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Method and device for supplying laundry items**Description**

- 5 The invention relates to a method for supplying laundry items to a laundry treatment machine, or to a treatment region of a laundry treatment machine according to the preamble of claim 1. The invention further relates to an apparatus for supplying laundry items to a laundry treatment machine or a treatment region of a laundry treatment machine according to the preamble of claim 6.
- 10 In laundrettes, the supply of items of laundry to a laundry treatment machine or to a treatment region of a laundry treatment machine is carried out primarily via supply conveyors. In this instance, individual items of laundry are placed or deposited in a spread-out state on supply conveyors which are, for example, in the
- 15 form of belt conveyors. The items of laundry are then transported by the at least one supply conveyor to the laundry treatment machine or to the treatment region of the laundry treatment machine. Such laundry treatment machines may, for example, be a folding device or a mangle.
- 20 In known apparatuses, the items of laundry are deposited manually or mechanically on a placing region of the supply conveyor or the belt conveyor. FR 1 085 615 A sets out, for example, how an item of laundry is placed on a placement plate, wherein the front edge region of the item of laundry is supplied to a belt conveyor so that the entire item of laundry is pulled over the plate in order to be supplied
- 25 another laundry treatment device. In the documents DE 17 60 450 B1, a similar method is described, only in this instance the placing of the items of laundry is carried out not manually, but instead mechanically in a supply apparatus. This placing of the item of laundry on the placing region often leads to undesirable formation of folds in the item of laundry, particularly when a rear region of an item
- 30 of laundry is placed in front of a front edge region on a belt conveyor. In the treatment method described in EP 0 011 403 A1, an item of laundry is, for example, pulled by a clamp over a placement plate which then moves away in the treatment direction via a belt conveyor so that the item of laundry is placed thereon. Since in

this instance, however, a rear region of the item of laundry is placed chronologically before the front end region of the item of laundry, with a belt conveyor which is running too rapidly, the rear region can overtake the front edge region and a fold may be formed. The documents DD 77 950 B and DE 28 24 084 A1 describe a similar method for placing an item of laundry on a conveyor, wherein the formation of folds is prevented in this instance by a complex counter-measure. As a result of the formation of a fold of the deposited item of laundry, there are losses of quality in the following treatment. If the following laundry treatment machine is, for example, a mangle, the item of laundry may be supplied with folds and accordingly mangled. The same applies to folding devices. When the item of laundry is supplied to the folding device with folds, the folding result is also impaired in the subsequent folding operation.

An object of the invention is to provide a method and an apparatus, whereby a formation of folds when supplying items of laundry is prevented or at least reduced.

A method for achieving this objective has the measures of claim 1. Accordingly, when required an item of laundry is brought into contact with the at least one conveyor belt of the belt conveyor only with a portion of the front edge region thereof. It is thereby advantageously possible, depending on the item of laundry or also other influential factors, to reduce or vary the surface-area of direct contact of the item of laundry on the at least one conveyor belt of the belt conveyor. There is provision for the method to extend to laundry treatment machines with both a single track or also a multi-track operating method. As a result of this adaptation or reduction of the contact of the respective item of laundry a formation of folds during the supply operation is at least reduced.

There is further preferably provision, when a portion of the front edge region of the item of laundry is spaced apart from at least one conveyor belt of the belt conveyor, for only a remaining other portion of the front edge region of the item of laundry to remain in contact with the belt conveyor. In this instance, the item of laundry is spread out manually or mechanically along the front edge region and supplied to the conveyor belt or placed on the conveyor belt. In the event of mechanical supply,

opposing or adjacent corners of a front edge of the items of laundry are generally retained on clamps and supplied to the belt conveyor in a spread-out state. In this instance, a front edge region of the item of laundry which extends from the front edge is placed on the belt conveyor. The manual supply and placement of items of laundry on the belt conveyor is carried out in principle in the same manner, only without clamps. In this instance, the front edge region is supplied in particular only to the planar supply plane of the conveyor belt and the remaining portion of the item of laundry is pulled along on this plane. The necessary lifting force of the belt conveyor is in this instance transmitted by the frictional resistance of the surface of the conveyor belts to the item of laundry. Preferably, it is also conceivable for suction devices which fix the item of laundry using a suction pressure to be associated with the belt conveyor.

