CLAIMS

1. A spinning forming apparatus for shaping a target plate while rotating the plate around a rotational axis,

the spinning forming apparatus comprising:

a holding member including

a receiving jig to which the plate is attached and

a rotational shaft configured to rotate the plate around the rotational axis together with the receiving jig;

a processing tool configured to contact a first main surface of the plate to process and shape the plate; and

a heater configured to heat the plate, wherein:

the heater is arranged at the opposite side of the processing tool across the plate; and

the heater locally heats a position of a second main surface of the plate opposite to the first main surface, the position being located on a circumference around the rotational axis, the circumference being defined by a position, with which the processing tool contacts, of the plate.

2. The spinning forming apparatus according to claim 1, wherein the receiving jig has a size smaller than a circle defined by a shaping start position of the plate.

3. The spinning forming apparatus according to claim 1 or 2, wherein the heater performs heating by high frequency induction heating.

4. The spinning forming apparatus according to any one of claims 1 to 3, comprising a preheater configured to preliminarily heat a position of the plate, the position being located at a radially outer side of the position with which the processing tool contacts.

5. The spinning forming apparatus according to any one of claims 1 to 4, wherein the heater includes a coil formed to have a circular-arc shape that is doubled in a direction perpendicular to the rotational axis.

6. The spinning forming apparatus according to claim 5, wherein the heater includes:

a magnetic core covering the coil from the opposite side of the plate; and

~~a non-magnetic~~ a convex portion projecting toward the plate beyond the coil and the