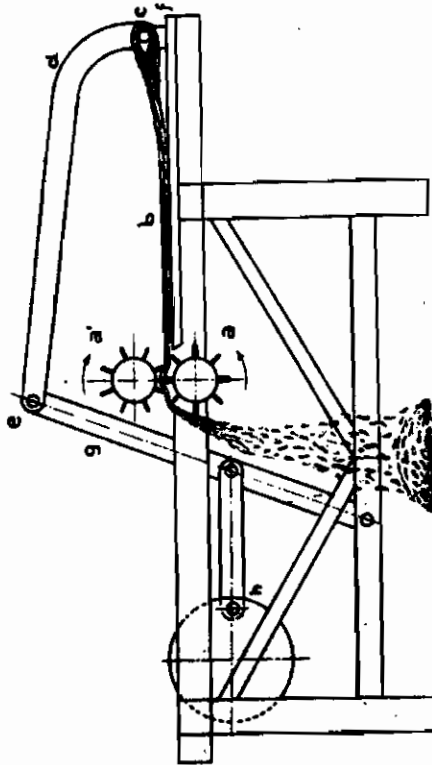


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REMOVING WOODY MATTER FROM THE STEM
FIBRES OF TEXTILE PLANTS
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REMOVING WOODY MATTER FROM THE STEM FIBRES OF TEXTILE PLANTS

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The present invention relates to a process and to a device for removing the woody matter from the stem fibres of textile plants as ramie, hemp and others, starting from the dry or from the green stem as it is cropped; the invention allows also to operate on the field on which the plants are cultivated.

A device according to the invention is illustrated in a side view by way of an example on the accompanying drawing which shows its principal members and their operation.

The device shown consists mainly of two rollers *a* and *a'* having radial blades on their periphery and being driven by not represented rotating members with a continuous regular movement of rotation, as shown by the arrows of the drawing.

The rollers which are both positively driven are so supported that the upper roller *a'* may be approached to and removed from the lower roller for the purpose to allow a greater or smaller engagement between the blades.

The number of the blades and the speed of their rotation as well as the depth of engagement, are adapted to the quality and to the state of the textile plants to be treated and they are therefore variable factors.

The bundle *b* to be freed from the woody matter is fixed by means of a clip *c* to the arm *d*, articulated in *e* and guided in *f*, so that during the relation of the bladed rollers the bundle is brought forwards and then withdrawn by means of the oscillation of the arm *g* moved by an eccentric mechanism indicated in *h* and receiving its continuous and regular rotating movement by not shown rotating members connected by a

joint with the main driving shaft, eventually driven by a pedal or by hand; alternatively the forward movement of the bundle could also be obtained manually.

To each evolution of the excentric *h* correspond a complete oscillation of the bundle *b*, which being moved with a smaller speed than the peripheral speed of the bladed rollers is trailed forwards by the blades, which break the woody matter and which on the return movement of the bundle separate and retain the broken woody parts.

The described cycle of treatment may be repeated until the bundle is well freed from the woody matter but this is mostly obtained already in the first cycle.

The device may be installed on an agriculture carriage and thus transported on the field on which the plants are cultivated.

It is to be understood that the invention is not limited to the form of execution illustrated only by way of example, but comprises on the contrary all the structural variations which are possible in realising the claimed proceeding, as, related to all the known stripping systems, the novelty of this invention mainly resides in the circumstance that only one mechanical device is used for introducing the bundle of plants in a forwards direction and for withdrawing it afterwards whilst the rotating parts of the machine are always moved in the same sense. This is the circumstance which permits the elimination of the woody matter.

LEONIDA ANTONELLI.