In addition, the invention further makes provision, when the item of laundry is placed on the belt conveyor, for the portion of the front edge region of the item of laundry, which portion comes into contact with the at least one conveyor belt of the belt conveyor, and the portion of the front edge region of the item of laundry, which portion may not come into contact with the conveyor belt of the belt conveyor, to be located one behind the other in the transport direction of the belt conveyor, wherein the portion of the item of laundry which comes into contact with the belt conveyor is located in front of the portion of the item of laundry which does not come into contact with the belt conveyor. As a result of the contact of the portion of the item of laundry which is initially placed on the belt conveyor, the portion of the item of laundry which is located behind this portion is pulled along the belt conveyor. A rear portion of the item of laundry when viewed in the supply direction is thus prevented from coming into contact with the belt conveyor before a front portion of the item of laundry when viewed in the supply direction and forming folds. Consequently, when the item of laundry is placed on the belt conveyor, only a narrow region or portion of the front edge region of the item of laundry is brought into contact with the belt conveyor. In this manner, the geometry of the spread-out item of laundry when pulled onto the belt conveyor does not change or changes only insignificantly.

In particular, the present invention preferably makes provision for the size, in particular the length running in the transport direction, of the portion of the laundry item that where applicable does not come in contact with the belt conveyor to be modified as required when the laundry item is placed on the belt conveyor. This
5 length of the portion of the item of laundry which does not come into contact with the belt conveyor can be determined in accordance with the nature of the item of laundry.

Furthermore, there is preferably provision for the laundry item to be placed on a
10 placing region located at the front end of the belt conveyor, preferably in the front deflection region of the at least one conveyor belt of the belt conveyor. For ergonomic reasons, it is particularly advantageous for an operator to stand in front of the front end of the belt conveyor or the deflection region and to supply the items of laundry directly to the placing region at that location.

Another particularly advantageous embodiment of the present invention makes provision, at least over part of the front deflection region, preferably at the location where the at least one conveyor belt wraps around the front drum of the belt conveyor, for the front edge region of the laundry item to be at least partially spaced
20 apart from the belt conveyor. Preferably, it is possible for the portion of the front edge region of the item of laundry, which portion is where applicable spaced apart in the front deflection region of the belt conveyor from at least one conveyor belt thereof, to be able to be changed in terms of size, preferably length. Such a spacing of the front edge region of the item of laundry from the belt conveyor in the front
25 deflection region results in the item of laundry not wrapping around the drum and being pulled onto the belt conveyor in a fold-forming state. In particular, before a leading portion of the front region of the item of laundry is placed on the belt conveyor, a rear portion of the item of laundry when viewed in the transport direction is thus prevented from already coming into contact with the drum and
30 being pushed on by the conveyor belt with transverse folds being formed. This spacing of the front edge region of the item of laundry can in particular be varied in that the spacing relative to the drum can be changed, and the relative position with respect to the drum can be changed.

An apparatus for achieving the objective mentioned in the introduction has the features of claim 6. Accordingly, there is provision for there to be associated with at least the placing region of the belt conveyor at least one separation element which, if required, is able to be positioned between the respective laundry item and the at least one conveyor belt of the belt conveyor in order to point away and/or to space apart a part of the front peripheral region of the laundry item from at least one conveyor belt of the belt conveyor. This at least one separation element may be a deflection device which is constructed in one piece or several pieces. This separation element or this deflection device extends with laundry treatment machines which operate on a single track over the entire operating width in particular of the belt conveyor. In multi-track laundry treatment machines, a plurality of separation elements or deflection devices are provided which extend over the width of the respective track are provided.

Furthermore, there is provision according to the invention for the separation element to be movable, in particular pivotable or displaceable, wherein the at least one separation element can be moved into an active position and an inactive position. In this instance, for example, there is in particular provision for the separation element to be able to be guided around the drum of the conveyor belt on a circular-segment-like portion with an in particular identical radius of curvature to the drum. In this instance, the active position is formed, when the separation element is positioned in such a manner that at least a portion of the item of laundry comes into contact with the separation element or is placed on the separation element during placement on the conveyor belt. As a result of the item of laundry on the separation element being brought into contact or placed, in particular the friction between the item of laundry and the conveyor belt during the pulling-on action is reduced. As a result of this spacing of the item of laundry from the conveyor belt, the formation of folds can further be reduced. Depending on the relative position of the separation element with respect to the drum or the conveyor belt, the overlapping of the item of laundry with the at least one conveyor belt can be varied or reduced. When the separation element is moved completely out of the region between the conveyor belt and the item of laundry, it is in the inactive

position and has no further influence on the pulling of the item of laundry onto the belt conveyor.

The separation element can be moved manually or automatically or mechanically from one position into another. With a multi-track supply conveyor which has a plurality of, in particular individually associated separation elements, the individual separation elements can be moved independently of each other into different positions.

According to the invention, the present invention further makes provision for the separation element to be associated with a placing region for placing the items of laundry onto the at least one conveyor belt of the belt conveyor. Consequently, it is entirely also conceivable for an individual separation element to be associated with a supply conveyor which has a plurality of conveyor belts or belt conveyors and to be able to equally be associated with all the placing regions.

