

Title (en)
Buttonholing machine

Title (de)
Knopflochmaschine

Title (fr)
Machine pour boutonnières

Publication
EP 2615199 B1 20141008 (EN)

Application
EP 13150672 A 20130109

Priority
JP 2012001826 A 20120110

Abstract (en)

[origin: EP2615199A1] The present invention relates to a buttonholing machine (1). The buttonholing machine (1) includes a needle up-down moving mechanism (50) configured to move a needle bar up and down, an upper shaft (14) coupled to the needle up-down moving mechanism (50), a looper mechanism (60) having a pair of loopers to interlace an upper thread and a lower thread, a lower shaft (16) coupled to the looper mechanism (60), a sewing machine motor (13) coupled to one of the upper shaft (14) and the lower shaft (16), a transmission mechanism (90) configured to interlock the upper shaft (14) and the lower shaft (16), and a vertical shaft (15) having an upper portion coupled to the upper shaft (14) via bevel gears (96, 97) and a lower portion coupled to at least one of a thread take-up mechanism (70) and a needle oscillating mechanism (40). The bevel gears (96, 97) are configured to reduce the rotation speed of the upper shaft (14) by half and to transmit the rotation of the upper shaft (14) to the vertical shaft (15).

IPC 8 full level
D05B 3/06 (2006.01); **D05B 69/16** (2006.01)

CPC (source: EP)
D05B 3/06 (2013.01); **D05B 69/16** (2013.01)

Cited by
CN104088096A; EP3088592A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2615199 A1 20130717; EP 2615199 B1 20141008; CN 103194860 A 20130710; CN 103194860 B 20160803; JP 2013141482 A 20130722;
JP 5957227 B2 20160727

DOCDB simple family (application)
EP 13150672 A 20130109; CN 201310009509 A 20130110; JP 2012001826 A 20120110