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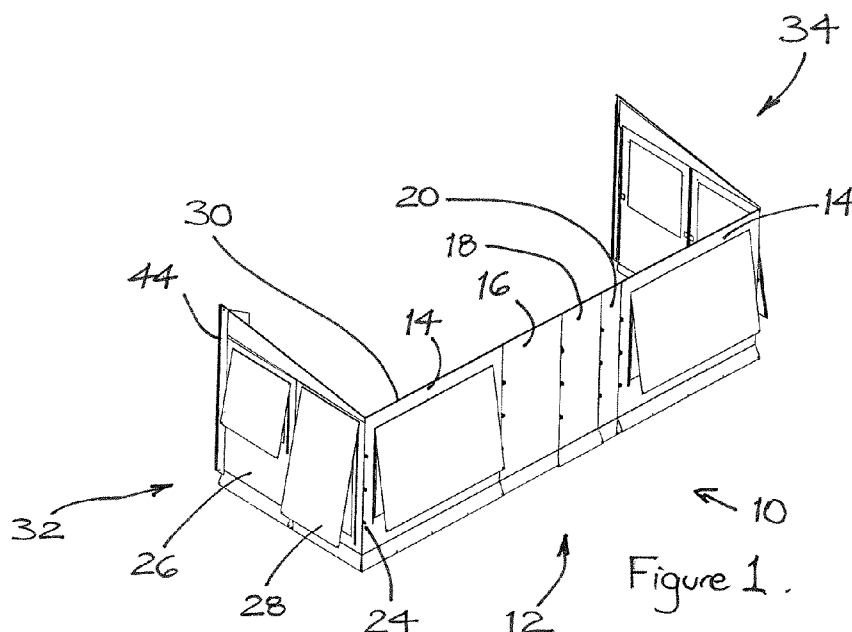


Figure 1.

(57) Abstract: An awning annex assembly (10) for mounting to a wall (108) of a transportable or fixed structure (110) has a canopy (100) extending from the wall (108) of the structure to provide a sheltered area. Also, there are one or more sidewalls (12, 32, 34) engaged to respective side edges of the canopy (100). At least one (12) of each sidewall includes a plurality of interconnected sidewall portions (14, 16, 18, 20) and the sidewall portions of any one sidewall are selected to be of a size to suit a desired length of the sidewall.

MODULAR AWNING ANNEX ASSEMBLY

TECHNICAL FIELD

The present invention relates to awning annex assemblies which can be
5 mounted to a substantially vertical support surface or mounting wall of a
transportable or fixed structure, and particularly to the side of a caravan, mobile
home or like recreational vehicles.

BACKGROUND ART

Typically, known awning annex assemblies for recreational vehicles
10 generally comprise a roof awning or canopy to create a sheltered area and
ideally one or more sidewalls that are removably engaged to respective side
edges of the canopy to define what is sometimes referred to as a temporary
screen room enclosure for providing additional interior space. The inner or
proximate end of the canopy is mounted to a wall of the vehicle and the outer
15 or distal end of the canopy is supported by poles or uprights that contact the
ground or a base assembly.

The sidewalls of such assemblies have normally been custom made to
suit the particular dimensions of the vehicle. This custom design has meant
that such sidewalls have not been mass produced, and are therefore very
20 costly.

The custom made sidewalls are also generally made in a single piece of
flexible material, such as canvas, to extend the full length of a side of the
assembly. For larger vehicles with longer walls, having single piece sidewalls
can be very heavy and difficult to manage when installing or erecting such
25 assemblies, particularly for elderly people.

Coupled with these problems is that custom made, single piece, sidewalls provide little or no flexibility in the way an installer can arrange doors, windows and other useful features of the sidewalls.

Another problem with known awning annex assemblies is that the
5 sidewalls which engage respective side edges at opposite ends of the canopy
are made of a generally fixed shape and so may not always neatly
accommodate the angle that the canopy makes with the ground, especially
when the ground upon which the assembly is to be located is not horizontal.
Specifically, such end sidewalls have an upper edge adapted to extend at a
10 fixed angle to the horizontal, but on ground that is not horizontal, or when the
declination angle of the canopy (from its proximate end to its distal end) is not
the same as the upper edge angle of the end sidewalls when on horizontal
ground, proper installation of the end sidewalls requires that the angle that the
canopy makes with the ground be carefully reset before engaging such
15 sidewalls thereto. The consequences of the fixed shape of the end sidewalls
are that erecting the awing annex assembly on irregular ground can be very
difficult or impractical, and thus require careful selection of the installation site.

DISCLOSURE OF INVENTION

It is an object of the present invention to overcome, or substantially
20 ameliorate, at least one of the disadvantages of the aforementioned prior art.

According to the invention there is provided an awning annex assembly
for mounting to a wall of a transportable or fixed structure, the assembly
comprising:

- 25 (a) a canopy adapted to extend from the wall of the structure and
provide a sheltered area,
- (b) one or more sidewalls adapted to be engaged to respective side
edges of the canopy,

wherein the or at least one of each sidewall includes a plurality of interconnected sidewall portions, the sidewall portions of any one sidewall being selected of a size to suit a desired length of the sidewall.

Preferably, the sidewall portions are modular for ease of installation of the assembly and for flexibility of arrangement of sidewall portions having
5 different useful features, such as doors and windows.

According to another aspect of the invention there is provided a two-piece adjustable canopy side edge attachment for an end sidewall of an awning annex assembly, the attachment comprising:

- 10 (a) a first piece having
 - (i) an upper edge removably engageable to a side edge of the canopy, and
 - (ii) a first region containing a first part of a two-part fastening assembly,
- 15 (b) a second piece having
 - (i) a lower edge removably engageable to a top edge of a sidewall portion of the end sidewall, and
 - (ii) a second region containing a second part of the two-part fastening assembly,

20 wherein the first and second pieces of the attachment are adjustably interconnected to accommodate the angle that the side edge of the canopy makes with the top edge of the sidewall portion by positioning the first and second regions so that they overlap and allow fastening of the first and second parts of the fastening assembly.

25 Preferably, the fastening assembly has a first part comprised of hooks and a second part comprised of loops, or vice versa.

BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention may be more readily understood and put into practical effect, reference will now be made to the accompanying drawings, in which:-

5 Fig. 1 is a top perspective view taken from the front of an awning annex assembly according to a preferred embodiment of the invention;

 Fig. 2 is a left end elevation view of the assembly of Fig. 1;

 Fig. 3 is a top perspective view taken from the rear of the assembly of Fig. 1, but showing a two-piece adjustable canopy side edge attachment in a
10 configuration for accommodating a declination angle of a canopy that is steeper than that shown in Fig. 1;

 Fig. 4 is a right end elevation view of the assembly of Fig. 3;

 Fig. 5 is an isolated detail view of the circled region A shown in Fig. 3;

 Fig. 6 is a perspective view of an inner side of a first piece of a two-piece
15 adjustable canopy side edge attachment according to a preferred embodiment of the invention;

 Fig. 7 is an elevation view of an outer side of the first piece shown in Fig.
6;

 Fig. 8 is an elevation view of the inner side of the first piece shown in
20 Fig. 6;

 Fig. 9 is a perspective view of an inner side of a second piece of a two-piece adjustable canopy side edge attachment according to a preferred embodiment of the invention;

 Fig. 10 is an elevation view of the inner side of the second piece shown
25 in Fig. 9;

 Fig. 11 is a perspective view of an outer side of the second piece shown in Fig. 9;

Fig. 12 is an elevation view of the outer side of the second piece shown in Fig. 9;

Fig. 13 is an elevation view of an outer side of a mounting wall attachment strip used as a first component for attaching an end sidewall of the assembly of Figs. 1 or 3 to a mounting wall of a transportable or fixed structure;

Fig. 14 is a perspective view of the outer side of the wall attachment strip shown in Fig. 13;

Fig. 15 is a perspective view of an inner side of the wall attachment strip shown in Fig. 13;

Fig. 16 is an elevation view of an outer side of an end sidewall attachment strip used as a second component for attaching an end sidewall of the assembly of Figs. 1 or 3 to a mounting wall of a transportable or fixed structure, the end sidewall attachment strip being interconnectable to the mounting wall attachment strip of Fig. 13;

Fig. 17 is a perspective view of the outer side of the end sidewall attachment strip shown in Fig. 16;

Fig. 18 is a perspective view of an inner side of the end sidewall attachment strip shown in Fig 16;