Preferably, the present invention further makes provision for the separation element to be associated with a region of a front drum when viewed in the transport direction of the belt conveyor for deflecting the at least one conveyor belt of the belt conveyor. Consequently, the items of laundry can be supplied directly to the placing region. However, it is also conceivable for the separation elements to be associated with the belt conveyors at other positions along the conveyor.

A particular configuration of the invention further makes provision for the separation element to be in the form of a separation plate which preferably extends over only a portion of the placing region and which can be positioned with little spacing over the at least one conveyor belt of the belt conveyor. The separation plate may, for example, be constructed in a rod-like, planar or preferably slightly curved manner. A slightly curved separation plate preferably has a radius of curvature which is adapted to the drum so that it is pivoted about the drum with consistent spacing from the drum or can be pivoted from one position into another position. The spacing between the separation plate and the at least one conveyor belt of the belt conveyor or the drum is selected in such a manner that they just do

not touch, but on the other hand the transition from the separation plate to the belt conveyor is kept small so that the item of laundry which is pulled by the conveyor belt over the separation plate again raises no folds. The separation element or separation plate is preferably formed from a plastics material having a smooth surface, a polished plate or a coated plate in order to keep the friction resistance between the separation element or separation plate and the item of laundry as low as possible.

There is further preferably provision for the separation element to extend from the outside at least partially about a portion of the at least one conveyor belt of the belt conveyor that is deflected by the front drum, the separation element in the region of the at least one conveyor belt of the belt conveyor, which region is deflected by the drum, preferably having a curved, preferably arcuate or part-circle-shaped extent. As a result of this path, which is adapted to the drum, of the separation element, the separation element can be readily combined with the drum and consequently simplifies the relative movement between the drum element and the drum, in particular from an active position into an inactive position and vice versa. As a result of the fact that the separation plate is positioned in front of the drum, the item of laundry is pulled over this separation plate and consequently spaced apart from the conveyor belt before it is supplied to the influence region of the belt conveyor. Consequently, the item of laundry during placement does not come into contact with the curved region of the conveyor belt or the drum. Since this has previously led to the formation of folds, the use of the separation plate leads to the prevention of folds and consequently an increased treatment quality of the item of laundry.

In particular, the invention further makes provision for the separation element to be movable, in particular pivotable or displaceable, relative to the belt conveyor, preferably by way of an adjustment drive associated with the separation element. This adjustment drive can be controlled by means of a control unit depending on the requirement or nature of the treatment machine and the items of laundry to be treated. In this instance, the control unit can be operated manually or in a pre-programmed mode. However, it is also conceivable for the adjustment drive to be

manually operated directly.

A preferred embodiment of the invention will be explained in greater detail below with reference to the drawings, in which:

- 5 Figures 1 shows a schematic illustration of a folding machine,
Figure 2 shows a schematic illustration of a portion of an input machine for supplying items of laundry to a mangle,
Figure 3 shows an enlarged end region of a belt conveyor of the machines which is shown in Figures 1 and 2 and which has a separation element in an inactive position,
10 Figure 4 shows the end region of Figure 3 in an active position of the separation element, and
Figure 5 shows the end region in an intermediate position of the separation element.

15 Figure 1 schematically shows a laundry treatment machine which is in the form of a folding machine 11. In the folding machine 11, items of laundry not shown in Figure 1 are folded multiple times one after the other and folded both longitudinally and transversely.

20 At the beginning, the folding machine 11 has a belt conveyor 16 which acts as a supply conveyor for supplying the items of laundry to be folded to the treatment region, that is to say, folding region 13, of the folding machine 11. The items of laundry are consequently transported by the belt conveyor 16 in a passage direction 14 to the folding region 13 and also in the passage direction 14 through the folding region 13 and in this instance provided with longitudinal and/or transverse folds.

25 Figure 2 schematically shows another laundry treatment machine, that is to say, an input machine 18 for supplying spread-out items of laundry 21 to a subsequent mangle 12. The input machine is only partially illustrated in Figure 2. Only a belt conveyor 16 which acts as a supply conveyor and a subsequent input conveyor in
30 the embodiment shown are shown in Figure 2. The belt conveyor 16 transports the spread-out item of laundry 21 in the passage direction to the input conveyor 19, from which the item of laundry 21 is supplied to the mangle 21.

The belt conveyor 16 of the folding machine 11 which is shown in this instance and of the input machine 18 have a plurality of narrow conveyor belts 17 which are located beside each other with little spacing and which are driven circumferentially (Figure 2). The belt conveyors 16 may, however, also have a conveyor belt 17
5 which extends over the entire operating width thereof.

