



CRC

for

Premium

Quality

Wool

Combing Principles

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



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Introduction

- **Aims**

- remove short fibres
- remove VM
- remove neps
- fibre blending
 - doubling
- fibre straightening
 - combing action
 - hooks removed

- **Glossary**

- noil
- % noil
- % romaine
- tear ratio
- sliver
 - gilled
 - combed



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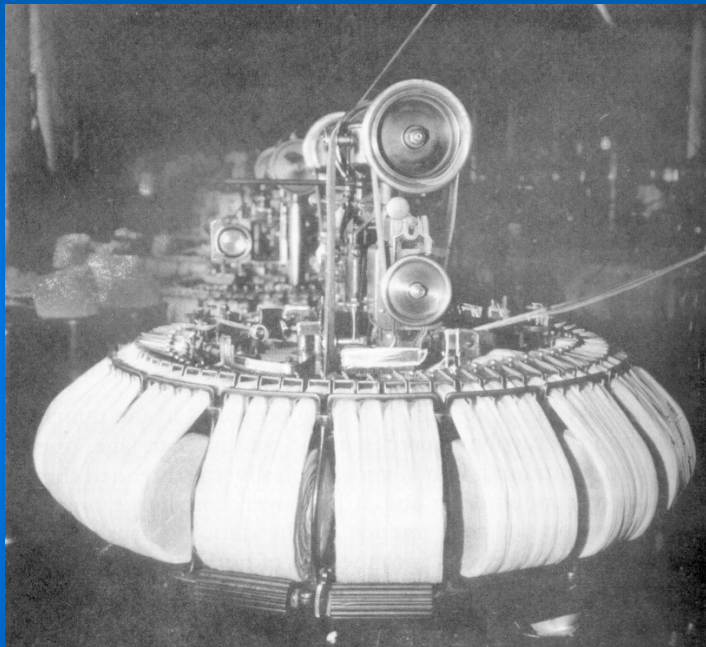
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History

