

ABSTRACT

VALVE MECHANISM

5 A flow rate adjusting valve 10 includes: a casing 11 including an inlet 12 and an outlet 13 and also including a channel 14 connecting the inlet 12 and the outlet 13 to each other; a cylindrical valve port member 20 disposed in the channel 14 and having a valve port 21 penetrating the valve port member 20 in an upstream-downstream direction; and a valve body 34 configured to move forward and backward to the valve port 21 from a downstream
10 side to thereby adjust an opening degree of a downstream opening 22 of the valve port 21. The valve port 21 includes a narrowing portion 24 whose opening diameter is smaller than an opening diameter of an upstream opening, the valve body 34 includes a tapered portion 34b that enters the valve port 21 when the valve body 34 moves forward and a flange portion 34a disposed at a downstream end of the tapered portion 34b and having a contact surface 34e that
15 is parallel to an end surface 29a of the valve port member 20 and is brought into surface contact with the end surface 29a while the valve port 21 is fully closed, and when the downstream opening 22 is at a predetermined opening degree, a passage area of the fluid in the valve port 21 is at minimum in the narrowing portion 24.

20 FIG. 4