US 20140262070A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2014/0262070 A1**

(43) **Pub. Date: Sep. 18, 2014**

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(54) **METHOD OF CREATING LIVING SPACE WITH ADDED AMBIENT SOUND, RETRACTABLE AWNING WITH SOURCE OF SOUND BENEATH AWNING CANOPY, AND HEAD FOR RETRACTABLE AWNING HAVING A SPEAKER**

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(21) Appl. No.: **13/833,626**

(22) Filed: **Mar. 15, 2013**

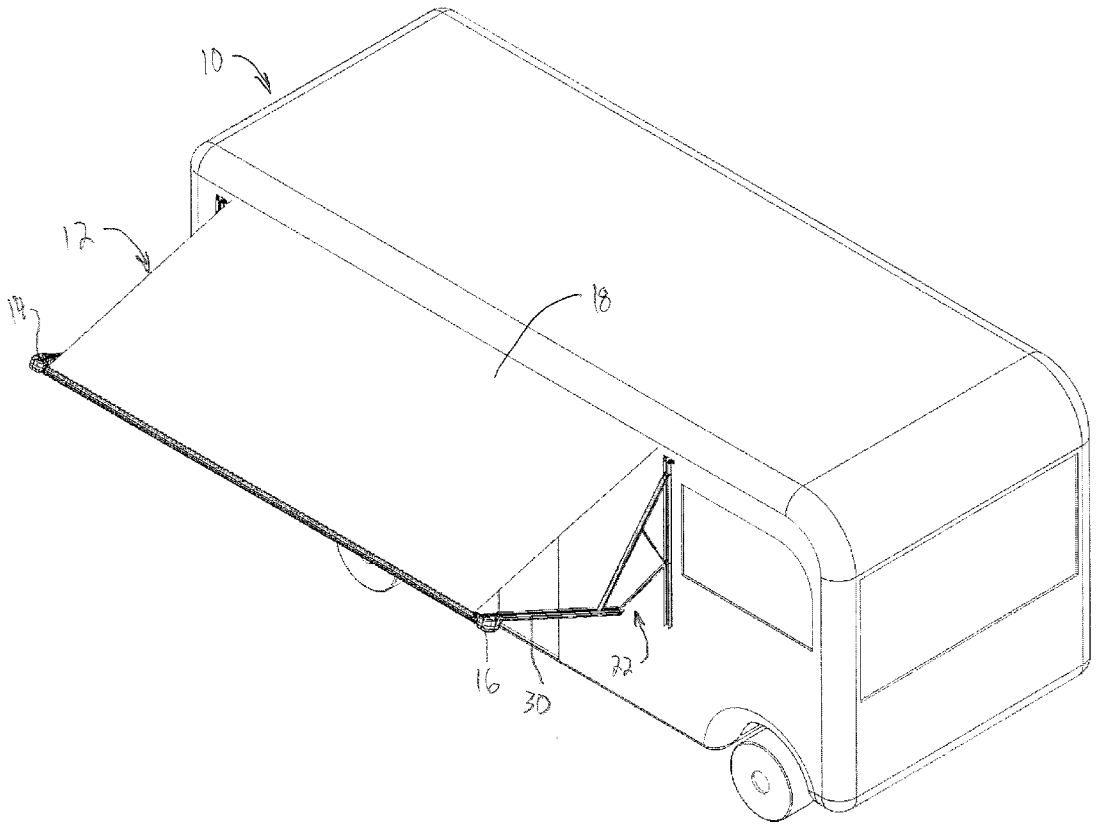
Publication Classification

(51) **Int. Cl.**
E04F 10/06 (2006.01)

(52) **U.S. Cl.**
CPC ***E04F 10/0666*** (2013.01); ***E04F 10/0614*** (2013.01)
USPC **160/127**; 160/405

(57) **ABSTRACT**

A method of creating a living space beneath an awning with added ambient sound, a retractable awning with added ambient sound and a head for a retractable awning having a speaker. The awning has a canopy secured to an awning roller with the roller mounted between opposite awning heads. A speaker is mounted in at least one of the heads for directing sound away from the head. In a retracted position of the awning, sound is directed away from the living space created beneath the awning when it is deployed, and in the deployed position with the awning extended, sound is directed into the living space.



