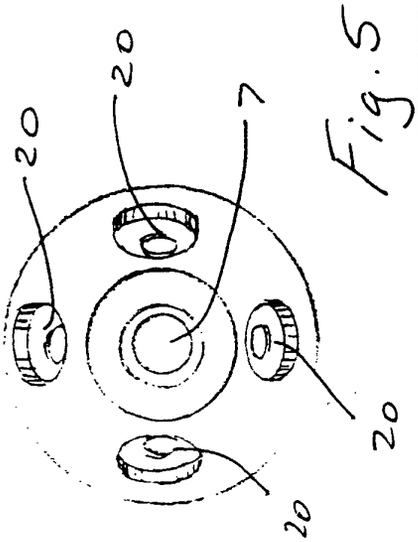
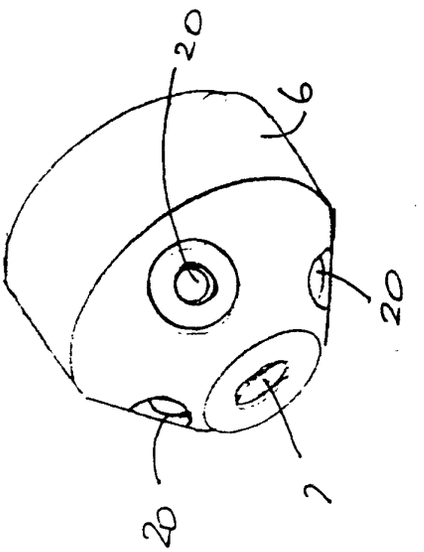


Fig. 5



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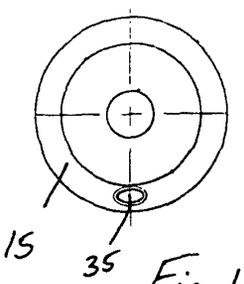

