

PLAIN WEAVES

- also called as "calico" or "tabby" weave.
- simplest weave
- It has a repeat size of 2.
- Range of application is wide.

Characteristics:-

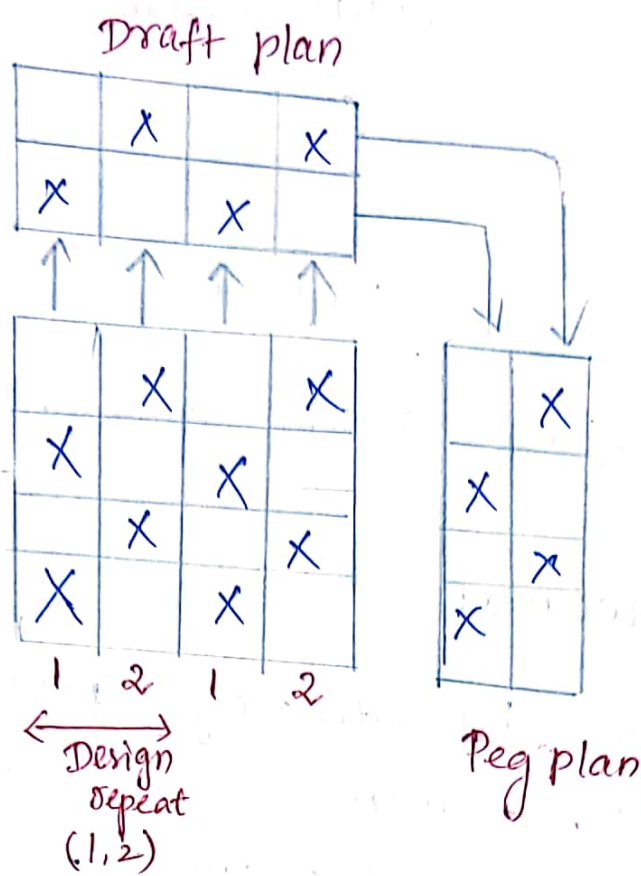
- has maximum number of binding points.
- Threads interlace on alternate order.
Ex: 1 up 1 down.
- Thread density is limited.
- Cloth thickness and mass per unit are limited.
- It produces stronger fabric.

Construction principle:-

- Interlacement of 2 continuous threads
 - either warp or weft
 - in contrary manner to each other.
 - every thread passing alternately under and over
- It produces firm and strong texture.
- A complete plain will have 2 warp threads and two weft picks.

End uses:-

- used in cambric, muslin, blanket, canvas, dhoti, saree, shirting, suiting etc.



PLAIN WEAVE (1/1)

Modification of plain weave!!

→ can be modified by extending it

• warp way

(or)

• weft way

(or)

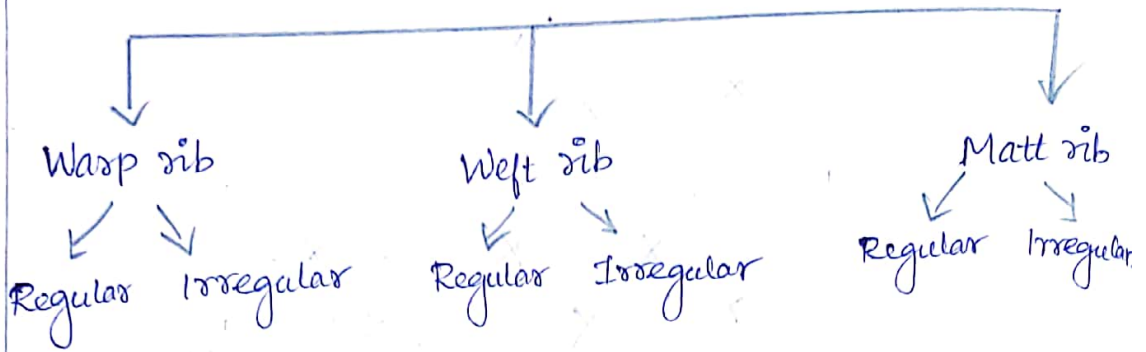
• both.

→ extension of plain weave produces rib effect.

→ warp rib produced by extending plain weave in warp direction.

→ weft rib produced by extending plain weave in weft direction.

Plain weave



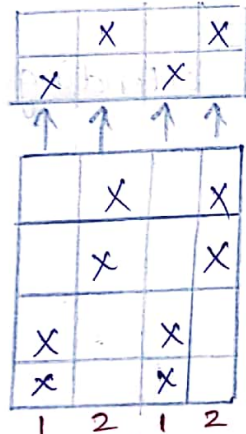
a) Warp rib weaves:-

→ produced by extending plain weave in warp way direction.

