WHAT IS CLAIMED IS:

1. An injection needle assembly comprising:

a needle possessing a proximal end portion and a sharp distal end portion to puncture skin, the needle comprising a through hole extending along a longitudinal extent of the needle and opening to the sharp distal end portion and to the proximal end portion of the needle;

a first member possessing a through hole extending between proximal and distal ends of the first member, the through hole of the first member being open at the proximal end of the first member and being open at the distal end of the first member;

the needle being positioned in the through hole in the first member and being fixed in place in the through hole in the first member such that the sharp distal end of the needle projects distally beyond a distal end face of a distal end portion of the first member so the sharp distal end portion is exposed to puncture the skin and such that the proximal end of the needle projects proximally beyond a proximal end face of a proximal end portion of the first member so the proximal end of the needle is exposed;

a second member possessing a through hole so the second member possesses an inner surface, the through hole of the second member extending between proximal and distal ends of the second member, the through hole in the second member being open at the proximal end of the second member and being open at the distal end of the second member, a proximal end portion of the through hole in the second member being configured to receive a discharge part of a syringe;

the proximal end portion of the first member being positioned inside the second member so that an outer peripheral surface of the proximal end portion of the first member faces the inner surface of the second member; and

an elastic member disposed inside the second member, the elastic member possessing an outer peripheral surface in

liquid-tight contact with the inner surface of the second member, the elastic member also comprising an insertion hole extending throughout a longitudinal extent of the elastic member so that the elastic member possesses an inner surface, a portion of the inner surface of the elastic member being in liquid-tight contact with an outer peripheral surface of the needle;

wherein the elastic member includes an abutting end face at an axial end of the elastic member that is adapted to abut against the discharge part of the syringe, the elastic member including a needle side valve element part adjacent the abutting end face of the elastic member, the portion of the inner surface of the elastic member that is in liquid-tight contact with the outer peripheral surface of the needle being the inner surface of the needle side valve element part, the needle side valve element possessing an outer surface with a tapering outer diameter so that pressure applied to the tapering outer diameter by liquid medicine discharged from the discharged part of the syringe presses the inner surface of the needle side valve element part toward the outer peripheral surface of the needle.

2. The injection needle assembly according to claim 1, wherein the elastic member possesses a first abutting end face which abuts the proximal end face of the proximal end portion of the first member.

3. The injection needle assembly according to claim 2, wherein the elastic member has a second abutting end face at an axial end of the elastic member opposite the first abutting end face, the second abutting end face being adapted to abut against the discharge part of the syringe, the elastic member possessing an opening at the second abutting end face which communicates with the insertion hole, the opening at the second abutting end face having an inner surface radially outwardly spaced from the outer peripheral surface of the needle.

4. The injection needle assembly according to claim

1, wherein the elastic member includes an outwardly projecting flange part which is clamped between the first member and the second member.

5. The injection needle assembly according to claim 1, wherein the elastic member includes a second member side valve element part which is pressed against the inner surface of the second member when pressure is applied to the second member side valve element part by the liquid medicine discharged from the discharge part of the syringe.

6. An injection needle assembly comprising:

a needle possessing a needle point to puncture skin of a living body;

a needle hub including a first member which holds the needle, and a second member in which a discharge part of a syringe is to be fitted; and

an elastic member disposed inside the second member in liquid-tight close contact with an inner surface of the second member, the elastic member having an insertion hole in which the needle is positioned;

wherein the elastic member includes a first needle side valve element part possessing an outer surface configured so that pressure exerted on the outer surface of the first needle side valve element part by liquid medicine discharged from the discharge part of the syringe presses an inner surface of the first needle side valve element part against an outer peripheral surface of the needle.

7. The injection needle assembly according to claim 6, wherein the elastic member has an abutting face adapted to abuts a distal end of the discharge part of the syringe.

8. The injection needle assembly according to claim 7, wherein the elastic member includes an abutting face side spaced part which is at a side of the elastic member at which

is located the abutting face, the abutting face side spaced part forming an opening of the insertion hole at the abutting face and which is radially outwardly spaced from an outer peripheral surface of the needle.

9. The injection needle assembly according to claim 6, wherein the elastic member has an end face disposed on a side opposite the abutting face, the elastic member including an end face side spaced part at the side of the elastic member at which is located the end face, the end face side spaced part forming an opening of the insertion hole at the end face of the elastic member and being spaced radially outwardly from the outer peripheral surface of the needle.

10. The injection needle assembly according to claim 6 wherein the elastic member has a radially outwardly extending flange part which is clamped between the first member and the second member.

11. The injection needle assembly according to claim 6, wherein the elastic member includes a second member side valve element part possessing an inner surface configured so that pressure exerted on the inner surface of the second member side valve element part by the liquid medicine discharged from the discharge part of the syringe presses an outer surface of the second member side valve element part against an inner surface of the second member.