Fig. 19 is an elevation view of an outer side of a sidewall portion useful as a full window module;

Fig. 20 is a perspective view of the outer side of the sidewall portion shown in Fig. 19;

Fig. 21 is a perspective view of an inner side of the sidewall portion shown in Fig. 19;

Fig. 22 is an elevation view of an outer side of a sidewall portion useful as a half window module;

Fig. 23 is a perspective view of the outer side of the sidewall portion shown in Fig. 22;

Fig. 24 is a perspective view of an inner side of the sidewall portion shown in Fig. 22;

5 Fig. 25 is an elevation view of an outer side of a sidewall portion useful as a narrow plain barrier module;

Fig. 26 is a perspective view of the outer side of the sidewall portion shown in Fig. 25;

10 Fig. 27 is a perspective view of an inner side of the sidewall portion shown in Fig. 25;

Fig. 28 is an elevation view of an outer side of a sidewall portion useful as a wide plain barrier module;

Fig. 29 is a perspective view of the outer side of the sidewall portion shown in Fig. 28;

15 Fig. 30 is a perspective view of an inner side of the sidewall portion shown in Fig. 28;

Fig. 31 is an elevation view of an outer side of a sidewall portion useful as a flyscreen door module;

20 Fig. 32 is a perspective view of the outer side of the sidewall portion shown in Fig. 31;

Fig. 33 is a perspective view of an inner side of the sidewall portion shown in Fig. 31;

25 Fig. 34 is a perspective view of a preferred awning annex assembly, shown in part to highlight the support of the canopy, connected to a mounting wall of a caravan;

Fig. 35 is a perspective view of another preferred awning annex assembly, shown in part to highlight the connection of the upright poles with the sidewalls;

Fig. 36 is a perspective view of another preferred awning annex assembly, shown in part to highlight the connection of the extender tube with the canopy, sidewalls and upright poles; and

Fig. 37 is a perspective view of another preferred awning annex assembly, shown in part to highlight the connection of the sidewalls and canopy with the horizontally and vertically positioned receiving channels attached to a mounting wall of a caravan.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

As will be apparent from the detailed description of preferred embodiments of the invention that follows, the present invention addresses the problems of the prior art by providing sidewall portions which can be interconnected to make a sidewall of a desired length. It also provides a two piece adjustable canopy side edge attachment for an end sidewall.

For convenience the methods of fastening described in this specification will include Keder (TM) tape, Velcro (TM) tape and Velcro buckles as possible embodiments. It will be understood that there is no intention to limit the method of fastening to these types or any other type specified in this description.

Figures 1 to 4 show a possible configuration of sidewall portions for a modular awning annex assembly 10 that will include a roof canopy 100.

The front sidewall 12 in the assembly 10 is made up of a plurality of sidewall portions consisting of two seven foot wide full window modules 14, a three foot wide plain barrier module 16, a two foot wide plain barrier module 18, and a one foot wide plain barrier module 20 to make a total length of twenty feet. This configuration has been made to suit a twenty foot long roof canopy

for, say, a minimum twenty foot long mounting wall of a recreational vehicle. Each of the sidewall portions contain zipper elements 22 on both side edges to allow for fastening to a neighbouring sidewall portion.

The Velcro buckles 24 are used to provide pole support, that is, to attach
5 a side edge of a sidewall portion 14 to an upright pole 102 which is used to support each of the outside or distal corners of the roof canopy 100.

The front sidewall and each of the end sidewalls can be made up of a variety of sidewall portions including, but not limited to, sidewall portions having useful features, such as half screen windows 26, flyscreen doors 28, full screen
10 windows 14 and plain barriers 16, 18 and 20. These sidewall portions can be arranged in a variety of ways to suit the users' needs.

The front sidewall portions can be attached to the roof canopy 100 with a Keder tape method of attachment which is widely used in the caravan and camper industry. The Keder tape 30 is integrally attached to the upper edge of
15 the front sidewall portions. Each sidewall portion is then attached to the roof canopy 100 by threading the Keder tape part of the sidewall portion through a receiving channel 104 located along the length of a roller or extender tube 106 connected along an edge of the canopy 100. These types of tubes are a standard feature in many caravan and camper canopy assemblies. The upper
20 edge of each of the front sidewall portions is threaded through the Keder tape receiving channel 104 in the desired order and then neighbouring sidewall portions are fastened to each other using the zipper elements 22.

The two opposed end sidewalls 32, 34 in the assembly 10 are also, in this embodiment, made up of a plurality of sidewall portions, but these end
25 sidewall portions are attached to the roof canopy 100 in a different way. They are attached via a two-piece adjustable canopy side edge attachment 36, 38 (see Figs. 6 to 12). A first piece 36 of this adjustable canopy side edge

attachment has Keder Tape 30 running along its upper edge, and is attached to the canopy 100 using the Keder tape method of attachment described above. The receiving channel for the Keder tape may be part of an optional extra available in the market place, such as an anti flap kit. A second piece 38 of the adjustable canopy side edge attachment has zipper elements 39 attached
5 close to its lower edge 40. The end sidewall portions 26, 28 have zipper elements attached close to their top edges so that they can be attached to the second piece 38 of the adjustable canopy side edge attachment.

Each of the adjustable canopy side edge attachment pieces 36, 38
10 include a Velcro part 42 as shown in Figures 7 and 10 which is located along the side of the adjustable canopy side edge attachment pieces 36, 38 most proximate to a mounting wall 108 of a caravan 110 or other structure.

Each end sidewall 32, 34 is attached to the mounting wall 108 of the caravan 110 via a two-part wall attachment strip assembly 44. The wall
15 attachment strip assembly 44 consists of a first part 45 shown in Figures 13 to 15. This first part 45 is joined to the wall 108 of the caravan 110 using Keder tape 30 which is attached along the length and to one side of the first part 45 of the wall attachment strip assembly 44. The Keder tape 30 is inserted into the vertically positioned receiving channel 112 which is attached to the wall 108 of
20 the caravan 110. A strip of Velcro 46a is attached along the length and to the inner side of the first part 45 of the strip assembly 44, opposite the Keder tape 30, as shown in Figure 15. The second part 48 (shown in Figures 16 to 18) of the wall attachment strip assembly 44 also has a strip of Velcro 46b to provide fastening to the Velcro strip 46a on the first part 45, thereby enabling the first
25 and second parts 45, 48 to be interconnected by positioning the matching Velcro strips 46a, 46b so that they overlap. The second part 48 also has attached to it a zipper element 22 running along its entire length and positioned

on the edge which is furthest away from the first part 45. This zipper element 22 provides a means of attachment to an end sidewall portion 26. The interconnection of the first and second parts 45, 48 can be adjusted to allow for variations in distances between the mounting wall 108 of the caravan 110 and
5 the outermost or front sidewall 12.

Referring again to the two-piece adjustable canopy side edge attachment shown in Figures 6 to 12 (and also Figure 5), the first piece 36 has a strip of Velcro 42 running along the length of the side of the first piece which is to be attached to the mounting wall 108 of the caravan 110. Keder tape 30 is
10 also attached to the upper edge of the first piece for attachment of the first piece to the roof canopy 100. The first piece 36 also has a flap 50 which is attached along the top edge. The flap 50 covers a region 51 of Velcro, which will be used to adjustably fasten the second piece 38 of the two-piece adjustable canopy side edge attachment thereto. The Velcro of this region 51
15 covers the whole area under the flap 50. This allows the second piece 38 to be adjustably attached to the first piece 36 over a large range of angles.

The bottom or second piece 38 of the two-piece adjustable canopy side edge attachment is shown in Figures 9 to 12. It has a Velcro strip 54 which runs along the top edge to provide a means to connect the second piece 38 to the
20 first piece 36. There is also a Velcro strip 42 attached to the edge of the second piece 38 which is to be removably attached to the mounting wall 108 of the caravan 110. These Velcro strips 42, 54 are positioned on the inner side or the side of the second piece 38 which faces inwards in the installed annex assembly. Positioned close to the bottom edge of the second piece 38 on its
25 outer side, or opposite surface to that of the Velcro strips, are two elements 39 of a zipper assembly. This provides a means for attachment to the end sidewall portions 26, 28.

Figure 2 and Figure 4 show two configurations of the two-piece adjustable canopy side edge attachment 36, 38. Figure 4 shows a configuration which represents a maximum angle between the top edge of the first piece 36 and the bottom edge of the second piece 38. Figure 2 shows a configuration
5 which represents the minimum angle between the edges described above.

