[0006] The above and other aspects of the present invention will be described in or be apparent from the following description of exemplary embodiments.

[0007] According to an aspect of the present invention, there is provided a catheter including a needle, a plug having a front end coupled to the needle, a first case formed to enclose the needle, a socket coupled to a front end of the first case, a gear vertically coupling the first case and the socket to each other and having a tooth formed on an outer periphery of one side and a needle groove formed therein to allow the needle to pass therethrough, a catheter hub fastened by the tooth of the gear, and a tube coupled to the front end of the catheter hub.

[0008] Here, the tooth may be formed at an upper portion of the gear and the needle groove may be formed at a lower portion of the gear.

[0009] The socket and the first case may be integrally coupled to each other by the gear.

[0010] The needle may be separated from the needle groove of the gear in a lengthwise direction of the first case.

[0011] After the needle is separated, the gear may rotate along the gear groove of the catheter hub.

[0012] In addition, the socket and the first case may be separated from the catheter hub according to the rotation of the gear.

[0013] After the needle is separated from the gear, the needle may be accommodated within the first case.

[0014] The catheter may further include a second case enclosing the outer periphery of the first case and formed such that a front end of a throughhole has a smaller diameter than a front end of the first case.

6. The catheter of claim 5, wherein the socket and the first case are separated from the catheter hub according to the rotation of the gear.

7. The catheter of claim 1, wherein after the needle is separated from the gear, the needle is accommodated within the first case.

8. The catheter of claim 1, further comprising a second case enclosing the outer periphery of the first case and formed such that a front end of a throughhole has a smaller diameter than a front end of the first case.

9. The catheter of claim 8, further comprising a needle hub integrally coupled to the plug through a protrusion of the plug, enclosing the outer periphery of the second case and formed such that a front end of a throughhole has a smaller diameter than a front end of the second case.

10. The catheter of claim 9, wherein the needle hub, the second case and the first case are sequentially retracted in that order.

11. A catheter comprising:

a needle;

a plug having a front end coupled to the needle;

a moving bar coupled to an outer periphery of the plug;

a pivot integrally coupled to a front end of the moving bar and including a first region through which the needle disposed at its lower portion passes and a second region protruding to an upper portion of the first region;