CLAIMS

1. A cleaning liquid supply device for supplying a cleaning device with chemical liquid for cleaning, the cleaning liquid supply device comprising:

a flowmeter comprising an ultrasonic flowmeter or a differential pressure flowmeter;

a first pipe that enters into the flowmeter; and

a second pipe that exits from the flowmeter, wherein

the first pipe and the second pipe are inclined from a horizontal direction and a vertical direction.

2. The cleaning liquid supply device according to claim 1, wherein

the first pipe and the second pipe are arranged inclined with an identical gradient.

3. The cleaning liquid supply device according to claim 1 or 2, wherein

the flowmeter is arranged inclined.

4. The cleaning liquid supply device according to any one of claims 1 to 3, wherein

at least one of the first pipe and the second pipe is connected to a pipe extending in the horizontal direction, and the pipe extending in the horizontal direction is curved to approach a direction that at least one of the first pipe and the second pipe extends on a side connected to at least one of the first pipe and the second pipe.

5. The cleaning liquid supply device according to any one of claims 1 to 3, wherein

at least one of the first pipe and the second pipe is connected to a pipe extending in the vertical direction, and the pipe extending in the vertical direction is curved to approach a direction that at least one of the first pipe and the second pipe extends on a side connected to at least one of the first pipe and the second pipe.

6. The cleaning liquid supply device according to any one of claims 1 to 5, wherein

at least one of the first pipe and the second pipe has a bent portion on an opposite side of the flowmeter, and respective piping parts on both sides of the bent portion are inclined from the horizontal direction and the vertical direction.

7. The cleaning liquid supply device according to any one of claims 1 to 6, wherein

at least one of the first pipe and the second pipe is inclined from the vertical direction with an inclination angle of 10 degrees or more and 40 degrees or less.

8. The cleaning liquid supply device according to any one of claims 1 to 7 further comprising:

a flow rate control valve; and

a pressure gauge arranged on a flow passage on an output side of the flow rate control valve.

9. The cleaning liquid supply device according to claim 8, wherein

the flow rate control valve is configured to control a flow rate based on a detected value of the flowmeter and is configured to control a flow rate based on a detected value of the pressure gauge.

10. The cleaning liquid supply device according to claim 8 or 9, wherein

an abnormality detection of at least one of a pipe on the output side of the flow rate control valve and a device connected to the pipe is performed based on a detected value of the pressure gauge.

11. A cleaning unit comprising:

the cleaning liquid supply device according to any one of claims 1 to 10; and

the cleaning device connected to the cleaning liquid supply device.