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54 **Pipe clip.**

57 A pipe clip for fastening a pipe to a support surface comprises an annular clip body, having a first and a second flange which in use are pulled towards each other by a male fastening element having a shank and a head. The first flange is associated with a female fastening means into which the male fastening element is connected to the first flange. The second flange has a slot which opens up in a lateral edge of the second flange to laterally receive the shank of the male fastening element. On the second flange a retaining shoe is arranged, having a slot which is arranged in a direction corresponding to the slot in the second flange. The entire slot in the retaining shoe has a width which is equal to or exceeds the diameter of the shank of the male fastening element. The slot of the retaining shoe has a wedge portion on one side edge of the slot forming a narrowing slot portion. In one position of the retaining shoe, the wedge portion extends beyond the corresponding side edge of the slot in the second flange and the effective distance between the opposing side edge of the slot in the second flange and the wedge portion is smaller than the diameter of the shank of the male fastening element. Thus, the shank engages said wedge portion upon introduction in the slot and forces the retaining shoe to move allowing the shank to pass beyond the wedge portion.

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Dit octrooi is verleend ongeacht het bijgevoegde resultaat van het onderzoek naar de stand van de techniek en schriftelijke opinie. Het octrooischrift komt overeen met de oorspronkelijk ingediende stukken.

Title: Pipe clip.

The present invention relates to a pipe clip for fastening a pipe to a wall, ceiling or other support surface, the pipe clip comprising a substantially annular pipe clip body which in use surrounds the pipe to be fastened and has a first and a second flange which in use are pulled towards each other by means of a male fastening element having a shank and a  
5 head, wherein the first flange is associated with a female fastening means into which the male fastening element is connected to the first flange, and wherein the second flange has a slot which opens up in a lateral edge of the second flange to laterally receive the shank of the male fastening element, wherein on the second flange a retaining shoe is arranged, which retaining shoe has a slot which is arranged in a direction corresponding to the slot in  
10 the second flange, which slot in the retaining shoe has an introduction opening for receiving the shank of the male fastening element followed by a narrowing slot portion.

Such a pipe clip is known from EP 1 195 548. In this known pipe clip a screw is screwed in a first flange and the second flange is provided with a slot opening to a lateral edge of the second flange. A retaining shoe which consists of plastics material is arranged  
15 on the second flange, having a correspondingly oriented open ended slot. The slot in the retaining shoe on this known pipe clip narrows to a width that is smaller than the diameter of the screw shank, such that in use when the screw shank is introduced, the narrowing slot portion expands in an elastic manner such that the screw shank can pass therethrough.

The present invention has for an object to provide an improved pipe clip of the  
20 aforementioned type.

This object is achieved by a pipe clip according to the preamble of claim 1, in which the retaining shoe is arranged movable transversely with regard to the slot in the second flange between a retaining position and a receiving position, in which the entire slot in the retaining shoe has a width which is equal to or exceeds the diameter of the shank of the  
25 male fastening element, and in which the slot of the retaining shoe has a wedge portion on one side edge of the slot forming the narrowing slot portion, wherein - in the retaining position of the retaining shoe - the wedge portion of the side edge of the slot in the retaining shoe extends beyond the corresponding side edge of the slot in the second flange and the effective distance between the opposing side edge of the slot in the second flange and the  
30 wedge portion is smaller than the diameter of the shank of the male fastening element, such that, in use, when said shank is inserted into the slots in the second flange and the retaining

shoe, the shank engages said wedge portion and forces the retaining shoe to move to the receiving position such that the shank passes beyond the wedge portion.

According to the invention the narrowest passage for the shank of the male fastening member is defined by the wedge portion of the retaining shoe and the opposing side edge of the slot in the second flange. This smallest distance is smaller than the diameter of the shank. When introducing the shank in the slot of the retaining shoe and in the slot in the second flange, the shank will slide along the wedge portion and will gradually push the movable retaining shoe in a direction transverse to the introduction movement of the shank. Due to this movement of the retaining shoe the space between the wedge portion and the opposing side edge of the slot in the second flange widens such that the shank can pass beyond the wedge portion towards the closed end of the slot.

Advantageously the force required to push the shank through the narrow passage is much less with the pipe clip according to the present invention than with the pipe clip known from EP 1 195 548.

Furthermore, the movable retaining shoe according to the present invention allows an easier release of the shank when the pipe clip should be removed from the pipe for whatever reason. The fitter simply pushes the retaining shoe aside and without resistance withdraws the shank out of the respective slots in the second flange and the retaining shoe.

Another advantage of the movable retaining shoe according to the invention is that the pipe clip can be mounted around a pipe and demounted several times without losing its effectiveness in its retaining function. This contrary to the design of EP 1 195 548 where the shank directly deforms the narrowing retaining surface of the retaining shoe each time the shank passes the narrowed portion, which reduces the retaining function notwithstanding the elastic property of the known retaining shoe.

