

Claims

[Claim 1] A drug delivery device, comprising:

- a body;
- a plunger rod including a proximal end portion and a distal end portion disposed partially inside the body, wherein the proximal end portion has a diameter greater than a diameter of the distal end portion;
- a protrusion extending from an outer surface of the proximal end portion of the plunger rod; and
- a blocking component coupled to a proximal end portion of the body, wherein the blocking component is a flange piece,

wherein, when the protrusion is in a first position relative to the blocking component, the blocking component restricts distal movement of the plunger rod to a first stopping point, and when the protrusion is in a second position relative to the blocking component, the blocking component restricts distal movement of the plunger rod to a second stopping point.

[Claim 2] A drug delivery device, comprising:

- a body;
- a plunger rod having a distal end contacting a stopper inside the body, and a proximal end including an actuation portion with a thumb pad;
- a plurality of protrusions extending from the thumb pad to the actuation portion; and
- a blocking component disposed on the body, the blocking component including a proximal collar having a proximally-facing surface and a plurality of slots extending past the proximally-facing surface,

wherein, when the protrusions and the slots are in a first configuration relative to one another, the proximally-facing surface abuts against the plurality of protrusions and the blocking component restricts distal movement of the plunger rod to a first stopping point, and when the protrusions and the slots are in a second configuration, the proximally-facing surface is separated from the plurality of protrusions and the

blocking component restricts distal movement of the plunger rod to a second stopping point,

wherein, in the second configuration, the slots are aligned with the protrusions and configured to receive the protrusions upon distal movement of the plunger rod.

[Claim 3] A drug delivery device, comprising:

a body;

a plunger rod extending along a longitudinal axis, including:

a distal portion contacting a stopper inside the body;

a proximal end including a generally cylindrical actuation portion and a thumb pad disposed outside of the body, the thumb pad positioned proximal to the generally cylindrical actuation portion; and

two protrusions extending from opposite sides of the actuation portion in a symmetrical configuration, wherein distally-facing surfaces of the two protrusions are located at a same longitudinal position along the longitudinal axis; and

a blocking component coupled to the body, the blocking component including:

a collar configured to accept a distal part of the actuation portion; and

two cavities in the collar having proximally-facing openings, wherein each cavity is configured to accept a distal portion of one of the two protrusions;

wherein the plunger rod is longitudinally movable and rotatable about a longitudinal axis relative to the blocking component, and

wherein, when the drug delivery device is in a pre-use state, the protrusions and the cavity openings are not longitudinally aligned, and when the drug delivery device is in a delivery state, the protrusions and the cavity openings are longitudinally aligned.

[Claim 4] A method of dispensing a substance from a drug delivery device having a plunger rod and a body, the method comprising:

(a) advancing the plunger rod by a predetermined distance into the body until advancement of the plunger rod is resisted by a stop;

(b) rotating the plunger rod about a longitudinal axis; and

(c) actuating the plunger rod to dispense a predetermined volume of the substance,
wherein none of steps (a), (b), and (c) are reversible.

[Claim 5] A drug delivery device, comprising:
a body;
a stopper disposed inside the body;
a sleeve having a proximal end and a distal end, the distal end being disposed inside the body, proximally from the stopper; and
a plunger rod disposed at least partially inside the sleeve;
wherein, when the stopper is in a ready position, distal advancement of one of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a primed position, and
wherein, when the stopper is in the primed position, distal advancement of another of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a dose completion position.

[Claim 6] A drug delivery device, comprising:
a body;
a plunger rod having a distal portion disposed inside the body and a proximal portion disposed outside a proximal end of the body, the proximal portion having a width greater than a width of the distal portion; and
an obstruction that, in an obstructing position relative to the plunger rod, prevents distal advancement of the plunger rod from a primed position to a dose completion position,
wherein displacement of the obstruction from the obstructing position permits distal advancement of the plunger rod to the dose completion position.

[Claim 7] A drug delivery device, comprising:
a body;

a sleeve affixed to the body, the sleeve including a proximal end, a distal end, and an opening disposed in a circumferential wall of the sleeve;

a plunger rod passing through the sleeve, the plunger rod including a distal end portion disposed inside the body, and a radially-extending protrusion;

wherein the plunger rod may be distally advanced into the body from a ready position to a primed position,

wherein, in the primed position, the protrusion of the plunger rod is disposed inside the opening, and further distal advancement of the plunger rod is resisted by contact between the protrusion and a wall of the opening, and

wherein pressure may be exerted on the protrusion to overcome the resistance to further distal advancement of the plunger rod.

[Claim 8] A drug delivery device, comprising:

a body;

a plunger rod including a distal end portion disposed inside the body and a rotatable element; and

a sleeve affixed to the body, the sleeve including a proximal opening into which the plunger rod may be advanced,

wherein rotating the rotatable element causes distal advancement of the plunger rod to a primed position, and

wherein once the plunger rod is in the primed position, further rotation of the rotatable element is resisted.

[Claim 9] A drug delivery device, comprising:

a body;

a plunger rod having along a longitudinal axis defined between a proximal end and a distal end, wherein the proximal end defines a thumb pad that is transverse relative to the longitudinal axis;

a blocking member extending outward from the plunger rod in a radial direction that is transverse to the longitudinal axis, wherein the blocking member is positioned distally from the proximal end; and

a flange piece coupled to a proximal end portion of the body, wherein the flange piece includes a first proximally-facing surface and a second proximally-facing surface that is distal to the first proximally-facing surface;

wherein the plunger rod is configured to abut the blocking member against the first proximally-facing surface when moved distally relative to the flange piece to a first position, separate the blocking member from the first proximally-facing surface when rotated relative to the flange piece from the first position to a second position, and abut the blocking member against the second proximally-facing surface when moved distally relative to the flange piece from the second position to a third position.

[Claim 10] A drug delivery device, comprising:

a body;

a plunger rod including a proximal end portion and a distal end portion disposed partially inside the body, wherein the proximal end portion has a diameter greater than a diameter of the distal end portion;

a protrusion extending from an outer surface of the proximal end portion of the plunger rod; and

a blocking component coupled to a proximal end portion of the body, wherein the blocking component is a flange piece that includes a channel with an open distal end and a slot with a closed distal end,

wherein, when the protrusion is in a first position relative to the blocking component, the protrusion is misaligned with the slot and the blocking component restricts distal movement of the plunger rod through the open distal end to a first stopping point, and when the protrusion is in a second position relative to the blocking component, the protrusion is aligned with the slot and the blocking component restricts distal movement of the plunger rod through the open distal end to a second stopping point when the protrusion abuts against the closed distal end.

[Claim 11] A drug delivery device, comprising:

a body;

a plunger rod having a distal end contacting a stopper inside the body, and a proximal end including an actuation portion with a thumb pad;

a plurality of protrusions extending from the thumb pad and along the actuation portion; and

a blocking component disposed on the body, the blocking component including a proximal collar having a proximal-facing surface, a channel with an open distal end, and

a plurality of slots extending past the proximally-facing surface, each of the plurality of slots including a closed distal end;

wherein, when the protrusions and the slots are in a first configuration relative to one another, the plunger rod is moveable relative to the blocking component until the proximally-facing surface abuts against the plurality of protrusions and the blocking component restricts distal movement of the plunger rod through the open distal end to a first stopping point,

wherein, in the first configuration, the plurality of protrusions are misaligned with the plurality of slots; and

wherein, when the protrusions and the slots are in a second configuration, the proximally-facing surface is separated from the plurality of protrusions and the plunger rod is moveable relative to the blocking component until the blocking component restricts distal movement of the plunger rod through the open distal end to a second stopping point, wherein, in the second configuration, the slots are aligned with the protrusions and configured to receive the protrusions until each of the protrusions abuts against the closed distal end of the slots.

