

CLAIMS

The invention claimed is:

1. A therapeutic instrument, comprising:

a support member having a tongue-shaped supporting portion for supporting a sheet-like therapeutic agent;
a nozzle member having a cylindrical portion in which the supporting portion supporting the therapeutic agent can be housed, and having an opening on a tip of the cylindrical portion, through which the supporting portion can be loaded and unloaded in/from the cylindrical portion;

a positive pressure generator that adds a positive pressure in the cylindrical portion for pushing-out the therapeutic agent housed in the cylindrical portion together with the supporting portion, to outside the cylindrical portion through the opening; and

a water flow forming part that forms a water flow, at a place where the supporting portion and the therapeutic agent are facing each other, when a medical water is fed into the cylindrical portion in a state in which the therapeutic agent is housed in the cylindrical portion together with the supporting portion, wherein

the positive pressure generator is configured to generate a positive pressure in the cylindrical portion by feeding the medical water into the cylindrical portion from a rear end side of the cylindrical portion, and

the water flow forming part includes one or a plurality of protrusions formed on a surface of the supporting portion for supporting the therapeutic agent by floating the therapeutic agent from the surface of the supporting portion, and configured to form the water flow by introducing the medical water fed by the positive pressure generator to a place between the supporting portion and the therapeutic agent where the supporting portion and the therapeutic agent are facing each other.

2. The therapeutic instrument according to claim 1, wherein in the plurality of protrusions, a protruding dimension of a protrusion positioned on an upstream side of the water flow formed by the water flow forming part, is set to be larger than a protruding dimension of a protrusion positioned on a downstream side thereof of the water flow formed by the water flow forming part.

3. The therapeutic instrument according to claim 2, wherein the water flow forming part includes a first through hole formed on the cylindrical portion, and a second through hole formed on the supporting portion so as to correspond to the first through hole, and overlapped on the first through hole in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow at the place where the supporting portion and the therapeutic agent are facing each other, when the medical water is injected into the cylindrical portion through the first through hole and the second through hole in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

4. The therapeutic instrument according to claim 2, wherein the water flow forming part includes a first notch formed on a tip of the cylindrical portion, and a second notch formed on a tip of the supporting portion so as to correspond to the first notch, and overlapped on the first notch in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow at a portion where the supporting portion and the therapeutic agent are facing each other, when the medical water is fed into the cylindrical portion from a place where the first notch and the second notch are overlapped on each other in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

5. The therapeutic instrument according to claim 1, wherein the water flow forming part includes a first through hole formed on the cylindrical portion, and a second through hole formed on the supporting portion so as to correspond to the first through hole, and overlapped on the first through hole in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow at the place where the supporting portion and the therapeutic agent are facing each other, when the medical water is injected into the cylindrical portion through the first through hole and the second through hole in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

6. The therapeutic instrument according to claim 1, wherein the water flow forming part includes a first notch formed on a tip of the cylindrical portion, and a second notch formed on a tip of the supporting portion so as to correspond to the first notch, and overlapped on the first notch in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow at a portion where the supporting portion and the therapeutic agent are facing each other, when the medical water is fed into the cylindrical portion from a place where the first notch and the second notch are overlapped on each other in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

7. A therapeutic instrument, comprising:

a support member having a tongue-shaped supporting portion for supporting a sheet-like therapeutic agent;
a nozzle member having a cylindrical portion in which the supporting portion supporting the therapeutic agent can be housed, and having an opening on a tip of the cylindrical portion, through which the supporting portion can be loaded and unloaded in/from the cylindrical portion;

a positive pressure generator that adds a positive pressure in the cylindrical portion for pushing-out the therapeutic agent housed in the cylindrical portion together with the supporting portion, to outside the cylindrical portion through the opening; and

a water flow forming part that forms a water flow, at a place where the supporting portion and the therapeutic agent are facing each other, when a medical water is fed into the cylindrical portion in a state in which the therapeutic agent is housed in the cylindrical portion together with the supporting portion, wherein

the water flow forming part includes a first through hole formed on the cylindrical portion, and a second through hole that extends through the supporting portion so as to correspond to the first through hole, and overlapped on the first through hole in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow between the supporting portion and the therapeutic agent at the place where the supporting portion and the therapeutic agent are facing each other, when the medical water is injected into the cylindrical portion through the first through hole and the second through hole in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