Preferably, the pipe clip comprises reset means to move the retaining shoe from the receiving position towards the retaining position.

In one possible embodiment of the invention the reset means comprise at least one spring member arranged on the retaining shoe which forces the retaining shoe into the retaining position. The spring member preferably engages the outside of the annular pipe clip body. Preferably the spring member is integrally formed with the retaining shoe.

The reset means may comprise an elastically deformable layer provided on the outside of the pipe clip body, wherein - in the receiving position - the retaining shoe is pushed into engagement with the deformable layer, and wherein - when the shank has passed the wedge portion - the deformable layer pushes the retaining shoe back towards the retaining position. Preferably the elastically deformable layer is a portion of a vibration isolating element, preferably made of rubber or another suitable elastomeric material, which is arranged in the pipe clip body.

In a possible embodiment the retaining shoe comprises two interconnected opposing plates which are located on the opposing sides of the second flange.

5 In a another possible embodiment the retaining shoe may comprise at least one stop surface which limits the movement of the retaining shoe with respect to the second flange.

In yet another possible embodiment the slot in the retaining shoe has an edge opposing the wedge portion, which edge, in the retaining position of the shoe, is located over the second flange at a distance from the corresponding side edge of the slot in the second flange.

10 In still another possible embodiment the slot in the shoe at the closed end thereof has a greater diameter than the slot in the second flange, such that when the first and second flange are pulled towards each other the head of the male fastening element engages directly with the surface of the second flange.

15 Preferably the male fastening element is a screw, but also another male fastening element with a shank is possible.

When a screw is used the female fastening means is possibly constituted by a screw hole in the first flange, in which the screw can be screwed to tighten the first and second flanges towards each other.

20 In a preferred embodiment the retaining shoe is made of plastics material. Nevertheless in the present invention it is possible to make the retaining shoe of another material, e.g. metal. This contrary to the retaining shoe of EP 1195548 which needs a shoe of elastic plastics material to function.

In a preferred embodiment the pipe clip body is made of metal, preferably steel.

Preferably, the pipe clip comprises two pipe clip halves, which are hingedly connected.

25 The invention will be elucidated in the following description of a preferred embodiment with reference to the drawing, in which:

Fig. 1 shows a view in perspective of a preferred embodiment of a pipe clip according to the invention,

30 Fig. 2 shows a view in perspective of a half of a pipe clip body of the pipe clip of Fig.1, with a retaining shoe, and

Fig. 3 shows a view in perspective of a retaining shoe of the pipe clip of Fig. 1.

Fig. 1 shows a pipe clip 1. The pipe clip 1 comprises a substantially annular metal clip body which is constituted by two clip halves 2 and 3. The first clip half 2 is shown in Fig. 2.  
35 The second clip half 3 has in the embodiment shown a nut 4 attached to the metal clip half body, for coupling the pipe clip to a threaded rod which on its turn is fixed to another support

structure, e.g. a wall, a ceiling or a mounting rail. The nut 4 is preferably welded to the clip half 3 which is common in the field of pipe clips.

The first pipe clip half 2 has on one end a radial outwardly extending flange 7 and on the other end a radial outwardly extending flange 8. The second pipe clip half 3 has on one end  
5 end a radial outwardly extending flange 9, which in a mounted state (see Fig. 1) opposes the flange 7 of the first clip half 2 and on the other end a radial outwardly extending flange 10 which opposes the flange 8 of the first clip half 2.

In the preferred embodiment of the pipe clip shown in Fig. 1 the flanges 9 and 10 of the second clip half 3 are each provided with a threaded hole 11 and 12 respectively. In these  
10 threaded holes 11 and 12 tightening screws (not shown) are screwed in the mounted state of the pipe clip 1.

In the flange 7 of the first clip half 2 an oblong hole 13 is provided, which has a longitudinal axis that extends in the radial direction. In use the shank of the tightening screw connected to the flange 9 of the second clip half 3 extends through the oblong hole 13.  
15 When the tightening screw is screwed into the threaded hole 11 in the flange 9, the head of the screw will eventually engage the upper side of the flange 7 and tighten the two flanges 7 and 9 towards each other. The oblong shape of the hole 13 provides some clearance to allow the manipulation of the first clip half 2 with respect to the second clip half 3 in order to arrange the pipe clip around a pipe (not shown).

20 It is noted that in particular for the flanges 7 and 9 also another way of connecting and/or tightening the flanges 7 and 9 to each other is possible.

In the other flange 8 of the first clip half 2 a slot 14 is provided. The slot 14 extends substantially in a direction parallel to the axial direction of the pipe clip 1 and is open at one end which is located at a lateral edge 8b of the flange 8. The open end of the slot 14 allows  
25 the lateral introduction of a shank of a screw in the slot 14 after the pipe clip 1 has been arranged around a pipe.