The roof canopy 100 has Keder tape 30 or other rope-like structure attached along the length of its edge that is releasably joined to the wall 108 of the caravan 110. The Keder tape 30 is inserted into a horizontally positioned receiving channel 112 which is attached to the wall 108, thereby effecting the
10 join.

There are a variety of types of sidewall portions that are contemplated by the present invention. Some of these are represented in the Figures and described below. It will be understood that the types that can be used are not limited to those described in this specification.

15 Figures 19 to 21 show a sidewall portion 14 of a type that is useful as a full window module. A fly screen 60 of the module can be covered by a window flap 62. Zipper elements 64 are used to adjustably fix the window flap 62 to the body of the sidewall portion 14. Velcro 66 is used to attach a bottom edge of the window flap 62 to the body of the sidewall portion. This sidewall portion 14
20 has Keder tape 30 running along the top edge to be received by a Keder tape receiving channel 104. There are also first and second elements 39 of a zipper assembly attached at the opposite side edges of the sidewall portion 14. A first element of the zipper assembly provides a means to engage with a second element of the zipper assembly on a neighbouring sidewall portion, and,
25 therefore, attach two sidewall portions together. Velcro buckles 24 are attached at locations on the side edges of the sidewall portion 14 to be used to attach to corner posts or upright poles 102 where necessary.

Figures 22 to 24 show a sidewall portion 26 of a type that is useful as a half window module. The fly screen 60 can be covered by the window flap 62. Zipper elements 64 are used to adjustably fix the window flap 62 to the body of the sidewall portion. Velcro 66 is used to attach the bottom edge of the window flap 62 to the body of the sidewall portion. This sidewall portion 26 has a first element of a zipper assembly extending along and close to, the top edge to engage with a second element 39 of a zipper assembly on the second piece 38 of the two-piece adjustable canopy side edge attachment. There are also first and second elements 70 of a zipper assembly attached at the side edges of the sidewall portion 26. A first element of the zipper assembly provides a means to engage with a second element of the zipper assembly on a neighbouring sidewall portion, and, therefore, attach two sidewall portions together.

Figures 25 to 27 show a sidewall portion 20 of a type that is useful as a narrow plain barrier module. This sidewall portion 20 has Keder tape 30 running along the top edge to be received by a Keder tape receiving channel 104. There are also first and second elements 72 of a zipper assembly attached at the side edges of the sidewall portion 20. A first element of the zipper assembly provides a means to engage with a neighbouring sidewall portion's second element of the zipper assembly and, therefore, attach the two sidewall portions together. Velcro buckles 24 are attached at points on the side edges of the sidewall portion 20 to be used to attach to corner posts 102 where necessary.

Figures 28 to 30 show a sidewall portion 16 of a type that is useful as a wide plain barrier module. This sidewall portion 16 has Keder tape 30 running along the top edge to be received by a Keder tape receiving channel 104. There are also first and second elements 74 of a zipper assembly attached at the side edges of the sidewall portion. A first part of the zipper assembly

provides a means to engage with a neighbouring sidewall portion's second part of the zipper assembly and, therefore, attach the two sidewall portions together.

Figures 31 to 33 show a sidewall portion 28 of a type that is useful as a flyscreen door module. The fly screen 60 can be covered by the door flap 72.

5 Zipper elements 64 are used to adjustably fix the door flap 72 to the body of the sidewall portion 28. Velcro 66 is used to attach the bottom edge of the door flap 72 to the body of the sidewall portion 28. This sidewall portion has a first element 68 of a zipper assembly running along close to the top edge to engage with a second element 39 of a zipper assembly on the second piece of the two-
10 piece adjustable canopy side edge attachment. There are also first and second elements 70 of a zipper assembly attached at the side edges of the sidewall portion 28. A first element of the zipper assembly provides a means to engage with a neighbouring sidewall portion's second element of the zipper assembly and, therefore, attach the two sidewall portions together.

15 It will be readily apparent to persons skilled in the art that various modifications may be made in details of design and construction of the embodiments of the invention described above without departing from the scope or ambit of the invention.

