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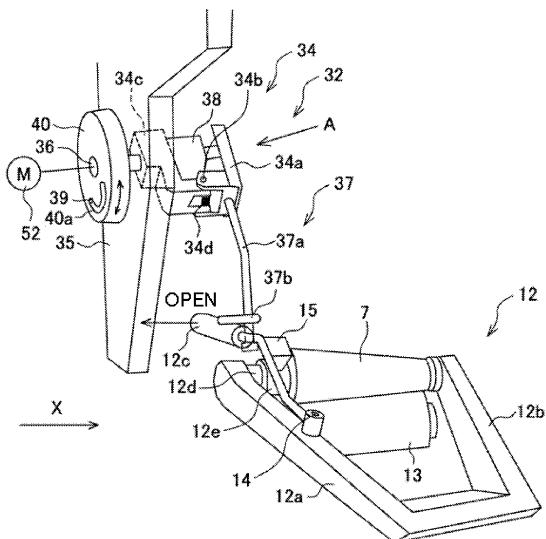
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## (54) Doffing apparatus

(57) A textile machine represented by an automatic winder (1, 103) including multiple winding units (2, 112) arranged in a row and a doffing apparatus (3, 103) capable of running in an arrangement direction of the winding units. The winding units wind on a winding tube (7, 133) a spun yarn that is unwound from multiple yarn supplying bobbins (5) while performing yarn joining thereby creating a fully-wound package of a specific yarn amount. The doffing apparatus (3, 103) of the automatic winder (1, 103) includes, for example, a cradle opener (32, 140) that performs opening/closing operation and raising/lowering operation of a cradle (12, 132), and a yarn catching unit (60, 145) that catches a yarn end on the yarn supplying bobbin side and guides the yarn end to a winding tube (7, 133). The cradle opener (32, 140) is raised or lowered by a fluid pressure cylinder (38, 158) and opened or closed by a driving motor (52, 152, 156). The yarn catching unit (60, 145) is driven by a driving source (62, 171, 182).

FIG. 3





## EUROPEAN SEARCH REPORT

Application Number

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| DOCUMENTS CONSIDERED TO BE RELEVANT  |  |                                  | CLASSIFICATION OF THE APPLICATION (IPC)   |
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| Category   | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim                |   |
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| The present search report has been drawn up for all claims   |  |                                  |   |
| 1  | Place of search  | Date of completion of the search | Examiner  |
| 50   | The Hague  | 6 February 2015                  | Pussemier, Bart   |
| EPO FORM 1503.03.82 (P04C01)<br>CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |  |                                  |   |
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