On the flange 8 with the slot 14 a retaining shoe 15 is arranged. The retaining shoe 15 in the preferred embodiment is a plastic part. It is noted however that the retaining shoe might also be made of another suitable material e.g. metal. The plastic retaining shoe 15 is  
30 preferably made by means of injection moulding.

The retaining shoe 15 comprises two parallel plates 16 and 17 which at their edge are interconnected by a peripheral wall 18 comprising wall parts 18a, 18b, 18c and 18d. The retaining shoe 15 has one open side 19 which in the mounted state is facing the pipe clip body.

35 The retaining shoe 15 has corresponding slots 21, 22 in the upper and lower plates 16 and 17 respectively, which slots 21, 22 extend from a lateral edge 20 in an axial direction of the pipe clip.

In the mounted state the retaining shoe 15 is arranged on the flange 8 such that it essentially envelopes the flange 8. The lower plate 17 is located on the side which faces the opposing flange 10 of the other clip half 3. The upper plate 16 is located on the side which faces away from that opposing flange 10.

5 The slots 21, 22 are arranged in a direction corresponding to the slot 14 in the associated flange 8. The slots 21, 22 each have a substantially straight side edge portion 21a, 22a and an wedge edge portion 21b, 22b opposing said straight edge portion 21a, 22a. In the mounted state (see Figs 1 and 2), the wedge edge portions 21b, 22b extend beyond the corresponding edge of the slot 14 in the metal flange 8 as can be clearly seen in Figs 1  
10 and 2. The opposing straight edge portions 21a, 22a are located over the upper and lower surface of the flange 8 at a distance from the corresponding side edge of the slot 14 in said flange 8.

In Fig. 1 can be seen that the peripheral wall portion or end wall 18a is located at a distance from the corresponding end edge 8a of the flange 8. Due to this mutual distance  
15 between the edge 8a of the flange 8 and the end wall 18a of the retaining shoe 15, the retaining shoe 15 may be slid from the retaining position shown in Figs 1 and 2, in the direction of the annular clip body. Said direction of movement is indicated by arrow 23 in Figs 1 and 2. By moving the retaining shoe 15 in the direction 23 the retaining shoe will end up in the so called receiving position in which the wedge edge portions 21b and 22b are  
20 located at such a distance from the edge 14a of the slot 14 that a shank of the screw (not shown) which is screwed in the hole 12 can be introduced in the slots 21, 22 in the retaining shoe and the slot 14 in the flange 8. The end wall 18a forms on the inner side a stop surface which limits the movement of the retaining shoe 15 in the direction 23 because it will eventually engage the edge 8a of the flange 8.

25 The retaining shoe 15 has in the preferred embodiment two resilient spring members 24 which are integrally formed on the retaining shoe 15. The latter is not required however. The spring member(s) may just as well be separate parts. Of course also another number of spring members may be applied. The spring members 24 engage the outer side of the clip body half 2 and due to their resiliency bias the retaining shoe 15 into the retaining position  
30 as is illustrated in Figs 1 and 2. When the retaining shoe 15 is moved into the direction 23 towards the receiving position, the spring members 24 will be tensioned by this movement.

The halves of the pipe clip body are each provided with an element 5, 6 of vibration isolating material, e.g. rubber or another elastomeric material. The spring members 24 are each inserted between the upper surface of the flange 8 and the head ends of the portions  
35 5a of the vibration isolating element 5 which are located on the outer side of the clip body half 2. In this way the vibration isolating element 5 is used to retain the retaining shoe on the flange 8.

In use, the tensioning screws (not shown) are screwed in the holes 11 and 12 of the pipe clip half 3. The pipe clip halves 2 and 3 are thus coupled to each other at the end of the flanges 7 and 9. The clip halves are arranged around a pipe (not shown). Then the retaining shoe 15 is brought into engagement with the shank of the screw which is screwed in the hole 12 in the flange 10. In particular the wedge portions 21b and 22b are pushed against the shank whereby the retaining shoe 15 is forced to move in the direction 23. By this movement the shank is eventually allowed to pass the wedge portions 21b, 22b and enter into the slots 21 and 22 beyond the wedge portions 21b and 22b and into the end portion of the slot 14 in the flange 8. When the shank has moved beyond the wedge portions 21b and 22b, the spring members 24 will urge the retention shoe in the opposite direction (opposite to direction 23), whereby the shank will be locked behind the rear end edge of the wedge portions 21b, 22b. The pipe clip 1 is then in a closed preassembly state. The assembly around the pipe can be finalised by screwing the screw further into the hole 12 and bringing the head of the screw into engagement with the upper surface of the flange 8. Thereto the slot 21 in the upper plate 16 of the retaining shoe at the closed end portion 21c thereof has a greater diameter than the slot 14 in the flange 8.

