A spin coating apparatus for use in applying a coating solution in film form to an upper surface of a substrate. This apparatus includes a rotary table for spinning the substrate as supported thereon in horizontal posture, the rotary table having a size larger than an outline contour of the substrate, and an upper rotary plate disposed parallel to and slightly spaced from the upper surface of the substrate supported on the rotary table. The rotary table and upper rotary plate define a flat treating space therebetween, which treating space has peripheral openings for allowing superfluous part of the coating solution to scatter outwardly therefrom. A nozzle plate is disposed between the rotary table and the substrate supported thereon. The nozzle plate receives cleaning liquid supplied through a rotary shaft of the rotary table, and directs the liquid to the lower surface of the substrate.

11 Claims, 10 Drawing Sheets