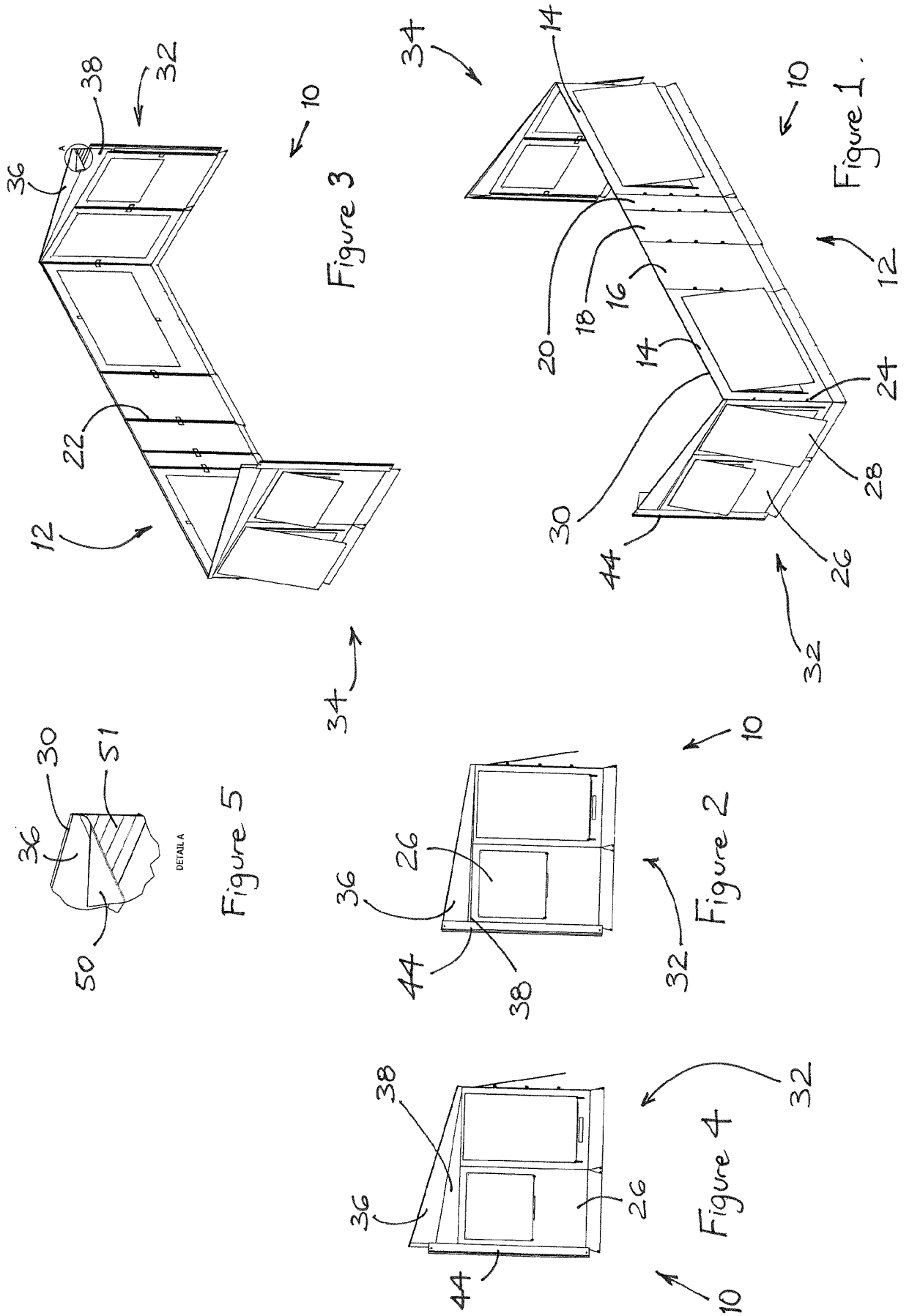
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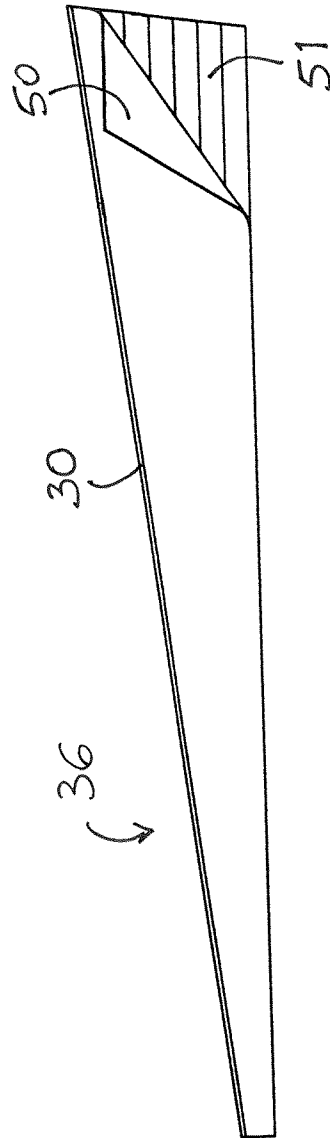
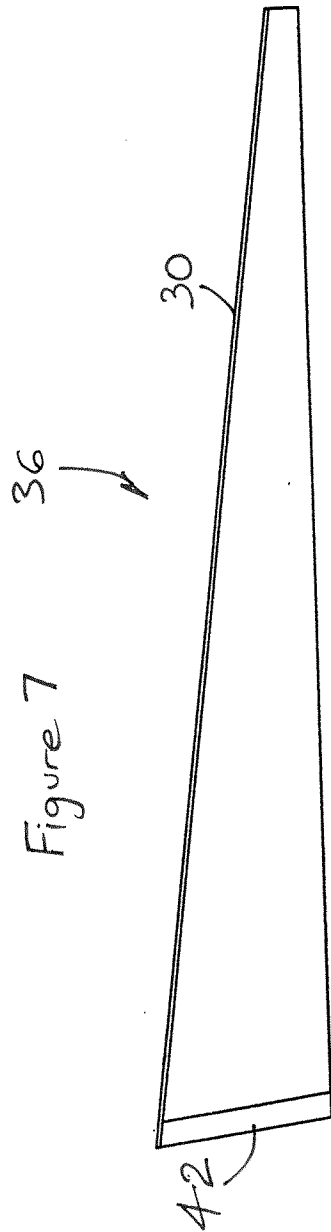
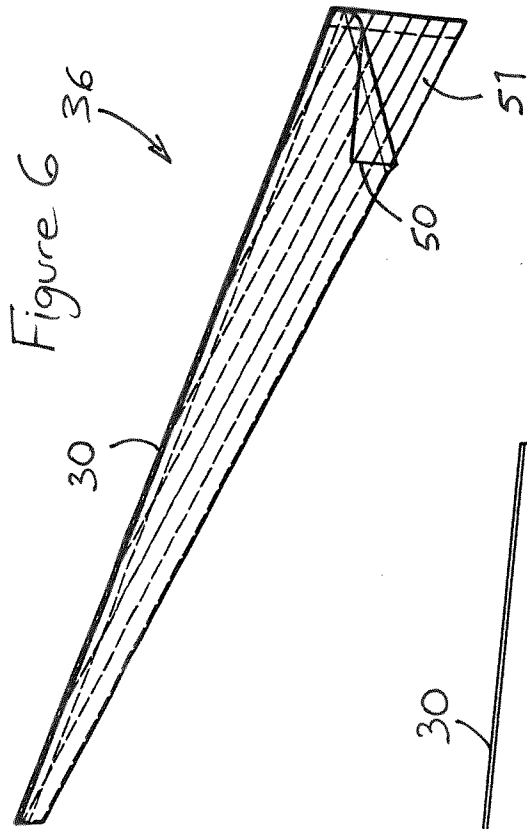
1. An awning annex assembly for mounting to a wall of a transportable or fixed structure, the assembly comprising:
 - (a) a canopy adapted to extend from the wall of the structure and provide a sheltered area,
 - (b) one or more sidewalls adapted to be engaged to respective side edges of the canopy,wherein the or at least one of each sidewall includes a plurality of interconnected sidewall portions, the sidewall portions of any one sidewall being selected of a size to suit a desired length of the sidewall.
2. The assembly of claim 1 wherein the one or more sidewalls include a front sidewall which is made up of a plurality of modular front sidewall portions.
3. The assembly of claim 2 wherein the sidewalls further include an end sidewall which is made up of a plurality of modular end sidewall portions.
4. The assembly of claim 2 or claim 3 wherein the sidewall portions are interconnected by zipper elements on side edges of neighbouring sidewall portions.
5. The assembly of claim 2 or claim 3 wherein at least one of the sidewall portions comprise a half screen window, a flyscreen door, a full screen window or a plain barrier.
6. A two-piece adjustable canopy side edge attachment for an end sidewall of an awning annex assembly, the attachment comprising:
 - (a) a first piece having
 - (i) an upper edge removably engageable to a side edge of

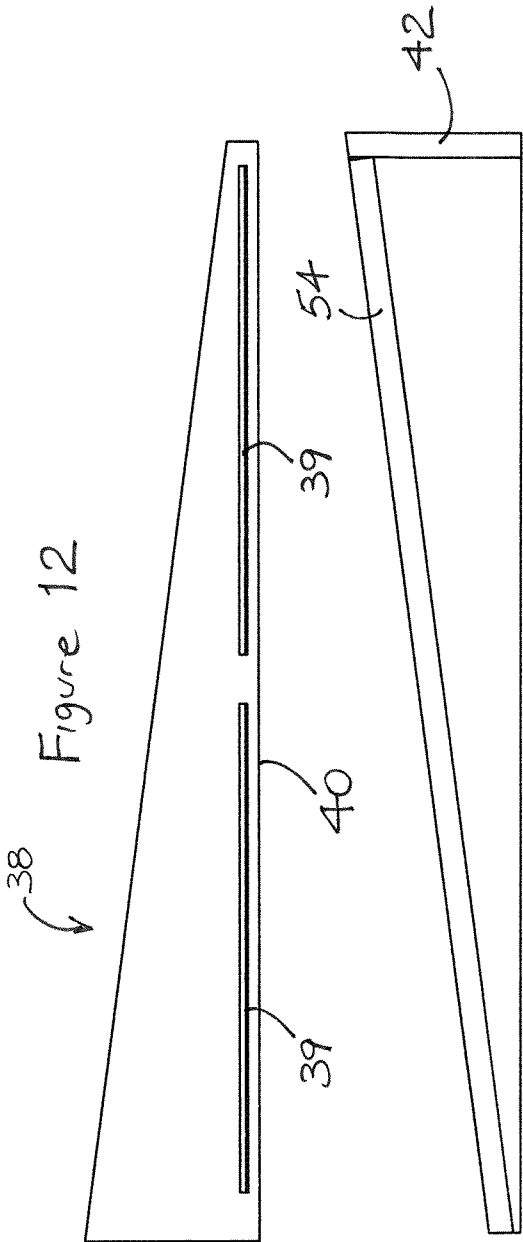
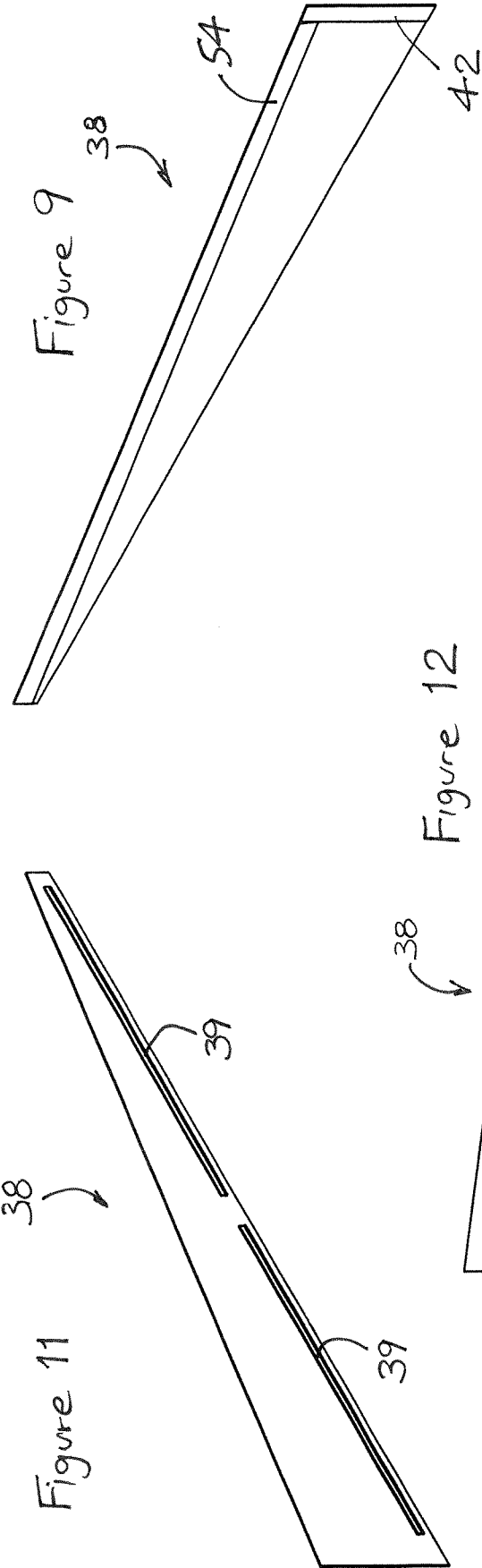
- the canopy, and
- (ii) a first region containing a first part of a two-part fastening assembly,
- (b) a second piece having
 - (i) a lower edge removably engageable to a top edge of a sidewall portion of the end sidewall, and
 - (ii) a second region containing a second part of the two-part fastening assembly,

