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Erlenbach

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(54) **TOOL CADDY FOR AUTOMOBILE LIFT**

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B25H 1/00	(2006.01)
E05D 11/10	(2006.01)

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CPC ***F16M 13/02*** (2013.01); ***B25H 5/00*** (2013.01); ***D06F 57/122*** (2013.01); ***B25H 3/04*** (2013.01); ***B25H 1/0064*** (2013.01); ***E05D 11/1071*** (2013.01); ***E05D 11/1085*** (2013.01); ***A47F 5/0006*** (2013.01)
USPC **211/70.6**; 211/86.01; 211/183; 248/690

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USPC ..... 211/85.23, 88.03, 70.6, 119.003, 66, 211/119.009, 119.004, 119.007, 86.01, 211/193; 248/690, 301, 304, 311.2, 339; 224/556, 42.11; D3/231; 52/212; 269/289 R, 302.1, 291, 271; 220/475; 206/372
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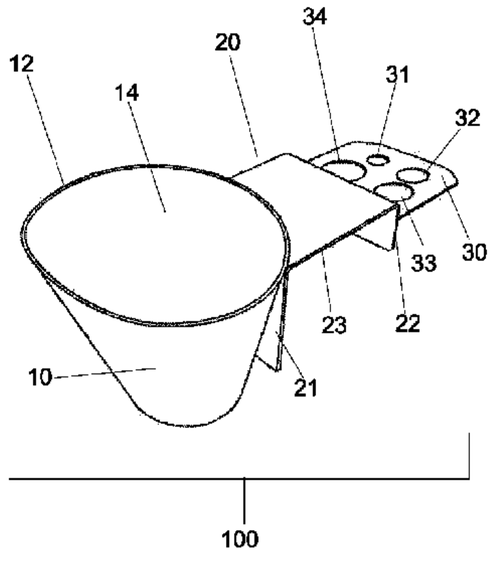
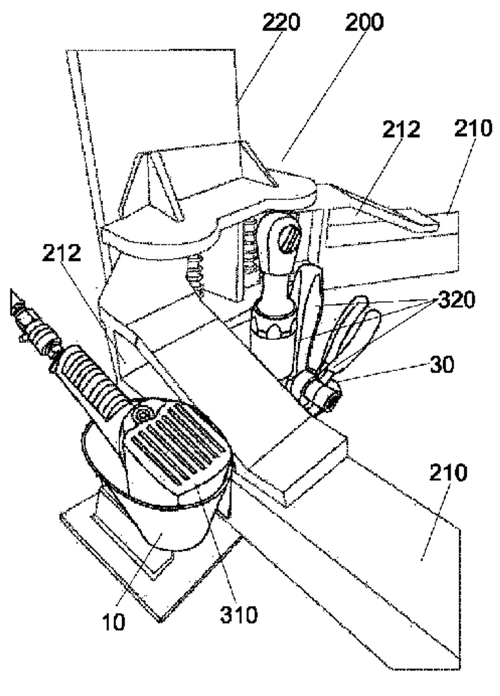
(57) **ABSTRACT**

In an embodiment of the disclosed technology, a tool caddy is removably mountable to a fixed portion of an automobile lift. The tool caddy is generally rigid, having a conical section and a cantilevered section. A U-shaped mounting bracket is adapted to be placed atop and/or around any fixed rectangular/square section of the lift. The conical section is shaped to accommodate an impact gun or other similarly sized and/or shaped tool. The cantilevered section has several portals disposed in a surface thereof for holding smaller tools. The tool caddy will secure in place, when it is A) wedged at least partially through the triangular opening of a truss, B) rested atop a rectangular portion of a beam of a truss, or C) slid along a beam until the top plate of the mounting bracket is wedged into a portion of the truss where the triangular section meets the beam.

7 Claims, 8 Drawing Sheets





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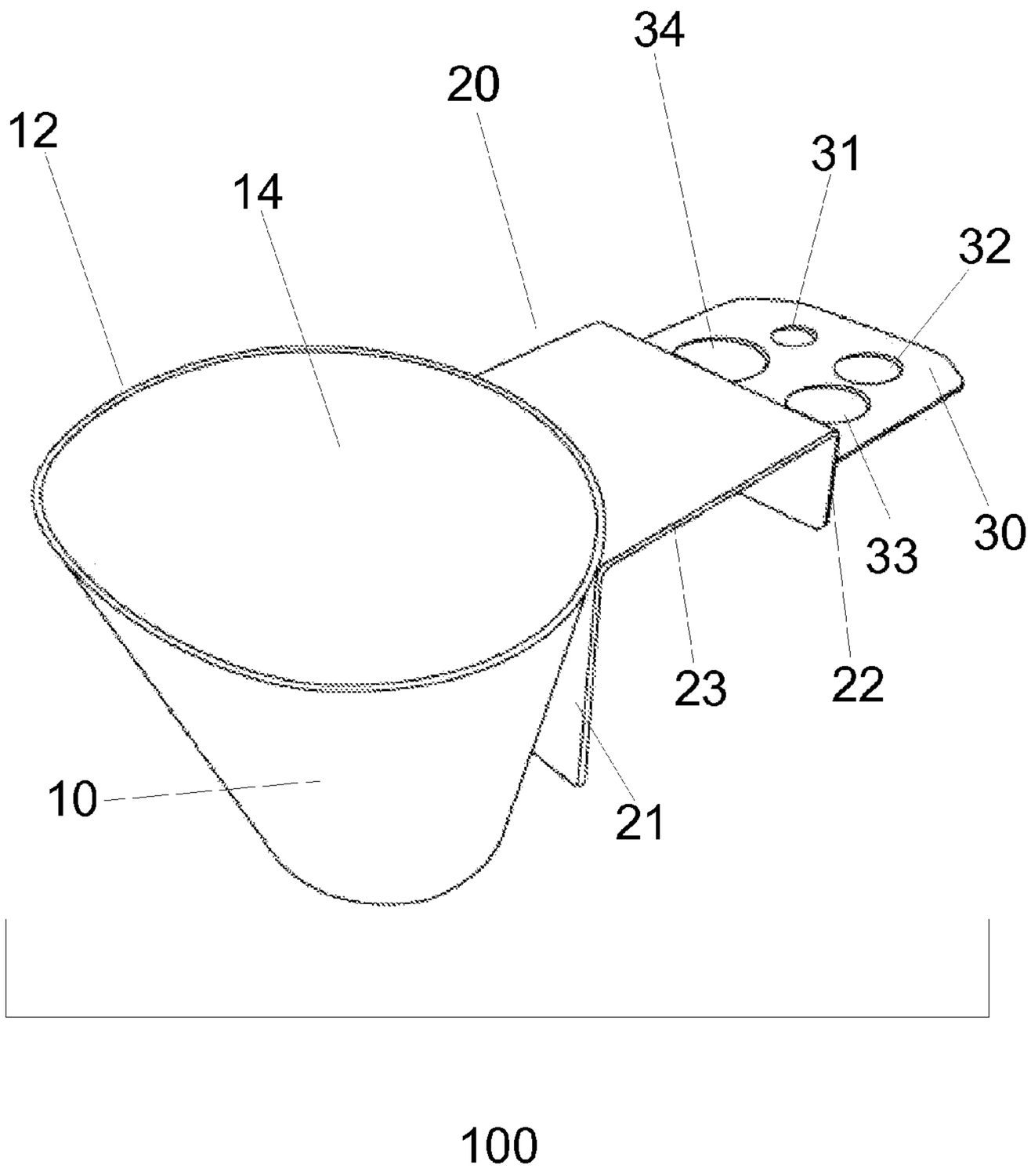

