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(54) Signage device

(57) This invention refers to a place-name and/or advertising urban fixture device and a traffic signage device consisting of a substantially tubular support with two, four or more lateral support parts for lateral place-name or traffic signage plates, etc., and two top support parts for a top advertising or traffic signage plate, etc. The place-name plates, the traffic signage plates and the advertising plates can be non-luminous, luminous or illuminated. Place-name plates are generally rectangular or arrow-shaped, advertising plates can be any shape (round, polygonal or combinations thereof, etc.), whereas traffic plates have to take traffic sign shapes (circular, triangular, hexagonal, etc.); the traffic signage plates can also be light-reflecting; the device comprises support part (A), a support part (B) and a support part (C); a set of four said support parts (A) forms two lateral plate supports. However, a pair of support parts (A) can also form a plate support, and a pair of said top support parts (B) can form a top support, and a pair of said support parts (C) can form a lateral support.

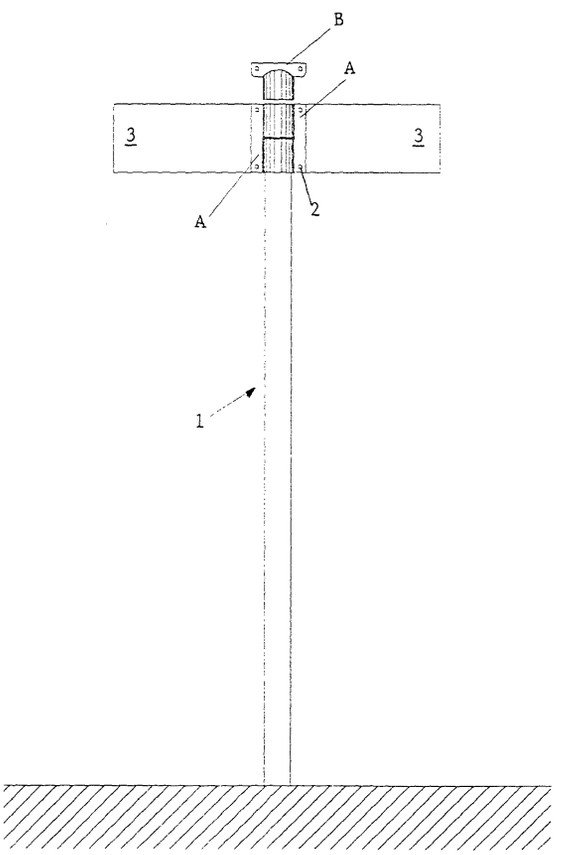

FIG. 1

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Description

[0001] The object of this invention is a signage device and, in particular, a place-name and/or advertising urban fixture device and a traffic signage. The device consisting of a substantially tubular support with two, four or more lateral support parts for lateral place-name or traffic signage plates, and two top support parts for a top advertising or traffic signage plate. The place-name plates, the traffic signage plates and the advertising plates can be non-luminous, luminous, illuminated or light reflecting. Place-name plates are generally rectangular or arrow-shaped, advertising plates can be any shape (round, polygonal or combinations thereof, etc.), whereas traffic plates have to take traffic sign shapes (circular, triangular, hexagonal, etc).

[0002] Several signage devices are marketed at this moment in time but they are generally expensive and incur high maintenance costs, besides which their installation, alteration, replacement and removal is fairly slow and expensive because of the complex securing devices.

[0003] Furthermore, existing signs - mainly traffic signs - do not have flexible uses. For example, in the event of temporary, regular or other types of traffic changes when sign alterations and additional signs are required, such operations are not usually done immediately without preparation.

[0004] Surveys done in some European countries show that damage to place-name signs are a serious problem, and leads to an increase in their maintenance costs. Nearly 45% of the components of place-name signs are prematurely replaced because of damage. The damage results from vandalism (theft, graffiti and destruction) and accidents.

[0005] Plate-securing accessories such as bolts and the respective nuts are usually complex and expensive, and are usually hard to replace.

[0006] Combinations of plates (signs) on a single support (post) are often necessary. It was not until now that a solution to the problem of mounting had been found. The combinations of current plates are very often adapted to each new situation and consist of clamps and/or combinations of tubes and securing parts.

[0007] From a management viewpoint, the current situation is disadvantageous in terms of logistics and the financial aspects because there are too many different parts for each signage device.

[0008] The object of this invention is to eliminate and/or reduce the above-mentioned disadvantages and to try and reduce the management costs connected with signage devices in the following way:

- The fitting, alteration, replacement and removal of signs and/or plates take less time and preparation than it does at the moment.

- The number of parts that the device consists of is much smaller than in existing ones, meaning that storage space can be reduced.

- They are more resistant to vandalism than actually used signage devices, or are much cheaper and easier to repair.

[0009] The aim of this invention is to fill an existing gap in urban and road fixtures or, in other words, the shortage of signage devices such as simple and cheap place-name indication devices and traffic signage devices that are also easy to maintain and consist of a small number of parts.

[0010] In addition, it is a good idea for them to pay for themselves through advertising.

[0011] It goes without saying that the number of parts for place-name plates, traffic signage plates and even advertising plates cannot be reduced, and that is why the aim of this invention is to reduce the number of support and securing parts.

[0012] Consequently, this invention only uses four different support parts; one tubular support part, which can be increased in height by adding on ramification tubular parts, and three plate support parts A, B and C. Support parts A are usually combined in sets of four, even though they can be combined in a single pair for a plate support. Support parts B and C are combined in pairs for a plate support.

[0013] Furthermore, we still have the securing devices, preferably consisting of bolts with special heads, which can be screwed directly to the plate support or be used in conjunction with securing nuts with identical heads. The bolts and nuts require special tools for removal and/or special loosening processes, the aim of which is to make it is as difficult as possible to remove them while keeping them simple and inexpensive. When bolts with or without nuts are used, the said securing devices will usually be used in pairs and have the dual function of securing each plate to a plate support and, if lateral supports are used, to secure the plate support to the tubular support part.

[0014] Such objective is attained in accordance with the description given in the characteristics part of claim 1. The advantageous embodiments of this invention are given in the subordinate claims.

[0015] The preferred specifications of this invention will be further explained below, and are represented in the appended drawings in which:

[0016] Fig. 1 shows a front elevation of a place-name indication device in accordance with this invention, with two rectangular place-name plates and a top support.

[0017] Fig. 2 shows a front elevation of a place-name indication device as per Fig. 1, with two arrow-shaped plates and a top support.

[0018] Fig. 3 shows several perspective views of support part A in accordance with this invention.

[0019] Fig. 4 shows several perspective views of support part B in accordance with this invention.

[0020] Fig. 5 shows several perspective views of support part C in accordance with this invention.

[0021] Figs. 6a to 6h show several embodiments of bolts and nuts used as the securing devices for this invention.

[0022] Figs. 7a to 7f show several embodiments of the invention used with rectangular advertising plates.

[0023] Figs. 8a to 8d show several embodiments of the invention used with uneven pentagonal advertising plates.

[0024] Figs. 9a to 9b show two embodiments of the invention used with substantially rectangular advertising plates with rounded top and bottom edges.

[0025] Figs. 10a to 10i show several embodiments of the invention used with substantially square advertising plates with rounded edges.

[0026] Figs. 11a to 11m show several embodiments of the invention used with uneven dodecagonal advertising plates.

[0027] Figs. 12a to 12d show several embodiments of the invention used with hexagonal advertising plates.

[0028] Figs. 13a to 13h show several embodiments of the invention used with circular advertising plates.

[0029] Figs. 14a to 14c show several front elevations of traffic signage devices of an embodiment in accordance with the present invention used, with traffic signage plates.

[0030] Figs. 15a to 15c show several front elevations of place-name indication devices of an embodiment in accordance with the present invention used, with traffic signage plates.

[0031] Figs. 1 and 2 show embodiments of this invention, in which tubular support part 1 can be seen; two place-name plates 3 are secured to it by two plate supports consisting of four support parts A (one of which is represented in Fig. 3), fitted with the respective securing devices 2. The said securing devices 2 (represented in Figs. 6a to 6d) consist of bolts with nuts or bolts alone, which tighten directly on one of the flanges of the plate support. Said tubular support 1 is finished off with a top support, consisting of a pair of support parts B (one is represented in Fig. 5) to support another plate (advertising or traffic signage).

[0032] Tubular support part 1 is preferably cylindrical although it can be prismatic, and is made of steel, galvanised iron or any other material that is sufficiently rigid for the purpose. They can be provided with tubular ramification parts, which can be added by fitting them in said tubular support parts 1.

[0033] Fig. 3 shows support part A, which consists of two flanges; one flat A1 with two holes A11 and A12, and one round A2, whose contact surface with the said tubular support part is round so that it can adapt to the round external surface of tubular support part 1. The width of round flange A2 is substantially half the length of flat flange A1.

[0034] In another embodiment of the invention not represented in the drawings, the internal surface of the round flange of support part A1 can take a shape that adapts to the shape of the external surface of tubular support part 1 (prismatic or otherwise).

[0035] Fig. 4 shows support part B, which consists of a half cylindrical pin B1 with a hole B11, an intermediate part with a shoulder stop B2, to act as a stop at the top of tubular support (1), a transitional part, substantially shaped as a quarter sphere B3, and a flat flange B4, with two holes B41 and B42.

[0036] In another embodiment of the invention not represented in the drawings, the external surface of the pin of support part B1 can take a shape that adapts to the shape of the internal surface of tubular support part 1 (prismatic or otherwise).

[0037] Fig. 5 shows support part C, which consists of two flanges; one flat C1 with two holes C11 and C12, and one round C2, whose contact surface with the said tubular support part is round so that it can adapt to the round external surface of tubular support part 1. The length of the flat and round flanges C1 and C2 is substantially equal.

[0038] In another embodiment of the invention not represented in the drawings, the internal surface of the round flange of support part C1 can take a shape that adapts to the shape of the external surface of tubular support part 1 (prismatic or otherwise).

[0039] Figs. 6a to 6h show possible embodiments for bolts and nuts.

[0040] Figs. 6a and 6b show two head embodiments for bolts and nuts, which are intended to be de-burred and have a smooth hole in the middle of them for a left-threaded bolt to allow for the respective loosening.

[0041] Figs. 6c to 6h show other embodiments for bolts and nuts, whose heads require a special tool to allow for the respective tightening and loosening.

[0042] Figs. 7a to 7f show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0043] Fig. 7a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A rectangular top advertising plate, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0044] Fig. 7b shows another embodiment similar to the one in Fig. 7a, in which the top advertising plate is shaped like a transparent or opaque rectangular box with an internal lighting device; the arrow-shaped place-name plates are lit by a lighting device included in the tubular support part.

[0045] Fig. 7c shows another embodiment similar to the ones in Figs. 7a and 7b, in which both the top advertising plate and the place-name plates are shaped like a transparent or opaque rectangular box with an internal lighting device.

[0046] Fig. 7d shows another embodiment similar to the ones in Figs. 7a, 7b and 7c, in which both the top

advertising plate and the place-name plates are rectangular; the top plate has a lighting device.

[0047] Fig. 7e shows another embodiment similar to the ones in Figs. 7a to 7d, but in which the top advertising plate is round and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0048] Fig. 7f shows another embodiment similar to the ones in Figs. 7a to 7e, but in which both the top advertising plate and the place-name plates are rectangular and each of them has a lighting device.

[0049] Figs. 8a to 8d show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0050] Fig. 8a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A substantially pentagonal top advertising plate, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0051] Fig. 8b shows another embodiment similar to the one in Fig. 8a, in which the top advertising plate is substantially pentagonal and the place-name plates are rectangular; the top plate has a lighting device.

[0052] Fig. 8c shows another embodiment similar to the one in Fig. 8a and 8b, in which the top advertising plate is substantially pentagonal and has a lighting device, and each of the rectangular place-name plates has a lighting device.

[0053] Fig. 8d shows another embodiment similar to the ones in Figs. 8a to 8c, in which the top advertising plate is substantially pentagonal and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0054] Figs. 9a and 9b show another two possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0055] Fig. 9a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A top advertising plate shaped like a transparent or opaque substantially rectangular box with rounded top and bottom edges, fitted with an internal lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts. A lighting device included in the tubular support part lights the place-name plates.

[0056] Fig. 9b shows another embodiment similar to the one in Fig. 9a, in which the top advertising plate is shaped like a transparent or opaque substantially rectangular box with rounded top and bottom edges and has an internal lighting device. The place-name plates are shaped like transparent or opaque rectangular boxes with internal lighting devices.

[0057] Figs. 10a to 10f show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0058] Fig. 10a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A substantially square top advertising plate with rounded edges, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0059] Fig. 10b shows another embodiment similar to the one in Fig. 10a, in which the top advertising plate is shaped like a transparent or opaque substantially square box with rounded edges and has an internal lighting device. A lighting device included in the tubular support part lights the arrow-shaped place-name plates.

[0060] Fig. 10c shows another embodiment similar to the ones in Figs. 10a and 10b, in which the top advertising plate is shaped like a transparent or opaque substantially square box with rounded edges and has an internal lighting device. The place-name plates are shaped like transparent or opaque rectangular boxes with internal lighting devices.

[0061] Fig. 10d shows another embodiment similar to the ones in Figs. 10a to 10c, but in which the top advertising plate is substantially square with rounded edges, the place-name plates are rectangular and the top plate has a lighting device.

[0062] Fig. 10e shows another embodiment similar to the ones in Figs. 10a to 10d, but in which the top advertising plate is substantially square with rounded edges and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0063] Fig. 10f shows another embodiment similar to the ones in Figs. 10a to 10e, but in which the top advertising plate is substantially square with rounded edges and has a lighting device, and each of the rectangular place-name plates has a lighting device.

[0064] Figs. 11a to 11f show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0065] Fig. 11a shows another embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A substantially square top advertising plate with polygonal edges, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0066] Fig. 11b shows another embodiment similar to the one in Fig. 11a, in which the top advertising plate is shaped like a transparent or opaque substantially square box with polygonal edges and has an internal lighting device. A lighting device included in the tubular support part lights the arrow-shaped place-name plates.

[0067] Fig. 11c shows another embodiment similar to the ones in Figs. 11a and 11b, in which the top advertising plate is shaped like a transparent or opaque substantially square box with polygonal edges and has an internal lighting device. The place-name plates are

shaped like transparent or opaque rectangular boxes with internal lighting devices.

[0068] Fig. 11d shows another embodiment similar to the ones in Figs. 11a to 11c, but in which the top advertising plate is substantially square with polygonal edges, the place-name plates are rectangular and the top plate has a lighting device.

[0069] Fig. 11e shows another embodiment similar to the ones in Figs. 11a to 11d, but in which the top advertising plate is substantially square with polygonal edges and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0070] Fig. 11f shows another embodiment similar to the ones in Figs. 11a to 11e, but in which the top advertising plate is substantially square with polygonal edges and has a lighting device, and each of the rectangular place-name plates has a lighting device.

[0071] Figs. 12a to 12f show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0072] Fig. 12a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A substantially square top advertising plate with polygonal edges, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0073] Fig. 12b shows another embodiment similar to the one in Fig. 12a, in which the top advertising plate is substantially hexagonal and the place-name plates are rectangular; the top plate has a lighting device.

[0074] Fig. 12c shows another embodiment similar to the ones in Figs. 11a and 11b, in which the top advertising plate is substantially hexagonal and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0075] Fig. 12d shows another embodiment similar to the ones in Figs. 12a to 12c, but in which the top advertising plate is substantially hexagonal and has a lighting device, and each of the rectangular place-name plates has a lighting device.

[0076] Figs. 13a to 13f show possible embodiments for the place-name indication and advertising device in accordance with this invention.

[0077] Fig. 13a shows an embodiment in which two arrow-shaped place-name plates are secured by four support parts A and by the respective bolts with or without nuts to a tubular support part 1. A substantially circular top advertising plate, fitted with a lighting device, is secured to said tubular part 1 by two support parts B and by the respective bolts with or without nuts.

[0078] Fig. 13b shows another embodiment similar to the one in Fig. 13a, in which the top advertising plate is shaped like a transparent or opaque substantially round box with an internal lighting device; the arrow-shaped place-name plates are lit by a lighting device included in the tubular support part.

[0079] Fig. 13c shows another embodiment similar to the ones in Figs. 13a and 13b, in which the top advertising plate is shaped like a transparent or opaque substantially circular box with an internal lighting device; the place-name plates are shaped like transparent or opaque rectangular boxes with internal lighting devices.

[0080] Fig. 13d shows another embodiment similar to the ones in Figs. 13a to 13c, but in which the top advertising plate is substantially circular and the place-name plates are rectangular; the top plate has a lighting device.

[0081] Fig. 13e shows another embodiment similar to the ones in Figs. 13a to 13d, but in which the top advertising plate is substantially circular and has a lighting device, and each of the arrow-shaped place-name plates has a lighting device.

[0082] Fig. 13f shows another embodiment similar to the ones in Figs. 13a to 13e, but in which the top advertising plate is substantially circular and has a lighting device, and each of the rectangular place-name plates has a lighting device.

[0083] Figs. 14a to 14c show embodiments of the traffic signage device in accordance with this invention, in which the devices have a traffic signage plate secured to said tubular support part 1 by two support parts B and by the respective bolts with or without nuts.

[0084] Figs. 15a to 15c show embodiments of the traffic signage device in accordance with this invention. The devices have a traffic signage plate secured to said tubular support part 1 by two support parts B and by the respective bolts with or without nuts, and by four support parts A and by the respective bolts with or without nuts secured to said tubular support part 1. Other plates can be secured to the supports formed by the set of four support parts A.

[0085] As can be seen from the above, a wide range of embodiments can be obtained in accordance with this invention.

[0086] Furthermore, tubular support part 1 can be added to by fitting other tubular support parts with ramifications (not represented).

[0087] It should be understood that the invention is not limited to the one described since many alterations are possible within the claims given below.

Claims

1. Place-name and/or advertising urban fixture device and a traffic signage device consisting of a substantially tubular support with two, four or more lateral support parts for lateral place-name or traffic signage plates, and two top support parts for a top advertising or traffic signage plate, etc.; the place-name plates, the traffic signage plates and the advertising plates can be non-luminous, luminous, illuminated or light-reflecting; place-name plates are generally rectangular or arrow-shaped, advertising

plates can be any shape (round, polygonal or combinations thereof, etc.), whereas traffic plates have to take traffic sign shapes (circular, triangular, hexagonal, etc); **characterised in that** it comprises a support part (A), a support part (B) and a support part (C); a set of four said support parts (A) forms two lateral plate supports, however, a pair of support parts (A) can also form a plate support, and a pair of said top support parts (B) can form a top support, and a pair of said support parts (C) can form a lateral support.

2. Device in accordance with claim 1, **characterised in that** support part (A) has two flanges; one flat (A1) with two holes (A11 and A12), one of which can be threaded, and one round (A2), whose internal contact surface with the said tubular support part is shaped so that it can adapt to the round external surface of tubular support part (1); the width of round flange (A2) is substantially half the length of flat flange (A1).

3. Device in accordance with claims 1 and 2, **characterised in that** support part (B) consists of a half cylindrical pin (B1) with a hole (B11), a trip-over part with a shoulder (B2), to act as a stop at the top of tubular support (1), a transitional part, substantially shaped as a quarter sphere (B3), and a flat flange (B4) with two holes (B41 and B42), one of which can be threaded.

4. Device in accordance with claims 1 and 2, **characterised in that** support part C has two flanges; one flat (C1) with two holes (C11 and C12), one of which can be threaded, and one round (C2), whose internal contact surface with the said tubular support part is shaped so that it can adapt to the round external surface of tubular support part (1); the length of flat and round flanges (C1 and C2) is substantially equal.

5. Device in accordance with claim 1, **characterised in that** the securing devices are bolts or bolts and nuts; the heads of both the bolts and the nuts have a standardised groove and a smooth central hole, and said heads are intended to be de-burred to eliminate the groove, and the said holes are intended for a left-threaded bolt to allow for the respective loosening.

6. Device in accordance with claim 1, **characterised in that** that the securing devices are bolts or bolts and nuts; the heads of both the bolts and the nuts have two or more holes for a special tightening and loosening tool.

7. Device in accordance with claim 1, **characterised in that** other tubular support parts with ramifications can be added by fitting them in the tubular support part.

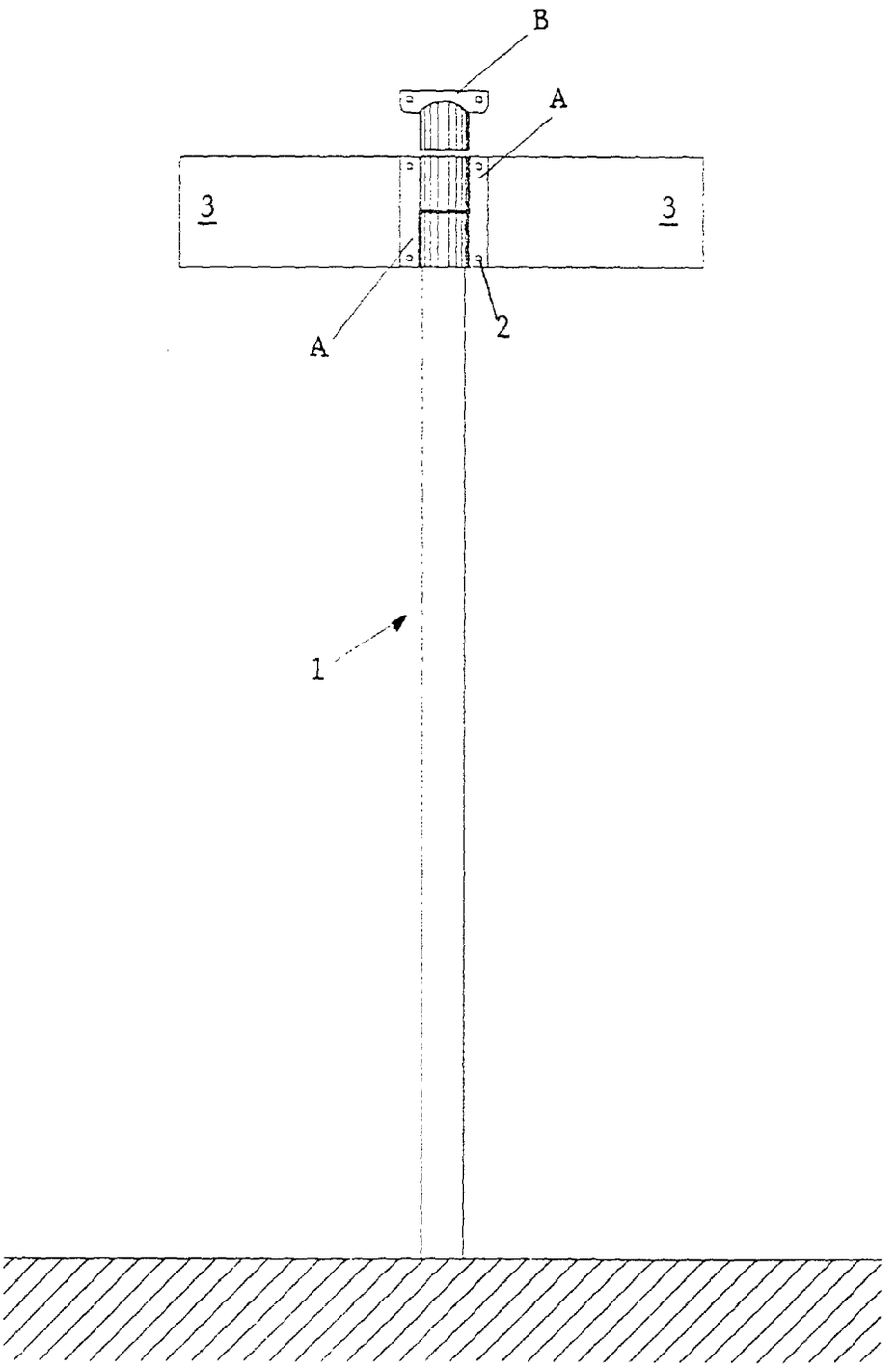

FIG. 1

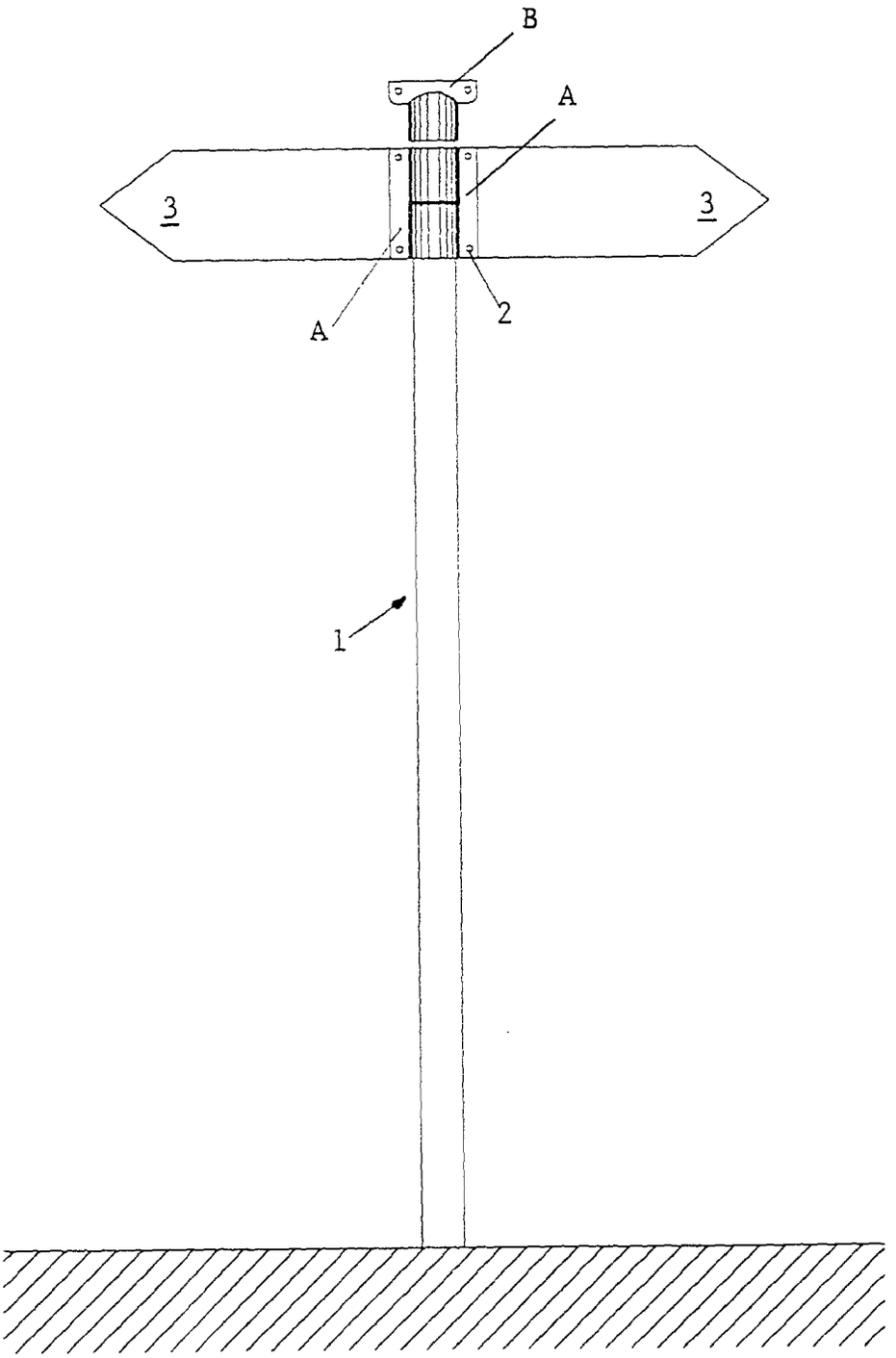

FIG. 2

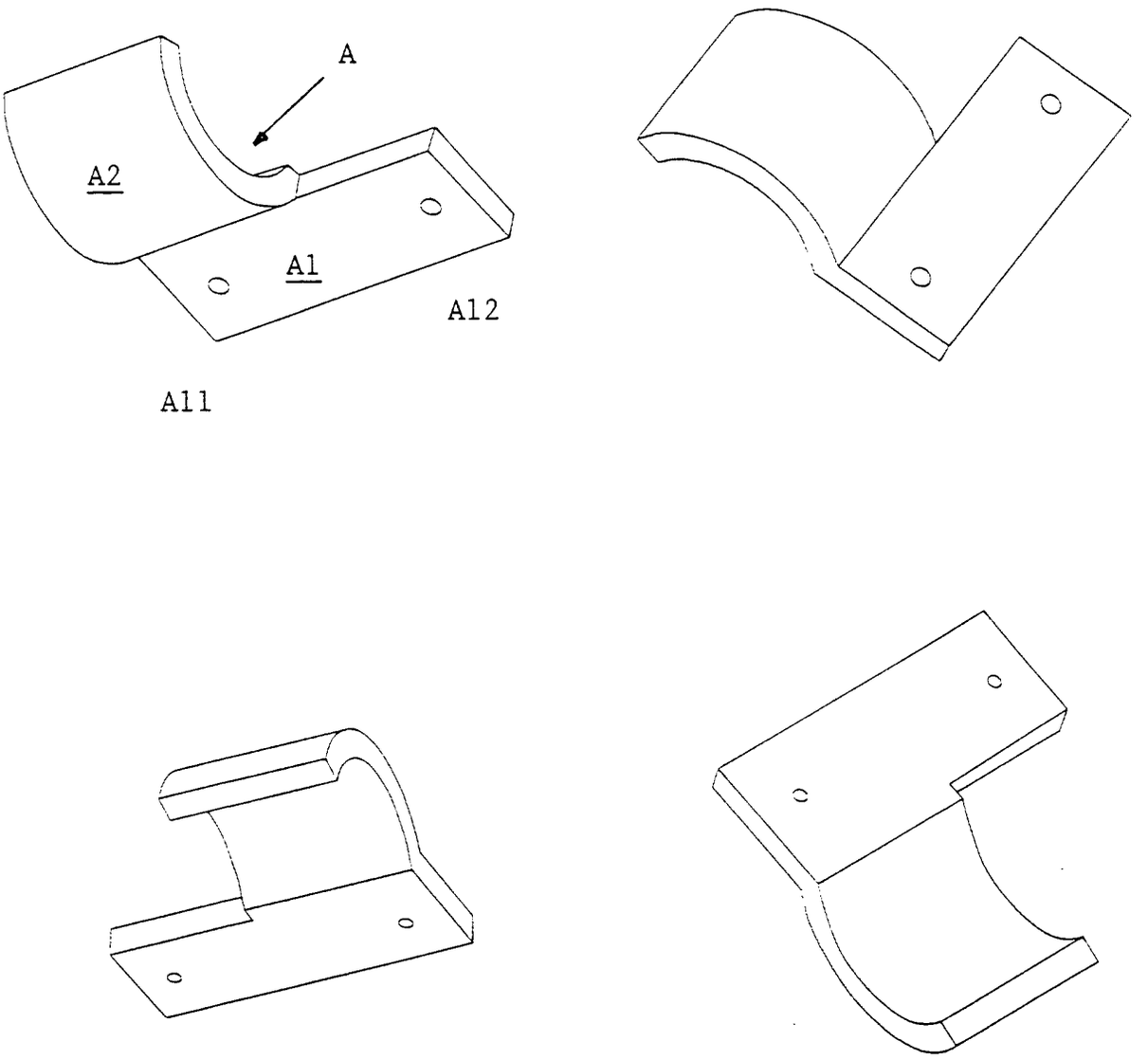

FIG. 3

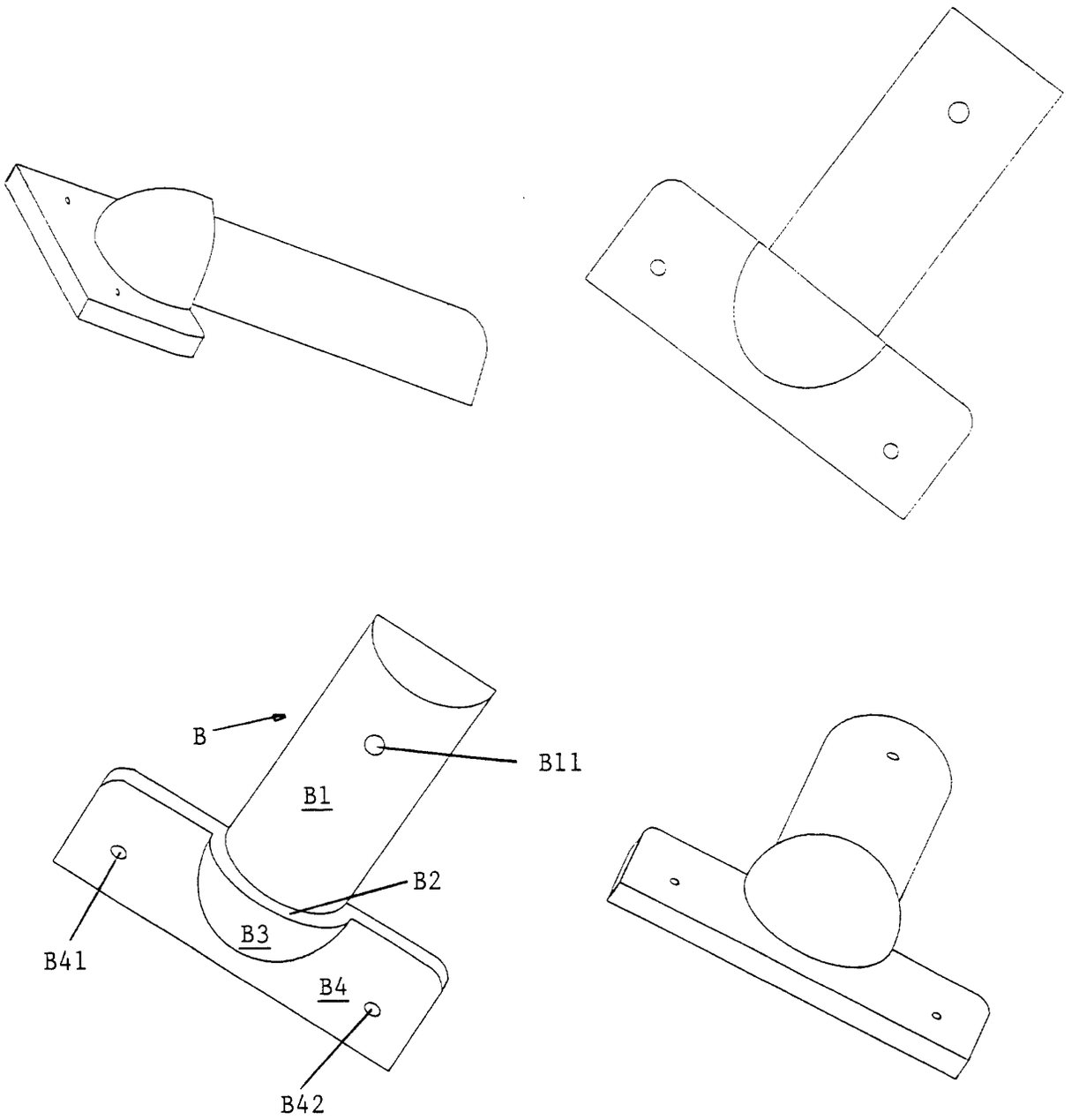

FIG. 4

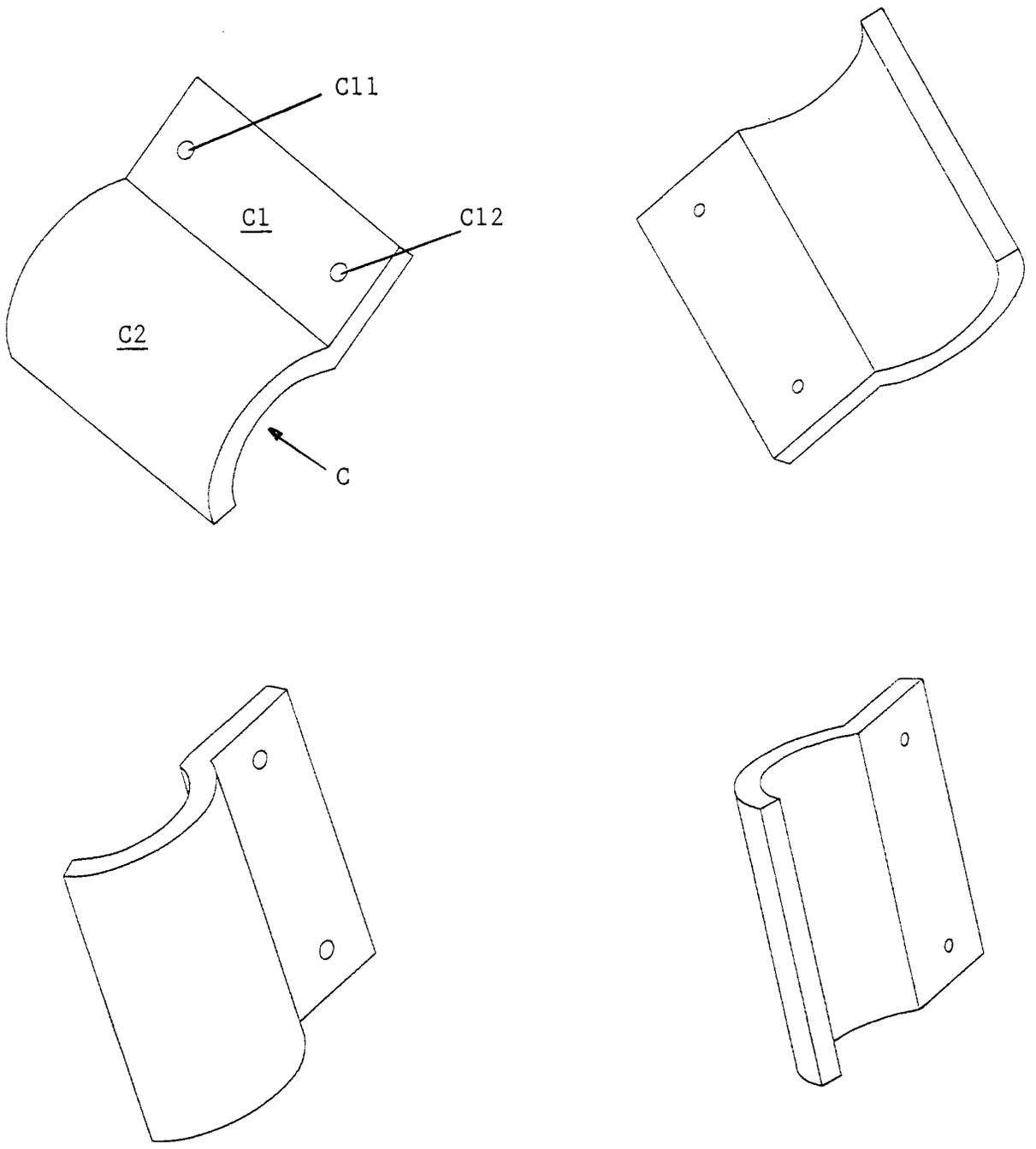

FIG. 5

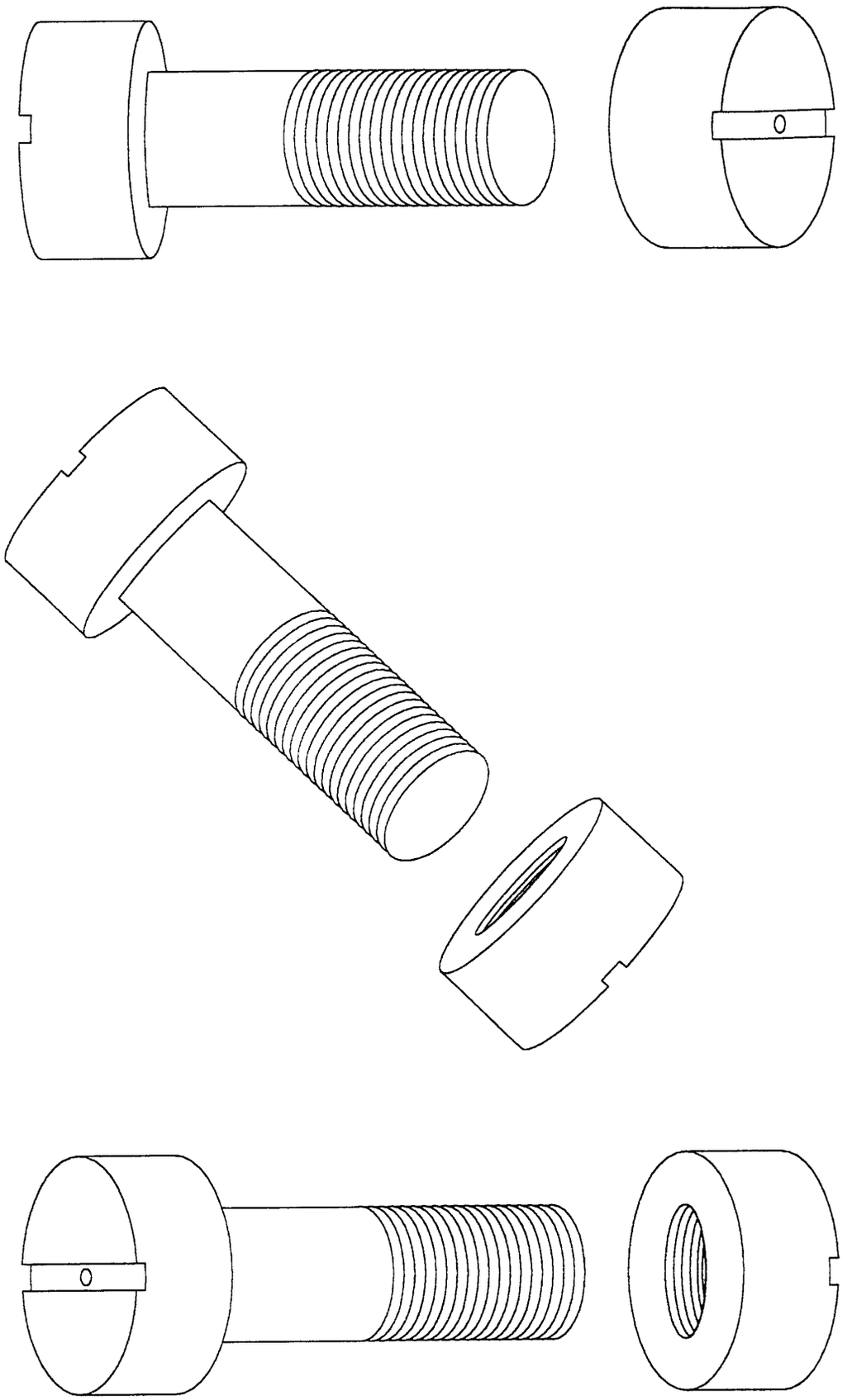

FIG. 6a

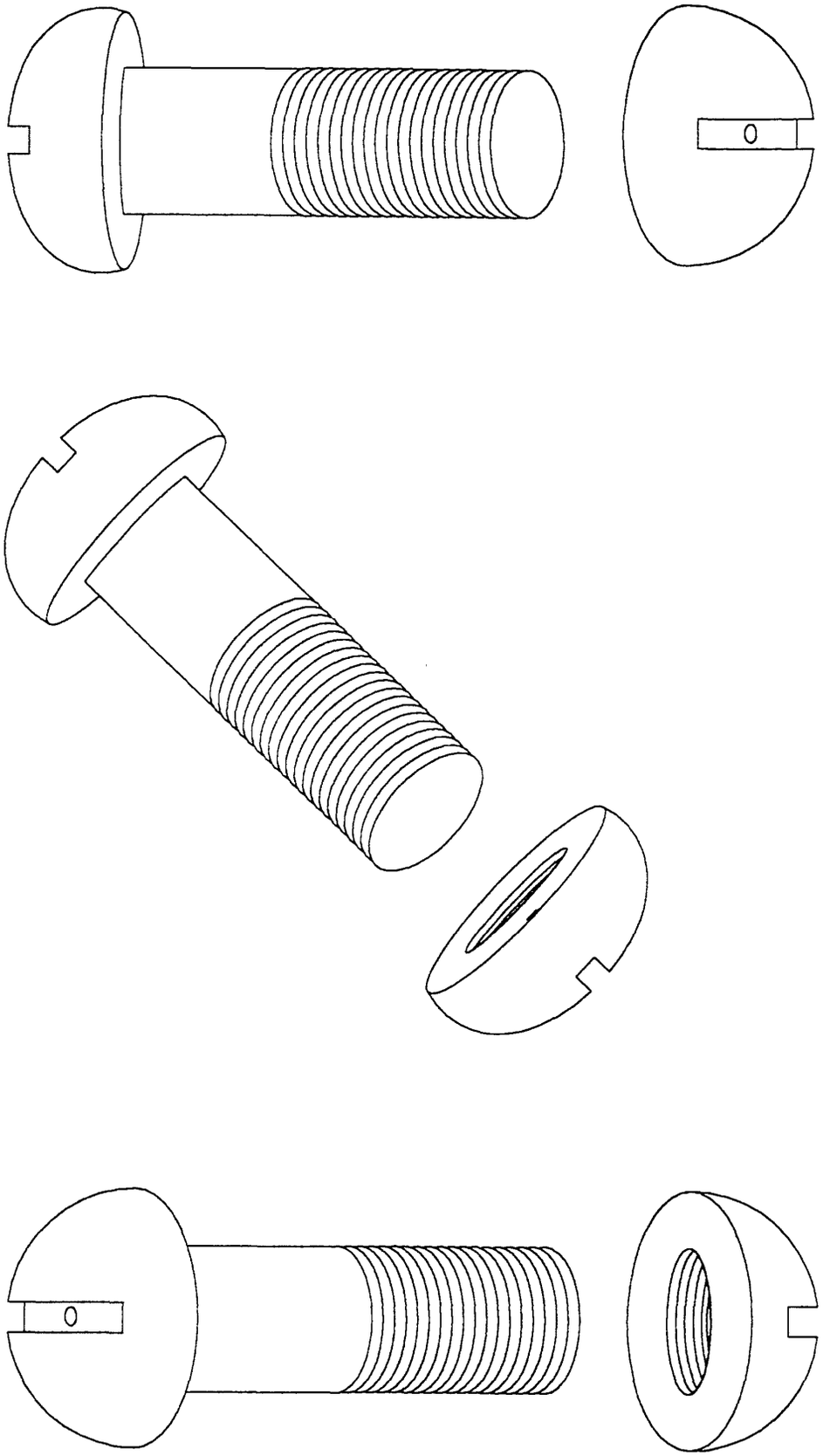

FIG. 6b

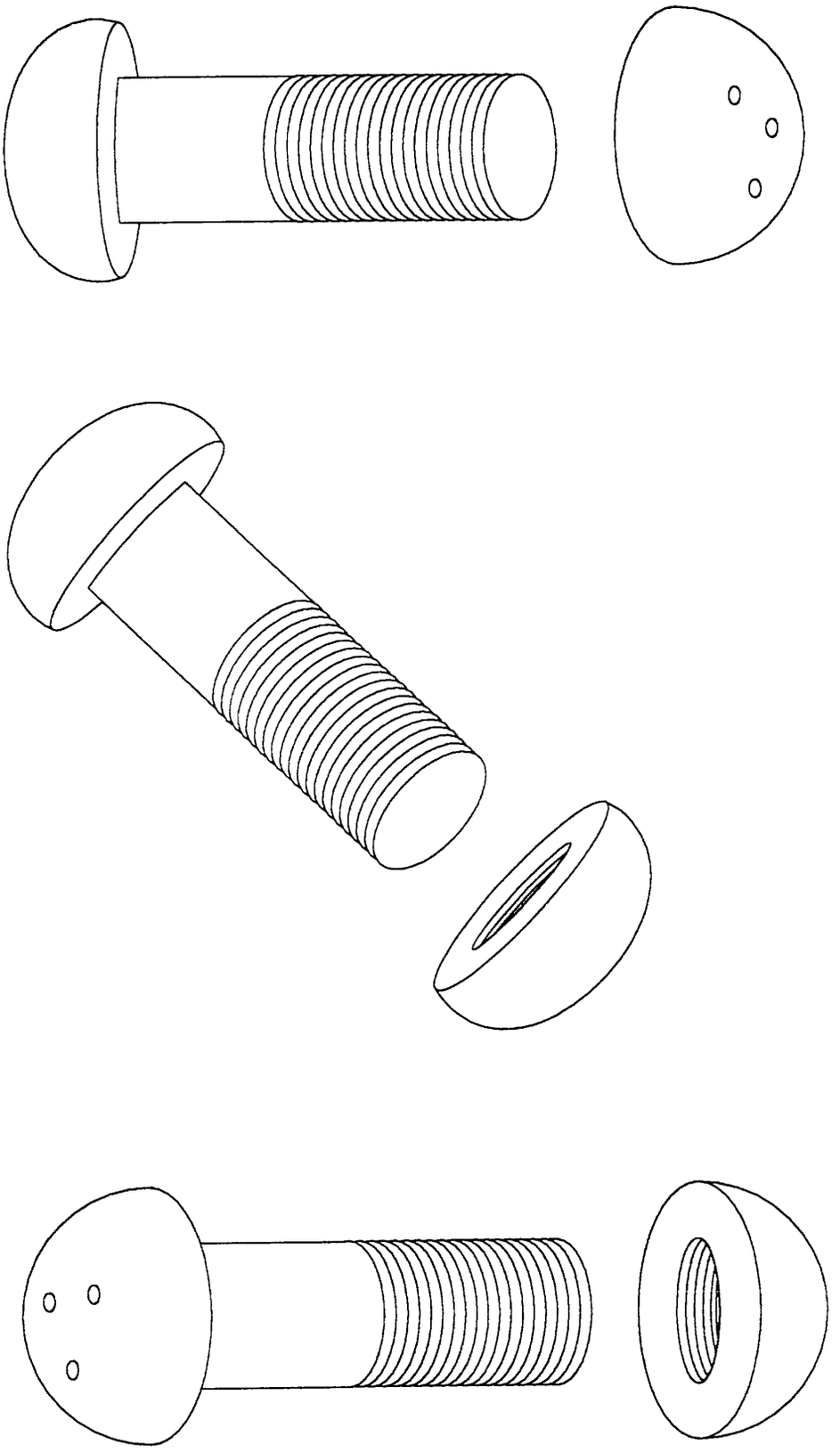