The belt conveyors 16 shown are redirected around two cylindrical drums 22 and 23 which are spaced apart. One of these drums 22 and 23 can be rotatingly driven. The rotation axes of the drums 22, 23 extend transversely relative to the passage
10 direction 14. A front drum 22 is located at the beginning of the belt conveyor 16 and a rear drum 23 is located at the end of the belt conveyor 16.

Figures 1 and 2 show single-track belt conveyors 16. They extend over the entire operating width of the folding machine 11 or the input machine 18. However, the
15 invention is also suitable for multi-track folding machines 11 or input machines 18. In this instance, a plurality of belt conveyors 16 are arranged one beside the other by a track being formed in each case by a belt conveyor 16. With a multi-track operating method, the belt conveyors 16 are operated independently of each other. It is also conceivable to carry out switching to a single-track operating method. All
20 the belt conveyors 16 which are located beside each other are then operated simultaneously in a synchronous manner.

The respective item of laundry 21 is manually or mechanically or automatically placed with a spread-out front edge region 20 on a front placing region 25 in the
25 region of the front drum 22 of the belt conveyor 16. In this instance, at least a portion of the front edge region 20 of the item of laundry 21 is brought into contact with the upper strand of the conveyor belt 17 or the conveyor belts 17 of the belt conveyor 16 which are located beside each other. During automatic placement, the item of laundry 21 hangs with adjacent corners of a front edge which extends
30 transversely relative to the passage direction 14 on clamps. From these clamps, the item of laundry 21 is placed with the front edge region 20 which adjoins the spread-out front edge 20 in the placing region 25 on the upper strand of the belt conveyor 16.

Figures 3 to 5 show an enlarged detail A from Figures 1 and 2, as a side view of the front drum 21 and the placing region.

- 5 A front edge region 20 of the item of laundry 21 is placed on the placing region 25 of the upper strand of the belt conveyor 16.

According to the invention, there is provision for moving a separation element 26 when placing the front edge region 20 of the item of laundry 21 on the belt conveyor 16 between the item of laundry 21 and the conveyor belts 17. In the examples of the separation element 26 as illustrated in Figures 3 to 5, it is in the form of a curved plate which is arranged with a curvature which is adapted to the curvature of the drum 21 over an angular range of, for example, 90° about the drum 22. Furthermore, there may preferably be provision for the separation element 26 to extend parallel over the entire length of the drum 22. However, it is also conceivable for the separation element 26 to have a different shape or to be associated with the supply conveyor 16 only over a part-region of the drum 22 or over a limited region. In Figure 3, the separation element 26 is illustrated in an inactive position, in which it does not come into contact with the item of laundry 21.

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The separation element 26 which is in the form of a curved, in particular quarter-circle-like plate is associated with the drum 22 of the belt conveyor 16 in such a manner that it can be pivoted about the rotation axis of the front drum 22 from the inactive position (Figure 3) into the active position (Figure 4). In the active position, the separation element 26 is pivoted forwards through 90° in the rotation direction of the drum 22 so that it covers an upper, front quarter of the covering of the drum 22 with slight spacing. In the active position, the thin, plate-like separation element 26 spaces the front edge region 29 of the item of laundry 21 apart from the conveyor belts 17 of the belt conveyor 16. In the active separation element 26, the item of laundry 21 consequently slides along the stationary separation element 26 but is not also carried by the portion of the belt conveyor 16 or the conveyor belts 17 thereof, which portion is covered by the separation element 26 (Figure 4).

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In Figures 4 and 5, for greater capacity for identification and clarity of the illustration, a gap 27 is illustrated between the separation element 26 and the item of laundry 21. In practice, this gap 27 is not present so that the item of laundry 21 comes into direct contact with the active separation element 28.

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In the active separation element 26 (Figure 4), the item of laundry 21 is placed only with the front portion of the edge region 20 slightly behind the front drum 22 on the upper strand of the belt conveyor 16, that is to say, the conveyor belts 17, wherein the spread-out front edge, which extends transversely relative to the passage direction 14, of the item of laundry 21 is located when viewed in the passage direction 14 behind the front drum 22. In this instance, only a front portion, which extends transversely relative to the passage direction 14, of the front edge region 20 of the item of laundry 21 is positioned on the upper strand of the belt conveyor 16. However, the other subsequent portion of the front edge region 20 of the item of laundry 21 is positioned with an active separation element 26 not on the belt conveyor 16, but instead on the separation element 26. In this manner, the item of laundry 21 slides when transported further in the passage direction 14 along the quarter-circle-like separation element 26 in the embodiment shown.

In order to reduce the friction between the item of laundry 21 and the separation element 26, at least the surface of the separation element 26 facing the item of laundry 21 is provided with a low friction coefficient, for example, by this surface being polished or being provided with a coating made of smooth plastics material or ceramic material.