In the embodiment shown in the figures the retaining shoe has spring members 24 as so called reset means. However, also other reset means might be used as an alternative to the spring members or in addition thereto. It is for example conceivable that the resiliency of the outer portions 5a of the vibration isolating element 5 is used to push the retaining shoe towards the retaining position. In such an embodiment - when the retaining shoe is moved towards the receiving position - it will abut the vibration isolating material 5a and compress it. When the force pushing the shoe in the direction 23 is released the resiliency of the vibration isolating material will push the retaining shoe back towards the retaining position.

P30240NL00/CHO/ESM

## CONCLUSIES

1. Pijpbeugel voor het bevestigen van een pijp aan een wand, plafond of ander steunoppervlak, welke pijpbeugel een in hoofdzaak ringvormig beugellichaam omvat dat tijdens gebruik de te bevestigen pijp omgeeft en een eerste en een tweede flens heeft die tijdens gebruik naar elkaar toe worden getrokken door middel van een mannelijk  
5 bevestigingselement met een steel en een kop, waarbij de eerste flens is verbonden met een vrouwelijk bevestigingsmiddel waarin het mannelijke bevestigingselement is verbonden met de eerste flens, en waarbij de tweede flens een sleuf heeft die in een zijrand van de tweede flens zich opent om de steel van het mannelijke bevestigingselement zijwaarts op te nemen, waarbij op de tweede flens een vasthoudschoen is aangebracht, welke  
10 vasthoudschoen een sleuf heeft die is aangebracht in een richting die overeenkomt met de sleuf in de tweede flens, welke sleuf in de vasthoudschoen een inbengopening heeft voor het opnemen van de steel van het mannelijke bevestigingselement gevolgd door een zich vernauwend sleufgedeelte, **met het kenmerk, dat** de vasthoudschoen in dwarsrichting beweegbaar is aangebracht ten opzichte van de sleuf in de tweede flens tussen een  
15 vasthoudpositie en een opneempositie, dat de gehele sleuf in de vasthoudschoen een breedte heeft die gelijk is aan of groter is dan de diameter van de steel van het mannelijke bevestigingselement, en dat de sleuf van de vasthoudschoen aan een zijrand van de sleuf een wiggedeelte heeft dat een zich vernauwend sleufgedeelte vormt, waarbij -in de vasthoudpositie van de vasthoudschoen- het wiggedeelte van de zijrand van de sleuf in de  
20 vasthoudschoen zich voorbij de bijbehorende zijrand van de sleuf in de tweede flens uitstrekt en de effectieve afstand tussen de tegenover gelegen zijrand van de sleuf in de tweede flens en het wiggedeelte kleiner is dan de diameter van de steel van het mannelijke bevestigingselement zodat, in gebruik, wanneer de genoemde steel in de sleuven in de tweede flens en in de vasthoudschoen is ingebracht, de steel aangrijpt op het wiggedeelte  
25 en de vasthoudschoen dwingt om naar de opneempositie te bewegen zodat de steel voorbij het wiggedeelte passeert.
2. Pijpbeugel volgens conclusie 1, waarbij de pijpbeugel terugstelmiddelen omvat om de vasthoudschoen vanuit de opneempositie naar de vasthoudpositie te bewegen.  
30
3. Pijpbeugel volgens conclusie 2, waarbij de terugstelmiddelen ten minste één op de vasthoudschoen aangebracht veerorgaan omvatten dat de vasthoudschoen in de vasthoudpositie dwingt.

4. Pijpbeugel volgens conclusie 3, waarbij het veerorgaan de buitenzijde van het ringvormige pijpbeugellichaam aangrijpt.

5 5. Pijpbeugel volgens conclusie 3 of 4, waarbij het veerorgaan integraal met de vasthoudschoen is gevormd.

6. Pijpbeugel volgens een van de conclusies 2-5, waarbij de terugstelmiddelen een elastisch vervormbare laag omvatten die is aangebracht op de buitenzijde van het  
10 pijpbeugellichaam, waarbij -in de opneempositie- de vasthoudschoen in aangrijping met de vervormbare laag wordt gedrukt, en waarbij -wanneer de steel het wiggedeelte is gepasseerd- de vervormbare laag de vasthoudschoen terug naar de vasthoudpositie drukt.

7. Pijpbeugel volgens conclusie 6, waarbij de elastisch vervormbare laag een gedeelte  
15 van een trillingsisolerend element is, bij voorkeur gemaakt van rubber of een ander geschikt elastomeer materiaal, dat is aangebracht in het pijpbeugellichaam.

8. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de vasthoudschoen twee onderling verbonden, tegenover elkaar gelegen, platen omvat die zich aan de  
20 tegenover elkaar gelegen zijden van de tweede flens bevinden.

9. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de vasthoudschoen ten minste een aanslagvlak omvat dat de beweging van de vasthoudschoen ten opzichte van de tweede flens beperkt.