FIG. 6c

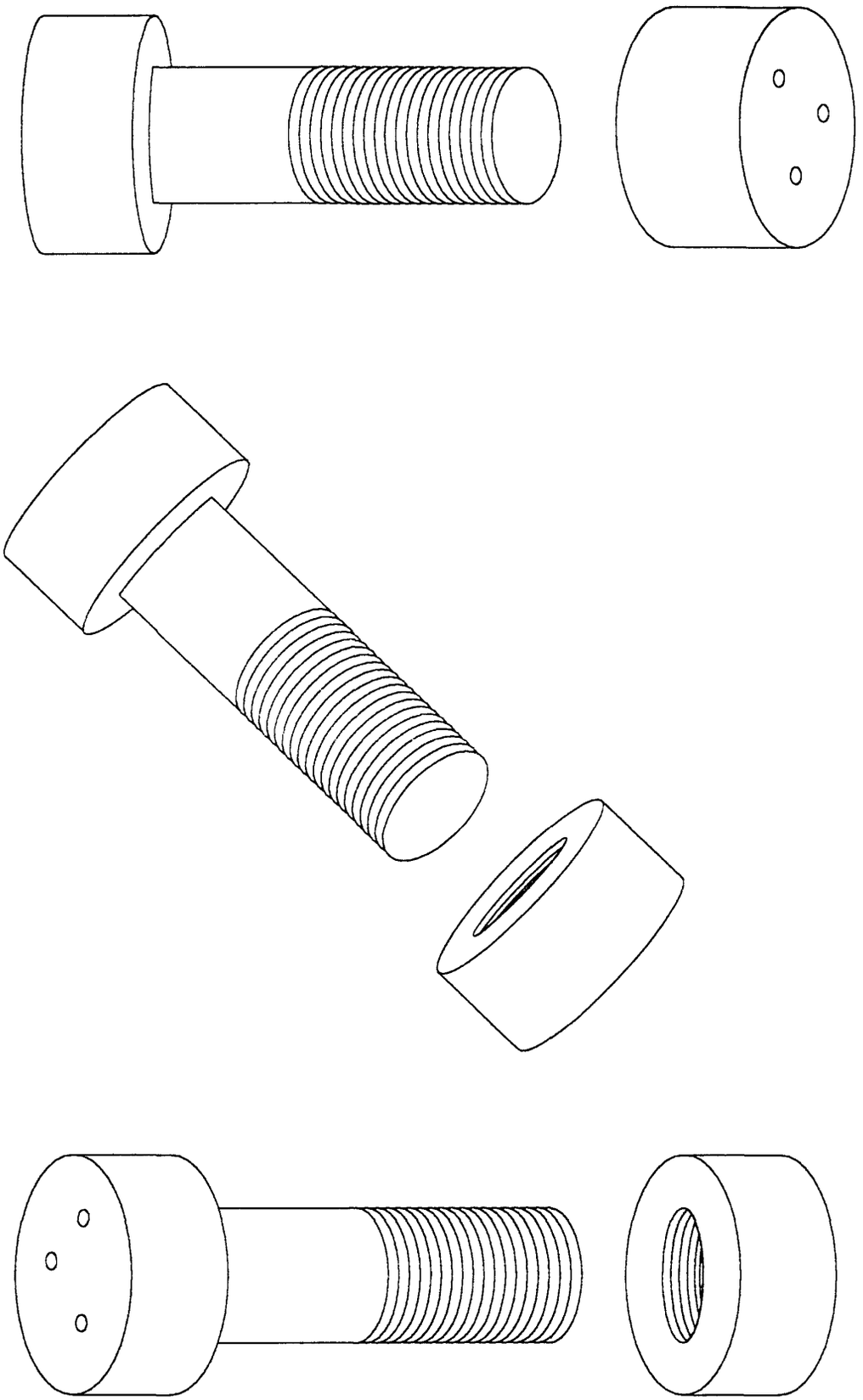

FIG. 6d

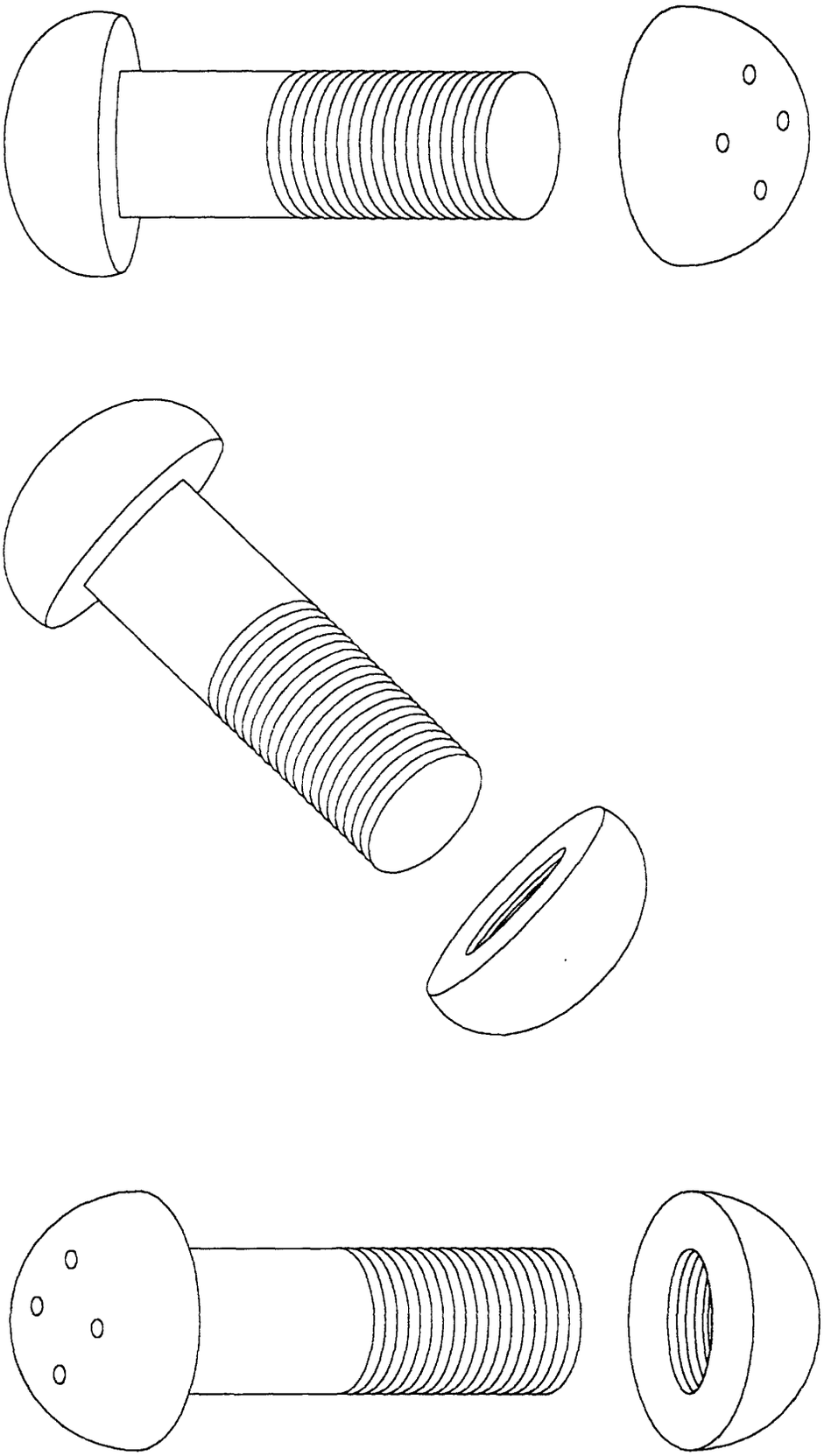

FIG. 6e

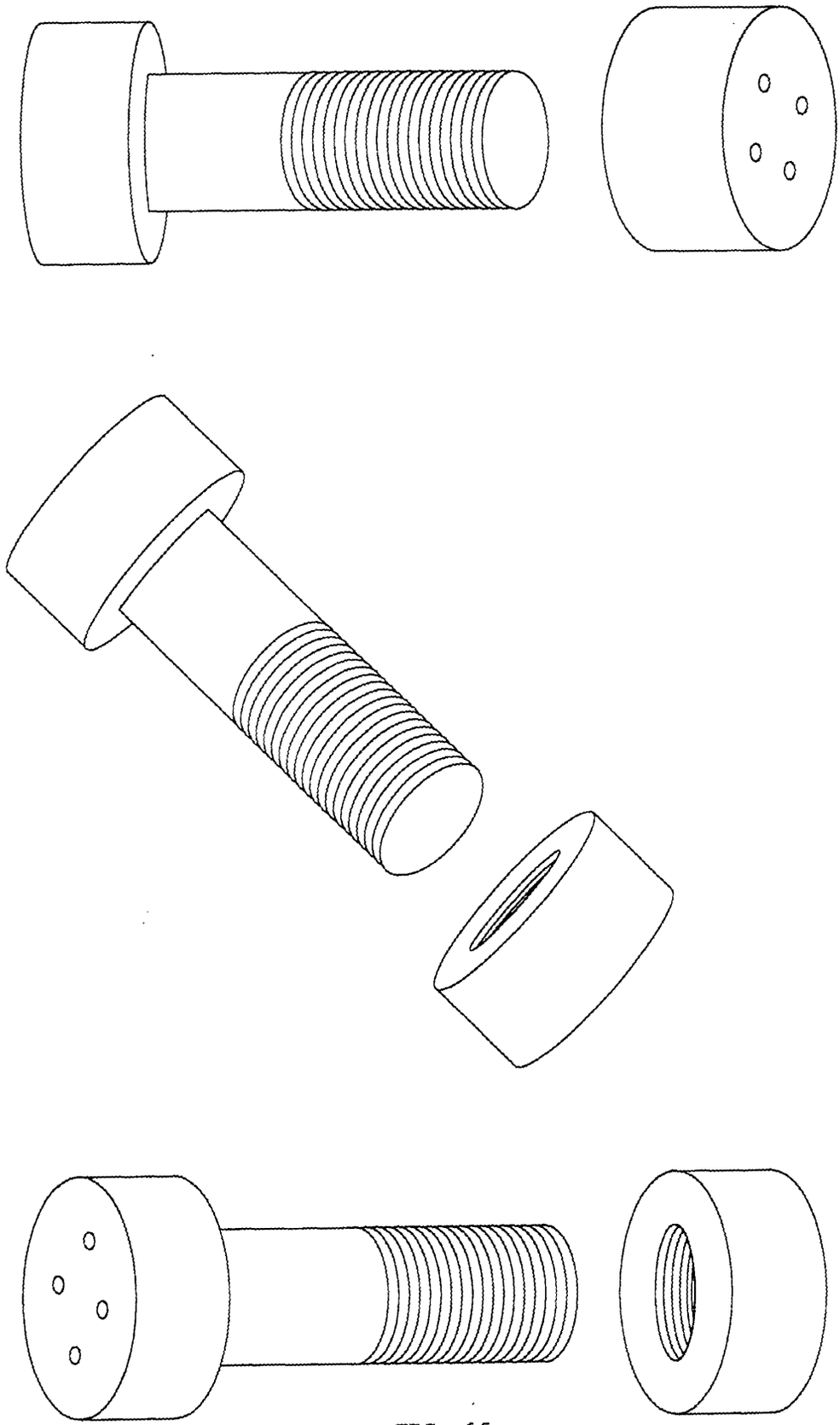

FIG. 6f

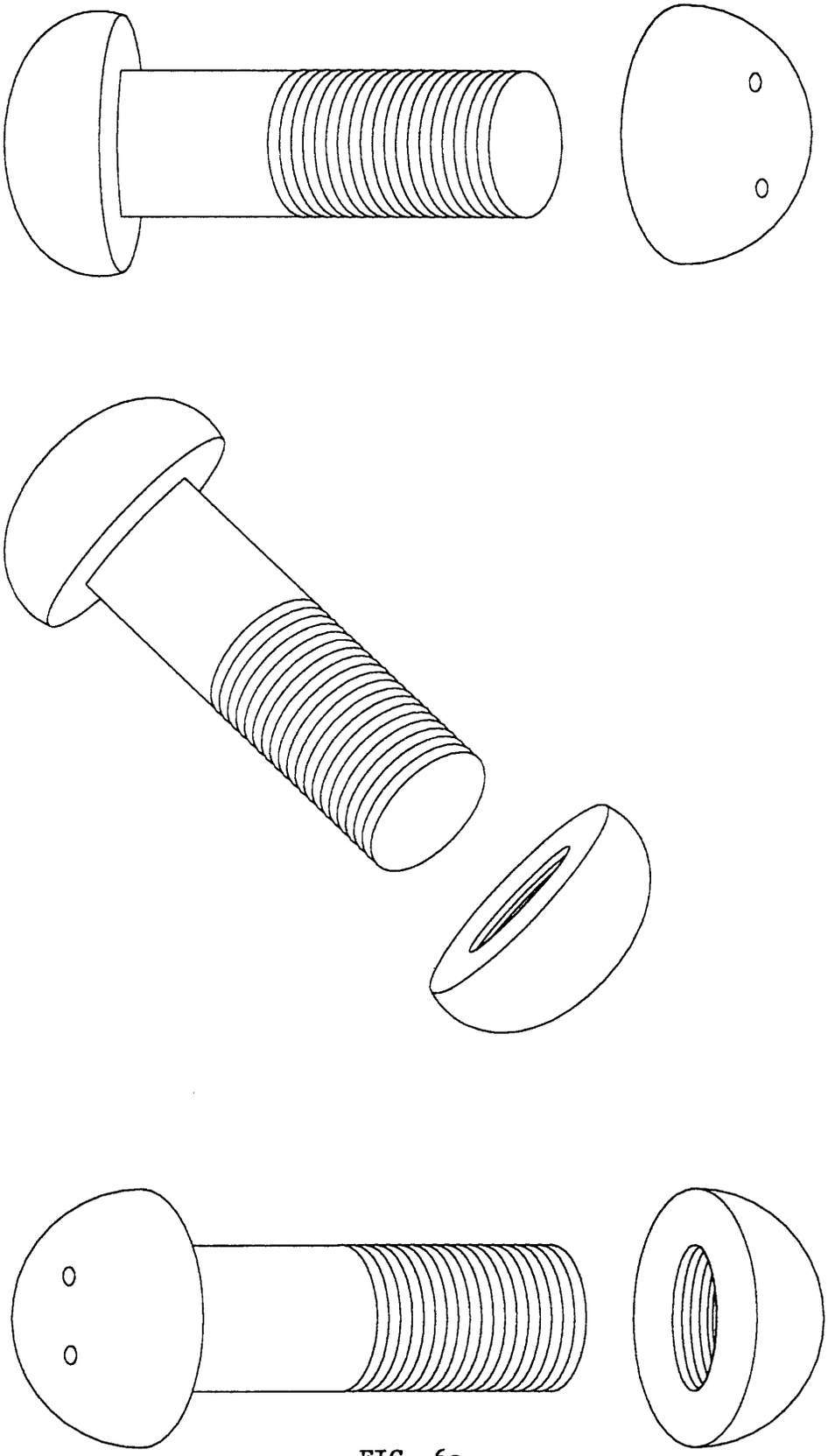

FIG. 6g

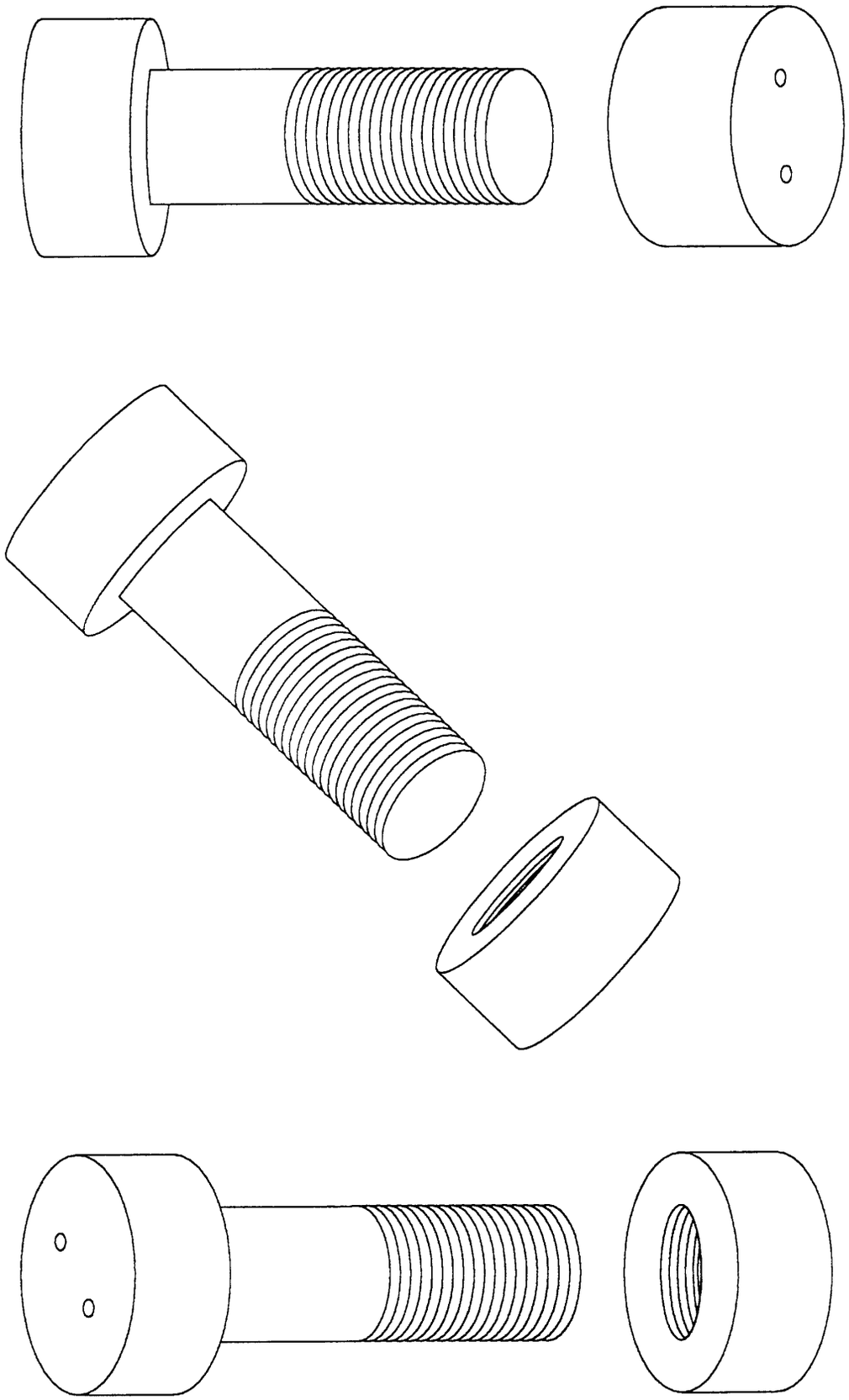

FIG. 6h

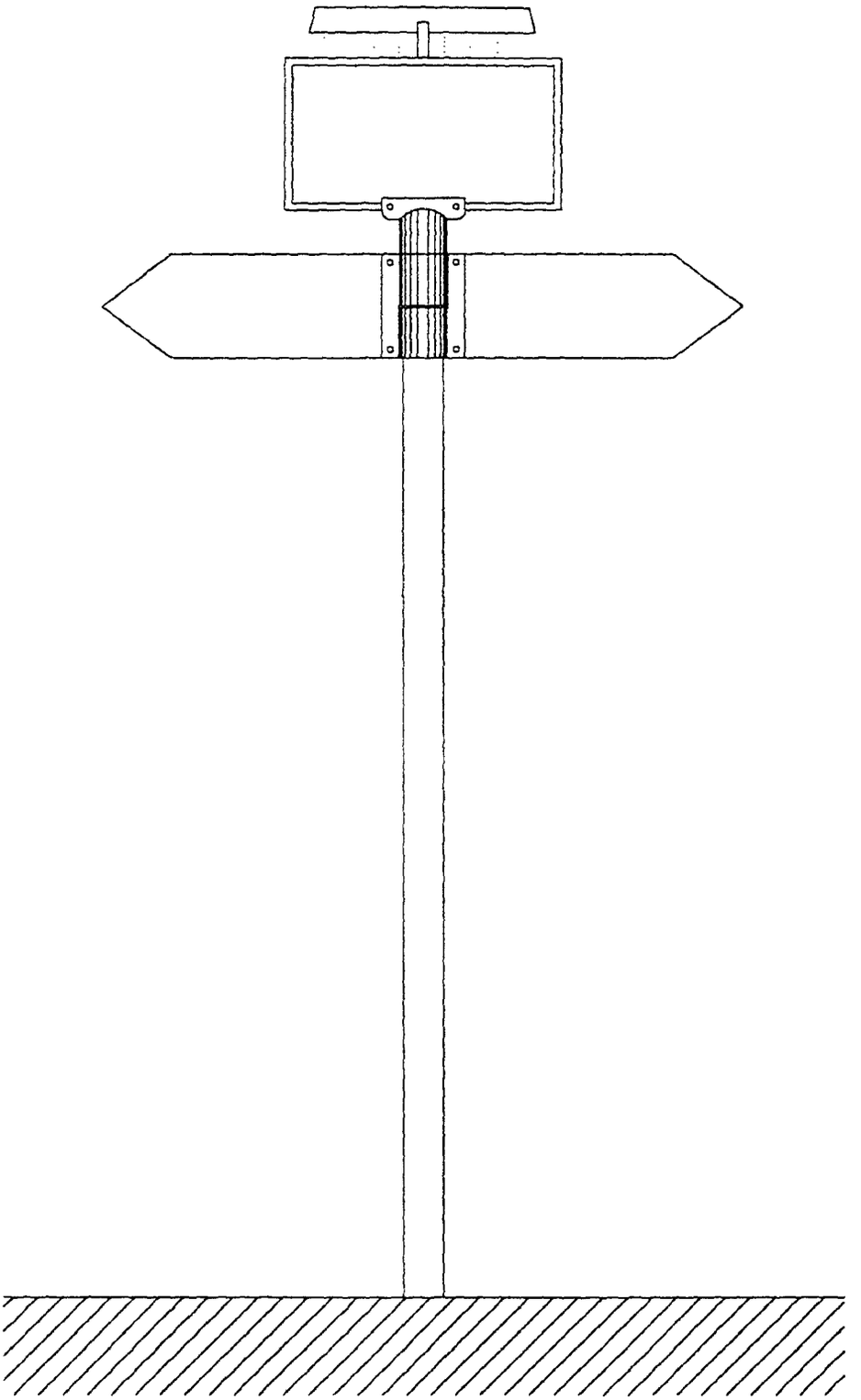

FIG. 7a

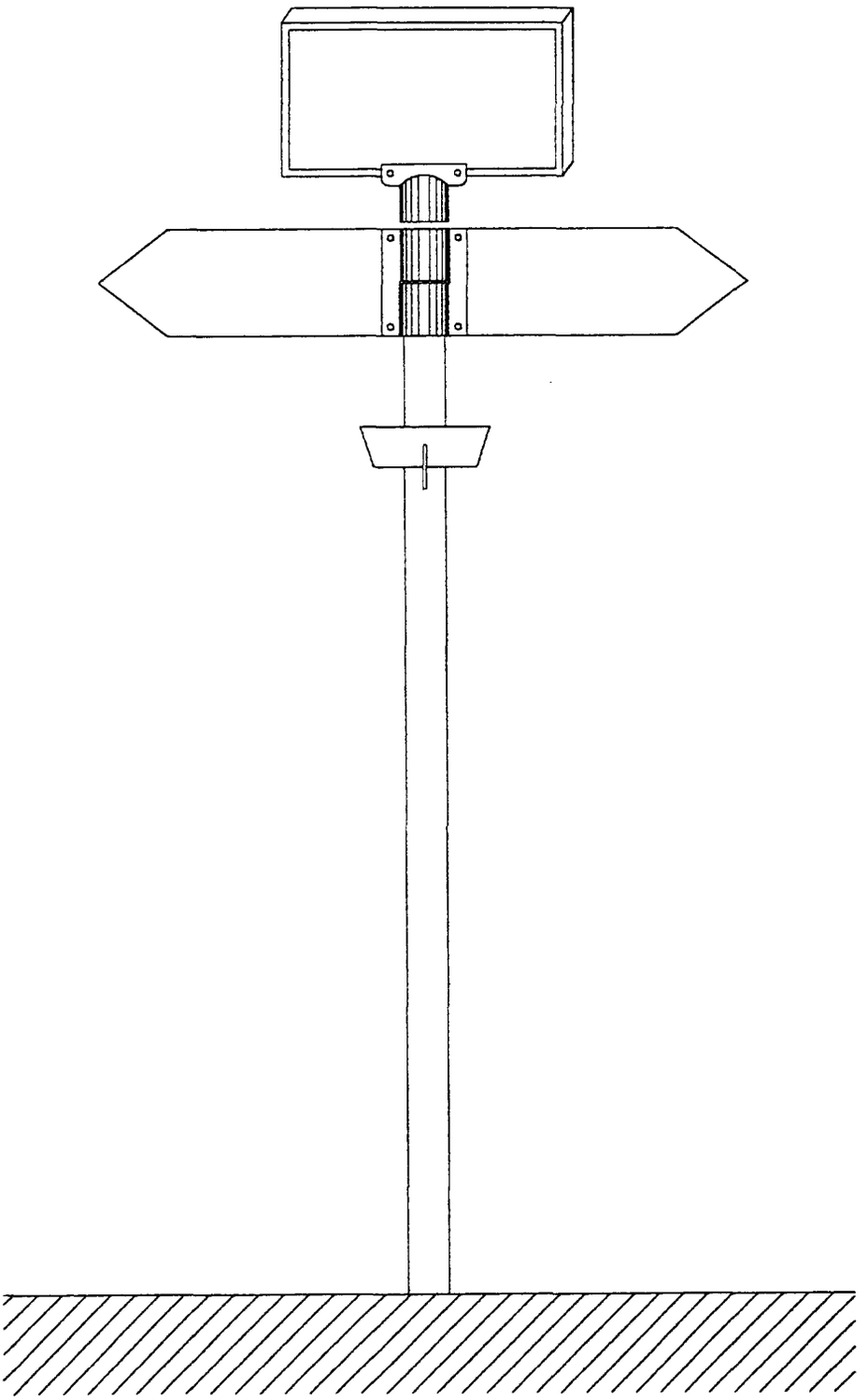

FIG. 7b

