## DICTIONARY OF TECHNICAL TERMS RELATING TO THE TEXTILE INDUSTRY.

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THREE-HARNESS TWILL:—A twill in which three threads and three picks form the unit of the weave; the closest interlacing weave after the plain weave.

Three-ply Carpet:—Ingrain carpet constructed with three systems of warp and three systems of filling, each system being of a different color. Each system of warp interlaces with its mate system of filling with the plain weave, and the three systems of plain woven fabrics thus formed change positions continually in the complete fabric structure after a given design. Also called Scotch carpet, as compared to Kidderminster carpet which is a two-ply ingrain carpet.

THREE-PLY CLOTH:—A fabric produced by combining, by various methods possible, three single cloth fabrics into one structure.

THREE-QUARTER-BRED:—A cross of sheep produced by a half-breed crossed again onto a breed already represented.

THREE-QUARTER Hose:—A variety of ribbed-top stockings made for children and reaching nearly to the knees,

THROSTLE OR THROSTLE-FRAME:—A bobbin-and-fly spinning frame which uses only the drag of the bobbin for winding-on.

The name for the ordinary spinning-frame on

which English worsted yarn is spun.

Yarn from the throstle is smooth, and is suited for warp, while yarn from the mule is soft and downy, and is used for filling.

Also called water-frame, because it was first driven by water, originating in the water-frame of

Arkwright.

THROW:—To turn; twist; specifically, to form into threads by twisting two or more filaments together, or by twisting two or more singles together in a direction contrary to the twist of the singles themselves; as, to throw silk.

THROWING:—The technical term used for winding, cleaning, doubling, twisting, rewinding and reeling, as the case may require, the raw silk of commerce, either for tram or organize.

The operations necessary to convert raw silk into any desired size or count suitable for manufacturing.

THROWN SILK:—A yarn composed of fibres of silk, each fibre of filament being the longest length possible to obtain from a cocoon, and such fibres of reeled silk having been *thrown*, meaning wound together and twist put on the thread in a silk throwing establishment.

THROWSTER:—One who conducts a silk throwing business

THRUM:—The end of a warp where the threads are knotted together and which remains in the loom harness when the last web on the warp beam has been woven and in turn cut off; also ends of filling or warp sticking up through the cloth; remainder of warp and filling; any loose thread or a mass or tuft of loose filamentous material; a tuft or a collection of tufts; a fringe or tassel; short bits of rope yarn used for sewing on mats; in the plural, coarse yarn or waste yarn.

THRUST-SCREW:—A screw so arranged as to ease the thrust of a revolving spindle.

THYMOL:—A white, crystalline substance of C<sub>10</sub> H<sub>13</sub> OH, of a pleasant aromatic odor and strong antiseptic properties, occurring in oil of thyme and in other essential oils. Suggested in cotton finishing as a powerful antiseptic, but its price is prohibitive.

TIARA:—A head-dress worn by the Kings of Persia and also by the Jews.

TIBET:—A dress fabric made of the hair of the Tibet sheep, or a woolen imitation of it.

TIBET SHEEP:—A small variety of the fat-rumped Persian sheep, extending through Afghanistan and into the north of China. In some of these sheep there is a small portion of wool growing at the roots of short hair, but in others the wool is both long and fine; out of the long wool, after careful separation from the hair, some of the fine shawls of India are manufactured.

TICKS OR TICKING:—A strong heavy cotton or linen cloth, used for bedticks, awnings, and similar purposes. Woven with twills, herring-bones, basket and satin weaves, usually striped blue and white, red and white, etc.; often made with linen warp and sized cotton filling, to give strength and firmness.

Tipy:—A more or less ornamental covering for the back of a chair, or the arms of a sofa; a pinafore or apron.

TIE SILKS:—Name given to a large variety of plain and fancy silk, worsted or cotton goods, suitable for the making of men's neckties.

TIFFANY:—An early modern English name for a kind of thin silk or gauze, or a kind of gauze muslin resembling silk gauze; deriving the word from the old French word tiffer, to dress up.

A sort of thin silk or fine gauze, used by fine

painters for the same purpose as tammy.

A kind of transparent gauze stiffened with gum, produced for employment in the production of artificial flowers.

TIFTEK:—The Turkish and Persian name for the wool of the Angora goat.

Tights:—Are a special kind of hose which combine stockings and drawers in one piece, made with or without feet, and fitting the leg very closely.

Til.T:—A wagon cover, usually of canvas, on wooden bows.

TINGED COTTON:—Cotton which has been exposed to rain and storm, and thus discolored.

TIN MORDANTS; STANNOUS CHLORIDE, TIN CRYSTALS, OR TIN SALT:—They and certain dyewood extracts form Carmines, Persian Berry Carmines, Cochineal Carmine, etc., occasionally used. In Turkey-red they are used to brighten the color. In the case of wool they are used with cream of tartar and other assistants. In silk dyeing they are used principally in conjunction with catechu in producing heavily weighted blacks.

TINNIVELLY COTTON:—(See Madras Cotton.)

TIN ROLLER:—The cylinder extending the whole length of the mule, ring frame, twister, etc., employed as a pulley for driving the spindles by means of bands, connecting the tin roller and the whirl of spindles.

TINS:—The cylinders of a cloth drier.

