CLAIMS

1. A wound body formed by winding a long sheet, wherein

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a one-end-side 1st recess part located at the one end and recessing outward in the radial direction, an other-end-side 1st recess part located at the other end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the one-end-side 1st recess part and the other-end-side 1st recess part,

the core body is mountable on an outer periphery of a support shaft from the one end side of the core body or the other end side of the core body, the support shaft being configured to be rotatable around a central axis,

the core body is integrally rotatable with the support shaft around the central axis by engagement of the one-end-side 1st recess part or the other-end-side 1st recess part with a 1st projection that is located at a proximal end of the support shaft, in a state where the core body is mounted on the outer periphery of the support shaft, and

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the one-end side 1st recess part or the other-end-side 1st recess part around the central axis by the engagement of the 2nd recess part with a 2nd projection that is located at a distal end of the support shaft, when the core body is mounted on the outer periphery of the support shaft, in which a projecting amount of the

2nd projection is smaller than that of the 1st projection.

2. The wound body according to claim 1, wherein the 2nd recess part is formed along the entire circumference in the circumferential direction of the core body at each of the one end of the core body and the other end of the core body.

3. The wound body according to claim 1 or 2, wherein

the 2nd recess part comprises a one-end-side leading part configured to lead the 2nd projection when the core body is mounted on the outer periphery of the support shaft from the one end side, and an other-end-side leading part configured to lead the 2nd projection when the core body is mounted on the outer periphery of the support shaft from the other end side, and

each of the one-end-side leading part and the other-end-side leading part is configured to lead the 2nd projection to allow the circumferential position of the 1st projection around the central axis to be aligned with the circumferential position of the one-end-side 1st recess part or the other-end-side 1st recess part around the central axis when the core body is mounted on the outer periphery of the support shaft.

4. The wound body according to claim 3, wherein

the one-end-side leading part is located close to the one end of the core body, and

the other-end-side leading part is located close to the other end of the core body.

5. The wound body according to claim 3, wherein

the 2nd recess part comprises a guide part that guides the 2nd projection, and

the guide part is located between the one-end-side leading part and the other-end-side leading part, and is configured to guide the 2nd projection to allow the circumferential position of the 1st projection around the central axis to be kept in alignment with the circumferential position of the one-end-side 1st recess part or the other-end-side 1st recess part around the central axis when the core body is mounted on the outer periphery of the support shaft.

6. The wound body according to claim 5, wherein

the outer peripheral part of the support shaft comprises a 3rd projection that is located at an intermediate position between the proximal end of the support shaft and the distal end of the support shaft and that projects outward in the radial direction,

the 3rd projection is located at the same position as the 2nd projection in the circumferential direction around the central axis,

a projecting amount of the 3rd projection projecting outward in the radial direction with respect to the outer peripheral part of the support shaft is the same as that of the 2nd projection, and

the 3rd projection is guided by the guide part to allow the circumferential position of the 1st projection around the central axis to be kept in alignment with the circumferential position of the one-end-side 1st recess part or the other-end-side 1st recess part around the central axis when the core body is mounted on the outer periphery of the support shaft.

7. The wound body according to any one of claims 1 to 6, wherein

the support shaft comprises a retractable part that is disposed to be retractable and extendable relative to the outer peripheral part of the support shaft, and that is biased outward in the radial direction,

the retractable part is located at a position different from the 2nd projection in the circumferential direction around the central axis,

the inner peripheral part of the core body comprises a 1st catch recess part that recesses outward in the radial direction and is configured to catch the retractable part when the core body has been mounted on the outer periphery of the support shaft from the one end side of the core body, and a 2nd catch recess part that recesses outward in the radial direction and is configured to catch the retractable part when the core body has been mounted on the outer periphery of the support shaft from the other end side of the core body, and

the retractable part is caught by the 1st catch recess part or the 2nd catch recess part in the state where the core body is mounted on the outer periphery of the support shaft, so that the core body is prevented from being displaced relative to the support shaft in a direction from the proximal end of the support shaft toward the distal end of the core body.

8. A core body for wound body that is used for a wound body formed by winding a long sheet, wherein

the core body for the wound body has a cylindrical shape, is configured to allow the long sheet to be wound around an outer periphery of the core body, and comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises an one-end-side 1st recess part located at the one end and recessing outward in the radial direction, an other-end-side 1st recess part located at the other end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the one-end-side 1st recess part and the other-end-side 1st recess part,

the core body for wound body is mountable on an outer periphery of

a support shaft from the one end side of the core body for wound body or the other end side of the core body for wound body, the support shaft being configured to be rotatable around a central axis,

the core body for wound body is integrally rotatable with the support shaft around the central axis by engagement of the one-end-side 1st recess part or the other-end-side 1st recess part with a 1st projection that is located at a proximal end of the support shaft, in a state where the core body for wound body is mounted on the outer periphery of the support shaft, and

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the one-end side 1st recess part or the other-end-side 1st recess part around the central axis by the engagement of the 2nd recess part with a 2nd projection that is located at a distal end of the support shaft, when the core body for wound body is mounted on the outer periphery of the support shaft, in which a projecting amount of the 2nd projection is smaller than that of the 1st projection.