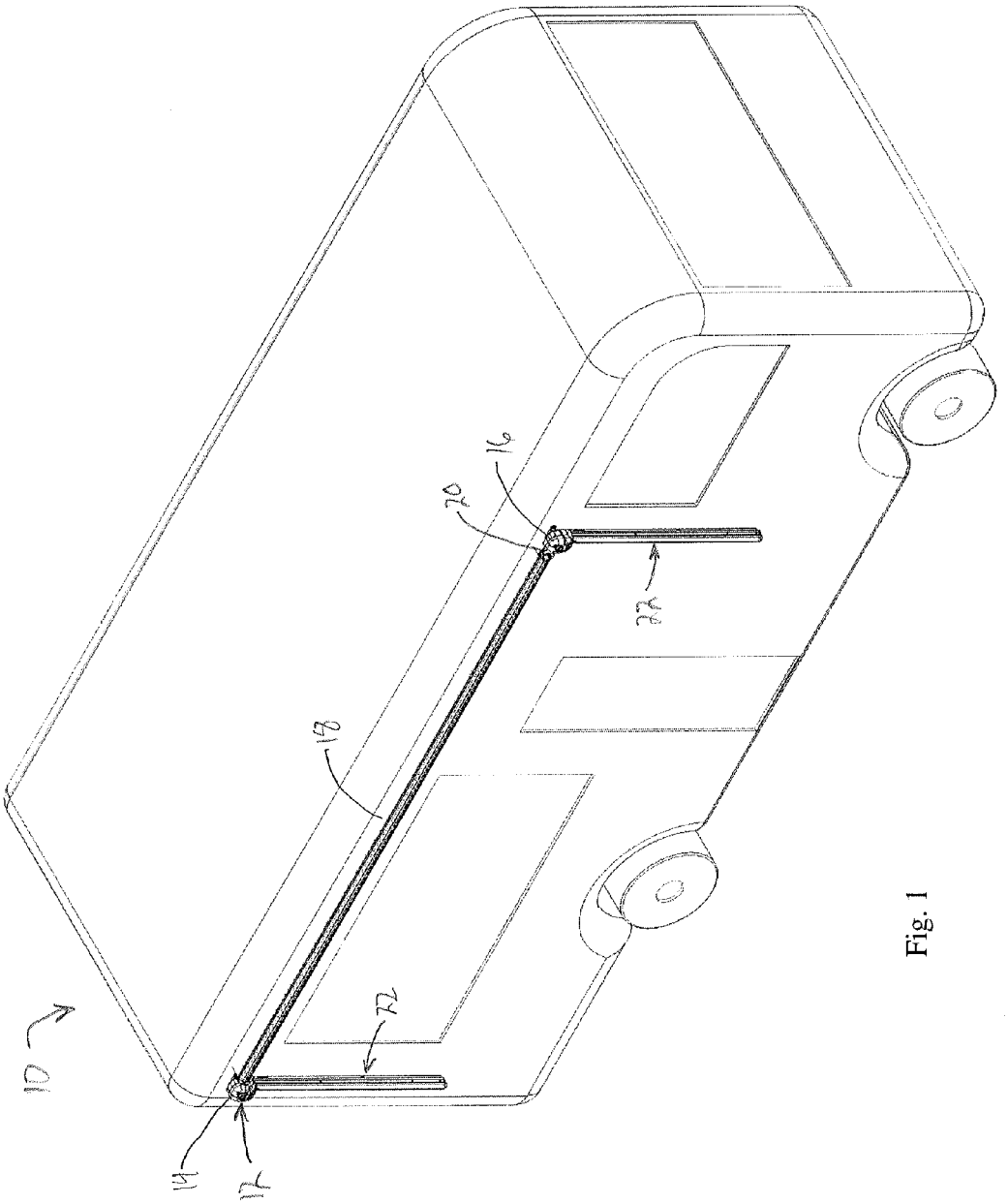


Fig. 1

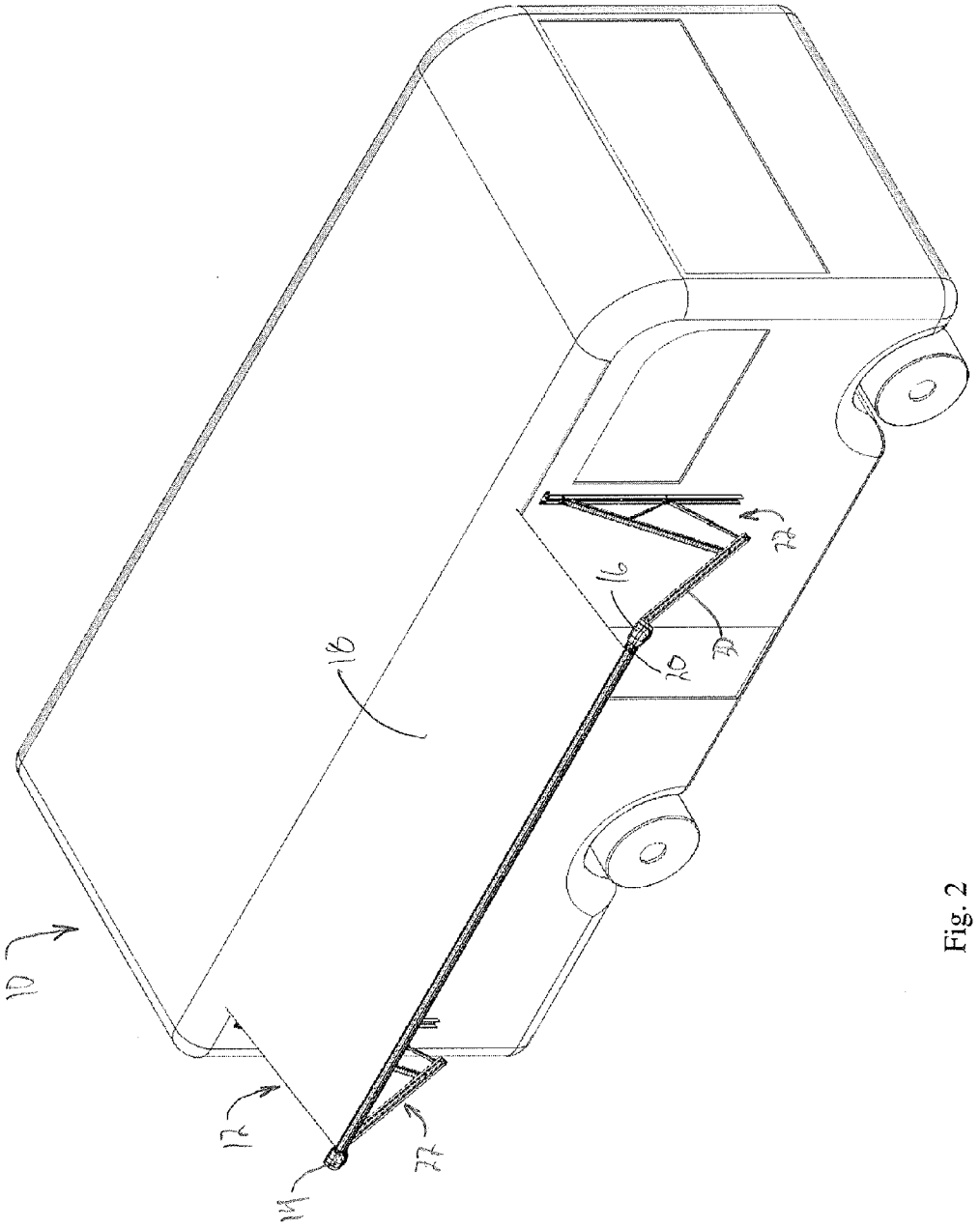