TINSEL:—Some glittering metal substance, as burnished brass, copper, or tin, made in sheets approaching the thinness of foil are used in fine strips or threads either by itself or twisted with yarns for any purpose in which sparkling effects are desired in the fabric without great cost; the name has also been given to cloth of silk, interwoven with gold or silver threads.

TIN SPIRITS:—The name given to solutions of tin, in the manufacture of which other acids besides HCl are used, i. e., HNO<sub>3</sub> and H<sub>2</sub> SO<sub>4</sub>. They are variable in composition, and their value must be determined especially in each case. One of them is Scarlet Finishing Spirit, a muriate of tin containing a certain proportion of oxalic acid and sometimes tartaric.

TINSUTI:—A plain, stout cotton cloth made in the Punjab district of India.

TINTING:—A process of covering yarn with a fugitive color so that it may be readily distinguished when in contact with other yarns. For example, for weaving right and left twist yarns one of them is tinted, so as to prevent them becoming mixed.

TIPPLE:—A parcel of hackled flax.

TIPPY:—A wool, with a superabundance of tip, also a very yolky tipped wool.

Tison:—An orange-mahogany shade of color, approaching the hue of a half-extinguished firebrand.

TISSUE:—A very fine, transparent silk stuff used for veils, white or colored. One of elementary fibres, fabric texture, etc.

Totle D' Alsace:—A thin linen cloth for summer dresses; also a cotton texture in imitation of the same, being printed and used for like purposes.

TOILE DE VICHY:—A linen material used for summer dresses, having as a rule, a simple striped pattern.

Toilet-Cloth:—The cover for a toilet table or dressing bureau, frequently embroidered, or of lace.

TOILET QUILT:—A cotton quilt made on the doublecloth principle on the Jacquard loom, presenting an embossed effect between figure and ground, produced by the peculiar stitching of the binder warp, in addition to using stuffer, i. e., wadding picks.

Tone:—As applied to color, is intended exclusively to designate the various modifications which that color, in its greatest intensity, is capable of receiving from white, which lowers its tone, or of black, which heightens it.

Tong Kong Matting:—A cheap grade of Chinese matting.

TOLUATE:—A salt of a toluic acid.

Toluene:—A limpid liquid compound (C, H,) of the aromatic series contained in coal-tar, whence it may be obtained by distillation. It may also be made by synthesis.

Toluic Acid:—Any one of the three isomeric compounds (C<sub>8</sub> H<sub>8</sub> O<sub>2</sub>), each of which is a white crystalline compound and may be derived from toluene, or xylene, and prepared synthetically.

TOLUIDINE OR TOLUIDIN:—One of three isomeric compounds (C<sub>7</sub> H<sub>9</sub> N) homologous with anilin and derived from the nitro-compounds of toluene.

## RECENT IMPROVEMENTS IN TEXTILE MACHIN-ERY, APPLIANCES AND FABRICS FROM ABROAD.

## Guard for Spinning Frames.

A guard for a ring spinning-frame or similar machine consists of a plate fixed under the rollers in such a way that it can be moved aside, the plate being interlocked with the starting-gear if desired.

Fig. 1 shows a form without interlocking gear, the

sliding plate b being held by spring stops c.

In the form shown in Figs. 2 and 3, a rocking guard plate b is actuated by a slotted arm  $k^1$  of an horizontal three-armed lever, the other arms k of which carry sleeves j sliding over rods  $g^3$  attached to the belt-fork g, so that when the belt is on the fast pulley the position of the rods in the sleeves prevents the lever k from being rocked. Or the belt-fork is attached to an horizontal plate containing a triangular slot in which works an arm rigidly fastened to the rocking shaft of the guard plate.

In the form shown in Fig. 4, the plate b is operated from a rocking shaft c carrying a plate (not shown) with which engages a rod interlocked with the belt-

fork  $g^{\scriptscriptstyle 1}$ .

Elastic Webbing. (See Fig. 5)

The same refers to elastic webbing adapted to be cut into lengths for use as supports for garments, and comprises elastic portions A, produced in the ordinary way, and tubular portions B, which enclose the rubber threads a loosely, and are adapted to be severed either midway of their length or close to one of the parts A, the rubber threads also being severed so that they contract and form short thick ends  $a^1$ .

The picks may be crowded together at the tubular parts and at the adjacent ends of the elastic portions, and the tension on the rubber threads may be relaxed while the said adjacent ends of the elastic portions are being woven.

Attachment to Fly Frames.

Fig. 6 shows the new attachment in its perspective view, and refers to a detachable guard of curved formation to encase the back underside of the bobbin wheels of fly frames. Said guard is provided with keyhole slots a to engage studs or screws on the frame, and with slots  $a^{1}$  to accommodate the spindles.

A guard of the same construction may be used in place of, or in addition to, the usual front guards for

the bobbin wheels.

Brush for Wool Combs.

The same is shown in Fig. 7, and refers to a cylindrical brush B for Noble Combs, to press the fibres into the combs and a stationary knife to prevent the brush from lifting the fibres out of the combs again, the brush being driven by contact with the combs, an addition incline N is provided on the stationary inclined plane M to cause the conductors or feed boxes L to drop sufficiently to lay the fibres on the top of the comb teeth on the large circle. The cover plate R is cut away to expose the comb teeth on the large circle at this point.

Flyer.

Fig. 8 is a perspective view of this flyer, showing the same secured to the spindle by means of a closed or open cap or top A made of brass, and having opposite kinds of threads engaging the flyer and spindle respectively.