WHAT IS CLAIMED IS:

1. An alignment method for aligning an orientation flat that is formed on a workpiece, with a direction parallel to a desired direction, comprising:

a positioning step of positioning an imaging unit, which images the workpiece, at a position where the orientation flat is able to be imaged;

a straight-line detection step of imaging the orientation flat by the imaging unit to acquire a single captured image and detecting a straight-line segment in the captured image;

a first alignment step of calculating an off-angle between an extending direction of the straight-line segment detected in the straight-line detection step and the desired direction, the off-angle being calculated based on the straight-line segment detected within the single captured image, and, on a basis of the off-angle, positioning the orientation flat such that the extending direction of the straight-line segment extends parallel to the desired direction; and

a second alignment step of, after performing the first alignment step, imaging the orientation flat at a first position and a second position, which are spaced apart from each other along the desired direction, and

positioning the orientation flat such that a line that connects together the orientation flat at the first position and the orientation flat at the second position extends parallel to the desired direction.

2. The alignment method according to claim 1, wherein the second alignment step detects orientation flat images that have a same orientation flat ratio as an orientation flat ratio in an orientation flat image that serves as a reference, at the first position and the second position by pattern matching, calculates an off-angle between the orientation flat and the desired direction on a basis of XY coordinate positions of the orientation flat image detected at the first position and XY coordinate positions of the orientation flat image detected at the second position, and positions the orientation flat such that the orientation flat extends parallel to the desired direction.

3. The alignment method according to claim 2, wherein a captured image that has been acquired by imaging the orientation flat after application of alignment in the first alignment step is used as the orientation flat image that serves as the reference.

4. The alignment method according to claim 2, wherein an orientation flat image that has been created

artificially beforehand is used as the orientation flat image that serves as the reference.

5. An alignment method for aligning an orientation flat that is formed on a workpiece, with a direction parallel to a desired direction, comprising:

a positioning step of positioning an imaging unit, which images the workpiece, at a position where the orientation flat is able to be imaged;

a straight-line detection step of imaging the orientation flat by the imaging unit to acquire a captured image and detecting a straight-line segment in the captured image;

a first alignment step of calculating an off-angle between an extending direction of the straight-line segment detected in the straight-line detection step and the desired direction, and, on a basis of the off-angle, positioning the orientation flat such that the extending direction of the straight-line segment extends parallel to the desired direction; and

a second alignment step of, after performing the first alignment step, imaging the orientation flat at a first position and a second position, which are spaced apart from each other along the desired direction, and positioning the orientation flat such that a line that

connects together the orientation flat at the first position and the orientation flat at the second position extends parallel to the desired direction

wherein the second alignment step detects orientation flat images that have a same orientation flat ratio as an orientation flat ratio in an orientation flat image that serves as a reference, at the first position and the second position by pattern matching, calculates an off-angle between the orientation flat and the desired direction on a basis of XY coordinate positions of the orientation flat image detected at the first position and XY coordinate positions of the orientation flat image detected at the second position, and positions the orientation flat such that the orientation flat extends parallel to the desired direction.