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Between the active and the inactive position, the separation element 26 may be continually moved into any desired intermediate positions. An intermediate position is shown in Figure 5. In this position, a front portion of the front edge region 20 of the item of laundry 21 already abuts in the region of the front drum 22 against the upper strand of the belt conveyor 16. The separation element 26 which is in the form of a quarter-circle-like plate is to this end pivoted backwards through approximately 45° with respect to the illustration in Figure 4. The separation element 26 is thereby located approximately at the centre between the inactive and

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the active position. It is thereby possible for a large portion of the front edge region 20 of the item of laundry 21 to adjoin the conveyor belts 17, whilst a small rear portion of the front edge region 20 is spaced apart from the conveyor belts 17 by the separation element 26 and consequently when the item of laundry 21 is placed
5 on the placing region 25 of the belt conveyor 16 does not come into contact with the belt conveyor 16, in particular the conveyor belts 17.

As a result of the change of the position of the separation element 26, preferably in accordance with the type or material of the item of laundry 21 which is intended to
10 be folded or mangled, a larger or smaller portion of the front edge region 20 of the item of laundry 21 can be brought into contact with the placing region 25 of the belt conveyor 16, particularly when the item of laundry 21 is placed manually or by hand into the front region 20 onto the placing region 25 of the belt conveyor 16.

15 With specific items of laundry, it is difficult to place the front edge region 20 onto the placing region 25 of the belt conveyor 16 in a sufficiently spread-out manner. The front edge region 20 of the item of laundry 21 is then placed with folds onto the placing region 25 of the belt conveyor 16. These folds lead to the subsequent portion 24 of the item of laundry 21 also being pulled in a folded manner onto the
20 belt conveyor 16. With such items of laundry 21, the invention makes provision for the separation element 26 to be moved into the completely active position shown in Figure 4 or into the partially active position shown in Figure 5. When the front edge region 20 of the item of laundry 21 is placed on the placing region 25 of the belt conveyor 16, only a narrow front portion of the front edge region 20 of the
25 item of laundry 21 thereby comes into contact and/or abutment with the upper strand of the belt conveyor 16. As a result of only a narrow front portion of the edge region 20 of the item of laundry 21 coming into contact with the conveyor belts 17 of the belt conveyor 16, particularly items of laundry 21 which are difficult to place can be placed in an almost fold-free manner on the belt conveyor 16 since
30 the rear portion of the front edge region 20 of the item of laundry 21 is kept away from the separation element 26, in particular kept away from the conveyor belts 17 in the region of the front drum 22 of the belt conveyor 16. When the item of laundry 21 is transported further, the subsequent portion 24 of the item of laundry 21 slides

along the smooth separation element 26, which leads to a smoothing of the item of laundry 21 and a decrease or at least reduction of any risk of the formation of folds. The risk of the formation of folds can be even further reduced by the outer side of the separation element 26 which comes into contact with the items of laundry 21 being provided with arrow-like projections which diverge in the passage direction 14.

List of reference numerals:

10	11	Folding machine
	12	Mangle
	13	Folding region
	14	Passage direction
	16	Belt conveyor
15	17	Conveyor belt
	18	Input machine
	19	Input conveyor
	20	Front edge region
	21	Item of laundry
20	22	Front drum
	23	Rear drum
	24	Subsequent portion
	25	Placing region
	26	Separation element
25	27	Gap

Patentkrav

1. Fremgangsmåde for tilførsel af vasketøjsstykker (21) til en vasketøjsbehandlingsmaskine eller til et behandlingsområde for en vasketøjsbehandlingsmaskine, hvorved vasketøjsstykkerne (21) i udbredt tilstand ved hjælp af et forreste kantområde (20) anbringes i et anbringelsesområde (25) i en båndtransportør (16) og ved hjælp af båndtransportøren (16) transporteres i retning hen imod vasketøjsbehandlingsmaskinen eller hen imod behandlingsområdet for en vasketøjsbehandlingsmaskine,

10 **kendetegnet ved, at**, ved anbringelse af det forreste kantområde (20) af vasketøjsstykkerne (21) i anbringelsesområdet (25) i båndtransportøren (16), om nødvendigt kun en del af det forreste kantområde (20) af vasketøjsstykket (21) bringes i kontakt med det mindst ene transportbånd (17) i båndtransportøren (16), hvorved i det mindste anbringelsesområdet (25) har tilordnet mindst et

15 separeringselement (26), der om nødvendigt positioneres mellem det respektive vasketøjsstykke (21) og det mindst ene transportbånd (17) i båndtransportøren (16) med henblik på at afstandsholde delen af det forreste kantområde (20) fra det mindst ene transportbånd (17), og hvorved, ved anbringelse af vasketøjsstykket (21) i båndtransportøren (16), den del af det forreste kantområde

20 (20), der kommer i kontakt med det mindst ene transportbånd (17) i båndtransportøren (16), tillige med den afstandsholdte del af det forreste kantområde (20) af vasketøjsstykket (21), som eventuelt ikke kommer i kontakt med transportbåndet (17) i båndtransportøren (16), ligger bag ved hinanden i transportretningen (14) for båndtransportøren (16), hvorved den del af vasketøjsstykket (21),

25 der kommer i kontakt med båndtransportøren (16), er beliggende foran den del af vasketøjsstykket (21), som ikke kommer i kontakt med båndtransportøren (16).