8. A therapeutic instrument, comprising:

a support member having a tongue-shaped supporting portion for supporting a sheet-like therapeutic agent; a nozzle member having a cylindrical portion in which the supporting portion supporting the therapeutic agent can be housed, and having an opening on a tip of the cylindrical portion, through which the supporting portion can be loaded and unloaded in/from the cylindrical portion;

a positive pressure generator that adds a positive pressure in the cylindrical portion for pushing-out the therapeutic agent housed in the cylindrical portion together with the supporting portion, to outside the cylindrical portion through the opening; and

a water flow forming part that forms a water flow, at a place where the supporting portion and the therapeutic agent are facing each other, when a medical water is fed into the cylindrical portion in a state in which the therapeutic agent is housed in the cylindrical portion together with the supporting portion, wherein

the water flow forming part includes a first notch formed on a tip of the cylindrical portion, and a second notch formed on a tip of the supporting portion so as to correspond to the first notch, and overlapped on the first notch in the state in which the supporting portion is housed in the cylindrical portion, and is configured to form the water flow between the supporting portion and the therapeutic agent at a portion where the supporting portion and the therapeutic agent are facing each other, when the medical water is fed into the cylindrical portion from a place where the first notch and the second notch are overlapped on each other in the state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.

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~~a support member having a tongue-shaped supporting portion for supporting a sheet-like therapeutic agent;~~

~~a nozzle member having a cylindrical portion in which the supporting portion supporting the therapeutic agent can be housed, and having an opening on a tip of the cylindrical portion, through which the supporting portion can be loaded and unloaded in/from the cylindrical portion;~~

~~a positive pressure generator that adds a positive pressure in the cylindrical portion for pushing out the therapeutic agent housed in the cylindrical portion together with the supporting portion, to outside the cylindrical portion through the opening; and~~

~~a water flow forming part that forms a water flow at a place where the supporting portion and the therapeutic agent are faced each other, when a medical water is fed into the cylindrical portion in a state in which the therapeutic agent is housed in the cylindrical portion together with the supporting portion.~~

~~2. The therapeutic instrument according to claim 1, wherein the positive pressure generator is configured to generate a positive pressure in the cylindrical portion by feeding a medical water into the cylindrical portion from a rear end side of the cylindrical portion, and~~

~~the water flow forming part includes one or a plurality of protrusions formed on a surface of the supporting portion for supporting the~~

~~therapeutic agent by floating it from the surface of the supporting portion, and configured to form a water flow by introducing the medical water fed by the positive pressure generator to a place where the supporting portion and the therapeutic agent are faced each other.~~

~~3. The therapeutic instrument according to claim 2, wherein in the plurality of protrusions, a protruding dimension of a protrusion positioned on an upstream side of the water flow formed by the water flow forming part, is set to be larger than a protruding dimension of a protrusion positioned on a downstream side thereof.~~

~~4. The therapeutic instrument according to any one of claims 1 to 3, wherein the water flow forming part includes a first through hole formed on the cylindrical portion, and a second through hole formed on the supporting portion so as to correspond to the first through hole, and overlapped on the first thorough hole in a state in which the supporting portion is housed in the cylindrical portion, and is configured to form a water flow at a place where the supporting portion and the therapeutic agent are faced each other, when a medical water is injected into the cylindrical portion through the first through hole and the second through hole in a state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.~~

~~5. The therapeutic instrument according to any one of claims 1 to 3, wherein the water flow forming part includes a first notch formed on a tip of the cylindrical portion, and a second notch formed on a tip of the~~

~~supporting portion so as to correspond to the first notch, and overlapped on the first notch in a state in which the supporting portion is housed in the cylindrical portion, and is configured to form a water flow at a portion where the supporting portion and the therapeutic agent are faced each other, when a medical water is fed into the cylindrical portion from a place where the first notch and the second notch are overlapped on each other in a state in which the supporting portion supporting the therapeutic agent is housed in the cylindrical portion.~~