

FABRIC MANUFACTURING

Fabric construction involves the conversion of yarns, and sometimes fibres, into a fabric having characteristics determined by the materials and methods employed .

Fabric formation



Weaving

Weaving: Fabric is formed by interlacing of threads

Knitting : Fabric is formed by using hooked needles to interlock one or more sets of yarns through a set of loops



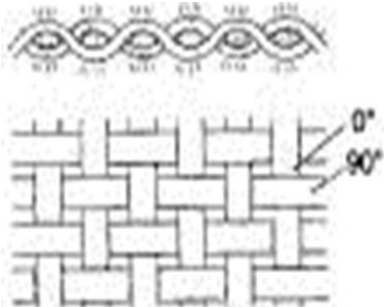
Knitting

FABRIC MANUFACTURING

WOVEN

BY INTERLACEMENT OF THE WARP & WEFT YARN AT RIGHT ANGLE.
(LESS ELASTIC, STRONGER & DURABLE)

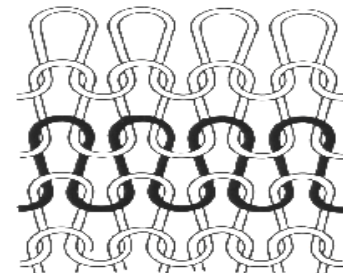
WEAVE BASE (PLAIN, TWILL, STAIN)
STRIPES, CHECKS
DOBBY & JACQUARD PATTERN



KNITTED

BY DRAWING YARN LOOPS THROUGH THE LOOPS OF FABRIC.
(MORE ELASTIC, WEAKER & LESS DURABLE)

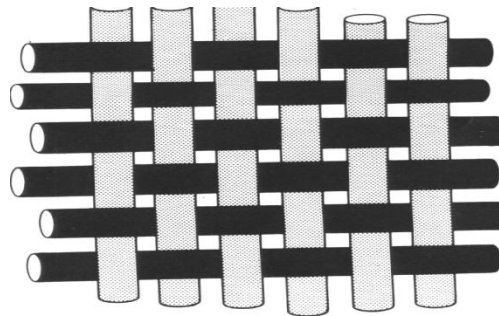
HOSIERY (UNDERGARMENTS)
JERSEY (T-SHIRTS ETC.)
FLEECE ETC.



