

What is claimed is:

1. A polishing apparatus comprising:
  - a head body configured to press a substrate against a polishing surface while
  - 5 rotating the substrate;
  - a retainer ring disposed so as to surround the substrate and configured to press the
  - polishing surface while rotating together with the head body;
  - a rotary ring secured to the retainer ring and configured to rotate together with the
  - retainer ring;
  - 10 a stationary ring disposed on the rotary ring; and
  - a local-load exerting device configured to apply a local load to a part of the
  - retainer ring through the rotary ring and the stationary ring, the rotary ring having rollers
  - which are in contact with the stationary ring.
- 15 2. The polishing apparatus according to claim 1, wherein each of the rollers
- includes a bearing, and a wheel mounted to an outer race of the bearing, the wheel being
- formed of resin or rubber.
3. The polishing apparatus according to claim 1, wherein the rotary ring includes
- 20 a roller housing having an annular recess in which the rollers are housed.
4. The polishing apparatus according to claim 3, further comprising:
  - a suction line coupled to the stationary ring, the suction line communicating with a
  - space formed by the annular recess.
- 25 5. The polishing apparatus according to claim 1, further comprising:
  - a seal provided between the rotary ring and the stationary ring.

6. The polishing apparatus according to claim 5, wherein the seal comprises a labyrinth seal.

7. The polishing apparatus according to claim 5, wherein the seal comprises a  
5 contact-type seal that closes a gap between the rotary ring and the stationary ring.

8. The polishing apparatus according to claim 1, wherein the stationary ring includes a circular rail which is in contact with the rollers.