2. Fremgangsmåde ifølge krav 1, **kendetegnet ved, at** når kun en del af det

30 forreste kantområde (20) af vasketøjsstykket (21) bringes i kontakt med det mindst ene transportbånd (17) i båndtransportøren (16), en resterende, anden del af det forreste kantområde (20) af vasketøjsstykket (21) midlertidigt afstandsholdes fra det mindst ene transportbånd (17) i båndtransportøren (16).

3. Fremgangsmåde ifølge et af de foregående krav, **kendetegnet ved, at** størrelsen, navnlig længden, der løber i transportretningen (14), af den del af vasketøjsstykket (21), som eventuelt ikke kommer i kontakt med båndtransportøren (16), modificeres efter behov.

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4. Fremgangsmåde ifølge et af de foregående krav, **kendetegnet ved, at** vasketøjsstykket (21) anbringes på et anbringelsesområde (25), der er beliggende i den forreste ende af båndtransportøren (16), fortrinsvis i det forreste afbøjningsområde for det mindst ene transportbånd (17) i båndtransportøren (16).

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5. Fremgangsmåde ifølge krav 4, **kendetegnet ved, at** det forreste kantområde (20) holdes i en afstand fra båndtransportøren (16), i det mindste over en del af det forreste afbøjningsområde, fortrinsvis der, hvor det mindst ene transportbånd (17) omslynger den forreste tromle (22) i båndtransportøren (16), fortrinsvis den del af det forreste kantområde (20) af vasketøjsstykket (21), der i det forreste afbøjningsområde for båndtransportøren (16) i givet fald holdes i en afstand fra det mindst ene transportbånd (17) i båndtransportøren (16), og som er i stand til at blive modificeret, hvad angår størrelse, fortrinsvis længde.

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6. Apparat (10) for tilførsel af vasketøjsstykker (21) til en vasketøjsbehandlingsmaskine, eller til et behandlingsområde i en vasketøjsbehandlingsmaskine, med en båndtransportør (16), ved hjælp af hvilken vasketøjsstykkerne (21) kan transporteres i retningen hen imod vasketøjsbehandlingsmaskinen eller hen imod behandlingsområdet i vasketøjsbehandlingsmaskinen, og med et fortrinsvis forreste anbringelsesområde (25) i båndtransportøren (16), i hvilket vasketøjsstykkerne (21) i den udsprede tilstand kan anbringes ved hjælp af et forreste kantområde (20),

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kendetegnet ved, at der til mindst anbringelsesområdet (25) i båndtransportøren (16) er tilordnet mindst et separeringselement (26), som i givet fald kan positioneres mellem det respektive vasketøjsstykke (21) og det mindst ene transportbånd (17) på båndtransportøren (16) med henblik på at orientere en del af det forreste kantområde (20) af vasketøjsstykket (21) fra mindst et transportbånd (17) på båndtransportøren (16) og/eller afstandsholde hvorved

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separeringselementet (26) kan bevæges og er i stand til at blive bevæget til en aktiv og til en inaktiv position.

5 7. Apparat (10) ifølge krav 6, **kendetegnet ved, at** separeringselementet (26) er svingbart eller forskydeligt, fortrinsvis at det mindst ene separeringselement (26) kan bevæges til en aktiv position og til en inaktiv position.

10 8. Apparat (10) ifølge krav 6 eller krav 7, **kendetegnet ved, at** separeringselementet (26) er tilordnet til et forreste anbringelsesområde (25) med henblik på at anbringe vasketøjsstykkerne (21) på det mindst ene transportbånd (17) på båndtransportøren (16).

15 9. Apparat (10) ifølge et af kravene 6 til 8, **kendetegnet ved, at** separeringselementet (26), set i transportretningen (14) for båndtransportøren (16), er tilordnet til et område på en forreste tromle (22) med henblik på afbøjning af det mindst ene transportbånd (17) i båndtransportøren (16).