25

10. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de sleuf in de vasthoudschoen een tegenover het wiggedeelte gelegen rand heeft, welke rand, in de vasthoudpositie van de schoen, zich over de tweede flens op een afstand van de bijbehorende zijrand van de sleuf in de tweede flens bevindt.

30

11. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de sleuf in de schoen, bij het gesloten eind daarvan, een grotere diameter heeft dan de sleuf in de tweede flens, zodat wanneer de eerste en tweede flens naar elkaar toe worden getrokken, de kop van het mannelijke bevestigingselement direct aangrijpt op het oppervlak van de tweede

35 flens.

12. Pijpbeugel volgens een van de voorgaande conclusies, waarbij het mannelijke bevestigingselement een schroef is.

13. Pijpbeugel volgens conclusie 12, waarbij het vrouwelijke bevestigingsmiddel wordt  
5 gevormd door een schroefgat in de eerste flens.

14. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de vasthoudschoen is gemaakt van kunststofmateriaal.

10 15. Pijpbeugel volgens een van de voorgaande conclusies, waarbij het  
pijpbeugellichaam is gemaakt van metaal, bij voorkeur staal.

16. Pijpbeugel volgens een van de voorgaande conclusies, waarbij de pijpbeugel twee pijpbeugelhelften omvat die scharnierend met elkaar verbonden zijn.