[Claim 12] A drug delivery device, comprising:

a body;

a plunger rod extending along a longitudinal axis, including:

a distal portion contacting a stopper inside the body;

a proximal end including a generally cylindrical actuation portion and a thumb pad disposed outside of the body, the thumb pad positioned proximal to the generally cylindrical actuation portion; and

two protrusions extending from opposite sides of the actuation portion in a symmetrical configuration, wherein distally-facing surfaces of the two protrusions are located at a same longitudinal position along the longitudinal axis; and

a blocking component coupled to the body, the blocking component including:
a collar having a channel with an open proximal end configured to accept a distal part of the actuation portion, and an open distal end configured to accept the distal portion of the plunger rod; and
two slots in the collar having closed distal ends, wherein each slot is configured to accept a distal portion of one of the two protrusions;
wherein the plunger rod is longitudinally moveable and rotatable about a longitudinal axis relative to the blocking component, and
wherein, when the drug delivery device is in a pre-use state, the protrusions and the slots are not longitudinally aligned such that the plunger rod is moveable relative to the open distal end until the distally-facing surfaces abut against the collar, and when the drug delivery device is in a delivery state, the protrusions and the slots are longitudinally aligned such that the plunger rod is moveable relative to the open distal end until the distally-facing surfaces abut against the closed distal ends.

[Claim 13] A drug delivery device, comprising:
a body;
a plunger rod having a distal end contacting a stopper inside the body, and a proximal end including an actuation portion with a thumb pad;
a plurality of protrusions extending from the actuation portion; and
a blocking component disposed on the body, the blocking component including a proximal collar having a plurality of slots,
wherein, when the protrusions and the slots are in a first configuration relative to one another, the blocking component restricts distal movement of the plunger rod to a first stopping point, and when the protrusions and the slots are in a second configuration, the blocking component restricts distal movement of the plunger rod to a second stopping point,
wherein, in the second configuration, the slots are configured to receive the protrusions upon distal movement of the plunger rod.

[Claim 14] A drug delivery device, comprising:
a body;

a stopper disposed inside the body;
a sleeve having a proximal end and a distal end, the distal end being disposed inside the body, proximally from the stopper; and
a plunger rod disposed at least partially inside the sleeve;
wherein, when the stopper is in a ready position, distal advancement of one of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a primed position, and
wherein, when the stopper is in the primed position, distal advancement of another of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a dose completion position.

[Claim 15] A drug delivery device, comprising:

a body;
a plunger rod including a proximal neck and a distal neck, wherein the proximal neck and the distal neck are rotationally offset from one another;
a flange including an opening, wherein the flange is coupled to the body, and configured to allow the plunger rod to extend into the body through the opening when the plunger rod is oriented in at least one of two configurations relative to the flange;
wherein, when the plunger rod is in a first configuration relative to the flange, the distal neck is misaligned with the opening and the flange restricts distal movement of the plunger rod through the opening, and when the plunger rod is in a second configuration relative to the flange, the distal neck is aligned with the opening and the flange allows distal movement of the plunger rod through the opening until the proximal neck abuts the flange.

[Claim 16] A drug delivery device, comprising:

a body;
a flange coupled to the body, the flange including a channel defined by an interior surface and a groove formed in the interior surface; and
a plunger rod coupled to the flange, the plunger rod including a proximal end and an extension extending distally from the proximal end;

wherein the groove is configured to receive the extension as the plunger rod moves relative to the flange, and the extension is configured to engage the body of the flange.

- [Claim 17] A drug delivery device, comprising:
- a body storing a dose of medicament;
 - a flange coupled to the body, the flange including a sidewall, a channel defined by the sidewall, and a pair of grooves formed along an interior of the sidewall; and
 - a plunger rod coupled to the flange and at least partially disposed within the body, the plunger rod including a proximal end and a pair of extensions extending distally from the proximal end;
- wherein the plunger rod is configured to prime the drug delivery device by moving a first stroke relative to the flange, thereby positioning the pair of extensions against the sidewall; and
- wherein the plunger rod is configured to prepare the drug delivery device for delivering the dose of medicament by rotating relative to the flange, thereby generating a user feedback as the pair of extensions expand radially-outward from a compressed state to an extended state upon engaging the pair of grooves.

