

To enhance the utility of the invention, an elongated, cylindrical, inflatable sheath **50** having a rounded front end **52** and a rear end **54** is utilized. The sheath **50** is dimensioned to surround and enclose the outside front section of the pliable tube **12**, as shown in FIGS. 4-7. The rear end **54** of the sheath **50** incorporates a fluidtight seal that exists between the inside of the sheath and the outside of pliable tube **12**. The sheath **50** is constructed of a relatively thin material such as polyisoprene, latex rubber, polyvinyl chloride, or a similar medically approved material.

The sheath **50** is designed to be inflated by a fluid means supplied under pressure through the pliable tube **12**. A fluid means is intended to include any non-toxic fluid, and while such fluids may include saline solutions, nitrogen or other inert gas or gas mixture, the use of such exotic fluids may be complicated and costly. Therefore, the preferred inflation fluid is air, supplied ambient to the patient, as it is readily available and adequate for surgical purposes. The air is applied into the sheath **50** through an air-vent bore **56**. The bore is located between the rear end **24** of the vial **20** and the rear end **54** of the sheath as shown in FIGS. 4-7. When the sheath **50** is inflated, it expands and produces a soft tip that allows safer and more comfortable intubation.

As previously discussed, the preferred embodiment of the self-illuminating introducer **10** is disclosed in seven designs. In the first design as shown in FIG. 1, the elongated pliable tube **12** is made of a plastic. The rear end **16** of the tube **12** terminates in a sealed loop **60**. The second design as shown in FIG. 2, is similar to the first design with the exception that the pliable tube **12** is made of a metal.

In the third design, a pliable wire **62** that is preferably made of copper, is inserted into the pliable tube **12** which is made of plastic. The wire **62** has a first end **64** and a second end **66**. As shown in FIG. 3, the first end **64** of the wire is positioned adjacent the rear adhesive ring **42**, and the second end **66** of the wire extends to a position near the rear end **16** of the pliable tube **12**. As with the first and second design, the pliable tube **12** of the third design terminates in a sealed loop **60**.

In the fourth design, as shown in FIG. 4, a pliable tube **12** made of plastic, is utilized with an attached inflatable sheath **50**. In this design, the pliable tube **12** has an air-vent bore **56** that allows the sheath **50** to be filled with air. The rear end **16** of the pliable tube **12** terminates at a rear terminating assembly **68** that consists of a terminating tube **70**, a coupler **76**, a receptacle **82** and a clamp **88**, as shown in FIG. 8.

A terminating tube **70** is preferably made of plastic and includes a front end **72** and a rear end **74**. The coupler **76** is constructed of a rubber material and has a front end **78** and a rear end **80**. Into the front end **78** of the coupler **76** is inserted the rear end **16** of the pliable tube **12** and into the rear end **80** of the coupler is inserted the front end **72** of the terminating tube **70**. The receptacle **82** has a front end **84** and a rear end **86**. Into the receptacle's front end **84** is inserted the rear end **74** of the terminating tube **70** and into the rear end **86** of the receptacle **82** is connected a conventional medical syringe that is used to apply fluid into the inflatable sheath **50** via the pliable tube **12**. As also shown in FIG. 8, a pliable clamp **88** is placed between the front end **72** and rear end **74** of the terminating tube **70**. The clamp controls the fluid flow that is applied to expand the inflatable sheath **50**.

The fifth design as shown in FIG. 5, utilizes a pliable tube **12** made of metal that has attached a sheath **50** that is inflated by means of the air-vent bore **56**. The rear end **16** of the metal pliable tube **12** terminates at a rear terminating assembly **68** as described supra.

The sixth design as shown in FIG. 6, is similar to the fourth design shown in FIG. 4. The sixth design further includes a pliable metal tube **90** having a first end **92** and a second end **94**. The metal tube **90** is inserted into the pliable tube **12** with the front end **92** of the metal tube **90** positioned near the air-vent bore **56**. The second end **94** extends into the pliable tube **12** for approximately one-third the length of the pliable tube **12**.

The seventh design as shown in FIG. 7, is similar to the fifth design, as shown in FIG. 5. The seventh design further includes a pliable plastic tube **96** having a first end **98** and a second end **99**. The pliable plastic tube **96** is inserted into the metal pliable tube **12** with the first end **98** of the tube **96** positioned near the air-vent bore **56**. The second end **99** extends into the pliable tube **12** for approximately one-third the length of the pliable tube **12**.

While the invention has been described in complete detail and pictorially shown in the accompanying drawings it is not to be limited to such details, since many changes and modifications may be made in the invention without departing from the spirit and scope thereof. Hence, it is described to cover any and all modifications, compounds and forms which may come within the language and scope of the appended claims.

What I claim is:

1. A self-illuminating introducer for insertion into an endotracheal catheter, said introducer comprising:

- a) an elongated, pliable tube having an open front end and rear end,
- b) a chemiluminescent vial having a front end, a rear end and a diameter that allows said vial to be inserted into the front end of said pliable tube with the front end of said vial positioned distal to the front end of said pliable tube,
- c) means for retaining said vial within said pliable tube comprising at least a ring of adhesive around the front end of said vial for sealingly and fixedly adhering said vial to said open front end of said elongated pliable tube, whereupon, when said pliable tube, is sufficiently bent or pressed, around the area encompassing said vial, said vial produces a chemiluminescent light that is emitted from the front end of said pliable tube,
- d) means for terminating the rear end of said pliable tube,
- e) the introducer further comprising an elongated, cylindrical, inflatable sheath having a front end and a rear end, where said sheath surrounds and enclosed the front end of said pliable tube.

2. The introducer as specified in claim 1 wherein said pliable tube is made of a plastic having a relatively thick wall to prevent buckling during use.

3. The introducer as specified in claim 2 wherein said plastic is polyvinyl chloride (PVC).

4. The introducer as specified in claim 1 wherein said pliable tube is made of a metal or an alloy having a relatively thick wall to prevent buckling during use.

5. The introducer as specified in claim 4 wherein said metal is aluminum.

6. The introducer as specified in claim 1 wherein said means for retaining said vial comprises:

- a) a ring of adhesive placed around the rear end of said vial and the interfacing surface of said pliable tube, and
- b) a ring of adhesive placed around the front end of said vial and the contact surface of said pliable tube.

7. A self-illuminating introducer for insertion into an endotracheal catheter, said introducer comprising:

- a) an elongated, pliable tube having an open front end and rear end,