

boiler pressure. The high piston speed of a locomotive engine may, in some measure, reduce the value of jacketing, the surfaces being too small to pass within the given time the heat required for the large volume of steam used. Jacketing is meant to serve a double purpose: to keep the cylinder free from the cooling effects of the atmosphere, and to keep up the temperature of the cylinder walls, which are cooled during the period of expansion and exhaust.

Engines which cut off steam very early in the stroke would gain much more benefit from jacketing, than engines carrying steam for nearly the whole stroke. The rapid expansions of steam would tend to produce water apart from radiation. Condensation exists as a film of water on the walls of the cylinder and on the covers, on the piston, piston rod, and ports. It is a fact worth knowing that by turning and polishing pistons and cylinder covers, condensation is very much lessened, indeed some engine builders maintain that a distinct saving is the result of thus treating covers and pistons. The method of fitting together a jacketed cylinder adopted by most Corliss engine builders who advocate their use is a first-rate one. Separate liners are forced into the cylinder and remain a tight fit, separate castings form the valve boxes, the whole being bolted together, forming a strong and serviceable job. Engineers in Bombay have no doubt opportunities for testing the value of steam jacketing, many of the engines being arranged in that way; at the same time their opinion for or against would still leave the question an open one, because steam jacketing in Bombay is not after the most improved plan. However, any light thrown on this interesting subject should always be welcome.

## A Cotton Fabrics Glossary.

(Continued from page 71.)

**Gingham:** A close and stout plain woven cloth. It is made in checks and stripes\* of two or more colours. Standard ginghams are about 6½ yards to the pound and count from 56 to 54 threads per inch. The small square checked ginghams are spoken of as "two-two," "four-by-four," having four threads each of one colour crossing each other. Scotch ginghams are extensively made in the country from which the goods take their name.

**Gloria Silk, or Gloria Cloth:** A fabric used extensively for umbrellas, the warp being usually of silk and the weft of cotton, wool, or mohair.

**Grenadine:** A dress material of cotton, silk or wool, or a combination. The goods are quite transparent, being of an open work texture, in small square meshes.

**Huccatoon:** A cloth of English manufacture expressly for the African export trade.

**Indian Dimity:** A light, sheer lawn, with cords woven into the warp or into both warp and weft. The finish is a sort of nainsook finish.

**India Linen:** A distinguishing feature usually is its linen finish, requiring a certain amount of calendering. The goods average 12 yards to the pound, and come in from 28 to 36 inch widths in book fold, and about 40 inches in long fold. Slightly heavier than bastiste.

**Indigo Prints:** A cotton cloth dyed in indigo, staple patterns being formed by the resisting or discharging method. The resisting process has come into the greater use.

**Italian Cloth:** A lining made of cotton and wool, cotton and mohair, and all cotton; a sort of jean woven fabric and having a satin face.

**Jaconet:** A hard finished cloth, the weight of Victoria lawn, having a smooth, lustrous cambric finish, used for book-binding, and formerly in the southern part of the United States for shrouds. The goods are all made in Great Britain, also a soft finished jaconet that can hardly be distinguished from a heavy soft finished English nainsook.

**Jean:** Used largely for dress lining, and in the manufacture of corsets, commonly 27 inches wide.

**Jean:** A twilled fabric, in stripes or plain, with a cotton chain and woollen filling. Satin Jean is made with a different twill, producing a satin effect.

**Kid Finished Cambric:** A plain weave, soft finished cloth, usually ½ yard wide, and used exclusively for ladies' dress linings.

Linen and fine linen are substantially synonymous terms.

**Long Cloth:** A cloth of English manufacture, and exported to India and other eastern countries. It is a fine cotton fabric, milled or plain, in shirting style; also a similar cloth, imitated in the United States, and usually 36 inches wide.

**Madras:** A thin and light fine woven cloth, in plain and fancy coloured stripes, a distinguishing and essential feature of the fabric being the presence of fine line coloured stripes. The goods are used extensively for shirting purposes, and are frequently made up with Egyptian cotton, while the stripes may be of silk.

