

## DICTIONARY OF TEXTILE TERMS.

**Set-over:** The distance over which pins are set in any pinned part of textile machinery, such as the fallers, comb circles, etc.

**Sett:** The pitch or the fineness, or the distance apart of the warp-threads as they are distributed over the fabric by the reed.

**Setting:** Arranging the printed warps to form the pattern in the manufacture of tapestry carpet. (See *Crabbing*.)

**Setting of Yarn:** Storing yarn in a damp place till the curl is taken out of it, or subjecting it to steam pressure for the same purpose.

**Sewing Silk:** Made by winding and doubling the raw product, then twisting into tram, giving it a slack twist, doubling and twisting it in the reverse direction under tension; made for tailors, and dressmakers, and also for knitting, embroidery and other work. Some sewing silk is made from spun silk, but this lacks elasticity and is very inferior.

**Seville Lace:** Variety of torchon lace.

**Seychuen:** See Shanghai Szechuen.

**Seydavi:** Raw silk from the Levant.

**Seyong:** Blue or black Chinese velvet.

**Sfaldabili:** A silk term used in Europe meaning divisible into fibrillæ. Also called *Sfaldabilita*, *Sfaldatura*, *Sfaldarsi*.

**Sfilacciarsi:** A silk term used in Europe, meaning frayed or raveled.

**Shabnam:** Indian name of a plain, next to the finest grade of Dacca muslin.

**Shacapa:** Strong leaf fibre yielded by a palm in Peru; used for ropes.

**Shade Cloth:** Plain woven cotton cloth of various widths and qualities, usually in white or green, sized and given a smooth, glossy finish; used for shades and blinds.

**Shading Effects:** Effects produced by different colors or qualities of materials, or by weave; the result being a gradual change of appearance from one color or structure to another, as in the case of ombré or rainbow shadings.

**Shadow Check:** Patterns produced on various (always solid colored) goods, by using right hand twist and left hand twist yarns, both for the warp and the filling; stripe patterns are produced by using these two yarns only in the warp.

**Shadow Silk:** Another name for changeable or iridescent silk.

**Shaft:** See Harness.

**Shaftlashing:** The application of harness-shafts to a Jacquard harness, to increase the capacity of the Jacquard machine used.

**Shaft-monture:** A system of mounting (building) Jacquard harnesses in which thin steel rods are inserted into loops formed in the leashes, by means of which the ground of the fabric can be worked without the aid of separate harness shafts.

**Shafty Wool:** A bold, strong, lengthy and densely grown wool.

**Shag:** A fabric with a long coarse nap.

**Shairl:** A fine cloth made from the hair of a Tibetan variety of the Cashmere goat.

**Shaker:** A revolving cylindrical wire frame in which rags and waste are cleaned. Also called *Willow-machine*, *Willy*, *Dust-picker* or *Duster*.

**Shaker-flannel:** A soft finished, slightly napped material, made of cotton warp and wool filling.

**Shaking:** One of the processes comprising silk throwing. It consists in opening out the hanks for winding, removing chance for curling of the threads.

**Shalloon:** A light, loosely woven woolen fabric; used for women's dresses and for coat linings.

**Shallon Twill:** The  $2\frac{1}{2}$ - $\frac{1}{2}$  4-harness twill; cassimere twill.

**Sham Plush:** An imitation of a plush fabric produced by using Chenille filling. Sometimes sham plushes are made by raising, *i. e.*, dragging the fibres partly out of a cloth of ordinary loosely constructed fabrics.

**Shanghai Dresses:** Plain or moiré fabrics made in England in the 19th century, of silk warp and ramie filling; exported them to China.

**Shanghai Long Wastes:** The most expensive wastes shipped from that port. They are to be had from various inland districts, and are known under the different names of such places, though there is a great similarity in appearance and not much difference in their qualities and yields. They have very much the appearance of knubs, but are tapey and very long. They yield exceedingly well and are of a good light color. The annual production is comparatively small, and very few spinners can use them to advantage, on account of their high price. For particular special yarns where strength and evenness of thread are absolutely essential, Shanghai long waste is seen to advantage.

