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(72) Inventors; and
(71) Applicants : **MAGUIRE, Patrick, David** [NZ/NZ]; 31 Michie Street, Belleknowes, Dunedin, 9011 (NZ). **ROGERS, Jason, Paul** [AU/NZ]; 34 Gordon Avenue, Merivale, Christchurch, 8014 (NZ).

(74) Agent: **ROGERS, Jason, P.**; James & Wells Intellectual Property, Private Bag 3140, Hamilton, 3240 (NZ).

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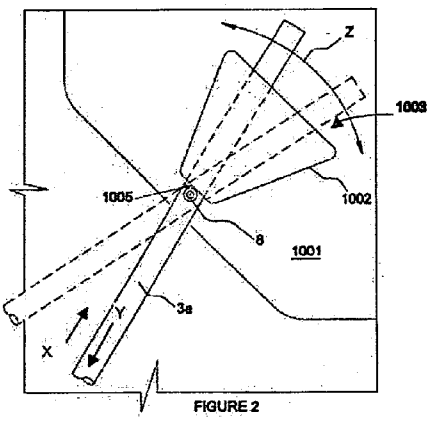



FIGURE 2

(57) Abstract: The present, invention relates to a support locator which includes at least one body portion and at least one support portion, wherein the support portion is adapted to be capable, in use, of engaging and retaining at least one strut member and wherein the body portion is adapted to be connectable to a sheet of material.

**Improvements in and relating to Support Systems**

## TECHNICAL FIELD

The present invention relates to improvements in and relating to Support Systems. In particular the present invention relates to improvements relating to support systems for supporting a sheet of material. Even more particularly the present invention relates to a banner support system.

## BACKGROUND ART

The present invention has a broad variety of applications for supporting sheet material. For ease of reference however the present invention will now be described in relation to banner support systems.

At present a number of different systems exist for supporting banners.

However most systems utilise a heavy aluminium base which has a retraction system for rolling up the banner for storage and transport purposes and a pole for holding the banner erect when in use.

These systems are expensive to transport because of their weight and can be cumbersome to carry for long periods.

All references, including any patents or patent applications cited in this specification are hereby incorporated by reference. No admission is made that any reference constitutes prior art. The discussion of the references states what their authors assert, and the applicants reserve the right to challenge the accuracy and pertinency of the cited documents. It will be clearly understood that, although a number of prior art publications are referred to herein, this reference does not

constitute an admission that any of these documents form part of the common general knowledge in the art, in New Zealand or in any other country.

Throughout this specification, the word "comprise", or variations thereof such as "comprises" or "comprising", will be understood to imply the inclusion of a stated element, integer or step, or group of elements integers or steps, but not the exclusion of any other element, integer or step, or group of elements, integers or steps.

It is an object of the present invention to address the foregoing problems or at least to provide the public with a useful choice.

Further aspects and advantages of the present invention will become apparent from the ensuing description which is given by way of example only.

## DISCLOSURE OF THE INVENTION

According to one aspect of the present invention there is provided a support locator which includes at least one body portion and at least one support portion, wherein the support portion is adapted to be capable, in use, of engaging and retaining at least one strut member, and wherein the body portion is adapted to be connectable to a sheet of material.

A support locator substantially as described above wherein the support portion projects out from a substantially planar body portion.

According to one aspect of the present invention there is provided a support locator which includes at least one body portion and at least one support portion, wherein the body portion has a connector surface, which in use, is the foundation for attaching the support locator, to at least one sheet of material, and wherein the

support portion is configured to receive, at least one strut, in a direction which is substantially parallel, to the plane of the connector surface.

It is envisaged that the body portion can have a variety of different forms without departing from the scope of the present invention.

In preferred embodiments the body portion may be substantially planar in nature, or have at least one planar outer surface (connector surface) which is used for attachment to a sheet of material.

In other embodiments the body portion may include two substantially planar body portions on either side of the support portion. Preferably, there may be two connector surfaces on either side of the support portion.

In other embodiments the body portion may be shaped to surround the support portion.

In still further embodiments the body portion may be in the form of a cube, box, pyramidal or other shaped configuration.

In all preferred embodiments the base of the body portion or a part thereof may be adapted to be connectable to the sheet of material.

In some preferred embodiments the base of the body portion may be adapted to be releasably connectable to the sheet material. For example, the base of the body portion may include, but should not be limited to:

- clips;
- a fabric of hooks; or
- a fabric of loops.

In other embodiments the body portion may include a self-adhesive layer.

In some further embodiments the body portion may be attached to the sheet of material by self-adhesive tape.

In some other embodiments the body portion may include apertures which can facilitate sewing or riveting the body portion to the sheet of material. In some embodiments the apertures may be used for attaching support portions in the forms of clips to the body portion.

The support portion may generally include, or be in the form of, an aperture which receives the strut.

However, in some embodiments the support portion may be in the form of a protrusion which engages an aperture in the support strut. For example only the support portion may be in the form of a protrusion which is constructed to releasably expand and engage into an aperture on the strut.

Alternatively, in some even further embodiments the support portion may be in the form of a clip which receives the strut. For example the clip may be a in a non-limiting example a substantially C shaped resilient member which has a mouth smaller than the sides of the C.

In preferred embodiments the support portion may be in the form of a semi-conical shaped aperture, which is positioned relative to the sheet of material in use, so as to be tapered away from, the entry point of the strut.

The support portion may be adapted to project out from the body portion in a number of different ways.

In preferred embodiments the support portion may be at least one surface which

projects out from the top surface of the body portion. For example the surface may be angled at 45 degrees to the top surface.

In other preferred embodiments the support portion may be at least one surface which projects substantially orthogonally out of the top surface of the body portion. In some embodiments, the support portion may be folded out from the body portion. In such embodiments, preferably, the predefined fold line is shaped to produce an aperture.

