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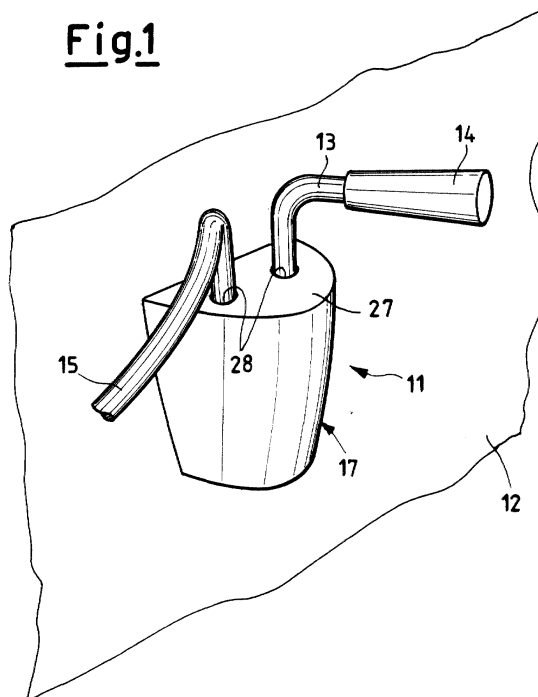
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(54) Quick-assembly support element for bars carrying house fittings

(57) A quick-assembly support element for bars carrying house fittings comprising two portions (16, 17) obtained from the same piece of material, articulated with one another (in 18) and closable the one upon the other, wherein a first portion (16) is a rear plate portion (19) provided with at least one hole (20) for wall-fastening, from the rear plate portion (19) extending at least one shelf or arm (21, 24) provided with a through hole (22, 25) for receiving end portions of at least one bar (13, 15)

carrying a house fitting, the second portion (17) being a front covering portion which exhibits a recessed box shape adapted to be arranged on the first portion (16), wherein one of its upper surfaces (27), opposed to a lower base surface (26) where there is provided the articulated joint (18) connecting the two portions (16, 17), is provided with at least one through hole (28) aligned with the underlying hole (22, 25) wherein there is arranged the at least one bar (13, 15) in a freely removable way.

Fig.1



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Description

[0001] The present invention relates to a quick-assembly support element for bars carrying house fittings, in particular for applications in the fitting of bathrooms, kitchens and the like.

[0002] In the house fitting field, particularly in that referred to bathrooms, kitchens and the like, it is usual to arrange support elements onto masonry walls, or onto pieces of furniture, for arranging bars or the like carrying containers, shelves, supports or else. These known support elements actually consist of more pieces, which must be suitably arranged and coordinated with one another so as to obtain the arrangement of bars carrying specific house fittings or else.

[0003] In particular, there is generally provided a fastening square, provided with holes, for wall-anchoring, which is first mounted at the portion selected for the relevant application. Once this has been done, bars or other similar elements are fastened which, once inserted in the fastening square, carry a shelf or other object being part of the house fitting. When also this second operation has been carried out, a closing or covering element must be fastened on the fastening square, so as to cover and fasten the entire support group thus realised, using a special locking element, such as a screw. Thus, also this further operation for fastening the cover must be carried out.

[0004] This series of operations implies a significant loss of time, with ensuing high costs. Moreover, it must be borne in mind that the presence of more pieces forming the support group implies being provided with the relevant pieces in the required sizes and number. An assembler of the support group, or a person in charge for the packaging of the parts forming the group must select the various constituting elements, in the right sizes, among the large variety of available pieces.

[0005] A further problem related to known support elements is that determined by the possibility of losing the pieces forming the support group, as they are separate from one another, despite the inspections carried out during the packaging of said group.

[0006] Object of the present invention is that of implementing a quick-assembly support element for bars carrying house fittings which should solve the above technical problems in a simple and quick way.

[0007] A further object of the present invention is that of minimising the number of pieces forming the support element so as not to have the possibility of confusing them with one another.