Fig. 2

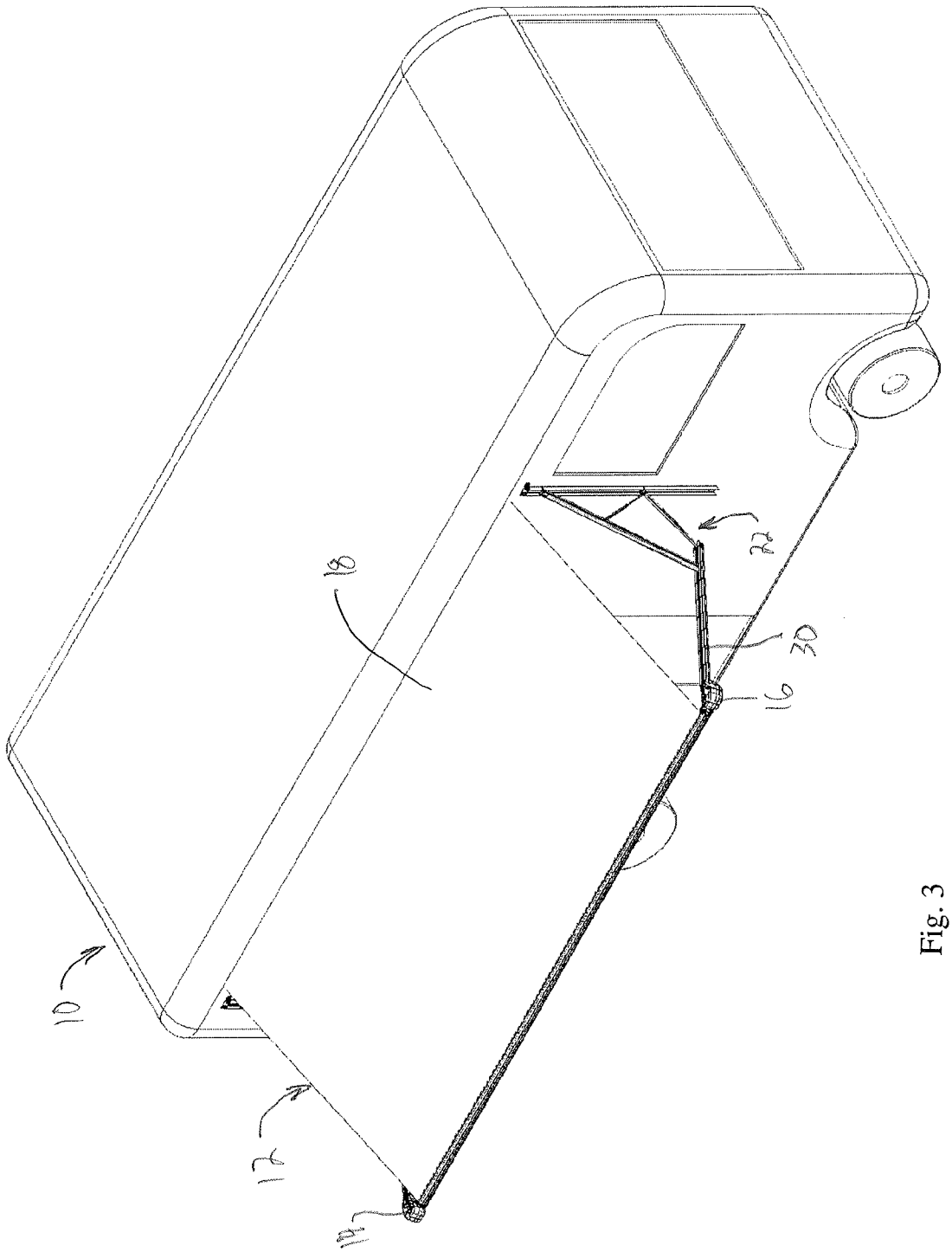


Fig. 3

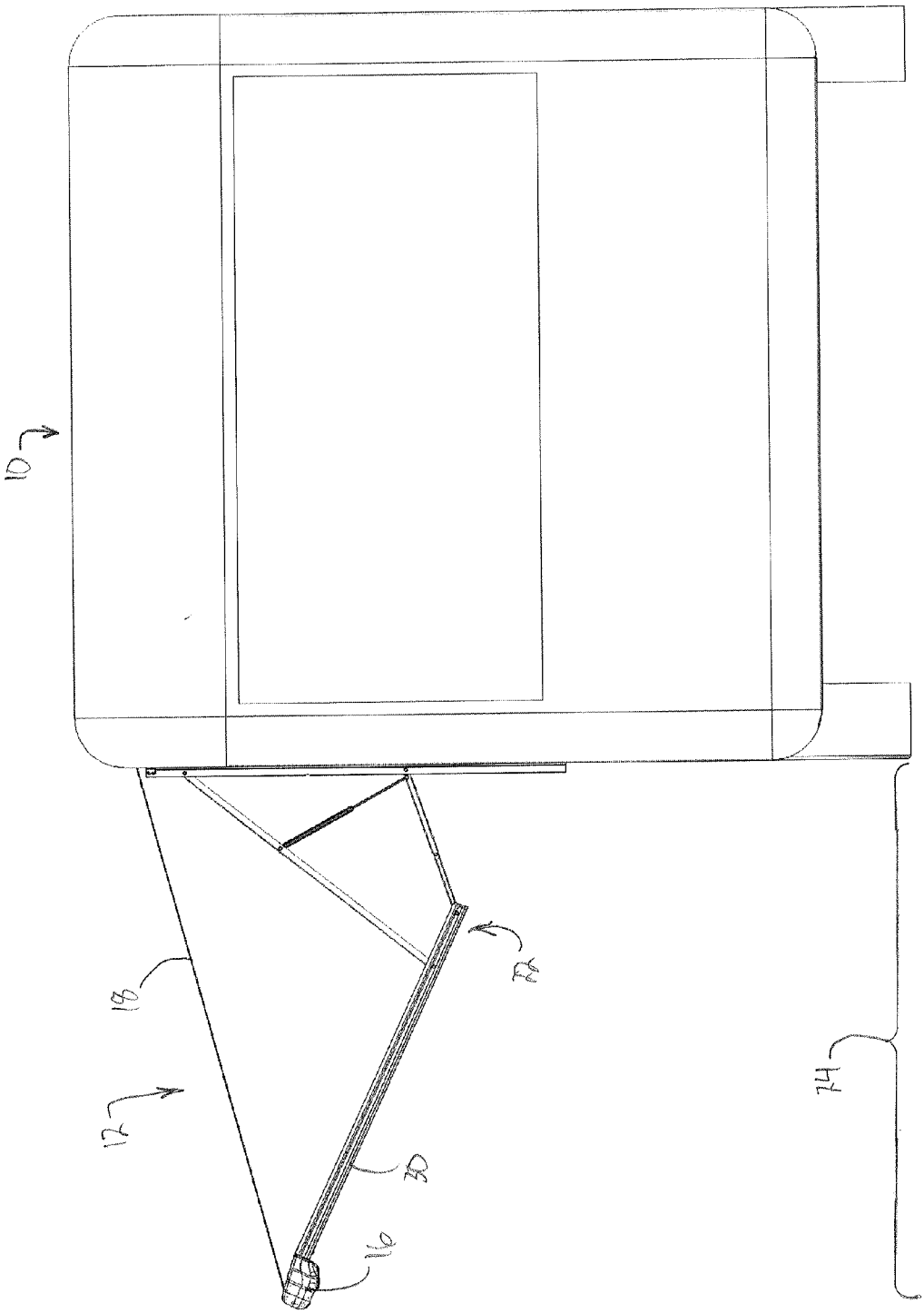