Figure 1

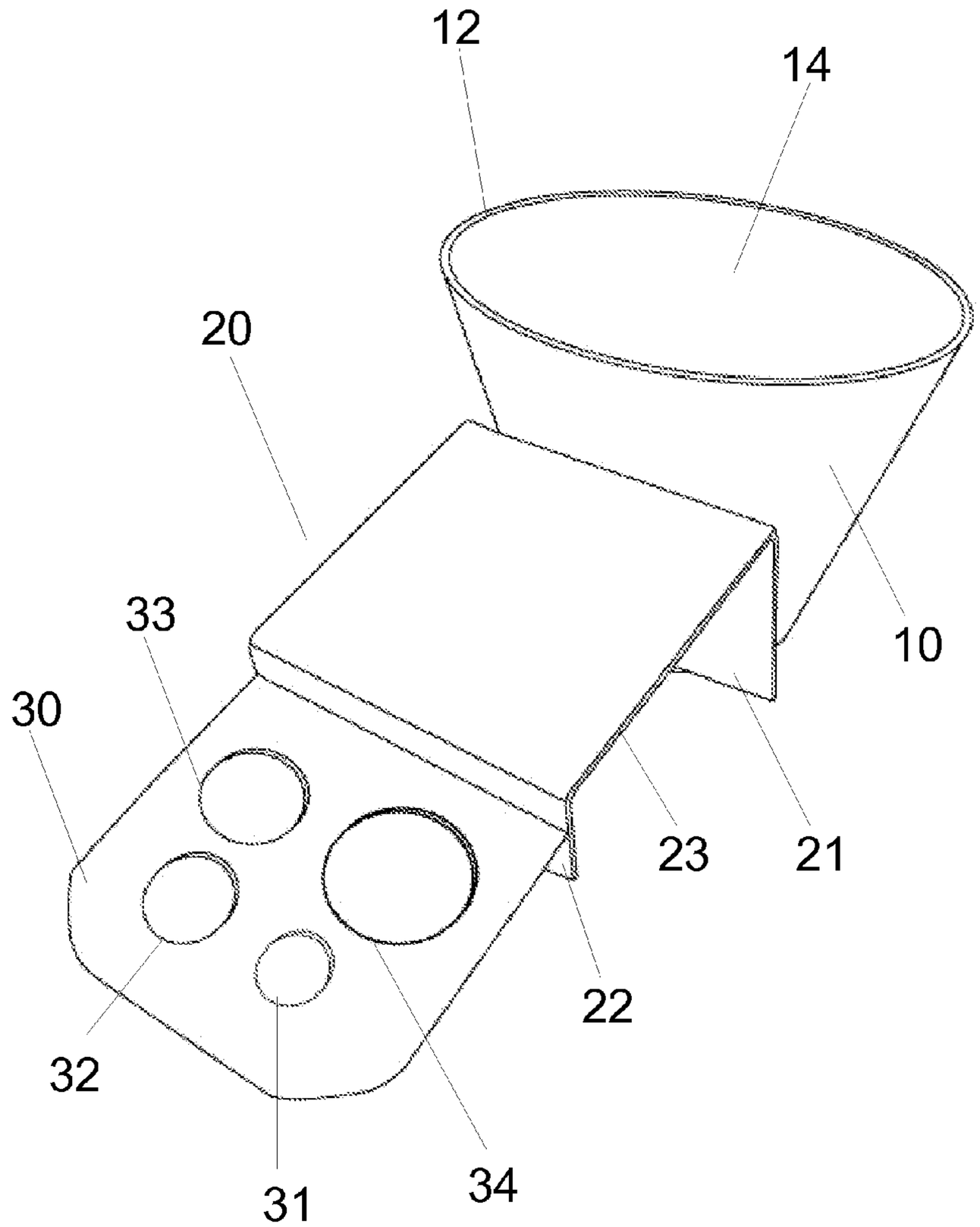

Figure 2

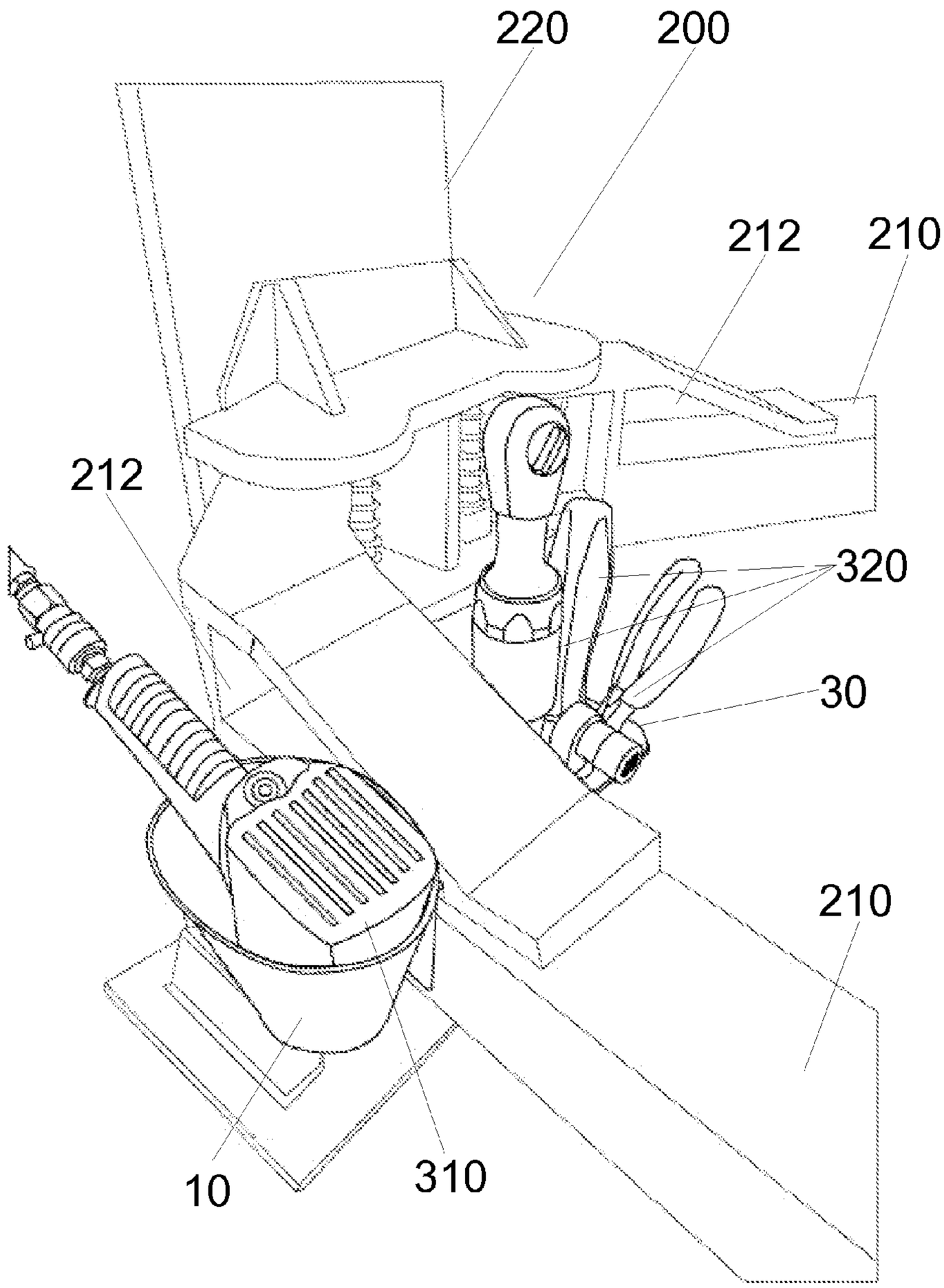

Figure 3

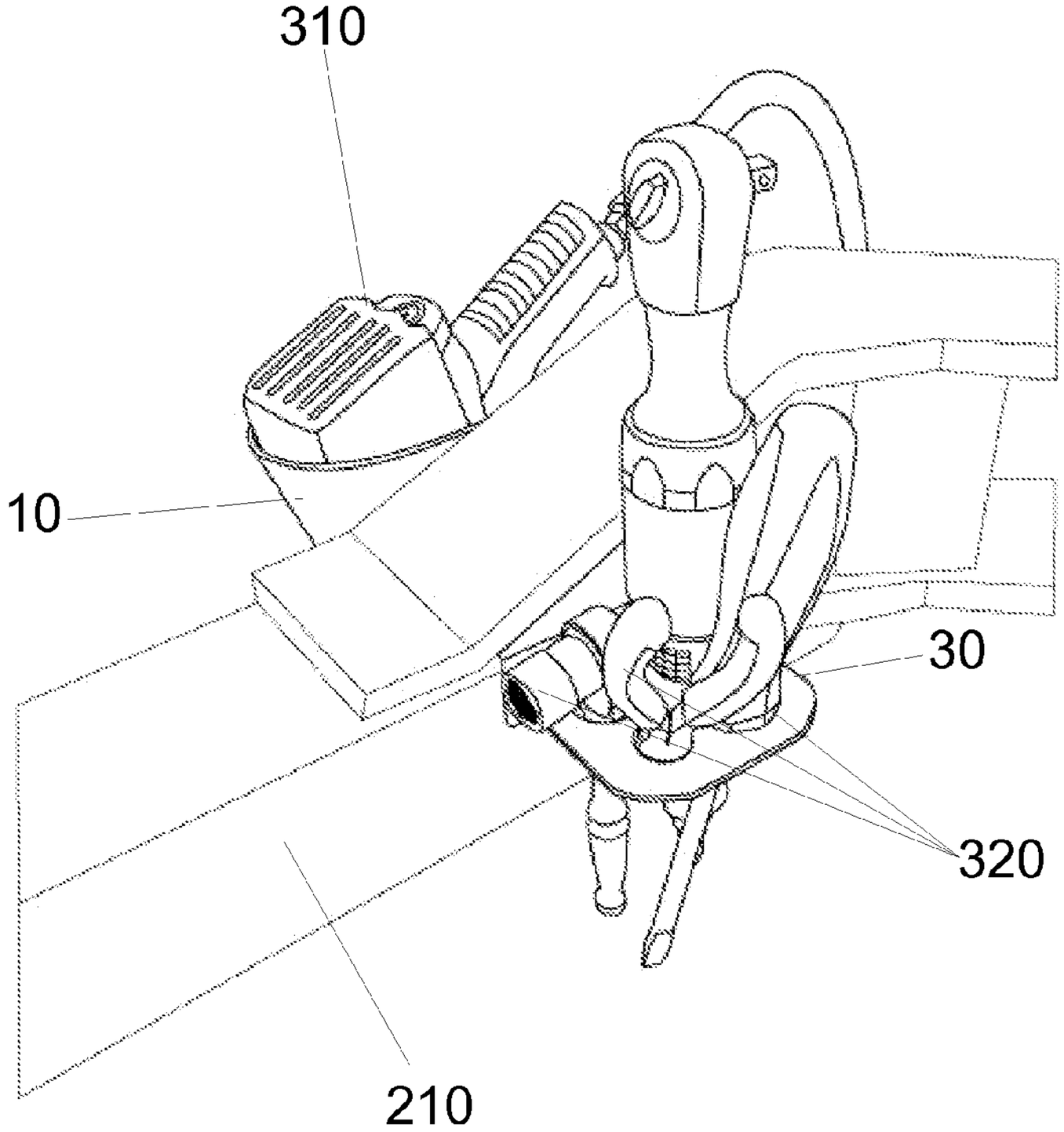

Figure 4

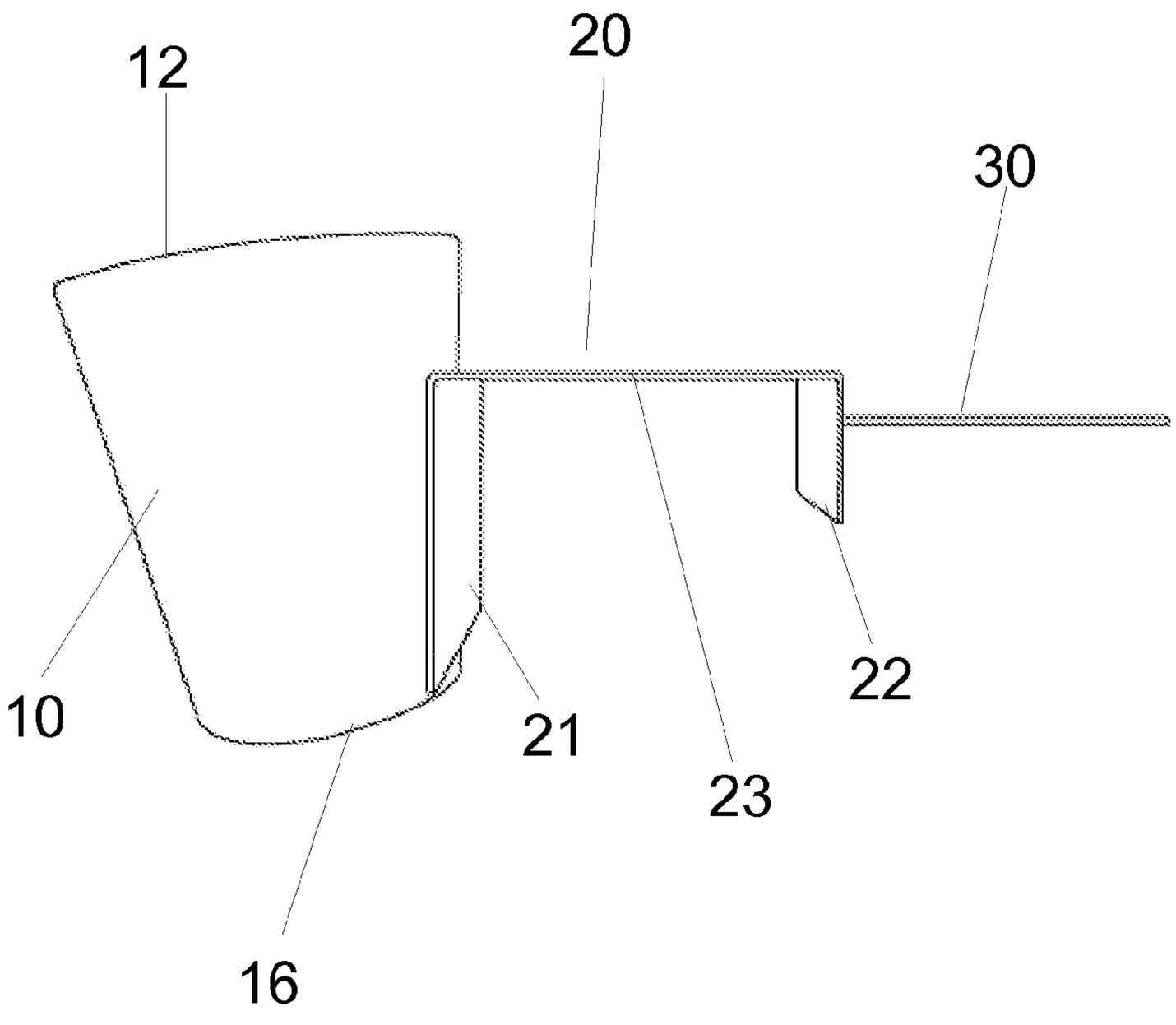

Figure 5

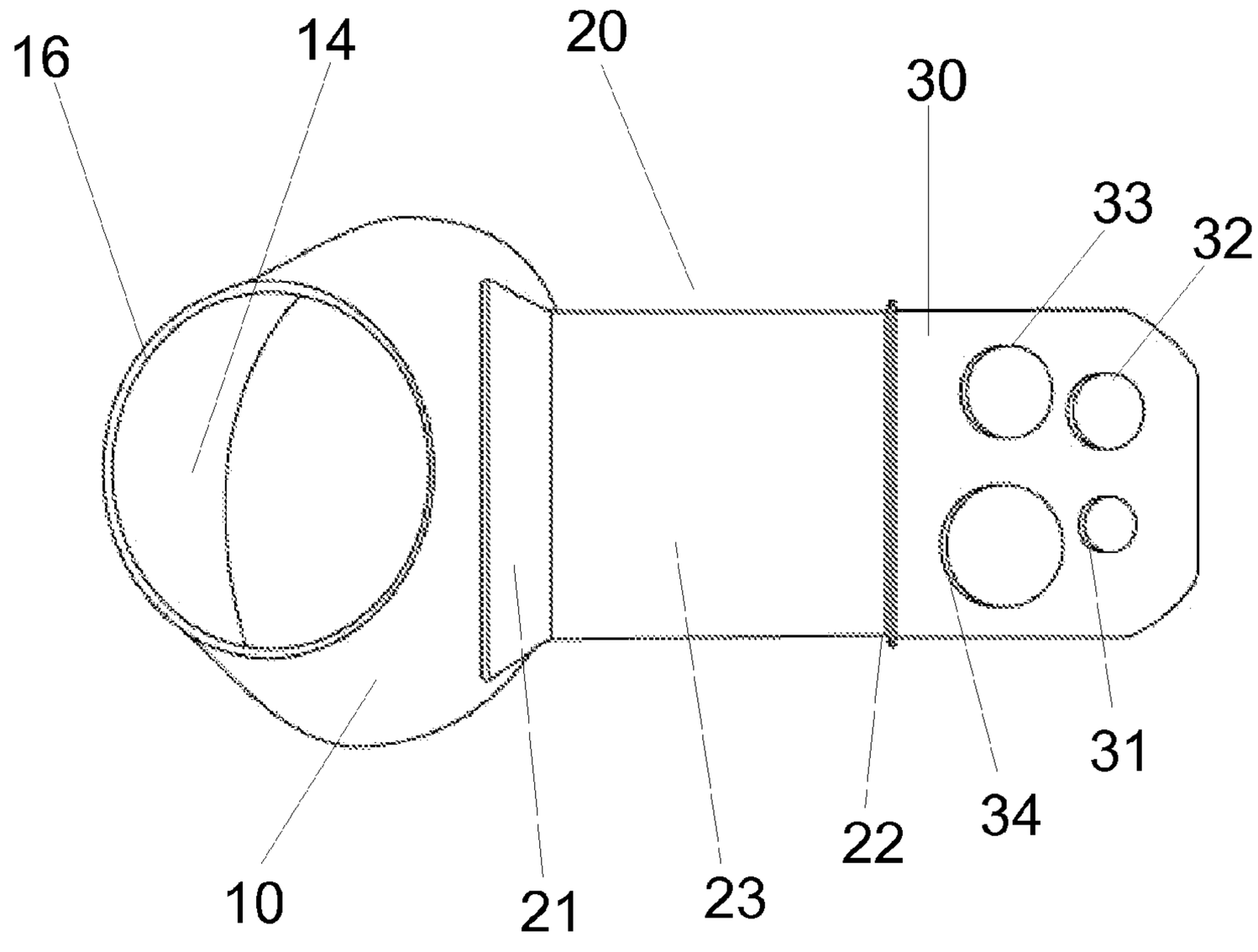

Figure 6

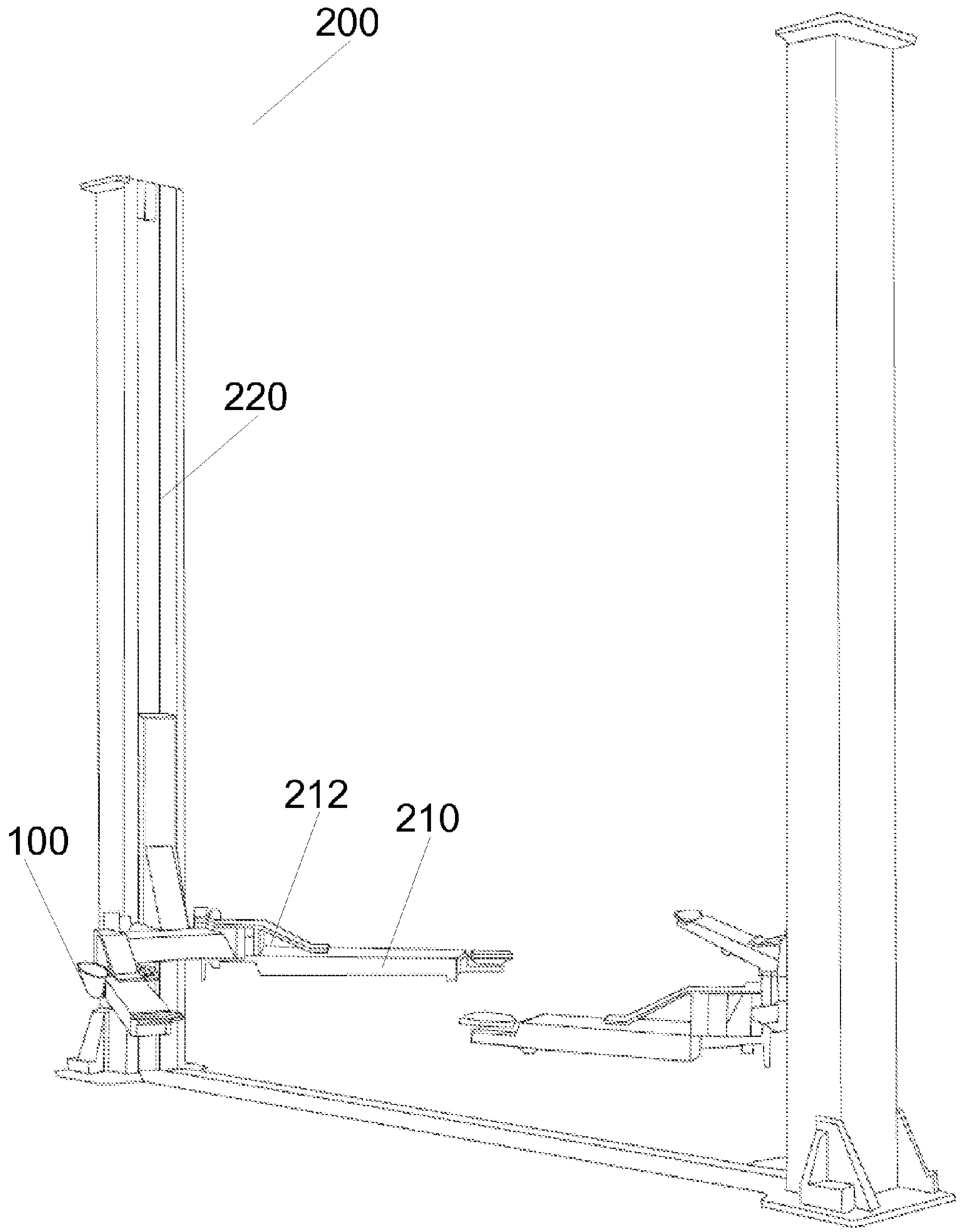

Figure 7

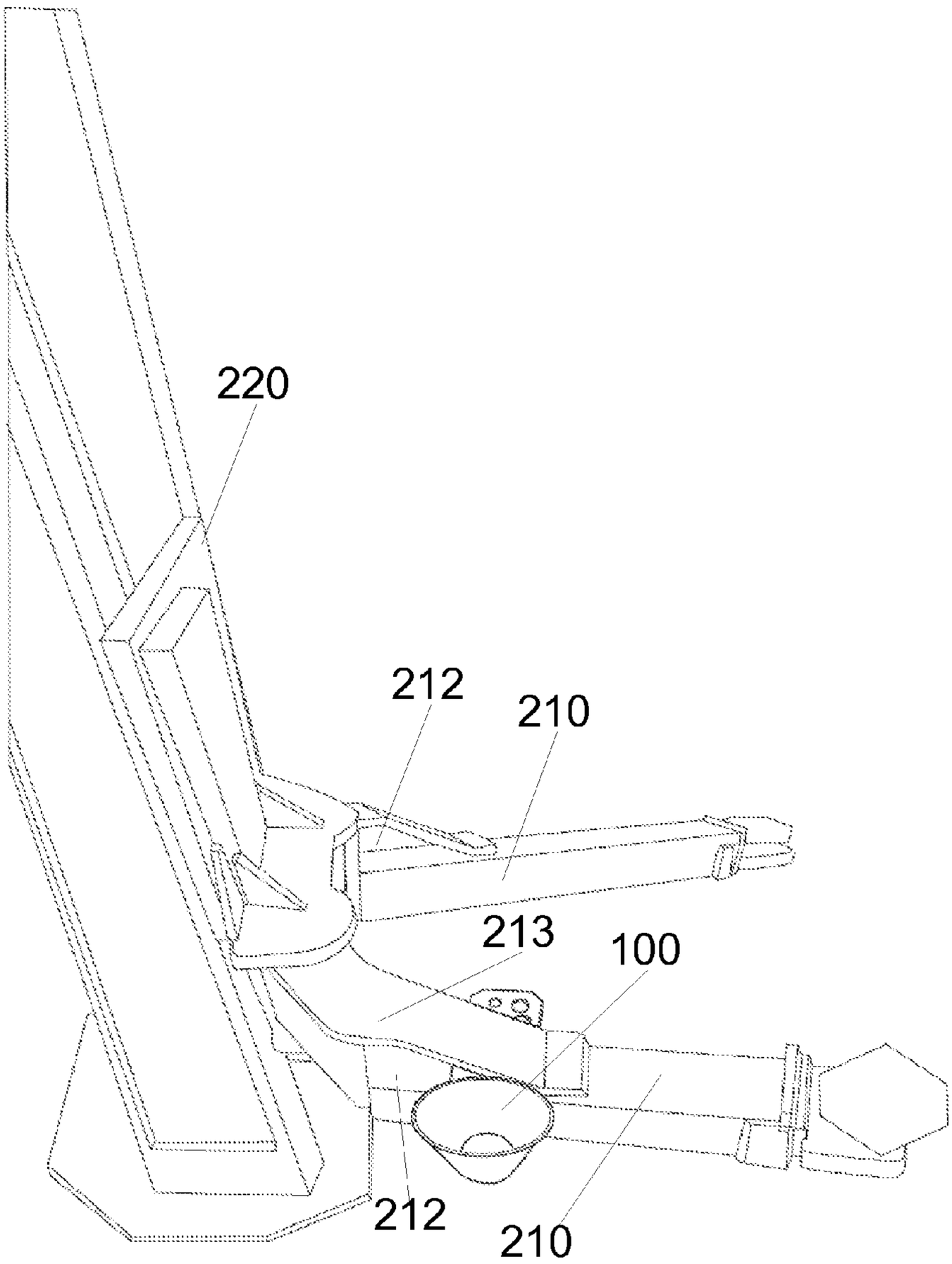

Figure 8

TOOL CADDY FOR AUTOMOBILE LIFT

FIELD OF THE DISCLOSED TECHNOLOGY

The disclosed technology relates generally to tools used by an automobile mechanic and, more specifically, to a temporary caddy for storing common auto mechanic tools at a convenient and accessible location.

BACKGROUND OF THE DISCLOSED TECHNOLOGY