- [Claim 18] A drug delivery device, comprising:
- a body;
 - a flange coupled to the body, the flange including a collar having a channel configured to accept the plunger rod, and a pair of grooves positioned along opposite sides of the channel; and
 - a plunger rod coupled to the flange, the plunger rod including a proximal portion and a pair of extensions extending distally from opposite sides of the proximal portion;
- wherein the plunger rod is longitudinally moveable and rotatable relative to the flange, wherein the plunger rod is configured to:
- move distally relative to the flange by an initial stroke to prime the drug delivery device, wherein the pair of extensions are radially misaligned with and positioned outside of the pair of grooves as the plunger rod moves the initial stroke;

rotate relative to the flange to prepare the drug delivery device for delivering a dose of medicament from the body, wherein the pair of extensions radially align with and contact the pair of grooves, thereby generating an audible feedback, as the plunger rod rotates relative to the flange; and

move distally relative to the flange by a final stroke to deliver the dose of medicament from the drug delivery device, wherein the pair of extensions are maintained inside and in contact with the pair of grooves as the plunger rod moves the final stroke.

[Claim 19] A drug delivery device, comprising:
a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body.

[Claim 20] A drug delivery device, comprising:
a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the plunger rod includes a plurality of protrusions extending from the proximal portion, the blocking component includes a proximal collar having a proximal-facing surface and a plurality of slots extending past the proximally-facing surface;

wherein, when the protrusions and the slots are in a first configuration relative to one another, the proximally-facing surface abuts against the plurality of protrusions

and the blocking component restricts distal movement of the plunger rod to a first stopping point, and when the protrusions and the slots are in a second configuration, the proximally-facing surface is separated from the plurality of protrusions and the blocking component restricts distal movement of the plunger rod to a second stopping point, wherein, in the second configuration, the slots are aligned with the protrusions and configured to receive the protrusions upon distal movement of the plunger rod.

[Claim 21] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the plunger rod extends along a longitudinal axis, and the proximal portion includes a generally cylindrical actuation portion and a thumb pad disposed outside of the body, the thumb pad positioned proximal to the generally cylindrical actuation portion;

wherein the plunger rod includes two protrusions extending from opposite sides of the actuation portion in a symmetrical configuration, wherein distally-facing surfaces of the two protrusions are located at a same longitudinal position along the longitudinal axis, the plunger rod is longitudinally movable and rotatable about the longitudinal axis relative to the blocking component;

wherein the blocking component includes a collar configured to accept a distal part of the actuation portion, and two cavities in the collar having proximally-facing openings, wherein each cavity is configured to accept a distal portion of one of the two protrusions;

wherein, when the drug delivery device is in a pre-use state, the protrusions and the cavity openings are not longitudinally aligned, and when the drug delivery device is in a delivery state, the protrusions and the cavity openings are longitudinally aligned.

[Claim 22] A drug delivery device, comprising:

- a body;
- a stopper disposed within the body;
- a blocking component coupled to the body; and
- a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein a method of dispensing a substance from the drug delivery includes:

- (a) advancing the plunger rod by a predetermined distance into the body until advancement of the plunger rod is resisted by a stop;
- (b) rotating the plunger rod about a longitudinal axis; and
- (c) actuating the plunger rod to dispense a predetermined volume of the substance.

[Claim 23] A drug delivery device, comprising:

- a body;
- a stopper disposed within the body;
- a blocking component coupled to the body; and
- a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a sleeve affixed to the body, the sleeve including a proximal end, a distal end, and an opening disposed in a circumferential wall of the sleeve;

wherein the plunger rod passes through the sleeve, and includes a radially-extending protrusion, the plunger rod may be distally advanced into the body from a ready position to a primed position,

wherein, in the primed position, the protrusion of the plunger rod is disposed inside the opening, and further distal advancement of the plunger rod is resisted by contact between the protrusion and a wall of the opening; and

wherein pressure may be exerted on the protrusion to overcome the resistance to further distal advancement of the plunger rod.