**Madras Gingham** is distinctly a sheeting fabric, and is an article of fine quality. Zephyr gingham is distinctly a dress gingham, and is lighter and of softer finish than the Madras gingham.

**Masalia** is a fabric of the weight of a medium English nainsook, with a smooth, nainsook finish, and having from the weave a moire, or watered silk effect.

**Mull** has the softest of finishes, and no stiffening. It is much like a Persian lawn except that the latter does not have so soft a finish. The latter has more of an India linen finish, with a little calendering. China mull, or silk mull, is a light plain union fabric, made usually of varying percentages of cotton and silk, according to the grade.

**Muslin** has commercially, through course of time, lost any particular significance it may ever have possessed, and to-day may mean almost anything in the way of fine cottons. Swiss muslin is a shade heavier than organdie, averaging 16 to 20 square yards to the pound and having a finish similar to organdie but of less gloss. In Switzerland and Scotland the goods are frequently woven with figures and dots, known as Swiss dots, or sprigs. The genuine Swiss muslin is made on a hand loom in Switzerland. The figures or dots of the Swiss muslin, made in Scotland and the United States, are embroidered. A tambour dot is another common pattern. The name "Lappets" is applied to a variety of the products of the United States and Scotland.

**Nainsook** is a light cotton cloth, may be plain, striped or plaided, and from 30 to 31 inches wide. The English goods have a soft finish, while the French nainsook has a calendered finish. A batiste and a nainsook can be made from the same cloth in the grey, the essential point of difference in the two finished fabrics lying in the finish. The English nainsook comes in varying weights from 10 to 14 square yards to the pound. The French nainsook is used extensively for such purposes as apron strings, strings to infants caps, &c.

**Nankeen:** A fabric native to Nanking, China, but imitated in some other countries. The peculiar colour is due to the cotton, and the fabric is commonly of a yellow tinge.

**Node:** A dress material of much the bourrette and boucle order, a distinguishing feature being the effect produced in the weaving by the introduction in the weft or warp threads of a small bunch of yarns twisted together.

**Organdie:** The fabric has a finish peculiar to itself, very stiff but with some gloss. It will run from 32 to 68 inches in width, in the finest quality of yarns, and averages 20 to 24 square yards to the pound. It is sometimes in woven checks or striped patterns, but more frequently is a clear article.

**Orleans linings** comprehend a class of goods, of various qualities and patterns, having a cotton warp and worsted weft.

**Osnaburg:** A coarse yarn coloured fabric, extensively sold in the southern parts of the United States for plantation purposes. Also Osnaburg checks and stripes in large patterns.

**Padded Back Linings:** Fancy waist and skirt linings are sometimes printed black on one side, or backed, to prevent the printed pattern on the other side from showing through. A natural back lining is a solid coloured lining printed on one side.

**Percalé:** A closely and fine woven French cambric, round thread. The goods contain more dressing than ordinary muslin, but lack the glossy finish of dress or lining cambrics. The goods may be white or printed.

**Percaline** is a fine linen or cotton cambric, usually of plain weave, used for shirtings and dress goods, and has a high glossy finish. The goods are frequently well loaded with starch to stiffen them. Percaline is lighter than percalé.

**Pique** is a heavy cotton material woven in corded or figured effects, made with dobby, jacquard, drop box, and other looms. The goods are used for such purposes as ladies' so-called tailor-made suits, vestings, shirt fronts, cravats, and the like.

**Plush Velveteen:** An imitation of a silk plush, being itself a cotton velvet plush.

**Robes:** A name applied to printed twilled cloth, made from 64-square printing cloth. At one time produced in cashmere effects and worn for wrappers, whence the name. Now made in large, bright coloured furniture patterns and used for furniture coverings, curtains, comfortable, and such purposes. Furniture twills and robes are designated thus separately in the trade, though the uses to which they are put are the same. While both are twilled cloths, the term "robe" signifies that the fabric is made from a 64-square printing cloth.

**Satine:** A fabric used as a lining, in appearance similar to a jean, but having a peculiar twilled weave. Finished soft, with a lustre. The goods may be printed or plain.

(To be continued.)