FIG. 3 is a partial sectional view taken along the line III – III in FIG. 2.

FIG. 4 is a perspective view showing a container box of the vapor deposition unit having integrally assembled therewith a heating means.

FIG. 5 is a sectional view taken along the line V – V in FIG. 4.

FIG. 6 is a partially exploded perspective view showing the mechanism of moving the second partition walls in a shielding position.

FIG. 7 is a partially exploded perspective view showing the mechanism of moving the second partition walls in the withdrawn position.

FIG. 8 is a perspective view showing a modified example of the container box of the vapor deposition unit.

MODES FOR CARRYING OUT THE INVENTION

[0012] With reference to the accompanying drawings a description will now be made of a vapor deposition unit and a vacuum vapor deposition apparatus of this invention provided with this vapor deposition unit with reference to an example in which this invention is applied to a so-called take-up type of vacuum vapor deposition apparatus. In the following, the description is made on the presumption: that a can-roller is contained inside a main chamber as a vacuum chamber in a posture in which an axial direction of the can-roller coincides with a horizontal direction; that the axial direction is defined as an X-axis direction; that the direction crossing perpendicularly the X-axis on the same horizontal plane is defined as a Y-axis direction; and that a vertical direction crossing perpendicularly the X-axis and the Y-axis is defined as a Z-axis direction. Further, the directions of “up” and “down” shall be based on FIG. 1.

[0013] With reference to FIG. 1 to FIG. 3, the vacuum vapor deposition apparatus Cm according to this embodiment is provided with a main chamber 1. The main chamber 1 has connected thereto a vacuum pump which is constituted by a turbo-molecular pump, a rotary pump, and the like (not illustrated) so that a vacuum atmosphere (e. g., 10^{-5} Pa) can be formed.

the length of the generatrix (X-axis direction) of the can-roller 2, thermal deformation will take place, depending on the thermal conditions at that time, more remarkably in the X-axis direction than in the Y-axis direction.

[0031] Relating to a modified example, as shown in FIG. 8, a restriction means is disposed in a manner to allow the lid body 34 to displace (to thermally deform) in the Y-axis direction and to allow it to rotate about the Z-axis, but does not allow deformation in the X-axis direction and in the Z-axis direction. The restriction means is, e.g., provided with: both of a first and a second restriction parts 8a, 8b which are disposed in a central region in the X-axis direction in a manner to lie opposite to outer edges of the discharge opening 34c; and a pair of third restriction parts 8c which are disposed on outer edges on both end parts in the X-axis direction of the discharge opening 34c. Each of the first and the second restriction parts 8a is provided with: columnar projections 81a, 82a which are disposed in predetermined positions on an upper surface of the lid body 34; and receiving members 82a, 82b respectively having receiving holes 821, 822 which are fixedly placed on the main chamber (not illustrated) to correspond to each of the projections 81a, 82a, and which respectively receive each of the projections 81a, 82a.

[0032] When the container box 3 of the vapor deposition unit VU is moved by the moving means 5 to a vapor deposition position, each of the projections 81a, 81b is tightly fitted into each of the receiving holes 821, 822. In this case, the receiving hole 821 has an oblong contour which is longer in the Y-axis direction so that the displacement in the Y-axis direction is allowed but the deformation in the X-axis direction is not allowed. Further, the receiving hole 82a has a circular contour such that the receiving hole 822 allow the rotation in the Z-axis direction but the displacement in the Z-axis direction is not allowed. In addition, the third restriction parts 8c are constituted by urging pieces which are curved at a curvature coinciding with that of the lid body 34. When the container box 3 of the vapor deposition unit VU is moved to the vapor deposition position, the third restriction parts 8c come into contact with the lid body 34 so as to restrict the displacement of the lid body 34 in the Z-axis direction. By the way, the restriction means