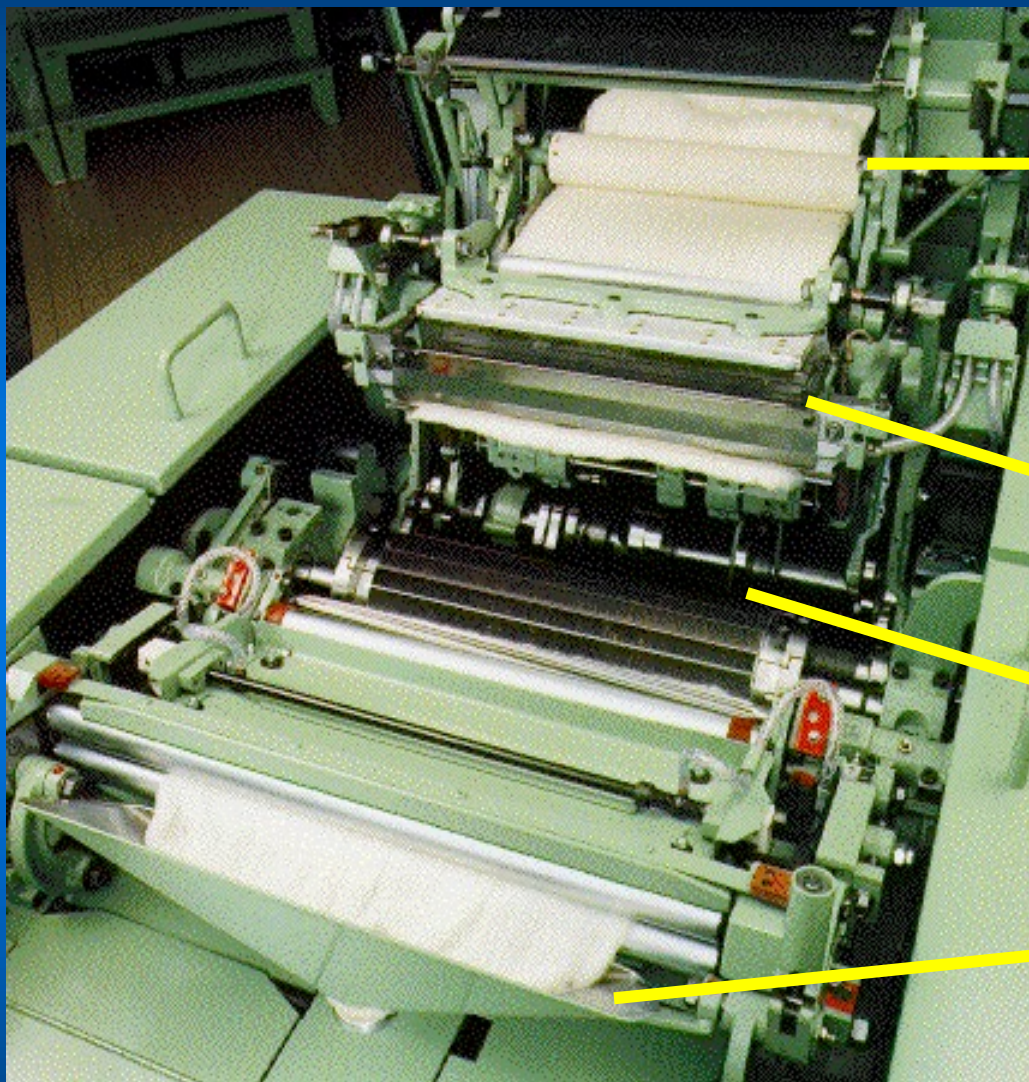
- Noble Comb



- 1790
 - Cartwright's Big Ben
- 1851
 - Lister Comb
- 1846
 - French Comb (rectilinear)
- 1853
 - Noble Comb (circular)



NSC PB32



Input
Nip

Front
Comb

Circ
Comb

Funnel

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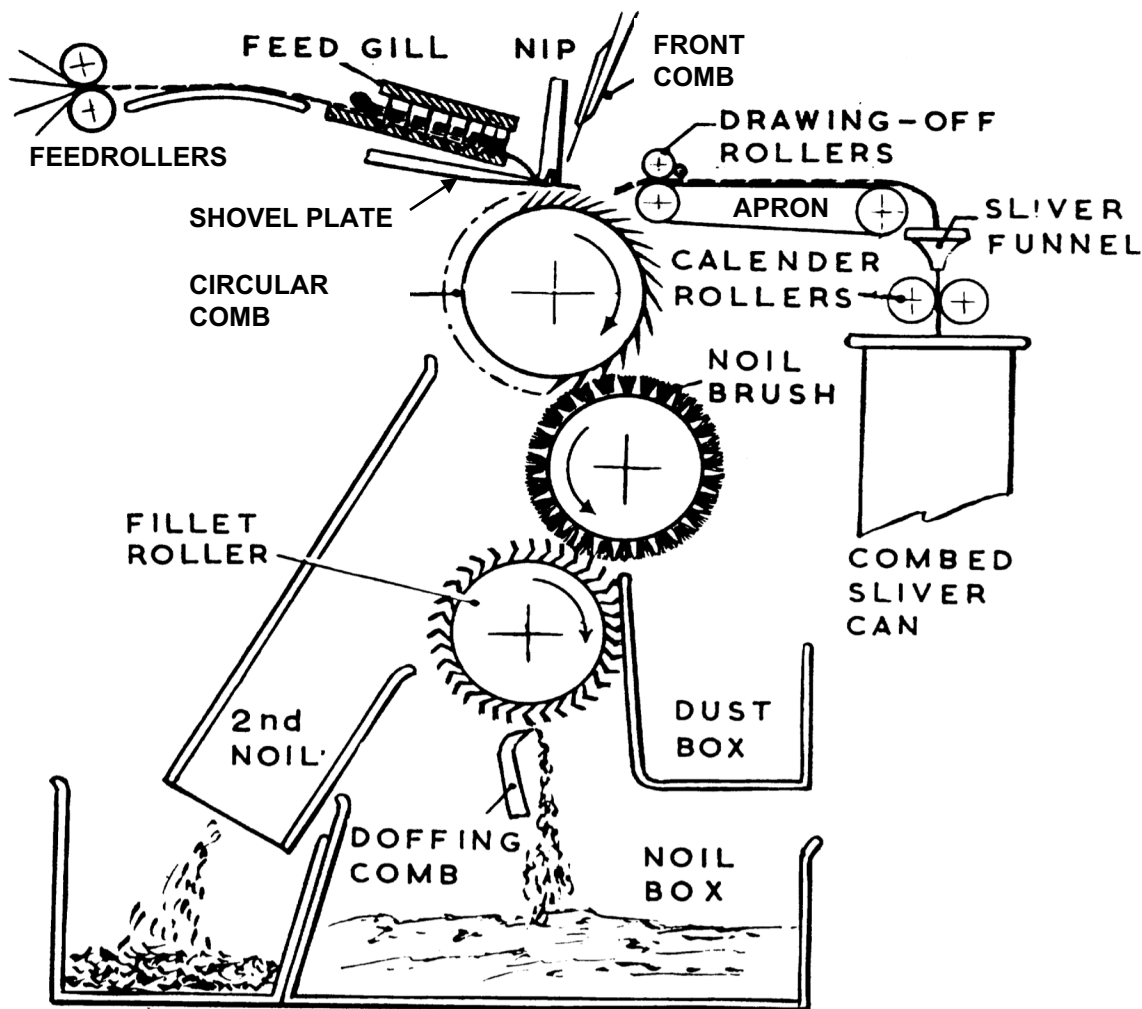
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Picture courtesy of CSIRO



