

MEDICAL DEVICE

MECA15483 : Medical device for olfactory stimulation

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MECA15483

Medical device for olfactory stimulation

Product

❖ Product:

- ❖ Medical device for olfactory stimulation of a patient. This device delivers a plurality of scents with precise flow rates and duration, preferably according to preprogrammed flexible sequences.

❖ Application:

- ❖ Treatment of diseases requiring a cerebral wakefulness, in apnea in premature newborn infants or neonates and sleep apnea in adults. It could supplement, or even replace the existing pharmacological treatment to avoid undesirable effects, and prevent apneic episodes by stimulating the whole cardio-respiratory system of the newborn.
- ❖ From a broader perspective, the use of this medical device could contribute to the overall objective of the maturation of the autonomic nervous system of premature newborn as well as to the limbic and cognitive structures.

❖ Rational / POC:

- ❖ Laboratory prototype and *in vivo* POC in healthy human volunteers.

❖ Patent and publication:

- ❖ PCT/EP2017/052256 : Medical device for olfactory stimulation

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Principle

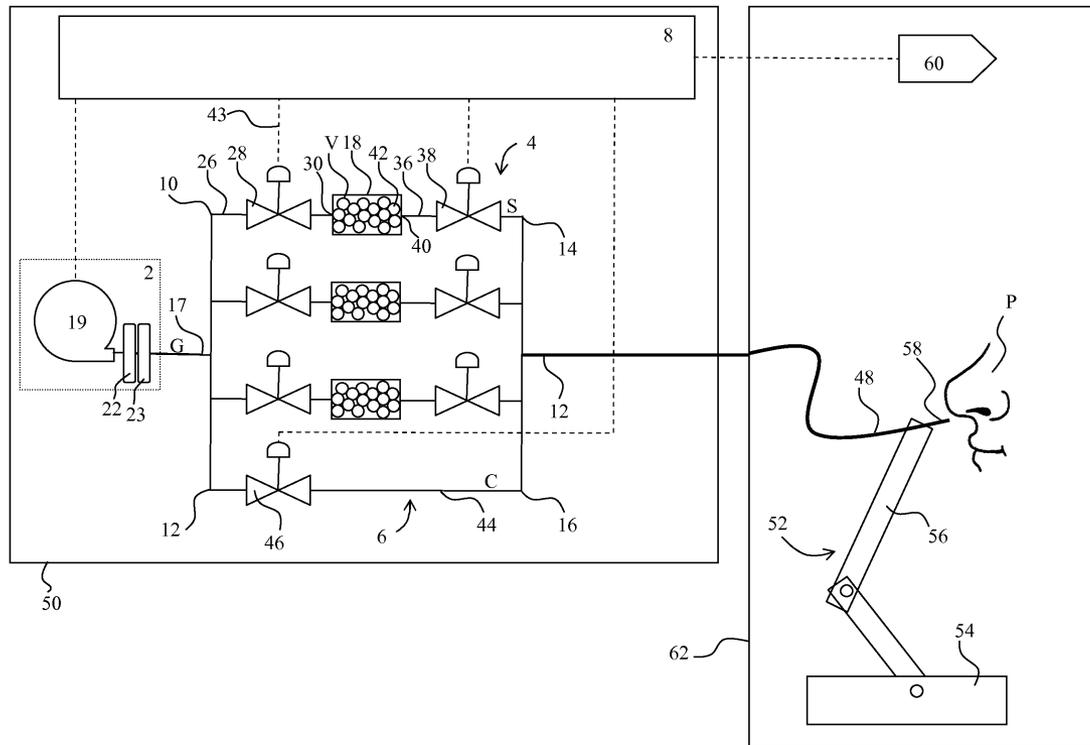


Figure 1 : Example of a device according to the invention.

It comprises a source (2) of a gas G, three parallel odorization circuits (4), a cleaning line (6), and a control unit (8).

The source of gas feed the inlet end (10) of each odorization circuit and the inlet end (12) of the cleaning line.

The outlets (14) of the odorization circuits (4) and the outlet (16) of the cleaning circuit (6) are in fluid communication with a common exit line (12), intended to provide a scent S or a cleaning gas C to a patient.

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