9. A combination of a wound body and a support shaft, the combination comprising

a wound body formed by winding a long sheet, and a support shaft that supports the wound body, wherein

the support shaft comprises a cylindrical outer peripheral part having a proximal end and a distal end, and is configured to be rotatable around a central axis of the outer peripheral part,

the outer peripheral part comprises a 1st projection located at the proximal end and projecting outward in a radial direction, and a 2nd projection located at the distal end and projecting outward in the radial direction, in which a projecting amount of the 2nd projection projecting outward in the radial direction with respect to the outer peripheral part is smaller than that of the 1st projection,

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a one-end-side 1st recess part located at the one end and recessing outward in the radial direction, an other-end-side 1st recess part located at the other end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the one-end-side 1st recess part and the other-end-side 1st recess part,

the core body is mountable on the outer periphery of the support shaft from the one end side of the core body or the other end side of the core body, and from the distal end side of the support shaft,

the support shaft and the core body are integrally rotatable around the central axis by the engagement of the 1st projection with the one-end-side 1st recess part or the other-end-side 1st recess part in a state where the core body is mounted on the outer periphery of the support shaft, and

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the one-end side 1st recess part or the other-end-side 1st recess part around the central axis by the engagement of the 2nd projection with the 2nd recess part when the core body is mounted on the outer periphery of the support shaft.

10. A combination of a wound body and a medicine packing apparatus, the combination comprising

a wound body formed by winding a long sheet, and a medicine packing apparatus that comprises a support shaft for supporting the wound

body, and that is configured to pack a medicine using the long sheet wound off from the wound body supported by the support shaft, wherein

the support shaft comprises a cylindrical outer peripheral part having a proximal end and a distal end, and is configured to be rotatable around a central axis of the outer peripheral part,

the outer peripheral part comprises a 1st projection located at the proximal end and projecting outward in a radial direction, and a 2nd projection located at the distal end and projecting outward in the radial direction, in which a projecting amount of the 2nd projection projecting outward in the radial direction with respect to the outer peripheral part is smaller than that of the 1st projection,

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a one-end-side 1st recess part located at the one end and recessing outward in the radial direction, an other-end-side 1st recess part located at the other end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the one-end-side 1st recess part and the other-end-side 1st recess part,

the core body is mountable on the outer periphery of the support shaft from the one end side of the core body or the other end side of the core body, and from the distal end side of the support shaft,

the support shaft and the core body are integrally rotatable around the central axis by the engagement of the 1st projection with the one-end-side 1st recess part or the other-end-side 1st recess part in a state where the

core body is mounted on the outer periphery of the support shaft, and

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the one-end-side 1st recess part or the other-end-side 1st recess part around the central axis by the engagement of the 2nd projection with the 2nd recess part when the core body is mounted on the outer periphery of the support shaft.

11. The combination of the wound body and the medicine packing apparatus according to claim 10, wherein

the support shaft comprises a movable part that is located at the 1st projection, that is configured to project outward in the radial direction from the core body in the state where the core body is mounted on the outer periphery of the support shaft, that is disposed to be movable in an axial direction of the central axis, and that is biased in a direction from the proximal end of the support shaft toward the distal end of the support shaft,

the core body comprises a one-end-side cutout that is located at the same position as the one-end-side 1st recess part in the circumferential direction of the core body in the one end of the core body, that has a cutout shape extending from an end face of the one end of the core body toward the other end of the core body, and that is configured to allow the movable part to enter the one-end-side cutout,

the core body further comprises an other-end-side cutout that is located at the same position as the other-end-side 1st recess part in the circumferential direction of the core body in the other end of the core body, that has a cutout shape extending from an end face of the other end of the core body toward the one end of the core body, and that is configured to allow the movable part to enter the other-end-side cutout, and

the medicine packing apparatus is configured to stop its operation when the movable part enters the one-end-side cutout or the other-end-side cutout.

12. The combination of the wound body and the medicine packing apparatus according to claim 10 or 11, wherein

a plurality of one-end-side magnets are located at the one end of the core body according to a first positional relationship in the circumferential direction of the core body,

a plurality of other-end-side magnets are located at the other end of the core body according to a second positional relationship different from the first positional relationship in the circumferential direction of the core body, and

the medicine packing apparatus is configured to detect at least one of the plurality of the one-end-side magnets and the plurality of the other-end-side magnets to set a sealing temperature at which the long sheet is heat sealed, in the state where the core body is mounted on the outer periphery of the support shaft.

