CLAIMS

1. A non-contact transfer hand (1) characterized by comprising:

a suction holding plate (2) that has a flat-shaped suction surface (2a) as a front surface, a non-suction surface (2b) as a back surface, and a chamber (3); and

a lid portion (8), wherein

the suction surface has a gas discharge groove (10),

the non-suction surface has a gas supply groove (6) that has a gas introduction port (6d),

the chamber (3) communicates with an end of the gas supply groove,

the gas supply groove is configured to supply gas from the gas introduction port toward the chamber,

a wall surface (3a) of the chamber has an inlet (10a),

the gas discharge groove communicates with the chamber via the inlet, is formed in the suction holding plate (2) on the suction surface (2a), and is configured to discharge the gas in a direction apart from the chamber, and

the lid portion is fixed on the non-suction surface to cover the gas supply groove and the chamber.

2. The non-contact transfer hand according to claim 1 wherein

the chamber is provided at a center of the suction surface,

the gas discharge groove is constituted by a plurality of gas discharge grooves, and

the gas discharge grooves are arranged symmetrically with respect to a plane perpendicular to the suction surface and passing through the center of the suction surface.

3. The non-contact transfer hand according to claim 2, wherein

the gas supply groove has a linear shape, and

the gas discharge grooves extend radially and linearly from the chamber.

4. The non-contact transfer hand according to any one of claims 1 to 3, wherein

the gas supply groove has a main groove (6a) and a width reduction groove (6b),

the main groove has a constant width and extends linearly,

the width reduction groove extends from an end of the main groove to the chamber, and

a groove width of the width reduction groove is gradually reduced toward the chamber.

5. The non-contact transfer hand according to any one of claims 1 to 4, further comprising

a projection (20; 30; 40) that is provided on a bottom surface (3b) of the chamber.

6. The non-contact transfer hand according to claim 5, wherein

at least a part of the projection is opposite to an outlet (6c) of the gas supply groove.