**Shanghai Szechuen:** A yellow waste, and the prefix Shanghai is to distinguish it from Canton waste of similar nature, sold as *Canton Szechuen*. All Shanghai wastes were formerly offered as 1's, 2's, and 3's. Some shippers now continue this, but the No. 3 being very small in quantity and low in quality, parcels are often offered now as 1's and 2's. As the No. 3 is, however, still produced in the East, spinners are suspicious that in many cases it is judiciously mixed with the No. 2 portion by the expert Chinese packers. However that may be, proportions are generally

	75%	25%		
	No. 1	No. 2		
or	70%	30%	or	60%
	No. 1	No. 2		No. 1
				No. 2
				No. 3

All these grades are always packed separately. Also called *Sechuen* or *Seychuen*.

**Shanghai Waste:** All gum waste, not quite so white as European silk, and harsher in feel. It is classed as fine white, fine yellow, coarse white, and coarse yellow. In the fine white are three well-known grades—*Chintzah*, which is the whitest and longest in staple; *Hangchow*, which is really a second picking or sorting over of the Chintzah grade, rather inferior in color, not so long in staple, and more subject to twist waste and foreign matter; and the ordinary fine white, which is variable in color, but good sound waste. The yellow varieties are produced in much smaller quantities, of similar qualities, but usually more mixed together, which really makes an inferior sort of article. Every sort is sold on its own merits; some spinners use only coarse varieties, and others only fine.

**Shankings:** Short, bitty, and very coarse wool and hair, shorn off the legs of sheep.

**Shantung:** The real Shantung is a rough-faded native silk fabric, woven from the wild silk of China, with all knots, lumps, and imperfections retained. An imitation in cotton yarns has a special filling with thick, soft places at intervals.

**Shantung Pongee:** A trade name; manufactured from silk cultivated in Manchuria, exported from Dalny to Chefoo filatures in October, unreeled, and sent in hanks by mule to the Shanghai district and where it is woven. There are 10 grades of this class of silk, ranging in price from \$3 to \$6 gold.

**Shaper:** One of the mechanisms of the mule; the same varies the backing-off of the cam as the building of the cop proceeds. The mechanism by which the shape of a cop is determined. Also called *Cotton Rail*.

**Shap-faced:** In England, cotton back velvet made of waste silk.

**Shappe:** Spun silk in Europe, which is partly degummed by fermentation.

**Shark Skin:** A glossy waterproof cloth; used for raincoats.

**Sharpshooter:** See Boll Weevil.

**Shawl Wool:** This is the characteristic fine wool of Thibet. There are two varieties: One is a large animal with great horns, called *Rappoo*; the other, smaller with slender horns, is *Tsilloo*. The latter yields the finest wool, but they are mixed for ordinary purposes. For shearing, the animals are caught by the tail, their legs tied, the long winter's hair pulled out and the remainder cut away with a broad, flat knife, sharpened with a scythe stone. The operation is carried on most clumsily by the natives, and the skin of the animal is frequently much cut.

**Shear-flocks:** That portion of the nap that is cut from the cloth during the process of shearing.

**Shearing:** The removing of the superfluous nap in the finishing process of a fabric, by means of revolving cutting knife-blades acting against a stationary blade; known respectively as the revolver and the ledger blade of a shearing machine, commonly known as a shear.

Clipping the wool from the sheep's back, either by power or by hand.

**Shearlings:** A term used in grading pulled wools. Short wool which has been pulled a month or two after the animal has been sheared.

**Shed:** The separation of the warp-threads into two parts to form a passage for the shuttle containing the filling, also called *Shedding*.