15

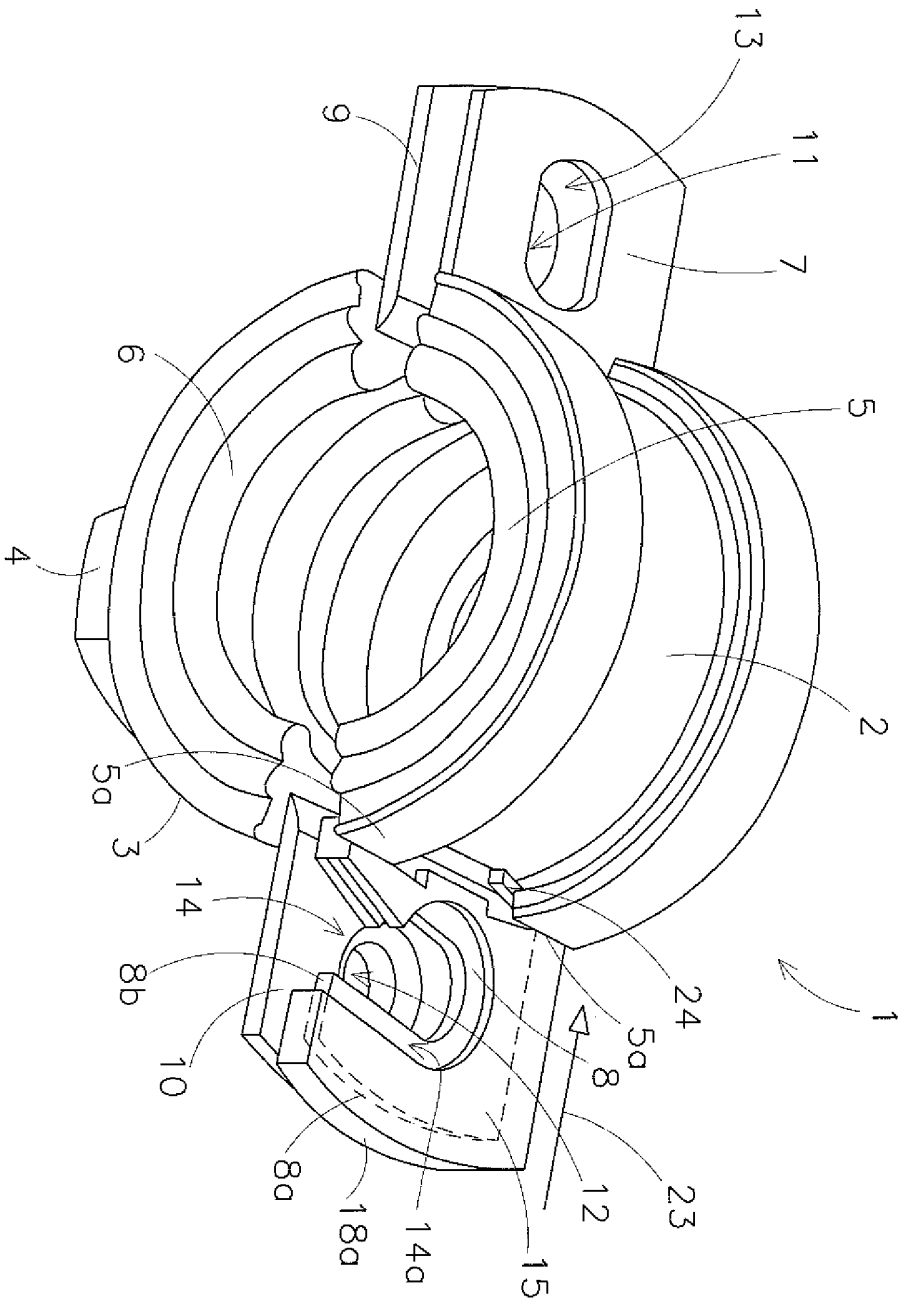


Fig 1

Fig 3

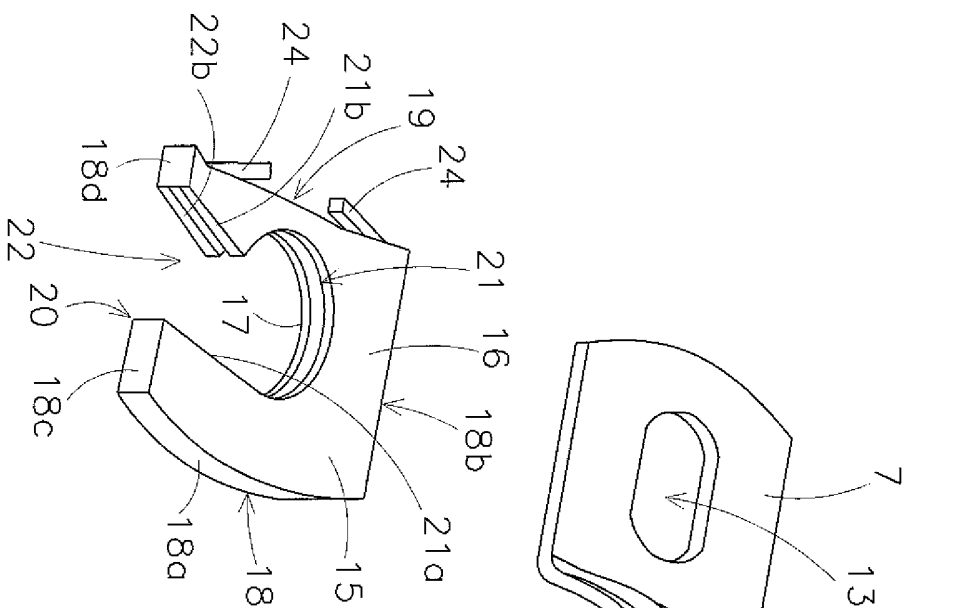
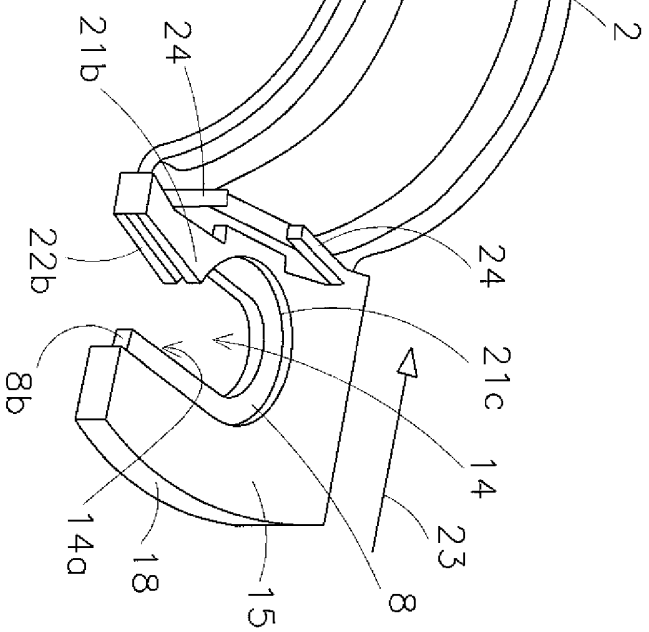


Fig 2



# SAMENWERKINGSVERDRAG (PCT)

## RAPPORT BETREFFENDE NIEUWHEIDSONDERZOEK VAN INTERNATIONAAL TYPE

IDENTIFICATIE VAN DE NATIONALE AANVRAGE	KENMERK VAN DE AANVRAGER OF VAN DE GEMACHTIGDE  <b>P30240NL00/CHO</b>
Nederlands aanvraag nr.  <b>2004804</b>	Indieningsdatum  <b>02-06-2010</b>
	Ingeroepen voorrangsdatum
Aanvrager (Naam)  <b>J. van Walraven Holding B.V.</b>	
Datum van het verzoek voor een onderzoek van internationaal type  <b>21-08-2010</b>	Door de Instantie voor Internationaal Onderzoek aan het verzoek voor een onderzoek van internationaal type toegekend nr.  <b>SN 54754</b>
<b>I. CLASSIFICATIE VAN HET ONDERWERP</b> (bij toepassing van verschillende classificaties, alle classificatiesymbolen opgeven)	
Volgens de internationale classificatie (IPC)  <b>F16L3/10</b>	
<b>II. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK</b>	
Onderzochte minimumdocumentatie	
Classificatiesysteem	Classificatiesymbolen
<b>IPC8</b>	<b>F16L</b>
Onderzochte andere documentatie dan de minimum documentatie, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen	
III. <input type="checkbox"/>	<b>GEEN ONDERZOEK MOGELIJK VOOR BEPAALDE CONCLUSIES</b> (opmerkingen op aanvullingsblad)
IV. <input type="checkbox"/>	<b>GEBREK AAN EENHEID</b> (opmerkingen op aanvullingsblad)