In other embodiments the support portion may be cast or otherwise inherently formed so as to project substantially out from the body portion.

**Strut Member**

The strut member may come in a variety of different forms.

In general the strut member may be a hollow at least semi rigid elongate member which is made of a lightweight material.

In preferred embodiments the strut may be tubular in nature.

In some embodiments the strut may be made of a plastic tube.

In preferred embodiments the strut may be an aluminium tube.

In some further preferred embodiments the strut may be made to have one or more sections which are adapted to be telescopically adjustable. In some preferred embodiments the sections may be two or more sub-struts which fit inside a larger sub- strut member and the smaller sub-struts may be held in position relative to the larger strut member by a hose clip or such like. The hose clip preventing the smaller sub-struts from sliding further into the larger sub-strut.

In preferred embodiments the strut at a region or point proximate the distal ends thereof may include a stop. In general, the stop may be a projection, lip or other radial protrusion which effectively holds the support locator in a set position with respect to the strut to hold the banner in taught manner. As the stop prevents the locator sliding further along the strut towards the proximate end thereof.

It should be appreciated that other arrangements to hold the locator and strut in a fixed position may also be employed without departing from the scope of the present invention.

**Sheet of Material**

A sheet of material which includes support locators along at least the four corners of the sheet of material.

The sheet of material may be any sheet of material on which one wants to display a pattern, message, picture or other printed matter.

In preferred embodiments the sheet of material may be vinyl or such like. However, this should not be seen in any way as being limiting.

In some embodiments the sheet of material may be paper. In some further embodiments the sheet of material may be composed of several sheets of material which have been joined together. For example, the sheet of material may in one embodiment be made of two or more sheets of material taped together to form the message/image of the banner.

The sheet of material in some preferred embodiments may have been adapted to facilitate releasable connection of the support locators thereto. For example in embodiments where the support locator has a fabric of loops the sheet of material

may have attached thereto a fabric of hooks (or vice versa) which can effect a releasable connection there between.

**Connector Device**

According to one aspect of the present invention there is provided a connector device which includes at least one pair of axially opposed receiving portions wherein each receiving portion is configured to receive one end of a strut member and wherein the receiving portions include a retaining device which is coupled to at least the strut member associated with the receiving portion.A connector which includes two pair of receiving portions wherein the major axis of each pair of receiving portions intersect one another so as to substantially form a cross.

The connector device may be generally be in the form of a sleeve, or pair of axially opposed apertures in a body, which can receive and retain, in use, the ends of a strut member(s).

The retaining device may come in a variety of different forms without departing from the scope of the present invention.

In preferred embodiments the retaining device may be in the form of a flexible elastic length of material. Most preferably the retaining device may be in the form of a bungee cord.

In all embodiments the retaining device is attached to the connector device at one end and to the strut member at the other.

**Self Supporting Banner Assembly**

A self supporting banner assembly which includes:

- at least one sheet of material which will form the banner;
- at least four support locators;
- at least two strut members;

wherein in use the support locators will be attached to the four corners of the sheet material and used to locate and retain the strut members.

A self supporting banner assembly substantially as described above which also includes a connector device.

The connector device enables the effective length of the strut members to be reduced which facilitates storage and transportation by effectively halving the length of the strut member that is required to diagonally span between diagonally opposed support locators.

A self supporting banner assembly which further includes one or more feet connected or connectable to the lower ends of the strut members.

In some embodiments the feet may connect directly to the ends of the strut protruding through the support locators.

In preferred embodiments the feet may be connected to the ends of the strut member by a T-connector.

The feet may be one or more struts.

Preferably the feet may be hollow in nature and have the same or similar attributes to the strut members.

In some further preferred embodiments the feet may include caps on each end

thereof.

Thus, at least preferred embodiments of the present invention can include one or more of the following advantages over the prior art:

- providing a cheap lightweight alternative to existing banner systems;
- providing a more easily transportable banner system;
- providing a banner that can be easily sent to a remote destination sans an accompanying person. Allowing for a self supporting banner to be sent to a remote event ahead of time and not carried as part of the baggage of an attendee.

**BRIEF DESCRIPTION OF DRAWINGS**

Figure 1 shows a perspective view of a banner support assembly which is supporting a banner according to one preferred embodiment of the present invention;

Figure 2 shows a plan view of a support locator in accordance with one preferred embodiment of the present invention;

Figure 3 shows a side view of the support locator shown Figure 2;

Figure 4 shows a plan view of a support locator in accordance with a further preferred embodiment of the present invention;

Figure 5 shows an end on view of one of the support portions on the support locator in Figure 4;

Figure 6 shows an end on view of another of the support portions on the

support locator in Figure 4;

Figure 7 shows a connector in accordance with one preferred embodiment of the present invention;

Figure 8 Shows a connector in accordance with another preferred embodiment of the present invention;

Figure 9 Shows the struts and connector is a stowage configuration;

Figure 10 Shows the banner and struts and connector being stowed in a tube for storage/transport;

Figure 11 Shows an alternate banner support assembly in accordance with another aspect of the present invention;

Figure 12 Shows a partial view of one corner of a double sided banner using an alternate banner support assembly in accordance with yet another aspect of the present invention; and

Figure 13 Shows the support locator in Figure 12 in more detail.

## BEST MODES FOR CARRYING OUT THE INVENTION

With respect to Figures 1 - 3 there is provided a banner support assembly (BSA) generally indicated by arrow 1. The BSA has a sheet of material forming the banner 2 which is held upright and in a flat plane (i.e. taught) via support locators 1000 strut members 3 and feet 4. The feet 4 are connected to the distal ends of the struts 3 via T-connectors 5. The feet 4 have end caps 6 on the distal ends thereof.