French (rectilinear) Comb



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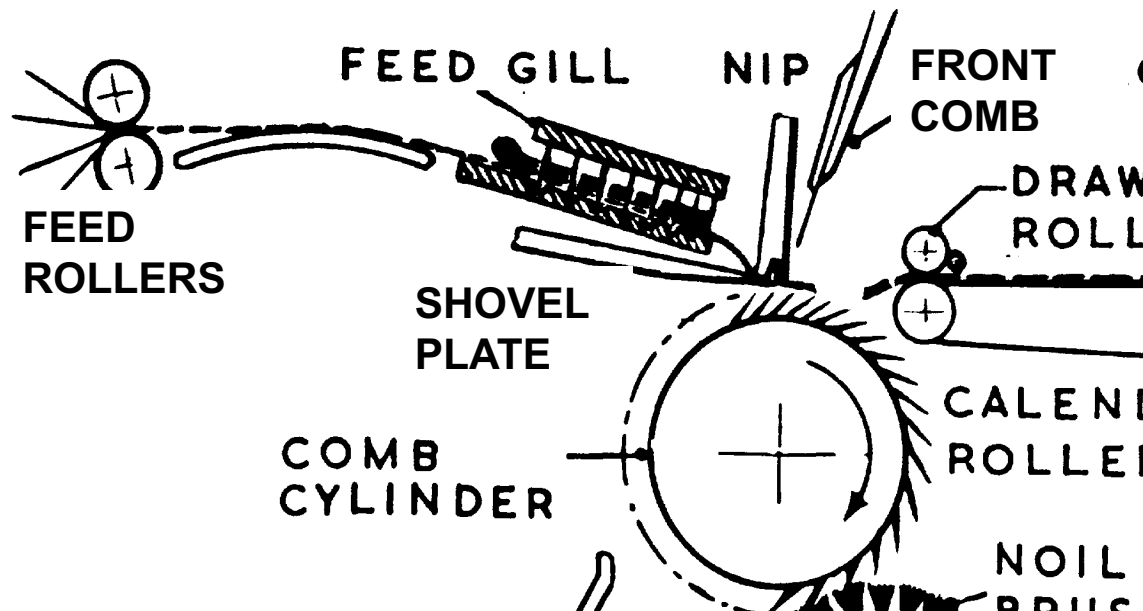
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Source: Brearley, A., (1964)



Feed Section

- Creel
- Feed Rollers
- Feed Gill
- Nip
- Shovel Plate



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Source: Brearley, A., (1964)

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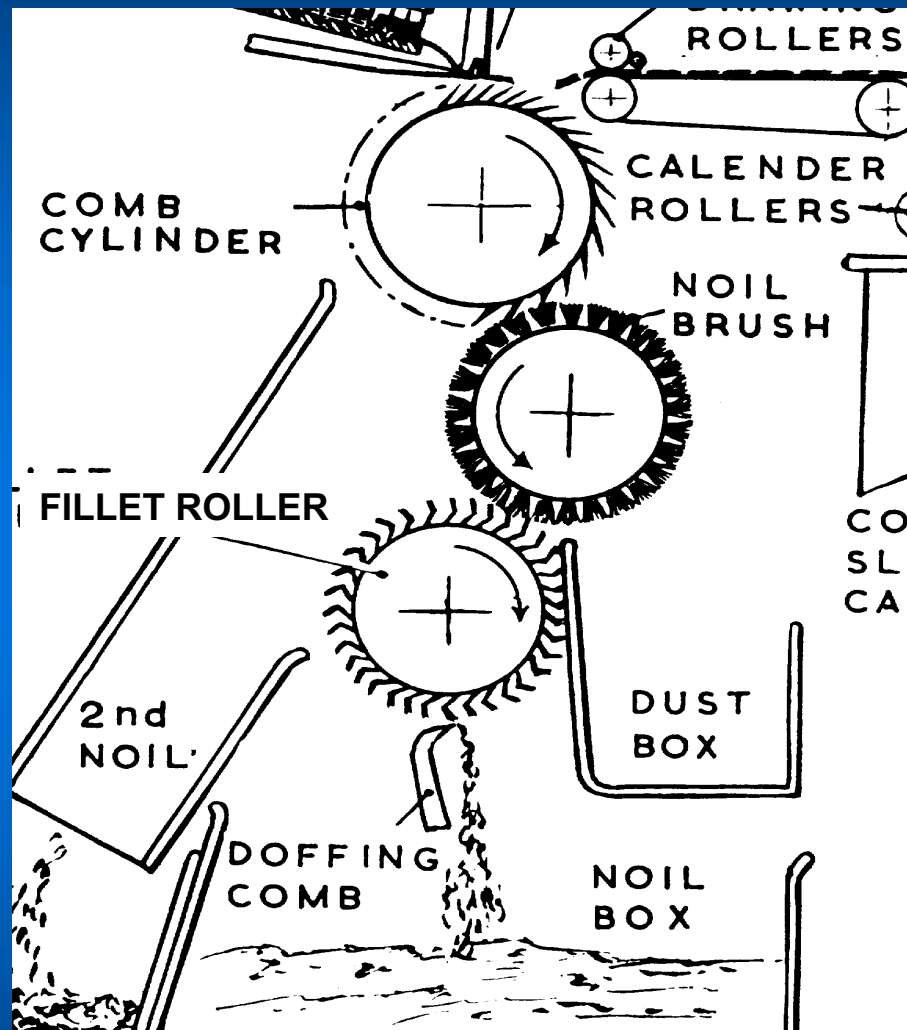
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Circular Comb Section