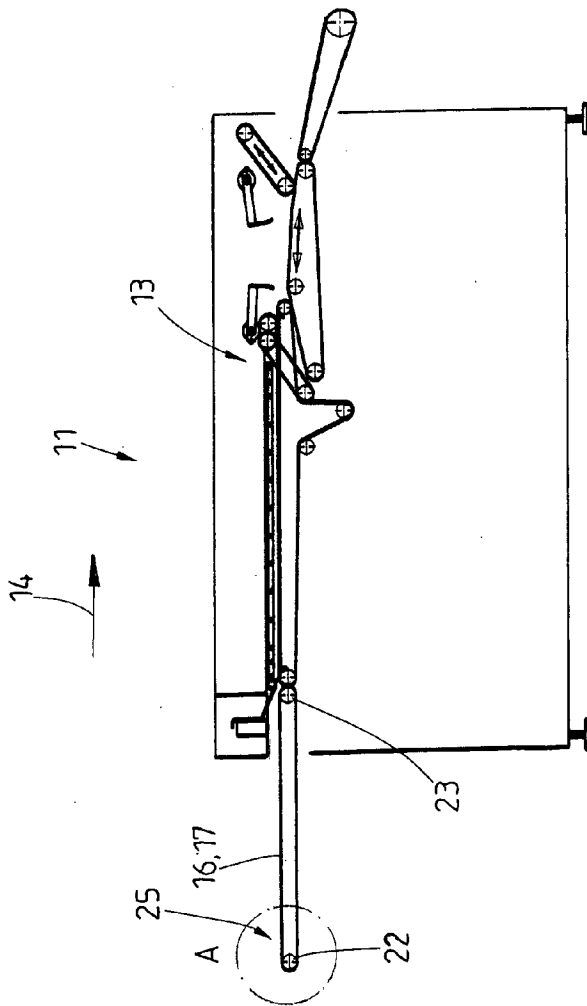
20 10. Apparat (10) ifølge et af kravene 6 til 9, **kendetegnet ved, at** separeringselementet (26) er konfigureret som en separeringsplade, der fortrinsvis strækker sig over kun en del af anbringelsesområdet (25) og ved hjælp af en lille afstand kan positioneres oven over det mindst ene transportbånd (17) på båndtransportøren (16).

25 11. Apparat (10) ifølge et af kravene 6 til 10, **kendetegnet ved, at** separeringselementet (26) fra ydersiden strækker sig mindst delvist omkring en del af det mindst ene transportbånd (17) i båndtransportøren (16), og som er afbøjet af den forreste tromle (22), og separeringselementet (26) i området for det mindst ene transportbånd (17) i båndtransportøren (16), og som er afbøjet af tromlen (22), fortrinsvis har et krumt, fortrinsvis buet forløb.

30

12. Apparat (10) ifølge et af kravene 6 til 11, **kendetegnet ved, at** separeringselementet (26) er bevægeligt, navnlig svingbart eller forskydeligt, i forhold til båndtransportøren (16), fortrinsvis ved hjælp af et justeringsdrev, som er tilordnet til separeringselementet (26).

