CLAIMS:

1. An intravenous catheter apparatus comprising:

a tubular catheter having a proximal end and a distal end and an inner diameter;

a needle defining an axial direction and having a needle shaft, said needle shaft further including an inner diameter defining a lumen for blood to pass and an outer diameter adjacent to said inner diameter of the tubular catheter; and a needle tip at a distal end of the needle shaft;

a gap between said inner diameter of the tubular catheter and said outer diameter of the needle shaft;

said needle shaft extending through said tubular catheter such that said needle tip of said needle protrudes from said distal end of said tubular catheter;

said needle shaft comprising an engagement means adapted to engage with a needle guard slidably arranged on said needle shaft in order to prevent said needle guard from sliding off said needle tip;

said needle shaft further comprises a lateral opening extending from said outer diameter of the needle shaft to said inner diameter of the needle shaft for permitting blood to pass from said lumen into said gap; wherein said lateral opening is arranged between said engagement means and said needle tip such that said lateral opening is covered by said tubular catheter, and

said lateral opening provides communication between said lumen of said needle and an interior of said tubular catheter.

2. An intravenous catheter apparatus in accordance with claim 1, wherein said lateral opening comprises a slot cut into said needle shaft in a direction transverse to said axial direction.

3. An intravenous catheter apparatus in accordance with claim 1, wherein an outer diameter of the needle shaft is slightly smaller than an inner diameter of said tubular catheter.

4. An intravenous catheter apparatus in accordance with claim 1, wherein said tubular catheter is slightly tapered in its distal end region such that the distal end of the tubular catheter tightly surrounds the needle shaft.

5. An intravenous catheter apparatus in accordance with claim 1, wherein said engagement means comprises an enlargement of said needle shaft in at least one direction transverse to the axial direction.

6. An intravenous catheter apparatus in accordance with claim 1, wherein said engagement means comprises a crimped portion of said needle shaft.

7. An intravenous catheter apparatus in accordance with claim 1, wherein said tubular catheter comprises a transparent material.

8. An intravenous catheter apparatus in accordance with claim 6, wherein said crimped portion extending radially inwards.

9. An intravenous catheter apparatus in accordance with claim 1, wherein said needle guard includes at least one arm longer than a distance between said needle tip and said engagement means such that a part of said needle guard covers said needle tip before said needle guard engages with said engagement means.

10. An intravenous catheter apparatus according to any one of the preceding claims, wherein the engagement means consists of a crimped portion of the needle shaft so as to allow direct engagement between the needle shaft and the needle guard.