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(54) **SEWING MACHINE**

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(57) **ABSTRACT**

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A sewing machine includes a detection unit configured to detect a moving direction of an object when the object placed on a sewing machine bed is moved in any direction, a cutting needle having a distal end formed with a blade edge and configured to form a cut in the object, an up-down drive mechanism configured to reciprocate the needle in an up-down direction, a rotational drive mechanism configured to rotate the needle about a rotation axis line of the needle, and a control device configured to control the up-down drive mechanism and the rotational drive mechanism based on a result of detection by the detection unit so that an orientation of the blade edge is changed according to the moving direction of the object and the needle is reciprocated to form the cut in the object with the blade edge being in the changed orientation.

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(52) **U.S. Cl.**
CPC **D05B 19/12** (2013.01); **D05B 81/00** (2013.01); **D05D 2207/04** (2013.01)
(58) **Field of Classification Search**
CPC D05D 2207/04; D05D 2305/08; D05B 21/00; D05B 39/00; D05C 11/16
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See application file for complete search history.

8 Claims, 17 Drawing Sheets