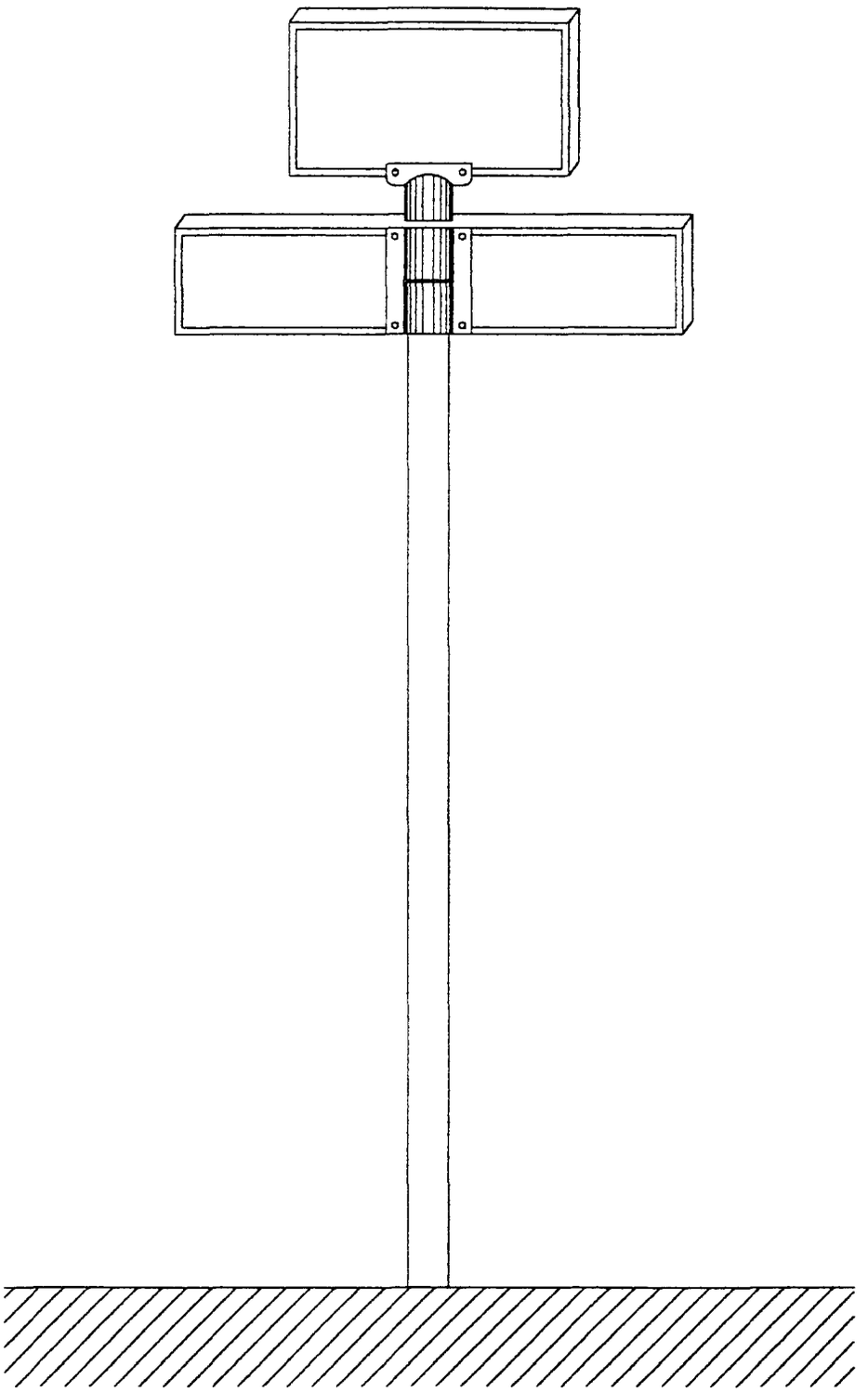

FIG. 7c

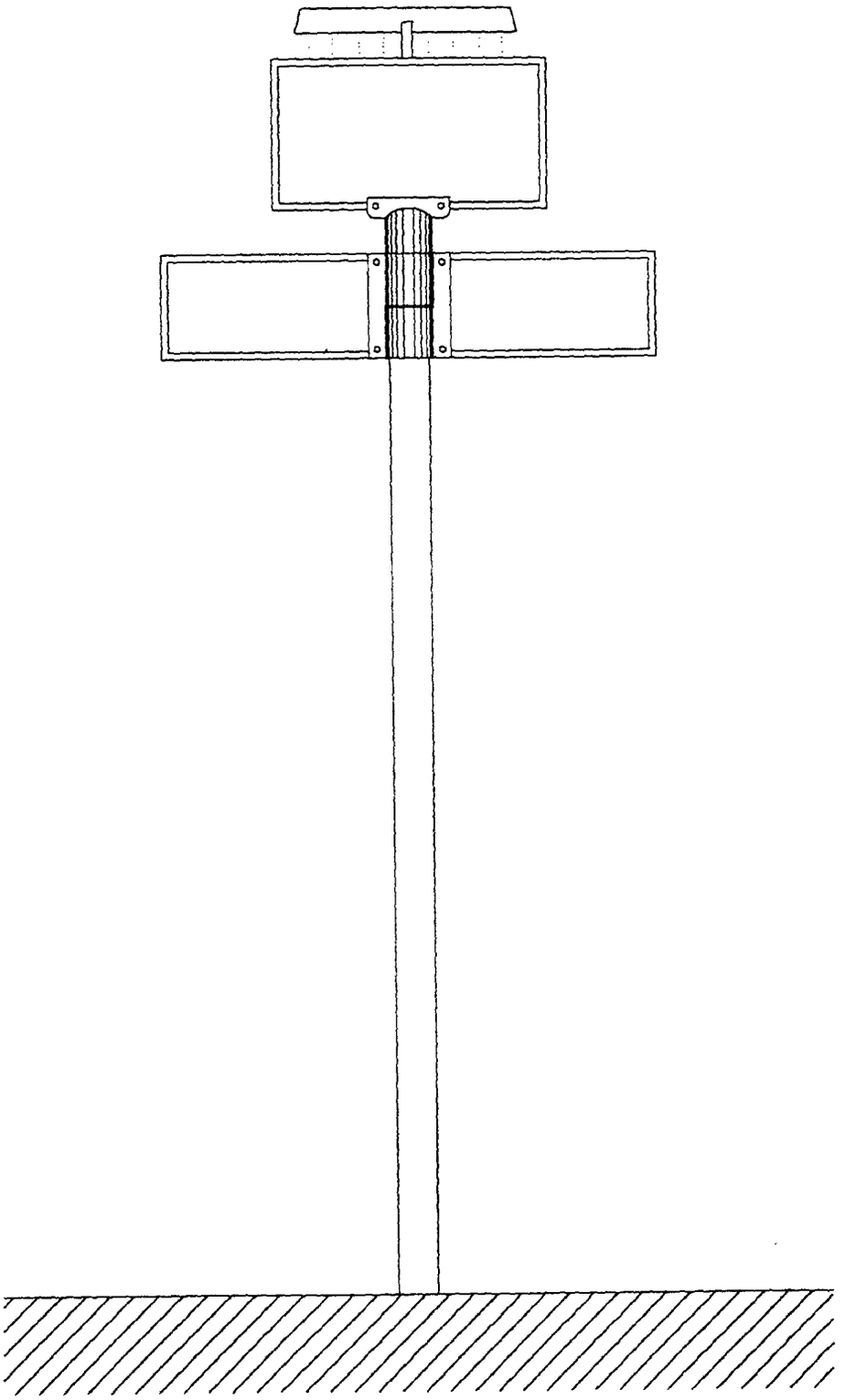

FIG. 7d

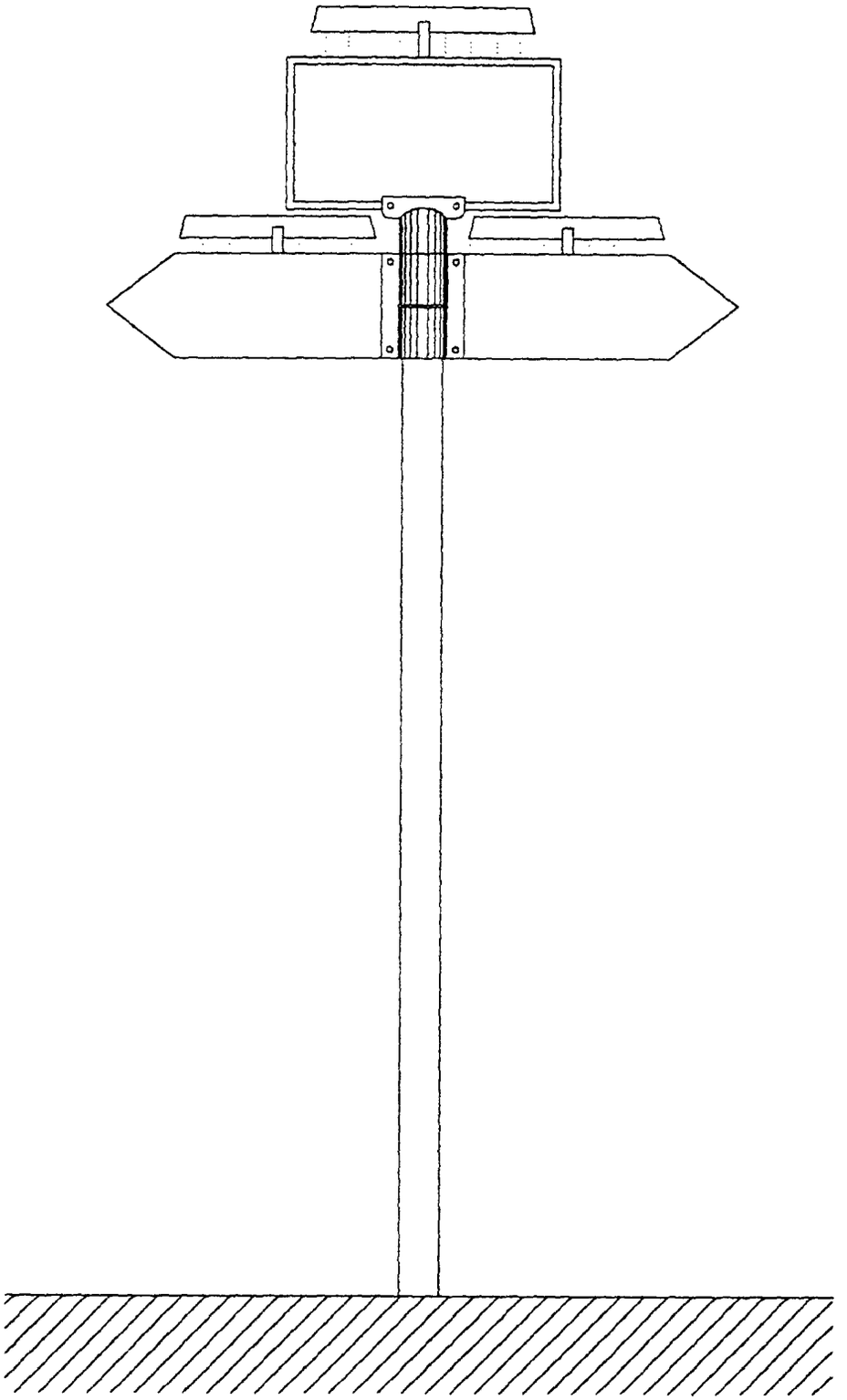

FIG. 7e

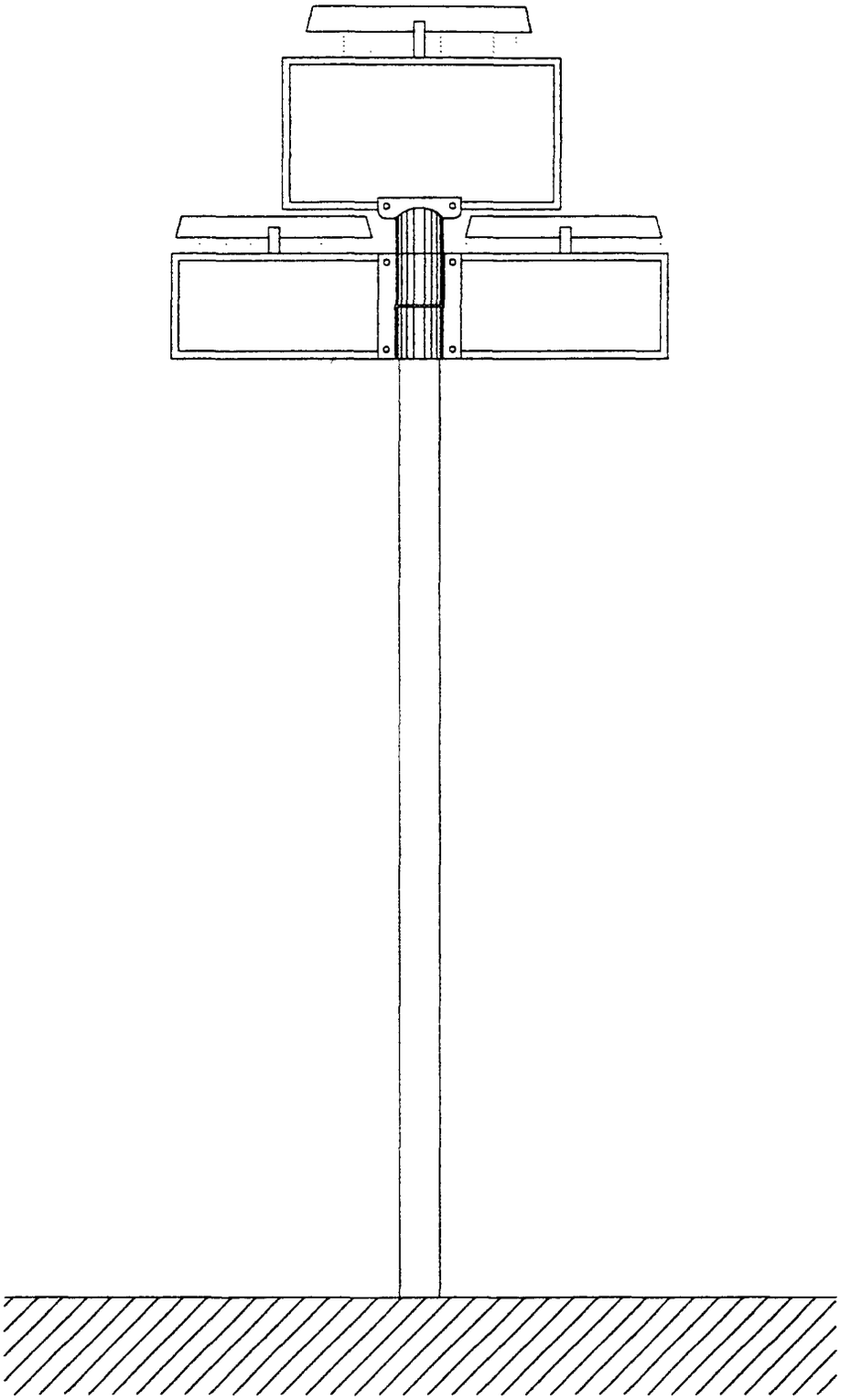

FIG. 7f

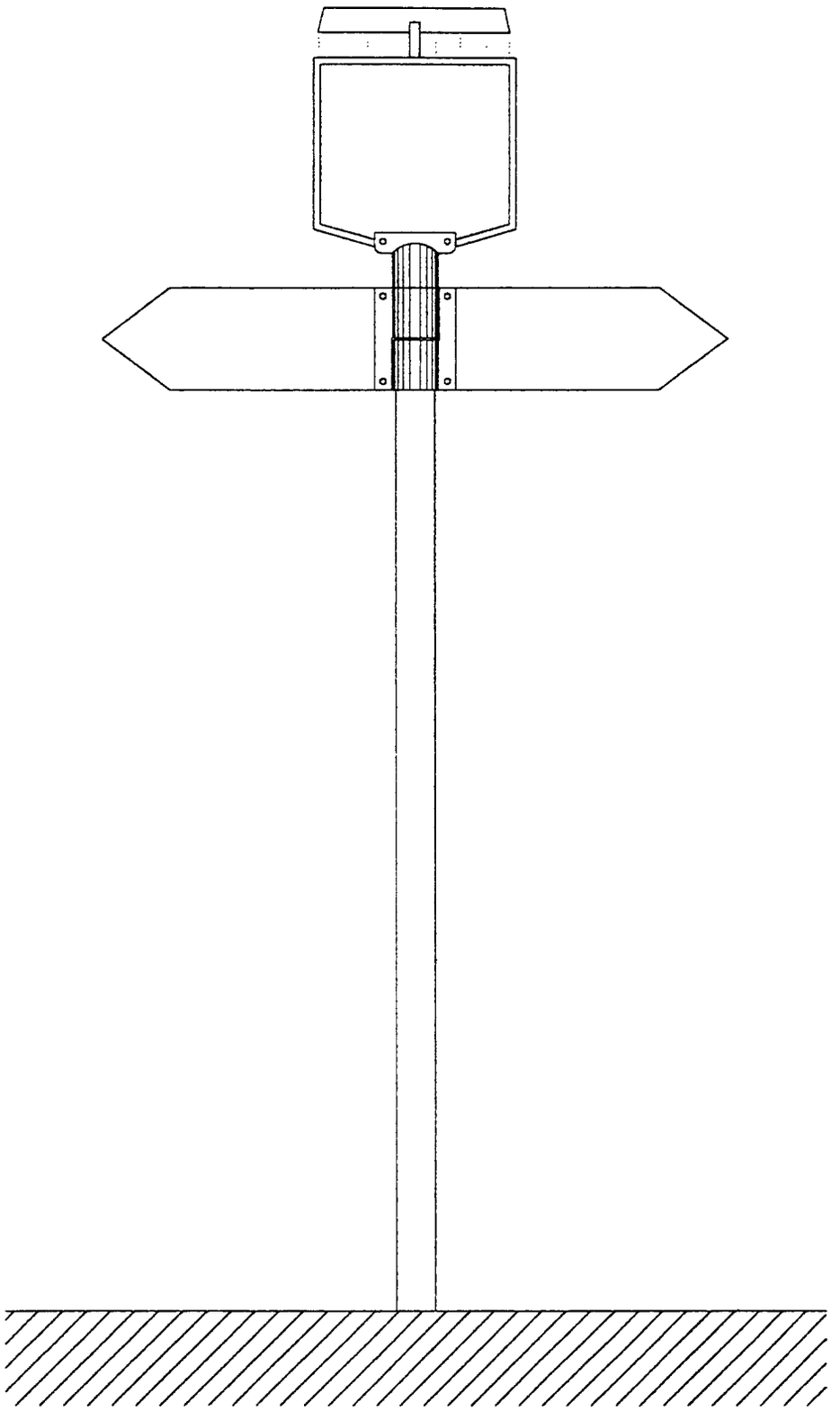

FIG. 8a

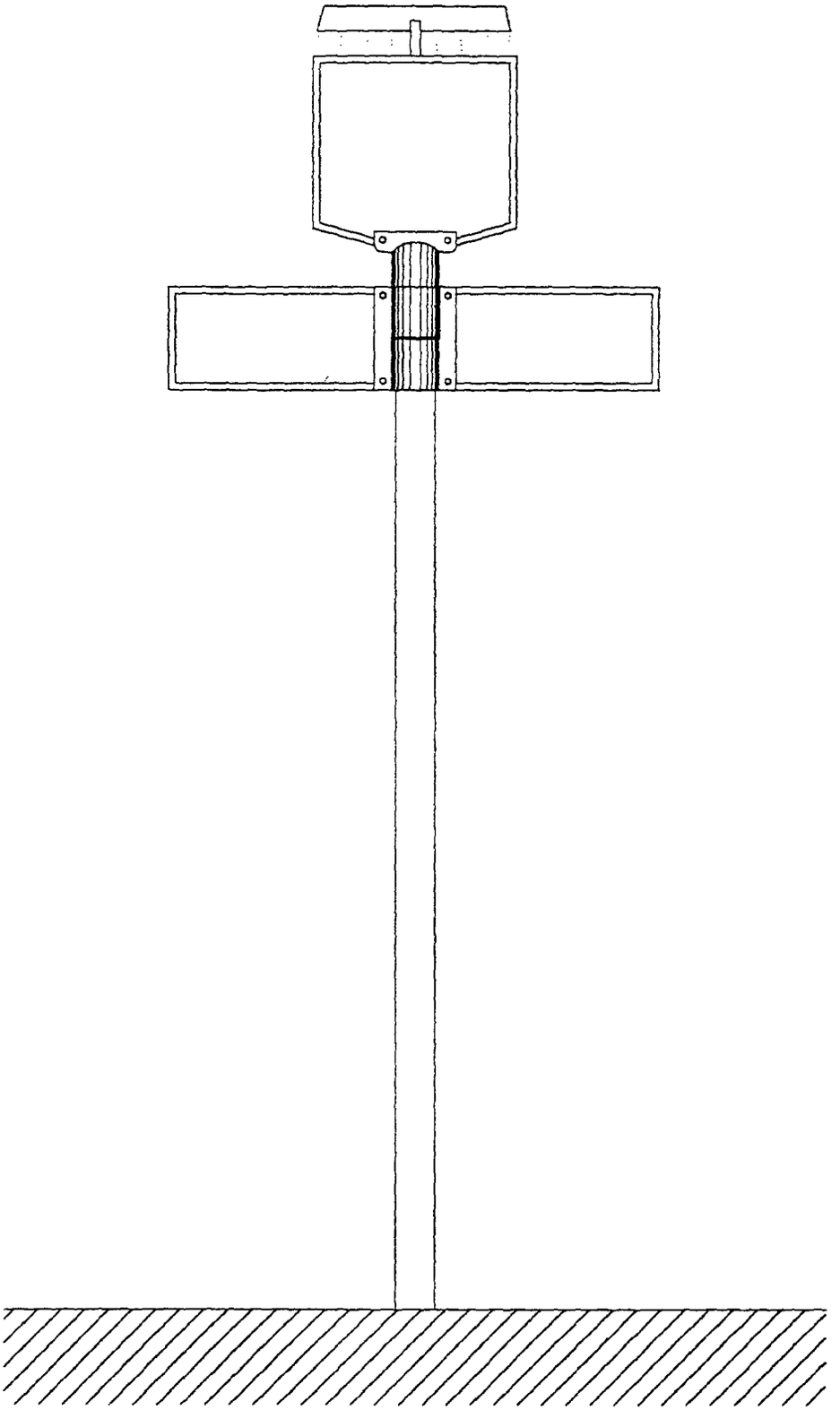

FIG. 8b

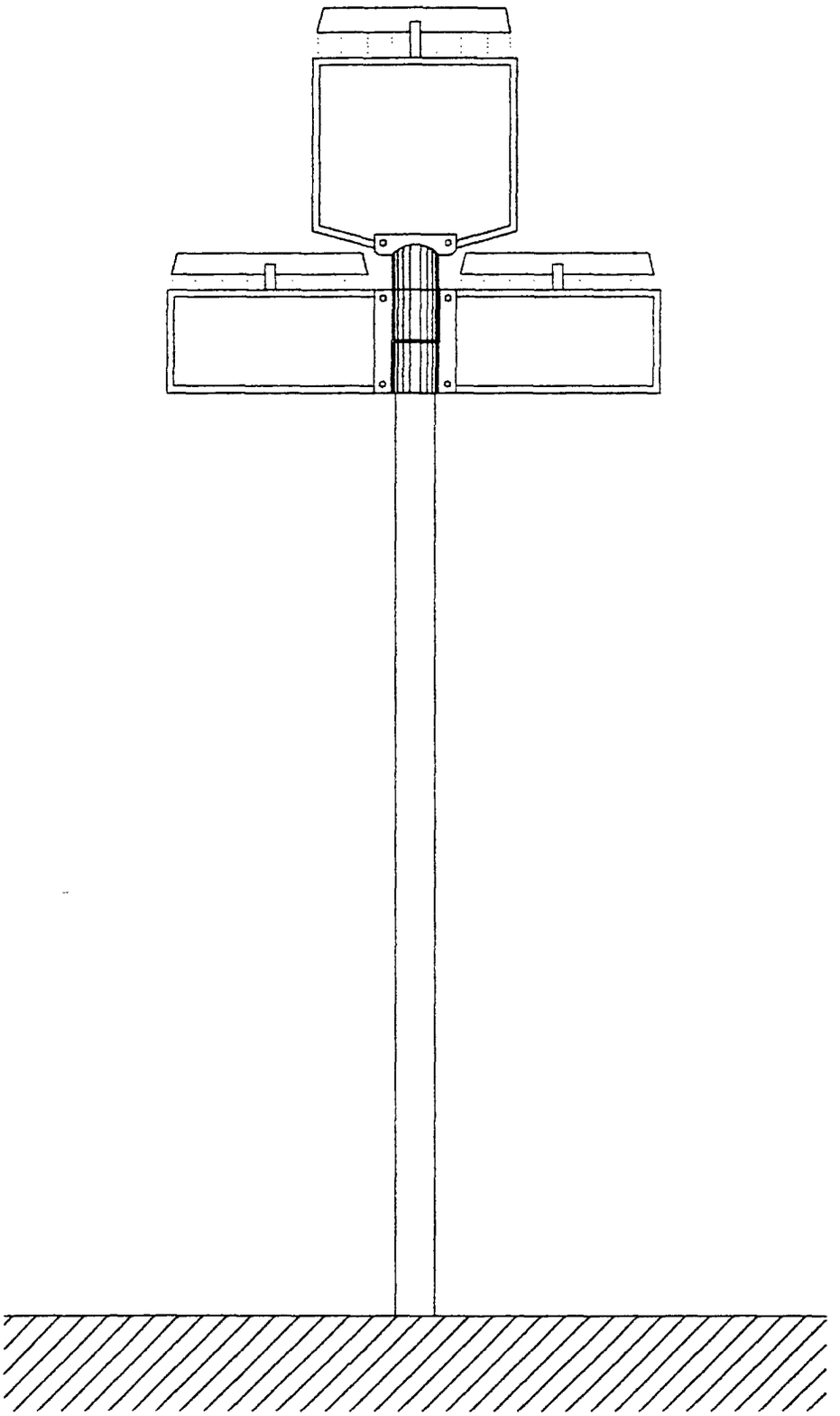

FIG. 8c

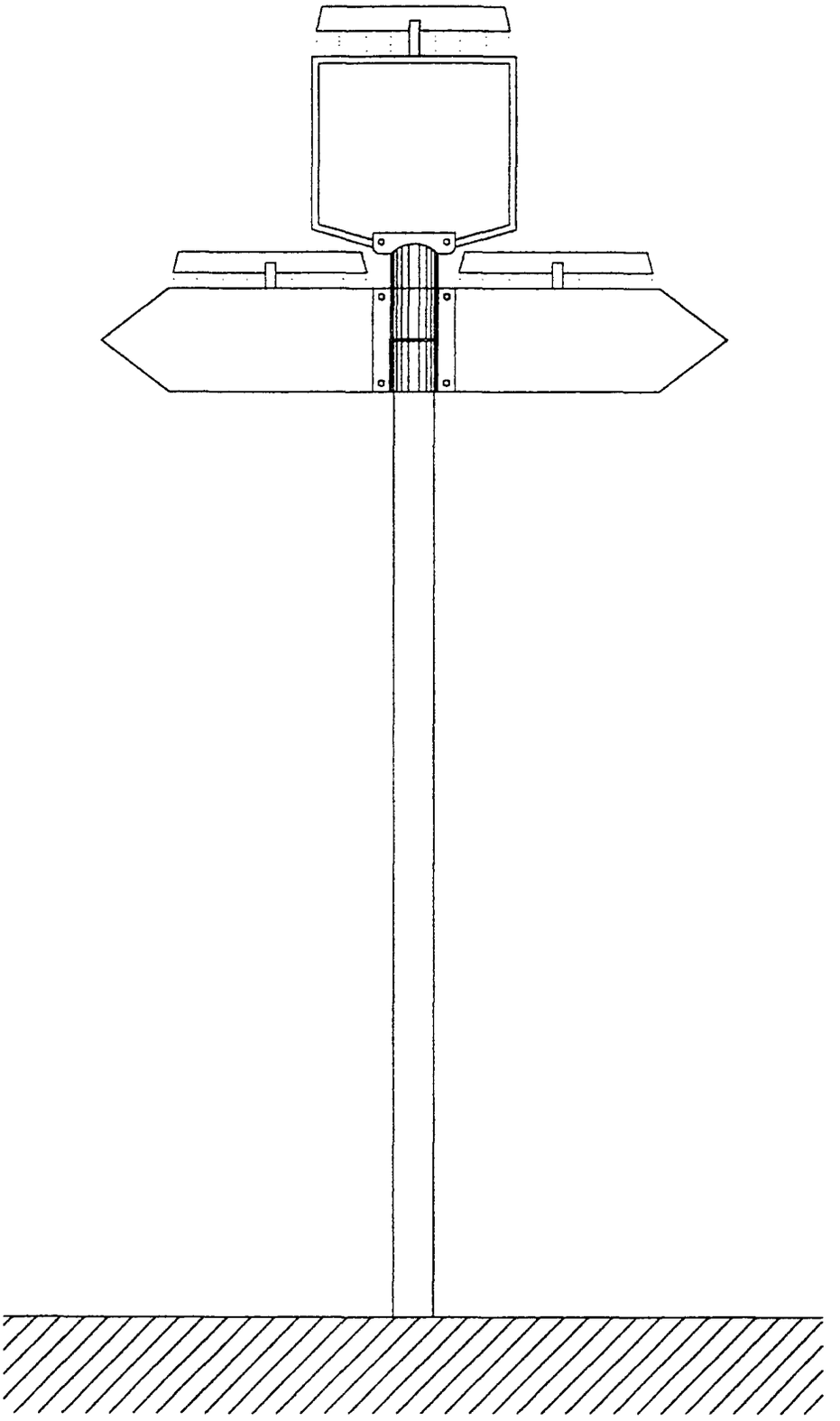

FIG. 8d

