CLAIMS

1. A cleaning device for cleaning a liquid contact part of a discharge device that discharges a liquid material from a nozzle by action of a mechanically-operated rod-like member,

the liquid contact part including an operating space that has an inlet A into which the rod-like member is inserted and an outlet communicating with the nozzle, a supply flow path through which the liquid material is supplied to the operating space, and an inlet B provided on an end of the supply flow path,

the nozzle and the rod-like member are removably attached to the liquid contact part,

the cleaning device comprising:

a cleaning fluid supply tank that supplies a cleaning fluid by action of compressed gas supplied from a compressed gas source;

a liquid contact part fixing jig in which the liquid contact portion is accommodated,

a plurality of supply mechanisms that supply the compressed gas or the cleaning fluid to the liquid contact part fixing jig;

a cleaning fluid collection tank that is fluidly connected to the liquid contact part fixing jig and collects the cleaning fluid flowed out from the outlet; and

a control device,

wherein the plurality of supply mechanisms include a first supply mechanism that supplies the compressed gas or the cleaning liquid to the inlet A and a second supply mechanism that supplies the compressed gas or the cleaning liquid to the inlet B, and

the plurality of supply mechanisms supply the cleaning fluid in

accordance with pressure values that are specified separately for the supply mechanisms by the control device.

2. The cleaning device according to claim 1, wherein the supply mechanisms supply the compressed gas in accordance with pressure values that are specified separately for the supply mechanisms by the control device.

3. The cleaning device according to claim 1 or 2, wherein the plurality of supply mechanisms comprises:

a regulator that adjusts pressure of the compressed gas, supplied from the compressed gas source, to a desired level in accordance with a pressure value specified by the control device;

a first upstream on-off valve fluidly connected to the regulator;

a second upstream on-off valve fluidly connected to the cleaning fluid supply tank;

a plurality of sub-tanks fluidly connected to the first and second upstream on-off valves and to the liquid contact part fixing jig; and

a downstream on-off valve disposed between the plurality of sub-tanks and the liquid contact part fixing jig.

4. The cleaning device according to any one of claims 1 to 3, wherein the compressed gas supplied from the compressed gas source is supplied to the cleaning fluid supply tank through a plurality of regulators.

5. The cleaning device according to any one of claims 1 to 4, wherein the liquid contact part fixing jig is constituted by a plurality of members that are fixed together by a fastener in a separable manner.

6. A cleaning method using the cleaning device according to any one of claims 1 to 5, the cleaning method comprising:

a gas cleaning step of supplying, by the first and second supply

mechanisms, the compressed gas under adjusted pressure to the liquid contact part fixing jig;

a fluid cleaning step of supplying, by the first and second supply mechanisms, the cleaning fluid to the liquid contact part fixing jig by action of the compressed gas that is adjusted to the pressure values specified separately; and

a drying step of supplying, by the first and second supply mechanisms, the compressed gas under adjusted pressure to the liquid contact part fixing jig.

7. A method of cleaning a liquid contact part of a discharge device that discharges a liquid material from a nozzle by action of a mechanically-operated rod-like member by accommodating the liquid contact part in a liquid contact part fixing jig,

the liquid contact part including an operating space that has an inlet A into which the rod-like member is inserted and an outlet communicating with the nozzle, a supply flow path through which the liquid material is supplied to the operating space, and an inlet B provided on an end of the supply flow path,

the nozzle and the rod-like member are removably attached to the liquid contact part,

the method comprising:

a liquid contact part accommodating step of accommodating the liquid contact part in a liquid contact part fixing jig;

a gas cleaning step of supplying the compressed gas under adjusted pressure to the liquid contact part fixing jig from a first supply mechanism that communicating with the inlet A and a second supply mechanism that communicating with the inlet B;

a fluid cleaning step of supplying the cleaning fluid to the inlet A and the inlet B at different pressure values by action of the compressed gas adjusted to the specified pressure values separately and supplied from the first supply mechanism and the second supply mechanism; and

a drying step of supplying the compressed gas under adjusted pressure to the inlet A and the inlet B.