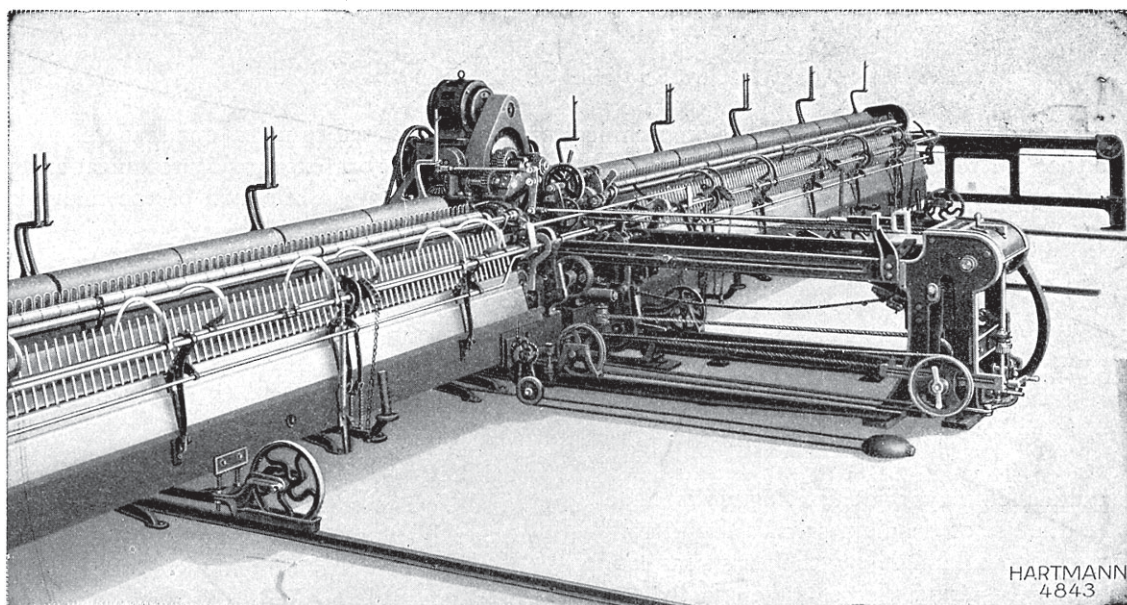


HARTMANN DIFFERENTIAL WOOL SPINNING MULE

The intermittent, instead of continuous working method of the self-acting mule requires the spindles to come to a standstill at the conclusion of the outward run, and to carry out a short reversing movement during backing-off. Heretofore the main shaft, and the rope drive to the spindle cylinders in the carriage

This type of drive is attained by using a differential motion on the cylinder shaft.

For quite a few years great successes had been achieved with this type of drive by the Hartmann Worsted Yarn Mule, and the experience with this machine has taught Hartmann engineers the application of this



New Hartmann Differential Wool Spinning Mule

were stopped after twist had been given, and reversed by the auxiliary drive during backing-off. This constant change from a state of motion to a state of rest, from rest to reversing, followed by a re-acceleration of the masses, leads to considerable losses in both working capacity and time.

The new Hartmann Self-Acting Mule is so constructed that the main shaft and with it the spindle driving rope, rotate always in the same direction at constant speed.

new method of working to the Wool Spinning Mule with several spindle speeds. This extremely simple solution of the problem which has proved highly satisfactory in practice, is protected by several German and foreign patents.

The limited space does not permit us to print all construction details. A very comprehensive pamphlet on the subject can be obtained by writing to the Hartmann representative, H. H. Leonard, 475 Fifth Avenue, New York, or to the office of this publication.