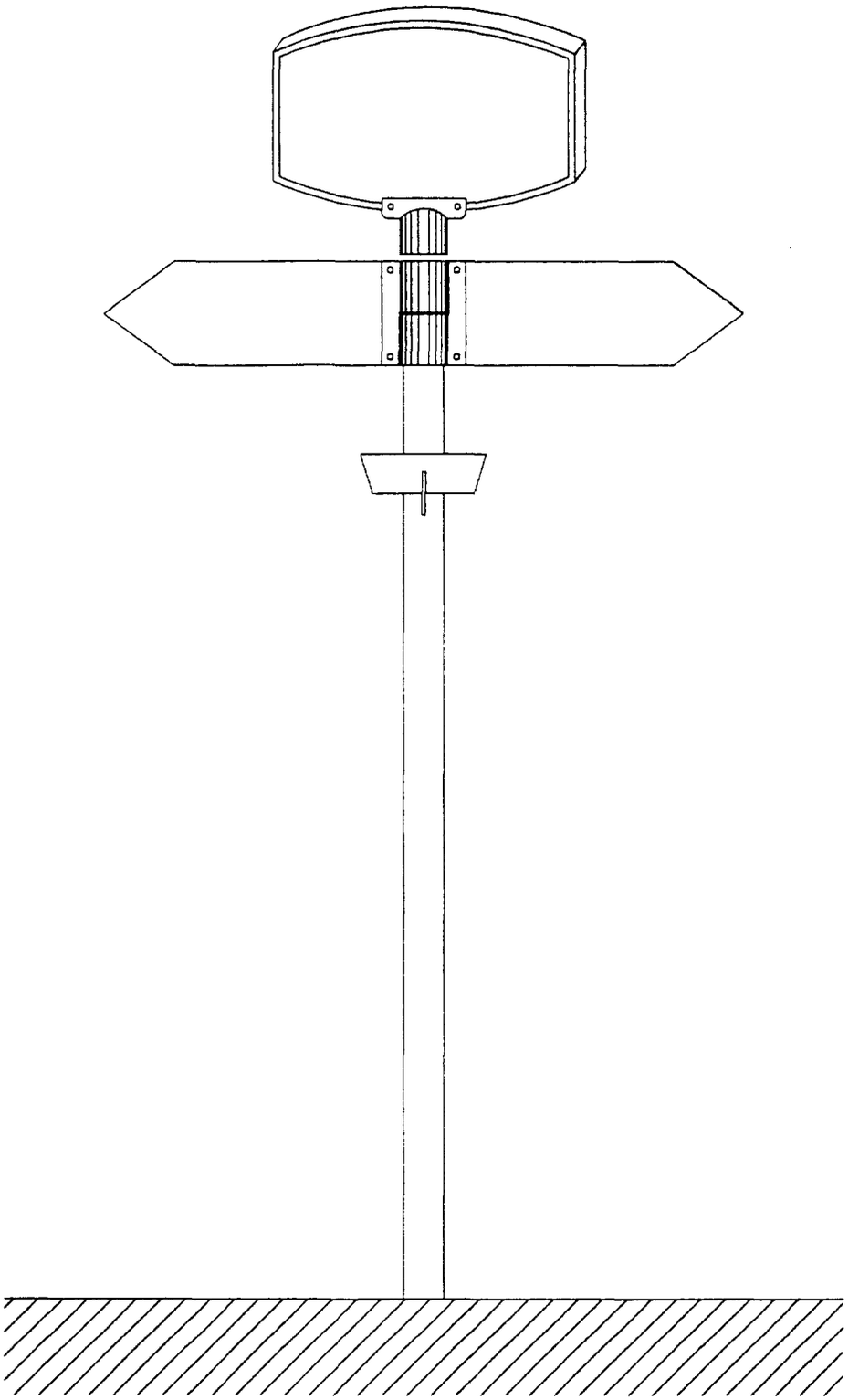

FIG. 9a

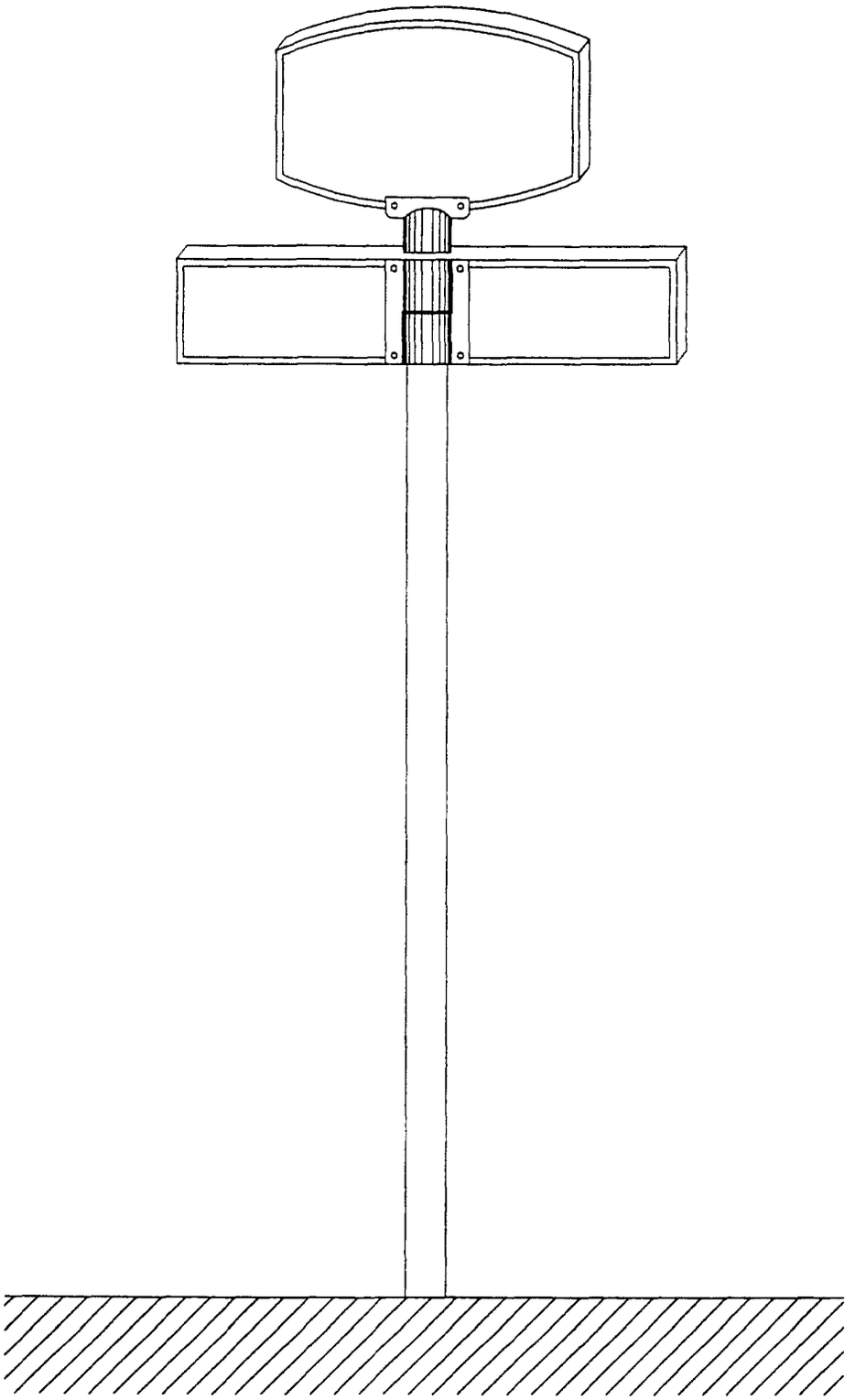

FIG. 9b

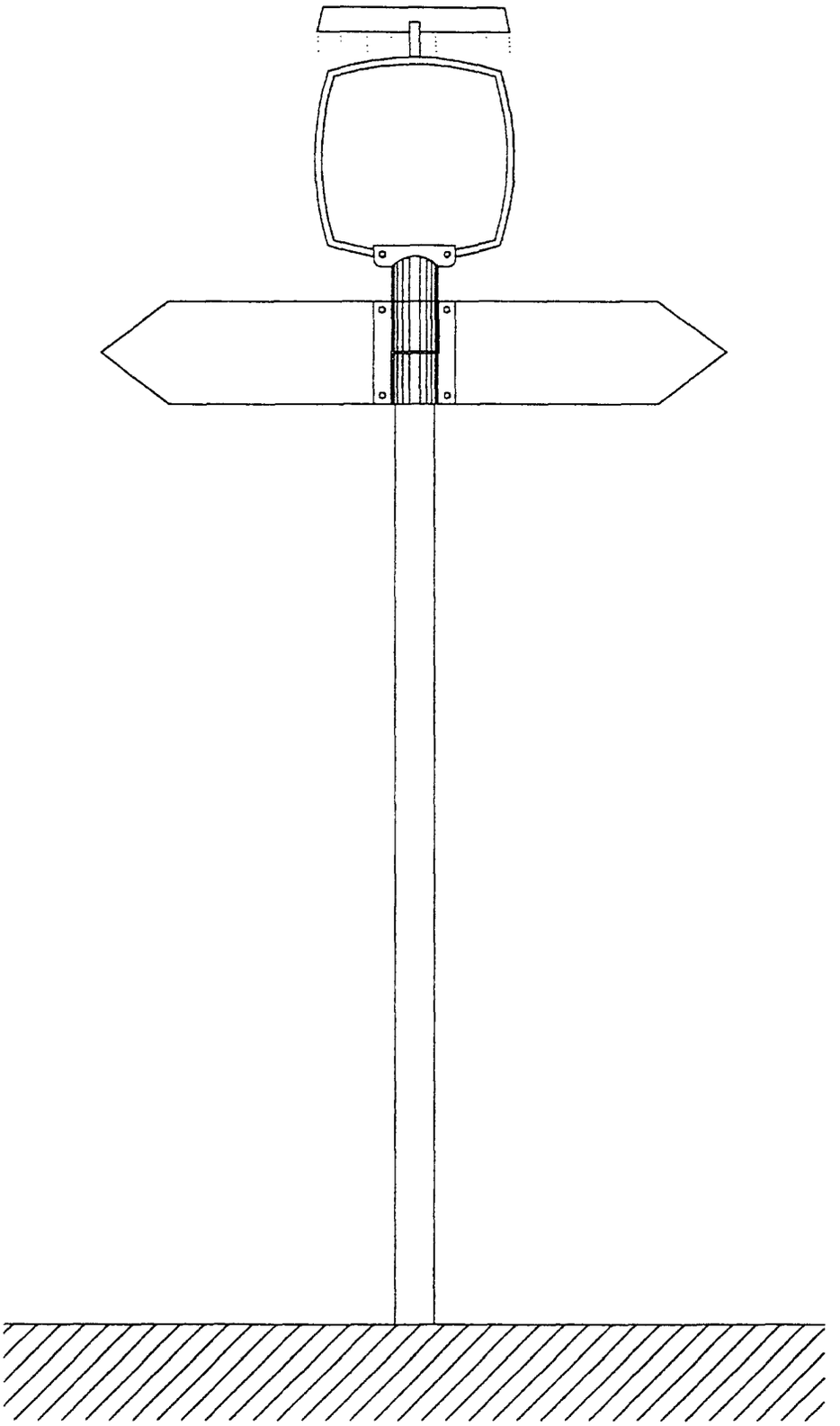

FIG. 10a

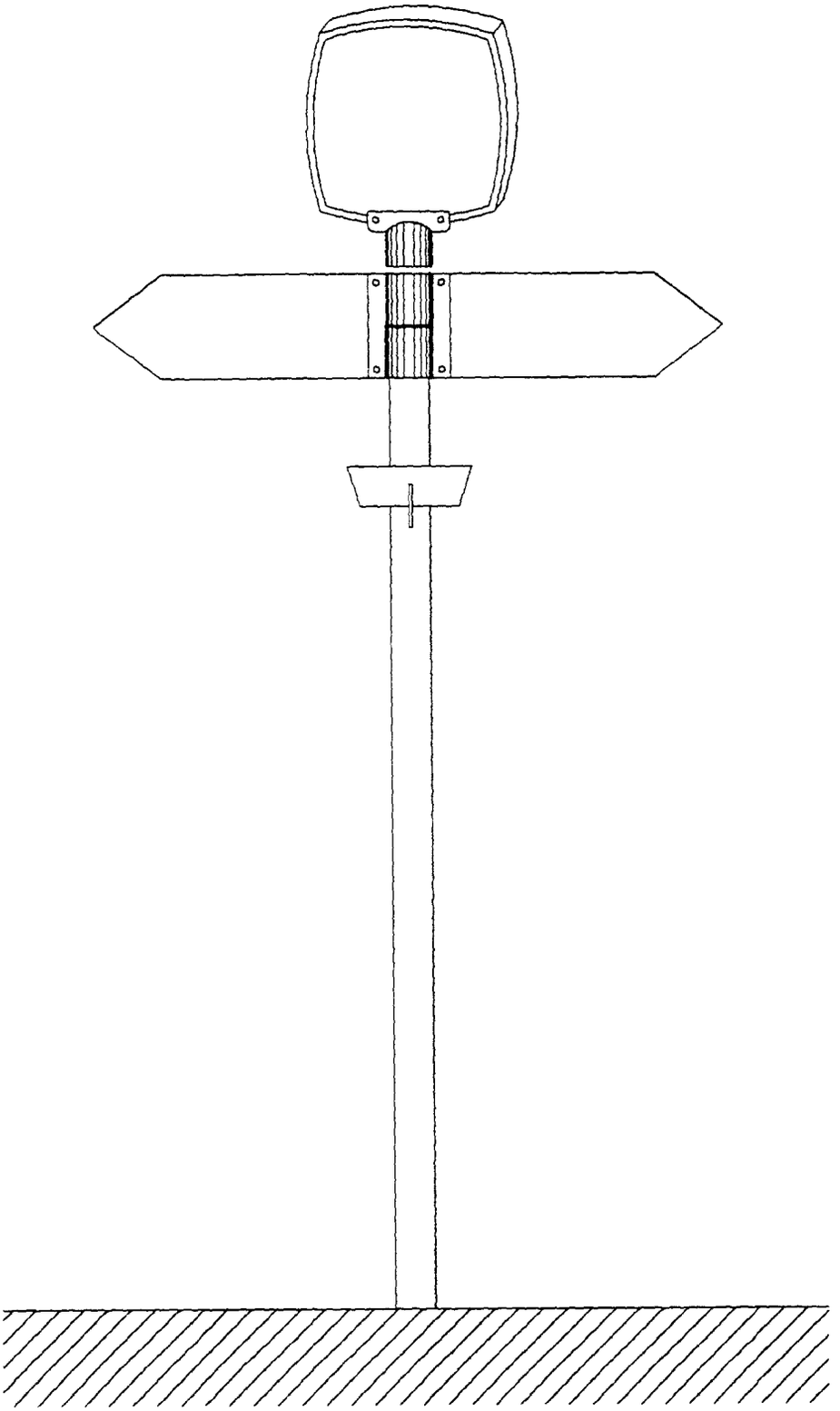

FIG. 10b

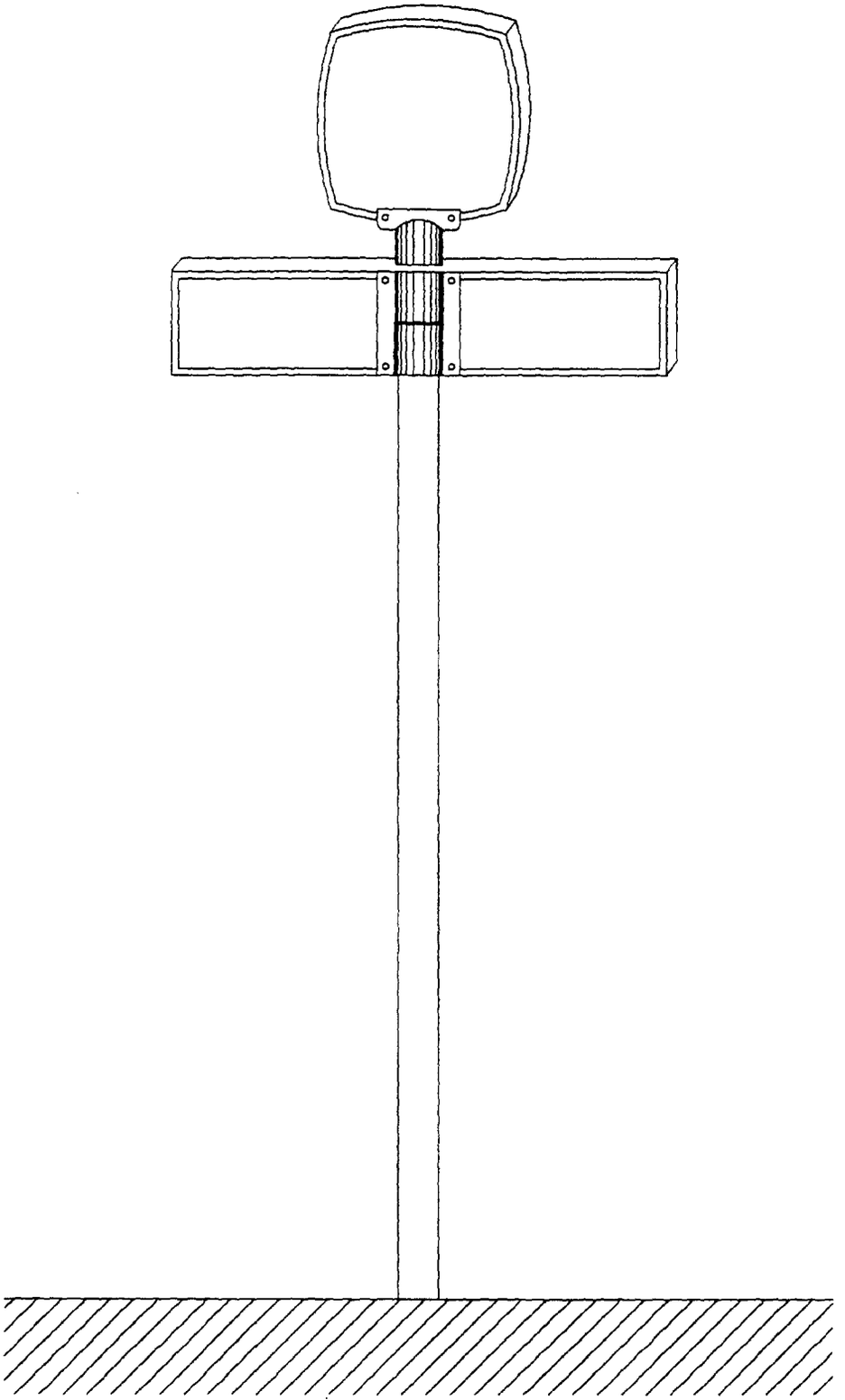

FIG. 10c

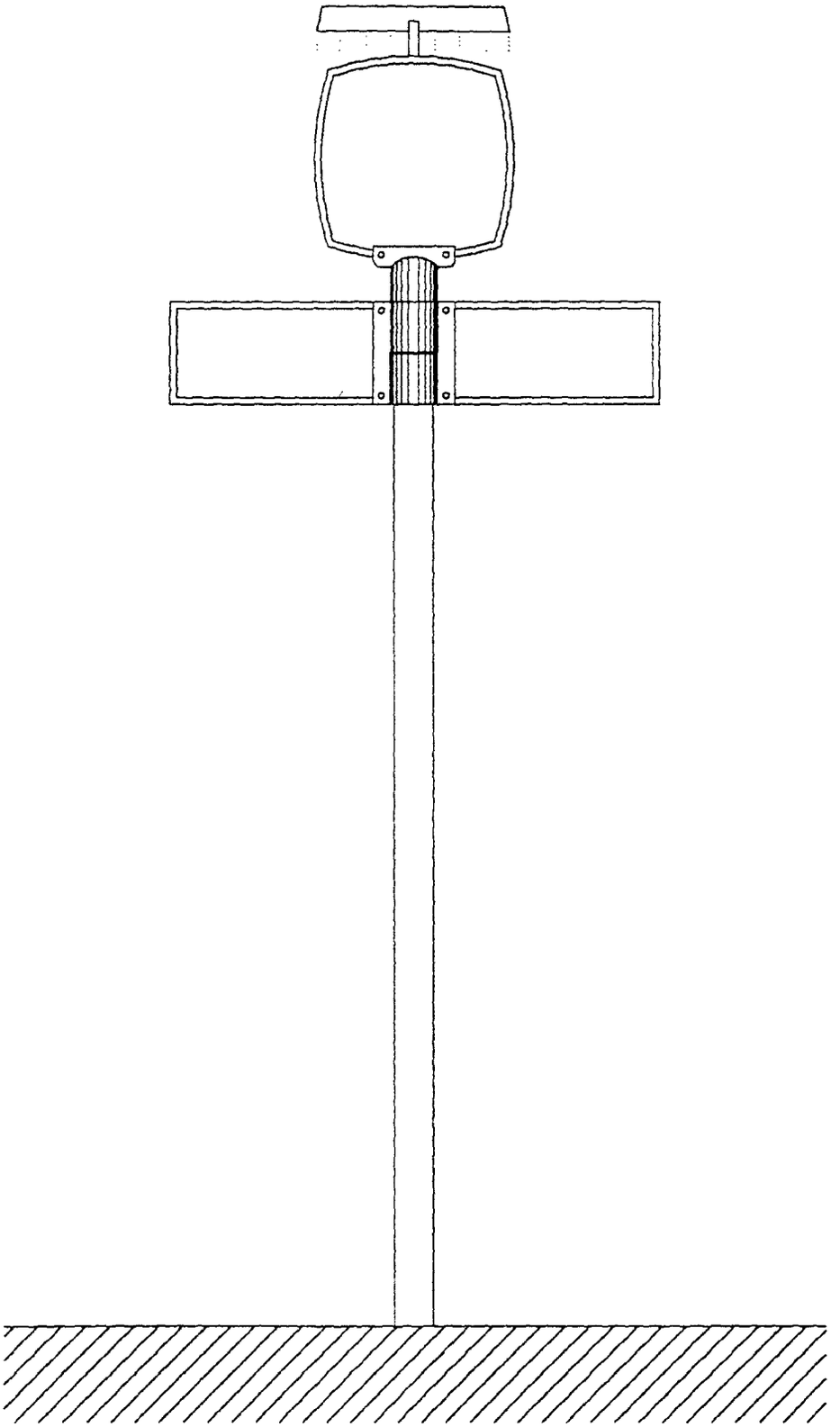

FIG. 10d

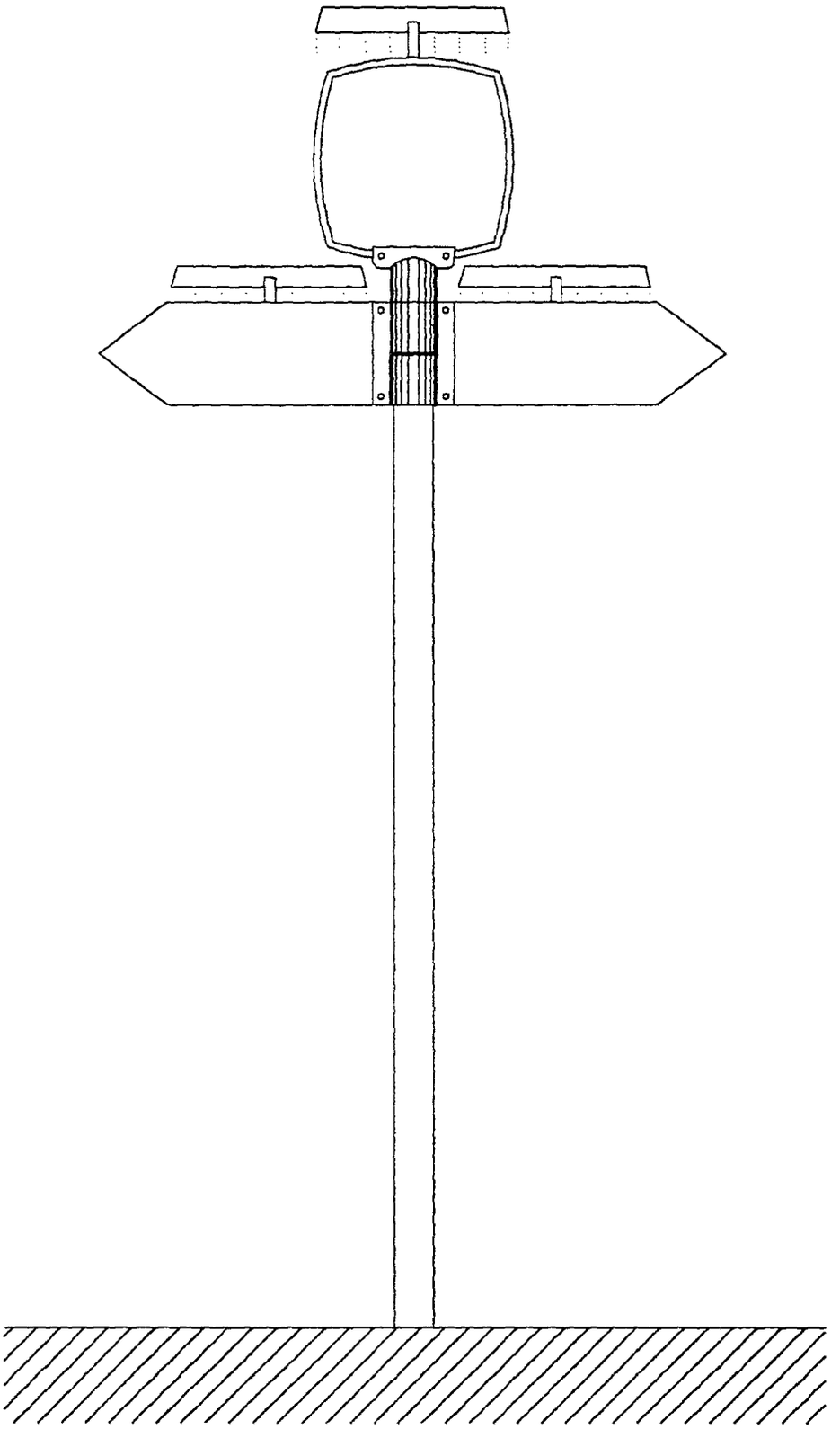

FIG. 10e

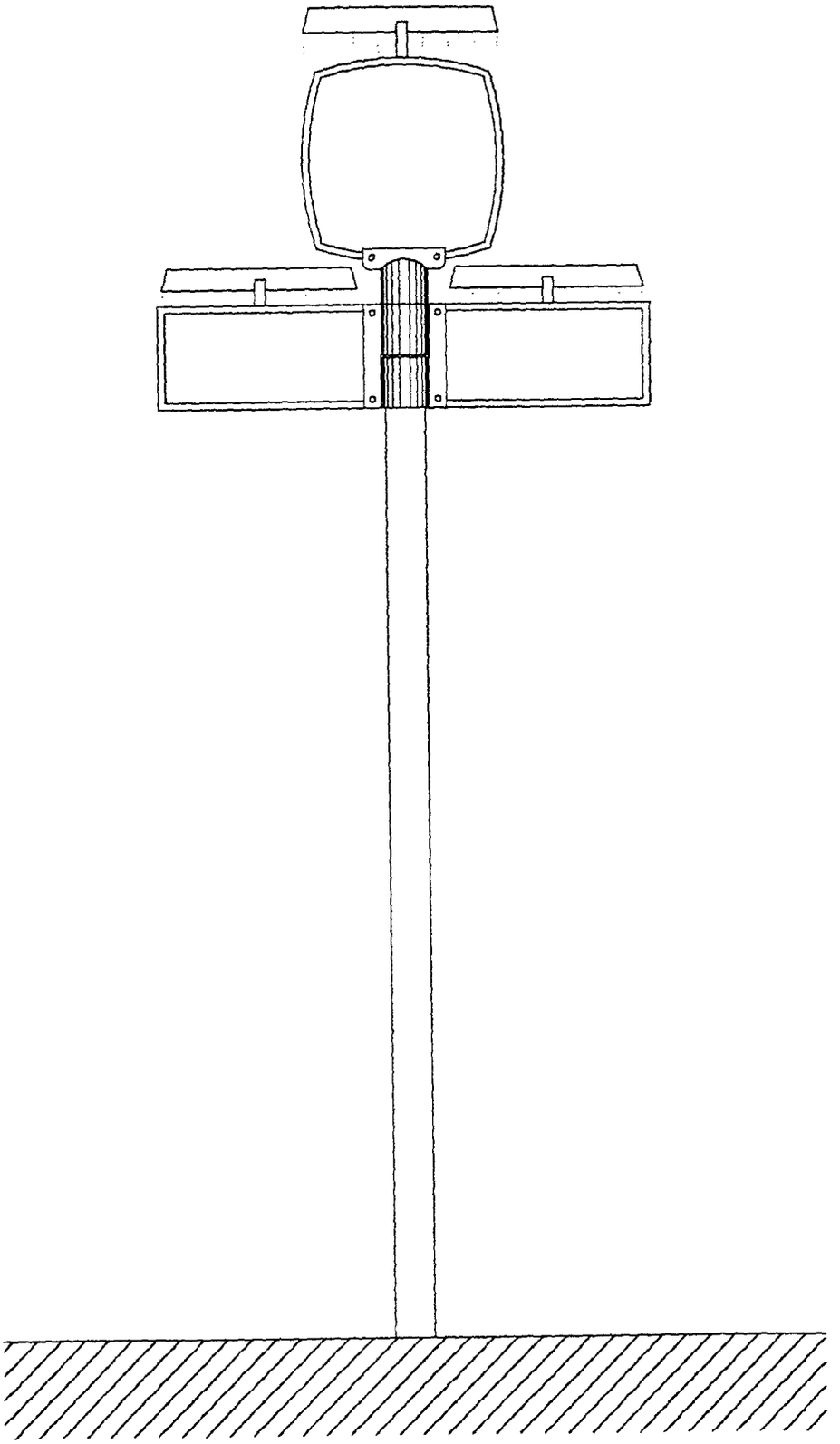

