CLAIMS

1. A connector comprising:

a housing having a flow path through which a liquid passes, and a substantially circular pipe connecting port which communicates with the flow path; and

a valve formed of an elastic material and adapted to block the pipe connecting port of the housing,

wherein the valve comprises:

a columnar deformable portion having a top surface exposed from the pipe connecting port, a bottom surface opposite to the top surface, and a slit reaching from the top surface to the bottom surface, wherein when the top surface is pressed by the pipe inserted into the pipe connecting port, the top surface will be displaced toward the flow path while elastically deforming so as to rotate with respect to the axis of the valve, so that inner surfaces which define the slit face the flow path of the housing, and the top surface forms an opening which communicates with the flow path; and

a fixing piece which is formed in a ring-like shape protruding from an outer peripheral surface of the deformable portion, in an intermediate portion between the top surface and the bottom surface, and which is fixed to the housing,

and

wherein the pipe communicates with the flow path of the housing through the opening formed by the top surface of the valve.

2. The connector according to claim 1, wherein the bottom surface of the deformable portion is formed with a recessed portion which curves so as to recess toward the side of the top surface.

3. The connector according to claim 1 or 2, wherein the slit is formed linearly.

4. The connector according to claim 1 or 2, wherein the slit is formed crosswise.

5. The connector according to claim 1 or 2, wherein the slit is formed linearly on the side of the top surface and formed crosswise on the side of the bottom surface.

6. The connector according to claim 1, wherein the housing comprises a curved surface which guides the elastic deformation of the valve so that the bottom surface of the deformable portion rolls back toward the lateral side.

7. The connector according to claim 6, wherein the curved surface smoothly continues to reach the flow path.

8. The connector according to claim 1, wherein the pipe connecting port has a pipe fitting portion to be fitted by the pipe.

9. The connector according to claim 8, wherein an outer peripheral surface of the pipe fitting portion is provided with a screw portion to be screwed with a lock portion formed around the pipe at a predetermined interval.

10. The connector according to claim 8, wherein, in the state where the pipe has been fitted to the pipe fitting portion, the elastically deformed deformable portion contacts a tip end face of the pipe.

11. The connector according to claim 8, wherein, in the state where the pipe has been fitted to the pipe fitting portion, a lower end portion of the elastically deformed deformable portion is located more toward the side of the flow path than a tip end face of the pipe.

12. The connector according to claim 1, wherein, when the top surface of the deformable portion is pressed by the pipe, the deformable portion will elastically deform so that the bottom surface rolls back toward the lateral side, and at least a portion of the bottom surface comes into contact with the inner face of the housing.