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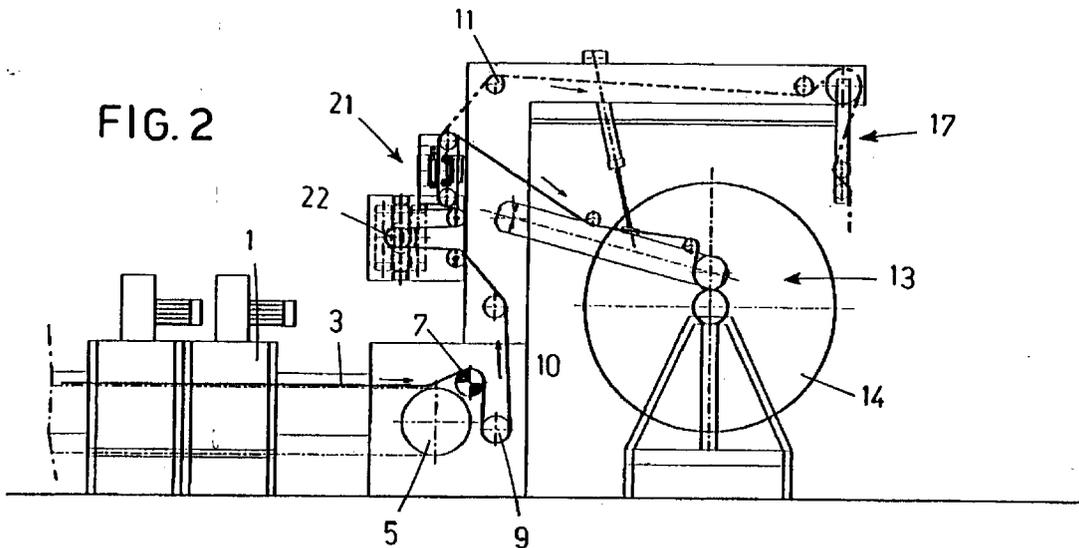
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(54) Tenter frame, or similar machine, with an integrated small size weft straightener

(57) A tenter frame, or a similar machine, adapted for the finish of fabrics, which includes also means for transportation of the fabric combined with roller conveyors and means for the rolling and folding of the fabric

produced, in which a small-size weft straightener is placed in series between the transportation means and the rolling or folding means.



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Description

This invention refers to a tenter frame, or similar machine, with an integrated small size weft straightener for the finish of fabrics.

Reasons both of dimensions and of quality required, have been responsible for the fact that the conventional tenter frames used in the production line for fabrics, have normally never been equipped with weft straightener in their exit end. As a matter of fact, since this machine produces fabrics which are fairly regular, it has always been chosen not to do significant investments in order to add such a big and expensive machine, as a conventional weft straightener is, to its assembly line.

Nevertheless, in order to achieve a general improvement in the production, it becomes necessary to improve also the production of the weft straightener, or similar machine, so that the weft of the product is more regular than it is now, but this must imply no significant investment to be done nor the need of larger room for the machine, otherwise costs would rise again.

It is an object of the present invention to provide a tenter frame that overcomes the problems above mentioned and supplies a fabric weft that can be always regular.

This and other objects are achieved by the present invention which relates to a tenter frame, for the finish of fabrics, which includes also means for transportation of the fabric combined with roll conveyors and means for the rolling and folding of the fabric produced, characterized in that a small-size weft straightener is placed in series between the transportation means and the rolling or folding means.

Other characteristics and advantages will be clearly shown in the following description which is provided as non-restrictive embodiment and refers to the drawings appended in which:

- figure 1 is a view of a tenter frame for the finish of fabrics which includes the rolling or folding machine, according to the conventional art;
- figure 2 is a view of the machine in figure 1, equipped with the weft straightener according to the invention;
- figure 3 is an enhanced sectional side view of the weft straightener in figure 2;
- figure 4 is a front view of the one half of the machine in figure 3, and
- figure 5 is a rear view of the second half of the machine in figure 3.

With reference to the figures, number 1 indicates a tenter frame, for the finish of fabrics, that supplies a fabric indicated by 3 which is transported by means of transportation 5, i.e. belts. The fabric produced is carried by a driving roll 7 and then, by means of conveyer rolls 9,10,11, conveyed upward moving vertically with

respect to the transportation means 5. The conveyer rollers carry the fabric either to the rolling part 13 of the tenter frame, so that the fabric is rolled up into a roll 14, or to the folding part 17, which folds the fabric into a container (not shown).

According to the invention, (figure 2) a very small-size weft straightener 21, which in the example shown is equipped with a single straightening roller 22, is placed between two of the conveyer rollers and is connected with the frame 19 that supports them. It is understood that such weft straightener 21 can be equipped with more than one straightening roller 22 without going, for such reason, beyond the limits of the present invention. The weft straightener is placed in a high position, in correspondence with the final part of the means for the transportation of the fabric 5, so that the total length of the entire production line is practically the same as that of a line of the conventional type which has no weft straightener 21 in it.