The struts members 3 have a telescopic section 3a which slides out from a

proximate section 3b. The telescopic section 3a is dimensioned to slide within proximate section The distal end of proximate section 3b has a slit (not shown) in the end thereof which allows a hose clip 7 when tightened to hold the telescopic section 3a in place once it has been extended the required distance. Conversely loosening the hose clip 7 allows the bold allows for the telescopic section 3a to be further extended or retracted.

The struts 3 are attached to the banner 2 via support locators 1000 and diagonally opposed struts are joined by a connector 3000.

With respect to Figures 2 and 3 there is shown a support locator 1000 in greater detail. The support locator 1000 has a body portion 1001 which is planar in nature and a support portion 1002. The support portion 1002 is semi-conical shaped projection which creates a tapered aperture 1003 through which the distal end of the telescopic section 3a can pass. The body portion 1001 is connected to the banner 2 via an adhesive strip 1004. The telescopic portion 3a of the strut 3 has a stop in the form of a pin 8 which abuts against edge 1005 of support portion 1002. The stop 8 holds the support locator in a set position with respect to the strut 3 to hold the banner in taught manner. As the stops inhibits relative movement with respect to the strut 3a and the support locator 1000 in the direction of arrow Y towards the proximate end of the strut 3. This allows the struts 3 to exert a force in the direction of arrow X towards the support locators 1000 on each corner of the banner 2 to hold the banner taught. The semi-conical shaped projection 1002 allows for the angle of the strut 3 relative to the support locator 1000 to vary as shown be double headed arrow Z depending on the width/height of the banner.

Figures 4-6 show an alternate support connector 2000 having a body portion 2001 and two support portions 2002a and 2002b. The support portions 2002a and

2002b are flaps which fold up from the top surface of the body portion 2001 after breaking along previously perforated lines 2003a and 2003b, and fold lines 2004a and 2004b. Support portion 2002a has a round hole 2005 and support portion 2002b has a horizontal slot 2006. The slot 2006 again allows for the angle of the strut 3 relative to the support locator 2000 to vary as shown by the dotted outline of strut 3 depending on the width/height of the banner.

Figures 7 & 8 shows the connector 3000 in greater detail. The connector 3000 is made from a flexible plastic such as polypropylene and has two pairs of axially opposed receiving portions in the form of sleeves 3001a, b and 3002a,b. The sleeves 3001a,b and 3002a,b are connected to one another via a cross shaped body portion 3003. The arms of the cross shaped body portion 3003 are flexible which allows for the angle between adjacent struts to vary depending on the width/height of the banner. The sleeves each have a retaining device in the form of bungee cord 3004 which is connected at either end to diagonally opposed struts 3a and travels through the centre of struts 3b.

Figures 9 and 10 show the connector 3000 bungee 3004 and struts 3 in a collapsed configuration. In Figure 10 the connector 3000 bungee 3004 and struts 3 are placed within the banner 2 which has been rolled up for sliding into a storage tube 4000 which has a lid 4001.

Figure 11 shows an alternate banner support assembly as shown by arrow 5000. The banner 5001 is self standing and uses struts 5002 located in support locators 5003.

Figure 12 shows an alternative preferred embodiment banner support assembly 10000 being used to support two sheets of material forming a first banner 10001 and second banner 10002 respectively. The banner support assembly has support

locators 10003 attached to each of the four corners of the banners of which only one locator 10003 is shown positioned on the underside of: the top right hand corner of banner 10001 and left hand corner of banner 10002 respectively. The support locator has a body portion 10004 which has two connector surfaces 10005 of which only one can be seen which form the foundation for attaching the support locator to the banners 10001 and 10002 respectively. The connector surfaces have a fabric of loops in the form of a triangular VELCRO™ patch 10009 stuck thereto. This is hooked to a fabric of hooks in the from a triangular VELCRO™ patch10010 which is attached to the underside of top right hand corner of the banner 10001. The body portion 10004 has a support portion in the form of an aperture 10006 which receives a strut member 10007.

Figure 13 shows the VELCRO™ loop patches 10009 which are stuck via and adhesive 10008 to the connector surfaces 10005. Connected to the VELCRO™ loop patches 10009 are VELCRO™ hook patches 10010 which are connected to respective banners 10001 and 10002 via adhesive 10011.

It will be appreciated the remainder of the banner support assembly depicted in Figures 12 and 13 that is not shown in these figures may be substantially similar to those shown and described in the previous figures.

Aspects of the present invention have been described by way of example only and it should be appreciated that modifications and additions may be made thereof without departing from the scope of the appended claims.

**WHAT WE CLAIM IS:**

1. A support locator which includes at least one body portion and at least one support portion, wherein the support portion is adapted to be capable, in use, of engaging and retaining at least one strut member and wherein the body portion is adapted to be connectable to a sheet of material.

2. A support locator as claimed in claim 1 which includes at least one body portion and at least one support portion, wherein the body portion has a connector surface which, in use, is the foundation for attaching the support locator, to at least one sheet of material, and wherein the support portion is configured to receive, at least one strut, in a direction which is substantially parallel, to the plane of the connector surface.

3. A support locator as claimed in claim 1 wherein there are two substantially body portions on either side of the support portion.

4. A support locator as claimed in claim 1 the body portion includes opposed connector surfaces on either side of the support portion.

5. A support locator as claimed in any one of claims 1 to 4 wherein the connector surface(s) is/are adapted to be releasably connectable to the sheet material.

6. A strut for use with a banner wherein the strut has one or more sections adapted to be telescopically adjustable with respect of one another, and wherein the strut at point proximate the distal ends thereof includes a stop.