**ONDERZOEKSRAPPORT BETREFFENDE HET  
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND  
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar  
de stand van de techniek  
**NL 2004804**

<p>A. CLASSIFICATIE VAN HET ONDERWERP INV. F16L3/10 ADD.</p> <p>Volgens de Internationale Classificatie van octrooien (IPC) of zowel volgens de nationale classificatie als volgens de IPC.</p>											
<p>B. ONDERZOCHETE GEBIEDEN VAN DE TECHNIEK</p> <p>Onderzochte minimum documentatie (classificatie gevolgd door classificatiesymbolen) F16L</p> <p>Onderzochte andere documentatie dan de minimum documentatie, voor dergelijke documenten, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen</p> <p>Tijdens het onderzoek geraadpleegde elektronische gegevensbestanden (naam van de gegevensbestanden en, waar uitvoerbaar, gebruikte trefwoorden) EPO-Internal</p>											
<p>C. VAN BELANG GEACHTE DOCUMENTEN</p> <table border="1"> <thead> <tr> <th>Categorie *</th> <th>Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages</th> <th>Van belang voor conclusie nr.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>DE 40 15 404 A1 (MAECHTLE WOEHLENER MARGOT [DE]) 19 december 1991 (1991-12-19) * kolom 7, regel 28 - regel 47; figuren 1-8 *</td> <td>1-6, 16</td> </tr> <tr> <td>A, D</td> <td>EP 1 195 548 A2 (GLARUS STANZWERK AG [CH]) 10 april 2002 (2002-04-10) in de aanvraag genoemd * alinea's [0011], [0013], [0014]; figuren 1-5 *</td> <td>1, 8, 9, 12-16</td> </tr> </tbody> </table>			Categorie *	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.	A	DE 40 15 404 A1 (MAECHTLE WOEHLENER MARGOT [DE]) 19 december 1991 (1991-12-19) * kolom 7, regel 28 - regel 47; figuren 1-8 *	1-6, 16	A, D	EP 1 195 548 A2 (GLARUS STANZWERK AG [CH]) 10 april 2002 (2002-04-10) in de aanvraag genoemd * alinea's [0011], [0013], [0014]; figuren 1-5 *	1, 8, 9, 12-16
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A, D	EP 1 195 548 A2 (GLARUS STANZWERK AG [CH]) 10 april 2002 (2002-04-10) in de aanvraag genoemd * alinea's [0011], [0013], [0014]; figuren 1-5 *	1, 8, 9, 12-16									
<p><input type="checkbox"/> Verdere documenten worden vermeld in het vervolg van vak C.      <input checked="" type="checkbox"/> Leden van dezelfde octrooifamilie zijn vermeld in een bijlage</p>											
<p>* Speciale categorieën van aangehaalde documenten</p> <p>*A* niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft</p> <p>*D* in de octrooiaanvraag vermeld</p> <p>*E* eerdere octrool(aanvraag), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven</p> <p>*L* om andere redenen vermelde literatuur</p> <p>*O* niet-schriftelijke stand van de techniek</p> <p>*P* tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur</p> <p>*T* na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvraag, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding</p> <p>*X* de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur</p> <p>*Y* de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht</p> <p>*Z* lid van dezelfde octrooifamilie of overeenkomstige octrooi-publicatie</p>											
<p>Datum waarop het onderzoek naar de stand van de techniek van internationaal type werd voltooid</p> <p><b>19 januari 2011</b></p>		<p>Verzenddatum van het rapport van het onderzoek naar de stand van de techniek van internationaal type</p>									
<p>Naam en adres van de instantie</p> <p>European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016</p>		<p>De bevoegde ambtenaar</p> <p><b>Mauriès, Laurent</b></p>									

**ONDERZOEKSRAPPORT BETREFFENDE HET  
 RESULTAAT VAN HET ONDERZOEK NAAR DE STAND  
 VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Informatie over leden van dezelfde octrooifamilie

Nummer van het verzoek om een onderzoek naar  
 de stand van de techniek

NL 2004804

In het rapport genoemd octrooigeschrift	Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
DE 4015404	A1	19-12-1991	GEEN
EP 1195548	A2	10-04-2002	AT 287058 T 15-01-2005 DE 20017277 U1 22-02-2001 ES 2233531 T3 16-06-2005 PT 1195548 E 31-05-2005



OCTROOICENTRUM NEDERLAND

WRITTEN OPINION

File No. SN54754	Filing date ( <i>day/month/year</i> ) 02.06.2010	Priority date ( <i>day/month/year</i> )	Application No. NL2004804
International Patent Classification (IPC) INV. F16L3/10			
Applicant J. van Walraven Holding B.V.			

