Claims

[Claim 1] A needle guard (26) for use in a medical device, in particular for use in a catheter device (10), including:
a base portion (44) made of a first material and having a needle passage (56) extending in an axial direction (A) from a proximal side (58) of said base portion (44) through said base portion (44) to a distal side (60) of said base portion (44) for movably receiving a needle shaft (28) having a principle outer profile;
first and second arms (46, 48) extending substantially in said axial direction (A) from said distal side (60) of said base portion (44), wherein said first arm (46) has a distal region (62) and a proximal region (64);
a distal wall (50) transversely arranged at said distal region (62) of said first arm (46); and
a stopping element (38) which is slidably arranged on the needle shaft (28) and movable relative to said base portion (44).

[Claim 2] A needle guard (26) in accordance with claim 1, wherein a maximum outer dimension of said stopping element (38) seen in a direction transverse to said axial direction (A) is larger than a maximum transverse dimension of said needle passage (56).

[Claim 3] A needle guard (26) in accordance with claim 1 or 2, wherein said stopping element (38) has a through-bore (86) with a profile that is adapted to the principal outer profile of the needle shaft (28).

[Claim 4] A needle guard (26) in accordance with any one of the preceding claims, wherein said stopping element (38) is made of a second material different from said first material.

[Claim 5] A needle guard (26) in accordance with any one of the preceding claims, wherein said second material is of a greater hardness and/or stiffness than the first material.

[Claim 6] A needle guard (26) in accordance with any one of the preceding claims, wherein said stopping element (38) is arranged in said base portion (44).

[Claim 7] A needle guard (26) in accordance with any one of the preceding claims, wherein said stopping element (38) is arranged in a cavity or cut out provided in said base portion (44).

[Claim 8] A needle guard (26) in accordance with any one of claims 1 to 5, wherein said stopping element (38) is arranged between said first and

second arms (46, 48).

[Claim 9] A needle guard (26) in accordance with any one of the preceding claims, wherein said stopping element (38) has a disk-like, ring-like or tube-like shape.

[Claim 10] A needle guard (26) in accordance with any one of the preceding claims, wherein a tension element (52) is provided which is arranged such that it surrounds said first and second arms (46, 48) of said needle guard (26).

[Claim 11] A needle guard (26) in accordance with any one of the preceding claims, wherein at least one L-shaped extension (72, 74) extends from said base portion (44), a section of said L-shaped extension (72, 74) extending generally in said axial direction (A).

[Claim 12] A needle guard (26) in accordance with claim 11, wherein two L-shaped extensions (72, 74) are provided on opposite sides of said base portion (44).

[Claim 13] A needle guard (26) in accordance with any one of the preceding claims, wherein a recess (68) is provided in said proximal region (64) of said first arm (46).

[Claim 14] A needle guard (26) in accordance with any one of the preceding claims, wherein a groove is provided in a side (66) of said distal wall (50), said groove extending substantially in said axial direction (A).

[Claim 15] A catheter apparatus (40), including:
a catheter tube (14); a catheter hub (12);
a needle (20) having a needle tip (30) and a needle shaft (28), wherein said needle shaft (28) has a distal section (34) and a proximal section (36), with at least the proximal section (36) having a principal outer profile; and
a needle guard (26) in accordance with any one of the preceding claims, wherein said needle shaft (28) has an enlargement (32) between said distal section (34) and said proximal section (36), said enlargement (32) having an increased outer profile a dimension of which is larger than a maximum dimension of the profile of the needle passage (56) and/or the stopping element (38).

CLAIMS

1. A needle guard (26) for use in a medical device, in particular for use in a catheter device (10), including:

a base portion (44) made of a first material and having a needle passage (56) extending in an axial direction (A) from a proximal side (58) of the base portion (44) through the base portion (44) to a distal side (60) of the base portion (44) for movably receiving a needle shaft (28) having a principle outer profile;

first and second arms (46, 48) extending substantially in the axial direction (A) from the distal side (60) of the base portion (44), in which the first arm (46) has a distal region (62) and a proximal region (64);

a distal wall (50) transversely arranged at the distal region (62) of the first arm (46); and

a stopping element (38) which is slidably arranged on the needle shaft (28) and is movable relative to the base portion (44) in which at least one L-shaped extension (72, 74) extends from the base portion (44) and a section of the L-shaped extension (72, 74) extends generally in the axial direction (A).

2. A needle guard (26) according to Claim 1, in which a maximum outer dimension of the stopping element (38) seen in a direction transverse to the axial direction (A) is larger than a maximum transverse dimension of the needle passage (56).

3. A needle guard (26) according to Claim 1 or 2, in which the stopping element (38) has a through-bore (86) with a profile that is adapted to the principal outer profile of the needle shaft (28).

4. A needle guard (26) according to any preceding claim, in which the stopping element (38) is made of a second material different from the first material.

5. A needle guard (26) according to any preceding claim, in which the second material is of a greater hardness and/or stiffness than the first material.

6. A needle guard (26) according to any preceding claim, in which the stopping element (38) is arranged in the base portion (44).

7. A needle guard (26) according to any preceding claim, in which the stopping element (38) is arranged in a cavity or cut out provided in the base portion (44).

8. A needle guard (26) according to any of Claims 1 to 5, in which the stopping element (38) is arranged between the first and second arms (46, 48).

9. A needle guard (26) according to any preceding claim, in which the stopping element (38) has a disk-like, ring-like or tube-like shape.

10. A needle guard (26) according to any preceding claim, in which a tension element (52) is provided which is arranged such that it surrounds the first and second arms (46, 48) of the needle guard (26).

11. A needle guard (26) according to any preceding claim, in which two L-shaped extensions (72, 74) are provided on opposite sides of the base portion (44).

12. A needle guard (26) according to any preceding claim, in which a recess (68) is provided in the proximal region (64) of the first arm (46).

13. A needle guard (26) according to any preceding claim, in which a groove is provided in a side (66) of the distal wall (50), the groove extending substantially in the axial direction (A).

14. A catheter apparatus (40), including:

a catheter tube (14);

a catheter hub (12);

a needle (20) having a needle tip (30) and a needle shaft (28), in which the needle shaft (28) has a distal section (34) and a proximal section (36), with at least the proximal section (36) having a principal outer profile; and

a needle guard (26) according to any preceding claim,

in which the needle shaft (28) has an enlargement (32) between the distal section (34) and the proximal section (36), the enlargement (32) having an increased outer profile a dimension of which is larger than a maximum dimension of the profile of the needle passage (56) and/or the stopping element (38).