Respiratory interfaces or masks are used to provide respiratory gas or gases, such as air in CPAP therapy, including in for example VPAP and BiPAP systems, or NIV, or high flow rate therapy, for example.

Commonly a respiratory interface comprises a mask frame or body to which for example headgear attaches which holds the interface in position on the user's head when worn, and a seal or cushion to interface to a user's mouth and/or nose to deliver respiratory gases to the user. A respiratory interface may comprise a nasal, oral, or oro-nasal (also referred to as full face) seal module. In turn an interface may be an indirect interface which covers the nose, mouth, or both, or a direct interface such as an interface comprising nasal nozzles or pillows or similar which enter into and seal against or within the nares of the wearer or cannula which non-sealingly enter the nares. The seal module can be formed entirely or almost entirely of a soft material which is comfortable against the wearer's face, such as commonly a silicone material, or the seal module may comprise a rigid or semi-rigid frame interfacing part formed of a rigid or semi-rigid material and which couples to the mask frame and a seal part formed of a relatively soft material.

In this specification where reference has been made to patent specifications, other external documents, or other sources of information, this is generally for the purpose of providing a context for discussing the features of the invention. Unless specifically stated otherwise, reference to such external documents is not to be construed as an admission that such documents, or such sources of information, in any jurisdiction, are prior art, or form part of the common general knowledge in the art.

SUMMARY

It is therefore an object of certain embodiments disclosed herein to provide an apparatus which will go at least some way towards addressing the foregoing problems or which will at least provide the industry with a useful choice.

An aspect of the present invention provides a patient interface comprising:

a blower comprising an impeller, a motor for driving rotation of the impeller about a rotational axis of the impeller, a blower housing providing an impeller space for housing the impeller, a blower inlet and a blower outlet,

a cushion for contacting a user's face,

a mask body and/or a frame for supporting the cushion on a user's face, the cushion and/or the mask body or frame defining an interior space for receiving a flow of gases from the blower, the mask body or frame comprising an inlet to the interior space,

wherein the blower is mounted or received within the inlet of the mask body or frame by a portion of the blower housing that is radially outside of and/or surrounding the impeller and impeller space so that the blower is at least partially within the mask body or frame, and

wherein the blower substantially separates a high pressure side of the mask body or frame from a low pressure side of the mask body or frame,

and wherein the mask body or frame is substantially without a wall between the blower and the interior space such that the blower outlet of the blower opens directly into the interior space.

In accordance with a first aspect of at least one of the embodiments disclosed herein, a patient interface comprises: