sectional view schematically illustrating the ozone generation device 10. As illustrated in FIG. 1 and FIG. 2, the ozone generation device 10 includes a can body 11 and a plurality of discharge tubes 12. Each of the discharge tubes 12 is an example of an object to be extracted and an object, and for example, may also be referred to as a subject, a tube, a member, or an insertion.

[0010] The can body 11 is formed in a substantially columnar shape in which a plurality of holes are provided. As illustrated in FIG. 2, the can body 11 includes a plurality of tube units 15 and a pair of end plates 16. The tube units 15 extend in the longitudinal direction of the can body ~~12~~11, and are arranged in parallel to each other. Each of the end plates 16 forms an end face of the can body ~~12~~11 in the longitudinal direction. A plurality of holes are provided in the end plates 16. The tube units 15 are arranged corresponding to the multiple holes in the end plates 16. In other words, the holes provided in one of the end plates 16 and the holes provided in the other end plate 16, are connected by the corresponding tube units 15.

[0011] A plurality of spacers 18 are provided on the tube unit 15. Each of the spacers 18 projects from the inner peripheral face of the tube unit 15. The spacer 18 is integrally formed with the tube unit 15. However, the spacer 18 is not limited thereto, and may be a separate part from the tube unit 15.

[0012] The discharge tube 12 is inserted into the inside of the tube unit 15. The spacers 18 support the discharge tube 12. The spacers 18 retain the discharge tube 12 by coming into contact with the discharge tube 12 from a plurality of directions. The discharge tube 12 retained by the spacers 18 extends along the tube unit 15.

[0013] The discharge tube 12 is a glass tube the inner

device 20 is extracted from the discharge tube 12.

[0059] The force f1 to the force f6 and the force f_{spacer} described above are almost uniformly applied in the circumference direction, respectively. The force f1 to the force f6 and the force f_{spacer} are the total of the pressure almost uniformly distributed to the portion to which the force is applied. The pressure on the portion to which the force f1 to the force f6 and the force f_{spacer} are applied, may vary.

[0060] In the first embodiment, the elastic body 23 is compressed when the tube body 24 is pressed toward the flange unit 22. The compressed elastic body 23 is expanded, and comes into contact with the discharge tube 12. When the bar 21 is pulled in the extraction direction D1 at this state, the friction force is generated between the discharge tube 12 and the elastic body 23. Thus, even if the tube body 24 does not press the elastic body 23 subsequently, the elastic body 23 is compressed and expanded by the friction force and the force that presses the elastic body 23 together with the flange unit 22, which is pulled by the bar 21. Hence, the friction force continues to generate between the discharge tube 12 and the elastic body 23. In other words, the elastic body 23 is compressed with the pressing force due to the friction generated at the inner peripheral face 12a of the discharge tube 12, and the pressing force of the flange unit 22. Consequently, the state in which the elastic body 23 is expanded is maintained. Consequently, there is no need to press the tube body 24 continuously toward the flange unit 22, and the discharge tube 12 can be extracted from the ozone generation device 10 with the friction force, by only pulling the bar 21.

[0061] The force that presses the discharge tube 12 with

79. In other words, the inner diameter of the first opening 79 is larger than the outer diameter of the peg 62.

[0087] The cover 72 includes a cylinder portion 81 and a bottom 82. The bottom 82 is an example of the second pressing unit. The cylinder portion 81 is integrally formed with the bottom 82. The cylinder portion 81 and the bottom 82 may also be different members.

[0088] The cylinder portion ~~82~~ 81 encloses around the elastic body 71 with a gap interposed therebetween. One end of the cylinder portion ~~82~~ 81 is opened. The bottom 82 closes the other end of the cylinder portion ~~82~~81. The bottom 82 includes a receiving face 82a facing the second end 78 of the elastic body 71. The receiving face 82a is an example of the first portion. An opening connected to the first opening 79 is provided at the bottom 82. The diameter of the opening is about the same as the inner diameter of the first opening 79. The peg 62 can be disposed through the opening of the bottom 82, and inserted into the first opening 79 of the elastic body 71.

[0089] The pulling unit 73 includes a rod-like portion 84 and a flange 85. The rod-like portion 84 is integrally formed with the flange 85. The rod-like portion 84 and the flange 85 may be different parts.

[0090] The rod-like portion 84 is formed in a columnar shape that extends on the same axis as the elastic body 71. The rod-like portion 84 extends toward an extraction direction D2 illustrated in an arrow in FIG. 11. The extraction direction D2 is an example of the first direction, and is the direction toward which the extraction device 60 pulls the peg 62. The flange 85 is formed at the end of the rod-like portion 84. The flange 85, for example, is fixed to the opening end of the cylinder portion 81 of the cover 72, by being welded thereto. Thus, the pulling

unit 73 is joined to the cover 72. The flange 85 faces the first end 77 of the elastic body 71 facing the extraction direction D2.

[0091] The pressing unit 74 includes an abutting portion 87 and a plurality of insertion portions 88. The abutting portion 87 is an example of the first pressing unit, and integrally formed with the insertion portions 88. The abutting portion 87 and the insertion portions 88 may be separate parts. The pressing unit 74 is harder than the elastic body 71.

[0092] The abutting portion 87 is formed in a disk-like shape provided with an opening in the center. The abutting portion 87 is interposed between the first end 77 of the elastic body 71 and the flange 85. The abutting portion 87 includes a pressing face 87a that faces the first end 77 of the elastic body 71. The pressing face 87a is an example of the second portion. Thus, the elastic body ~~77~~ 71 is interposed between the receiving face 82a of the bottom 82 and the pressing face 87a of the abutting portion 87.

[0093] Each of the insertion portions 88 extends toward the extraction direction D2 from the abutting portion 87. The insertion portion 88 passes through the hole provided on the flange 85, and projects from the flange 85 in the extraction direction D2.

[0094] The pressing ring 75 is formed in a disk-like shape provided with an opening in the center. The rod-like portion 84 of the pulling unit 73 is disposed through the opening of the pressing ring 75. The pressing ring 75 is movable along the rod-like portion 84.

[0095] The pressing ring 75 comes into contact with the insertion portions 88 projecting from the flange 85. When the pressing ring 75 is pressed toward the bottom 82 of the cover 72, the abutting portion 87 of the pressing unit 74