CLAIMS

1. A surface inspection method for inspecting a surface of an inspection subject having a specular surface, comprising:

a step in which the surface of said inspection subject is irradiated with light from an oblique direction, in which an incident angle of light that is radiated onto the surface of said inspection subject is 30° or more and less than 90° relative to the surface of said inspection subject;

a step in which measurement is conducted of an intensity of diffracted light that is diffracted by adhering foreign matter among light that is regularly reflected by~~at~~ the surface of said inspection subject;

a step in which measurement is conducted of an intensity of scattered light that is ~~irregularly~~ scatter-reflected by said adhering foreign matter, in which an angle of said scattered light that is incident upon a light-receiving unit is 30° or less relative to the surface of said inspection subject;

and a step in which an adherent~~ing~~ state~~condition~~ of ~~a~~ foreign matter on~~adhering to~~ the surface of said inspection subject is discriminated~~determined~~ based on measurement results for an intensity of said diffracted light that is regularly reflected, and an intensity of said scattered light that is ~~irregularly~~ scatter-reflected.

2. The surface inspection method according to claim 1, wherein an adherent~~ing~~ strength of ~~a~~ foreign matter on~~adhering to~~ the surface of said inspection subject is discriminated~~determined~~.

~~3. The surface inspection method according to claim 1, wherein an incident angle of light that is radiated onto the surface of said inspection subject is 30° or more and less than 90° with respect to the surface of said inspection subject.~~

34. The surface inspection method according to claim 1, wherein an angle of said diffracted light that is incident upon a light-receiving unit when diffracted light is received by said light-receiving unit is equal to an incident angle of light that is radiated onto the surface of said inspection subject.

~~5. The surface inspection method according to claim 1, wherein an angle of said scattered light that is incident upon a light-receiving unit when scattered light is received by said light-receiving unit is 30° or less with respect to the surface of said inspection subject.~~

46. The surface inspection method according to claim 1, wherein an angle of said scattered light that is incident upon a light-receiving unit when scattered light is received by said light-receiving unit is 20° or more and 30° or less relative~~with respect~~ to the surface of said inspection subject.

57. The surface inspection method according to claim 1, wherein laser light is used as the light that is radiated onto the surface of said inspection subject.

68. The surface inspection method according to claim 1, wherein the surface of a disk constituting said inspection subject is inspected while light that is radiated onto the surface of this disk is radially scanned, in a state~~condition~~ where said disk is rotated around a central axis.

79. A surface inspection apparatus for inspecting the surface of an inspection subject having a specular surface, comprising:

an optical~~light~~ ~~ir~~radiation~~ing~~ means which irradiates the surface of said inspection subject with light from an oblique direction, in which an incident angle of light that is radiated onto the surface of said inspection subject is 30° or more and less than 90° relative to the surface of said inspection subject;

a first optical~~light~~ measurement~~ing~~ means which has a light-receiving unit that receives diffracted light that is diffracted by adhering foreign matter among light that is regularly reflected by the surface of said inspection subject, and which measures the intensity of the diffracted light that is received by this light-receiving unit;

a second optical~~light~~ measurement~~ing~~ means which has a light-receiving unit that receives scattered light that is ~~irregularly~~ scatter-reflected by said adhering foreign matter, and which measures the intensity of the scattered light that is received by this light-receiving unit, in which an angle of said scattered light that is incident upon a light-receiving unit is 30° or less relative to the surface of said inspection subject;

and a discrimination~~determining~~ means which discriminates~~determines~~ an adheren~~ting~~ state~~condition~~ of ~~a~~ foreign matter on~~adhering to~~ the surface of said inspection subject based on measurement results for the intensity of diffracted light measured by said first optical~~light~~ measurement~~ing~~ means, and the intensity of scattered light measured by said second optical~~light~~ measurement~~ing~~ means.

8~~10~~. The surface inspection apparatus according to claim 9, wherein said discrimination~~determining~~ means discriminates~~determines~~ an adheren~~ting~~ strength of ~~a~~ foreign matter on~~adhering to~~ the surface of said inspection subject.

~~11. The surface inspection apparatus according to claim 9, wherein an incident angle of light that is radiated onto the surface of said inspection subject from said light irradiating means is 30° or more and less than 90° with respect to the surface of said inspection subject.~~

9~~12~~. The surface inspection apparatus according to claim 7~~9~~, wherein an angle of said diffracted light that is incident upon a light-receiving unit when diffracted light is received by said light-receiving unit of said first optical~~light~~ measurement~~ing~~ means is

equal to an incident angle of the light that is radiated onto the surface of said inspection subject.

~~13. The surface inspection apparatus according to claim 9, wherein an angle of scattered light that is incident upon a light-receiving unit when said scattered light is received by said light-receiving unit of said second light measuring means is 30° or less with respect to the surface of said inspection subject.~~

10~~14~~. The surface inspection apparatus according to claim 7~~9~~, wherein an angle of said scattered light that is incident upon a light-receiving unit when scattered light is received by said light-receiving unit of said second optical~~light~~ measurement~~ing~~ means is 20° or more and 30° or less relative~~with respect~~ to the surface of said inspection subject.

11~~15~~. The surface inspection apparatus according to claim 7~~9~~, wherein said optical~~light~~ ~~ir~~radiation~~ing~~ means irradiates the surface of said inspection object with laser light.

12~~16~~. The surface inspection apparatus according to claim 7~~9~~, comprising:

a rotational means which rotates a disk constituting said inspection subject around a central axis;

and a scanning means which radially scans light that is radiated onto the surface of said disk.

13~~17~~. A method of manufacture of a magnetic recording medium substrate, comprising a step in which the surface of a magnetic recording medium substrate is inspected using the surface inspection method according to claim 1.

1418. A method of manufacture of a magnetic recording medium, comprising a step in which the surface of a magnetic recording medium is inspected using the surface inspection method according to claim 1.