CLAIMS

WHAT IS CLAIMED IS:

1. A substrate cleaning device comprising:

a holding part that has a bearing part configured to rotatably hold a cleaning member for cleaning a substrate;

a first supply part that has at least a part provided inside the holding part and supplies a first liquid into the cleaning member through the inside of the holding part; ~~and~~

a second supply part that supplies a second liquid to the bearing part; and

an outer member provided outside the bearing part,

wherein the outer member has an inflow port provided on a top surface of the outer member for allowing the second liquid supplied from the second supply part to flow into an inside of the outer member, and has a discharge port provided on a lower surface of the outer member for discharging the second liquid to an outside of the outer member, wherein the second liquid supplied from the second supply part passes through the bearing part from the inflow port and is discharged from the discharge port.

~~2. The substrate cleaning device according to claim 1,~~

~~wherein the bearing part has two or more bearing members provided in an axial direction, and~~

~~the second supply part supplies the second liquid between the bearing members in the axial direction.~~

~~3. The substrate cleaning device according to claim 1 or 2, wherein the holding part has a reservoir part for storing the second liquid.~~

~~4~~2. ~~The substrate cleaning device according to claim 3,~~ A substrate cleaning device comprising:

a holding part that has a bearing part configured to rotatably hold a cleaning member for cleaning a substrate;

a first supply part that has at least a part provided inside the holding part and supplies a first liquid into the cleaning member through the inside of the holding part;

and

a second supply part that supplies a second liquid to the bearing part,

wherein the holding part has a reservoir part for storing the second liquid,

~~wherein~~ the holding part is provided with a discharge part that has a discharge port for discharging the second liquid, and

~~a~~ a height position of the discharge port is higher than a lowermost surface of an inner circumferential bottom surface of the holding part, and the reservoir part is formed between the lowermost surface of the inner circumferential bottom surface and the discharge port in a height direction.

~~5. The substrate cleaning device according to any one of claims 1 to 4, wherein the second supply part has an adjustment part that adjusts the flow rate.~~

~~6~~3. ~~The substrate cleaning device according to any one of claims 1 to 5,~~ A substrate cleaning device comprising:

a holding part that has a bearing part configured to rotatably hold a cleaning member for cleaning a substrate;

a first supply part that has at least a part provided inside the holding part and supplies a first liquid into the cleaning member through the inside of the holding part; and

a second supply part that supplies a second liquid to the bearing part,

wherein the holding part has a rotation part that rotates along with the cleaning member and a tightly closed part that is provided to face the bearing part,

an outer circumference of the bearing part abuts on the rotation part,

the bearing part has a bearing ball, and

in a plane with a normal line in ~~the~~ an axial direction, a circumferential edge outer end of the tightly closed part is located further outward at the circumferential edge than a circumferential edge outer end of the bearing ball.

~~7~~4. ~~The substrate cleaning device according to any one of claims 1 to 6,~~A substrate cleaning device comprising:

a holding part that has a bearing part configured to rotatably hold a cleaning

member for cleaning a substrate;

a first supply part that has at least a part provided inside the holding part and supplies a first liquid into the cleaning member through the inside of the holding part; and

a second supply part that supplies a second liquid to the bearing part,

wherein the holding part has a rotation part that rotates along with the cleaning member and a tightly closed part provided to face the bearing part,

the tightly closed part has a first tightly closed part provided with a first notch and a second tightly closed part provided with a second notch, and

the first notch and the second notch do not overlap when seen in ~~the~~ an axial direction.

5. The substrate cleaning device according to claim 1 or 2,

wherein the bearing part has two or more bearing members provided in an axial direction, and

the second supply part supplies the second liquid between the bearing members provided in the axial direction.

6. The substrate cleaning device according to claim 3 or 4,

wherein the bearing part has two or more bearing members provided in the axial direction, and

the second supply part supplies the second liquid between the bearing members provided in the axial direction.

7. The substrate cleaning device according to any one of claims 1 to 6, wherein the second supply part has an adjustment part that adjusts the flow rate.

8. The substrate cleaning device according to any one of claims 1 to 7,

wherein the holding part has a rotation part that rotates along with the cleaning member,

the first supply part has a first supply pipe that supplies the first liquid into the cleaning member, and

the first supply pipe extends up to inside of the rotation part without being disconnected at a gap between the bearing part and the rotation part.

9. The substrate cleaning device according to any one of claims 1 to 8, wherein the second supply part supplies the second liquid to the bearing part even when the first supply part does not supply the first liquid into the cleaning member.

10. The substrate cleaning device according to any one of claims 1 to 9, wherein the holding part has a rotation part that rotates along with the cleaning member and is provided with one or more holes for supplying the second liquid to the bearing part.