Fig. 4

Fig. 5

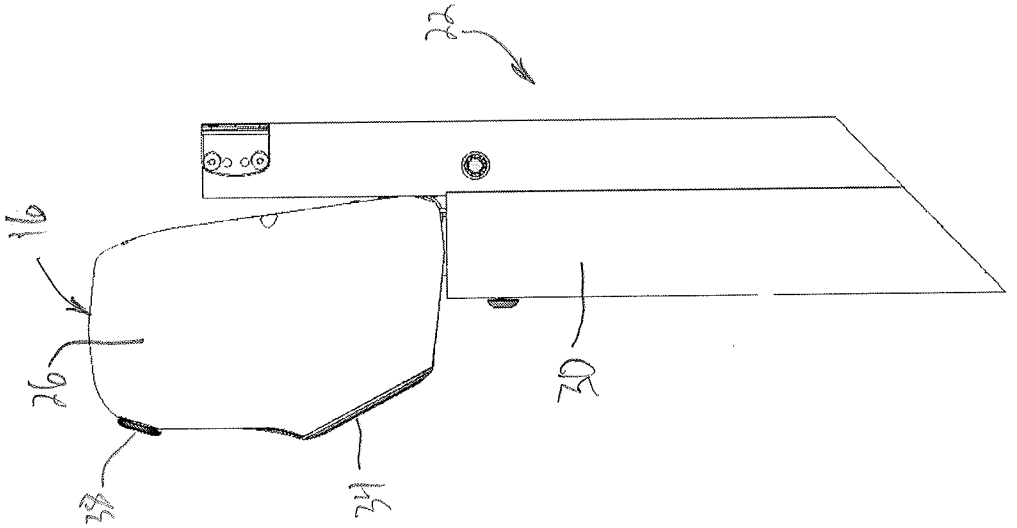


Fig. 6