This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the application
- Box No. VIII Certain observations on the application

	Examiner Mauriès, Laurent
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## WRITTEN OPINION

Application number

NL2004804

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### Box No. I Basis of this opinion

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1. This opinion has been established on the basis of the latest set of claims filed before the start of the search.
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - a sequence listing
    - table(s) related to the sequence listing
  - b. format of material:
    - on paper
    - in electronic form
  - c. time of filing/furnishing:
    - contained in the application as filed.
    - filed together with the application in electronic form.
    - furnished subsequently for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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### Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

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#### 1. Statement

Novelty	Yes: Claims	1-16
	No: Claims	
Inventive step	Yes: Claims	1-16
	No: Claims	
Industrial applicability	Yes: Claims	1-16
	No: Claims	

#### 2. Citations and explanations

**see separate sheet**

**WRITTEN OPINION**

Application number  
NL2004804

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**Box No. VII Certain defects in the application**

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**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 Reference is made to the following documents:

D1 DE 40 15 404 A1 (MAECHTLE WOEHLENER MARGOT [DE]) 19 december 1991 (1991-12-19)

D2 EP 1 195 548 A2 (GLARUS STANZWERK AG [CH]) 10 april 2002 (2002-04-10) in de aanvraag genoemd

2 D1 is regarded as being the prior art closest to the subject-matter of claim 1, and discloses:

a pipe clip for fastening a pipe to a wall, ceiling or other support surface, the pipe clip comprising a substantially annular pipe clip body (10, 12, 14) which in use surrounds the pipe to be fastened and has a first and a second flange (16, 18) which in use are pulled towards each other by means of a male fastening element having a shank (26) and a head (28), wherein the first flange (18) is associated with a female fastening means (32) into which the male fastening element is connected to the first flange, and wherein the second flange (16) has a slot (34) which opens up in a lateral edge of the second flange to laterally receive the shank (26) of the male fastening element (see e.g. fig. 6), wherein on the second flange (16) a retaining shoe (46) is arranged, which retaining shoe has a slot (48) which is arranged in a direction corresponding to the slot in the second flange (see fig. 6), which slot in the retaining shoe has an introduction opening (50) for receiving the shank of the male fastening element followed by a narrowing slot portion (48), wherein the entire slot in the retaining shoe (46) has a width which is equal to or exceeds the diameter of the shank (26) of the male fastening element (see e.g. fig. 6), and wherein the slot of the retaining shoe (46) has a wedge portion on one side edge of the slot forming the narrowing slot portion (see narrowing portions on both sides of the slot, fig. 4, 5), wherein - in the retaining position of the retaining shoe (see e.g. fig. 6) - the wedge portion of the side edge of the slot in the retaining shoe extends beyond the corresponding side edge of the slot in the second flange (see col. 7, l. 14 - 47).

- 3 The subject-matter of claim 1 therefore differs from this known in D1 in that the retaining shoe is arranged movable transversely with regard to the slot in the second flange between a retaining position and a receiving position, and in that the effective distance between the opposing side edge of the slot in the second flange and the wedge portion is smaller than the diameter of the shank of the male fastening element, such that, in use, when said shank is inserted into the slots in the second flange and the retaining shoe, the shank engages said wedge portion and forces the retaining shoe to move to the receiving position such that the shank passes beyond the wedge portion and is therefore new.
- 4 The problem to be solved by the present invention may be regarded as to maintain the shank when the clip body is in a fastened position.
- 5 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step, because this solution is not known from nor is it rendered obvious by any prior art document or combination of documents.
- In D1, the shoe (46) is moved axially with regard to the slot and the effective distance between the opposing side edge of the slot (see fig. 6) in the second flange and the wedge portion is smaller than the head of the screw (28). The head of the screw is retained once it passed the edges 54. The shoe is not moved by the shank upon insertion.
- In D2, the edges (26) of the shoe (10) are deformed upon insertion of the shank, without displacement of said shoe.
- 6 Claims 2 - 16 are dependent on claim 1 and as such also meet the requirements of novelty and inventive step.
- 7 The relative terms "lateral edge of the second flange", l. 7 of claim 1 has no well-recognized meaning and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the subject-matter of said claim-unclear.

**Re Item VII**

The features of the claims are not provided with reference signs placed in parentheses.