13. A wound body formed by winding a long sheet, wherein

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a 1st recess part located at the one end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the 1st recess part,

the core body is mountable on an outer periphery of a support shaft from the one end side of the core body, the support shaft being configured to be rotatable around a central axis,

the core body is integrally rotatable with the support shaft around the central axis by the engagement of the 1st recess part with a 1st projection that is located at a proximal end of the support shaft, in a state where the core body is mounted on the outer periphery of the support shaft,

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the 1st recess part around the central axis by the engagement of the 2nd recess part with a 2nd projection that is located at a distal end of the support shaft, when the core body is mounted on the outer periphery of the support shaft, in which a projecting amount of the 2nd projection is smaller than that of the 1st projection, and

the 2nd recess part comprises a leading part that is configured to lead the 2nd projection,

the leading part is configured to lead the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be aligned with each other when the core body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a guide part that guides the 2nd projection,

the guide part is located closer to the other end of the core body than the leading part, and

the guide part is configured to guide a 3rd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be kept in alignment with each other when the core body is mounted on the outer periphery of the support shaft, in which a projecting amount of the 3rd projection is the same as that of the 2nd projection, and the 3rd projection is located at the same position as the 2nd projection in the circumferential direction around the central axis at an intermediate position between the proximal end of the support shaft and the distal end of the support shaft.

14. The wound body according to claim 13, wherein the 2nd recess part is formed along the entire circumference in the circumferential direction of the core body at the one end of the core body.

15. The wound body according to claim 13 or 14, wherein the leading part is located close to the one end of the core body.

16. The wound body according to any one of claims 13 to 15, wherein

the support shaft comprises a retractable part that is disposed to be retractable and extendable relative to the outer peripheral part of the support shaft, and that is biased outward in the radial direction,

the retractable part is located at a position different from the 2nd projection in the circumferential direction around the central axis,

the inner peripheral part of the core body comprises a catch recess part that recesses outward in the radial direction and is configured to catch the retractable part, and

the retractable part is caught by the catch recess part in the state where the core body is mounted on the outer periphery of the support shaft, so that the core body is prevented from being displaced relative to the support shaft in a direction from the proximal end of the support shaft toward the distal end of the core body.

17. A core body for wound body that is used for a wound body formed by winding a long sheet, wherein

the core body for the wound body has a cylindrical shape, is configured to allow the long sheet to be wound around an outer periphery of the core body, and comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a 1st recess part located at the

one end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the 1st recess part,

the core body for wound body is mountable on an outer periphery of a support shaft from the one end side of the core body for wound body, the support shaft being configured to be rotatable around a central axis,

the core body for wound body is integrally rotatable with the support shaft around the central axis by the engagement of the 1st recess part with a 1st projection that is located at a proximal end of the support shaft, in a state where the core body for wound body is mounted on the outer periphery of the support shaft,

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the 1st recess part around the central axis by the engagement of the 2nd recess part with a 2nd projection that is located at a distal end of the support shaft, when the core body for wound body is mounted on the outer periphery of the support shaft, in which a projecting amount of the 2nd projection is smaller than that of the 1st projection,

the 2nd recess part comprises a leading part that is configured to lead the 2nd projection,

the leading part is configured to lead the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be aligned with each other when the core body for wound body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a guide part that guides the 2nd projection,

the guide part is located closer to the other end of the core body for wound body than the leading part, and

the guide part is configured to guide the 3rd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be kept in alignment with each other when the core body for wound body is mounted on the outer periphery of the support shaft, in which a projecting amount of the 3rd projection is the same as that of the 2nd projection, and the 3rd projection is located at the same position as the 2nd projection in the circumferential direction around the central axis at an intermediate position between the proximal end of the support shaft and the distal end of the support shaft.

18. A combination of a wound body and a support shaft, the combination comprising

a wound body formed by winding a long sheet, and a support shaft that supports the wound body, wherein

the support shaft comprises a cylindrical outer peripheral part having a proximal end and a distal end, and is configured to be rotatable around a central axis of the outer peripheral part,

the outer peripheral part comprises a 1st projection located at the proximal end and projecting outward in a radial direction, and a 2nd projection located at the distal end and projecting outward in the radial direction, in which a projecting amount of the 2nd projection projecting outward in the radial direction with respect to the outer peripheral part is smaller than that of the 1st projection,