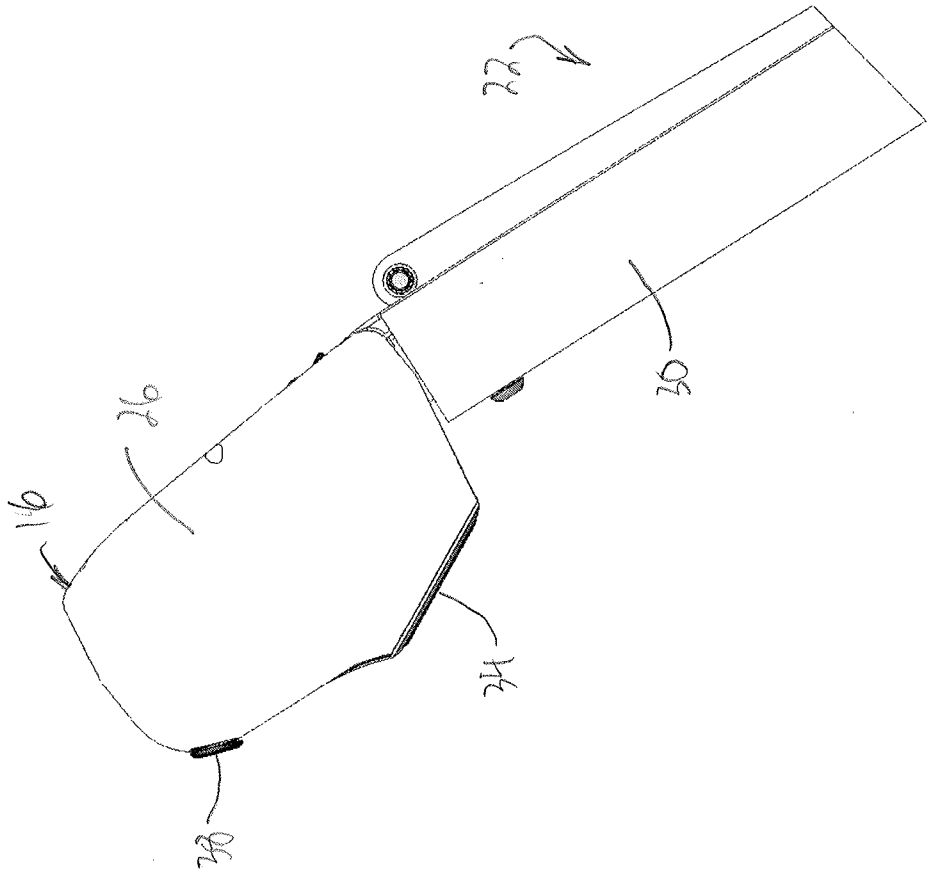
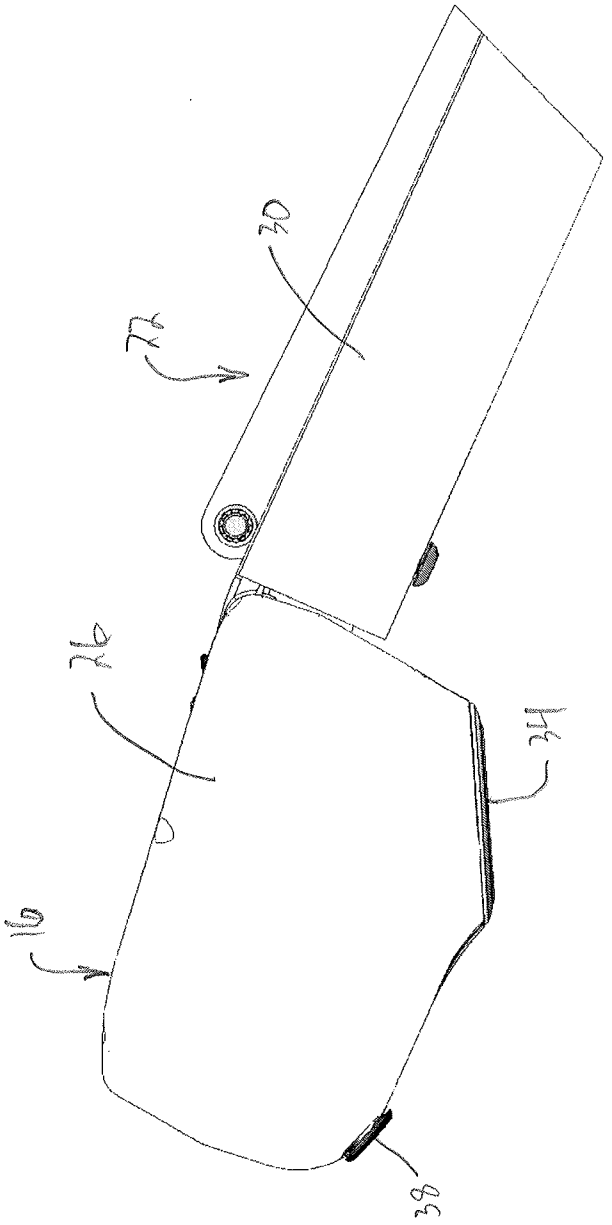