With special reference to figures 3 to 5, it can be noticed that the weft straightener 21, is made of two compartments 23 and 24. The first lower compartment consists of two drawing rollers, a draw-in roller 25 and a draw-off roller 27, and between them there is the straightening oblique/curved roller 22, one of the type generally used in the weft straighteners, together with two other rollers of the same type. Said roller is put into motion by motors, not shown here, which are placed in the side boxes 30. The second compartment 24, is also adapted to contain one draw-in and one draw-off roller 31 and 33 between which a two-part conventional sensor 35 that is normally used to "feel" whether the weft of the fabric 3, which passes through it, is regular enough or needs to be straightened. If the weft is irregular, the sensor sends a signal to the control unit of the motors (not shown) which will rotate the roller 22 so that, with the conventional effects, it can modify the weft according to need.

In this manner a regular weft is obtained without doing important investments and, what is more important, without using additional space inside the production factory.

Claims

1. Tenter frame, adapted for the finish of fabrics, which includes also means for transportation of the fabric combined with roll conveyors and means for the rolling or folding of the fabric produced, characterized in that a small-size weft straightener (21) is placed in series between the transportation means (5) and the rolling (13) or folding means (17).
2. Tenter frame as claimed in claim 1 characterized in that the weft straightener is equipped with at least one oblique/curved straightening roller (22).
3. Tenter frame as claimed in claim 1 characterized in

that the weft straightener (21) is placed near the final part of the means that transport the fabric (5) of said tenter frame (1).

4. Tenter frame as claimed in claim 1, characterized in that the weft straightener is fixed on the frame that supports the roller conveyers (9,10,11)

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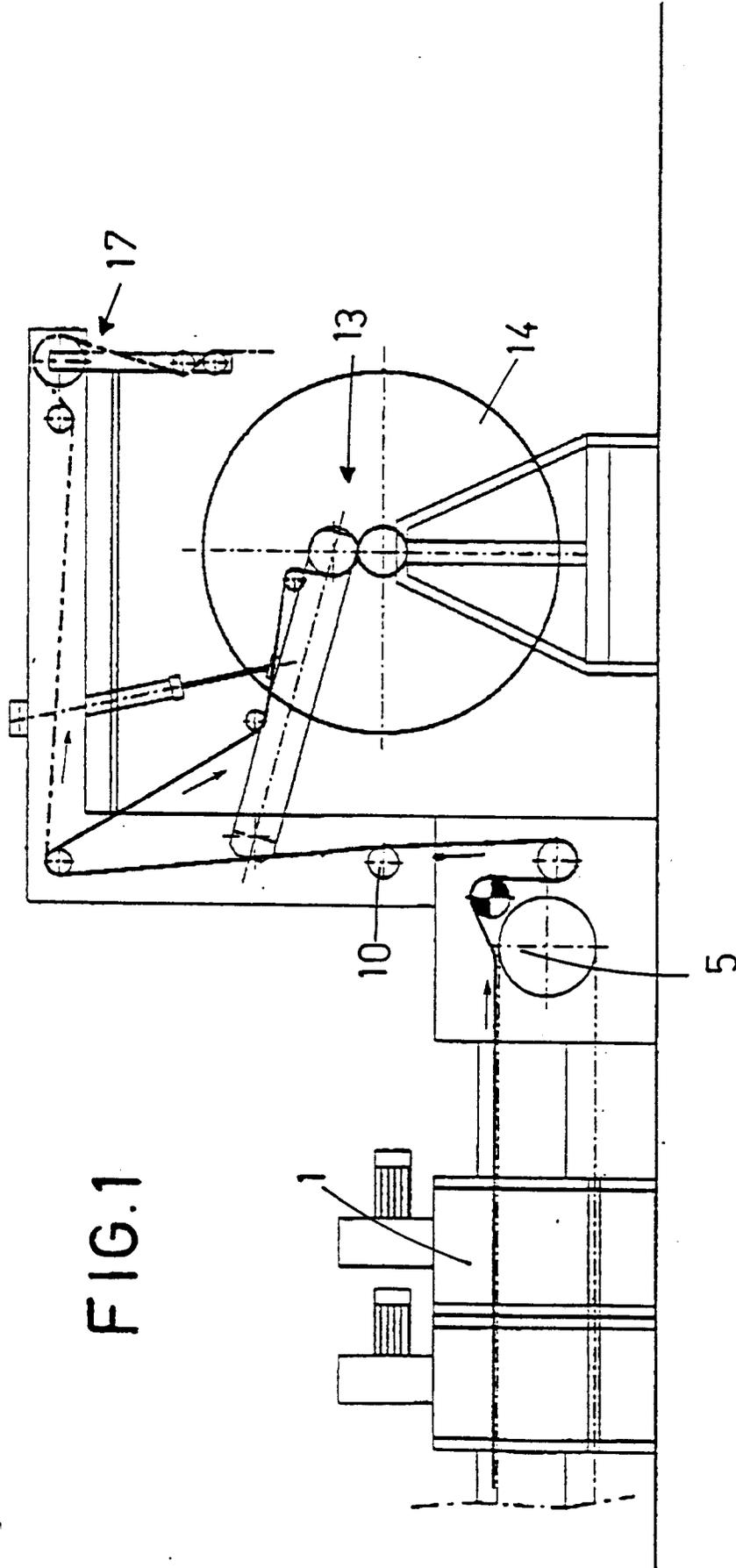