- Circular Comb
 - comb sections
- Nipper Brush
- Noil Brush
- Waste Collection
 - Fillet Roller
 - Doffing Comb
 - Noil Boxes
 - Dust Box



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Source: Brearley, A., (1964)



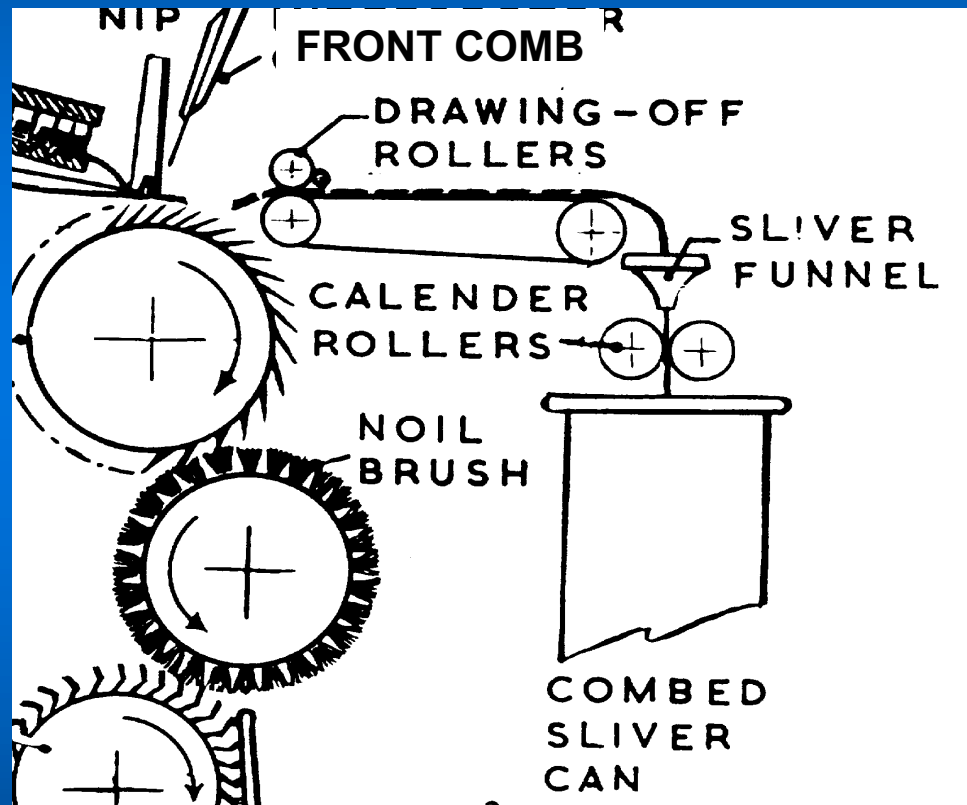
Drawing-Off Section

- Front Comb (separate)
- Drawing-off Rollers
- Apron
- Sword

— redundant

- **Sliver Collection**

- Funnel
- Calender Rollers
- Can



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Source: Brearley, A., (1964)

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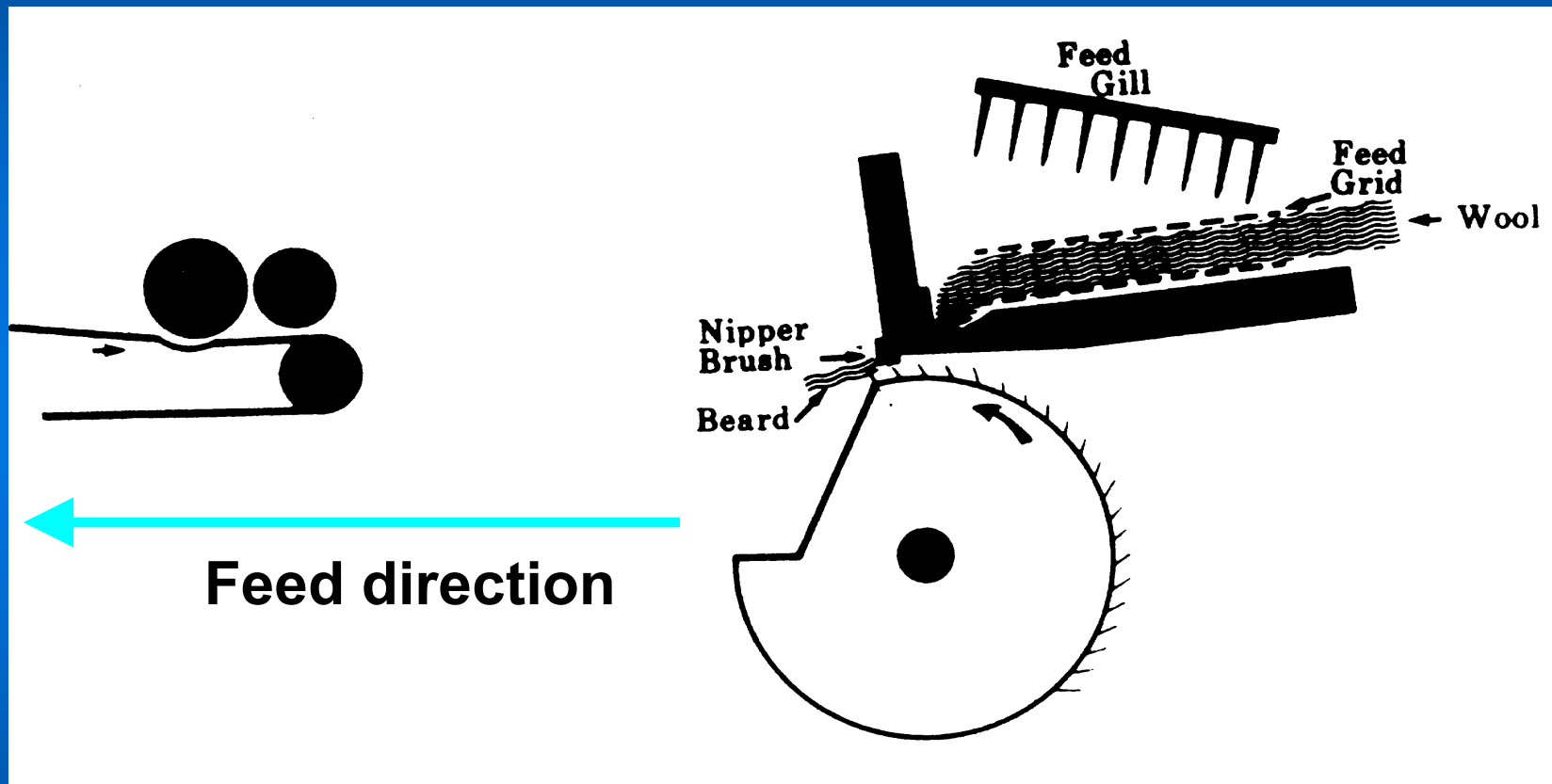
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Combing Sequence: Part 1



