

Title (en)

RESIDUAL BOBBIN THREAD REMOVING DEVICE AND THE SEWING MACHINE

Title (de)

VORRICHTUNG ZUM ENTFERNEN VON VERBLEIBENDEM SPULENFADEN UND NÄHMASCHINE

Title (fr)

DISPOSITIF DE RETRAIT DE RÉSIDUS DE FILS DE BOBINE ET MACHINE À COUDRE

Publication

**EP 3763863 A1 20210113 (EN)**

Application

**EP 19219695 A 20191224**

Priority

TW 108124313 A 20190710

Abstract (en)

The residual bobbin thread removing device of the present invention is applied to a sewing machine and has a movable arm, a cutter and a suction mechanism. The movable arm is connected to the cutter, and can be driven to make the cutter enter a winding space of the bobbin through the movable arm. Accordingly the cutter can cut off the bobbin thread inside the winding space, and the suction mechanism perform removal operation for the bobbin thread cut by the cutter, which makes the bobbin show the initial state of without wound bobbin thread. By doing so, after the rotary hook is removed from the sewing machine during the sewing operation, the movable arm, the cutter and the suction mechanism can jointly remove the bobbin thread remaining on the bobbin, thereby shortening the working time of removing the bobbin to improve the working efficiency of the sewing machine.

IPC 8 full level

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Citation (search report)

- [XA] US 5109662 A 19920505 - INGER SIEGFRIED [DE]
- [A] US 6053119 A 20000425 - OKUBO TSUTOMU [JP], et al
- [A] US 5694874 A 19971209 - NAKAMURA MASAO [JP], et al
- [A] DE 2743668 A1 19790405 - FAEHNRICH KURT

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