

Aspiration pump unit

5 **Technical field**

The invention concerns a fluid collection reservoir according to the preamble of patent claim 1.

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Prior art

For the suctioning of bodily fluids or secretions from body cavities or wounds, stationary aspiration systems
15 have generally been used in the field of medicine, especially for thoracic drainage. These aspiration systems basically consist of a suction source, especially a vacuum pump, a fluid or secretion collection reservoir, a surge tank arranged in between them, as well as
20 connection lines, namely, a drainage line going from a patient to the secretion reservoir, a connection line going from the secretion reservoir to the surge tank, and a vacuum line connecting the surge tank to the suction source.

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While these aspiration systems have proven to work well in practice, it is essential to the healing process, especially after surgery in the chest region, for the patient to be able to move and leave his or her bed as
30 soon as possible.

Therefore, it has already been proposed to secure all the aforesaid components of the drainage system on a movable frame, so that the patient can gain a certain mobility,
35 at least within the hospital.

Patent claims

1. A fluid collection reservoir for receiving an aspirated fluid, wherein the collection reservoir has a secretion connection (24) for connecting a drainage tube situated at a patient's side, and a vacuum connection (25) for connecting to a suction pump, and wherein the reservoir has an interior space which is divided by means of ribs, characterized in that the interior space is divided at least into a vacuum chamber (26, 26') and a secretion chamber (29, 29'), with said two chambers being connected to one another by means of at least one passage, and wherein the vacuum connector (24) is arranged in the vacuum chamber (26, 26') and the secretion connector (25) is arranged in the secretion chamber (29, 29').

2. The fluid collection reservoir as claimed in claim 1, wherein an intermediate chamber (27, 27') is arranged between vacuum chamber (26, 26') and secretion chamber (29, 29'), and wherein a vacuum passage (261) runs from the vacuum chamber (26, 26') to the intermediate chamber (27, 27'), and an intermediate passage (271) runs from there to the secretion chamber (29, 29').

3. The fluid collection reservoir as claimed in claim 2, wherein there is no direct connection between the vacuum chamber (26, 26') and the secretion chamber (29, 29').

4. The fluid collection reservoir as claimed in one of claims 1 to 3, wherein the vacuum chamber (26, 26') is arranged in the upper region of the reservoir (2).

5. The fluid collection reservoir as claimed in claim 4, wherein an inclined rib (28, 28') is arranged,

adjacent to the vacuum chamber (26, 26'), in the upper region of the secretion chamber (29, 29'), which inclined rib (28, 28') extends over a significant part of the width, but not over the entire width, of the reservoir
5 (2), and which however extends over the entire depth of said reservoir (2).

6. The fluid collection reservoir as claimed in one of claims 1 to 5, wherein the secretion chamber (29, 29') is
10 divided by means of vertical ribs (290, 290', 291) into sub-chambers which are connected to one another.

Fluid Collection Reservoir

5 **Technical field**

The invention concerns a fluid collection reservoir according to the preamble of patent claim 1.

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Prior art

For the suctioning of bodily fluids or secretions from body cavities or wounds, stationary aspiration systems
15 have generally been used in the field of medicine, especially for thoracic drainage. These aspiration systems basically consist of a suction source, especially a vacuum pump, a fluid or secretion collection reservoir, a surge tank arranged in between them, as well as
20 connection lines, namely, a drainage line going from a patient to the secretion reservoir, a connection line going from the secretion reservoir to the surge tank, and a vacuum line connecting the surge tank to the suction source.

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While these aspiration systems have proven to work well in practice, it is essential to the healing process, especially after surgery in the chest region, for the patient to be able to move and leave his or her bed as
30 soon as possible.

Therefore, it has already been proposed to secure all the aforesaid components of the drainage system on a movable frame, so that the patient can gain a certain mobility,
35 at least within the hospital.

Patent claims

1. A fluid collection reservoir for receiving an aspirated fluid, wherein the collection reservoir has a secretion connector (24) for connecting a drainage tube situated at a patient's side, and a vacuum connector (25) for connecting to a suction pump, and wherein the reservoir has an interior space which is divided by means of ribs, whereas the interior space is divided at least into a vacuum chamber (26, 26') and a secretion chamber (29, 29'), with said two chambers being connected to one another by means of at least one passage, and wherein the vacuum connector (24) is arranged in the vacuum chamber (26, 26') and the secretion connector (25) is arranged in the secretion chamber (29, 29'), wherein the vacuum chamber (26, 26') is arranged in the upper region of the reservoir, characterized in that in the upper region of the secretion chamber (29, 29'), adjacent to the vacuum chamber (26, 26'), an inclined rib (28, 28') is arranged which extends over a significant part of the width, but not over the entire width, of the reservoir (2) and which however extends over the entire depth of said reservoir (2).
2. The fluid collection reservoir as claimed in claim 1, wherein an intermediate chamber (27, 27') is arranged between the vacuum chamber (26, 26') and the secretion chamber (29, 29'), and wherein a vacuum passage (261) runs from the vacuum chamber (26, 26') to the intermediate chamber (27, 27'), and an intermediate passage (271) runs from the intermediate chamber (27, 27') to the secretion chamber (29, 29').

3. The fluid collection reservoir as claimed in claim 2, wherein there is no direct connection between the vacuum chamber (26, 26') and the secretion chamber (29, 29').

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4. The fluid collection reservoir as claimed in one of claims 1 to 3, wherein the secretion chamber (29, 29') is divided by means of vertical ribs (290, 290', 291) into sub-chambers which are connected to one another.

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