[Claim 24] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the plunger rod has a longitudinal axis defined between a proximal end and a distal end, the proximal end defines a thumb pad that is transverse relative to the longitudinal axis;

wherein the blocking member extends outward from the plunger rod in a radial direction that is transverse to the longitudinal axis, wherein the blocking member is positioned distally from the proximal end; and

wherein the drug delivery device includes a flange piece coupled to a proximal end portion of the body, wherein the flange piece includes a first proximally-facing surface and a second proximally-facing surface that is distal to the first proximally-facing surface;

wherein the plunger rod is configured to abut the blocking member against the first proximally-facing surface when moved distally relative to the flange piece to a first position, separate the blocking member from the first proximally-facing surface when rotated relative to the flange piece from the first position to a second position, and abut the blocking member against the second proximally-facing surface when moved distally relative to the flange piece from the second position to a third position.

[Claim 25] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a flange coupled to the body, the flange including a collar having a first channel and a second channel formed along an internal surface of the collar; and

wherein the plunger rod includes a protrusion extending radially-outward from the proximal portion, the protrusion is received within the first channel when the plunger rod is coupled to the flange in a first position, the plunger rod is configured to move the protrusion through the first channel to prime the drug delivery device until the plunger rod is in a second position relative to the flange, wherein the plunger rod is configured to move through the second channel to deliver a dose from the drug delivery device until the plunger rod is in a third position relative to the flange.

[Claim 26] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a flange coupled to the body, the flange including a collar having an opening at a proximal end of the collar and a threaded portion formed along an internal surface of the collar, the plunger rod includes a protrusion extending radially-outward from the proximal portion, and a threaded portion formed along the proximal portion distal to the protrusion;

wherein the threaded portion of the plunger rod engages the threaded portion of the collar and the protrusion is positioned outside of the opening when the plunger rod is coupled to the flange in a first position;

wherein, when in the first position, the plunger rod is configured to rotate relative to the flange to prime the drug delivery device until the plunger rod is in a second position relative to the flange, the protrusion being received within the opening when the plunger rod is in the second position; and

wherein, when in the second position, the plunger rod is configured to translate relative to the flange to deliver a dose from the drug delivery device until the plunger rod is in a third position relative to the flange, the protrusion being removed from the opening when the plunger rod is in the third position.

[Claim 27] A drug delivery device, comprising:
a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;
wherein a method of assembling the drug delivery device includes:
coupling the blocking component to the body;
inserting the plunger rod through an assembly of the blocking component and the body, the distal portion of the plunger rod contacting the stopper within the body.

[Claim 28] A drug delivery device, comprising:
a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received

within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the distal portion includes a neck and a stem that is positioned distally of the neck, and the blocking component includes a flange having an opening that is configured to interface with one or more of the neck and the stem to control movement of the plunger rod relative to the body.

[Claim 29] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes one or more visualization mechanisms that are configured to guide movement of the plunger rod relative to the blocking component;

wherein the one or more visualization mechanisms define at least an initial position, a priming position, and a dosage delivery position of the plunger rod relative to the blocking component.

[Claim 30] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body;

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body; and

a flange coupled to the body, wherein the blocking component is coupled to an end of the flange opposite of the body;

wherein the blocking component includes a first channel and a second channel, and the plunger rod includes a protrusion extending radially-outward between the proximal portion and the distal portion;

wherein the protrusion is received within the first channel when the plunger rod is in a first position relative to the blocking component, and the plunger rod is configured to move the protrusion through the first channel to prime the drug delivery device until the plunger rod is in a second position relative to the blocking component;

wherein, when in the second position, the plunger rod is configured to move the protrusion through the second channel to deliver a dose from the drug delivery device until the plunger rod is in a third position relative to the blocking component.