Fig. 1



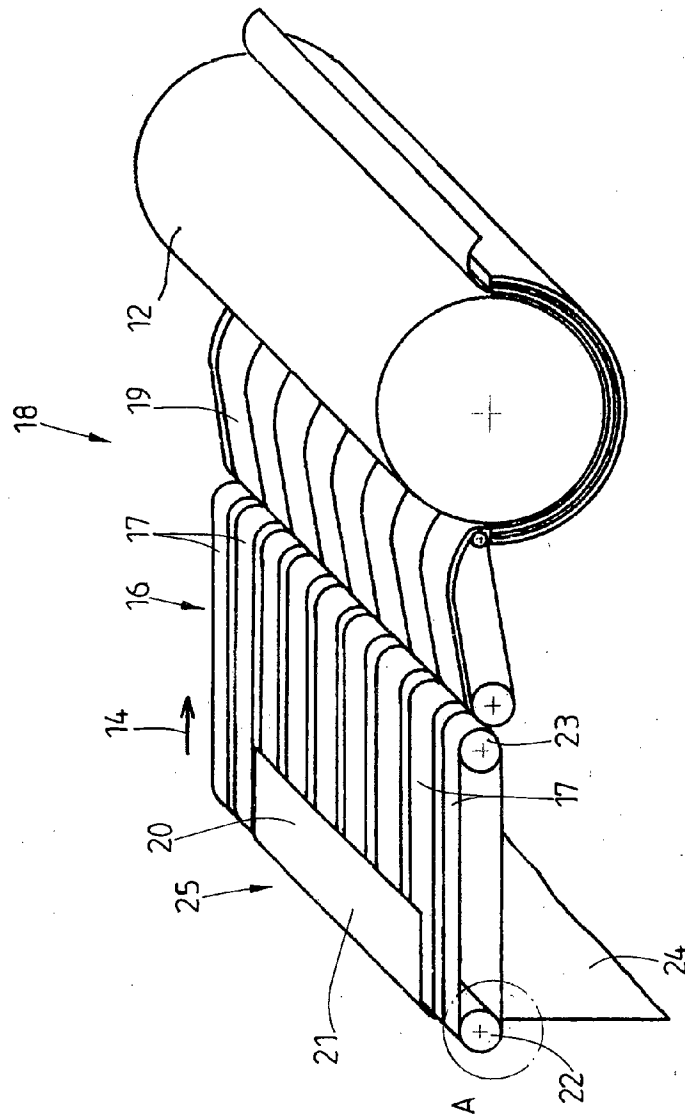


Fig. 2

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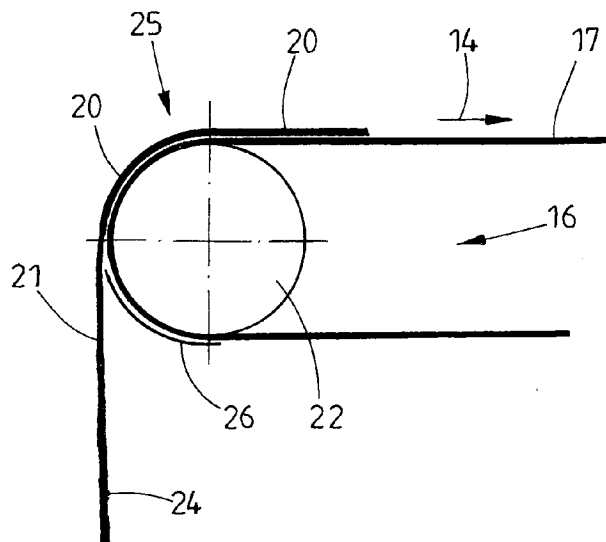


Fig. 3

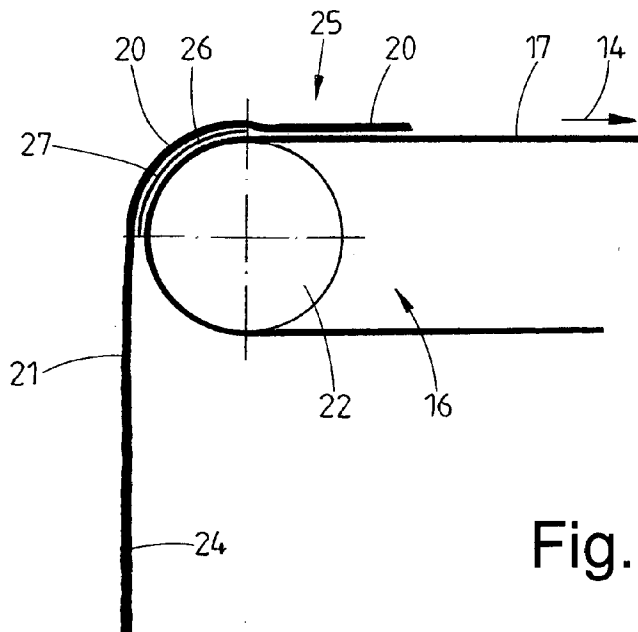


Fig. 4

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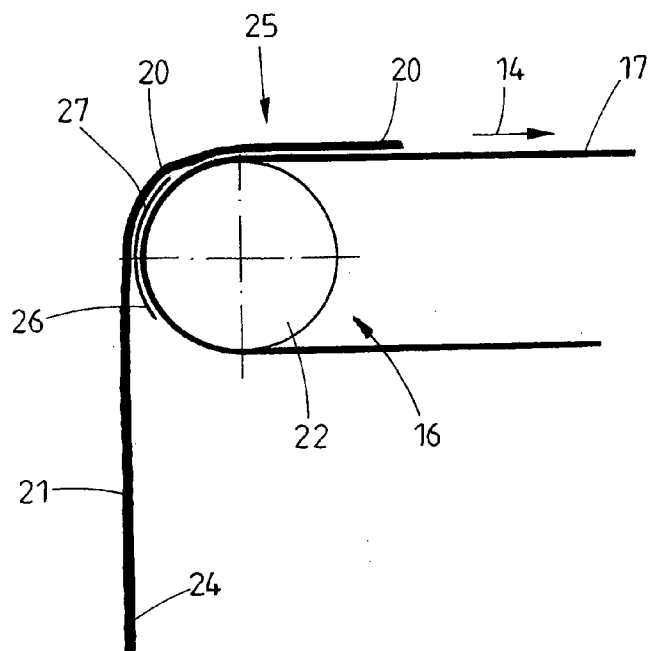


Fig. 5