7. A sheet of material which includes support locators along at least the four corners of the sheet of material.

8. A sheet of material as claimed in claim 7 werein the sheet of material is adapted to facilitate releasable connection of the support locaters therero.

9. A connector device which includes at least one pair of axially opposed receiving portions wherein each receiving portion is configured to receive one end of a strut member and wherein the receiving portions include a retaining device which is coupled to at least the strut member associated with the receiving portion.

10. A connector as claimed in claim 9 which includes two pair of receiving portions wherein the major axis of each pair of receiving portions intersect one another so as to substantially form a cross.

11. A connector as claimed in either claim 9 or claim 10 wherein the retaining device may be in the form of a flexible elastic length of material.

12. A self supporting banner assembly which includes:

- at least one sheet of material which will form the banner;
- at least four support locators;
- at least two strut members;

wherein in use the support locators will be attached to the four corners of the sheet material and used to locate and retain the strut members.

13. A self supporting banner assembly as claimed in claim 12 which also includes a connector device.

**14.** A self supporting banner assembly as claimed in claim 12 or 13 wherein the assembly further includes one or more feet connected or connectable to the lower ends of the strut members.

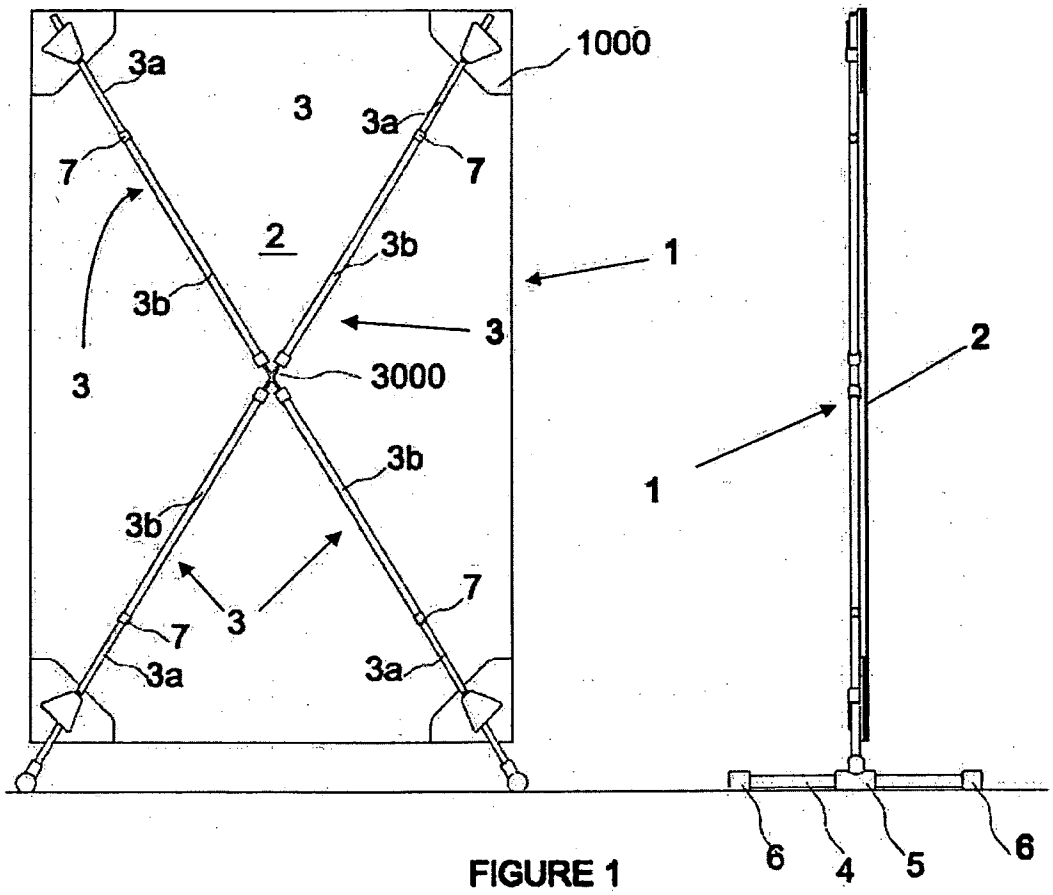



FIGURE 1

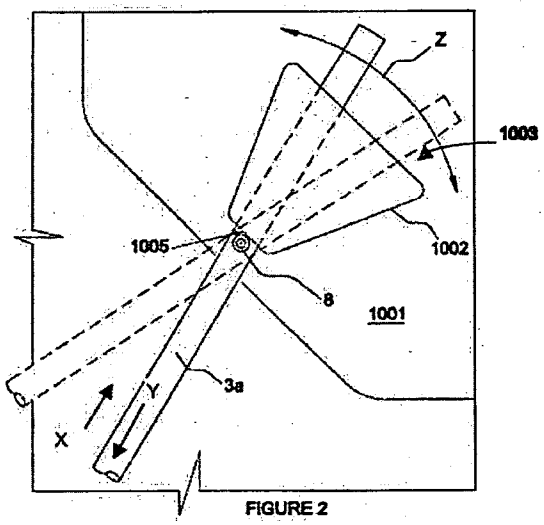



FIGURE 2

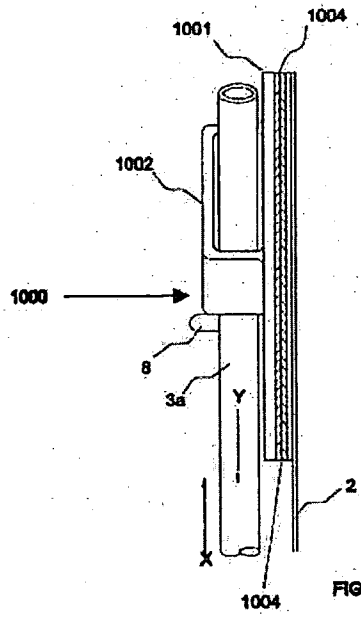



FIGURE 3