wherein the first and second pieces of the attachment are adjustably interconnected to accommodate the angle that the side edge of the canopy makes with the top edge of the sidewall portion by positioning the first and second regions so that they overlap and allow fastening of the first and second parts of the fastening assembly.

7. The attachment of claim 6 wherein the fastening assembly has a first part comprised of hooks and a second part comprised of loops, or vice versa.







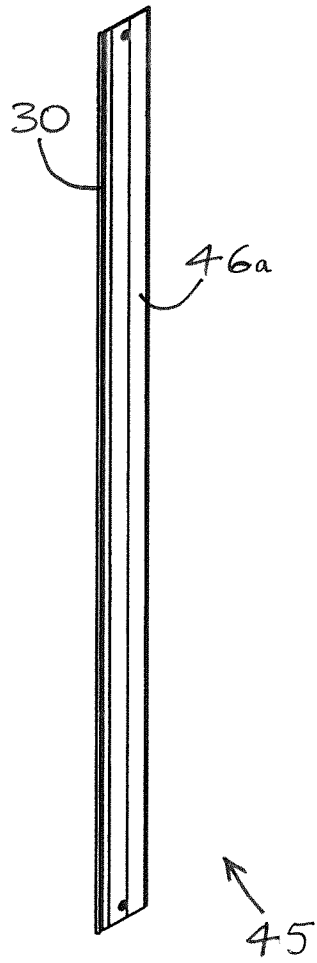


Figure 15

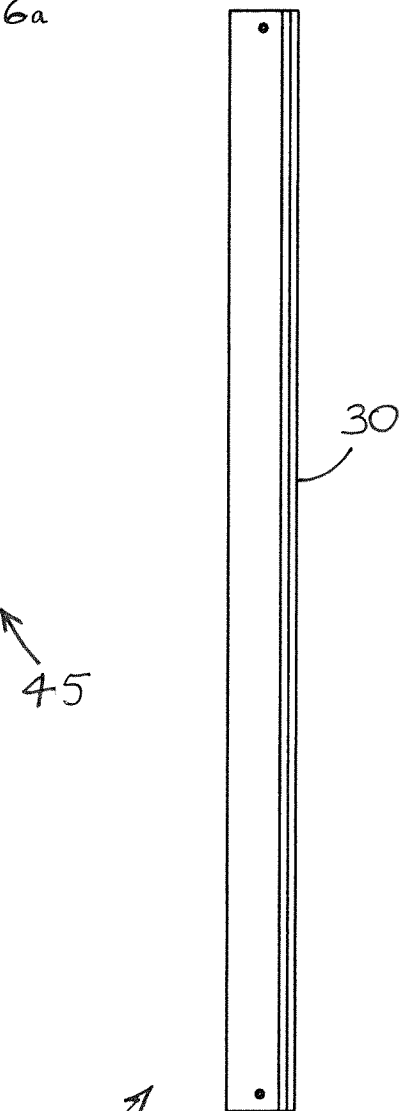


Figure 13

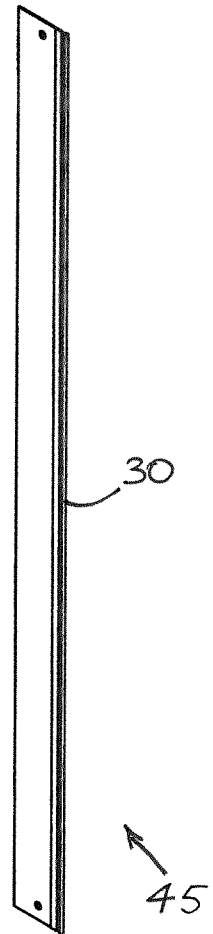


Figure 14

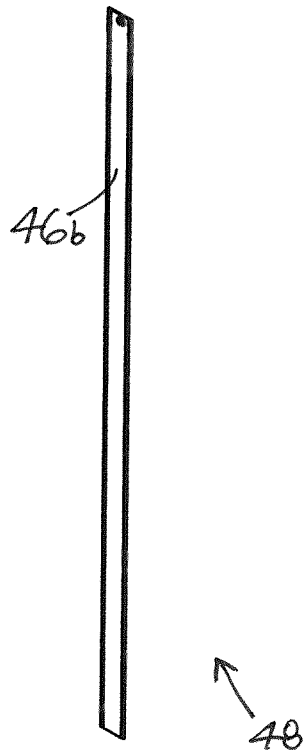
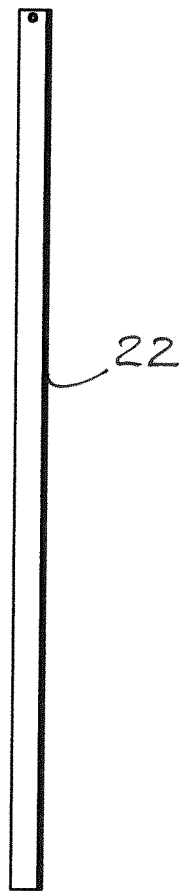