Fig. 7



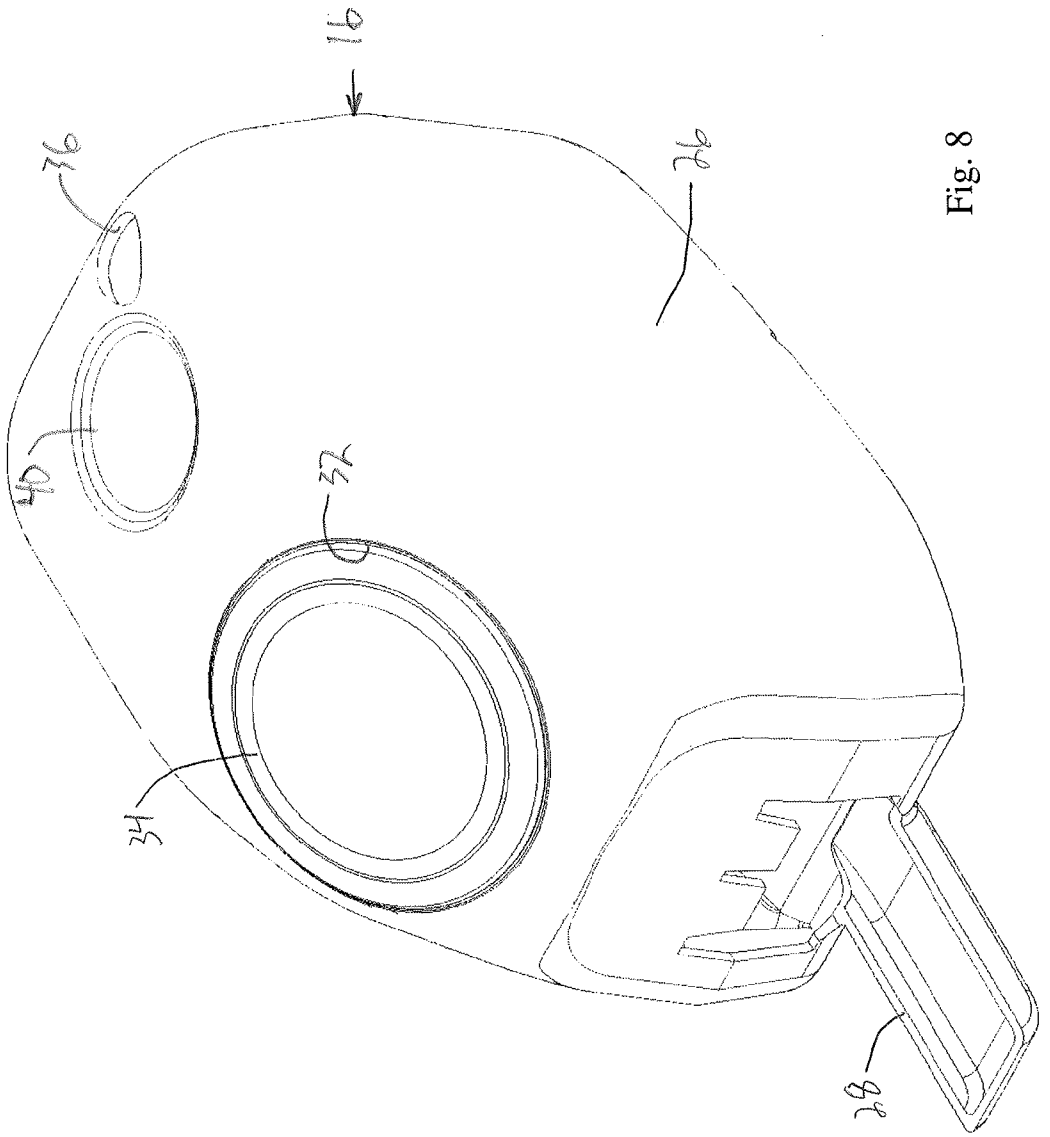


Fig. 8

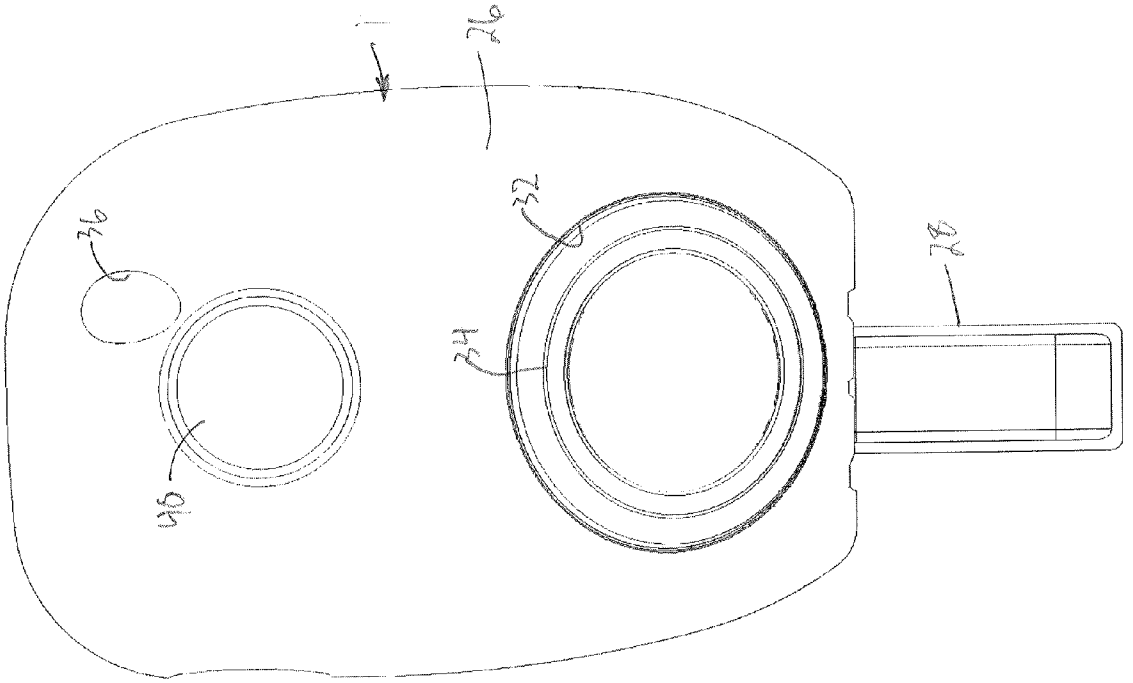


Fig. 9

METHOD OF CREATING LIVING SPACE WITH ADDED AMBIENT SOUND, RETRACTABLE AWNING WITH SOURCE OF SOUND BENEATH AWNING CANOPY, AND HEAD FOR RETRACTABLE AWNING HAVING A SPEAKER

BACKGROUND OF THE INVENTION

[0001] This invention is directed to awnings, and particularly to a method of creating a living space beneath an awning with added ambient sound, a retractable awning therefor, and a head for a retractable awning with a speaker.

[0002] Retractable awnings are used to protect a living space formed beneath the awning when it is extended. While the invention is described in relation to an awning having particular utility in relation to a recreational vehicle, it can also be used in connection with an awning on a structure, such as an awning extensible over a patio.

[0003] In such awnings, a flexible, typically fabric, canopy is secured at one end to a wall and has an opposite end secured to a roller. The roller is supported at its ends by heads connected to support arms which are displaceable between an extended position for the awning, where the awning is deployed, and a retracted position, where the awning is rolled onto the roller for storage.

[0004] Awnings are usually extended in a fairly horizontal manner so as to provide a maximum living space beneath the awning canopy when it is extended. That living space is often used extensively by the occupants of a recreational vehicle.

SUMMARY OF THE INVENTION

[0005] The invention is directed to a method of creating a living space beneath an awning with added ambient sound directed into the living space. The method comprises forming a deployable awning with opposite heads, having a deployed position and a retracted position. A source of sound is installed proximate at least one of the heads, with the source of sound being directed away from the living space in the retracted position. When the awning is extended to the deployed position, the source of sound is directed into the living space beneath the awning.

[0006] In accordance with this form of the invention, the source of sound comprises a speaker located in at least one of the heads and projecting sound from an opening in the head, with the opening being directed toward the living space in the deployed position of the awning. In the retracted position, sound is directed above the living space.

[0007] The retractable awning according to the invention includes a speaker mounted at a mounting position on at least one of the heads, with the speaker directing sound from the mounting position away from the head. The speaker is positioned and the head is formed so that in the retracted position sound is directed away from the living space, and in the deployed position sound is directed into the living space. In accordance with the preferred form of the invention, the mounting position is an opening in the head, with the speaker being located in the opening.