FIG. 10f

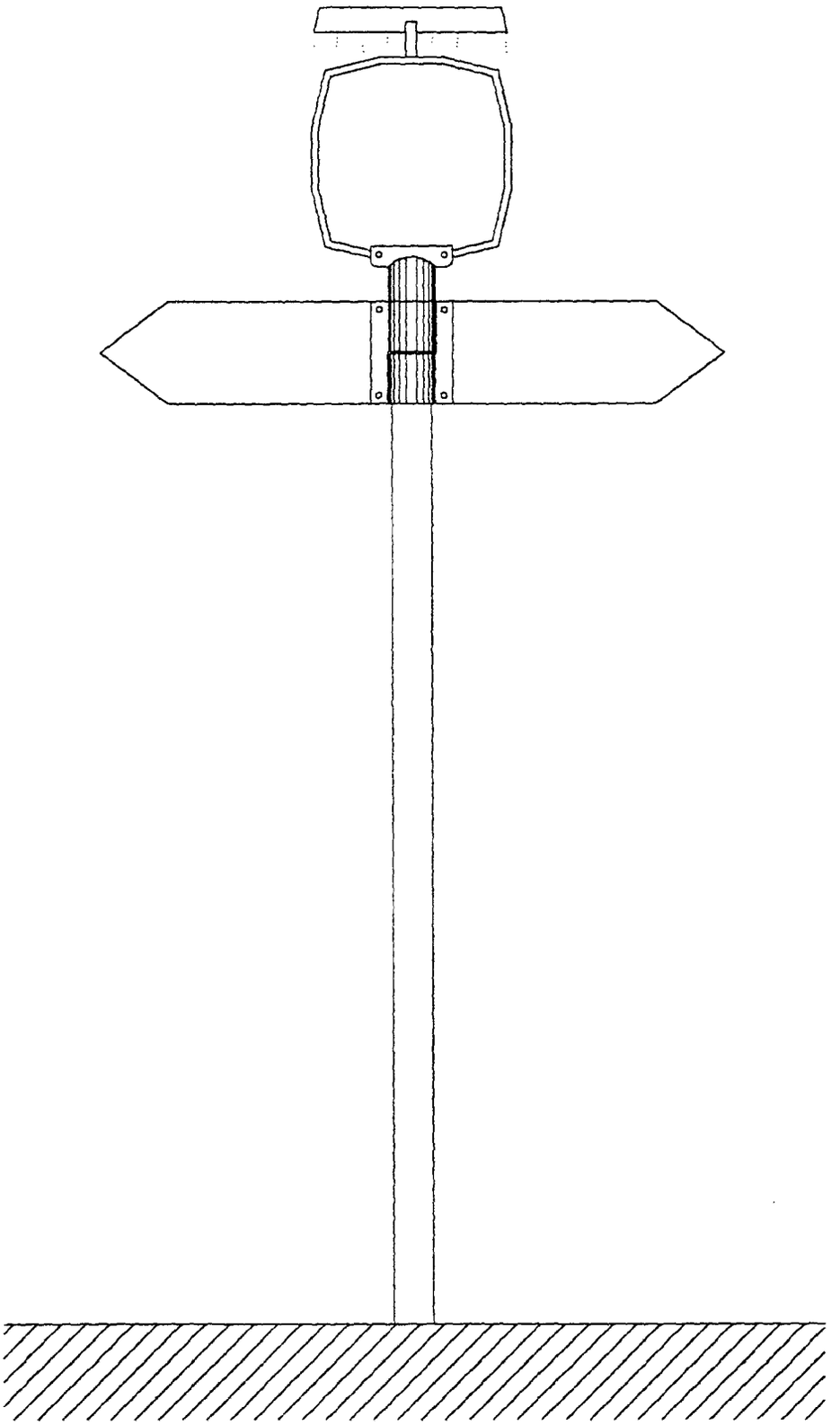

FIG. 11a

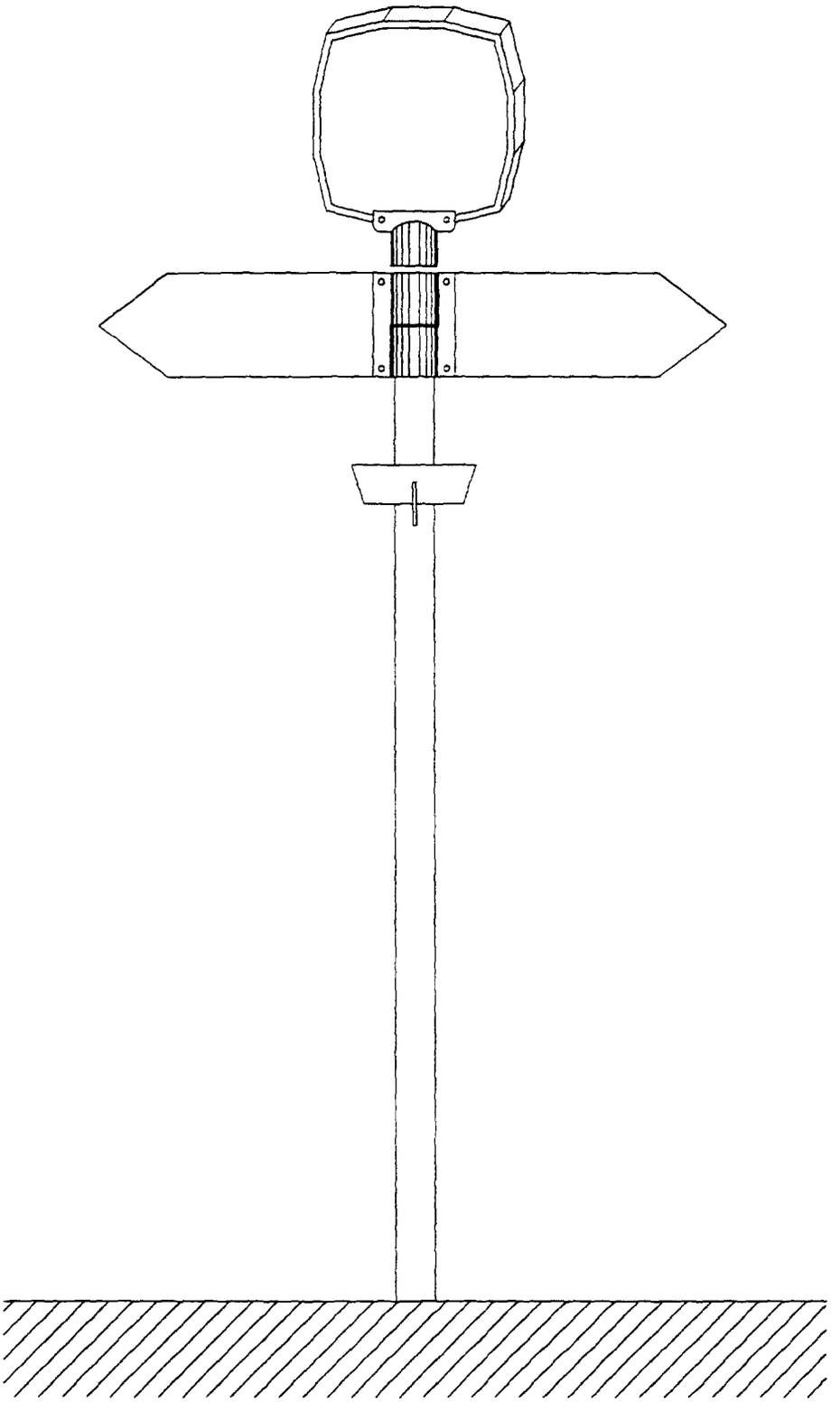

FIG. 11b

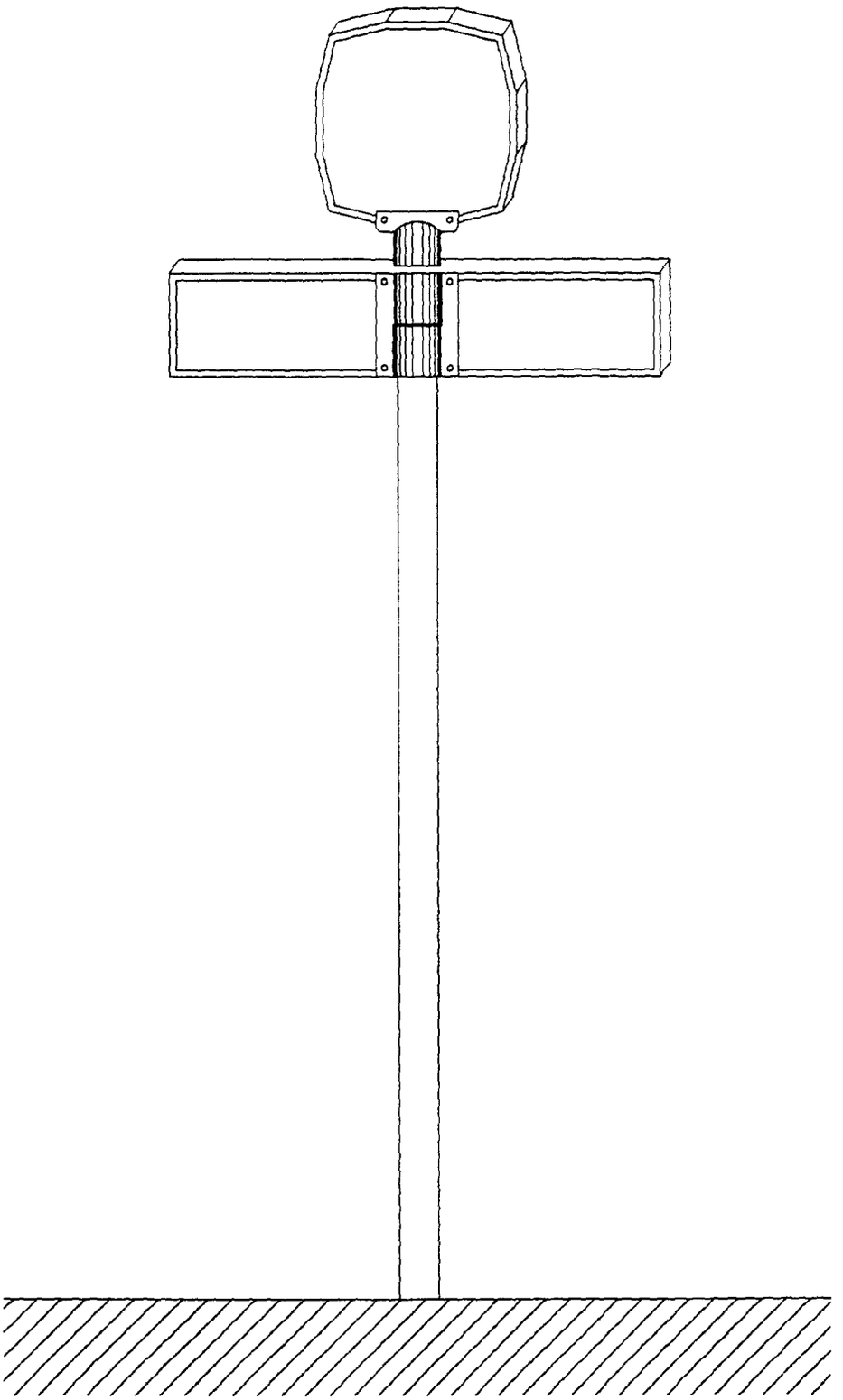

FIG. 11c

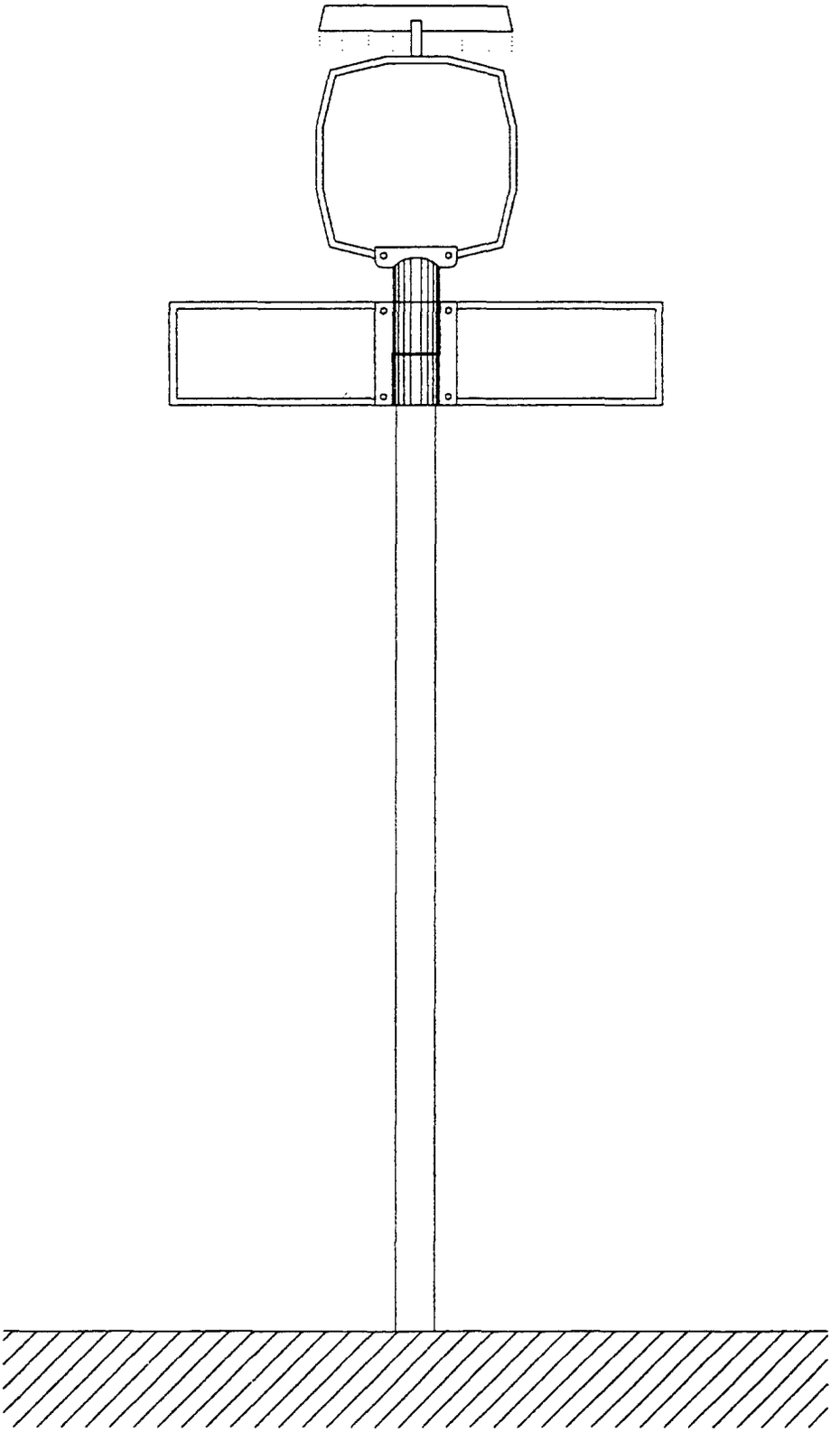

FIG. 11d

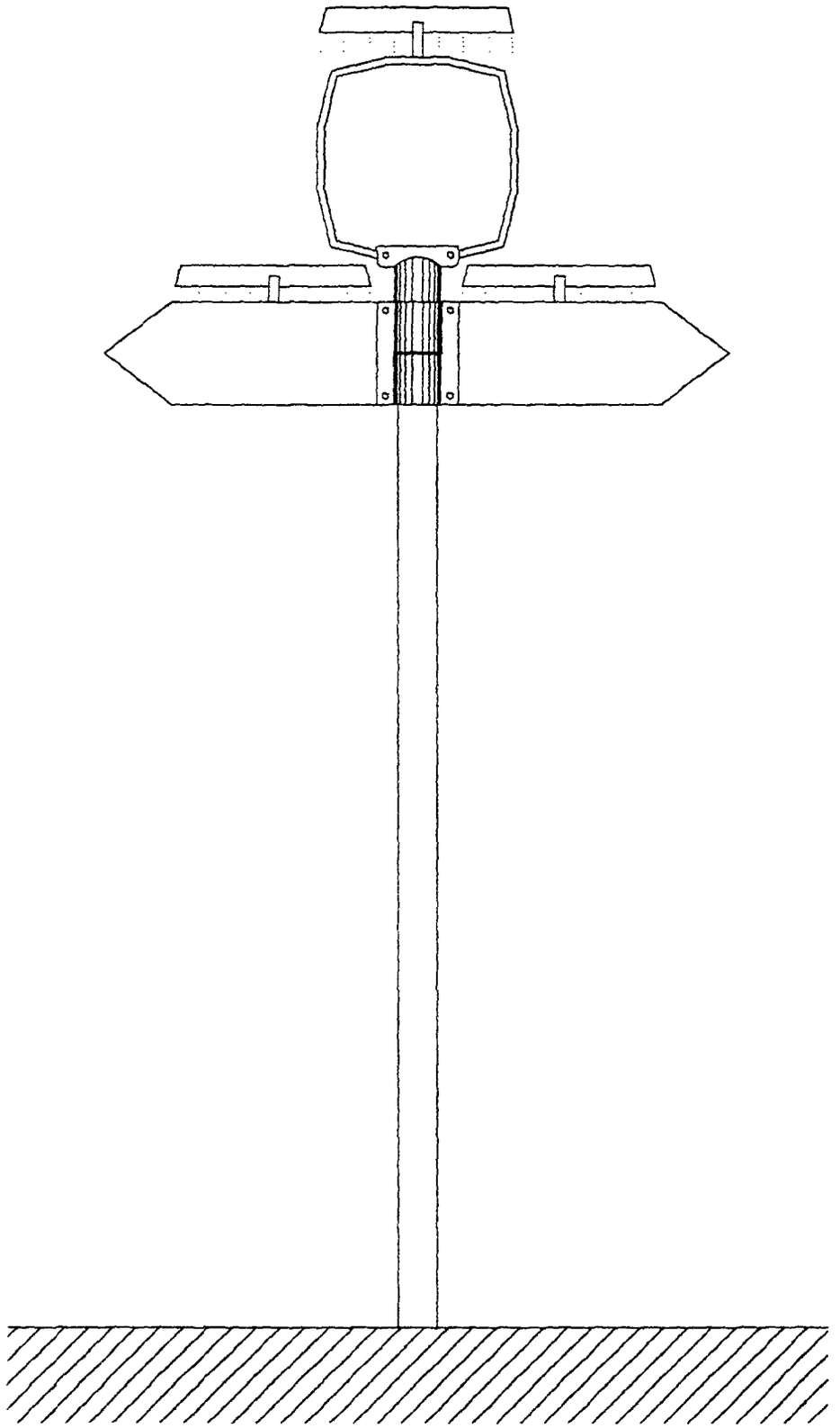

FIG. 11e

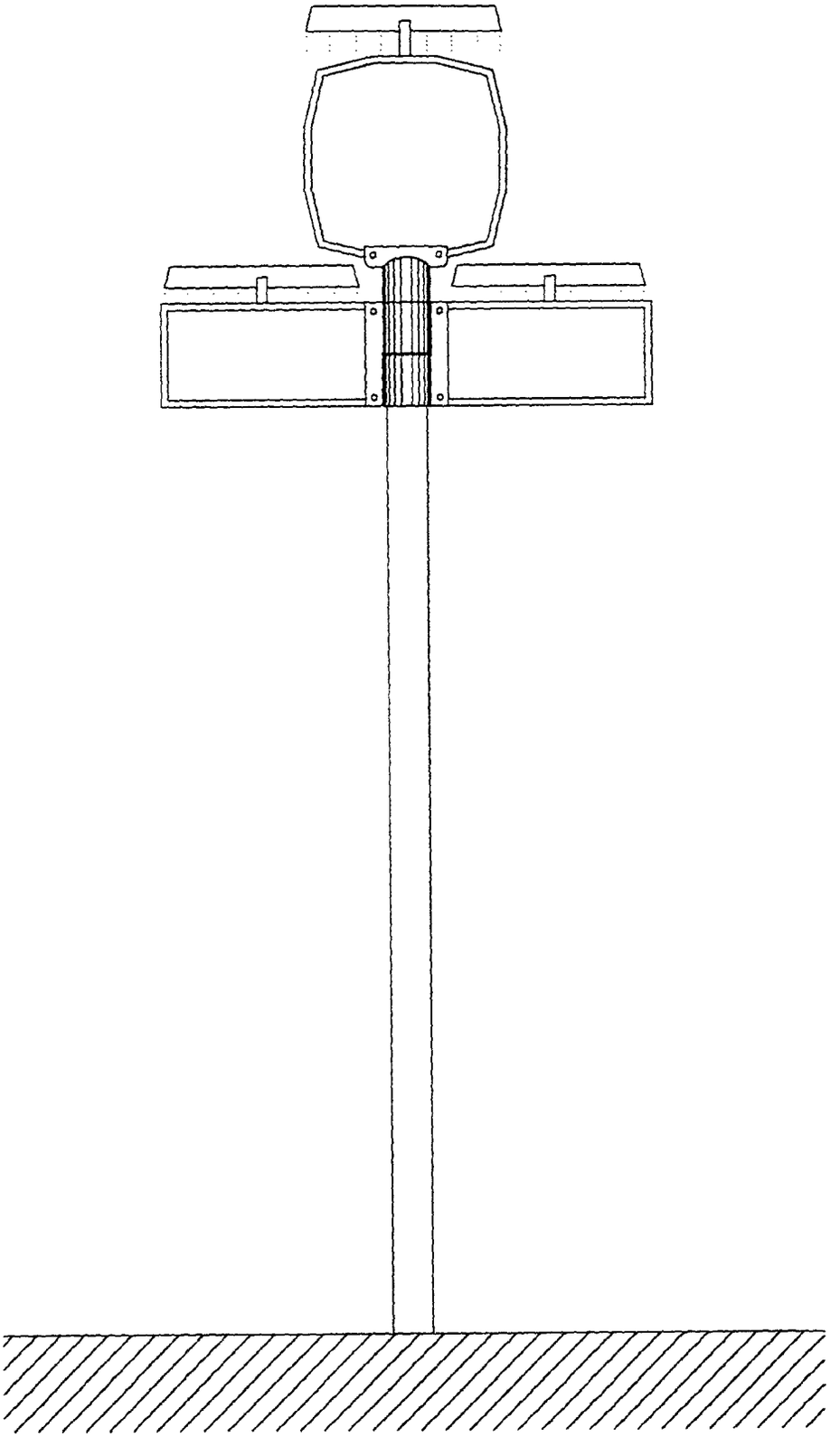

FIG. 11f

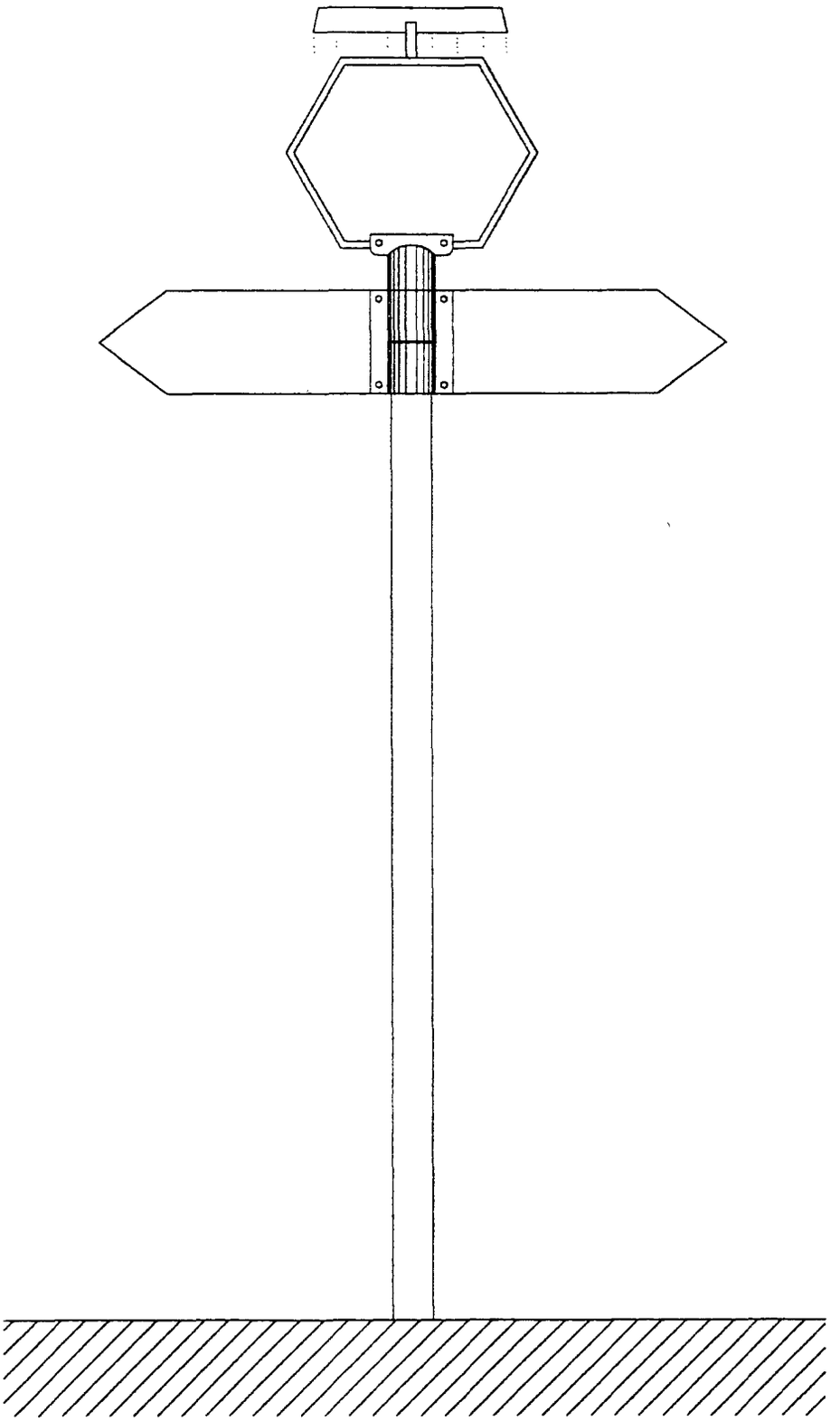

FIG. 12a