Automobile mechanics utilize many different tools while practicing their trade. When working besides, or on the underside of, an automobile, multiple tools may be required to perform various tasks. Convenient accessibility to such tools can expedite the completion of the task. Having all the tools in a single place facilitates a more efficient use of time.

Mechanics may choose to wear a tool belt, which keeps compact tools at their waist. However, bulky tools, such as an impact gun or three pound mallet, are too large and heavy to be worn on a tool belt. Moreover, many impact guns used by mechanics are powered by compressed air, which requires an air hose to be connected to the impact gun from an air compressor. As such, it would be difficult to move around a garage while carrying an impact gun connected to a compressed air source.

Lack of accessible storage for such bulky tools can also lead to risk of injury. If a compressed air impact gun is left lying on the floor or balanced on the leg of the lift whilst work is being performed on an automobile, there is a chance that a person may trip over the impact gun and/or the air hose. There is further a chance that a balanced impact gun will be shaken or jogged and fall off the leg of the lift, possibly causing bodily harm.

Therefore, there is a need, unfulfilled in the prior art, to provide an accessible and convenient way to store commonly used tools in an automobile mechanic's garage, and/or within very close proximity to the part of the vehicle that is being worked on.

SUMMARY OF THE DISCLOSED TECHNOLOGY

Therefore, it is an object of the disclosed technology to provide a tool caddy adapted to be temporarily mounted on a portion of an automobile lift.

As such, in an embodiment of the disclosed technology, a tool caddy has a conical section, a mounting bracket and a cantilevered plate with a plurality of holes. The conical section, a mounting bracket, and a cantilevered plate may be affixed in a series, such that they occupy a single axis.

The conical section has a first oval opening and a second circular opening. The first oval opening has a larger diameter than the second circular opening, such that the conical section has a tapering cross-section between a top and bottom portion thereof. The oval openings may be circular or other shapes, in embodiments of the disclosed technology. The "top" of the conical section is the portion of the conical section having a oval opening of a larger diameter. The "bottom" of the conical section has a circular opening with a smaller diameter than that of the top conical section. In terms of general orientation, the "bottom" of the conical section is that portion of the conical section that is the closest to the ground with respect to the force of gravity. As such, the conical section is adapted to receive and cradle, under the force of gravity, an impact gun or other similarly shaped tools (drill, air hammer, die grinder etc.).

