CLAIMS

1. An imprint apparatus for forming a pattern of an imprint material on a substrate using a mold, the apparatus comprising:

a plurality of alignment scopes; and

a control unit that controls aligning of a shot region of the substrate and the mold based on outputs from the plurality of alignment scopes,

wherein each of the plurality of alignment scopes outputs information indicating a relative position of a first mark selected from a plurality of first marks in the shot region and a second mark selected from a plurality of second marks on the mold,

wherein the control unit identifies an abnormal information from among a plurality of pieces of information output from each of a plurality of alignment scopes based on a difference between a relative position of the first mark and the second mark which are detected by each of the plurality of alignment scopes in a first relative position of the mold and the substrate, and a relative position of the first mark and the second mark which are detected by each of the plurality of alignment scopes in a second relative position of the mold and the substrate, and

wherein the control unit controls the alignment of the shot region and the mold based on the plurality of pieces of information other than the abnormal information.

2. The imprint apparatus according to claim 1, wherein the control unit identifies the incorrect information based on at least one of contrast, distortion, and intensity of signals acquired by processing information output from the individual alignment scopes.

3. The imprint apparatus according to claim 1,

wherein each of the plurality of first marks includes a first rough-inspection mark and a first close-inspection mark,

wherein each of the plurality of second marks includes a second rough-inspection mark and a second close-inspection mark,

wherein the information indicating the relative position includes first information indicating a relative position of the first rough-inspection mark and the second rough-inspection mark and second information indicating a relative position of the first close-inspection mark and the second close-inspection mark, and

wherein the control unit identifies the incorrect information based on a difference between a first relative position of the shot region and the mold acquired based on the first information and a second relative position of the shot region and the mold acquired based on the second information.

4. The imprint apparatus according to claim 1, wherein the control unit acquires a plurality of detection results based on the plurality of pieces of information output from the plurality of alignment scopes by acquiring detection results indicating the relative position of the first marks

and the second marks observed with the alignment scopes based on information output from the alignment scopes and identifies, as the incorrect information, information that causes a detection result that is different from an average of the plurality of detection results by a value greater than predetermined reference.

5. The imprint apparatus according to claim 1, wherein the control unit controls an alignment scope selected from the plurality of alignment scopes so that the alignment scope observes a first mark and a second mark constituting a pair different from a pair of a first mark and a second mark relating to the incorrect information to generate information and controls aligning of the shot region and the mold using the information instead of the incorrect information.

6. The imprint apparatus according to claim 1, wherein the control unit controls an alignment scope that outputs information excluding the incorrect information from the plurality of alignment scopes so that the alignment scope re-observes a first mark and a second mark that have already been observed and controls aligning of the shot region and the mold based on the information excluding the incorrect information and information acquired by the re-observation.

7. The imprint apparatus according to claim 1, wherein, when the incorrect information is generated, the control unit controls aligning of the shot region and the mold based on information excluding the incorrect information and

information on a second substrate different from the substrate, the information being previously acquired using the plurality of alignment scopes.

8. The imprint apparatus according to claim 7, wherein the previously acquired information is information acquired, using the plurality of alignment scopes, previously for a shot region disposed in a same position in design as the shot region among a plurality of shot regions of the second substrate.

9. The imprint apparatus according to claim 1, wherein, when the incorrect information is generated, the control unit controls aligning of the shot region and the mold based on information excluding the incorrect information and information on another shot region of the substrate, the information being previously acquired using the plurality of alignment scopes.

10. An imprint apparatus for forming a pattern of an imprint material on a substrate using a mold, the apparatus comprising:

a plurality of alignment scopes; and

a control unit that controls aligning of a shot region of the substrate and the mold based on outputs from the plurality of alignment scopes,

wherein each of the plurality of alignment scopes outputs information indicating a relative position of a first mark selected from a plurality of first marks in the shot region

and a second mark selected from a plurality of second marks on the mold,

wherein each of the plurality of first marks includes a first rough-inspection mark and a first close-inspection mark,

wherein each of the plurality of second marks includes a second rough-inspection mark and a second close-inspection mark,

wherein the information indicating the relative position includes first information indicating a relative position of the first rough-inspection mark and the second rough-inspection mark and second information indicating a relative position of the first close-inspection mark and the second close-inspection mark,

wherein the control unit identifies incorrect information based on a difference between a first relative position of the shot region and the mold acquired based on the first information and a second relative position of the shot region and the mold acquired based on the second information, and

wherein the control unit controls the alignment of the shot region and the mold based on the plurality of pieces of information other than the incorrect information.

11. A method for producing an article, comprising the steps of:

forming a pattern on a substrate using the imprint apparatus according to any one of claims 1 to 10; and

processing the substrate on which the pattern is formed.