CLAIMS

1. A separation device comprising:

a cyclone extending along a central axis, including an introduction port for introducing a liquid containing foreign matter into an interior and a first discharge port provided at a lower end for discharging the foreign matter, and separating the foreign matter from the liquid by centrifugal force by swirling the liquid in the interior, a columnar air layer formed in a manner extending from the first discharge port along the central axis, and the liquid from which the foreign matter is separated rising along an outer circumferential surface of the air layer;

a clean case provided on an opposite side of the first discharge port in an extending direction of the cyclone, including a barrier wall on which a connecting hole is provided at an upper end of the cyclone and a second discharge port, and connected to the interior by the connecting hole;

a gas-liquid separation tube provided in the clean case, extending from the connecting hole along the central axis, and including a plurality of first holes; and

an inner wall provided in the clean case, extending along the central axis, surrounding the gas-liquid separation tube, and including a plurality of second holes, wherein

the clean case further comprises a bottom wall located between the first discharge port and the barrier wall in the extending direction, and a side wall connected to the bottom wall and enclosing the inner wall and the cyclone,

the second discharge port is provided on the side wall, and

the liquid from which the foreign matter is separated that rises along the air layer from the first discharge port to the gas-liquid separation tube passes through the plurality of first holes and the plurality of second holes and is discharged from the second discharge port to outside the clean case.

2. The separation device of claim 1, wherein:

the plurality of second holes are larger than the plurality of first holes.

3. The separation device of claim 1, wherein:

an area enclosed by the inner wall of the gas-liquid separation tube in the extending direction is smaller than an area not enclosed by the inner wall of the gas-liquid separation tube.

4. The separation device of claim 1, wherein:

the second discharge port is located between the bottom wall and the barrier wall in the extending direction.

5. The separation device of claim 1, wherein:

the second discharge port faces the cyclone.

6. The separation device of claim 1, wherein:

the inner wall is located more on the cyclone side than a liquid surface of the liquid stored in the clean case, from which the foreign matter is separated.