WHAT IS CLAIMED IS:

1. A cutting apparatus that cuts a workpiece by a cutting blade, the cutting apparatus comprising:

a cutting unit having a spindle and a mount flange that is fixed to a tip part of the spindle and on which the cutting blade is mounted;

a stock unit that stores the cutting blade for replacement;

a replacement apparatus that replaces the cutting blade mounted on the mount flange with the cutting blade for replacement; and

a movement unit that moves the replacement apparatus, wherein

the replacement apparatus includes

a rotating part,

a first holding part that holds the cutting blade mounted on the mount flange on a first front surface side,

a second holding part that holds the cutting blade for replacement on a second front surface side, and

a nut rotation part that has a nut holding part that holds a nut for fixing the cutting blade to the mount flange and rotates the nut held by the nut holding part,

the rotating part is coupled to the first holding part, the second holding part, and the nut rotation part and rotates with a straight line that passes through inside of the rotating part being a rotation axis, and

a front surface of the first holding part, a front surface of the second holding part, and the nut holding part are disposed to be oriented toward an opposite side to the rotation axis of the rotating part in a state of being separate from each other around the rotation axis of the rotating part.

2. The cutting apparatus according to claim 1, wherein

the first holding part and the second holding part are coupled to the rotating part with intermediary of an elastic body in such a manner that the front surface of the first holding part and the front surface of the second holding part are tiltable.

3. The cutting apparatus according to claim 1, wherein

the nut rotation part is disposed in such a manner that a rotation axis of the nut holding part is along a direction perpendicular to the rotation axis of the rotating part.

4. The cutting apparatus according to claim 1,

further comprising:

a processing chamber that forms a space in which the workpiece is cut by the cutting unit, wherein

the replacement apparatus is disposed outside the processing chamber, and

the processing chamber has an entry-exit port through which the replacement apparatus is allowed to pass.

5. The cutting apparatus according to claim 1, wherein

the stock unit includes

a placement part having a placement surface over which a plurality of the cutting blades are placed, and

a reading unit that reads an identification mark that is given to the cutting blade placed over the placement surface and includes information relating to the cutting blade.

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

a chuck table that holds the workpiece; and

a sub-table that holds a board used for dressing or inspection of the cutting blade, wherein

the stock unit includes a board storing part that

stores the board, and

the first holding part and the second holding part are capable of holding the board.

7. The cutting apparatus according to claim 1, wherein

the first holding part and the second holding part suck and hold the cutting blade.

8. The cutting apparatus according to claim 7, wherein

the mount flange includes

a fixed mount that has a flange part that supports the cutting blade and a boss part that protrudes from the flange part and is inserted into the cutting blade, and is fixed to the tip part of the spindle, and

a pressing flange that has an opening into which the boss part is inserted and is fixed to the fixed mount by the nut,

the pressing flange includes a first surface, a second surface that is on an opposite side to the first surface and gets contact with the cutting blade, and a through-hole that penetrates from the first surface to the second surface, and

the first holding part and the second holding part suck a side of the first surface of the pressing flange

to hold the pressing flange, and suck and hold the cutting blade through the through-hole.

9. The cutting apparatus according to claim 8, wherein

the stock unit includes a pressing flange storing part that stores the pressing flange.

10. A cutting blade replacement method for replacing a cutting blade mounted on a cutting apparatus,

the cutting apparatus including

a cutting unit having a spindle and a mount flange that is fixed to a tip part of the spindle and on which the cutting blade is mounted,

a stock unit that stores the cutting blade for replacement,

a replacement apparatus that replaces the cutting blade mounted on the mount flange with the cutting blade for replacement, and

a movement unit that moves the replacement apparatus,

the replacement apparatus including

a rotating part,

a first holding part that holds the cutting blade mounted on the mount flange on a first front surface side,

a second holding part that holds the cutting blade for replacement on a second front surface side, and

a nut rotation part that has a nut holding part that holds a nut for fixing the cutting blade to the mount flange and rotates the nut held by the nut holding part,

the rotating part being coupled to the first holding part, the second holding part, and the nut rotation part and rotating with a straight line that passes through inside of the rotating part being a rotation axis,

a front surface of the first holding part, a front surface of the second holding part, and the nut holding part being disposed to be oriented toward an opposite side to the rotation axis of the rotating part in a state of being separate from each other around the rotation axis of the rotating part,

the cutting blade replacement method comprising:

a preparation step of placing the cutting blade for replacement over a placement surface of the stock unit having the placement surface over which the cutting blade is allowed to be placed;

a cutting-blade-for-replacement holding step of holding the cutting blade for replacement placed over the

placement surface by the second holding part;

a nut removal step of causing the nut holding part of the nut rotation part to be opposed to the mount flange and holding the nut mounted on the mount flange by the nut holding part and rotating the nut to remove the nut from the mount flange;

a first evacuation step of separating the nut rotation part and the mount flange;

a used cutting blade holding step of causing the first holding part to be opposed to the mount flange by rotating the rotating part and holding the cutting blade mounted on the mount flange by the first holding part;

a second evacuation step of separating the first holding part and the mount flange;

a cutting blade mounting step of causing the second holding part to be opposed to the mount flange by rotating the rotating part and mounting the cutting blade for replacement held by the second holding part on the mount flange;

a third evacuation step of separating the second holding part and the mount flange; and

a nut mounting step of causing the nut holding part of the nut rotation part to be opposed to the mount flange by rotating the rotating part and rotating the nut

held by the nut holding part to mount the nut on the mount flange.

11. A board replacement method for replacing a board disposed in a cutting apparatus,

the cutting apparatus including

a cutting unit having a spindle and a mount flange that is fixed to a tip part of the spindle and on which a cutting blade is mounted,

a stock unit that stores the cutting blade for replacement,

a replacement apparatus that replaces the cutting blade mounted on the mount flange with the cutting blade for replacement,

a movement unit that moves the replacement apparatus,

a chuck table that holds the workpiece, and

a sub-table that holds a board used for dressing or inspection of the cutting blade,

the replacement apparatus including

a rotating part,

a first holding part that holds the cutting blade mounted on the mount flange on a first front surface side,

a second holding part that holds the cutting

blade for replacement on a second front surface side, and

a nut rotation part that has a nut holding part that holds a nut for fixing the cutting blade to the mount flange and rotates the nut held by the nut holding part,

the rotating part being coupled to the first holding part, the second holding part, and the nut rotation part and rotating with a straight line that passes through inside of the rotating part being a rotation axis,

a front surface of the first holding part, a front surface of the second holding part, and the nut holding part being disposed to be oriented toward an opposite side to the rotation axis of the rotating part in a state of being separate from each other around the rotation axis of the rotating part,

the stock unit including a board storing part that stores the board,

the first holding part and the second holding part being capable of holding the board,

the board replacement method comprising:

a preparation step of placing the board for replacement over a placement surface of the stock unit having the placement surface over which the board is

allowed to be placed;

a board-for-replacement holding step of holding the board for replacement placed over the placement surface by the second holding part;

a used board holding step of causing the first holding part to be opposed to the sub-table and holding, by the first holding part, the board that is held by the sub-table and has been used;

an evacuation step of separating the first holding part and the sub-table; and

a placement step of causing the second holding part to be opposed to the sub-table by rotating the rotating part and placing the board for replacement held by the second holding part on the sub-table.