Figure 18



48 Figure 16

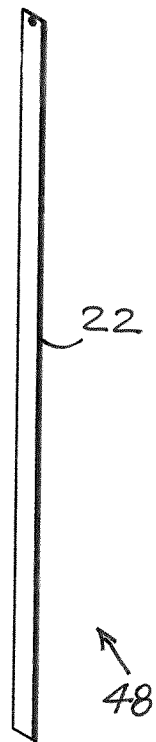


Figure 17

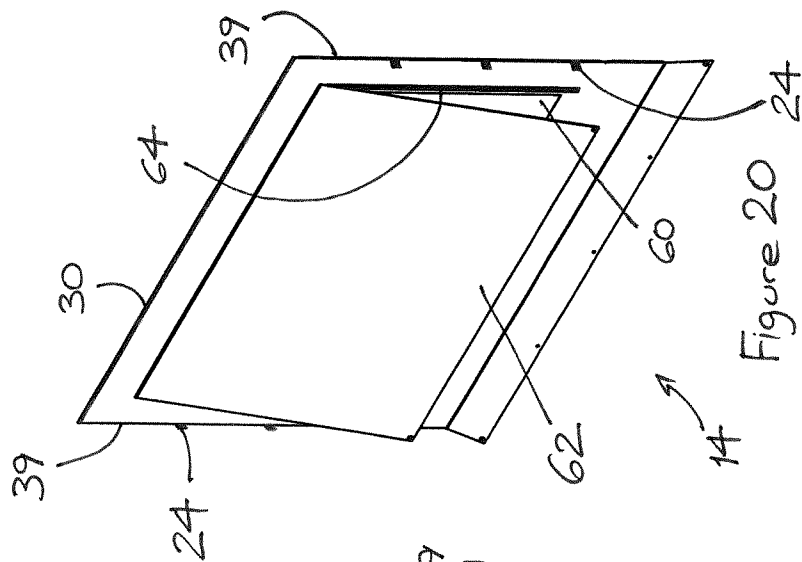


Figure 20

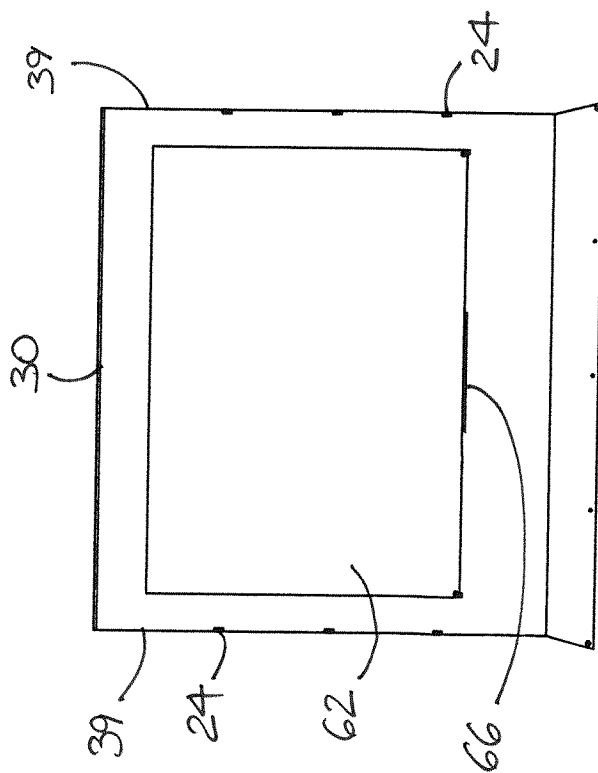


Figure 19

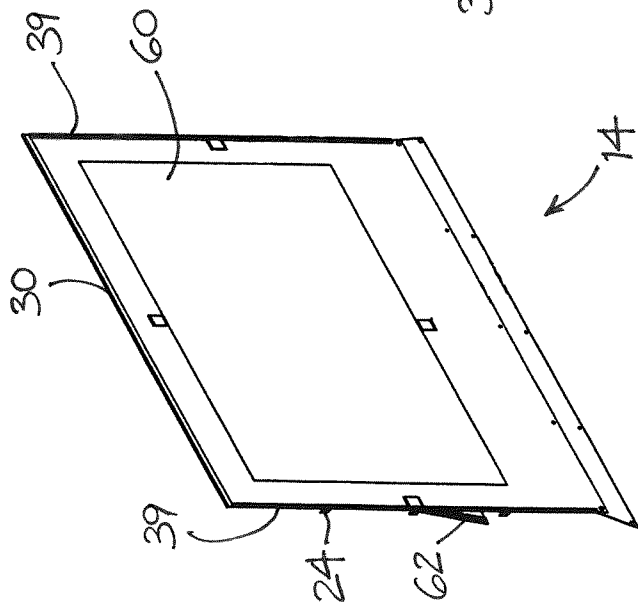


Figure 21

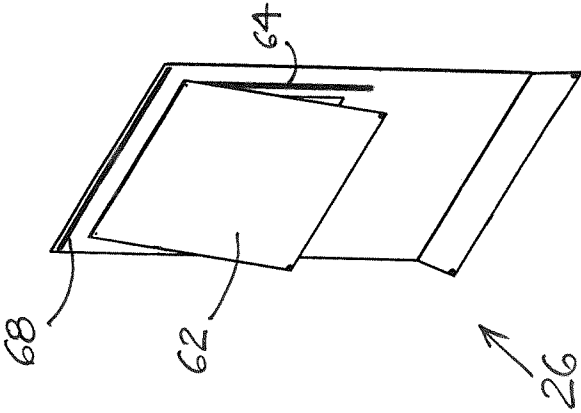


Figure 23

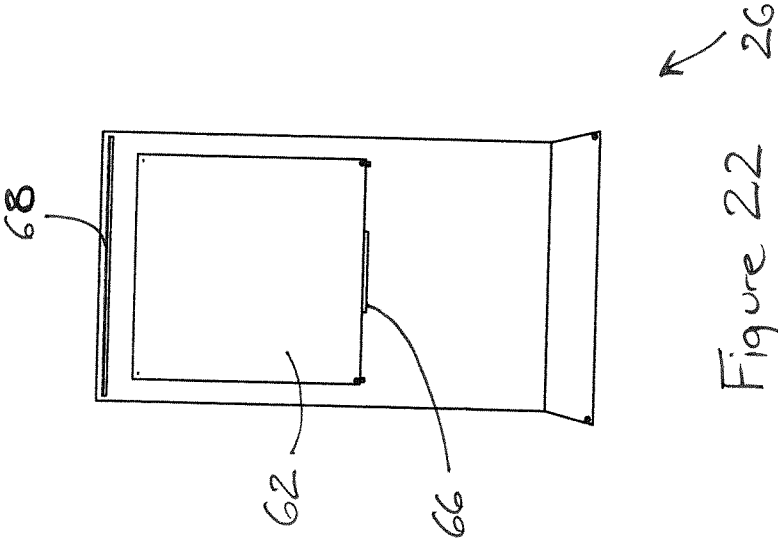


Figure 22

