

SYRINGE

ABSTRACT

It is possible to feed an injection objective substance to a depth of a skin structure of an objective living body without using any injection needle. A syringe having no injection needle comprises an enclosing unit which encloses the injection objective substance, a pressurizing unit which pressurizes the injection objective substance enclosed in the enclosing unit, and a flow passage unit which defines a flow passage so that the injection objective substance, which is pressurized by the pressurizing unit, is allowed to inject to an injection target area. The pressurizing unit has a first pressurizing mode in which a pressure applied to the injection objective substance in the pressurizing unit is raised to a first peak pressure in order to form a penetrating passage in the injection target area, and then the pressure applied to the injection objective substance is lowered to a waiting pressure, and a second pressurizing mode in which the injection objective substance having the waiting pressure is pressurized so that the pressure applied to the injection objective substance is raised to a second peak pressure to inject a predetermined injection amount of the injection objective substance.

Figure 4