Title (en)

METHOD AND APPARATUS FOR WORKING WEBS IN REGISTER, ESPECIALLY WHEN PRODUCING SAFETY YARNS

Publication

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Application

EP 90101721 A 19900129

Priority

DE 3902960 A 19890201

Abstract (en)

[origin: US5239902A] The invention relates to a method, an apparatus and sheets of materials for producing marked security threads as are used to increase the protection of documents and parers of value against forgery. The inventive method is for processing, in particular cutting, security threads out of sheets of material in register, the sheets of material being fed to the processing units in exact alignment. The feed principal is based on guiding the sheet of material on at least one edge of the sheet, determining the position relative to one of the edges of the sheet, producing a signal form the determination of position, and positioning the feeding device relative to the processing unit so that the sheet of material runs into the latter in a predetermined position.

IPC 1-7

B26D 5/32; B42D 15/00

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)
- [YP] US 4819528 A 19890411 - CHADWICK ARTHUR [US]
- [Y] US 4694181 A 19870915 - PILLER RICHARD G [US]
- [A] EP 0110670 A1 19840613 - XEROX CORP [US]
- [AD] EP 0238043 A2 19870923 - GAO GES AUTOMATION ORG [DE]

Cited by

US5354099A; US5599047A; WO9211142A1

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DOCDB simple family (publication)

EP 0381112 A2 19900808; **EP 0381112 A3 19911009**; **EP 0381112 B1 19950802**; AT E125742 T1 19950815; DE 3902960 A1 19900802; DE 3902960 C2 19990701; DE 59009454 D1 19950907; DK 0381112 T3 19951211; ES 2076234 T3 19951101; US 5239902 A 19930831; US 5335572 A 19940809

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