[Claim 31] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a proximal lip and at least one ledge extending proximally outward from the proximal lip, thereby defining one or more recessed surfaces along a portion of the proximal lip positioned adjacent to the at least one ledge.

[Claim 32] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes an outer collar and an inner collar at least partially received within the outer collar, the inner collar is configured to rotate and translate relative to the outer collar;

wherein the plunger rod is configured to move distally relative to the inner collar to a first position to prime the drug delivery device, and move distally with the inner collar relative to the outer collar to a second position to deliver a dose from the drug delivery device.

[Claim 33] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a first flange having a first opening and a second flange having a second opening, the first flange is coupled and configured to move relative to the second flange; and

wherein the plunger rod includes a stem extending through the body, the first opening and the second opening collectively define a central opening of the blocking component for receiving the plunger rod, the blocking component is configured to selectively adjust the central opening in response to the first flange moving relative to the second flange between a plurality of configurations.

[Claim 34] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received

within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a first flange and a second flange that is positioned distally relative to the first flange, the first flange includes a first opening and a second opening that is distal relative to the first opening;

wherein the plunger rod includes a protrusion extending radially-outward from the plunger rod between the proximal portion and the distal portion, the plunger rod is configured to move relative to the blocking component to a first position until the protrusion is received within the first opening for priming the drug delivery device, and to a second position until the protrusion is received within the second opening for delivering a dose from the drug delivery device.

[Claim 35] A drug delivery device, comprising:

a body;

a stopper disposed within the body;

a blocking component coupled to the body; and

a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;

wherein the blocking component includes a first flange and a second flange that is positioned distally relative to the first flange, the first flange includes a first opening and a second opening that is distal relative to the first opening;

wherein the plunger rod includes a protrusion extending radially-outward from the plunger rod between the proximal portion and the distal portion, the plunger rod is configured to move relative to the blocking component to: a first position until the protrusion exits the first opening for priming the drug delivery device, a second position until the protrusion is received within the second opening for coupling the first flange to the plunger rod, and a third position to translate the first flange relative to the second flange for delivering a dose from the drug delivery device.

[Claim 36] A drug delivery device, comprising:

a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;
wherein the blocking component includes a sleeve having a proximal end and a distal end, the distal end being disposed inside the body, proximally from the stopper, the plunger rod is disposed at least partially inside the sleeve;
wherein, when the stopper is in a ready position, distal advancement of one of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a primed position, and
wherein, when the stopper is in the primed position, distal advancement of another of (a) only the sleeve, (b) only the plunger rod, or (c) both the sleeve and the plunger rod together, relative to the body advances the stopper to a dose completion position.

[Claim 37] A drug delivery device, comprising:

a body;
a stopper disposed within the body;
a blocking component coupled to the body; and
a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;
wherein the proximal portion is disposed outside the body and has a width greater than a width of the distal portion;
wherein the drug delivery device includes an obstruction that, in an obstructing position relative to the plunger rod, prevents distal advancement of the plunger rod from a primed position to a dose completion position, and displacement of the

obstruction from the obstructing position permits distal advancement of the plunger rod to the dose completion position.

- [Claim 38] A drug delivery device, comprising:
- a body;
 - a stopper disposed within the body;
 - a blocking component coupled to the body; and
 - a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;
- wherein the plunger rod includes a rotatable element, and the blocking component includes a sleeve affixed to the body, the sleeve including a proximal opening into which the plunger rod may be advanced;
- wherein rotating the rotatable element causes distal advancement of the plunger rod to a primed position, and once the plunger rod is in the primed position, further rotation of the rotatable element is resisted.

- [Claim 39] A drug delivery device, comprising:
- a body;
 - a stopper disposed within the body;
 - a blocking component coupled to the body; and
 - a plunger rod including a distal portion and a proximal portion, the distal portion extending through the blocking component and is at least partially received within the body, the blocking component is configured to interact with the plunger rod to control movement of the stopper relative to the body;
- wherein the body includes a medicament that is configured to treat an eye disorder.