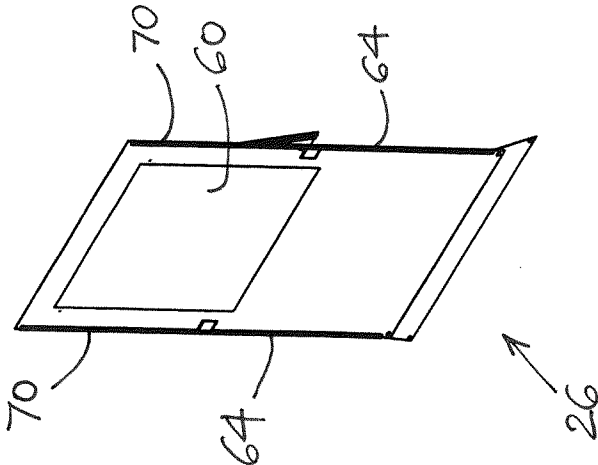


Figure 24

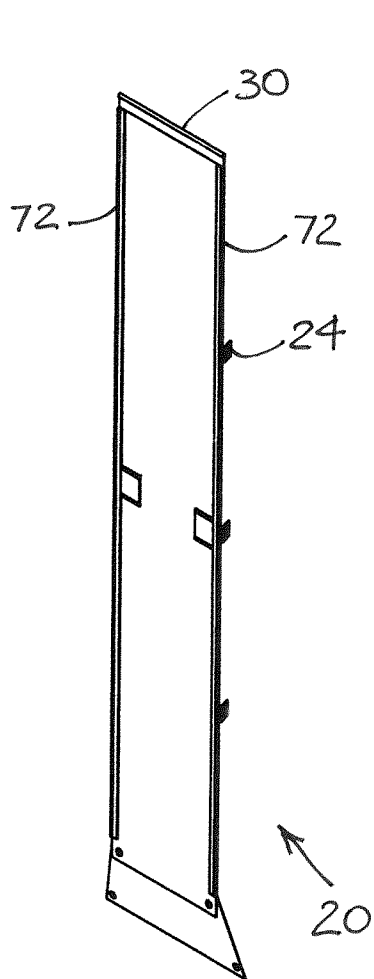


Figure 27

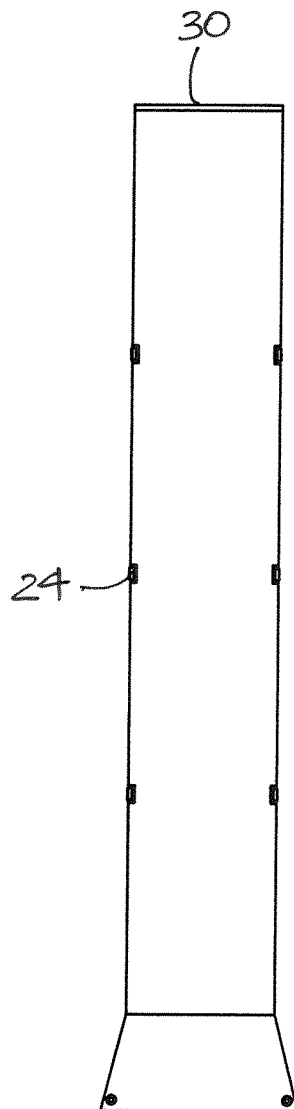


Figure 25

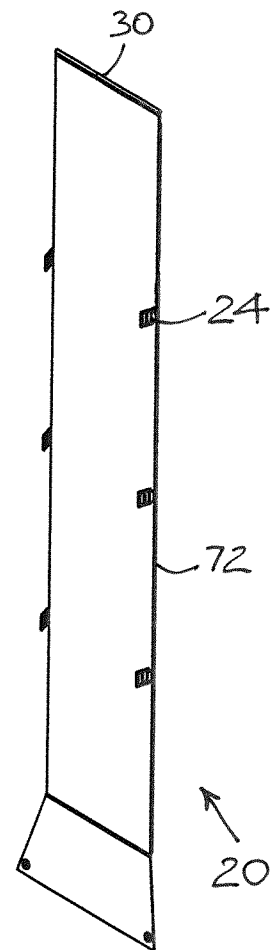


Figure 26

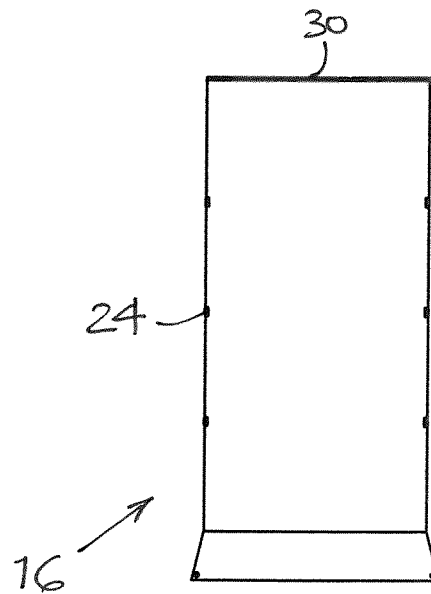


Figure 28

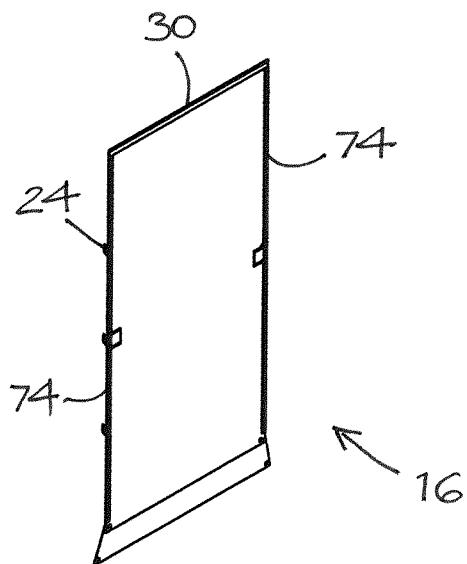


Figure 30

