Since an injector is usually required to inject an injection liquid from an injection port at a high pressure, the injection port is formed as a fine hole. Therefore, in a known injector, when filling an accommodation portion for accommodating an injection liquid with an injection liquid, it has been necessary to suction the injection liquid through an injection port formed as a fine hole. Particularly when the injection liquid has a high viscosity, a filling process with the injection liquid requires a considerable amount of time.

[0006]

The technology of the present disclosure has been made in view of the above circumstances, and an object thereof is to provide a technology related to a container unit for an injector configured to be filled with an injection liquid.

Solution to Problem

[0007]

According to a first aspect of the present disclosure, there is provided a container unit for an injector, the unit including: a container including an accommodation space in which an injection liquid is accommodated; and a container holder to which the container is removably attachable, the container holder being used with the container attached when the needleless injector is used (when the needleless injector is actuated), in which the container holder includes a nozzle portion having an injection port through which an injection liquid is injected when the injector is used (when the injector is actuated) and a nozzle flow path through which the injection liquid is guided from the accommodation space to the injection port when the injector is used (when the injector is actuated), the container includes a filling opening portion through which the accommodation space is directly filled with the injection liquid from outside in a state where the container is detached from the container holder, the filling opening portion being configured to communicate with the nozzle flow path in a state where the container is attached to the container holder, and an opening cross-sectional area of the filling opening portion is larger than an opening cross-sectional area of the injection port.

[0008]

In an embodiment of the above aspect, a proximal end-side opening portion formed on a proximal end side of the nozzle flow path is disposed to face the filling opening portion in a state where the

container is attached to the container holder. By arranging the proximal end-side opening portion and the filling opening portion to face each other in this manner, smooth flow of the injection liquid is ensured, and the pressurized injection liquid can be injected without being decelerated. Furthermore, the pressure applied from inside to the container and the container holder decreases, improving the durability.

[0009]

In an embodiment of the above aspect, the proximal end-side opening portion of the container holder is included within a projection region onto which the filling opening portion is projected along an axial direction of the container unit in a state where the container is attached to the container holder. The proximal end-side opening portion of the container holder is included within the projection region onto which the filling opening portion is projected along the axial direction of the container unit. With this configuration, the smooth flow of the injection liquid is ensured, and the pressurized injection liquid can be injected without being decelerated. Furthermore, the pressure applied from inside to the container and the container holder decreases, improving the durability.

[0010]

In an embodiment of the above aspect, the proximal end-side opening portion and the filling opening portion is coaxially arranged in a state where the container is attached to the container holder. By coaxially arranging the proximal end-side opening portion and the filling opening portion, the smooth flow of the injection liquid is ensured, and the pressurized injection liquid can be injected without being decelerated. Furthermore, the pressure applied from inside to the container and the container holder decreases, improving the durability.

[0011]

According to a second aspect of the present disclosure, there is provided an injector including the container unit for an injector and a housing to which the container unit is removably attached. In an embodiment of the above aspect, the injector is a needleless injector or a needle-equipped injector.

Advantageous Effects of Invention

[0012]

According to embodiments of the present disclosure, it is possible to provide a technology related to a container unit for an injector capable of being quickly filled with an injection liquid.