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Feed direction

Feed
Gill

Feed
Grid

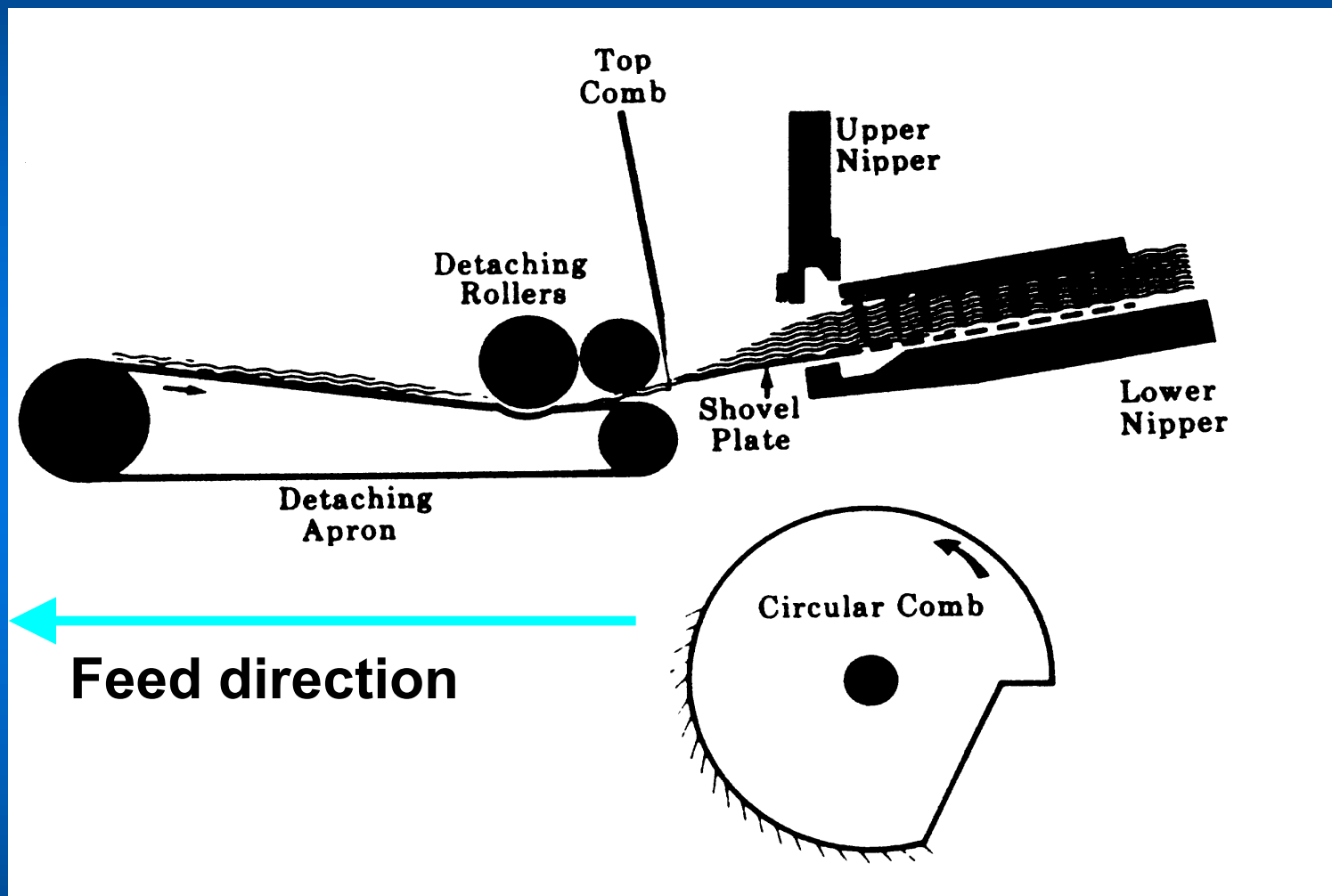
Wool

Nipper
Brush

Beard



Combing Sequence: Part 2



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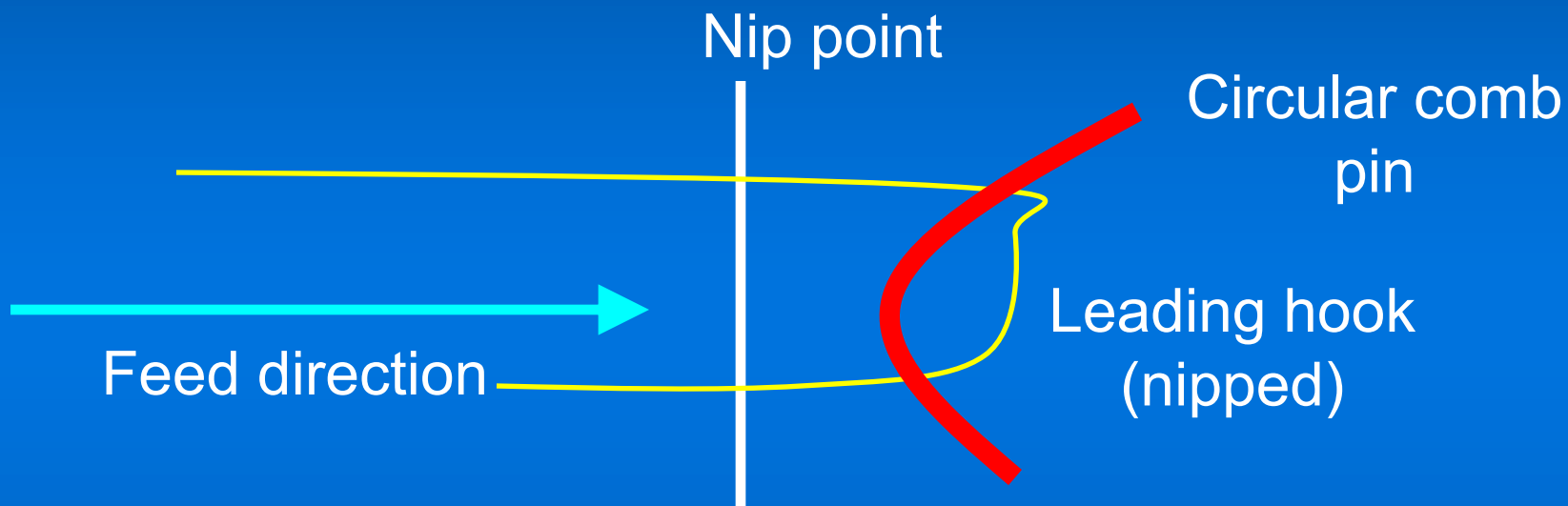
Wool