**Shedding of Bolls:** One of the diseases the cotton plant is subjected to; due to physiological causes. The shedding of bolls or *forms*, or their death and drying while still attached to the plant, is very frequently a source of great loss to the cotton crop. The trouble has been long known, but one widely prevalent and disastrous form has been misunderstood. It is often confused with the work of the bollworm, with punctures made by some hemipterous insect, etc. That some of the shedding is due to the work of the bollworm is true, but the shedding referred to here is a

- purely physiological trouble. It occurs most frequently in extremes of either dry or wet weather, or during the change from one extreme to another. It may occur to some extent under normal climatic conditions, especially if the cotton plants are too thick, or the variety of cotton is one which develops a very large amount of fruit forms in proportion to the leaf surface.
- Sheep:** A ruminant mammal of the family Bovidae, sub family Ovinæ, and genus Ovis. It is a matter of great difficulty to classify the various different forms the sheep has assumed under different conditions. Some naturalists suppose that there are only three: (1) The Ovis ammon, or argali, which is the wild sheep of Asia and America; (2) The Ovis musmon, or moufflon, which is found in southern Europe and the north of Africa; (3) The Ovis aries, or our domestic sheep. The Ovis Montana, or Big horn, found in the Rocky Mountains is considered by this division to be the same as the argali, hence is frequently called the American argali.
- Sheepskin Mats:** A mat of sheepskin dressed with the wool on.
- Sheer:** A term applied to linen and cotton fabrics of a fine, thin, soft and pliable texture.
- Sheet Gills:** Frames in which the gill-bars are strung together to form endless bands or sheets.
- Sheeting:** A stout cotton cloth used for bed sheetings, shirts and underwear purposes, woven plain or twilled. Made and sold in the bleached and brown state. A standard sheeting weighs 2.85 yards to the pound, and the range is from 2½ to 4 yards.
- Shell:** An engraved roller on a calico-printing machine.
- Shellac:** Shellac consists of thin brittle leaves or flat pieces with an orange-yellow, brownish red or leather brown color. Shellac bleached with chlorine and perfectly white in color is marketed in form of twisted sticks with a silky lustre. Dissolves readily in alcohol if left standing in a warm place, and also in water if some borax or ammonia be added. 1 lb. shellac is heated with about 4 oz. borax or 3 oz. ammonia in water until completely dissolved.
- Shell-feed:** A feeding device in a cotton scutcher or carding engine, which consists of a flat plate that conforms to the feed roller by having its inner edge turned to the same curve.
- Shepherd Checks:** Small or large checks or plaids similar to those worn by the Scottish shepherds. Also called *Shepherd Plaids*.
- Shetland:** Coarse and heavy woolen overcoating with a very long, shaggy nap.
- Shetland Lace:** A needle-made open-work or ornamental trimming; like needle-point lace in all respects except that it is made of woolen yarns. Shawls, scarfs, etc., are made of it.
- Shetland Shawl:** A variety of fine, light-weight shawls, originally made in the Shetland Islands, off the coast of Scotland.
- Shetland Wool:** The light, hairy wool of the Shetland sheep; doubled yarns made of shetland wool, spun in the Shetland Islands and used in the knitting of fine shawls and in the manufacture of other garments.
- Shibori:** Rich, colored Japanese silk with elaborate patterns; used for upholstery.
- Shifter Frames:** Appliances devised to change the position of needle bars on the lappet loom.
- Shikeginu:** A Japanese habutai with doujoun filling.
- Shikifugi:** Cotton bed sheeting in Japan.
- Shikii:** Brand name for a rough silk material in plain, jacquard or broché weaves—(See Brocade and Broché.)
- Shima Momen:** Striped cotton fabrics in Japan.
- Shinawata:** Japanese trade term for raw cotton, imported from China; the principal qualities are designated by the Japanese as: *Tungchow* (the best), *Peishi*, *Nansi*, *Hankow*, and *Tienchin*.
- Shinnamu:** An extract from the leaves of a maple tree, commonly grown in Corea and found also in Manchuria; used as a dye by the natives. The commercial value of the dye for cottons is still problematical. The cost of production is about twelve cents per pound, and black, blue, gray and khaki shades can be produced with it. Silk can be dyed black with it, and if the black is not a first-class shade, the material has one virtue in reserve, *i. e.*, about 30 per cent. of weight is added to silk by use of this dye.
- Shiraz:** Persian, all-wool rugs, made in all sizes. The medium long pile is tied in Ghiordes knot. The end selvaige is often checked. The design consists of palm patterns, stripes with blue and red as prominent colors. Also called *Mecca Rugs*.