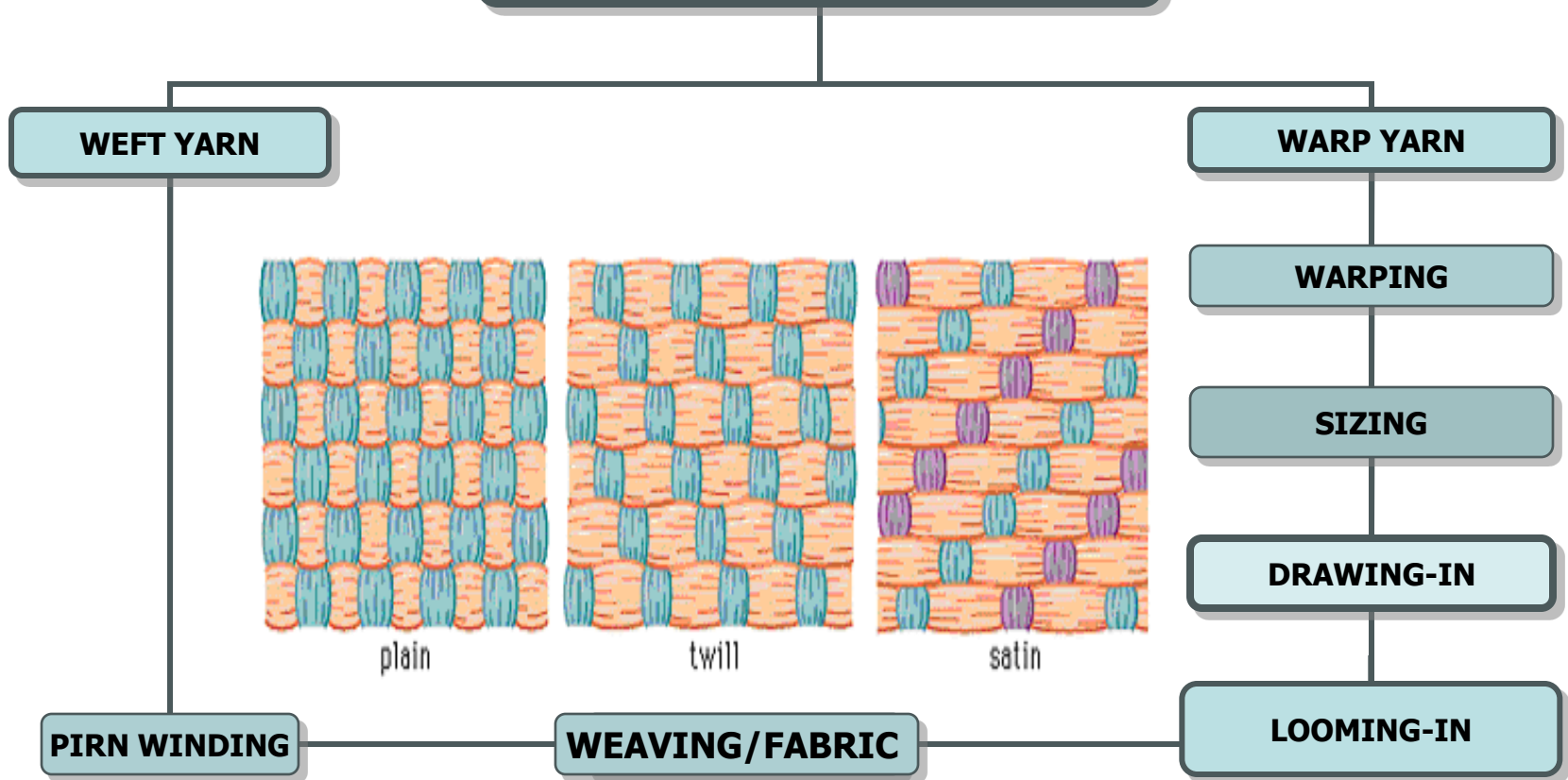
General Theory Of Weaving

Woven cloth is normally much longer in one direction than the other. The lengthwise threads are called the **warp**; the other threads, which are combined with the warp and lie widthwise, are called the **weft**..

An individual thread from the warp, of indefinite length, is called an **end**; each individual length of weft, extending from one edge of the cloth to the other, is called a **pick**.



WEAVING PROCESS FLOW



The grey yarn obtained from spinning without any wet process of prior dyeing and then woven into a fabric is called a grey fabric.

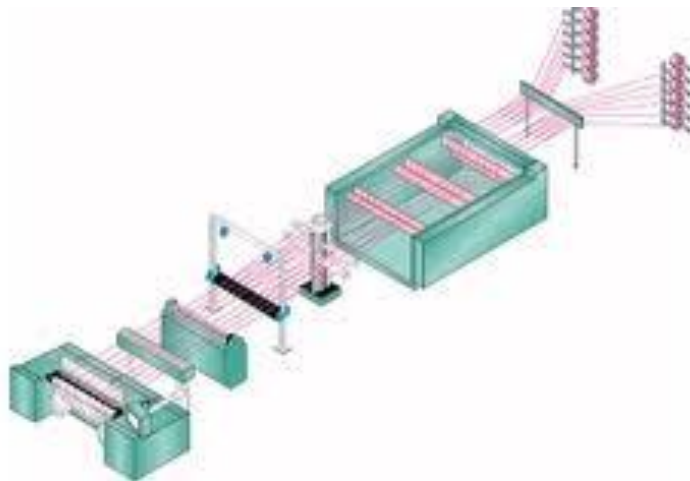
Warping

- To make bigger package to supply warp yarn
- Yarn with uniform tension



WARPING

Function of this process is to assemble a group of warp threads onto a beam in sheet form. In this process, yarn is wound onto a warped beam.



www.shutterstock.com - 76739527



Sizing

Function of this process is to apply size to the warp threads. At the end of this process weaver's beam is produced. This process increases the weave-ability of the warp threads.

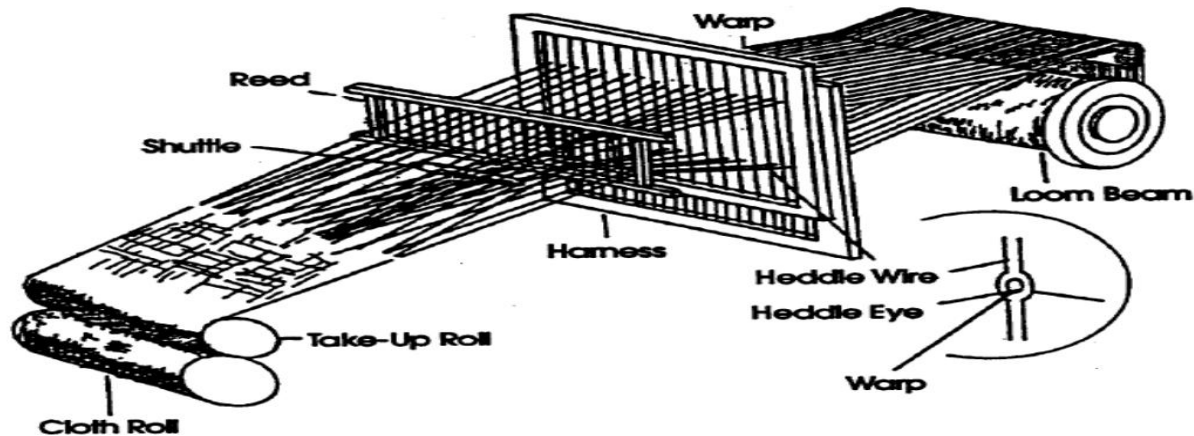


Drawing-in

Function of this process is to pass the warp threads through the 'heald wires' and 'reed' according to the design.

Flow Of Yarn On A Loom

- Warp Beam
- Back Rest (Breast Beam)
- Drop Wires
- Harness and Heddles
- Reed
- Cloth Fell
- Fabric Roll



Knotting-in

Function of this process is to tie or twist the threads of exhausted beam to the threads of fresh beam.

Looming-in

Function of this process is to load and fix the drawn-in weaver's beam onto the loam and thread the warp sheet in such a way that the loom becomes ready for weaving.

Pirn winding (Weft insertion)

Function of this process is to wind weft yarns on a pirn. Pirn is a bobbin which fits into a shuttle and supplies the weft yarn.