Fig. 11

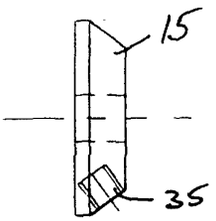

Fig. 12

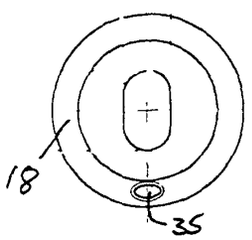

Fig 13

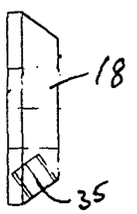

Fig. 14

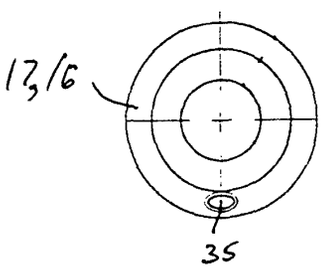

Fig. 15

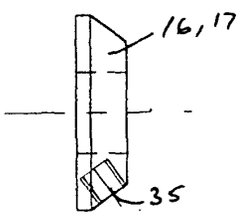

Fig. 16

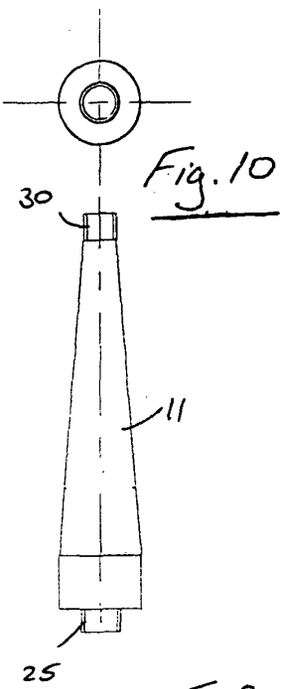

Fig. 10

Fig. 8

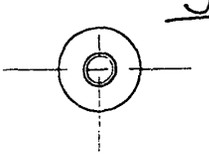

Fig. 9

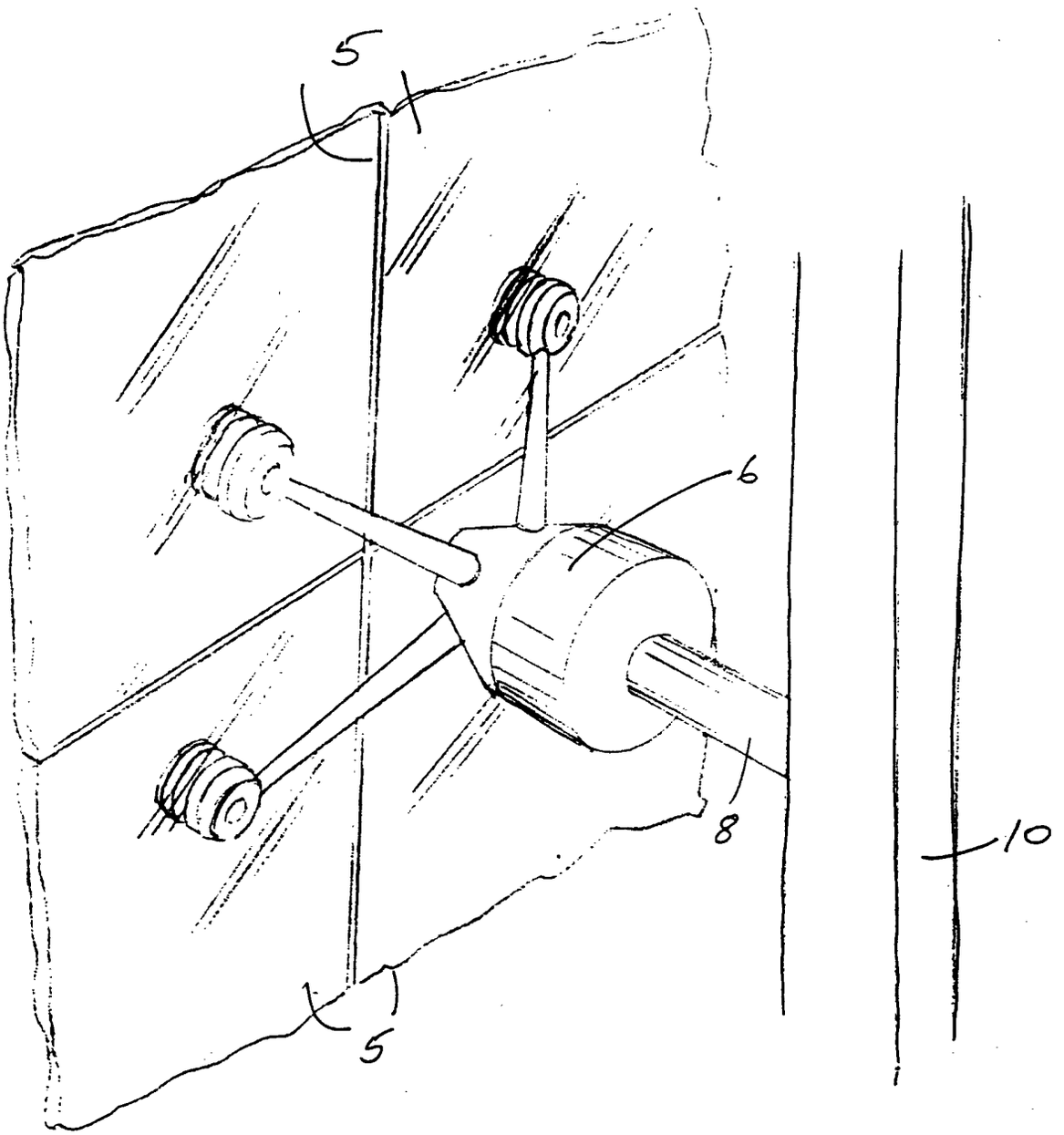

Fig. 17

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 65 0130

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.7)
X	BE 1 009 254 A (VERRE ATEL SAL) 7 January 1997 (1997-01-07) * page 3, line 11 - page 7, line 17 * * figures 1,3,5 *	1-18	E06B3/54

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

E06B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	7 February 2001	Verdonck, B

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
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P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 00 65 0130

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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07-02-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
BE 1009254 A	07-01-1997	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82