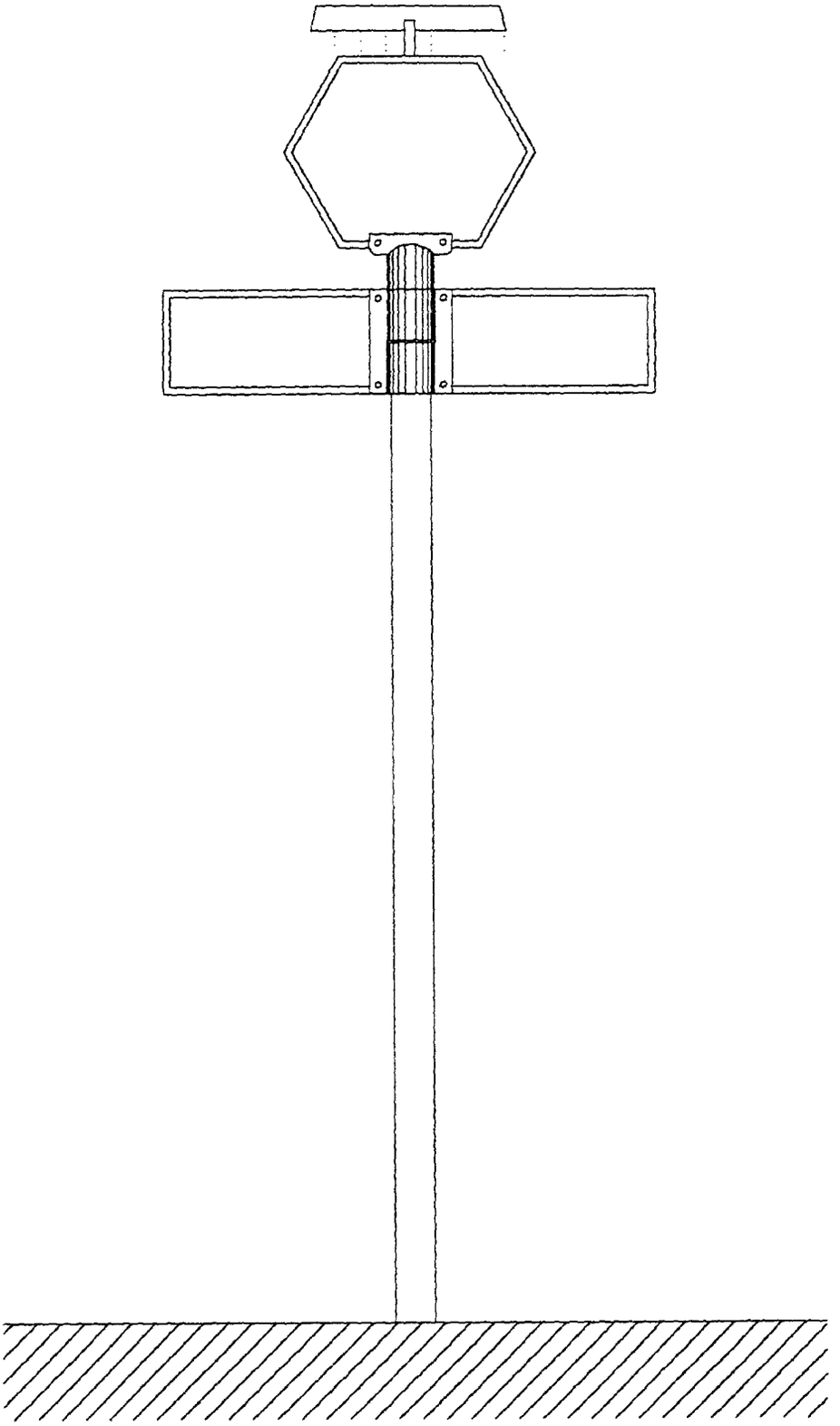

FIG. 12b

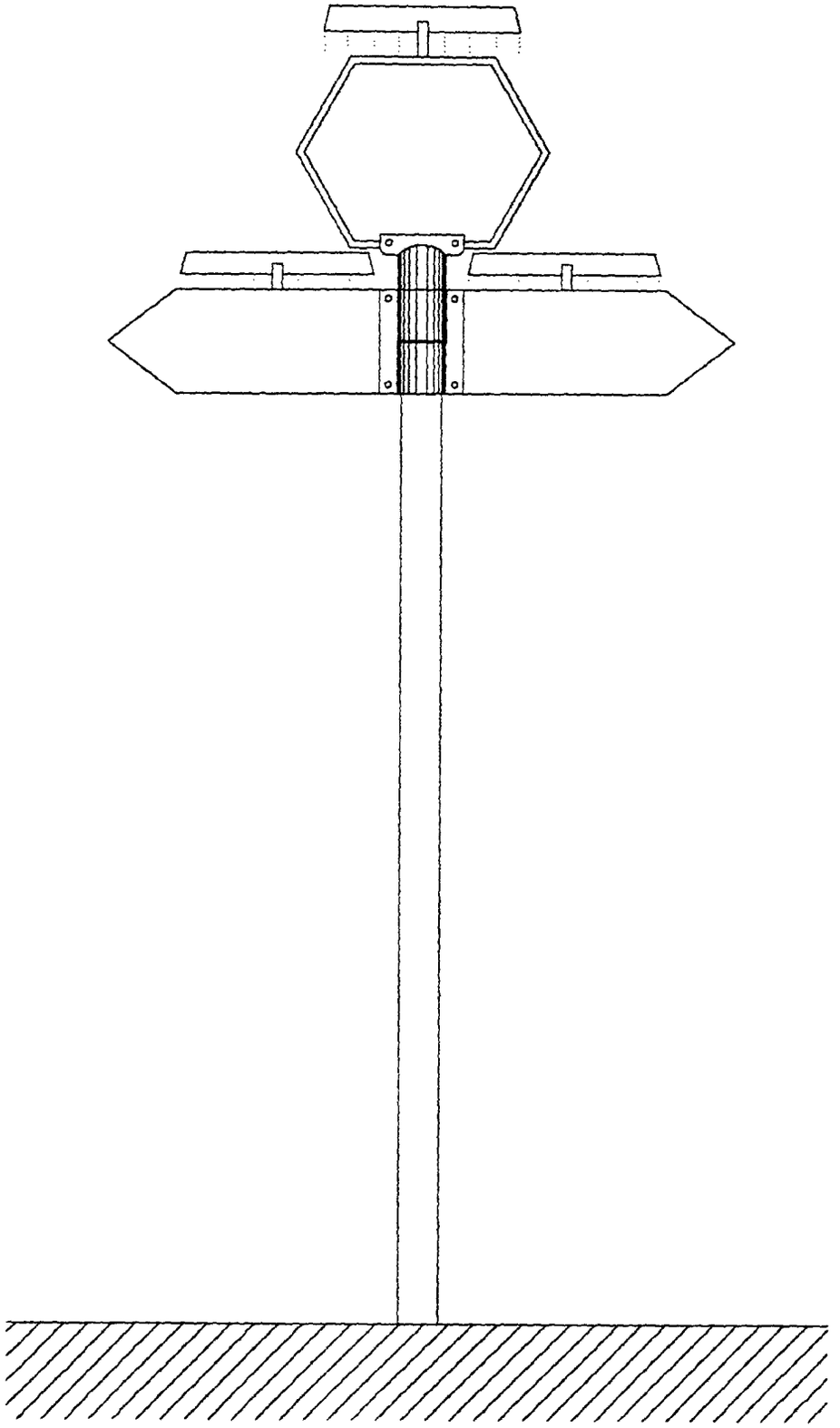

FIG. 12c

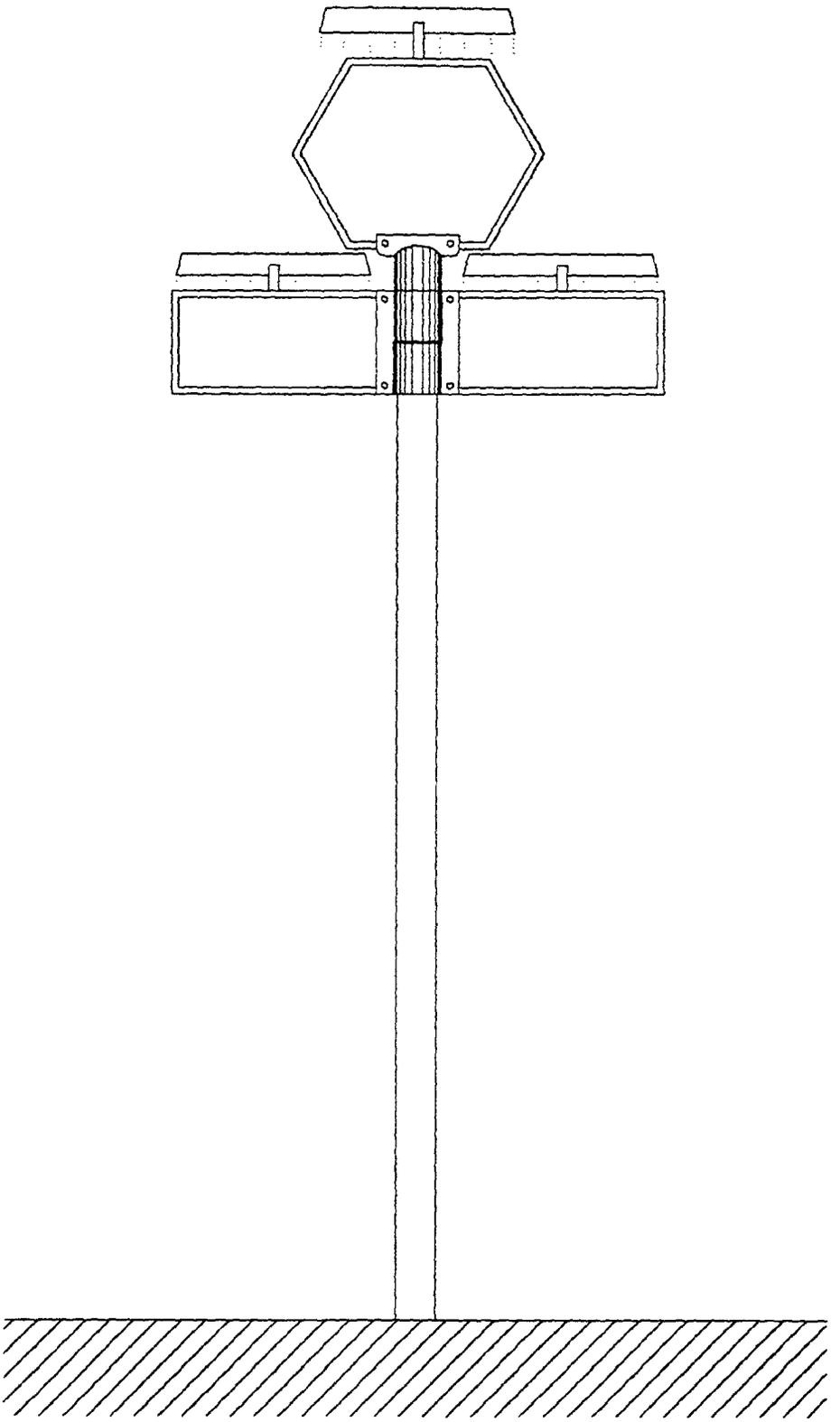

FIG. 12d

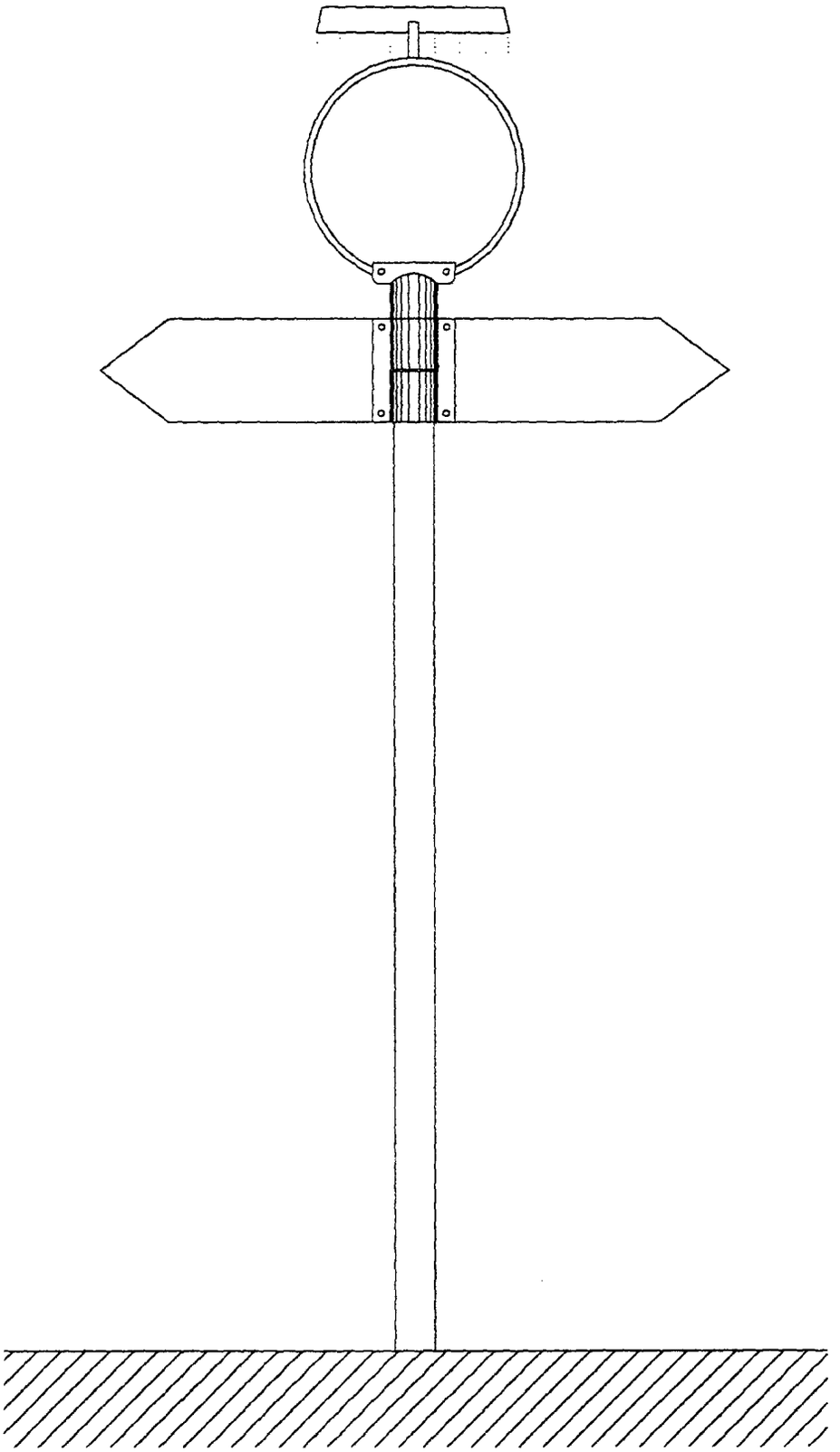

FIG. 13a

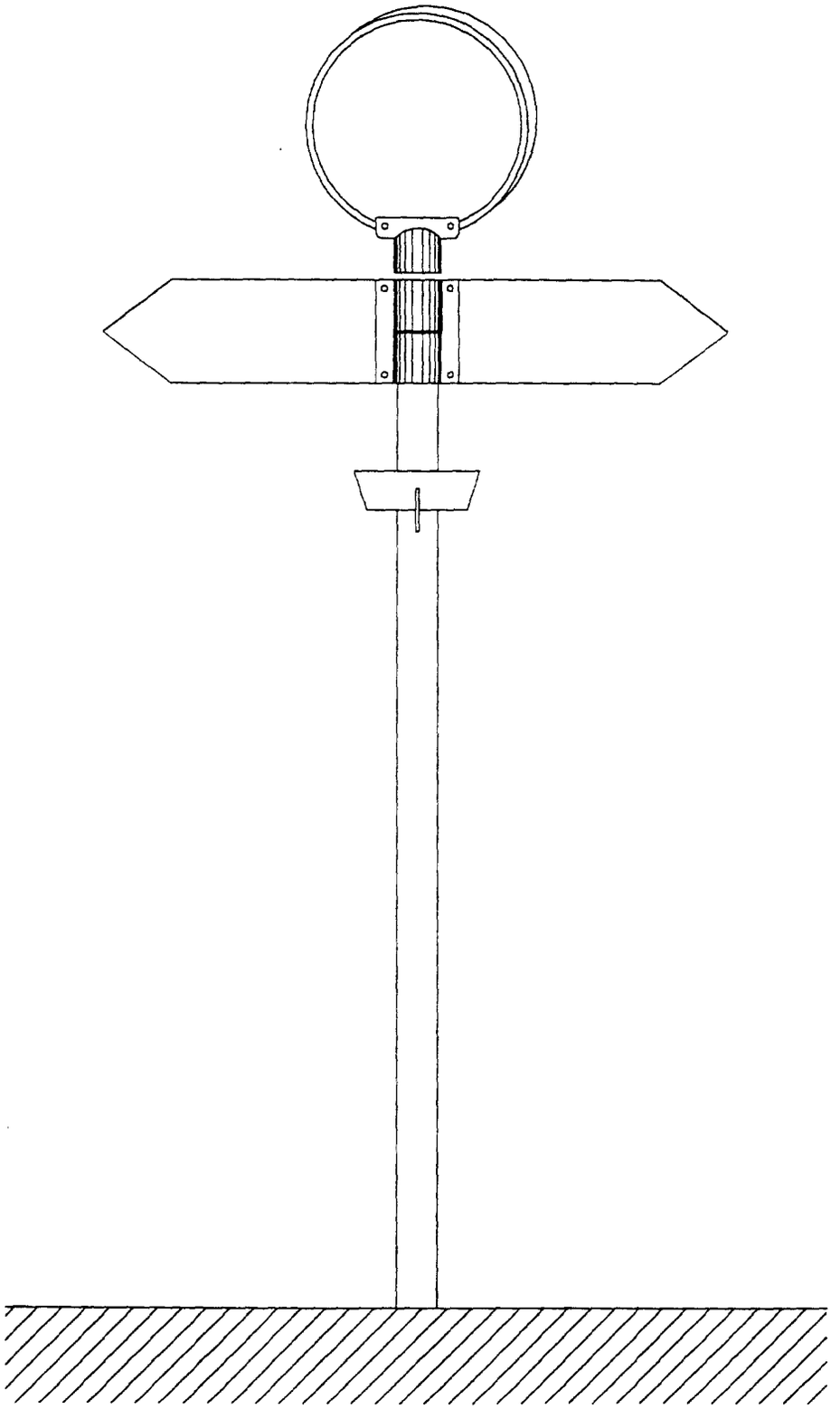

FIG. 13b

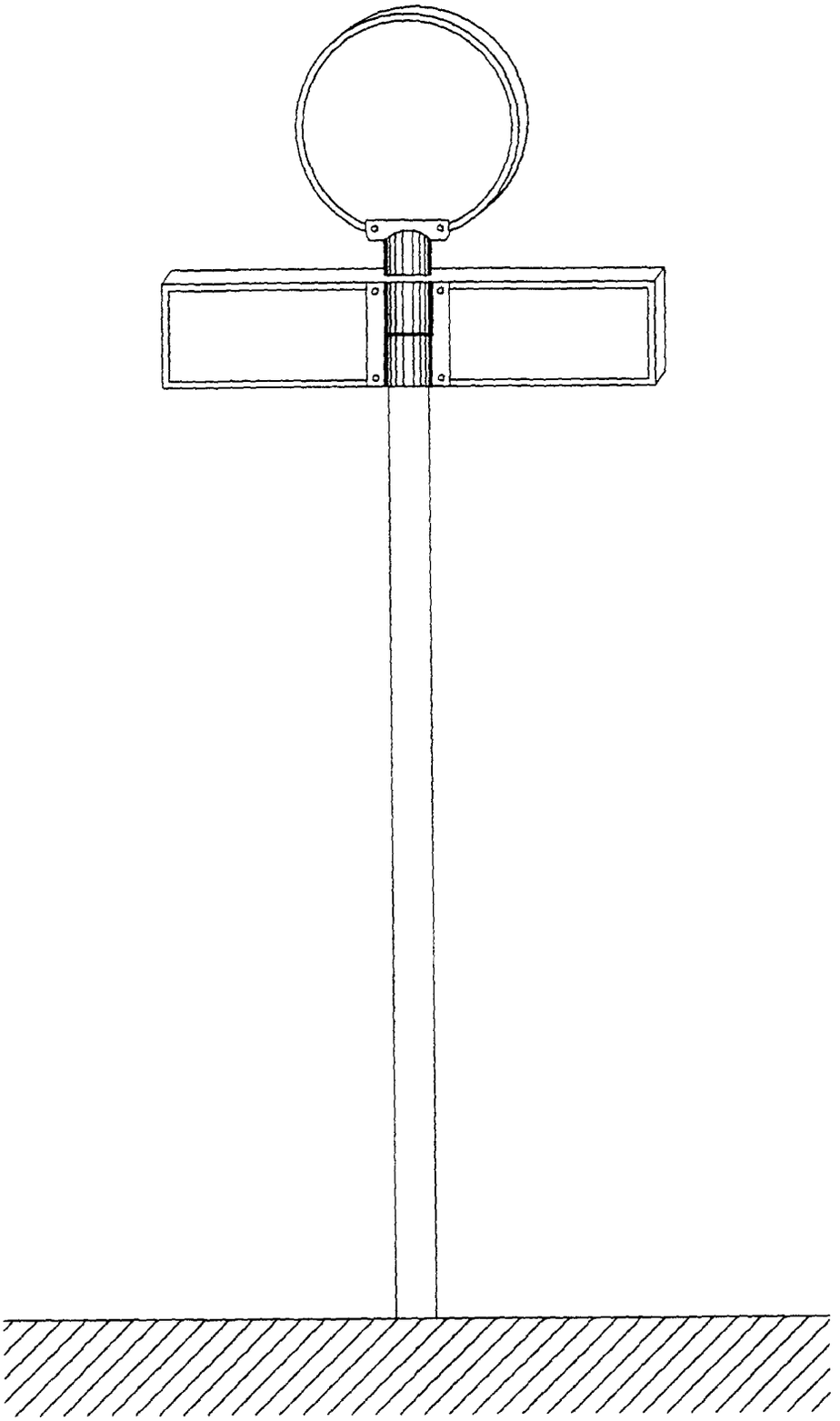

FIG. 13c

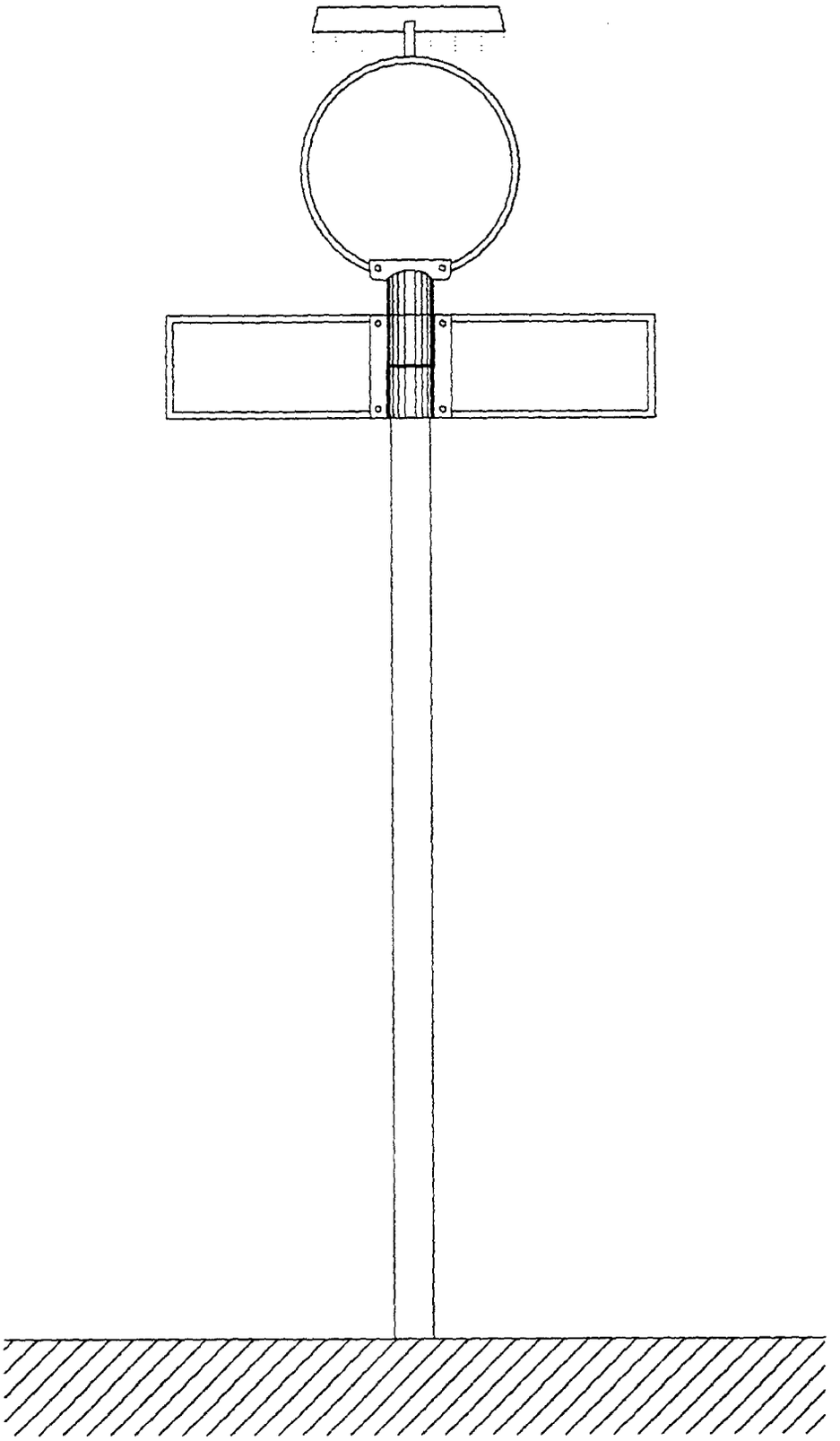

FIG. 13d

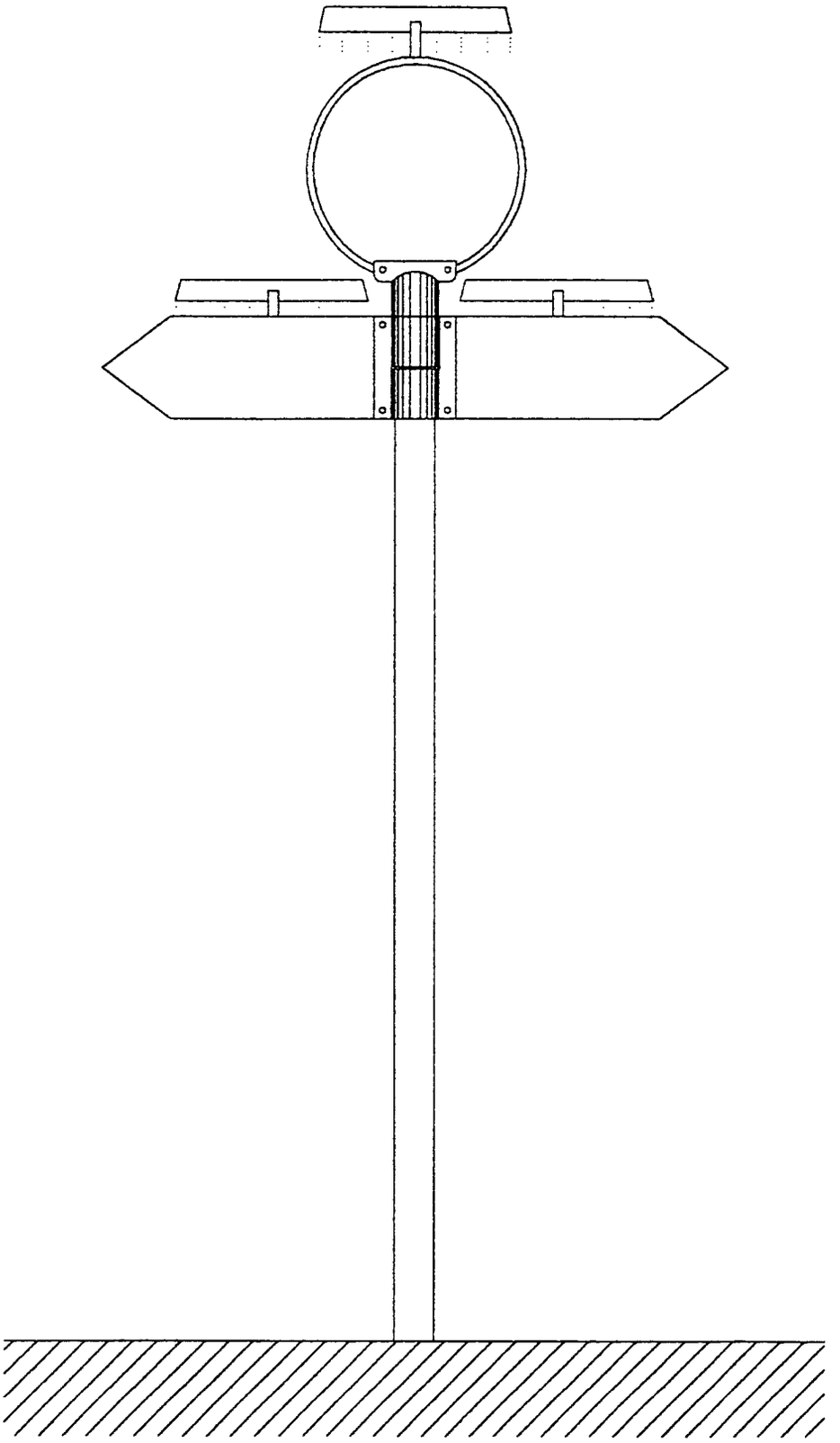