[0008] The head has an awning head body, with an attachment segment for securing the awning head body to an awning support arm. An opening is formed in the awning head body, and the speaker is located in the opening, with the speaker projecting sound out of the awning head body.

[0009] Preferably the attachment segment comprises an attachment member extending from the awning head body. The speaker is mounted so that it extends within the awning head body.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The invention is described in greater detail in the following description of examples embodying the best mode of the invention, taken in conjunction with the drawing figures, in which:

[0011] FIG. **1** is an isometric view of a recreational vehicle having an awning according to the invention, with the awning retracted,

[0012] FIG. **2** is an isometric view similar to FIG. **1**, but with the awning partially extended,

[0013] FIG. **3** is a view similar to FIG. **1**, but with the awning fully extended to a deployed position,

[0014] FIG. **4** is an enlarged end elevational view of the recreational vehicle illustrated in FIG. **3**, further showing the awning in the deployed position,

[0015] FIG. **5** is an enlarged illustration of an awning head according to the invention when in the retracted position shown in FIG. **1**,

[0016] FIG. **6** is a view similar to FIG. **5**, but generally in the position shown in FIG. **2**,

[0017] FIG. **7** is a view similar to FIG. **5**, but with the awning shown generally in the position shown in FIG. **3**,

[0018] FIG. **8** is an enlarged isometric view of one form of a head for a retractable awning according to the invention, and

[0019] FIG. **9** is a front elevational view of the head shown in FIG. **8**.

DESCRIPTION OF EXAMPLES EMBODYING THE BEST MODE OF THE INVENTION

[0020] A recreational vehicle **10** having an awning **12** according to the invention as shown generally in FIGS. **1-4**. The recreational vehicle forms no part of the invention, and although the recreational vehicle **10** is generally depicted as a motor home, it will be evident that the recreational vehicle **10** can be any type of recreational vehicle, whether self-propelled or not. The recreational vehicle **10** will therefore not be described in greater detail.

[0021] The awning **12** is a typical deployable awning with opposite heads **14** and **16** mounting an awning roller. Except for the heads **14** and **16**, the awning can made of any of a number of different types of awnings, and one form of awning is disclosed in co-pending U.S. patent application Ser. No. 13/523,559, filed Jun. 14, 2012, the disclosure of which is incorporated herein by reference.

