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(12) **United States Patent Hammacher**

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(54) **DEVICE AND METHOD FOR CONVEYING LUMPY PRODUCTS**

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(57) **ABSTRACT**

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The invention creates a single-track or multiple-track device and a corresponding method for conveying lumpy products in such a way that the products are separated from a product stream on each of the tracks and are subsequently conveyed further spaced apart uniformly and/or in groups. For this purpose, arrangements for supplying the products as a single-row product stream are provided in each track as well as arrangements for discharging the separated products distanced from one another in a row, wherein the products are transferred from the supplying arrangements to the discharging arrangements. Arrangements for conveying the products are provided in each track in the area of the transfer from the supplying arrangements to the discharging arrangements and have driver arrangements, which are mounted so as to be pivotable in a controlled manner in the conveying direction of the products and which intervene between two successive products in the supplied product stream in such a way that said arrangements guide the products during the transfer from the supplying arrangements to the discharging arrangements in such a way that the products are separated from the product stream and are conveyed further at uniform distances from one another and/or in groups, and are discharged, in a controlled manner in each case. The multiple-track conveying device additionally comprises arrangements for controlling the conveying devices in the tracks, such that the product streams on the tracks are synchronized with one another in such a way that a product on a track, following the separation from the respective product stream, is substantially aligned with the products on individual selected other tracks or all of the other tracks, such that the products on the tracks in question are arranged side by side substantially in a row in a direction perpendicular or at an incline to the conveying direction of the products.

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See application file for complete search history.

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