- Shiro-momen:** General trade term in Japan for unbleached (similar to nankeen), and bleached plain woven cotton goods. The narrow, plain woven cotton fabrics, made on hand looms and half bleached, or often dyed blue, are also called by this name; used for socks and cloth for the people.
- Shirr:** An elastic cord inserted in cloth or between two pieces.
- Shirred:** Puckered or gathered, as by shirring; having India rubber or elastic cords woven in the texture of a fabric so as to produce shirring.
- Shirred Goods:** Goods with elastic cords (shirrs) interwoven in suspenders, garters, etc. Also called *Elastic Goods*.
- Shirting:** A cotton cloth made expressly for shirting purposes, usually in neat colored, figured, checked, plaid and striped effects. In some instances wool, or a mixture of cotton and wool, is used. Gray export shirtings are plain woven cotton cloth of low quality made with a heavily sized warp. Shirtings for home trade are stouter woven, made of pure cotton yarns and bleached, using the plain weave also for their interlacing. Colored shirtings comprise a wide range of fancy stripes, checks, and dobby figures, and are mainly used for men's wear. Harvard shirtings have for their ground weave the  $\frac{2}{2}$  4-harness twill, and are closely woven, with a moderate number of picks per inch. Oxford shirtings have the plain weave for interlacing the body portion of the fabric structure, using in the better grades two ends in each heddle, with one pick of a heavier count of filling in a shed, giving in turn a softer handling fabric than the Harvard. Zephyr Shirtings are interlaced with the plain weave for the ground, but are produced from finer yarns. Sateen shirtings have a warp satin face with colored stripes, using a considerable higher warp texture as compared to the picks per inch; woven with dark colored warp and filling, the cloth is used for ladies' shirtings and boys' suitings. Grandrelle shirtings are similar to sateen shirtings, but the warp is twofold yarn, made by twisting differently colored threads together. Tennis shirtings are of light texture and coloring, produced with a fancy weave and yarns, which give a soft, full handle to the structure; in some cases they have a nap raised on the back.
- Shirwan:** See *Ardash*.
- Shita-jime:** A narrow silk sash.
- Shiti:** Native East African name for calicoes with small flowers; used for dresses.
- Shives:** The term given to vegetable impurities other than burrs found in wool.
- Shoddy:** The product of fibres obtained from the rags of old woolen stockings, woolen and worsted fabrics, flannels, or any material made of wool not felted excessively, and in which the initial fibre has been of a fairly long-fibred class, *i. e.*, softs, as against the short-fibred and felted class of rags and which are worked into *mungo*. Shoddy is used as a most valuable by-product in the manufacture of all kinds of woolen fabrics, either in warp and filling, but more particularly in the latter. In connection with many cheaper grades of fancy cassimeres, suitings, cloakings, etc., shoddy is frequently the only wool fibre used besides cotton. The name literally means cheap, make-believe.
- Shoddy Cloth:** Poorly or faulty constructed cloth; cloth in whose construction only cheap substitutes for wool (shoddy, mungo or cotton) have been entered.
- Shoddy Picker:** The machine used for transforming rags, *i. e.*, all kinds of woven or knitted fabrics made of wool, back into fibre. They may have been made up into cloth and worn, or some, like tailors and mill clippings, samples, etc., have never been in actual use. They all come to the woolen or to the shoddy mill to be reduced by the shoddy picker to their original condition, when every fibre was separate from the others. The construction of a shoddy picker is extremely simple, the rags being fed by a feed apron to two feed-rollers which deliver them to the action of the picker-cylinder, which has its periphery covered with steel pins. The latter must be made to beat (not to cut or tear) the rags, as fed to them, into the original fibre state, rejecting, *i. e.*, throwing out any pieces beyond their power to be opened, and which in turn are fed again to the machine. Thin feeding means often more output to a mill. Correct cylinder speed is absolutely essential for quality and quantity of production. The feed to a newly clothed or a new cylinder should be different to that of one which is partially worn, and if possible, the nature of the material to be picked should be selected to suit the case. In practice, the cylinder is taken out and reversed about once in a week or two so its pins will wear away on both sides. The cylinder is

at its best when two or three weeks old, the pins then being almost at their full length but all roughness at the point is rounded off and the shafts are smaller, presenting the fullest beating power, with little tendency to cut the fabric. Also called *Rag Picker*.