[0008] Another object of the present invention is that of eliminating the problems relating to piece identification while assembling the support element, which could cause an incorrect sequence of operations.

[0009] These objects according to the present invention are attained by implementing a quick-assembly support element for bars carrying house fittings as illustrated in claim 1.

[0010] Further features of the invention shall appear more clearly from the following claims.

[0011] The features and advantages of a quick-assembly support element for bars carrying house fittings according to the present invention will appear more clearly from the following exemplificative and non-limitative description made with reference to the attached schematic drawings. In such drawings:

- 10 - Figure 1 shows a perspective view of a quick-assembly support element according to the present invention, adapted for bars carrying house fittings, only partly shown, in closed operating position;
- 15 - Figure 2 shows a partly sectioned top view of the support element shown in figure 1;
- Figure 3 shows a longitudinal section according to line III-III of figure 2 of the support element;
- Figure 4 shows a section according to a transverse direction, perpendicular to the previous section shown in figure 3, in the same closed position;
- 20 - Figure 5 shows a section of the support element of the invention with its component parts arranged in an open position, without bars.

25 **[0012]** With reference to the figures, there is shown a quick-assembly support element for bars carrying house fittings implemented according to the present invention and indicated with reference numeral 11. Figure 1 shows such support element 11 fastened to a wall 12 and carrying a bar 13 for carrying a handle 14 for hanging a towel, not shown, as well as a second bar 15, only partly shown, for supporting any further house fitting. There can be one or more bars, so as to carry shelves, supports for glasses, and other house fittings.

30 **[0013]** The support element 11 is shown in its structure in the following figures, wherein there are still provided bars 14 and 15, only partly shown.

[0014] It shall be noted that said support element 11 comprises two portions 16 and 17, obtained from a same piece of material, articulated with one another thanks to the provision of a weakening line 18 in the base connection portion, and engagable the one upon the other for closing.

35 **[0015]** The first portion 16 is a rear portion provided with a plate portion 19, provided with holes 20, for wall-fastening through screws, not shown. Four shelves or arms 21, aligned two by two in vertical direction and provided with through holes 22, aligned as well, extend from said plate 19 for receiving end portions of bars 13 and 15.

40 **[0016]** Moreover, plate 19 is provided with a base 23, perpendicularly arranged with respect to it, from which two further arms 24 extend, exhibiting countersunk holes 25, aligned with holes 22, for receiving the free ends of bars 13 and 15, so as to collaborate to holding them in the correct position. Moreover, there can be provided vertical bearing elements 29 integral with the plate portion 19. Said vertical bearing elements 29 are ar-

ranged between arms 21 and 24, thus realising a further guide for bars 13, 15 when they are inserted into the holes and operatively arranged. Said vertical bearing elements 29 exhibit surfaces facing the rounded bars so as to have an optimum coupling to part of the cylindrical side surface of the same.

[0017] The second portion 17 is essentially a front covering surface which exhibits a recessed box shape adapted to be arranged or "fitted" onto the first portion 16. On an upper surface 27 opposed to the lower base surface 26, where there is provided the weakening line 18 connecting the two portions 16 and 17, there are provided two through holes 28 aligned with the underlying holes 22 and 25, wherein there are arranged bars 13 and 15.

[0018] Consequently, it is immediate to note the advantages determined by the technical solution proposed with the present invention.

[0019] In fact, when selecting and assembling the single support element for bars carrying any house fitting, it is not necessary to proceed to any particular precaution or selection of parts.

[0020] As the support element of the invention is realised in a single piece, it is collected by the user and arranged onto the selected portion of wall. Afterwards, it is sufficient to rest said element 11, with its two portions 16 and 17 opened with respect to one another, as shown in figure 5, on wall 12 in the selected position. Once the first portion 16 has been rested, the same first portion 16 is fastened by arranging the screws into the respective holes 20 of the plate portion 19. The whole is thus fixed into position. Afterwards, the second portion 17 is arranged in closure onto the first portion 16, determining the alignment of holes 28, 22 and 25.

