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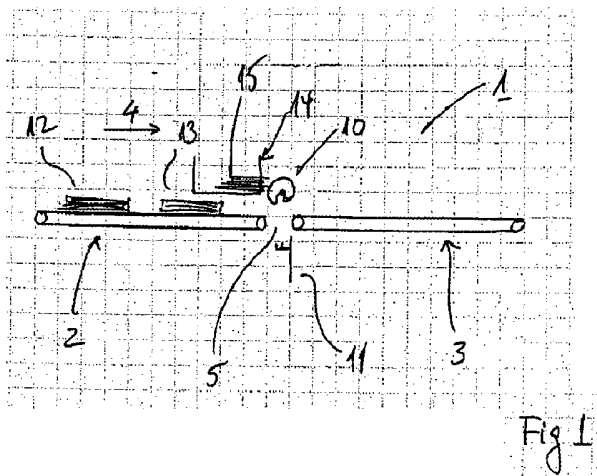
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(54) Benævnelse: **Method and apparatus for wrapping a stack with a wrapping sheet**

(57) Sammendrag:

A method as well as an apparatus for wrapping a stack with a wrapping sheet where the stack comprises one or more substantially superposed sheets, brochures and/or folders is described wherein:

- a) the stack is travelling in a first direction on a first conveyor defining a conveying path and;
- g) that a supply of wrapping sheets are placed in line with the first conveyor either above or below the conveyor, wherein;
- h) a wrapping sheet supply mechanism is arranged at the downstream end of the first conveyor, which mechanism pulls a top sheet of the supply of wrapping sheets, turns the wrapping sheet such that the plane of the sheet is perpendicular to the travelling direction of the stack;
- i) the mechanism inserts the wrapping sheet in the stacks conveying path;
- j) that a second conveyor is provided downstream of the first conveyor, such that a gap between the first and second conveyors may accommodate at least a part of the sheet insertion mechanism and/or the wrapping sheet;
- k) as the stack engages the wrapping sheet arranged in the conveying path, means are provided for folding the sheet along a front side of the stack and at least parts of the upper and lower side faces of the stack.



CLAIMS

1. Method for wrapping a stack with a wrapping sheet, where the stack comprises one or more substantially superposed sheets, brochures and/or folders characterised in that:
 - a) the stack is travelling in a first direction on a first conveyor defining a conveying path and;
 - b) that a supply of wrapping sheets are placed in line with the first conveyor either above or below the conveyor, wherein;
 - c) a wrapping sheet supply mechanism is arranged at the downstream end of the first conveyor, which mechanism pulls a top sheet of the supply of wrapping sheets, turns the wrapping sheet such that the plane of the sheet is perpendicular to the travelling direction of the stack;
 - d) the mechanism inserts the wrapping sheet in the stacks conveying path;
 - e) that a second conveyor is provided downstream of the first conveyor, such that a gap between the first and second conveyors may accommodate at least a part of the sheet insertion mechanism and/or the wrapping sheet;
 - f) as the stack engages the wrapping sheet arranged in the conveying path, means are provided for folding the sheet along a front side of the stack and at least parts of the upper and lower side faces of the stack.
2. Method according to claim 1 wherein the wrapping sheets are arranged as a continuous row of sheets on a roll or in a magazine, and that the wrapping sheet supply mechanism comprises means for detaching, cutting or otherwise separate single wrapping sheets from the row.
3. Method according to claim 1 or claim 2 wherein a wrapping sheet stop is provided such that the inserted wrapping sheet in step d) will be held in the correct elevation in relation to the conveying path.

4. Apparatus for wrapping a stack with a wrapping sheet, where the stack comprises one or more substantially superposed sheets, brochures and/or folders characterised in that a first and second conveyor arranged in line with each other, defining a conveying path, where a gap is present between the first and second conveyor, a
5 wrapping sheet dispenser is superposed the gap, where the wrapping sheet dispenser comprises a rotating waver wheel, such that the waver wheel may position a wrapping sheet in the gap, where said sheets plane is perpendicular to and positioned in the stacks travelling direction.
- 10 5. Apparatus according to claim 4 wherein a wrapping sheet land is provided on the opposite side of the gap as to the dispenser in order to maintain the sheet in its correct position relative to the conveyors.
- 15 6. Apparatus according to claims 4 or 5 wherein height adjustable secondary conveyors are positioned above and in line with the first and second conveyors, and that the secondary conveyors are separated by a corresponding or larger gap as the first and second conveyors.
- 20 7. Apparatus according to claim 4, 5 or 6 wherein the waver wheel is provided with at least one suction nozzle.
8. Apparatus according to any of claims 4 to 7 wherein the waver wheel rotates substantially constant, and with each rotation places a wrapping sheet in the gap between the first and second conveyors.