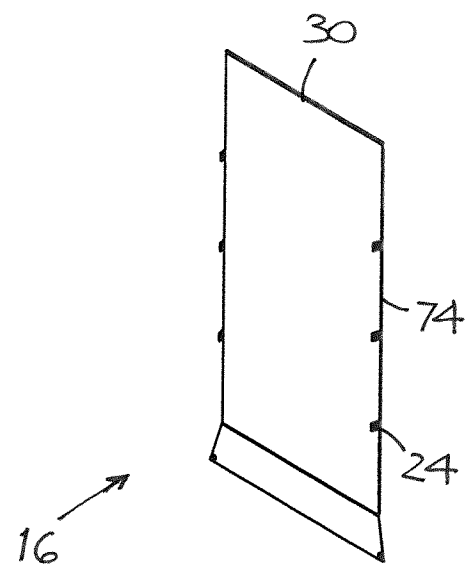


Figure 29

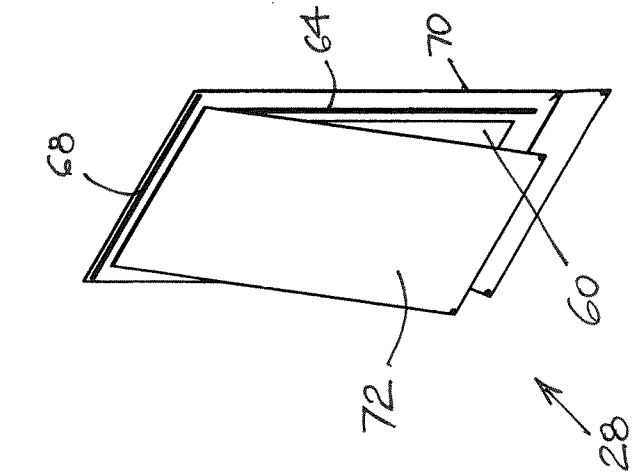


Figure 32

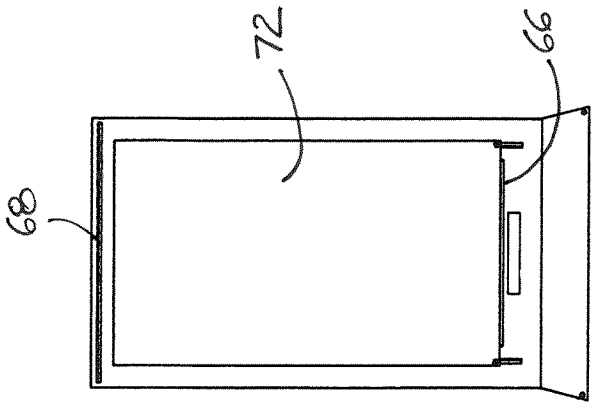


Figure 31

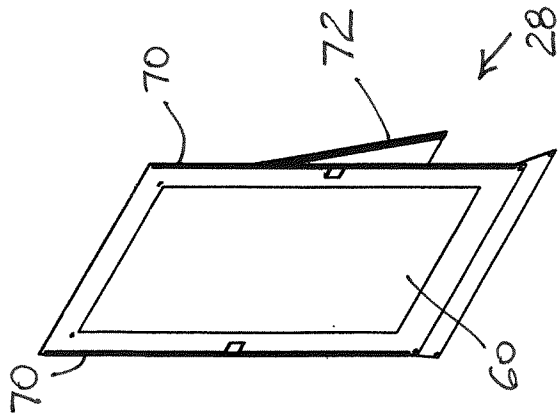


Figure 33

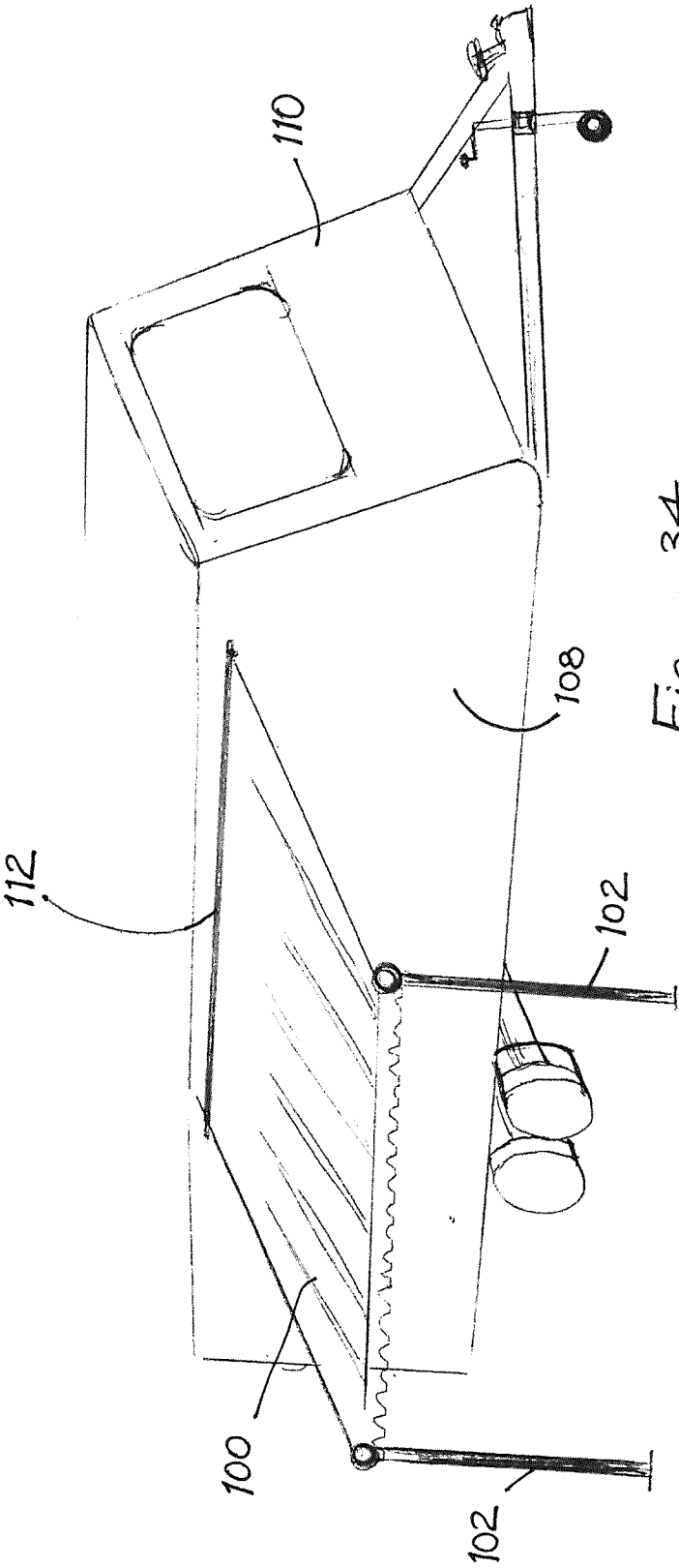
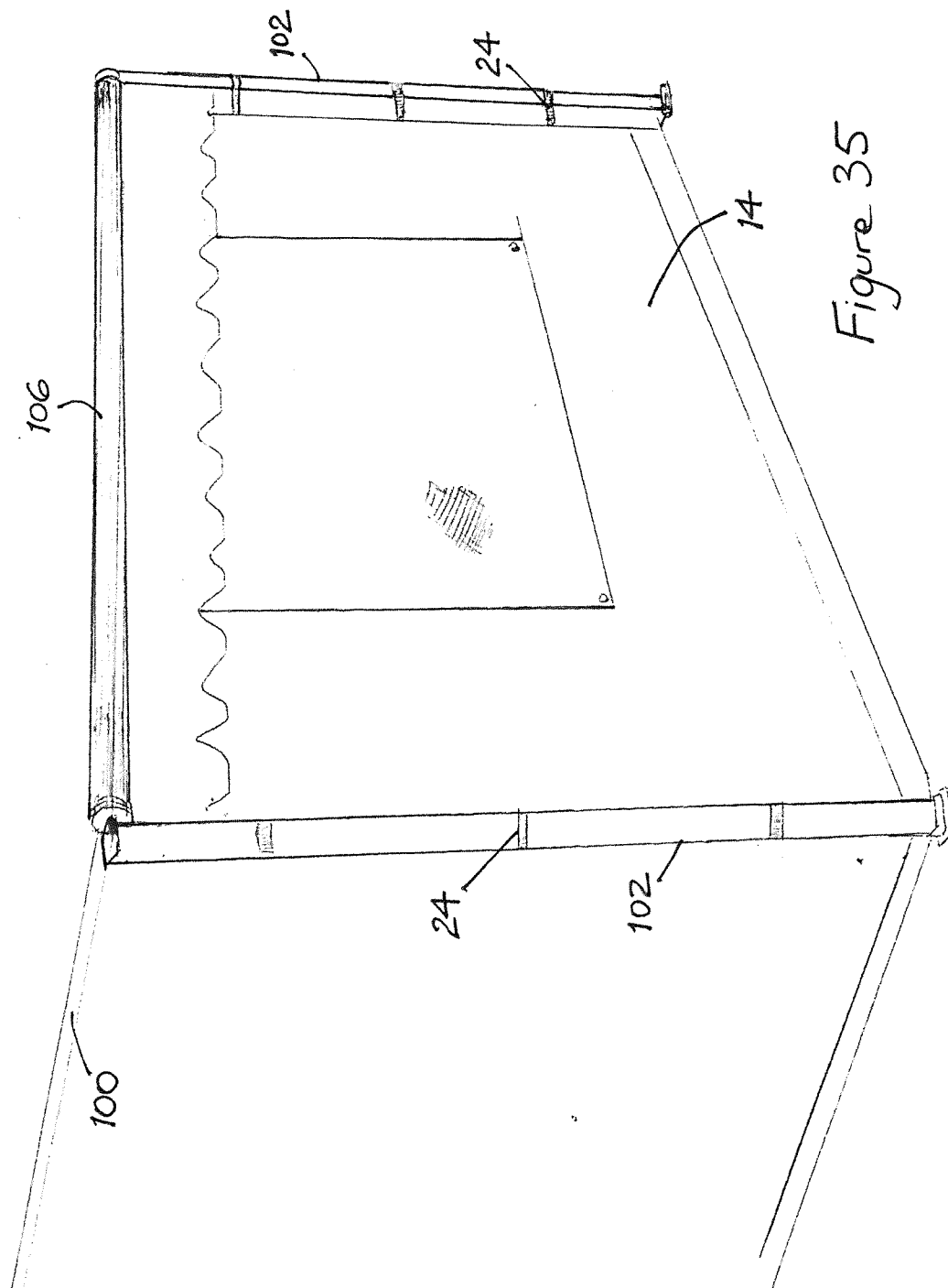


Figure 34



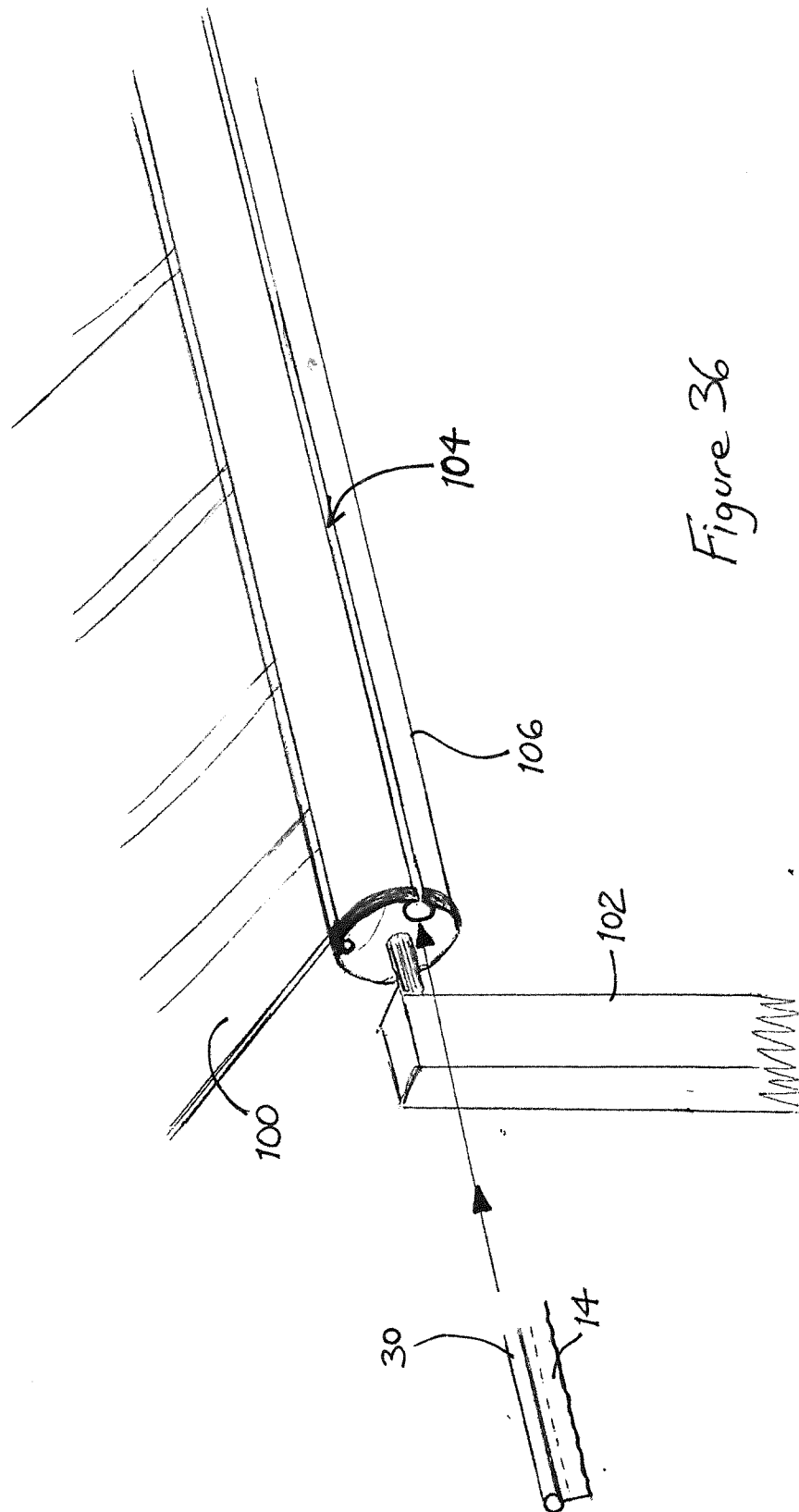


Figure 36

