extends through the catheter cannula **106**, which is supported upon the needle **120** before and during insertion of the catheter cannula **106** into a patient or into a port of a further intravenous infusion device.

A nose piece **122** is positioned at the forward end of the barrel **118**. The nose piece **122** has a tubular rear portion which is rigidly held within the barrel **118**. The forward end of the nose piece **122** forms a housing shaped to hold the rear end of the catheter **100** therein. Specifically, the housing on the forward end of the nose piece **122** surrounds the outer periphery of the septum **108** so that the catheter **100** is removably held in the forward portion of the insertion device **102**. The front end of the nose piece **122** has an aperture formed therein to allow the needle **120** to pass through the hollow interior of the nose piece **122**.

The rear end of the needle is secured to a flash chamber **124** positioned within the barrel **118**. The flash chamber **124** has an opening at the forward end thereof to allow the rear end of the needle **120** to enter the flash chamber **124**, wherein the needle may be secured by adhesive **126**. Hence, the flash chamber **124** provides a needle holding assembly for holding the needle **120** in alignment with the barrel **118**. A hydrophobic vent **128** is positioned in the rear portion of the flash chamber to allow gas to be vented from the interior of the flash chamber when fluid, such as blood, is passed through the needle upon insertion of the catheter into a patient.

The flash chamber **124** is slidably positioned within the barrel **118**, and is biased toward the rear of the barrel **118** by a spring **130**. The spring **130** is compressed between the forward end of the flash chamber **124** and the forward interior surface of the nose piece **122**. In the initial configuration, movement of the flash chamber **124** is restrained by a lever **132**. The central portion of the lever **132** extends in parallel along the barrel **118**, and is held to the barrel **118** by a pivot **134**. The rear portion of the lever **132** is formed to extend along the barrel and has an abutment extending into the barrel **132**. The abutment at the rear portion of the lever has a forward abutment surface in slidable engagement with the rear of the flash chamber **124**. As can been seen in FIG. **4**, the rear of the flash chamber and the forward abutment surface of the rear portion of the lever **132** are mutually canted to provide a camming bias urging the rear portion of the lever out of the barrel, and out of engagement with the flash chamber. The forward portion of the lever **132** extends in parallel with the barrel **118**. An inward surface of the forward portion of the lever **132** abuts against the catheter **100**, and specifically against the the outer rim of the septum **108**. Thus the camming bias against the rear portion of the lever is restrained by the abutment between the forward end of the lever and the catheter **100**.

In order to insert the catheter **100** into an injection site in a patient or other intravenous fluid injection site, the barrel is held between one finger positioned on a grip area **134** on one side of the barrel **118** and another finger positioned on the rear portion of the lever along the other side of the barrel **118**. The needle **120** may then be inserted into the injection site in order to guide the catheter cannula into the site. When the cannula is suitably positioned at the injection site, the catheter **100** is held in place while the insertion device **102** is moved rearwardly to disengage the insertion device **102** from the catheter **100** and to withdraw the needle from the catheter **100** through the septum **108**. As the insertion device **102** is uncoupled from the catheter **100**, the operator may maintain pressure upon the rear portion of the lever **132**, or may remove pressure from the lever **132** to allow retraction of the needle as soon as the tip of the needle is withdrawn from the septum **108**.

Referring now to FIG. **5**, the catheter insertion device **102** and the catheter **100** are illustrated in a configuration in which the operator has withdrawn the needle nearly completely from the catheter **100**, and has released the lever **132**. Upon release of the lever after withdrawal of the catheter **100**, the forward portion of the lever is no longer restrained by abutment with the catheter **100**. Thus the camming bias between the flash chamber and the rear end of the lever urges the rear portion of the lever to move away from the barrel **118** so that the rear abutment surface lever is urged out the barrel. Prior to the tip of the needle being withdrawn from the septum **108**, the flash chamber **124** will remain substantially in the forward portion of the barrel due to friction between the needle **122** and the septum **108**. Upon removal of the needle from the septum **108** and disengagement of the camming abutment between the lever **132** and the flash chamber **124**, the spring **130** then pushes the flash chamber **124** into the rear interior portion of the barrel **118** so that the needle is safely retracted into the barrel as shown in the configuration of FIG. **6**. Retraction of the needle may alternatively be delayed by the operator by maintaining pressure upon the rear portion of the lever **132** until retraction is desired.

The terms and expressions which have been employed are used as terms of description and not of limitation. There is no intention in the use of such terms and expressions of excluding any equivalents of the features shown and described or portions thereof. It is recognized, however, that various modifications are possible within the scope and spirit of the invention. Accordingly, the invention incorporates variations that fall within the scope of the following claims.

What is claimed is:

1. A medical device configured for connection with an infusion device, comprising:

a housing;

a needle projecting forwardly from the housing;

a biasing element biasing the needle rearwardly;

a needle retainer releasably retaining the needle against the bias of the biasing element;

a Y-port slidably displaceable within the housing, comprising:

a first conduit in fluid communications with the needle; and

a second conduit transverse the first conduit, in fluid communication with the needle;

an actuator operable to release the needle from the needle retainer; and

a connector projecting forwardly from the housing and circumscribing the needle, for coupling with the infusion device.

2. The device of claim **1** wherein the actuator is manually actuable.

3. The device of claim **1** wherein the first conduit has a generally open end and the device comprises a piercable seal sealing the open end of the first conduit.

4. The device of claim **1** wherein the device comprises a rearward stop limiting the rearward displacement of the needle after retraction.

5. The device of claim **1** wherein the device comprises a forward stop limiting the forward displacement of the needle after retraction.

6. A medical device comprising:

a longitudinally elongated hollow housing having a generally open rearward end;

a Y-port slidably displaceable within the housing, comprising: