What is claimed is:

1. A dual chamber prefillable syringe comprising:

a cylinder which has a cylindrical shape with an axis line as a center and has a bypass portion formed due to bulging of a part of an inner circumferential surface to the outside;

a hub luer-lock which is provided at the front end of the cylinder;

a finger grip which is provided at the rear end of the cylinder;

a front stopper which is fitted on the front end side of the bypass portion in the cylinder;

a middle stopper which is fitted on the rear end side of the bypass portion in the cylinder to seal a preparation together with the front stopper;

an end stopper which is fitted on the rear end side of the middle stopper in the cylinder to seal a solvent together with the middle stopper;

a plunger rod which is connected to the end stopper from the rear end side by inserting the finger grip;

a female screw portion which is formed to be screwed around the axis line on an inner circumferential surface of the finger grip; and

a male screw portion which is formed to be able to screw together with the female screw portion on an outer circumferential surface of the plunger rod.

2. The dual chamber prefillable syringe according to Claim 1,

wherein when the middle stopper which is advanced by pressing the plunger rod enters into the bypass portion, the front end of the male screw portion reaches the rear end of the female screw portion and can be screwed thereto.

3. The dual chamber prefillable syringe according to Claim 1 or 2, further comprising:

a guide groove which is formed in the female screw portion and extends parallel to the axis line; and

a guide plate which is formed on the rear end side of the male screw portion on the outer circumferential surface of the plunger rod and is guided in accordance with the guide groove.

4. The dual chamber prefillable syringe according to Claim 3, further comprising:

a first protrusion which is formed at the rear end of the finger grip and with which the guide plate is brought into contact so as to be able to surmount thereover when at least a part of the middle stopper which is advanced by rotating the plunger rod in accordance with the female screw portion and the male screw portion moves across the bypass portion.

5. The dual chamber prefillable syringe according to Claim 4,

wherein after the guide plate surmounts the first protrusion by rotating the plunger rod in accordance with the female screw portion and the male screw portion, the screwing between the male screw portion and the female screw portion is released.

6. The dual chamber prefillable syringe according to Claim 5, further comprising:

a second protrusion which is formed at the rear end of the finger grip and is brought into contact at a position in which the guide plate surmounting over the first protrusion can be fitted to the guide groove.

7. The dual chamber prefillable syringe according to any one of Claims 1 to 6,

wherein the preparation includes aripiprazole.

8. Aripiprazole filled in a syringe comprising:

aripiprazole;

a cylinder which has a cylindrical shape with an axis line as a center and has a bypass portion formed due to bulging of a part of an inner circumferential surface to the outside;

a hub luer-lock which is provided at the front end of the cylinder;

a finger grip which is provided at the rear end of the cylinder;

a front stopper which is fitted on the front end side of the bypass portion in the cylinder;

a middle stopper which is fitted on the rear end side of the bypass portion in the cylinder to seal the aripiprazole together with the front stopper;

an end stopper which is fitted on the rear end side of the middle stopper in the cylinder to seal a solvent together with the middle stopper;

a plunger rod which is connected to the end stopper from the rear end by inserting the finger grip;

a female screw portion which is formed to be screwed around the axis line on an inner circumferential surface of the finger grip; and

a male screw portion which is formed to be able to be screwed to the female screw portion on an outer circumferential surface of the plunger rod.

Claims

1. A dual chamber prefillable syringe (100), comprising:

a cylinder (10) which has a cylindrical shape with an axis line (O) as a center and has a bypass portion (11) formed due to bulging of a part of an inner circumferential surface to the outside;

a hub luer-lock (20) which is provided at the front end of the cylinder;

a finger grip (60) which is provided at the rear end of the cylinder;

a front stopper (30) which is fitted on the front end side of the bypass portion in the cylinder;

a middle stopper (40) which is fitted on the rear end side of the bypass portion in the cylinder to seal a preparation (S) together with the front stopper;

an end stopper (50) which is fitted on the rear end side of the middle stopper in the cylinder to seal a solvent together with the middle stopper;

a plunger rod (70) which is connected to the end stopper from the rear end side by inserting the finger grip;

a female screw portion (64) which is formed to be screwed around the axis line on an inner circumferential surface of the finger grip; and

a male screw portion (73) which is formed to be able to screw together with the female screw portion on an outer circumferential surface of the plunger rod,

characterized by a guide groove (65) which is formed in the female screw portion and extends parallel to the axis line;

a guide plate (75) which is formed on the rear end side of the male screw portion on the outer circumferential surface of the plunger rod and is guided in accordance with the guide groove; and

a first protrusion (66) which is formed at the rear end of the finger grip and with which the guide plate is arranged to be brought into contact, so as to be able to surmount thereover, when at least a part of the middle stopper, which is advanceable by rotating the plunger rod in accordance with the female screw portion and the male screw portion, moves across the bypass portion.

2. The dual chamber prefillable syringe according to Claim 1, wherein the front end of the male screw portion is arranged to reach the rear end of the female screw portion, and can be screwed thereto, when the middle stopper, which is advanced by pressing the plunger rod, enters into the bypass portion.

3. The dual chamber prefillable syringe according to Claim 1 or Claim 2, wherein the screwing between the male screw portion and the female screw portion is arranged to be released after the guide plate surmounts the first protrusion, by rotating the plunger rod in accordance with the female screw portion and the male screw portion.

4. The dual chamber prefillable syringe according to Claim 3, further comprising:

a second protrusion (67) which is formed at the rear end of the finger grip and is arranged to be brought into contact at a position in which the guide plate surmounting over the first protrusion can be fitted to the guide groove.

5. The dual chamber prefillable syringe according to any one of Claims 1 to 4, wherein the preparation includes aripiprazole.