Feed direction



Fibre Breakage

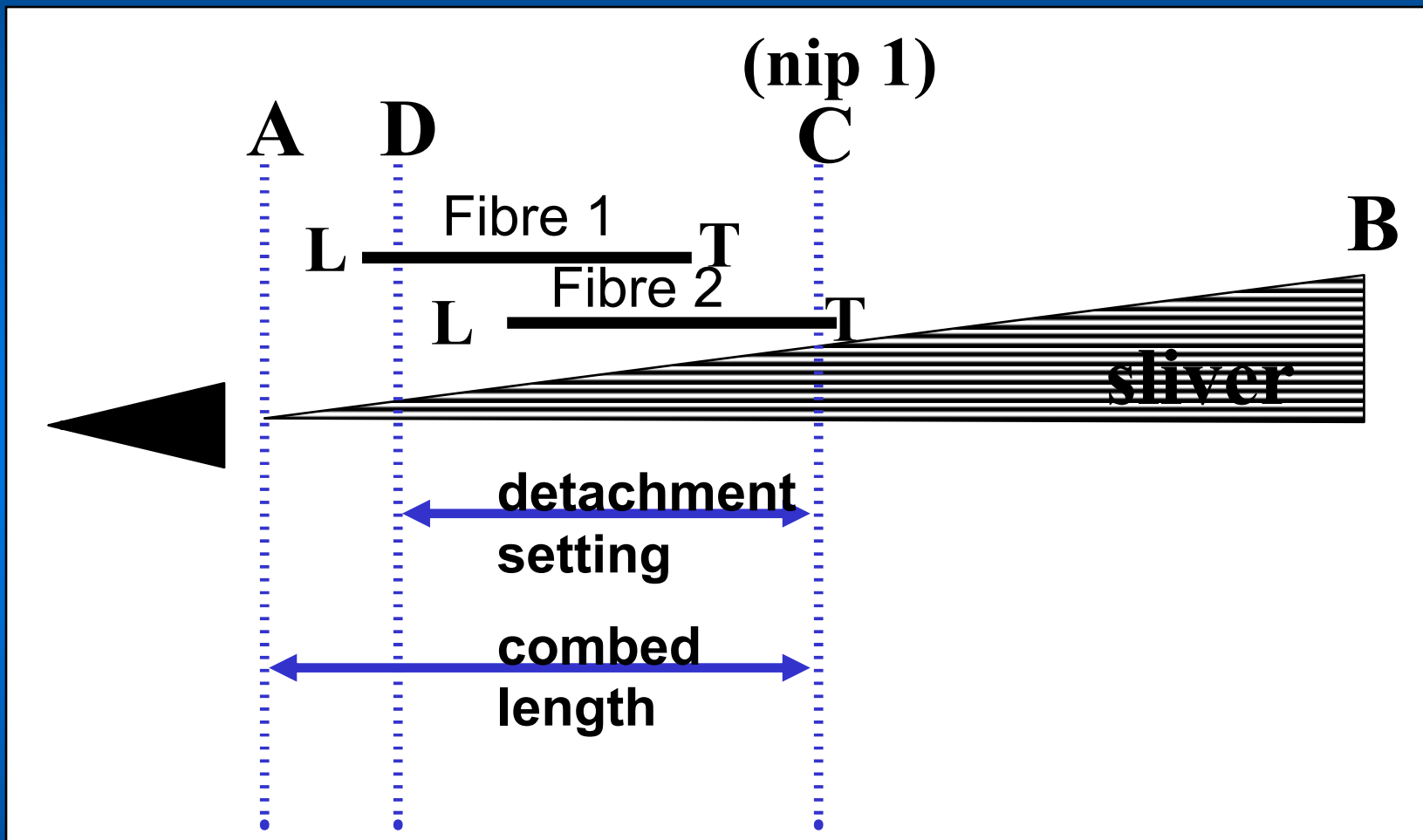
- Hooked Fibre



- Neps
- Pin Slicing