[0022] The awning **12** includes a canopy **18** secured to an awning roller **20** extending between the opposite heads **14** and **16**. Each of the heads **14** and **16**, in turn, is secured to arms of a support system **22**, which is described in greater detail in incorporated application Ser. No. 13/523,559. The support system **22** mounts the awning **12** for extension or retraction between a retracted position shown in FIG. **1** with the canopy **18** rolled onto the roller **20** and deployed position shown in FIGS. **3** and **4** with the canopy **18** at least partially unrolled from the roller **20** to create a living space **24**, as best shown in FIG. **4**. While the living space **24** preferably is the area beneath the canopy **18** when unrolled to the deployed position illustrated in the drawing figures, since that area is protected by the overhead canopy **18**, it will be evident that the living

space can be somewhat greater or smaller than that depicted in the drawing figures, as desired by the persons utilizing the awning **12**.

[0023] As will be known to persons skilled in the art, the heads **14** and **16** can be essentially identical, performing the functions of extending and retracting the awning **12**. It is preferred that each of the heads **14** and **16** include added ambient sound, as described in greater detail below, although it will be evident that only one of the heads **14** and **16** can be so-equipped. Equipping both heads **14** and **16**, however, provides the ability to project stereophonic sound in a well-known fashion. Therefore, when the heads are being described in FIGS. **5-9**, while only the head **16** is actually depicted, the description of the head **16** is also relevant to the head **14**.

[0024] The head **16** includes an awning head body **26**. An attachment segment, in the form of an attachment member **28**, extends from the awning head body **26** for securing within an arm **30** of the support system **22**. The heads **14** and **16**, and the attachment members **28** can be formed of various materials, such as molded plastic, and the heads **14** and **16** can be made of multiple pieces, as required.

[0025] The head **16** includes an opening **32** in which a speaker **34** is mounted, with the body of the speaker **34** extending into the head **16**. The speaker **34** can be mounted in any conventional fashion, and preferably extends within the head **16** so that sound emitted from the speaker **34** is directed out of the awning body **26** through the opening **32**.

[0026] The speaker **34** may be conventional, and preferably is a wired speaker connected to a source of electrical signals for producing sound projecting from the speaker **34**, with wires passing from the awning head body **26** into the arm **30** and thence into the recreational vehicle **10**. Alternatively, the speakers **34** can be wireless. The means of supplying electrical signals to the speakers **34**, such as a radio or CD player, is conventional, and is therefore not described in greater detail.

[0027] While, in the preferred form of the invention, the speaker **34** is in the heads **14** and **16**, the speaker **34**, or an additional speaker or speakers, can also be located on or in the arms of the support system **22**. The speakers must be aimed into the living space **24** when the awning **12** is deployed.

[0028] The heads **14** and **16** also can include an aperture **36** for access to the interior of the heads should manual extension or retraction of the awning **12** be required, if there is an electrical failure. A cap **38** is used to seal the aperture **36**. The heads **14** and **16** may also include an aesthetic indentation **40** which may include a logo or label (not illustrated), as desired.

[0029] In the method of creating the living space **24** beneath the awning **12** with added ambient sound directed into the living space **24**, the awning **12** is first located in the retracted position shown in FIG. **1**. As the awning **12** is extended to the deployed position shown in FIGS. **3** and **4**, the speakers **34** move from a position with sound directed away from the living space **24** until the awning is extended to the deployed position shown in FIGS. **3** and **4**, with sound emanating from the speaker **34** into the living space **24**. When the awning **12** is retracted as shown in FIGS. **1** and **5**, sound from the speaker **34** is directed above and away from the living space **24**. Only when the awning **12** is extended to the deployed position shown in FIGS. **3** and **7** is the speaker **34** aimed toward the living space **24**. Thus, depending on the geometry of the awning **12** and the extent of its deployed position, the opening **32** is formed in the heads **14** and **16** such that, in the deployed position, the speaker **34** extends toward, and projects sound into, the living space **24**.

[0030] Various changes can be made to the invention without departing from the spirit thereof or scope of the following claims.

1. A method of creating a living space beneath an awning with added ambient sound directed into the living space comprising the steps of

a. forming a deployable awning with opposite heads, said awning having a deployed position and a retracted position,

b. installing a source of sound proximate at least one of said heads, with said source of sound directed away from the living space in the retracted position, and

c. extending said awning to the deployed position with said source of sound directed into the living space.

2. The method according to claim **1**, in which the source of sound comprises a speaker located in said head and projecting sound from an opening in said head, and in which method step "c" includes directing said opening toward the living space.

3. The method according to claim **1**, in which in method step "b" sound is directed above the living space.

4. The method according to claim **1**, in which the source of sound is mounted in an opening in said head.

5. In a retractable awning having an awning canopy secured to an awning roller, the roller being mounted in opposite heads, the heads being secured to arms movable between a retracted position with the canopy rolled on the roller and a deployed position with the canopy at least partially unrolled from the roller to create a living space beneath the awning, the improvement comprising

a. a speaker mounted at a mounting position proximate at least one of the heads, said speaker directing sound from said mounting position away from said head, and

b. said speaker being positioned so that in the retracted position sound is directed away from the living space, and in the deployed position sound is directed into the living space.

6. The retractable awning according to claim **5**, in which said mounting position comprises an opening in said head, said speaker being located in said opening.

7. A head for a retractable awning, comprising

a. an awning head body,

b. an attachment segment for securing said awning head body to an awning support arm,

c. an opening in said awning head body, and

d. a speaker located in said opening, said speaker having a source of sound directed out of said awning head body.

8. The head according to claim **7**, in which said attachment segment comprises an attachment member extending from said awning head body.

9. The head according to claim **7**, in which said speaker has a body which extends within said awning head body.

10. The head according to claim **7**, in which said source of sound is directed through said opening.

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