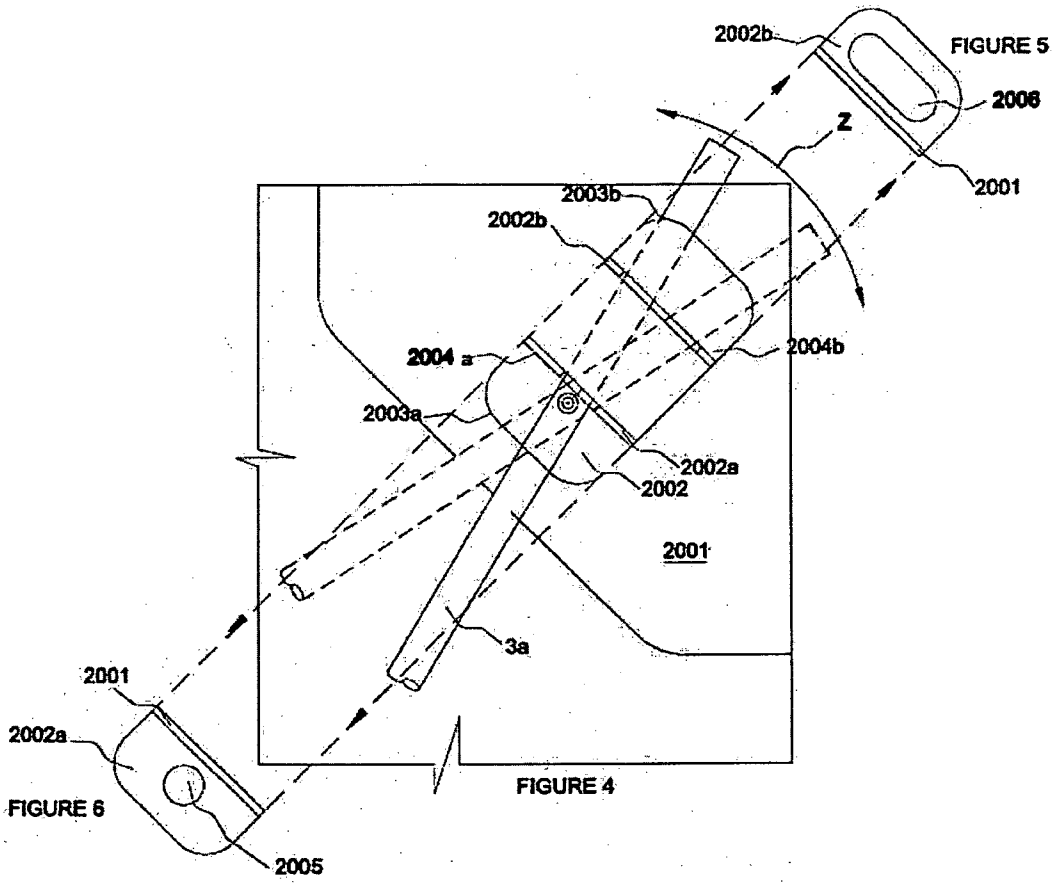



FIGURE 5

FIGURE 4

FIGURE 6

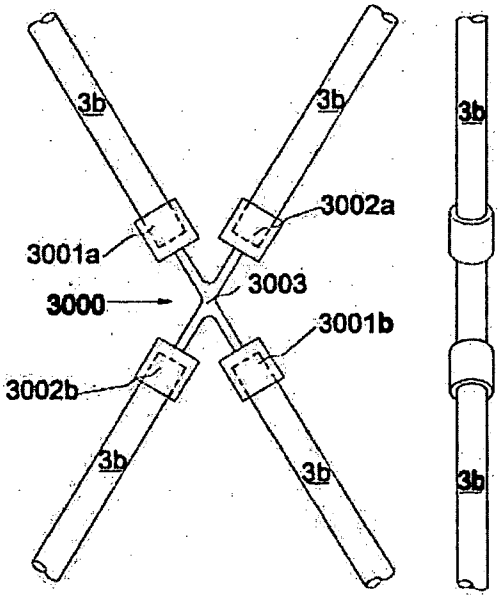



FIGURE 8

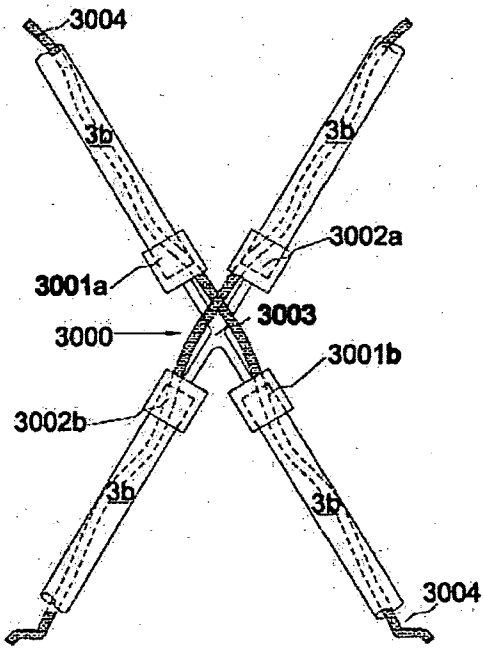



FIGURE 7

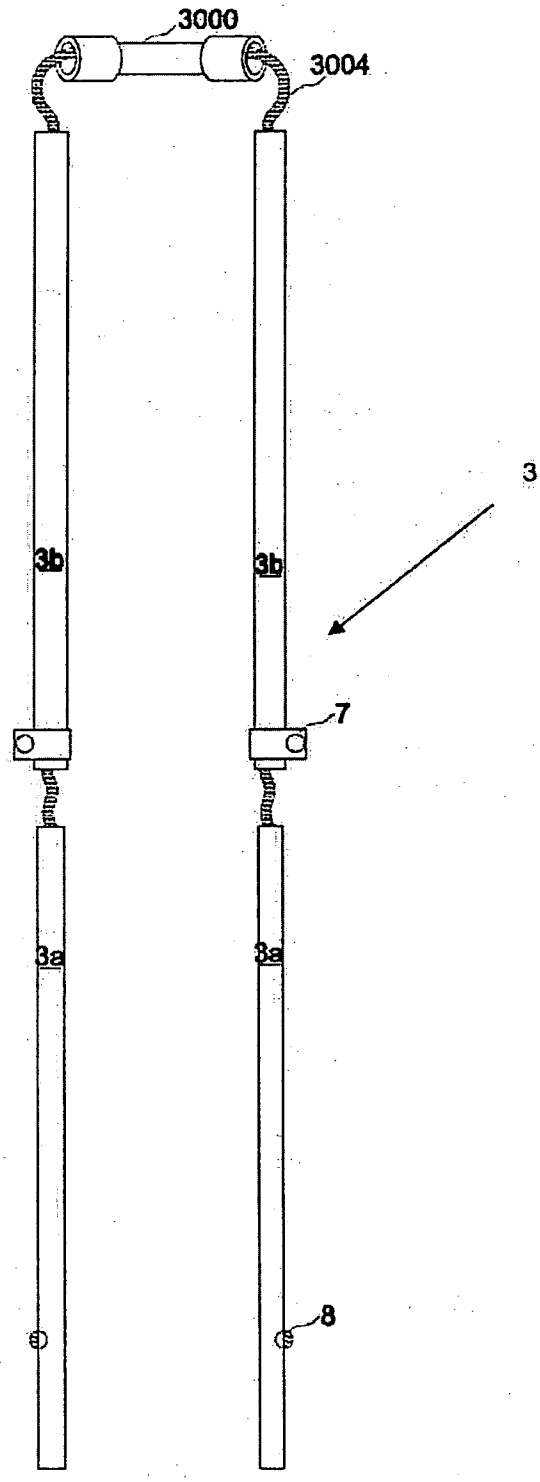



FIGURE 9

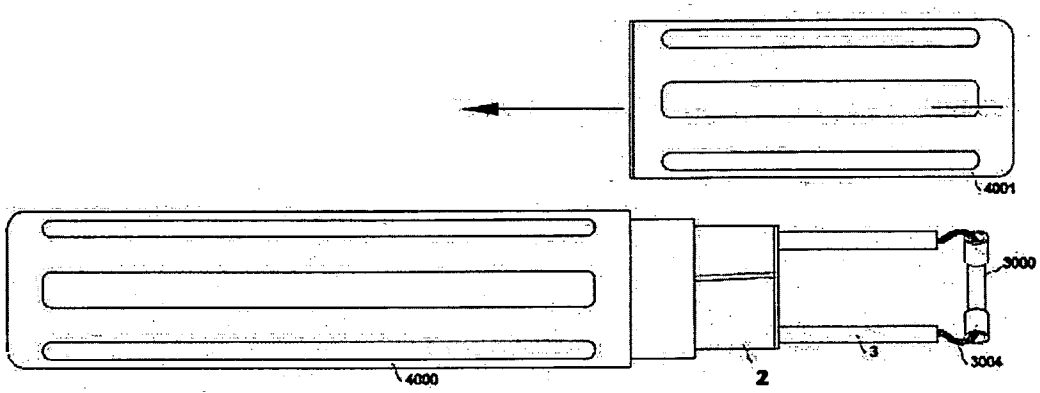



FIGURE 10

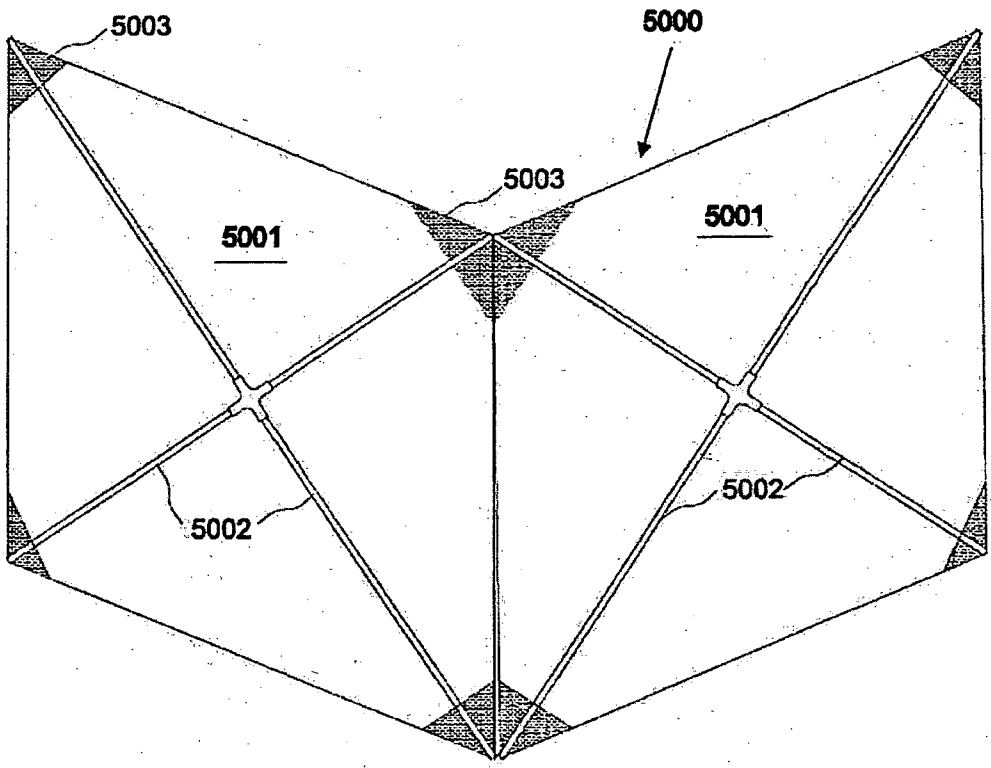



FIGURE 11

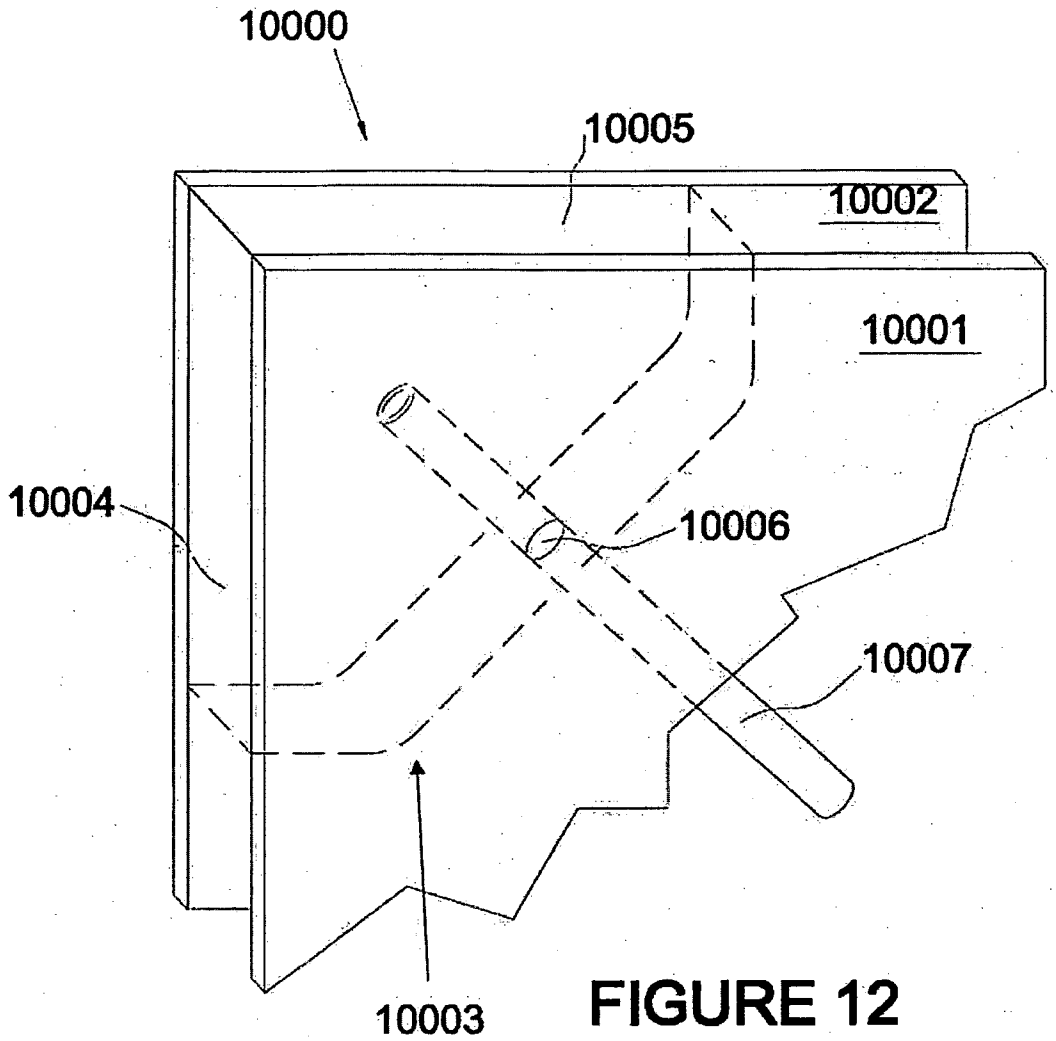
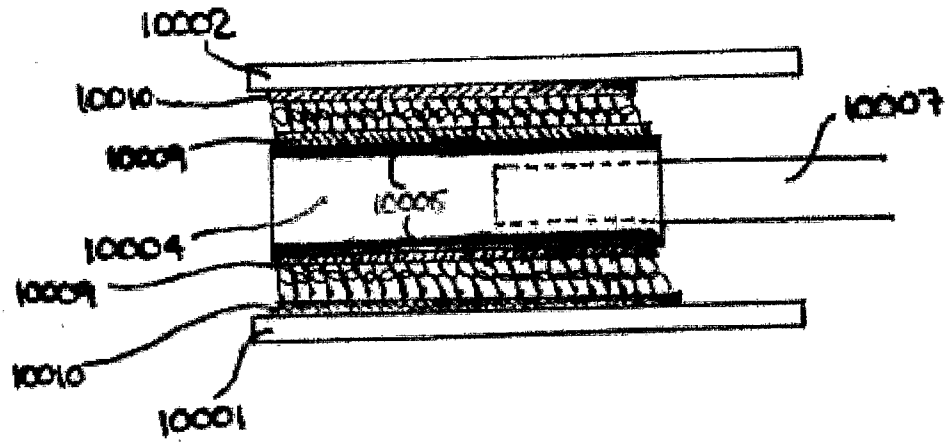



FIGURE 12

FIGURE 13.



**INTERNATIONAL SEARCH REPORT**

International application No.
**PCT**/NZ2010/000188

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl.