FIG. 13e

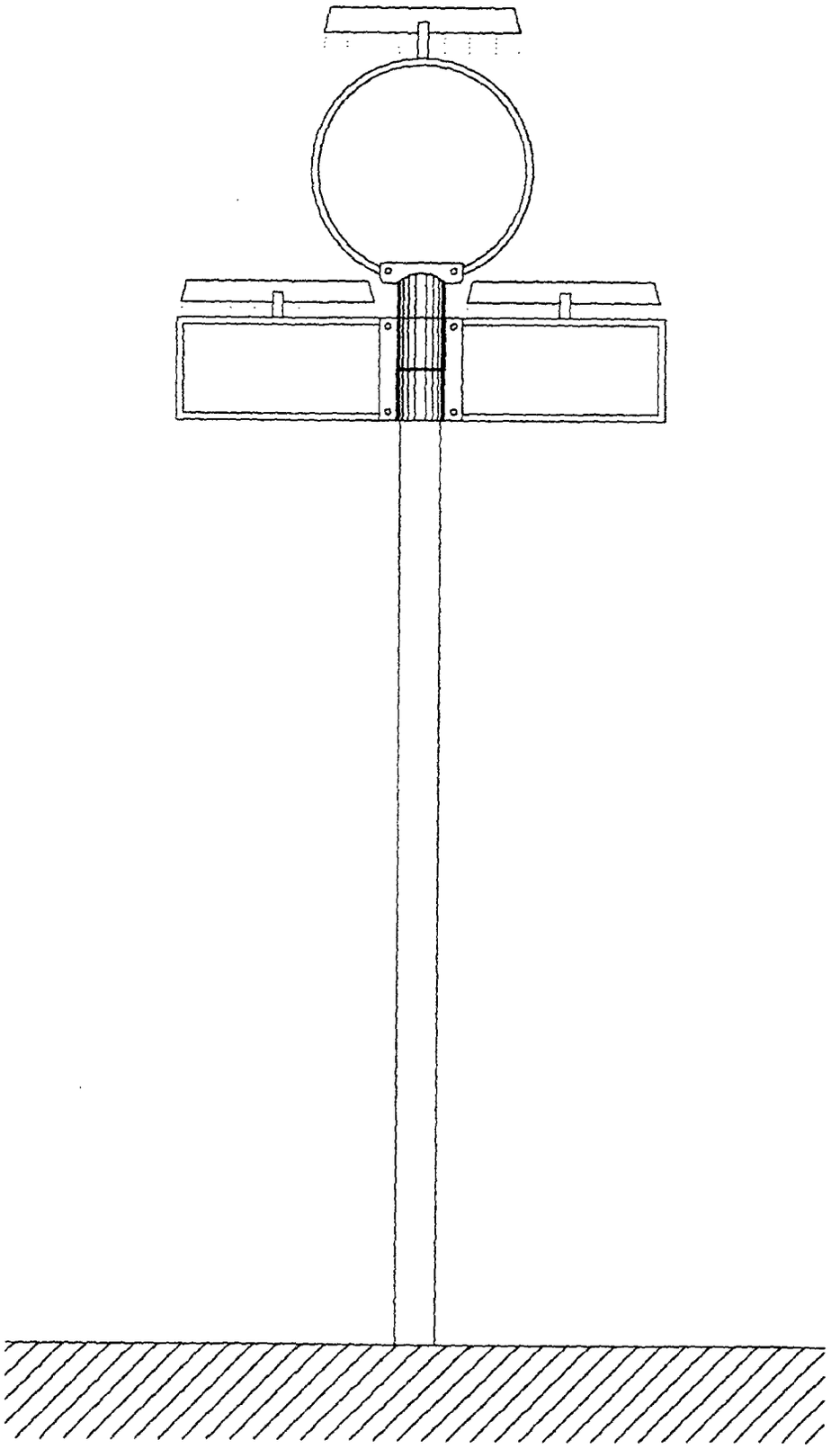

FIG. 13f

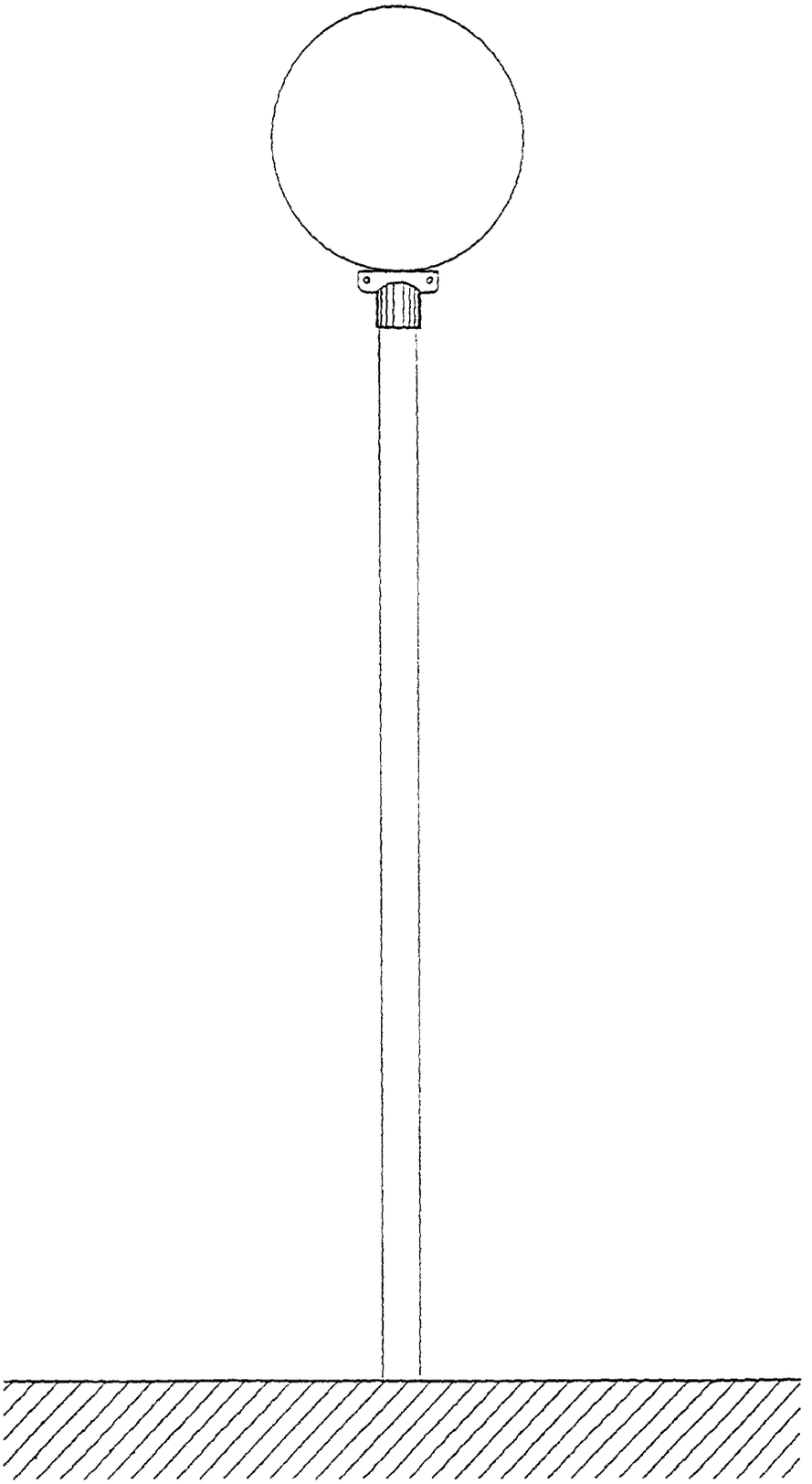

FIG. 14a

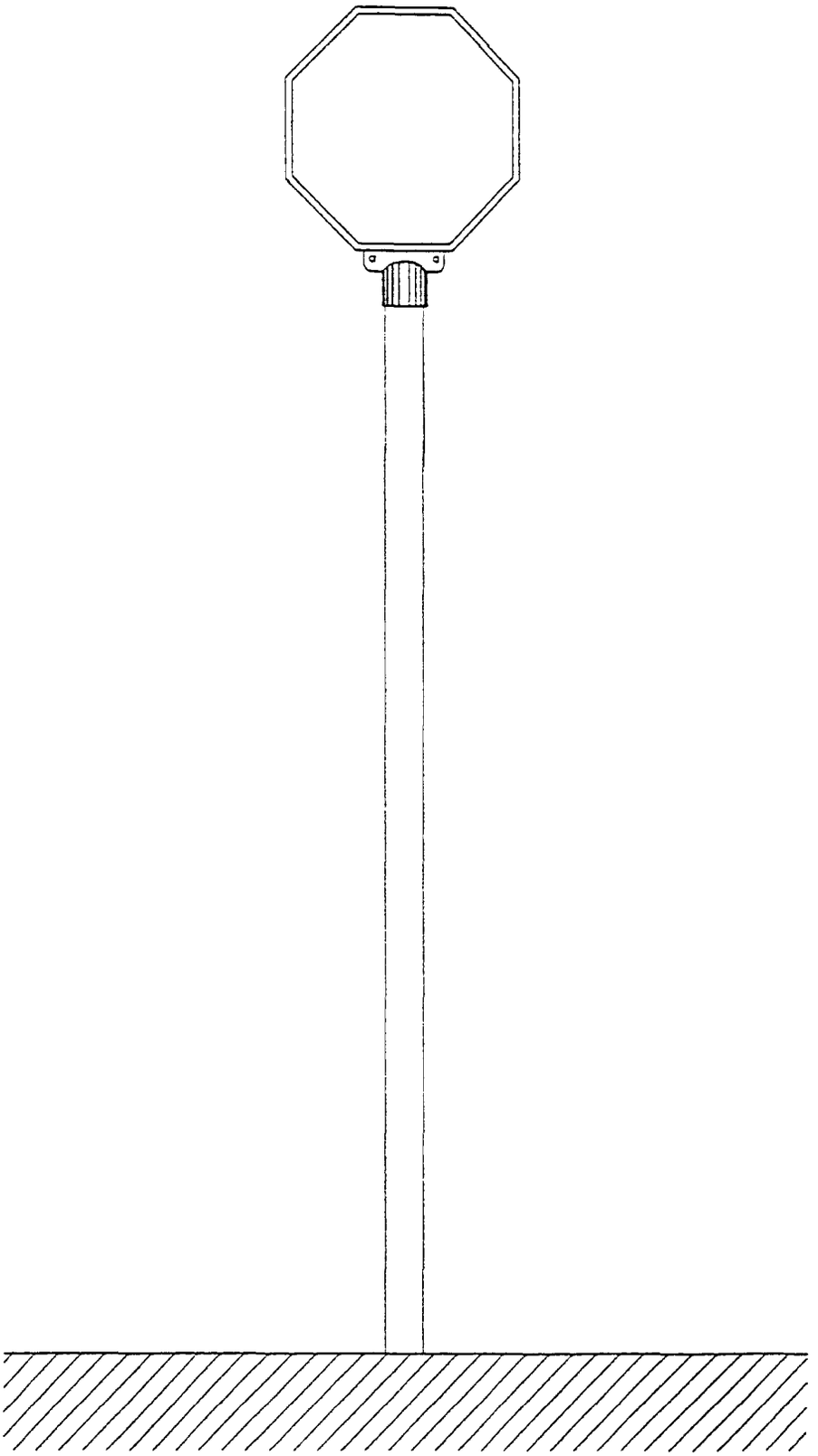

FIG. 14b

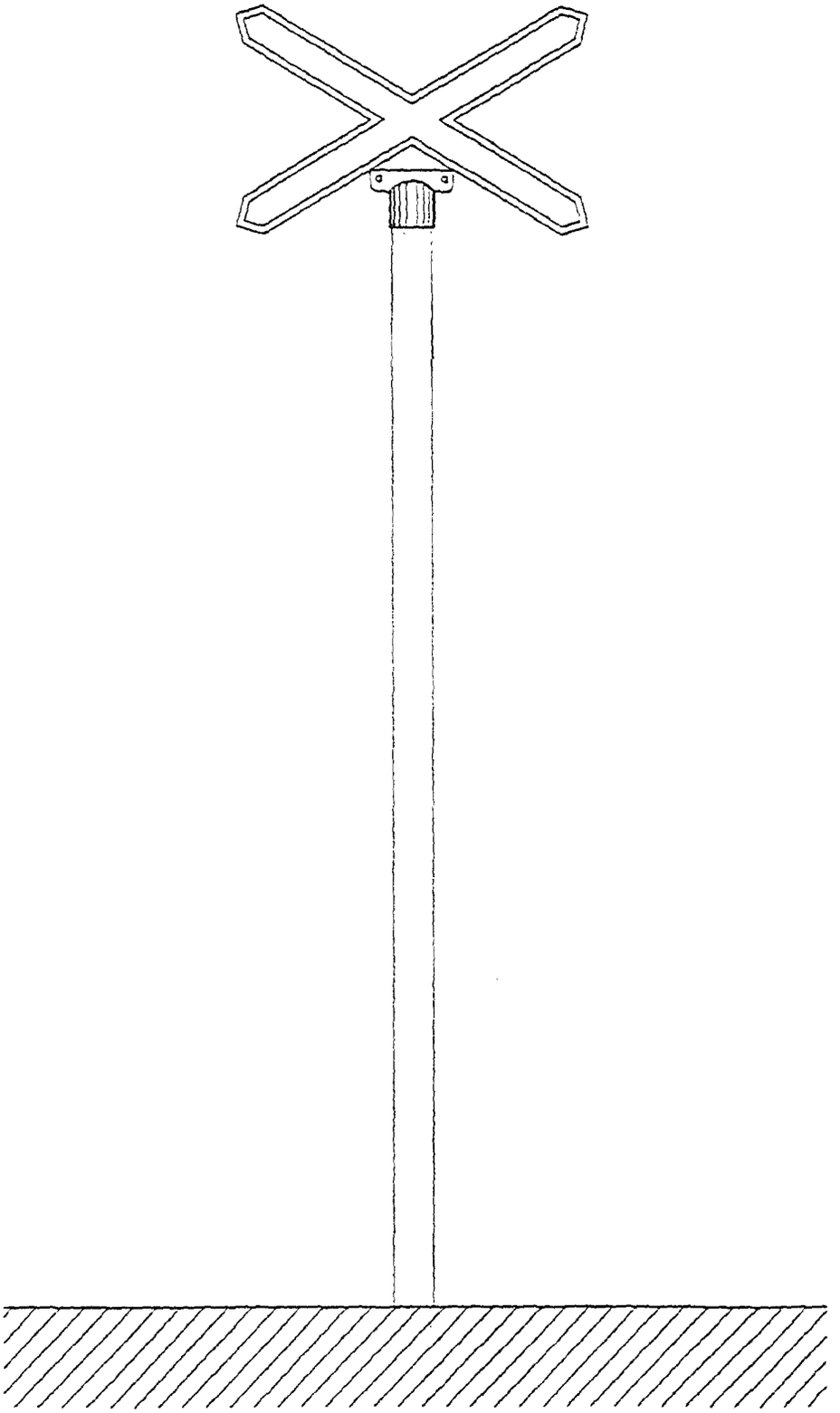

FIG. 14c

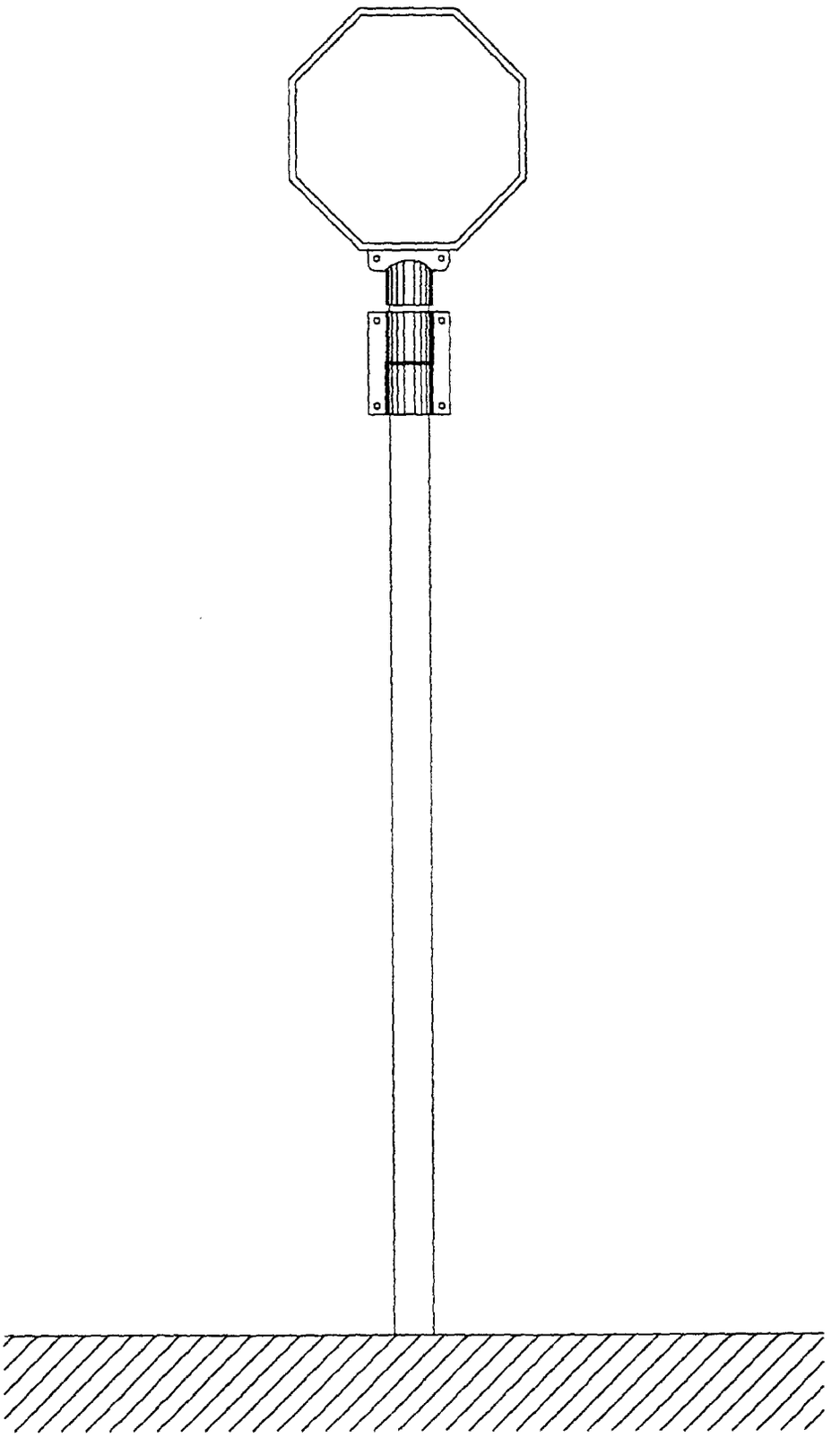

FIG. 15a

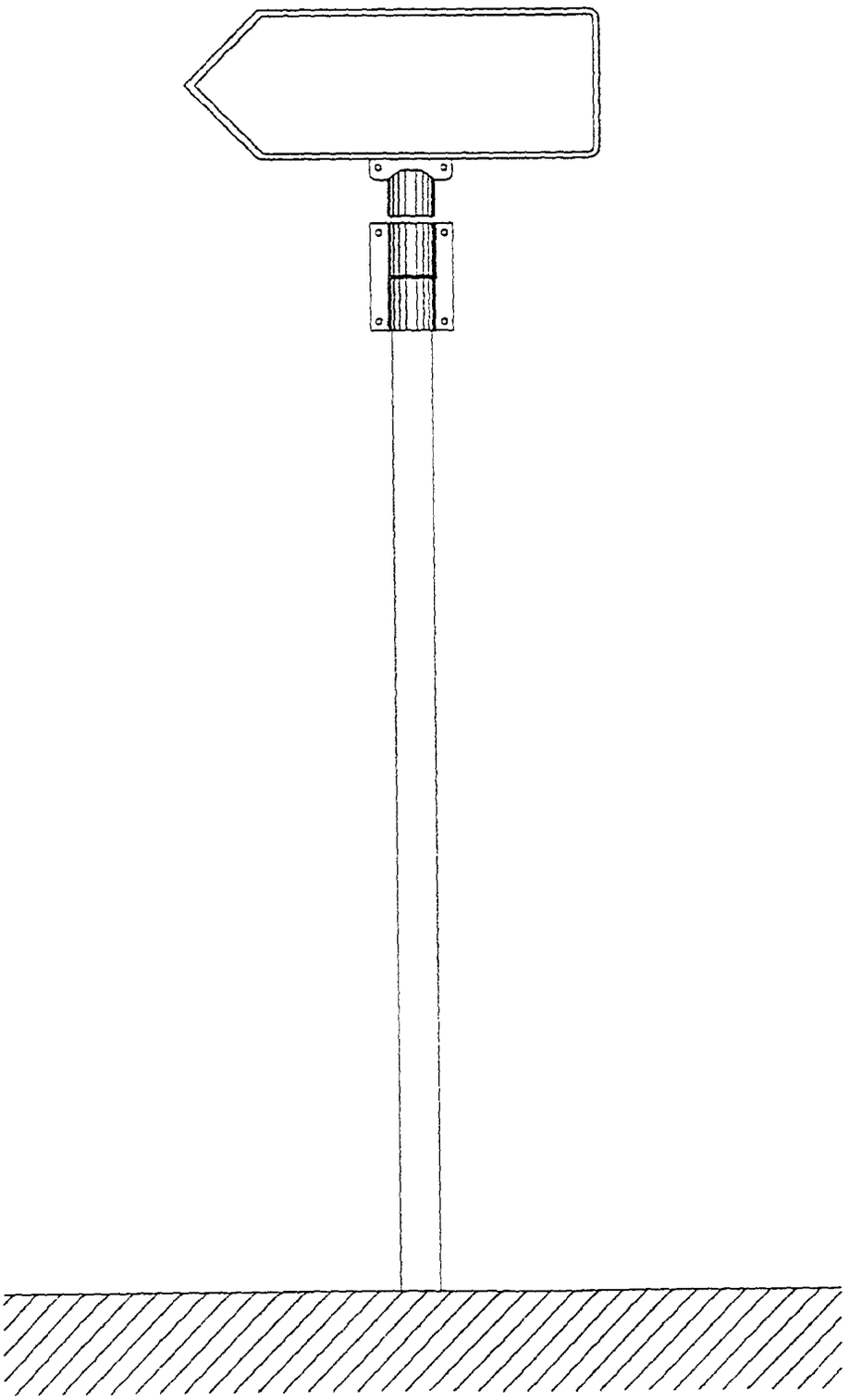

FIG. 15b

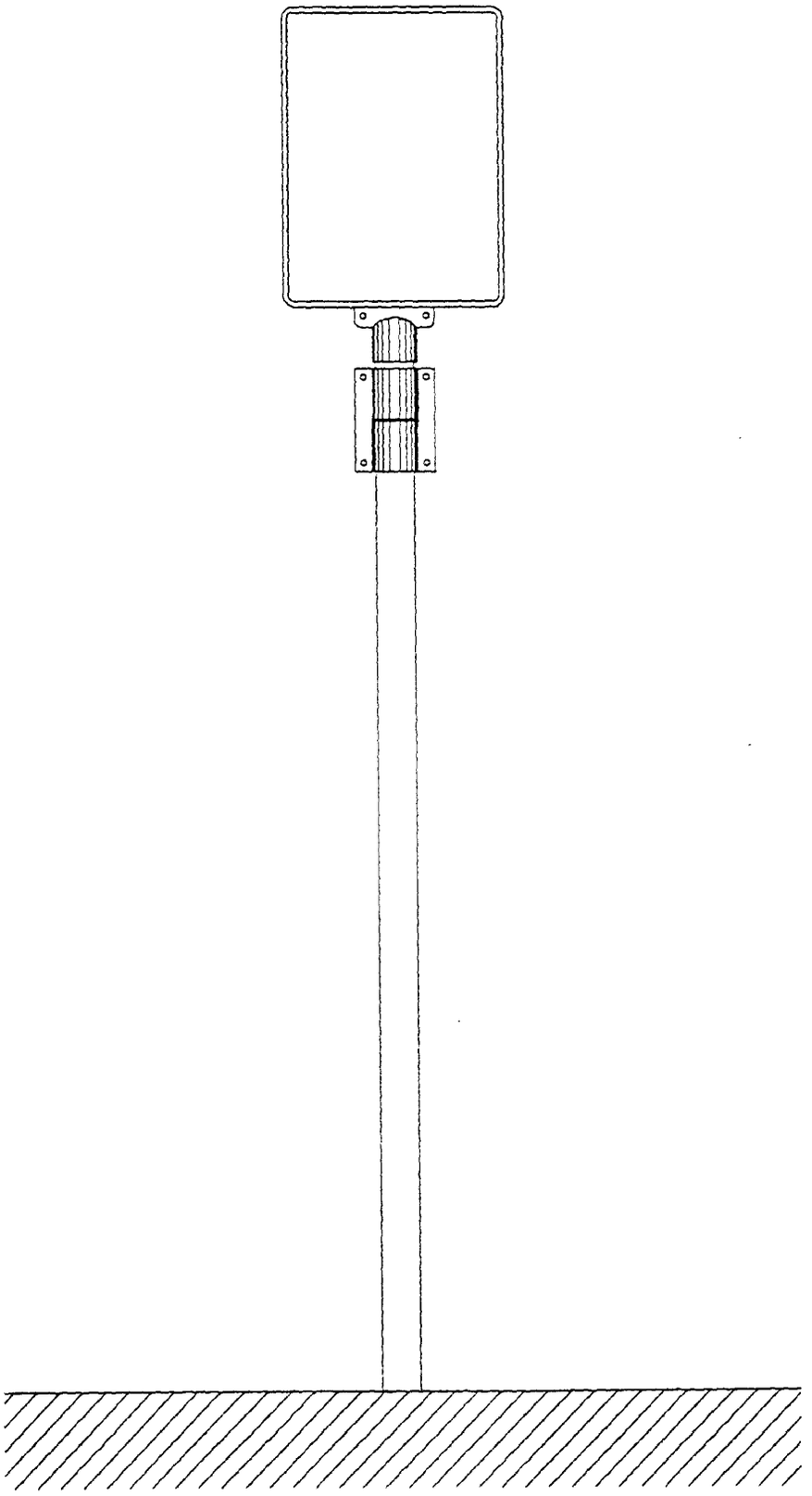

FIG. 15c