12. The injection needle assembly according to claim 6, wherein the first member fixedly holds the needle so that both ends of the needle protrude from the first member, and the second member is connected to the first member and surrounds a proximal portion of the needle protruding from the first member.

13. The injection needle assembly according to claim

6, wherein a proximal portion of the needle proximally protrudes from the first member by a first length, and a distal portion of the needle distally protrudes from the first member by a second length, the first length being smaller than the second length.

14. The injection needle assembly according to claim 6, wherein an inner surface of the second member includes a screw groove for screw engagement with the syringe.

15. The injection needle assembly according to claim 6, wherein the second member includes a recognition part for permitting a user to recognize that fitting of the discharge part of the syringe into the second member is completed.

16. The injection needle assembly according to claim 6, further comprising an adjustment part possessing a needle protrusion surface peripherally encircling a distal portion of the needle and adapted to abut the skin when the needle point of the needle punctures the skin, the needle point projecting distally beyond the needle protrusion surface.

17. The injection needle assembly according to claim 16, wherein the adjustment part is integrally formed in one piece with the first member.

18. The injection needle assembly according to claim 6, wherein the needle hub includes a stabilization part radially outwardly spaced from the needle point of the needle and adapted to contact the skin when the needle point of the needle punctures the skin of the living body.

19. The injection needle assembly according to claim 18, wherein the stabilization part is integrally formed in one piece with the first member.

20. The injection needle assembly according to claim 6, wherein the needle is 26 to 33 gage.

WHAT IS CLAIMED IS:

1. An injection needle assembly comprising:

a needle tube having a needle point to be made to puncture a skin;

a needle hub including a first member which holds the needle tube, and a second member in which a discharge part of a syringe is to be fitted; and

an elastic member disposed inside the second member to make liquid-tight close contact with an inner surface of the second member, the elastic member having an insertion hole in which the needle tube is inserted.

2. The injection needle assembly according to claim 1, wherein the elastic member has an abutting face which abuts on a distal end of the discharge part of the syringe.

3. The injection needle assembly according to claim 2, wherein the elastic member has an abutting face side spaced part which forms an opening of the insertion hole at the abutting face and which is spaced from an outer peripheral surface of the needle tube.

4. The injection needle assembly according to claim 2, wherein the elastic member has an end face which is disposed on the side opposite to the abutting face and an end face side spaced part which forms an opening of

the insertion hole at the end face and which is spaced from the outer peripheral surface of the needle tube.

5. The injection needle assembly according to claim 1, wherein the elastic member has a flange part which is clamped between the first member and the second member.

6. The injection needle assembly according to claim 1, wherein the elastic member is provided with a needle side valve element part which is pressed against the outer peripheral surface of the needle tube under a pressure exerted thereon by a liquid medicine discharged from the discharge part of the syringe.

7. The injection needle assembly according to claim 6, wherein the elastic member is provided with a second member side valve element part which is pressed against an inner surface of the second member under a pressure exerted thereon by the liquid medicine discharged from the discharge part of the syringe.

8. The injection needle assembly according to claim 1,

wherein the first member holds the needle tube so that both ends of the needle tube protrude from the first member, and

the second member is connected to the first member

holding the needle tube and surrounds a proximal portion, opposite to a distal portion, of the needle tube protruding from the first member.

9. The injection needle assembly according to claim 8, wherein the length of the needle tube proximal portion protruding from the first member is smaller than the length of the needle tube distal portion protruding from the first member.

10. The injection needle assembly according to claim 1, wherein the second member is formed with a screw groove for screw engagement with the syringe.

11. The injection needle assembly according to claim 1, wherein the second member is provided with a recognition part for permitting a user to recognize that fitting of the syringe is completed.

12. The injection needle assembly according to claim 1, comprising an adjustment part including a needle protrusion surface which is provided in the periphery of a distal portion of the needle tube and which abuts on the skin when the needle point of the needle tube is made to puncture a living body.

13. The injection needle assembly according to claim 12, wherein the adjustment part is formed integrally with the first member.

14. The injection needle assembly according to claim 12, wherein the needle hub is formed with a stabilization part which is disposed to be radially spaced from the needle point of the needle tube and which makes contact with the skin when the needle point of the needle tube is made to puncture the living body.

15. The injection needle assembly according to claim 14, wherein the stabilization part is formed integrally with the first member.

16. The injection needle assembly according to claim 1, wherein the needle tube is 26 to 33 gage.

17. A medicine injection apparatus comprising:

a syringe having a discharge part;

a needle tube having a needle point made to puncture a skin;

a needle hub having a first member which holds the needle tube and a second member in which the discharge part of the syringe is fitted; and

an elastic member disposed inside the second member to make liquid-tight close contact with an inner surface of the second member, the elastic member having an insertion hole in which the needle tube is inserted.