CLAIMS

1. A cutting apparatus configured to apply a half-cut to a resin-molded object to be cut in the thickness direction of the object to be cut, the cutting apparatus comprising:

a cutting mechanism including a blade for cutting the object to be cut,

wherein the blade includes a first side surface and a second side surface,

the cutting apparatus further comprises:

a first pressing mechanism provided at a position facing the first side surface; and

a second pressing mechanism provided at a position facing the second side surface,

the first and second pressing mechanisms each comprise a pressing member that is formed from a roller, the roller is configured to at least partially face a side surface of the blade at the time of cutting of the object to be cut, and a rotation center of the roller is configured to press the object to be cut downward from above in a position located further toward the front than the position of a rotation center of the blade, and

when the half-cut is applied, the relative positional relationship between each of the first and second pressing mechanisms and the object to be cut changes in a similar manner to the relative positional relationship between the cutting mechanism and the object to be cut.

2. The cutting apparatus according to claim 1, further comprising:

a discharging mechanism that discharges a machining fluid from the front of the blade,

wherein the first and second pressing mechanisms each further comprise:

an elastic attachment member that extends from the rear side of the blade to the side of the rotational center of the blade and has a distal portion to which the roller is attached.

3. A cutting apparatus configured to apply a half-cut to a resin-molded object to be cut in the thickness direction of the object to be cut, the cutting apparatus comprising:

a cutting mechanism including a blade for cutting the object to be cut,

wherein the blade includes a first side surface and a second side surface,

the cutting apparatus further comprises:

a first pressing mechanism provided at a position facing the first side surface; and

a second pressing mechanism provided at a position facing the second side surface,

the first and second pressing mechanisms are each configured to press the object to be cut downward from above, and

when the half-cut is applied, the relative positional relationship between each of the first and second pressing mechanisms and the object to be cut changes in a similar manner to the relative positional relationship between the cutting mechanism and the object to be cut,

wherein the first and second pressing mechanisms each comprise:

a first pressing member provided at a position that is closer to the front of the blade than to the rear of the blade; and

a second pressing member provided at a position that is closer to the rear of the blade than to the front of the blade,

the first and second pressing members are each configured to press the object to be cut downward from above,

wherein the first and second pressing mechanisms each further comprise:

a first rotating member which is configured so that a force acts thereon in a rotation direction, and to which the first pressing member is attached; and

a second rotating member which is configured so that a force acts thereon in a rotation direction, and to which the second pressing member is attached, and

the distance between the first pressing member and the blade is shorter than the distance between the first rotating member and the blade, and

the distance between the second pressing member and the blade is shorter than the distance between the second rotating member and the blade.

4. The cutting apparatus according to claim 3,
wherein the first and second pressing members are each formed from a roller.

5. The cutting apparatus according to any one of claims 1 to 4, further comprising:
a retracting mechanism configured to retract each of the first and second pressing mechanisms to a position that does not overlap with the blade in a side view.

6. A method for manufacturing cut products using the cutting apparatus according to any one of claims 1 to 5, the method comprising:
preparing the cutting apparatus, to which the blade having a first thickness is attached;
applying a half-cut to the object to be cut;
replacing the blade with a blade having a second thickness that is thinner than the first thickness; and
cutting the object to be cut along the half-cut position.