[0021] It is thus possible to introduce bars 13 and 15, or optionally a single bar, if there is only one, into the mounted support element used.

[0022] A support element of this type exhibits a great opening and disassembly simplicity since it is sufficient to disengage the bars from the respective holes and open the two portions with respect to one another. In this way, the removal of screws between the fastening square and the cover, as well as the arrangement of the bars before arranging the cover onto the base square, are prevented.

[0023] In this way, it is possible to obtain both the final assembly and the disassembly in a fast and safe way with very few work steps, with a great time saving and with alignment precision between all of the component portions.

[0024] The support element 11 can be made of any suitable plastic material through pressing or the like, with any shape and colour.

[0025] Moreover, it must be pointed out that both the first and the second portion can be of any shape, provided that they can be coupled with one another. For example, a first type of reciprocal constraint in closed position the one upon the other can be determined by a

certain precision between the outside dimensions of the first one and the inside dimensions of the second one, so as to obtain a little forced and firm but yet freely removable coupling. As an alternative, the two portions can be provided with snapwise coupling members, not shown, of any type.

[0026] Alternatively, the support element 11 can be provided with a single arm 21 or 24 and a single hole 22 or 25, as well as a single hole 28, without departing from the protection scope of the invention.

[0027] The support element 11 thus conceived can be subject to several changes and variants, all falling within the invention; moreover, all details are replaceable with technically equivalent elements. In practice, the materials used, as well as the sizes, can be of any type according to the requirements.

Claims

1. Quick-assembly support element for bars carrying house fittings comprising two portions (16, 17) obtained from the same piece of material, articulated with one another (in 18) and closable the one upon the other, wherein a first portion (16) is a rear plate portion (19) provided with at least one hole (20) for wall-fastening, from said rear plate portion (19) extending at least one shelf or arm (21, 24) provided with a through hole (22, 25) for receiving end portions of at least one bar (13, 15) carrying a house fitting, said second portion (17) being a front covering portion, exhibiting a recessed box shape adapted to be arranged or "fitted" on said first portion (16), wherein one of its upper surfaces (27), opposed to a lower base surface (26) where there is provided said articulated joint (18) connecting said two portions (16, 17), is provided with at least one through hole (28) aligned to said underlying hole (22, 25) wherein there is arranged said at least one bar (13, 15) in a freely removable way.
2. Support element according to claim 1, **characterised in that** said rear plate portion (19) is provided with at least two shelves (21, 24) aligned in vertical direction and provided with through holes (22, 25), aligned as well.
3. Support element according to claim 1, **characterised in that** said rear plate portion (19) is provided with four shelves or arms (21), aligned two by two in vertical direction and provided with through holes (22), said upper surface (27) of said second covering surface (17) also being provided with two holes (28) aligned with the underlying ones.
4. Support element according to claim 1, **characterised in that** said articulated joint connecting said two portions (16, 17) is obtained through a weaken-

ing line (18).

5. Support element according to claim 1, **characterised in that** said rear plate portion (19) is also provided with a base (23), arranged perpendicularly with respect to it, from which at least one further arm (24) extends, exhibiting at least one countersunk hole (25) aligned with said holes 22, for receiving free ends of said at least one bar (13, 15).
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6. Support element according to claim 5, **characterised in that** it is provided with vertical bearing elements (29) integral with said rear plate portion (19), wherein said bearing elements (29) are arranged between said arms (21, 24), thus realising a further guide for said at least one bar (13, 15) when it is inserted into the holes and operatively arranged.
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7. Support element according to any one of the previous claims, **characterised in that** it is obtained from pressed plastic material.
20
8. Support element according to claim 1, **characterised in that** said second front portion (17) is fitted onto said first rear portion (16), being the inside dimensions of the one (17) very close to the outside dimensions of the other, so as to obtain a little forced and firm but yet freely removable coupling.
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Fig.1