The mounting bracket is formed of a first plate and a second plate, which are arranged in parallel to one another. A top plate is perpendicularly disposed and fixedly attached to and between the first and second side plates, thus forming a U-shape. The first side plate is further fixedly attached to the conical section. The cantilevered plate is perpendicularly disposed and fixedly attached to the second side plate. The cantilevered plate is disposed on an opposite side of the tool caddy from the conical section. The mounting bracket forms a cavity which may receive a beam.

A method of using the above-disclosed tool caddy may be carried out, not necessarily in the following order, by: a) placing the tool caddy at least partially through a triangular opening of a truss; b) resting the mounting bracket atop a rectangular portion of a beam of the truss; c) sliding the mounting bracket along the beam until the top plate of the mounting bracket is wedged into a portion of the truss forming an acute angle. The wedging into this tight angle along with the snug fit of the mounting bracket, acts as a temporary lock and stabilizer for the tool caddy. The tool caddy will only become unlocked when it is un-wedged and slid back. Then, it can be removed from the truss. Tools may also be placed into the tool caddy.

In another embodiment of the disclosed technology, a method for caddying tools is carried out, not necessarily in the following order, by: a) placing a mounting bracket through a triangular opening of a truss, wherein said mounting bracket has a conical section affixed to a first side thereof and a cantilevered plate affixed to a second side thereof, said first side opposite said second side; b) resting said mounting bracket atop a rectangular portion of a beam of said truss; c) sliding said mounting bracket along said beam such that a top of said mounting bracket is wedged into a portion of said truss forming an acute angle and securing it in place. A further step may be carried out where d) one or more tools are placed through each of the conical sections and the cantilevered plate. Through the use of gravity, the weight of the device and tools placed thereinfurther assists in preventing the dislodging of the caddy or provide additional counterbalancing support in abnormal situations.

In still another embodiment of the disclosed technology, a tool caddy is formed of a partial rectangular section, with a first tool holder on a first side of the partial rectangular section and a second tool holder on a second side of the partial rectangular section. The first side is opposite to the second side, and the first tool holder and the second tool holder extend away from one another and away from the partial rectangular section.

In a further embodiment, the first tool holder is a first conical section, and the second tool holder is a cantilevered plate having a plurality of holes disposed therein. In still another embodiment, the first tool holder is a first conical section, and the second tool holder is a second conical section. In yet another embodiment, the first tool holder is a first cantilevered plate having a plurality of holes disposed therein, and the second tool holder is a second cantilevered plate having a plurality of holes disposed therein.

It should be understood that the use of "and/or" is defined inclusively such that the term "a and/or b" should be read to include the sets: "a and b," "a or b," "a," "b."

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a front perspective view of a caddy of an embodiment of the disclosed technology.

FIG. **2** is another back perspective view of a caddy of an embodiment of the disclosed technology.

FIG. **3** is a front perspective view of a caddy mounted to an automobile lift, according to an embodiment of the disclosed technology.

FIG. **4** is a back perspective view of a caddy mounted on an automobile lift, according to an embodiment of the disclosed technology.

FIG. **5** is a side view of a caddy of an embodiment of the disclosed technology.

FIG. **6** is a bottom view of a caddy of an embodiment of the disclosed technology.

FIG. **7** is a perspective view of an automobile lift of the prior art with the caddy of embodiments of the disclosed technology installed.

FIG. **8** is a perspective view of the area of the arms of the automobile lift of FIG. **7** where a caddy of embodiments of the disclosed technology is installed.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE DISCLOSED TECHNOLOGY

In an embodiment of the disclosed technology, a tool caddy is mountable to a portion of an automobile lift for temporarily storing tools for convenient access. The caddy generally employs a front portion and an opposing back portion. The terms "front" and "back" are relative terms, and are used only for purposes of differentiating portions of the caddy. The front and back portions are connected via a generally U-shaped mounting bracket for mounting the caddy on a fixed surface. The front portion is defined by a conical section. The conical section has two openings, and a tapered cross section for purposes of accommodating an impact gun or other similarly shaped tools. The back portion is defined by a generally flat, cantilevered section having at least one cutout disposed therein for accommodating tools.

Embodiments of the disclosed technology will become clearer in view of the following description of the drawings.

FIGS. **1** and **2** are front and back perspective views of a caddy of an embodiment of the disclosed technology. The caddy **100** is generally formed of three sections **10**, **20**, **30**. The sections may be welded and/or molded together such that a single, rigid body is formed. For purposes of this disclosure, such methods are considered to form a "unitary structure"; that is, a single structure which moves and functions as one. A conical section **10** is disposed at a front end of the caddy **100**. The conical section **10** is hollow, having a top rim **12** and a bottom rim **16**. Each rim, both **12** and **16**, defines an aperture through which a portion of a tool may be placed. The conical section **10** may be used for storing an impact gun or similarly shaped and/or sized tools. The tapered interior surface **14** of the conical section **10** cradles the impact gun for easy storage and removal.

The back side of the caddy **100** is defined by a relatively planar, cantilevered plate section **30** that extends horizontally from the caddy. The cantilevered section **30** has a plurality of holes/cutouts **31-34** disposed through the surface thereof for caddying different sized tools. The conical section **10** and the cantilevered section **30** are connected to one another by a mounting bracket **20**. The mounting bracket **20** is generally U-shaped, being formed of generally three planar surfaces—a top and two sides. The mounting bracket **20** is shaped to be mounted to a fixed object, such as the arm of an automobile lift. The three surfaces of the mounting bracket **20** are adapted to rest on or "hug" a surface of an object having a square or rectangular cross-section. The mounting bracket **20** is formed of a first side plate **21** and a second side plate **22**, which are arranged in parallel. The mounting bracket **20** also has a top plate **23** which is perpendicularly affixed to the first side plate **21** and the second side plate **22** to form a U-shaped bracket. The mounting brackets **21**, **22** and **23** may also be formed from one continuous piece of material to create the U-shape mount.

The conical section **10** is affixed to the exterior surface of the first side plate **21**. A side edge of the conical section **10** may be abutted and affixed to the first side plate **21**. such that the conical section may be oriented somewhat at an angle, due to the tapered nature of the conical section. The conical section may also be molded as part of the first side plate **21** and/or the complete mounting bracket assembly.