→ constructed in two ways → regular

→ Ex: $2/2, 3/3, 4/4, 5/5$ → regular → Irregular $[1/2, 3/1]$

Draft plan



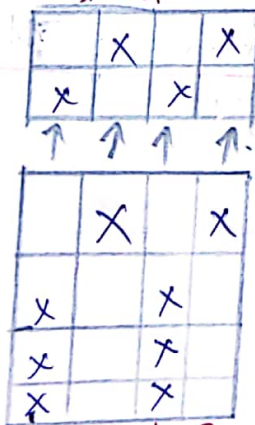
Design repeat

Peg plan



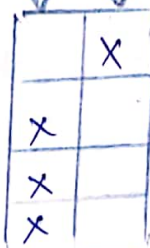
$[2/2 - \text{warp rib regular}]$

Draft plan



Design repeat

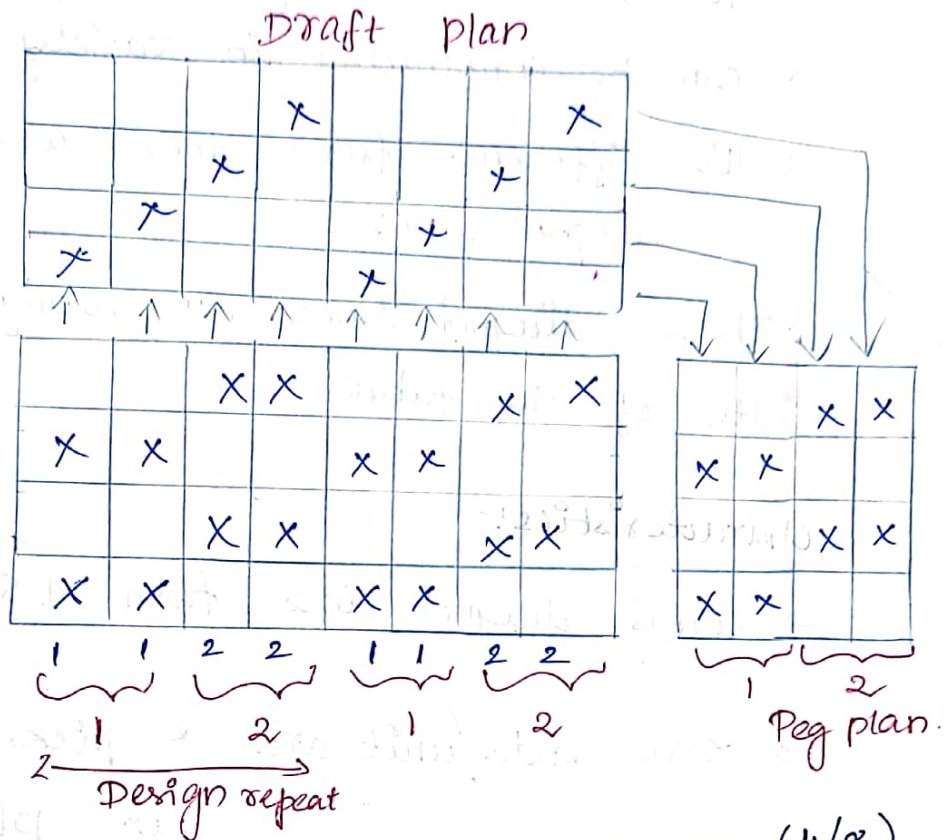
Peg plan



$\begin{bmatrix} 3 \\ 1 \end{bmatrix} \times \begin{bmatrix} 1 \\ 3 \end{bmatrix}$ warp rib irregular

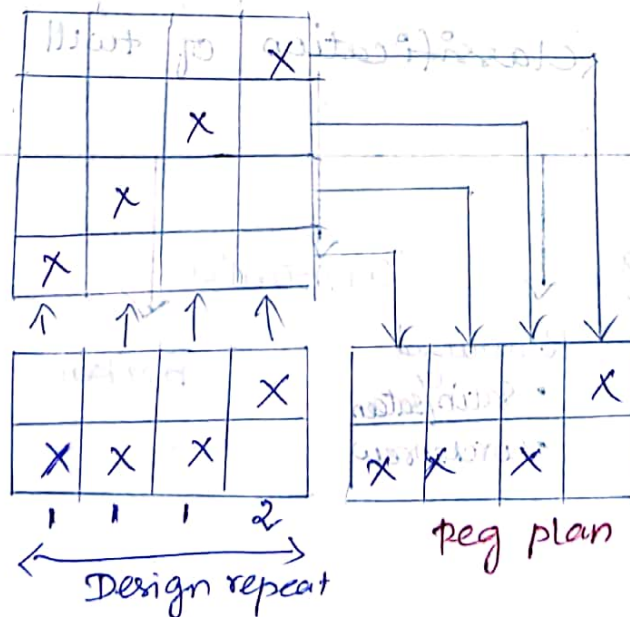
b) Weft rib weaves:-

→ produced by extending plain weave in weft direction.



WEFT RIB REGULAR. (4/8)

Draft plan



WEFT RIB IRREGULAR (3/1)