the dose, a drive member which is adapted to follow and preferably follows rotational movement of the rotation member in the second direction during delivery of the dose, and a stop member which is adapted to prevent and preferably prevents rotational movement of the drive member with respect to the housing in the first direction during setting of the dose. The drive member and the piston rod are configured for rotational movement of the drive member with respect to the housing being converted into rotational movement of the piston rod with respect to the housing, wherein the rotational movement of the drive member in the second direction is converted into movement of the piston rod in the distal direction with respect to the housing, in particular by means of mechanical cooperation of drive member and rotation member.

Mechanical interaction of stop member and drive member, for example interlocking, engagement, and/or abutment, during rotation of the rotation member in the first direction may prevent rotational movement of the drive member with respect to the housing in the first direction and, in particular, with respect to the stop member during setting of the dose. Thus, rotation of the drive member during dose setting can be avoided. The drive member may be coupled to the piston rod so as to convert its rotational movement in the second direction into distal movement of the piston rod with respect to the housing. The drive member may (also) be coupled to the piston rod so as to convert its rotational movement in the first direction with respect to the housing into proximal movement of the piston rod with respect to the housing. Accordingly, the risk of the piston rod being moved in the proximal direction during dose setting can be reduced by preventing rotational movement of the drive member in the first direction during setting of the dose due to provision of the stop member. Unintentional proximal movement of the piston rod may result in decreased dose accuracy. Consequently, dose accuracy may be improved by preventing (any) rotation of the drive member with respect to the housing during dose setting.

According to a preferred embodiment, the drive member and the rotation member are rotatable around a common rotation axis.

According to another preferred embodiment, the piston rod is displaced in the distal direction with respect to the housing along the rotation axis. The rotation axis may run along the piston rod and, in particular, along a main direction of extent of the piston rod. The piston rod may be splined or rotationally locked to the drive member. The piston rod may be threadedly coupled to the housing to convert rotational

Claims

1. A drive mechanism for a medication delivery device ~~(1)~~, comprising:
- a housing ~~(13, 17, 40)~~ having a proximal end and a distal end,
- a rotation member ~~(21)~~ which is adapted to be rotated in a first direction with respect to the housing during setting of a dose of a medication ~~(5)~~ and to be rotated in a second direction with respect to the housing during delivery of the dose, the second direction being opposite to the first direction,
- a piston rod ~~(12)~~ which is adapted to be displaced in a distal direction with respect to the housing for delivering the dose,
- a drive member ~~(20)~~ which is adapted to follow rotational movement of the rotation member in the second direction during delivery of the dose, and
- a stop member ~~(26)~~ which is adapted to prevent rotational movement of the drive member with respect to the housing in the first direction during setting of the dose,
characterized in that
The drive member ~~(20)~~ and the piston rod ~~(12)~~ are configured for rotational movement of the drive member ~~(20)~~ with respect to the housing ~~(13, 17, 40)~~ being converted into rotational movement of the piston rod ~~(12)~~ with respect to the housing ~~(13, 17, 40)~~, and that
- the rotational movement of the drive member in the second direction is converted into movement of the piston rod in the distal direction with respect to the housing by means of mechanical cooperation of drive member ~~(20)~~ and rotation member ~~(21)~~.

2. The drive mechanism of claim 1,
wherein the drive mechanism comprises a dose member ~~(16, 34, 41)~~ which is moveable with respect to the housing ~~(13, 17, 40)~~ during setting and delivery of the dose, and wherein movement of the dose member with respect to the housing is converted into rotational movement of the rotation member with respect to the housing.

3. The drive mechanism of claim 2,
wherein the dose member ~~(16, 34, 41)~~ is secured against rotational movement with respect to the housing ~~(13, 17, 40)~~.

4. The drive mechanism of any one of the preceding claims,
wherein the drive member ~~(20)~~ and the rotation member ~~(21)~~ are rotatable about a common rotation axis.

5. The drive mechanism of claim 4,
wherein the piston rod ~~(12)~~ is displaced in the distal direction with respect to the housing ~~(13, 17, 40)~~ along the rotation axis or wherein the piston rod ~~(12)~~ is displaced in the distal direction with respect to the housing ~~(13, 17, 40)~~ transversally with respect to the rotation axis.

6. The drive mechanism of any one of the preceding claims,
wherein the drive member ~~(20)~~ is arranged between the stop member ~~(26)~~ and the rotation member ~~(21)~~.

7. The drive mechanism of claim 2 or any claim depending thereon,
wherein the dose member ~~(16, 34, 41)~~ and the rotation member ~~(21)~~ are threadedly engaged.

8. The drive mechanism of claim 2 or any claim depending thereon,
wherein the dose member ~~(16, 34, 41)~~ and the rotation member ~~(21)~~ are coupled to one another by a lever ~~(55)~~, the lever being pivotally around the rotation axis during movement of the dose member for setting and delivery of the dose.

9. The drive mechanism of any one of the preceding claims,
wherein the drive member ~~(20)~~ and the rotation member ~~(21)~~ are coupled to one another by a first uni-directional friction clutch mechanism, which is configured to permit relative rotational movement between rotation member and drive member during rotation of the rotation member in the first direction for setting of the dose and to prevent relative rotational movement of rotation member and drive member during rotation of the rotation member in the second direction for delivery of the dose.

10. The drive mechanism of any one of the preceding claims,
wherein the drive member ~~(20)~~ and the stop member ~~(26)~~ are coupled to one another by a second uni-directional friction clutch mechanism, which is configured to prevent relative rotational movement between stop member and drive member during rotation of the rotation member ~~(21)~~ in the first direction for setting of the dose

and to permit relative rotational movement of stop member and drive member during rotation of the rotation member in the second direction for delivery of the dose.

11. The drive mechanism of any one of the preceding claims,
wherein the stop member ~~(26)~~ is secured against rotational movement with respect to the housing ~~(13, 17, 40)~~.

12. The drive mechanism of any one of the preceding claims,
wherein the stop member ~~(26)~~ is moveable in an axial direction with respect to the housing ~~(13, 17, 40)~~.

13. The drive mechanism of any one of the preceding claims,
wherein,
- the rotation member ~~(21)~~ is adapted to be rotated in the first direction around a rotation axis,
- the drive member comprises a toothing ~~(22)~~ with a plurality of teeth ~~(24)~~ and the rotation member comprises a toothing ~~(23)~~ with a plurality of teeth ~~(25)~~, wherein the toothing of the drive member mates with the toothing of the rotation member and the teeth of the toothing of the rotation member and the teeth of the toothing of the drive member extend along the rotation axis,
- the drive member abuts the stop member and the rotation member during movement of the rotation member for setting and delivering of the dose, and
- the rotation member and the stop member are held in abutment with the drive member by a force provided by a spring member ~~(31)~~ during setting and delivery of the dose.

14. The drive mechanism of claim 13,
wherein the stop member ~~(26)~~ has a toothing ~~(27)~~ and the drive member ~~(20)~~ has a further toothing ~~(28)~~, the toothing ~~(22)~~ of the drive member and the further toothing of the drive member being oppositely disposed.

15. The drive mechanism of claim 13 or 14,
wherein teeth of the respective toothing are ramp-shaped.

16. A medication delivery device ~~(1)~~ comprising the drive mechanism according to any one of the preceding claims and a cartridge ~~(4)~~, the cartridge holding a plurality of doses of the medication ~~(5)~~.