The cantilevered section **30** is affixed perpendicularly to the second side plate **22**, such that it opposes the conical section **10** with respect to the mounting bracket **20**. As such, the cantilevered section **30** forms a planar plate which extends outwardly from the second side plate **22**. The cantilevered section **30** may also be molded as one piece with a second plate **22** and/or the complete mounting bracket assembly.

FIGS. **3** and **4** are front and back perspective views of a caddy mounted to an automobile lift, according to an embodiment of the disclosed technology. A standard automobile lift **200** is shown. The lift **200** generally has a vertical column **220** with one or more horizontal arms **210**. The horizontal arms **210** are capable of being raised and/or lowered along the height of the column **220**. In operation, the arms **210** are placed at their lowest position, and an automobile is driven into a position between the two columns. The arms **210** are placed below the automobile, and a hydraulic lift causes the arms to lift the automobile to enable mechanic access to the underside thereof.

Given the proximity of the arms **210** to the underside of the automobile, the arms provide an ideal mounting location for the caddy **100**. Referring still to FIGS. **3** and **4**, the arm **210** has a truss section forming a triangular portal **212**. In the embodiment shown, the caddy **100** is mounted to the arm at the truss section. To mount the caddy **100**, the cantilevered section **30** may be placed through the triangular portal **212**. In the absence of tools, the caddy mounting bracket **20** rests on the top surface of the arm **210**. The side plates **21**, **22** of the mounting bracket **20** abut the sides of the rectangular portion of the arm of the truss.

Tools **310**, **320** are shown residing in the caddy **100**. Large tools, such as an impact gun **310** shown in FIGS. **3** and **4**, may be stored in the conical section **10** of the caddy **100**. The tapered, conical shape of the conical section **10** cradles larger tools such as impact guns, drills, torches, and/or air nozzles. Small tools **320**, such as screwdrivers, pliers, and ratchet/socket wrenches, may be stored in the cutouts **31-34** of the cantilevered plate section **30**.

Skipping now to FIG. **7**, this figure shows a perspective view of an automobile lift of the prior art, with the caddy of embodiments of the disclosed technology installed. FIG. **8** is a perspective view of the area of the arms of the automobile lift of FIG. **7**, where a caddy of embodiments of the disclosed technology is installed. The automobile lift **200** has arms for lifting an automobile up a vertical rise **200**, such as by using arms **210**. Each arm **210** has a triangular portal **212**. Referring specifically to FIG. **8**, it can readily be seen how the caddy **100** is placed and wedged in the triangular space **212**, and by being pushed against the position where the diagonal support **213** meets the automobile support arm **210**.

FIG. **5** is a side view of a caddy of an embodiment of the disclosed technology. As shown, the mounting bracket **20** forms a partial rectangular section having a first side plate **21**, a second side plate **22**, and a top plate **23**. The mounting

bracket need not necessarily form a rectangular section, insofar as the first and/or the second side plates **21**, **22** may be affixed and/or molded to the top plate **23** at an angle or curve, depending on the surface onto which the tool caddy **100** is to be mounted. Likewise, the cantilevered plate section **30** is shown perpendicularly extending from the second side plate **22** of the mounting bracket **20**. However, the cantilevered plate section **30** need not form a right angle with the second side plate **22**. That is, the cantilevered plate section **30** may be affixed and/or molded at an angle within ±45° degrees of 90° degrees.

FIG. **6** is a bottom view of a caddy of an embodiment of the disclosed technology. Cutouts **31-34** of varying sizes are shown disposed in the surface of the cantilevered plate section **30**. The first cutout **31** is the smallest diameter circle. Next, the second cutout **32** has a larger diameter than that of the first cutout **31**, and so forth, with the fourth cutout **34** having the largest diameter. Other shapes and sizes may be employed for the cutouts **31-34** to accommodate various tools. Furthermore, hangers and/or hooks (not shown) may be disposed on the cantilevered plate section **30** for purposes of hanging and/or caddying tools.

While the disclosed technology has been taught with specific reference to the above embodiments, a person having ordinary skill in the art will recognize that changes can be made in form and detail without departing from the spirit and the scope of the disclosed technology. The described embodiments are to be considered in all respects only as illustrative and not restrictive. All changes that come within the meaning and range of equivalency of the claims are to be embraced within their scope. Combinations of any of the methods and apparatuses described hereinabove are also contemplated and within the scope of the invention.

I claim:

1. A tool caddy comprising:

a conical section having a tapered interior and extending between a first oval opening and said second circular opening, said first oval opening having a larger diameter than said second circular opening;

a mounting bracket having a first and a second side plate a mounting bracket having a first and a second side plate arranged in parallel and having only three surfaces formed between said conical section and said cantilevered plate, and a top plate perpendicularly disposed and fixedly attached to and between said first and second side plates forming a U-shape, wherein said first side plate is further fixedly attached to said conical section;

a cantilevered plate perpendicularly disposed and fixedly attached to said second side plate, said cantilevered plate on an opposite side of said tool caddy from said conical section; and

a plurality of holes disposed in said cantilevered plate section.

2. The tool caddy of claim **1**, wherein said mounting bracket comprises a cavity sized to receive a beam.

3. The tool caddy of claim **2**, wherein said conical section, said mounting bracket, and said cantilevered plate are affixed in a series.

4. A tool caddy consisting of:

a partial rectangular section forming a mounting bracket, said partial rectangular section comprising only two parallel walls perpendicular to a fixed wall there-between a first and second tool holder;

said first tool holder on a first parallel wall of said partial rectangular section;

said second tool holder on a second parallel wall of said partial rectangular section, said first side being opposite to said second side,

wherein said first tool holder and said second tool holder extend away from one another and away from said partial rectangular section.

5. The tool caddy of claim **4**, wherein at least one of said first tool holder and said second tool holder comprises conical section having a tapered interior and extending between a first oval opening and said second circular opening.

6. The tool caddy of claim **4**, wherein said first tool holder is formed from a first conical section having a tapered interior and extending between a first oval opening and said second circular opening, and said second tool holder is a cantilevered plate having a plurality of holes disposed therein.

7. The tool caddy of claim **4**, wherein at least one of said first tool holder and said second tool holder is a cantilevered plate having a plurality of holes disposed therein.

* * * * *