

Carding Principles

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Peter Auer, The University of New South Wales.



Carding

Fundamentals

- entangled fibres
- separated at working points
- pins / teeth / wire fixed to two surfaces
- relative motion of surfaces
- fibre movement

Objectives

- fibre opening
- fibre cleaning
- fibre blending / mixing
- fibre straightening
- sliver formation



510

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Fibre / Pin Interaction

- FIBRE / PIN interaction
 - contact between fibres and pins
 - along pins
 - around pins
- THREE basic actions
 - carding
 - fibre separation
 - stripping
 - fibre transfer
 - raising
 - preparation for carding and stripping



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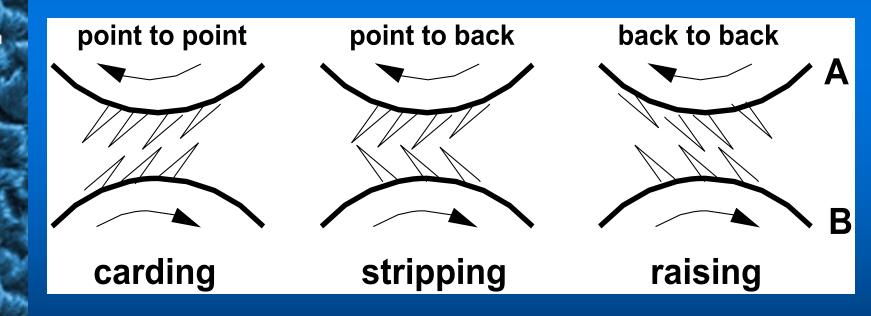
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Basic Actions during Carding

- decided by
 - relative pin direction
 - cylinder rotational direction
 - relative cylinder speed

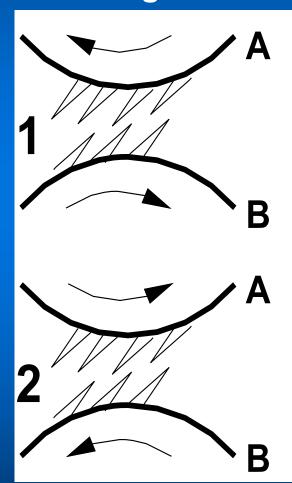


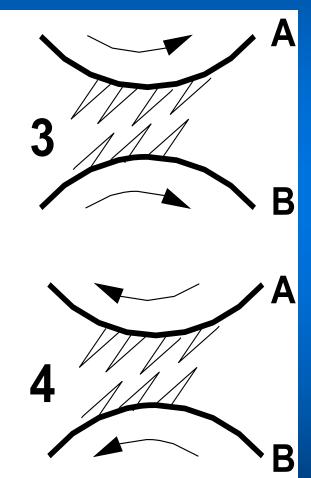
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Exercise

– What basic actions arise from the following arrangements?



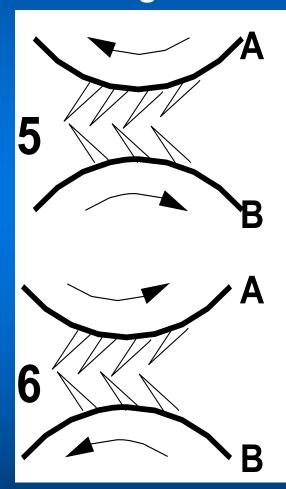


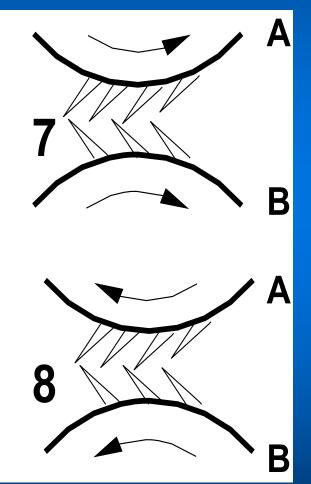
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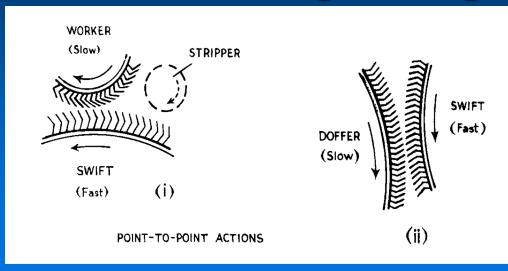
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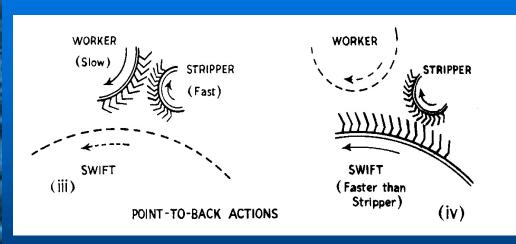
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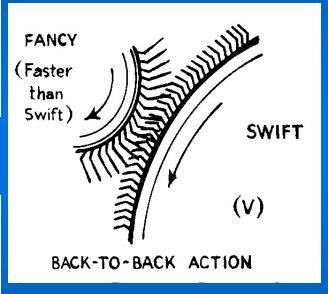
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Carding Configurations



carding





raising

stripping

Peter Auer Source: Brearley, A. (1964)

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