

ABSTRACT

WASTE WATER TREATMENT EQUIPMENT

A waste water treatment device 1 has a reactor tank 10
5 that introduces thereinto the water to be treated from a
bottom 100 and discharges the water to be treated as
treated water from an upper portion of the reactor tank
10 after the water to be treated is brought into contact
with the microorganism agglomerates contained in a layer
10 around the bottom 100; an air bubble separation screen 11
that separates air bubbles from the microorganism
agglomerates to which the air bubbles of gas generated
from the layer are attached, by a fact that the
microorganism agglomerates to which the air bubbles are
15 attached contact the air bubble separation screen 11; an
air bubble collection pipe 12 that collects the air
bubbles of the gas and the air bubbles separated from the
microorganism agglomerates by the air bubble separation
screen 11 and guides these air bubbles to an area around
20 a liquid level in the reactor tank 10; and a side surface
screen 13 that separates a liquid phase containing the
microorganism agglomerates of an upper layer of the
reactor tank 10 into the microorganism agglomerates and
the treated water. It is preferable to provide a center
25 screen 14 that separates the air bubbles from the
microorganism agglomerates to which the air bubbles are
attached, which remain outside the air bubble collection
pipe 12, by a fact that the microorganism agglomerates to
which the air bubbles are attached contact the center
30 screen 14. It is further preferable that treated water
that is pH-controlled in a pH control tank 18 be supplied
to the reactor tank 10.

Figure 1