FIG.1

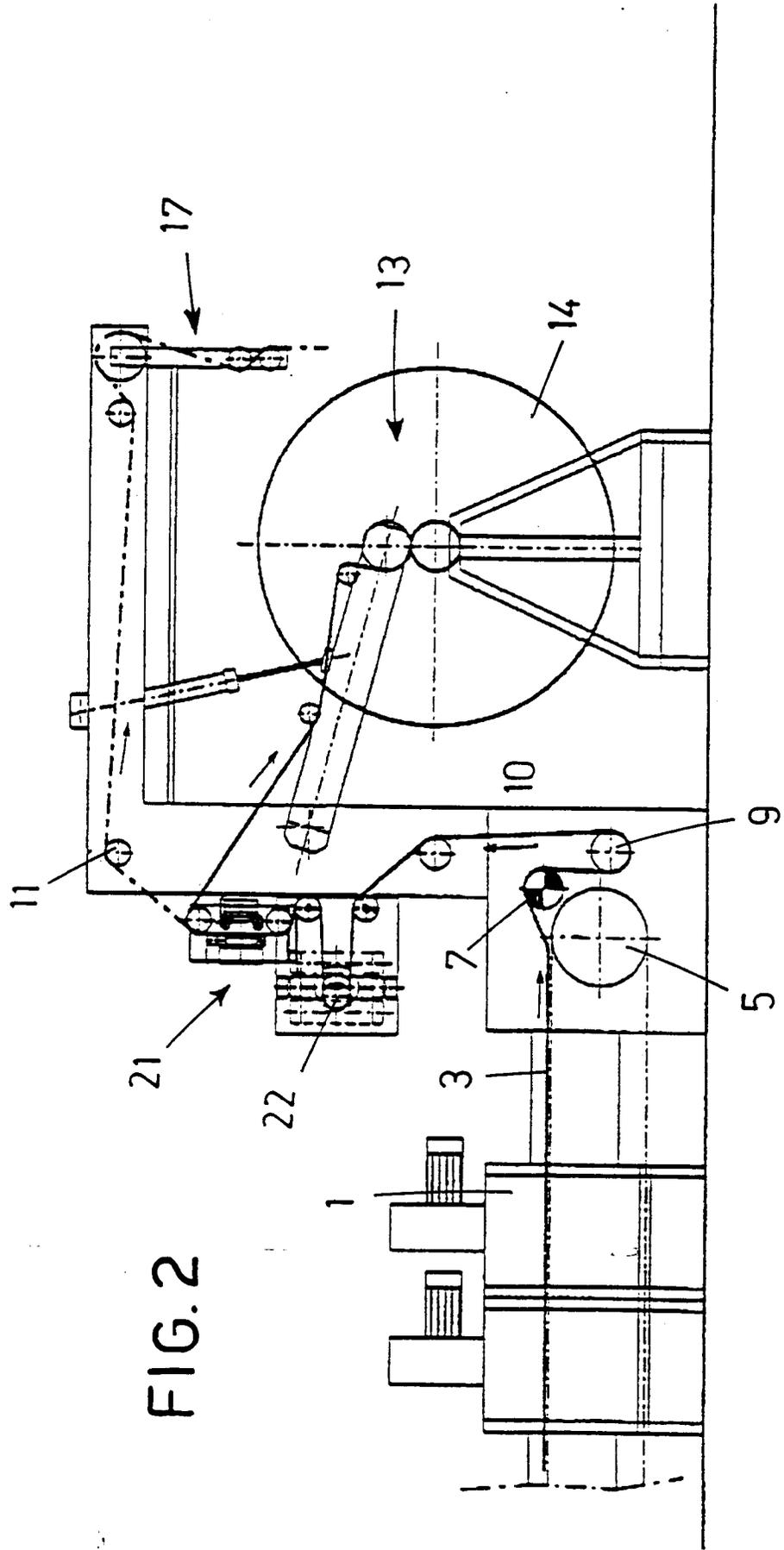


FIG. 2

