a plurality of introducing portions that introduce the medium liquid from the first surface or from vicinity of the first surface into the cylindrical portion such that the medium liquid swirls inside the cylindrical portion, and

an outlet port provided at or in vicinity of a center of the second surface.

[Claim 9] A fine bubble generating apparatus comprising:

a gas-liquid delivery unit that delivers mixed gas and medium liquid;

a first pipe that discharges delivered mixed liquid;

a pump that discharges the mixed liquid under pressure;

a second pipe that discharges the mixed liquid from the pump; and

a fine bubble generating unit that generates fine bubbles in the mixed liquid supplied from the second pipe, by physical collisions under the pressure.

[Claim 10] The fine bubble generating apparatus according to claim 9, wherein the fine bubble generating unit generates the fine bubbles in the mixed liquid by high-speed swirling.

[Claim 11] The fine bubble generating apparatus according to claim 10, wherein the gas-liquid delivery unit swirls at high speed in one direction inside a cylinder.

[Claim 12] The fine bubble generating apparatus according to claim 11, wherein the gas-liquid delivery unit

has the cylinder with two base surfaces, a first surface and a second surface,

flows the mixed liquid in a direction approximately perpendicular to the first surface toward the second surface while swirling the mixed liquid in an in-plane direction of the first surface, and

supplies the mixed liquid in a rotational direction.

[Claim 13] The fine bubble generating apparatus according to any of claims 9 to 12, further comprising:

a third pipe that is provided in a previous stage of the gas-liquid delivery unit and that supplies the medium liquid to the gas-liquid delivery unit; and

an electrolysis unit that is provided in a previous stage of the third pipe and that electrolyzes raw water to produce a mixture of electrolyzed water and generated gas and supplies the mixture as the medium liquid to the third pipe.

[Claim 14] The fine bubble generating apparatus according to any of claims 9 to 13, wherein the electrolysis unit is a two-compartment electrolysis cell that includes a cathode compartment containing a negative electrode and an anode compartment containing a positive electrode that are separated by a diaphragm.

[Claim 15] The fine bubble generating apparatus according to claim 14, wherein the electrolysis unit includes

a raw water supply port that is provided at or in vicinity of a bottom of the electrolysis unit and that supplies the raw water to the cathode compartment containing the negative electrode, and

an alkaline electrolyzed water outlet port that discharges alkaline electrolyzed water at or in vicinity of a top of the electrolysis unit.

[Claim 16] The fine bubble generating apparatus according to claim 14, wherein the electrolysis unit includes

a raw water supply port that is provided at or in vicinity of a bottom of the electrolysis unit and that supplies the raw water to the anode compartment containing the positive electrode, and

an acidic electrolyzed water outlet port that discharges acidic electrolyzed water at or in vicinity of a top of the electrolysis unit.

[Claim 17] The fine bubble generating apparatus according to claim 16, wherein the electrolysis unit is supplied with an electrolyte solution containing chlorine.