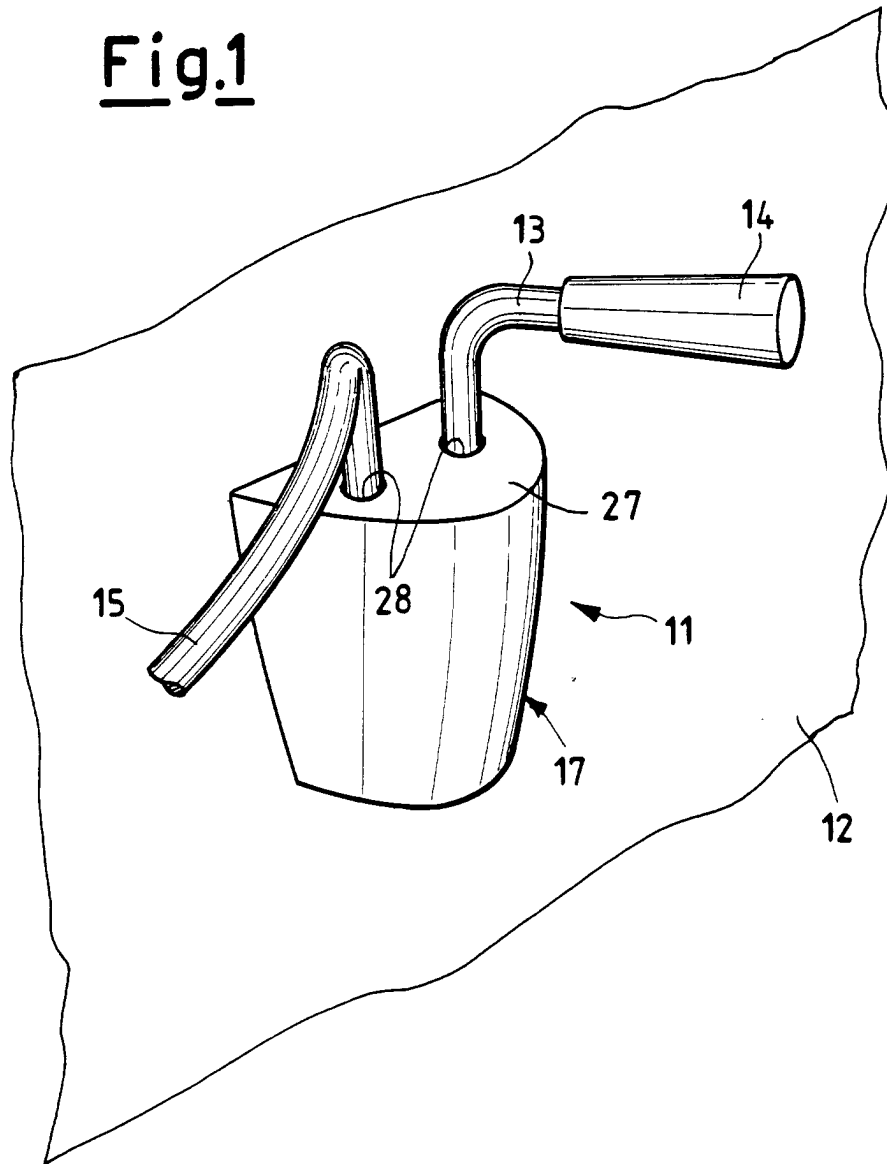


Fig.2

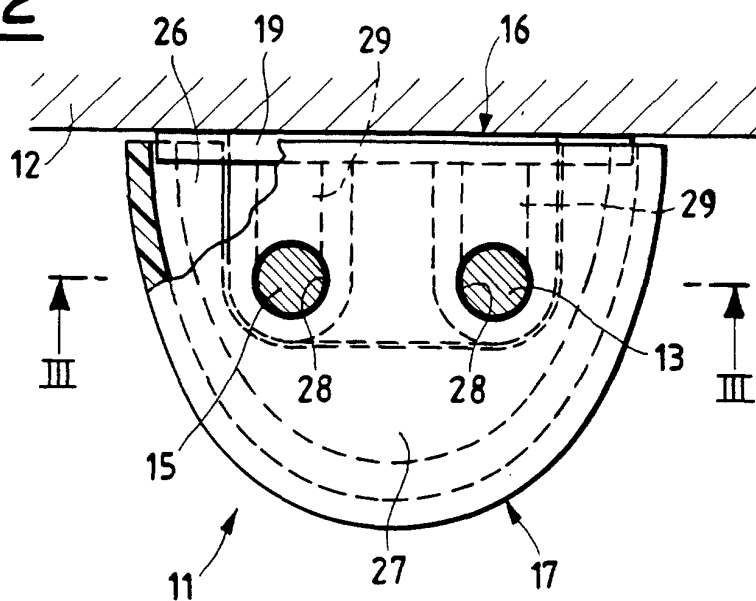


Fig.3

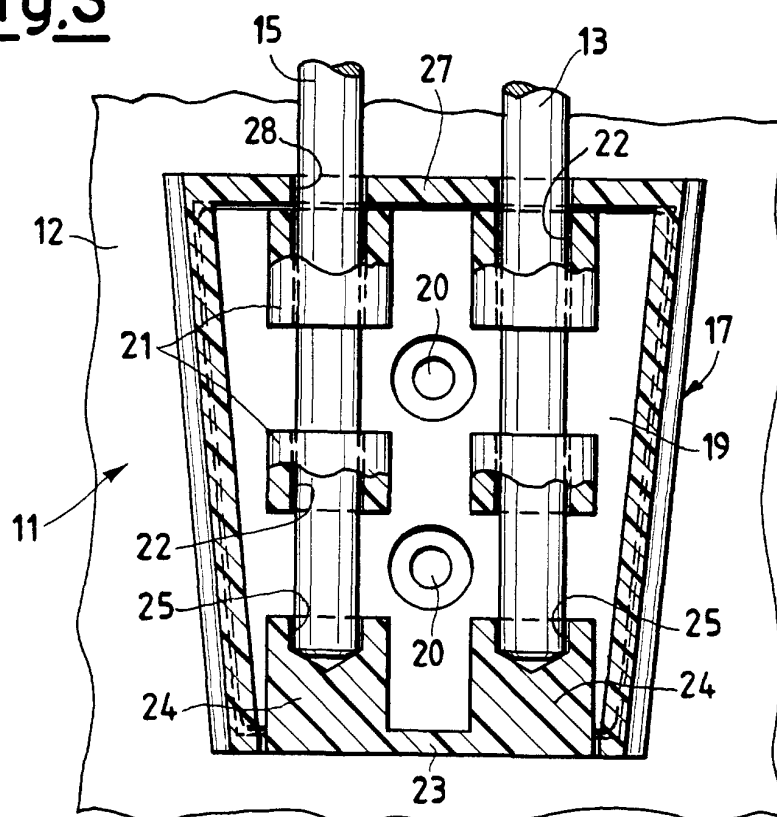


Fig.4

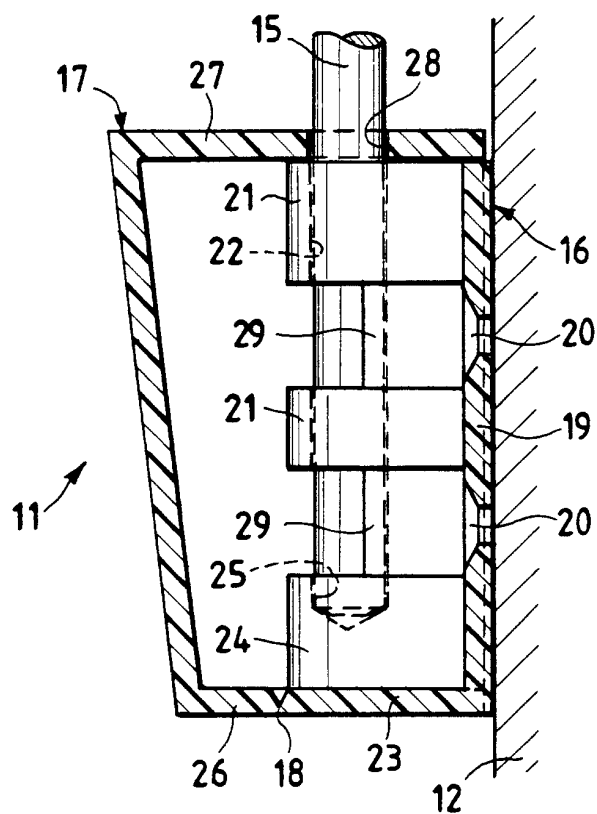
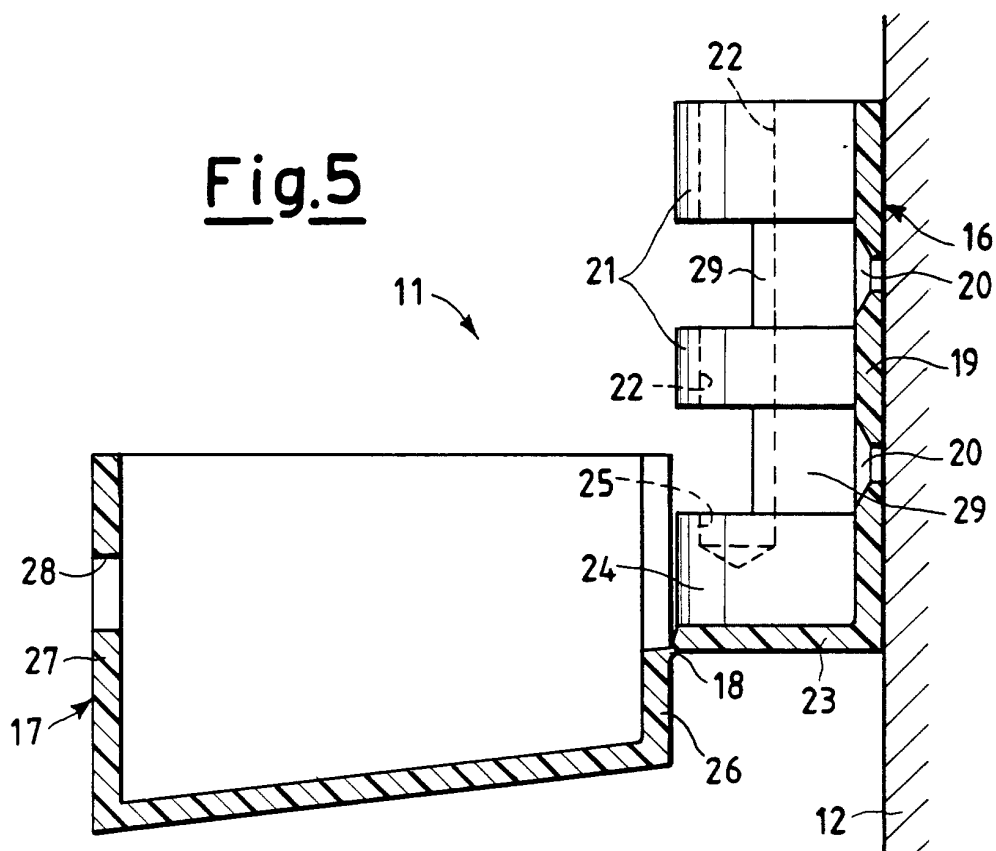


Fig.5





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EUROPEAN SEARCH REPORT

Application Number
EP 01 20 0009

DOCUMENTS CONSIDERED TO BE RELEVANT			
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A	FR 2 328 157 A (TORRENS ET FILS) 13 May 1977 (1977-05-13) * claim 1; figures 1-4 *	1	A47B96/06 A47K10/04
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13 September 2001	Examiner Jones, C
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 O : non-written disclosure 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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 01 20 0009

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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