**Shoe Cloth:** Usually made of a strong and durable worsted yarn, woven with a corkscrew weave, weighing from 12 to 18 oz. per yard. The warp texture varies from 80 to 150 per inch, that of the filling varying from 80 to 140 picks per inch. For the warp usually a two-fold thread is used; using for the filling a single worsted thread or sometimes cotton thread, the cloth being usually made as single fabric; in some instances heavy materials of all-silk, silk and wool or silk and cotton in various weaves woven plain and figured; used for shoe tops.

**Shogging:** The horizontal motion of needles or guide bars by which loops are shifted to right or left on knitting frames; a motion in the old lace loom by which the filling carriages were transferred horizontally.

**Short Wool:** The staple of this wool varies in length from 1 to 4 inches, and is used for hose and soft-clothing fabrics. Also called *Clothing Wool*.

**Short Hose:** The stockings of the Scottish Highlander, reaching nearly to the knee.

**Shorts:** Technical term for short wool. Taken out in sorting wool for combing purposes.

A long nail removed from silk during the process of dressing; it is the result of making the various drafts. Also called *Brokes*.

**Short Staple Cotton:** Cotton fibre  $\frac{5}{8}$  to  $1\frac{1}{2}$  inches in length.

**Short Wools (Merino):** Fine, wavy fibres, each possessing a large number of serrations, which give the material great felting and shrinking properties, but depreciate its lustre.

**Shot:** Scotch term for pick; a single thread of filling carried through the shed at one run of the shuttle.

A defect of the nature of a streak in a fabric, caused by the interweaving of a thread or threads differing from others in color, quality or counts.

A class of patterns showing a changeable color if viewed at different angles; like that produced in weaving certain silk fabrics, having all the warp-threads of one color and all the filling of another.

**Shot About:** The alternate exchange (filling ways) of figure-up and ground-up in two-ply ingrain carpet.

**Shot Silk:** See Changeant.

**Shove:** The woody centre of flax; the boon.

**Show-end:** That end of a piece of cloth which forms the outside of the roll to be shown to customers. It is sometimes ornamented and lettered with silk or other thread woven into the piece, other times stamped. Also called *Heading* or *Head-end*.

**Shower-proof:** See Proofing.

**Shower-proofing:** Various finishes, such as cravenette, pirlé, etc., to which cloths are subjected, rendering them shower, rain or spot-proof.

**Shrinkage:** The amount of contraction which most cloths are subjected to from the loom to the finished state. It is interesting to know that the shrinkage of cloth is dependent upon three factors, namely, structural shrinkage, shrinkage due to twist in the

yarn, and shrinkage due to absolute contraction of the fibres of which the yarn is composed. The loss of wool in scouring.

**Shropshire Down:** Wool of good quality, with strong, fine, lustrous fibre, of good length. This breed is somewhat larger than the Southdown, also hardier and more thrifty. Most likely this has been developed from an old Morfe Common sheep—named after the land in Shropshire, Eng., on which they are reared—by the introduction of the Southdown and also the Leicester and the Cotswold long-wool types. From all standpoints it is highly satisfactory as a breed, and is most extensively reared in England, its colonies, as well as here. As a cross on the Merino type it is especially serviceable. The average weight of the fleece is seven pounds. It is used chiefly in the manufacture of dress goods.

**Shroud-laid:** Rope made by twisting four strands round a core.

**Shuka:** Native name in East Africa for half bleached cotton fabrics, imported from India; used for loin cloths.

**Shulah:** Gray wool from the Shetland Isles.

**Shunia:** A cotton or silk robe of the toga type, the national garb of Abyssinia.

**Shurled Hogget:** First fleece from a sheep, after it has been shorn as lamb.

**Shusu:** A kind of satin made in Japan.

**Shusu Habutai:** A Japanese habutai in satin weave.

**Shuttle:** A wooden carriage tapering at each end, and hollowed out in the middle for the reception of the bobbin or cop containing the filling, which unwinds from this bobbin or cop as the shuttle is driven to and fro through the shed, formed by the warp. In ribbon looms the shuttles are called swivels or swivel shuttles, and are driven (by suitable gearing) positive through the shed. The Fly shuttle was invented in 1738 by John Kay.

**Shuttle Binder:** In a loom, a device in a shuttle box to prevent (by means of friction) the recoil or rebound of the shuttle after it is thrown by the picker. Also called *Shuttle Check*.

**Shuttle Box:** A receptacle at each end of the lay of a loom containing one or more compartments, each devised for holding a shuttle (if so desired by the pattern) at the end of its race or movement through the shed.

**Shuttle Guard:** A class of contrivance designed to prevent the shuttle from flying out of the loom.

**Shuttle Race:** The shelf or track at the base of the reed in a loom, formed by the body of the lay, for the shuttle to pass over. Also called *Shuttle Raceway*.

**Siara:** Variety of raw cotton from South America.

**Sicilian:** A Bradford term for alpaca dress goods made with 2/80's black cotton warp, 40's reed with one end in a dent, using 48 picks per inch of 12's alpaca in the grey cloth; interlaced with the plain weave, producing a rib effect.

**Sicilienne:** First made in the Island of Sicily as a heavy ribbed silk fabric. Sicilienne, Ottoman, crystals and bengalines, for cloaking purposes, are all very similar. They are silk warp goods with wool or cotton filling, a

little heavier than the same articles used for dresses, and with a pronounced rib running in the direction of the filling.

**Sickness:** The period of molting in the life of the silkworm.

**Sida:** A genus of plants from which fine rope fibres are derived. It is a lustrous silky fibre like jute, but much finer and brighter and whiter. It is altogether much superior to jute, and could be grown in the same field and under the same conditions. The fibre is separated from the stalk by the same process as jute, but has not as yet come to any consequence into the market, simply through the enormous success of jute.

**Sidebands:** Fabrics in America, usually printed with a band effect near to one of the selvages; used for trimming purposes.

**Side Drawing System:** This is the system mostly used in this country for feeding between the various carding engines of a set of woolen cards. Two methods for it are in use: (a) by means of balls and creel feed, and (b) the Apperly feed. The first mentioned method is mostly used between the first and second breaker, whereas the latter method is generally employed between the second breaker and the finisher.

**Sienna:** A natural yellow pigment similar to ocre, but containing also manganese oxide; used for tinting purposes in the finishing of cotton goods.

**Sieuhwakin:** Chinese shawls made of embroidered white crepe.

**Sightening:** In calico-printing, a fugitive color added to paste to enable the operator to judge of the pattern.

**Siglaton:** A fabric worked with gold and usually red; used in the Middle Ages for curtains and mantles.

**Silesia:** A twilled cotton fabric, quite firm, with a gloss finish upon the face side, used for linings, for both men's and women's wear. Silesia is woven of yarn in the grey state, and is dyed in the piece in such colors as black, dark blue, brown, drab, slate, steel, etc. A species of cloth originally made in Silesia.

**Silesia Linen:** Linen made in Silesia, Germany, is a very superior fabric.

**Silesian Merino Sheep:** Native sheep crossed with pure Spanish merino sheep, producing a fine grade of wool, highly valued for textile purposes. This wool, together with that of Saxony and Hungary, constitutes the best classes of continental wools. The fibres are highly imbricated, possess great fineness of staple, are strong, and have great felting properties. They are well adapted for the spinning of yarn for high-class woolen fabrics where good felting properties are essential, like super-fines, and dress-faced fabrics. Felt cloth for piano hammers is also made from yarns of these fibres.

**Silhigon:** Bast fibre yielded by several species of the Sida, a perennial shrub in the Philippines; used for twine and cloths by the natives.

**Silhouette:** French, plain woven cloth of cotton warp and a different colored linen filling, giving a scintillating effect.

**Silicate of Soda:** See Sodium Silicate.  
**Silicate of Sodium:** Soluble glass, waterglass. A compound formed by melting together sand with carbonate

of soda ( $\text{SiO}_2 + \text{Na}_2\text{CO}_3 = \text{Na}_2\text{SiO}_3 + \text{CO}_2$ ). It is used as an addition to soaps, as a sizing and as a mordant. It combines the properties of soap and caustic alkali, and is well adapted to some operations where the soda-ash is not strong enough, and where the alkali is too keen.

**Silk:** A transparent fibre, composed of two filaments (brins) encased in gum when in natural state, having an even diameter. It is very strong, elastic and hygroscopic. It is the product of cocoons made by the silkworm which feeds on the leaves of the mulberry tree. The color of the cocoons is white or yellow from the gum secreted by the worm. After the gum is removed by boiling in soap and water, the color of the silk will be white or pale cream. The wild silk, the worm of which feeds on certain oak trees in China, India and Japan, is ecru colored even after the gum has been removed.

**Silkaline:** A very light, printed, plain woven, glossy cotton fabric, made in the grey and calendered; used for lining, curtains, etc.

**Silk Bolting Cloth:** It is used for milling purposes and is primarily a Swiss specialty. Notwithstanding the attempts that have been made to make it in France, Italy, and Germany, Switzerland practically supplies the requirements of the world in this line. The biggest quantity of silk bolting cloth made is used in flour mills. However, it is a very essential article in many other lines, and is even used for scientific purposes. There is nothing that takes the place of silk bolting cloth when it is necessary to separate or sift any ground material to the finest powder. It is imported in rolls running from 50 to 60 yards, and then it is made up in covers to fit the various kinds of bolting and sifting machines, such as round reels, hexagons, purifiers, plain sifters, and bolters. Being made of only the best Italian silk and carefully woven on hand looms, it is of the most exact and uniform texture. The carefully twisted threads that are used make bolting cloth an elastic and exceedingly strong material, and it is surprising how long a cover lasts, when we consider that most flour mills are operated day and night on all working days. Silk bolting cloth is not made in factories. It is what we might term a "home" industry. Most of the weavers not only own the looms, but also the homes in which they work. The material used is furnished them by the manufacturer and the work is continually watched by foremen who go around from weaver to weaver to examine the work in process. There are about a half a dozen different brands of silk bolting cloth on the market, but the principal ones known in the United States are the *Schindler*, *Wylder*, *Dufour*, *Bodmer*, and *Excelsior* brands. The standard width is 40 inches, but for special orders it can be had in 24, 28, and 34 inch widths. The so termed gauze or bolting cloth comes in four different qualities—standard extra heavy, double extra heavy, and triple extra heavy. The grit gauze is principally made in the extra heavy and triple extra heavy qualities. The gauze, or bolting cloth, is divided into 29 different numbers, as to grade or the num-

ber of meshes contained to the lineal inch.

**Silk Camlet:** Silk cloth of two-colored warp, the filling being of a third color.

**Silk Cleaning:** In this process the silk thread is simply transferred from one bobbin to another, passing during the transfer through the cleaner, which consists of two parallel plates sufficiently close to catch any irregularity upon the silk, and at the same time arrest the motion of the spindle until the operator removes the cause.

**Silk Conditioning:** By its very nature, raw silk is an article which is capable of lending itself successfully to misconception or deception. Its weight varies according to climatic conditions. In rainy weather, for instance, the same silk will automatically increase in weight as much as 3 per cent. over its weight in ordinary dry weather. Because of its power to absorb moisture its weight can be still further increased through artificial means, as much as 30 per cent. Silk conditioning, so called, determines the absolute dry weight of silk, and to this weight so ascertained 11 per cent. is added as the universal standard to represent the usual absorption of moisture from the normal atmosphere. Silk conditioning establishments are to be found in the centres of silk industry all over the world, whose business is to ascertain the amount of moisture in a lot of silk given for testing. The apparatus used for the purpose is called *Silk Conditioning Oven* or *Desiccator*.