***G09F 7/00*** (2006.01) ***A47F 5/00*** (2006.01)

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)

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 practicable, search terms used)
WPI, EPODOC: IPC/ECLA – G09F17/00/low, A47F5/00/low & Keywords – support+, strut, brac+, pole?, rod?, +connect+, attach+, adhe+, locat+, engage+, receive+, sheet?, plane, easel, stand?, display?, release+ and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | US 2004/0020156 A1 (KRELLER, H.), 05 February 2004<br>*Abstract; figures 1-2; paragraphs [0035]-[0041]* | 1-5 |
| X | US 2007/0057126 A1 (CROOKHAM, J.P. et al.), 15 March 2007<br>*Abstract; figures 1-5; paragraphs [0037]-[0052]* | 1-5 |
| X | WO 2006/060399 A2 (FRITSCHE, M.A. et al.), 08 June 2006<br>*Abstract; figures 1-2, 9; pages 5-9* | 1-5 |
| X | US 6493973 B1 (NELSON, N.H.), 17 December 2002<br>*Abstract; figure 1; columns 4-5* | 1-5 |

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

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| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 15 December 2010 | 17 DEC 2010 |
| Name and mailing address of the ISA/AU<br>AUSTRALIAN PATENT OFFICE<br>PO BOX 200, WODEN ACT 2606, AUSTRALIA<br>E-mail address: pct@ipaustralia.gov.au<br>Facsimile No. +61 2 6283 7999 | Authorized officer<br>**MARULI SAPUTRA**<br>AUSTRALIAN PATENT OFFICE<br>(ISO 9001 Quality Certified Service)<br>Telephone No : +61 3 9935 9626 |

**INTERNATIONAL SEARCH REPORT**

International application No.
**PCT**/NZ2010/000188

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | US 4592158 A (SEELY, J.R.), 03 June 1986<br>*Abstract; figures 6, 12-21; columns 9-11, 14-17* | 1-5 |
| X | US 6234433 B1 (MAGLIONE, S.T.), 22 May 2001<br>*Abstract: figures 1-2, 4; columns 3-4* | 1, 3-5 |
| X | WO 2008/040314 A1 (GOEPFERT, C. et al.), 10 April 2008<br>*Abstract; figures 1-2; pages 11-12* | 1, 3-5 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NZ2010/000188

**Box No. II Observations where certain claims 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:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ 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 Supplemental Box 1*

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying 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 report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ 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.:
1-5

**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.

**Supplemental Box 1**
(To be used when the space in any of Boxes I to IV is not sufficient)

**Continuation of Box No: III**

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept.

In assessing whether there is more than one invention claimed, I have given consideration to those features which can be considered to potentially distinguish the claimed combination of features from the prior art. Where different claims have different distinguishing features they define different inventions.

This International Searching Authority has found that there are different inventions as follows:

- Group I: Claims 1-5 are directed to support locator. It is considered that having at least one body portion, at least one support portion adapted to be capable of engaging and retaining at least one strut member when in use and wherein the body portion is adapted to be connectable to a sheet of material comprises a first distinguishing feature. Note that the at least one strut member and the sheet material is not a feature of the claim but merely used to define the capability of the body portion and support portion of the support locator when in use.
- Group II: Claim 6 is directed to strut for use with a banner. It is considered that the strut has one or more sections adapted to be telescopically adjustable with respect to one another and wherein the strut at point proximate the distals ends thereof includes a stop comprises a second distinguishing feature.
- Group III: Claims 7-8 are directed to a sheet material. Claims 12-14 are directed to a self supporting banner assembly. It is considered that the having at support locators along four corners of a sheet material comprises a third distinguishing feature.
- Group IV: Claims 9-11 are directed to a connector device. It is considered that the connector device having at least one pair of axially opposed receiving portions configured to receive one end of a strut member and wherein the receiving portions include a retaining device which is coupled to at least the strut member associated with the receiving portion comprises a fourth distinguishing feature.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

Group I is related to a support locator.

Group II is related to strut.

Group III is related to a banner assembly with sheet material and support locators.

Group IV is related to a connector device.

Each of the above mentioned groups of claims define different distinguishing features and are directed to different inventions. The only feature common to some of the claims is a support locator. However this common feature is generic in the art. This means that the common feature can not constitute a special technical feature within the meaning of PCT Rule 13.2, second sentence, since it makes no contribution over the prior art.

Because the common feature does not satisfy the requirement for being a special technical feature it follows that it cannot provide the necessary technical relationship between the identified inventions. Therefore the claims do not satisfy the requirement of unity of invention *a posteriori*.

This authority made an informal communication to the applicant regarding the multiple inventions. The applicant advised this authority to only search and examine the Group I invention. Hence, this authority has established this search report with respect to the invention of Group I defined in claims 1-5.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.
**PCT/NZ2010/000188**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | Patent Family Member | | | | | |
|---|---|---|---|---|---|---|---|
| US | 2004020156 | DE | 10112372 | DE | 20221676U | EP | 1362149 |
| | | PL | 362507 | RU | 2003128102 | US | 7413365 |
| | | WO | 02066767 | | | | |
| US | 2007057126 | CA | 2559673 | | | | |
| WO | 2006060399 | CA | 2589724 | EP | 1820178 | US | 2008005945 |
| | | US | 7337567 | US | 2009056184 | | |
| US | 6493973 | CA | 2291399 | | | | |
| US | 4592158 | JP | 61014311 | US | 4507887 | | |
| US | 6234433 | US | 6488245 | | | | |
| WO | 2008040314 | AU | 2007304601 | CA | 2660594 | CN | 101563005 |
| | | DE | 102006045225 | EP | 2066198 | US | 2009236485 |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX