DICTIONARY OF TEXTILE TERMS.

Silk Rep: A corded silk stuff, the cords of which run across the width of the fabric; used for women's dresses, ecclesiastical vestments, etc.

Silk Scouring: See Boiling-off Silk.

Silk Tapestry: A fine silk textile with long, soft pile, resembling the fur of seals.

Silk Serge: A prominently twilled silk cloth, used especially for the linings of fine coats.

Silk Shoddy: Resembles wool shoddy in origin, consisting of recovered wool from manufactured silks.

Silk Tarantula: Silk material for women's dresses and men's waistcoats, woven in tartan like plaid patterns.

Silk Tests: Silk may be distinguished from vegetable fibres by burning the fibres, when it emits a smell of burnt horn. Wool gives a similar odor. When submitted to the action of nitric acid, the fibre is turned yellow. Silk is dissolved by strong alkalies. Dilute alkalies affect it, but without solution; moreover, they have no action on the fibre. Schweitzer's solution dissolves the silk fibre just as it does cotton. Silk, like wool, has an affinity for tannic acid; a solution of zinc chloride of 17 specific gravity dissolves silk, but has no action on wool. The silk is precipitated on adding water. When flax, hemp, cotton, and jute are mixed with wool and silk, the sample may then be boiled in an aqueous solution containing 10 per cent. of hydrate of soda and silk dissolves, while the vegetable fibres remain unacted upon. The whole is thrown upon a cotton filter, and the undissolved silk is then washed with hot water and afterwards acidulated with 5 per cent. of hydrochloric acid, to which, if the residue is black or dark colored, a few drops of chlorine water are added. Meantime, the original alkaline filtrate can be tested for wool with acetate of lead. If a white precipitate is formed, solution is formed, indicating the presence of wool. If the tissue is deeply colored it may be cut up and steeped for from fifteen to twenty minutes in a mixture of two measures of concentrated sulfuric acid and one of fuming nitric acid. Wool, silk and coloring matters are destroyed, while the cellulose is converted into gum-cotton. White and pale mixed tissues may be tested by their affinity for colors. They must be cleansed and rinsed thoroughly in water to remove starch and similar dressings; soaked for ten minutes at 50 to 60 deg. C. in water containing 2 per cent. of sulphuric acid, and washed again. In the meantime the color bath must be prepared by dissolving a few decigrams of magenta in 28 to 30 cubic centimetres of water, and boiled to boiling. During ebullition, caustic soda must be added to it drop by drop, till a pale rose color only remains in the liquid. The liquid is then removed from fire and the sample immersed in it for some minutes, after which it must be removed and dried. Silk and wool are dyed by this treatment, while the vegetable fibres remain colored. Wool may be detected in silk by the presence of subfibr. If it is immersed for a time in a plumbate of soda, preceding lead hydroxide in caustic soda, the silk will be colorless and the wool black; or a piece of the tissue 2 centimetres square must be boiled in 10 to 12 cubic centimetres of Schweitzer's solution. In from five to ten minutes the silk will be dissolved. If the silk is black, the dye of the same solution should be added, and the mixture soaked from ten to twelve minutes. The undisolved wool is then removed and the liquor quickly neutralized with nitric acid. Silk will remain in solution, while cellulose will be precipitated. Nitric acid is a solvent of silk, while wool leaves and cotton unacted upon for a long period.

Silk Throwing: The technical, but vague term used to include the various processes of winding, twisting, doubling, and re-twisting raw silk. For most uses, and weaving purposes in particular, the threads are united to form a new thread by doubling or twisting (throwing) together, each of the competent threads (singles) being previously twisted in order to increase its strength and give it greater roundness. The twist is in the opposite direction to that given in the doubling process. Also referred to as silk spinning.

Silk Velvet: So-called to distinguish it from other kinds of velvet, velveteen or velvetan (cotton velvet).

Silk Wadding: Produced from the waste after bourette spinning. (See Bourette Silk.

Silk Warp Flannel: It is a high grade, pure variety of flannel, woven with a silk warp and a fine woolen filling; used principally for infants' wear and shawls. It is a very soft, light-weight, loosely woven flannel and runs only in narrow widths, 27 inches. If fully this fabric is extremely soft, the texture is rendered hard and firm, the cloth thus losing its softness and elasticity. In the gauzing or napping process, it is necessary for the nap to be raised only slightly and which is commonly done in the direction of the twist of the warp. The perfection of the cloth depends not only in the smooth appearance of the cloth, but also in its full, rich softness. Sometimes this nap is raised, sheared, but more often pressed down flat upon the face of the cloth. After a thorough drying, and careful examination for defects, the goods are rolled on boards and ready for market. Used especially for undergarments, bed covering, and also to some extent for outer-garments in weights and styles adapted for that purpose.

Silk Waste: This is the floss (or outer tangled mass of silk supporting the cocoons which cannot be reeled). It appears in the reel when the reeling of each cocoon is completed; it also comprises pierced cocoons and the waste made in throwing and weaving. It is used in the manufacture of spun silk.

Silk Wool: Wool treated with an acid solution of bleaching powder, giving it a silky appearance.

Silkworm: Silkworms are divided into two classes, the Bombyx-mori or mulberry feeding worm, from the cocoons of which silk is reeled the ordinary raw silk, and the wild silkworms, which feed upon certain kinds of oak, alianthus, castor oil plant, etc. The product of the latter species (from which the Tussah worm, producing the Tussah silk, is the most prominent) was little heard of in Europe until years ago, and but for the out-break of the silkworm disease in Europe, the Tussah worm (which now gets more and more introduced the world would probably have remained in India and China, where it has been utilized in both these countries for many centuries. The principal centers for rearing the silkworm are Southern Europe, the Levant, China, Japan, and India. The silkworm exists in four stages: egg, larva, chorialis, and adult or moth.

Silkworm Gut: Used for fishing lines; the silkworms are immersed in strong vinegar for a couple of hours and then pulled apart; each of the two thick strings of strong.

Simla: The name of the first garment supposed to have been produced from wool. It was an upper garment which consisted of a piece of cloth about six yards long and two or three wide, in shape not unlike our blankets. It served as a dress by day and for bed at night.

Simple: The set of cords in a draw loom upon which the pattern was arranged.

Sina: A standard make of a Persian rug made partly of wool and partly of cotton.

Sinamay: Light, plain woven fabric, made by the natives of the Philippines of abaca fibres. It usually comes in contrasting colored stripes; used for garments by the natives.

Sindh Carpets: Carpets made in Sindh, India. These are the cheapest, coarsely made and least durable of all carpets now made in India.

Sindon: An oriental fabric of fine texture.

Sinti: Native East African name for fancy colored printed cotton shawls.

Singeing: An operation in finishing, to cut the fibers or curling (by burning) from the fluffy nap. There are two forms, gas and plate singeing.

Singeing-Plate: A device consisting of a metal heated plate, over which cloth is allowed to pass for the purpose of singeing off the nap. The cloth is moved rapidly so as to avoid scorching.

Singer: The machine by which singeing is done. Two types are constructed, viz: the plate and the gas singer. In connection with the first type, the fabric is brought close or less in contact with plates which are heated either by coal or preferably oil, while gas in the gas singer the fabric is brought close to the heating element of series of gas flames.

Single: A length of silver, roving, or yarn, in which only one strand or thread exists.

Single Cloth: Woven with one set of warp and one set of filling, irrespective of the weave.

Single: See Doubles Singles.

Single Scale: The tie up of a Jacquard loom where each end works singly.
Single Width: Same as Narrow Width.

Single Yarn: A term applied to yarn which has not been doubled or folded. It is softer to handle but weaker than the doubled or folded material.

Sinker: In connection with knitting machines, a movable bar which acts in conjunction with the sinkers in forming the loop. The sinker-bar is used for pushing the thread back on the sinkers, to be out of the path of the needle, and sufficient to insure the loop being retained by the sinkers until the proper time for casting-off, to take on the succeeding stitch.

Sinkers: In connection with a knitting machine, the projections which act in conjunction with the needles in forming the stitch. The sinkers carry the loops which the needles produce, and by their oscillating horizontal motion, cause the fibres to be drawn as far as proper tension, and by means of the tension on the yarn forming the loops keep the same out of the path of the needles while making the succeeding loop or stitch.

Skein: A length of yarn taken from the reel and made up into a hank, different in size with the fibres.

Skeining: The process of winding yarn into hanks of definite lengths other than the normal.

Skein-Wheel: A disc or cam used in connection with knitting machinery constructed upon the spring beard principle, having oblique projections that trap the yarn between the needles, in order to form the loop.

Sisal Hemp: The same comes chiefly from Mexico, where it is the principal article of export. It is cultivated in other parts of Mexico, in Central America, the West Indies, and to a small extent everywhere. It is obtained from the fleshy leaves of agave rigida, the Century plant. The fibre is obtained from the leaves and peeling the fleshy part away with a large wooden knife, or otherwise cleaning it by machinery. These fibres are strong, and not as large as those of Manila hemp, but are much used for making rope and twine. It has been also used in the manufacturer of sacking, for cotton and for hankmoths.

Six-frame Brussels: The best quality of Brussels carpet, composed of six pile warp-threads for each row of loops, even running lengthwise in the fabric.

Six Oaks: A variety of cotton, originated by J. V. Jones, Herndon, Ga., the name being the Jones Long Staple, except that the plant is less vigorous, the bolls are not quite so large, and the seeds are smooth and black, producing from 28 to 30 per cent, lint, with a staple of from 14 to 15 inches.

Six Quarter Goods: Measuring 54 inches in width.

Sixth Combing: See Britich.

Skim: Either vegetable (or animal) stiffening substances which are applied to warp yarns previous to weaving, to give them strength and solidity. Any viscous substance used in the finishing process for stiffening and binding fabrics so as to give them body.

Sizing: The process of strengthening, lining smooth and more compact the fibres of warp yarn, by saturating it with a size, for instance, to prevent chafing during weaving. Judicious sizing adds to the strength of the yarn by filling up the spaces between the fibres. Also long the loose ends on the outside of the thread to the body part. In order to accomplish this, a number of ingredients are used in the sizing, no single material used alone gives satisfactory results. The filling up of the minute spaces in the yarns and the adhesion of the fibres produces a smooth thread, with sufficient hardness to resist the continual chafing of the shuttle, reed, and harness during the process of weaving.

Sixing-Machine: In textile manufacture, a machine for sizing warp-threads, around rollers set in a trough filled with composition manufac-ture called Dressing machine or Dreser, in cotton manufacture.

Sixt: East Indian coarse, unbleached cotton cloth.

Skin Wool: This refers to wool removed from the skin of the sheep by any other natural processes and thus to partially cleansed wool; the grease and dirt being removed while the wool is still on the skin, no felting or matting of the fibre can occur and thus this wool reaches in most instances the user in a free, open condition. For this reason these wools require very little in the scouring process. The absence of natural lubricant leaves the fibre dry and wanting in suppleness, and in treating such wools the main object of the wool washer should be to replace this loss to the fibre by some other natural or artificial matter of a suitable nature. If these dry skin wools are mixed prior to washing with greasy wool, the excess of natural fats in the latter will often be absorbed by the former, the skin wool, although a fibre once robbed of its yolk can never be made as good as new.

Skip Draft: Any type of drawing-in draft, in which the threads instead of being drawn-in straight, are drawn-in on alternating harnesses, i.e., one, two, etc., having taken previ-ously to drafting again, as for example: 1, 2, 4, 1, 3, 4, 2, 3 and repeat.

Skipping Boxes: Shuttle boxes fitted with appliances for throwing the shut-tles into play in any order required by the pattern.

Skips: Flaw in cloth where a warp-thread skips over more filling threads than intended.

Skip Twills: A subdivision of the regular twills; after drafting a certain number of threads of the twill weave warp-ways or warp and filling ways, one, two, or three threads are missed, producing in turn a cut line effect on the face of fabric.

Slakener: An authentic name for the loom necessary in gauze or leno weaving, to ease up the whip-threads when doubling. Also called Easer.

Slag Wool: The same is obtained by allowing molten slag (generally from iron) to run into a pan fitted with a steam injector which blows the slag into fibres, which are washed clean and running through water. The finished product being used as a packing material.

Slanting Gobelin Stitch: See Satin Stitch.

Slasher: A machine for sizing and drying cotton warts; taking them from what is known as barn-threads and delivering them to the weaver's, i.e., loom beams.

Slaving: The breaking up of the flax fibre during its separation from the woody matter.

Slendang: See Palom.

Sley: To separate and arrange the threads in a reed for weaving.

Sley Cap: See Cap.

Slip: A section of a moss, the moss being divided by the thrower into three or more, as nearly as possible even slips for easy handling. Six cuts, 1,800 yards of linen and jute, 2,600  yards of hemp.

Slipe: Wool removed from the skin of the sheep by peeling the flesh side with lime; used for mattress, frocks, woolens, blankets, corsets, etc. Also called Frape.

Slipe Wool: This refers to pulled wool that has been removed from the outs of the sheep by soaking them in lime. The wool thus becomes full of lime and this renders the scouring process very difficult. In many cases this excess of lime in the wool is brought about by carelessness on the part of the wool puller. Those who had to scour limed wool know what an enormous amount of soap and other alkalis is of no use. The lime must be neutralized before soap is applied to such wool, and this can only be done perfectly by the use of a good method of removing wool from the pelts of dead sheep is at present little used. Pulling with the aid of sulphite of soda, having taken place, except if dealing with figured work.
Slip-stitch: A stitch in crochet work used for joining different parts of the work together; a stitch in knitting, also a stitch in darned netting, and similar embroideries on open work borders.

Sliver: The soft rope taken from carding and other preparing machines, in which the fibres have been laid more or less parallel, and evenly spread out.

Sliver Calender: A pair of large rollers pressuring into consistency the sliver as it comes from the carding and other preparing machines.

Sliver Can: A receptacle or can, generally made of paper-fibre, with metal top and bottom, into which the carded or drawn sliver falls from the machine.

Sliver Lap-machine: In cotton manufacturing, a preparatory machine for the combing which receives the slivers from a lap machine and passes them through drafting rollers (executing only a draft of about 2 or less) which form them into a single broad sheet called sliver.

Slip Padding: A printing process used on chintzes and some calicoes. The fabric is first printed with resist, after which the resist is applied to the entire face of the cloth by means of an unengraved roller.

Slip Work: The manufacture of slips on any kind of clothing; hence, any kind of clothing done poorly or superficially.

Slub: Composed of slubs or lumps—possessing various materials and colors—at various distances apart, according to the type of yarn desired.

Slubber: See Slubbing Frame.

Slubbing: In cotton spinning, the sliver after it has passed through the first fly frame, known as the slubber. A reduced top of textile material into which a slight twist has been inserted so as to prevent back-gauge or breakage. Wool slubbings vary from about 3 inches to 1 inch in diameter, and cotton slubbings from 2 inches to 1 inches in diameter.

Slubbing Frame: The same is the first machine to which the sliver of cotton, after leaving the drawing frame, is delivered, i.e., the first machine of the set of fly-frames or speeders in a cotton spinning mill. The cans containing the slivers are placed in the rear of the slubber, and the ends of two sets are passed through slubber bobbins, carried on bobbins running with the others, is then put up in the creel of the intermediate frame, where the process is repeated. Also called Slubbing Frame.

Slub Dyeing: After carding or combing, the thin film of wool fibre, in connection with worsted spinning, is dissolved into a ribbon or cloth and may be dyed in this condition either in the form of hanks, or wound into bobbins (tops). At this stage of yarn production the fibres have lost their cohesion, and, therefore, hanks or tops require careful treatment. Tops are dyed in an apparatus in which mechanical circulation of the liquor is provided for, but hanks of slubbing are treated in the same way as yarn.

Slubs: These occur when the twist in the yarn is uneven or uniform. They appear as thick places, which have received insufficient twist. They are caused by what is called thick or jammed rovings, those rovings overlapping each other (say an inch or more) which thus pass through the rollers without receiving the proper amount of twist. Also called Ogee.

Slub yarns: A fancy yarn made with slubs or lumps (possibly of different materials and differently colored) at various intervals, according to the type of yarn desired.

Slugs: Thick, lumpy spots in the yarn or woven materials. Also called Nubs or Nits.

Slur: In a knitting machine, the mechanism which travels on a bar called the slub bar, and depresses the jack spring in succession, allowing a loop of thread between every pair of needles.

Slur Bar: In a knitting machine, a straight iron bar beneath all the jacks, forming a guide on which the slur travels.

Slur Cock: The cam or wiper invented by Wilkins for lifting the jacks on the knitting frames.

Small Chain: The binder warp in a tapestry, Brussels or Wilton carpet.

Small-ware: Textile articles of the tape kind, as bindings, braids and fringes, etc.

Smalt: The same is essentially glass colored with oxide of cobalt and is obtained in the form of silica, potash and oxide of cobalt. The depth of color depends upon the quantity of cobalt oxide present. It is sometimes adulterated with ultramarine or barytes. It should, of course, be very finely ground, and its coloring powers tested, as with ultramarine. It is used as a bluing material in the finishing of cotton goods.

Smash: Synonymous with mash or trap. Sheepsmash is a small variety of medium maturing cotton from Louisiana, same as Ben Smith.

Smock-Linen: Strong linen, of which smock-frocks are made, especially in England.

Smoothness: This term is complementary to glare and brightness, and is determined by the same causes.

Smooth Peruvian Cotton: With the exception of the differences which their name indicates, there is very little else to outward appearance to distinguish between the rough and smooth varieties of Peruvian cottons, but in their character the difference is very great. In its color, it has a great deal more; whereas cotton it incorporates freely with it, and increases the productive capabilities and the range of yarns to which the latter is suitably adapted when they are blended together in one mixing. Average length of staple 1.28 inches; used for spinning 40's to 70's count. Also called Soft Peruvian Cotton.

Smyrna Carpets and Rugs: Pile fabrics of a special method of construction, made upon the so-called satellite loom. Imitative warp running are made in chenille structures, woven with pattern upon each side so as to be reversible; in large sizes, known as Smyrna art carpets.

Smyrna Cotton: Cotton raised in Asiatic Turkey, the greater portion of which is raised on the western coast in and around Smyrna. In the plant, however, is also cultivated in the Greek Islands, and the crops are similar to those of Smyrna, they are generally cleansed and spun by the weavers. Some deliveries of these cottons are rather dirty, more especially in the lower grades, but on the whole they may be termed clean. The color is of a dull white, which of course does not improve their appearance, but, on the contrary, makes them look dirty, whatever they really are. The fibers being only of a medium strength, they are better adapted for the composition of filling yarns, the counts not exceeding 42 hanks to the pound. Average length of staple 1 inch.

Snarling Motion: This is the term applied to those motions of the mule which have for their object the keeping of the rollers out of gear a little after the carriage has commenced its outward travels.

Snarl: Small twisted loops of yarn, hence, any complication, entanglement, or confusion. Caused frequently by bad winding in the mule, which may sometimes result from faulty spindle-blades, the tops of which interfere with the coiling of the yarn on the coil.

Stitches: Places where the yarn is almost cut through. They are attributable to the use of badly covered rollers, or to over-weighting. Sometimes they come to the deri by being too wide in the setting for the length of staple spun, thus causing undue stretch in the yarn.

Snowflake: In England, woollens having white nubs on the face. (See Bourretye yarns.)

Soap: Chemically a soap is a metallic salt of a fatty acid. Animal oils and fats and certain vegetable oils consist for the most part of these acids, and when they are treated with caustic alkalies, under the proper conditions, they form soaps and are formed. There are three kinds of soaps, viz., soft soaps, hard soaps and insoluble soaps.

Soft Soaps, commonly known as potash soaps, are those which are formed when the caustic alkalies, usually in the shape of potassium carbonate and sodium carbonate, are fused together in the presence of water in the manufacture of soap. These soaps are the most soluble and have less felting action when used for scouring wood; therefore should be used in preference to other soaps for this purpose. As they have so little felting action, they should only be used for fulling in special cases.

Hard Soaps are those made with caustic soda, and as they cause wool to felt when scouring with them, are not suitable for this purpose but are well adapted for scouring cloth. Insoluble Soaps are those formed from other metals, besides potassium and sodium. When water containing in solution lime, chalk, or chalky water is used for scouring, etc., these insoluble soaps are formed, which are worthless.

Soap Powders: These consist either of desiccated powdered soap or ordinary soap reduced to a state of fine division and mixed with such substances as carbonates of soda, silicates, borax, etc. The former class contain a high percentage of fatty acids and correspondingly little
water. The fatty acid content is, however, rather variable, and they should always be bought on analysis. The latter class of powders have of course nothing to recommend them and must be regarded merely as adulterated soaps.

**Soap Value:** The value of soap is determined by the amount of fatty matter in the soaps as against the alkali and water.

**Sochs:** Raw cotton from the Levant.

**Sock:** A knitted covering for the foot, covering the leg.

**Soda:** Usually sold as a white powder (Soda Ash, Solvay or Ammonia Soda) or in the form of crystals (soda crystals, crystal carbonate). It is produced principally for the older Leblanc process, or the more recent Solvay or ammonia process, and nowadays also by electrolysis. Before the introduction of the Solvay process Leblanc soda was very often impure, whereas Solvay soda, as it is now supplied, cannot contain any chlorine impurities over from the manufacture. Ammonia soda is, therefore, frequently preferred, but Leblanc soda has likewise been used in large quantities in Dyeing Colors, Immediatal Colors, Alkaline Blus, etc., for neutralizing acids, preparing soaps, and other purposes. In wool scouring, soda is used to remove grease (caustic alkaline harmful); in calico-bleaching and linen-bleaching for fixing metallic oxides on the fibre (tin oxides on silk); in alizarine-dyeing for singeing and fixing alumina and chromium oxide on the fibre; to neutralize alum (Turkey red); in dyeing cotton with bluegreen (logwood blue) in dyeing with the benzidine dyes, etc. Used also in scouring wool and as a bleaching agent for vegetable fibres; used also in weighting silk to fix tin salts. Also called Sodium Carbonate or Carbonate of Soda.

**Carbonate of Soda (See Soda Crystals).**

**Soda Ash:** The same is crude, unrefined sodium carbonate. It is liable to contain many impurities, such as caustic soda, sodium sulphate, chlorite and sulphite, iron oxide and alumina. Used in Lye Boiling in the Bleaching of Cotton Goods. Soap soda is preferred for scouring of woollen, knit goods. 106 lbs. soda ash is practically equivalent to 280 lbs. of soap ash.

**Soda Ash Boil:** The clearing process in bleaching.

**Soda Crystals:** A crystallized soda containing about 63 per cent. crystal water, and of denominations of Glauber's salt, but no deleterious impurity. It contains mostly about 36 per cent. pure sodium carbonate. Since soda ash of better quality is obtainable, soda ash of poorer quality is not used much nowadays in dye-houses, as it is too expensive comparatively; the only advantage it possesses over good soda ash is that its strength is nearer always the same and that it dissolves quickly in water without forming lumps. Also called Sodium Carbonate, or Carbonate of Soda. (See Soda.)

**Sodium Acetate:** This salt forms clear, very readily soluble crystals which decompose but very little. It serves for neutralizing free mineral acids, forming their salts and liberating free acetic acid. It is used, for instance, in the coupling and also in the developing Paranitranil Red, i.e., in the preparation of the solution of the diazotized Paranitranil or Ni- troso. For union goods which have been cross-dipped and bath, a final impregnation with acetate of soda is very useful for preserving the strength of the cotton fibre, and an addition of 1 oz. to the last bath used for rinsing union goods dyed with Immediatal Black is always advisable. The same is used in calico-printing and wool dyeing. Also called Acetate of Soda.

**Sodium Aluminate:** The same is very restricted in calico-printing.

**Sodium Benzoate:** A coal-tar product.

**Sodium Bicarbonate:** An acid salt of a hydrosopic nature, generally more impure than its potassium salt; it contains more normal carbonate and requires more care and labor to prepare. The potas- sium salt is generally obtained in a very good quality. The sodium salt is also used with reluctance in printing, since it is used in very bad hands; in wool dyeing, on the other hand, it is preferred because it is cheaper and more easily soluble. Used in calico printing, it is a good dyeing mordant in wool dyeing, as a developer in dyeing and printing with aniline black. (See Potassium Bichromate.)

**Sodium Bisulphite:** A white crystalline mass very soluble in water. In a dilute aqueous solution this salt gradually dissociates into neutral sodium sulphate (Glauber's salt) and free sulphurous acid. This product is used in wool dyeing instead of a mixture of sulphuric acid and Glauber's salt as a slowly acting sulphuric acid for gilding the dye liquor; it increases the affinity of the fibre for the dyes. Also called Bisulphite of Soda.

**Sodium Borate:** Borax—Na₂B₄O₇·10H₂O.—mol. wt. 382. White crystals or powder soluble in water. It is a mild alkali, sometimes used in the dyeing of wool in order to prevent the color from going too heavily on the wool. It is also used in conjunction with alkaline blues in the colouring of pale sky blue shades on union material.

**Sodium Carbonate:** Soda ash—Na₂CO₃.—mol. wt. 106. (See Soda.)

**Sodium Chlorate:** Used in oxidizing aniline black.

**Sodium Chloride:** See Common Salt.

**Sodium Chloride of Common Salt:** NaCl, used in cotton finishing to mixings for the sake of its hygroscopic properties, and impart a crisp handle.

**Sodium Ferrocyanide:** Used in dyeing with Prussian blue.

**Sodium Formate:** Sodium formate possesses similar properties and is used for the same purposes as acetate of soda. It is marketed in a very pure form. Also called Formate of Soda.

**Sodium Hydroxylith:** Hydroxylith chrome powder. It is a very powerful reducing agent, and is used chiefly for dissolving and dyeing Hydron Colors. As it has a destruct-ive effect on a good many colors, it may be used also for stripping the color off dyed materials. For this purpose the solution may be prepared for direct use by pouring a solution of 10 grams bisulphite 64 deg. T.wo, and 10 gallons cold water over 10 lbs. zinc dust, stirring for a short time, allowing to settle, and using the clear liquid obtained. Filtered if necessary. For every 100 gallons water, 4 to 6 gallons hydro- sulphite and 5 gallon acetic acid are added; enter the goods at 50 deg. C. (120 to 140 deg. F), and work for 1 to 4 hours until the color is stripped enough; then rinse well. Also called Hydrolith, or Acid Hydrolith.

**Sodium Hydrosulphite:** Caustic soda—caustic—NaOH.—mol. wt. 40.—White powder or fused mass, soluble in water. Very Corrosive. Used in the boiling off of cotton for bleaching and in soap making. Also used in mercerizing of cotton yarn.

**Sodium Hypochlorite:** Sodium hypo- chlorite is known for its form of its aqueous solution, which is produced either by the electrolysis of common salt or by mixing the solutions of chloride of sodium and soda. Hypochlorite of soda, like chloride of lime, is used for bleaching vegetable fibres, but is not suitable for coloring the wool. It is used with chloride of lime, it offers the advantage that it can be easily obtained in form of a clear solution free from lime. Hypo- chlorite of Soda or Eau de Javelle.

**Sodium Nitrate:** Sodium nitrite forms small crystals freely soluble, but not deliquescent in the air, and containing 95 to 98 per cent. of this salt is used for diazotizing dyestuffs to be developed, its action being based on the liberation of nitrous acid by the addition of mineral acid, as hydrochloric or sulphuric acid; nitric acid has not the same effect. For one part of nitrite, 2 parts of hydrochloric acid, 32 deg. T. w. or sulphuric acid are used. Its value is estimated by the percentage of nitrite. Heavy metals are frequently found as impurities. It is also called diazotized colors, ice colors, developed colors, etc. In dyeing and calico-printing several of these color- ing matters are largely used (i. e., paranitraniline red). Also called Nitrite of Soda or Nitrite.

**Sodium Peroxide:** A white powder very sparingly soluble in water which contains in its pure state 10 per cent. active oxygen. More recently it is manufactured also in a crystalline form. It re-acts alkaline, and on being heated, easily oxidizes, thus exercising a strong bleaching action, similar to hydrogen peroxide. On this account it is recommended as a bleaching agent in substitution for hydrogen or sodium peroxide, and also as an addition to washing powders. It has the advantage over the form of excellence of being lower under the latter of safety in its application, which is also easier, because the product is simply put into the aque- ous bath without the addition of acid. Also called Peroxide of Soda or Peroxide.

**Sodium Phosphate:** Used for bleaching silk.

**Sodium Phosphate:** It is often contaminated by sodium chloride, sul-
phate and carbonate. Its value depends on the percentage of phosphoric acid and the basicity. It is used in Turkey red dyeing instead of cow and sheep dung (which are now almost entirely replaced by sodium phosphate arsenate and silicate); with wood colors (a more brilliant black) in silk dyeing for weighting and dyeing iron (4 degrees to 6 deg. B.) instead of, or together with, soda; sodium phosphate is better than soda for weighting purposes, but it gives the fiber yellow-iron, and overloading the fibre with phosphoric acid may be harmful. In dyeing with azo dyestuffs, as a fixing agent for the aluminium mordant in the dyeing of turkey red. In this instance it is used to replace the cow and sheep dung baths of the original method. Its use in calico-printing in connection with the benzidine dyes depends upon its brightening effect. Used in weighting silk and wool and in producing the azo colors and turkey red. Also called Phosphate of Soda, Secondary Sodium Phosphate or Neutral Sodium Phosphate.

Sodium Silicate: Silicate of soda, as a rule, is a colourless or slightly tinted glassy mass or as a thick aqueous solution, frequently containing an excess of caustic soda derived from the manufacture. It is very easily soluble in water, but not deliquescent; the solution decomposes, particularly under the influence of carbonic acid from the air, and separates silicic acid. Silicate of soda is an alkaline salt, and is used for the weighting of silk and other materials that are largely employed for fire-proofing and water-proofing textile materials. Used in the peroxide bleaching baths in order to make the bath alkaline. Also called Silicate of Soda or Soluble Glass.

Sodium Stannate: Commercial sodium stannate contains 30 to 44 per cent of stannic oxide; its impurities are caustic, common salt and iron, occasionally it is adulterated with arsenic and tungs te. It should dissolve with little residue as powdered tungs te is free from iron and as not be too alkaline. Application — As a mordant for azo dyestuffs (4 deg. to 5 deg. B.,) followed by a bath of neutralized sodium stannate. To remove the last traces of alum + 10 grammes of crystallized soda in 1000 c. c.) it was formerly used for weighting silk, but has now been entirely replaced by stannic chloride; in printing on cotton and wool. Also called Preparing Salt.

Sodium Sulphate: See Glauber’s Salt.

Sodium Sulphide: Marketed in two qualities, the finest or so-called concentrations of sodium sulphide consists of brownish crystals containing 32% of the substance. The sodium sulphide and in addition water of crystallization. The concentrated product has usually double the strength, and is sold in tablets or in small irregular lumps. Sodium sulphide is used for dissolving Sulphide Colors. One lb. of fused sulphide equals 2 lbs. of sodium thiosulphate.

Sodium Thiosulphate: Used in calico-printing to fix metallic oxides; in dyeing as a resist for aniline black; in bleaching; in mordanting silk (6 to 8 per cent of alum + 4 per cent of thio-
sulphate); in dyeing wool with eosin; in washing clothes; for precipitating finely divided sulphur upon wool for metal and malachite greens (Lauth). Also called Antichlor, Hypochlorite of Soda, Hypo or Hypochlorite of Soda.

Sodium Tungstate: The same possesses historic interest as an oxidizing agent (instead of chrome). Chromium tungstate was also used; also as a weighting agent for silk, fixed upon the fibre as iron or tin tungstate.

Soesjes: Light East Indian cotton cloth made in colored and white stripes; used for head covering.

Soft: A plain fabric made of Angora goat’s hair.


Softening: Breaking down the hardness of finishes in fabrics, by various machines and methods.

Softening: The name is applied to a number of preparations of highly diverse composition, some being true soaps, others merely mixtures of saponifiable fats with emulsifying salts, and also with borax, salt, soda, sulphate, etc. They are made by either boiling the finished soap with the requisite quantity of water, and then adding other ingredients, or by saponifying the fats with soda lye. Also called Softners.

Soft Finish: Fabrics, especially cottons, when finished to a size.

Softness of Wool Fibres: The same is a result of the quantity as well as the quality of voice found upon the fibre, as which nature put there both for nourishing the fibres as well as to impart the pliability known as softness.

Soft Peruvian Cotton: See Smooth Pe-

Softp Avenue Cotton.

Soft: In England, same as shoddy.

Soft Silk: Boiled-off or degummed silk. In this state, which is both the wool of mule in order to ungum the (raw) silk is made complete, the silk losing by this process from 24 to 30 per cent. of its weight, vice versa, and silk is which lose from 5 to 12 per cent. and Eru silk in which the loss is only 2 to 5 per cent.

Soft Soaps: See Soap.

Soft Wax: Woolen and worsted yarn waste that has received only a little twist, also roving and card waste, etc.

Such wastes as can be converted into the material from which they came, and used for the same purpose for which that material was originally purchased.

Soft Water: One that contains no such impurities as bicarbonates and sulphates of lime or magnesia.

Solu: Plain woven unbleached cotton sheeting, made usually 36 inches wide. 44/44.

Sofi: French for silk.

Soire Batiste: Silk batiste, one of the most diaphanous and wavy silk fabrics. May be severely plain or with self-colored dots or other tiny figures.

Soite Mitorse: Half twisted silk yarn for embroidery.

Soite Onde: A silk prepared by dou-
tling a coarse and fine thread. It is used in making gauze, to which it gives a watered appearance.

Soite: Highly finished mercerized cotton fabric; used for lining, etc.

Soile: A name attached to shiny materials, such as are largely used in the millinery trade, and satin solcil for dresswear.

Solidonia: Proprietary name for a fibre of golden and metallic whiteness and harsh feel; used for knitting as a substitute for silk or wool. It is made of a fibrous grass.

Solidonia: A bast fibre which has already found application in many kinds of textile materials. The yarn prepared from it, is claimed, has a beautiful lustre and a good tensile strength. The fibre is not used alone, but mixed with cotton and wool. Solidonia does not felt, and hence behaves like cotton when mixed with wool. The fibre can be bleached pure white, and can be dye with any dyes or colorings suitable for cotton. It is dyed at low temperatures and not above 80 to 90 deg. C., as the material becomes harder and more like the starch, the boiling point. For the same reason the material should not be dried at high temperatures. When dyeing with the direct, the addition of mordants, colors, and sulphide dyes, the addition of soap advantages maintains in the soapy soft handle of the goods and aid in the production of a clear finish. In the case of the direct colors 10 to 20 per cent. of sulphate of soda and 1 to 2 per cent. of soap are added to the dye-bath, into which the material is introduced at 40 to 50 deg. C., slowly warmed to 80 to 90 deg. C., and dyed for one hour. The developed direct colors are dyed in a similar way, then dried and finished.

Solisooty: East Indian soft cotton muslin made of slacks twist yarn.

Solomon Bar: In macramé lace, four threads braided together forming a single thread.

Soluble Aniline Blue: See Alkali Blue.

Soluble Glass: See Sodium Silicate.

Soluble Oil: See Olein.

Soluble Starch: The same is prepared by the prolonged boiling of starch with water or by the action of mineral acids. When made by the latter method, the product is washed thoroughly and washed to remove the last traces of acid. It is always advisable to re-wash it before use. This is easily done by mixing the starch with cold water containing temporary hardness and allowing it to settle. The carbonates of the water neutralize the temporary hardness. After settling, the supernatant water is drawn off and the process repeated until the water shows no trace of acid. A soluble starch, when boiled in a cream with cold water and poured into boiling water, should completely dissolve and should not set when cooled. If it forms a jelly, it indicates the presence of unchained starch. Used as a stiffening material in cotton finishing.

Solvay: See Soda.

Somerset Sheep: An English breed of sheep, a variety of the Dorset sheep, but more Leicester in character, differing from the Dorset in having a pink nose, and in place of black a white; the wool is also longer and heavier.

Soots Romal: East Indian cotton shawls with colored stripes or windowed plaid.

Sore Shin: One of the diseases the cotton plant is subjected to; due to infectious diseases. These are names applied to a very common disease which
causes young plants to rot off partially or entirely at or near the surface of the ground. Sometimes the tissues undergo a soft rot, which progresses very rapidly, and the early stages are not always easily recognized. Another phase may progress rapidly or slowly and is usually quite well characterized by a reddish-brown color on the stem which accompanies it. This phase is also characteristic in that it is usually manifested on one side of the stem in the form of an ulcer, which gradually deepens until the vascular system of the stem is reached, when the life of the plant becomes really endangered. Even when this stage is reached, however, the plant may and does grow, though the growing tissue is necrotic. This latter phase is characteristic of a very common disease of seedling cotton. It is called 

Sorghi shik. The term is sometimes applied to injuries upon quite large stalks of cotton, but it should not be confused with the sorghi shik of seedlings which is caused by the larvae of a fungus. The fungus which is responsible for the phenomenon of damping off is Pythium debaryanum. The diseased portion of the stem lies beneath the third leaf of the ground and presents an area of shrunk tissue of a dull brown or reddish color. It does not show an early death, but frequently death results. Also called Damping Off or Seedling Rot.

Soria: Harsh raw wool from Spain.
Sorter: One who sorts or divides wool into its various qualities.

Sorrell: The weaving up of fleeces of wool into the various qualities. These qualities range from six or eight in number in long wool, and from three to nine (according to breed) in short wool. Sorting is necessary to obtain the maximum spinning result from any given material.

Sorting Board: The table on which the wool is sorted.
Sosqui: Native Mexican name for the heuenqen of Yucatan.
Soucha: Chinese silk crepon with blue silk.
Souffle: Large designs of crepe, showing a raised or puffed appearance; from the French, for puffed-up.

Soumak: Woolen tapestry rugs woven in Transcaucasia. They come in all sizes. The design is geometrical. The hook is often used, the stitches being made in the heenqen-bone fashion. It is also called Kashmir. Modern Soumak Rugs are made in loose weave and with coarse dye.

Soundness of Fibres: This characteristic quality of fibres signifies its elasticity or strength. It is readily ascertained in practice by drawing a few fibres out of a lot and grasping each singly by this upper end, pulling until they break. Special apparatuses are also constructed for thus testing the soundness mechanically, at the same time registering the breaking strain. In either case two or more tests are made to obtain an average.

Soupil: A dull effect obtained in silk decay caused by only a small portion of the gum. Also called Mi-cuit.
Soupil Silk: See Bolling-off Silk.
Sourbaies: White or yellowish Persian raw silk of fine quality.
Sourcing: Two of the processes of bleaching cotton, yarns or fabrics by the chlorine process. Brown sour.

White sun, i.e., acid treatment before and after checking. To decompose any lime soap that has formed and wash out the lime. 

Soutache: A very narrow, flat braid, made of wool, cotton, silk, or tinsel; sewn upon to give decoration, usually in fanciful designs.

Southem Sheep: The same was originated in Devonshire county, England, in the neighborhood of the Vale of York and up to the borders of Dartmoor. From thence they have extended into Cornwall, where they are extensively bred and have been improved by crossing with Leicesters. They somewhat resemble the Romney Marsh sheep, but with brown faces and legs. Crossing with Leicesters has removed this color as well as materially improved them in every other respect, so that they fatten earlier, and a finer and more silky fleece is obtained. The quality is moderately fine and the staple long. The fleece weighs about 9 lbs.

Southdown: One of the most valuable of short sheep in the British isle of England, and one of the most valuable sheep of that country, being raised in Sussex, Kent, Hampshire, and Dorsetshire. This breed has also become naturalized in the United States, and its characteristic dark face and compact fleece have left their mark upon a large portion of our native breed. It possesses a fine hair, is close and wavy and fairly sound in staple, but rather deficient in felt qualities. The shorter varieties are made into flannels and other light-weight fabrics, while the longer qualities are used in the production of worsted goods. The Southdown fleece averages from 4 to 5 lbs.

Southern Hope: A cotton plant originated many years ago by Col. F. Robinson, and the seed said to have come from Peru. Plant pyramidal, limbs strong and straight, prolific; bolls large, pointed, maturing rapidly, containing from 30 to 50 per cent. of lint from 1 1/2 to 11 inches. One of the best types for the southern cotton belt, but maturing too late for northern climates.

Southern Wool: Those produced in the United States in New Mexico, Arizona and Colorado.

Sow Box: The receptacle on the slasher for holding the sizing material.

Spanish Broom: The broom plant fibres have been used for cordage purposes: according to London, some of the earliest ropes were made from the fibres of this plant. It grows profusely in dry hilly situations and on railway banks in Spain, where it is conspicuous for its yellow butterfly-shaped blossoms.

Spanish Dagger: See Dagger Fibre.


Spanish Merino: The fine wool derived from the merino sheep, a native of Spain, and which is sorted there into four parcels, as follows: (1) the religa or the richest wool (pick-lock), begins at the withers and extends along the back to the setting on of the tail, reaches only a little way down at the quarters, but dipping down at the flanks, tails in at the superior part of the chest, and the middle of the side of the neck to the angle of the lower jaw. (2) The fleeces being a valuable wool but not so deeply serrated or possessing so many curves as the first mentioned sort; it occupies the belly, and the haunches and tail of the stile-join. (3) The terceira, being found on the head, the throat, the lower part of the neck, and the shoulders. Terminals in wool bulbus also the wool yielded by the legs, and reaching from the stile to a little below the hock. (4) The inferior grade of wool procured from the tusks of the head and checks from the tail and from the legs below the hock. A characteristic of the merino is what is called prepotency, that is, the power of imparting its excellence to inferior breeds with which it is crossed. Among the different varieties of merinos described by crossing the best. The soumak with inferior breeds of other countries are the Saxony, the Prussian, the Silesian, the Hungarian, the French, the British, the Teutonic, the Australian merinos, etc.

Spanish Stitch: In embroidery, cross stitches arranged in a row to form a line on the face of the fabric and squares on the back.

Spanish Stripes: A light-weight, wide and full-blown woolen cloth, originally made of Spanish wool with striped selvage, now made mostly in England. It is light, very soft and well finished with a light nap.

Sparterie: Woven work made from the fibre of the cepearo; also, the articles made of this material, as mats, baskets, ropes, nets, and mattresses.

Speck: A small portion of any kind of foreign substance that has not been carded from the stock before spinning. To dress finally woven fabrics, as by touching spots of foreign origin or color, to that of the fabric, with a specially prepared spiking ink, using for this purpose a soft, coarse pen, or a brush.

Speckness: See Loussiness.

Speckle: Uneven dyeing in yarns or cloths.

Spectrum: The result of the decomposition of a ray of sunlight into all the colors which form it; the streak of colors formed by a ray of light that has passed through a prism, or over a diffraction grating.

Speeders: See Fly-frames.

Spermaceti: A solid white crystalline fat, reduced from oil obtained from the bale caves and whale plants growing in the spermaceti, whale, which melts at a temperature ranging from about 115 deg. to 122 deg. F. Used in cotton finishing in the same way as wax or stearine.

Spiders: A kind of hne gauze in which an extra thick warp is woven with the ground.

Spider Stitch: A stitch in lace or netting, in which the arrangement of the threads somewhat resembles that of the threads in a spider's web.

Spider Weave: Name for weaves producing a net-like effect on the face of the cloth by floating and deflecting either the warp or the filling threads.

Spider Web: See Colweb.

Spider Work: Lace worked in spider stitch.