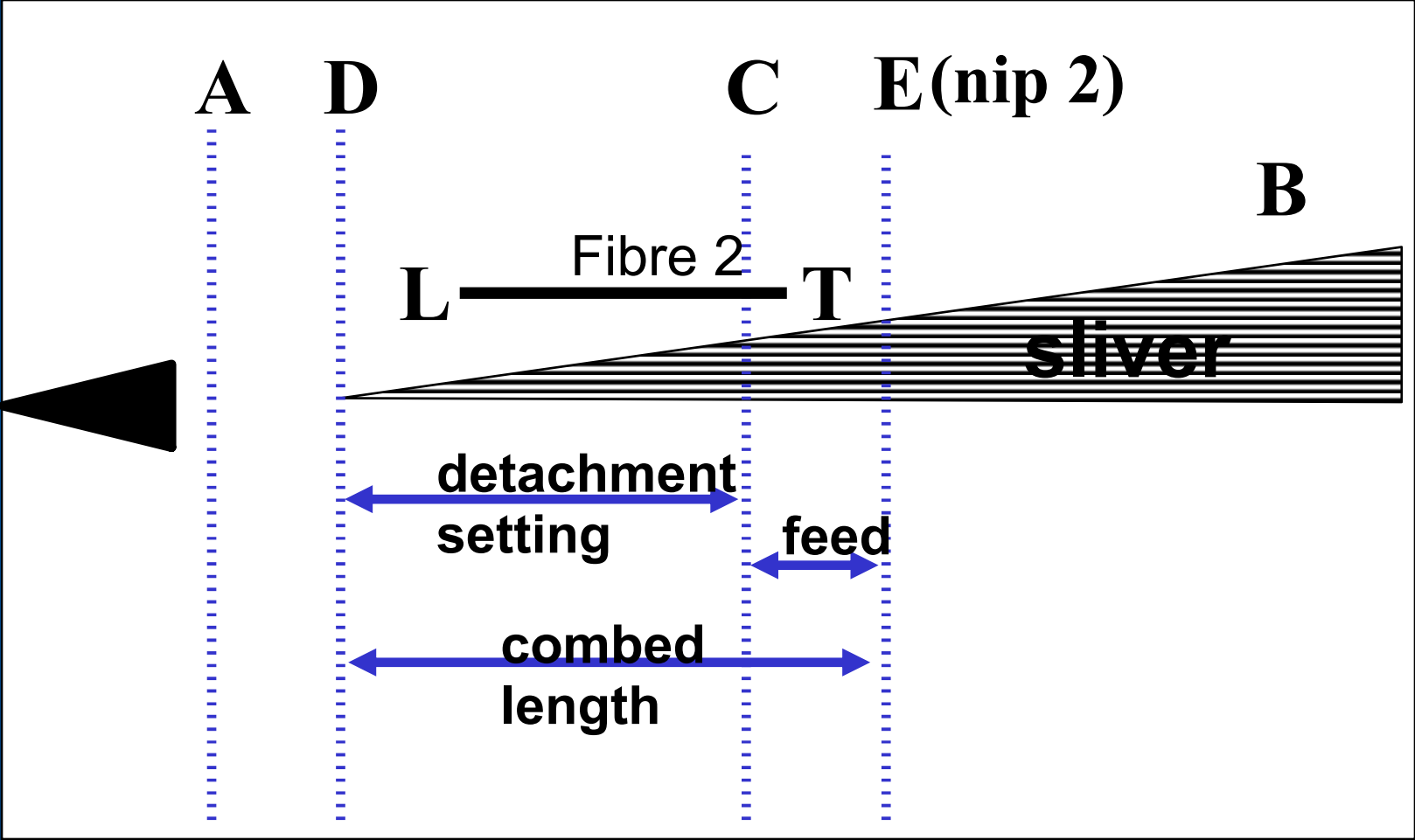


Noil Selection





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