**Silk Cotton:** Silk cotton or vegetable silk consists of the hairs from the seed pods of various trees and plants. The most common commercial silk cotton is Kapok, from the pods of a large tree which grows throughout the tropics. It is used for stuffing pillows and in upholstery. Silk cotton differs from the true cotton in that its cells are thin walled, straight and smooth, while those of true cotton are thick walled, have corded edges, and are twisted many times throughout their length. Because of its smoothness and straightness, silk cotton cannot be spun.

**Silk Doubling:** One of the processes in silk throwing. It is done by means of the doubling machine and consists in bringing together two or more single threads from two or more bobbins, side by side onto one bobbin, but without any twist.

**Silkeen:** A finely ribbed English cotton fabric, printed with colored pattern over a colored foundation and highly glazed.

**Silk Etamine:** A novelty weave of soft, clinging variety, adopted for use as suiting material.

**Silkette:** A fabric composed of silk and cotton; used for linings.

**Silk Fibre:** The cocoon-silk-threads are twin tubes laid parallel in the act of spinning, and glued together with more or less uniformity, by the saliva the worm emits during the process, and which covers their whole surface.

**Silk Filling Engine:** A machine used in drawing, scutching and ranging the threads of waste or wild silks.

**Silk Grass:** The fibres of silk grass have been used for rope-making, and at one time it competed with those of Sisal hemp. It is a native of South America.

**Silk Grower:** One engaged in the business of producing silk cocoons.

**Silk Gut:** Used by fishermen, because of its strength, lightness, and insolubility in water. It is made from the fibroin apparatus of the silk-worm. When full-grown, the caterpillar is killed, and the reservoir and tubes extracted. Being elastic, and the fibroin in a jelly form, they allow of being stretched out to a considerable length, and are moulded to an even size by the fingers of the operator. The stretched line is then left to dry in the sun, and after this, is ready for use.

**Silk Louse:** Imperfection to the silk thread of commerce causing an appearance when discharged or dyed and wound on the bobbin of specks of dust. When placed under a high power of the microscope these minute specks present the appearance of numberless fibrils indicating a rupture and division of the original bave and brin of the silk. It has been variously attributed to (a) the use of disinfectants in the rearing sheds chemically disintegrating the fibre; (b) an imperfect crossure, the reeler failing to give the necessary number of turns of the thread upon itself; (c) undue punishment in the process of boiling, dyeing, or lustreing, specially the latter. So far no satisfactory solution has been arrived at, and it is most probable that it may arise from a combination of causes. Certain it is that some classes of silk are more liable to it than others, and as the appearance is only spasmodic there may be certain seasons and countries where the conditions of rearing and reeling are unfavorable.

**Silk Muslin:** A thin and gauzy silk textile, either plain or printed in small patterns in color, or ornamented with raised figures made in the weaving.

**Silk Noils:** A short, lumpy waste, remaining after the combing of spun silk.

**Silkoline:** A material with a silk-like texture, made of cotton yarn threads which have been mercerized.

**Silk Printing:** The process of printing patterns on silk; a process similar to cotton printing.

**Silk Reel:** A machine in which raw silk is unwound from the cocoons, formed into a thread, and wound in a skein. It consists essentially of a vessel of water, which is heated and in which the cocoons are floated while being unwound, a series of guides for the filaments of silk, and a reel on which the skein is wound. The cocoons, stripped of the floss silk, are thrown into the boiling water, and, when they have become soft, the filaments of several cocoons are united, guided to the reel, and wound off together.

**Silk Reeling:** The silk as formed by the worm is so very fine that if each cocoon were reeled separately it would be totally unfit for the purpose of the manufacturer; in reeling, therefore, the ends of several cocoons are joined and reeled together out of hot water, which, softening their natural gum, makes them stick together so as to form one strong thread.

**Silk Reeling Frame:** A machine used in connection with silk throwing for re-winding the thrown silk, now on spools, into skeins, to permit handling.