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having one end and an other end,

the inner peripheral part comprises a 1st recess part located at the one end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward

in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the 1st recess part,

the core body is mountable on the outer periphery of the support shaft from the one end side of the core body and from the distal end side of the support shaft,

the support shaft and the core body are integrally rotatable around the central axis by engagement of the 1st projection with the 1st recess part in a state where the core body is mounted on the outer periphery of the support shaft,

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the 1st recess part around the central axis by the engagement of the 2nd projection with the 2nd recess part when the core body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a leading part that is configured to lead the 2nd projection,

the leading part is configured to lead the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be aligned with each other when the core body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a guide part that guides the 2nd projection,

the guide part is located closer to the other end of the core body than the leading part, and is configured to guide the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be kept in alignment with each other when the core body is mounted on the outer periphery of the support shaft,

the outer peripheral part of the support shaft comprises a 3rd projection that is located at an intermediate position between the proximal

end of the support shaft and the distal end of the support shaft and that projects outward in the radial direction,

the 3rd projection is located at the same position as the 2nd projection in the circumferential direction around the central axis,

a projecting amount of the 3rd projection projecting outward in the radial direction with respect to the outer peripheral part of the support shaft is the same as that of the 2nd projection, and

the 3rd projection is guided by the guide part to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be kept in alignment with each other when the core body is mounted on the outer periphery of the support shaft.

19. A combination of a wound body and a medicine packing apparatus, the combination comprising

a wound body formed by winding a long sheet, and a medicine packing apparatus that comprises a support shaft for supporting the wound body, and that is configured to pack a medicine using the long sheet wound off from the wound body supported by the support shaft, wherein

the support shaft comprises a cylindrical outer peripheral part having a proximal end and a distal end, and is configured to be rotatable around a central axis of the outer peripheral part,

the outer peripheral part comprises a 1st projection located at the proximal end and projecting outward in a radial direction, and a 2nd projection located at the distal end and projecting outward in the radial direction, in which a projecting amount of the 2nd projection projecting outward in the radial direction with respect to the outer peripheral part is smaller than that of the 1st projection,

the wound body comprises a core body having a cylindrical shape, and the long sheet wound around an outer periphery of the core body,

the core body comprises a cylindrical inner peripheral part having

one end and an other end,

the inner peripheral part comprises a 1st recess part located at the one end and recessing outward in the radial direction, and a 2nd recess part located to extend from the one end to the other end and recessing outward in the radial direction, in which a recessing amount of the 2nd recess part recessing outward in the radial direction with respect to the inner peripheral part is smaller than that of the 1st recess part,

the core body is mountable on the outer periphery of the support shaft from the one end side of the core body and from the distal end side of the support shaft,

the support shaft and the core body are integrally rotatable around the central axis by engagement of the 1st projection with the 1st recess part in a state where the core body is mounted on the outer periphery of the support shaft,

the circumferential position of the 1st projection around the central axis is aligned with the circumferential position of the 1st recess part around the central axis by engagement of the 2nd projection with the 2nd recess part when the core body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a leading part that is configured to lead the 2nd projection,

the leading part is configured to lead the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be aligned with each other when the core body is mounted on the outer periphery of the support shaft,

the 2nd recess part comprises a guide part that guides the 2nd projection,

the guide part is located closer to the other end of the core body than the leading part, and is configured to guide the 2nd projection to allow the circumferential positions of the 1st projection and the 1st recess part around

the central axis to be kept in alignment with each other when the core body is mounted on the outer periphery of the support shaft,

the outer peripheral part of the support shaft comprises a 3rd projection that is located at an intermediate position between the proximal end of the support shaft and the distal end of the support shaft, and that projects outward in the radial direction,

the 3rd projection is located at the same position as the 2nd projection in the circumferential direction around the central axis,

a projecting amount of the 3rd projection projecting outward in the radial direction with respect to the outer peripheral part of the support shaft is the same as that of the 2nd projection, and

the 3rd projection is guided by the guide part to allow the circumferential positions of the 1st projection and the 1st recess part around the central axis to be kept in alignment with each other when the core body is mounted on the outer periphery of the support shaft.

20. The combination of the wound body and the medicine packing apparatus according to claim 19, wherein

the support shaft comprises a movable part that is located at the 1st projection, that is configured to project outward in the radial direction from the core body in the state where the core body is mounted on the outer periphery of the support shaft, that is disposed to be movable in an axial direction of the central axis, and that is biased in a direction from the proximal end of the support shaft toward the distal end of the support shaft,

the core body comprises a cutout that is located at the same position as the 1st recess part in the circumferential direction of the core body in the one end of the core body, that has a cutout shape extending from an end face of the one end of the core body toward the other end of the core body, and that is configured to allow the movable part to enter the cutout, and

the medicine packing apparatus is configured to stop its operation when the movable part enters the cutout.