

DICTIONARY OF TEXTILE TERMS.

(Continued from September issue.)

Carbonaceous Acid: See Carbonic Acid.

Carbonate of Soda: See Soda.

Carbondioxide: See Carbonic Acid.

Carbonic Acid: A compound of carbon and oxygen formed during the combustion of charcoal. It is gaseous, colorless and cannot support respiration or combustion. Called also *Fixed Air*, *Carbonaceous Acid*, *Calcareous Acid*, *Aerial Acid* or *Carbondioxide*.

Carbonizing: To change burrs and other vegetable impurities in wool or woolen cloth and which cannot be removed successfully or economically in a mechanical way, into carbon, and thus remove them. It is also used for rags, in order to remove cotton threads, etc., from them, so as to make them *all wool*. The process of carbonizing is based on the different behavior of animal and vegetable fibres in the presence of certain chemicals, such as dilute sulphuric acid, gaseous hydrochloric acid, and certain metallic salts, such as the chlorides of aluminium and magnesium. The carbonizing process was first introduced in the United States in 1875, though it made but slight headway against the old burring method until after 1880.

The Sulphuric Acid Process consists in steeping the burry wool in a bath of the acid with the strength of 2 to 4 deg. Tw. until saturated, then squeezing and drying. During the drying, the acid on the fibres becomes more concentrated, and the vegetable matter present is disintegrated or practically burned up, and is afterwards removed in the form of dust by shaking or beating. This process is known as liquid or wet carbonizing.

Dry or Gas Carbonizing consists in treating the burry wool with hydrochloric acid gas in a heated chamber, the action of the acid being the same on the vegetable matter as with sulphuric acid.

Another method of Carbonizing is by the use of certain metallic salts, such as magnesium chlorides, aluminium chlorides, etc., instead of acid. When using chloride of aluminium, the wool to be carbonized is entered in a chloride of aluminium bath from 6 to 7 deg. B., and carefully handled, and the carbonizing fluid permitted to operate for a few hours. The wool is then taken out, hydro-extracted, dried at a medium temperature, and entered into the carbonizing chamber, which is heated to 90 deg. C., and in which the wool is left for one hour, during which time the vegetable matter is disintegrated. The remains of the vegetable fibres, *i. e.*, dust, is then removed from the wool by beating, after which the wool is washed in soft water with fuller's earth, and the soluble chloride of aluminium is readily removed. This process is not as liable to be injurious to the fibre as the acid process.

For the Carbonizing of Waste or Rags, the Sulphuric Acid Process is used almost exclusively on account of its comparative cheapness. The mass of rags or waste is steeped in a solu-

tion of sulphuric acid, and then heated in an enclosed chamber, the effect of which is to destroy the vegetable fibre, and leave only cinders or dust, which disappears when the material is afterwards subjected to a thorough washing, any acid on the stock being removed by this process at the same time.

Card: A strip of stiff cardboard, perforated according to the weaving pattern and placed on the cylinder of the Jacquard machine, for operating needles, hooks and the Jacquard harness.

See Carding Engine.

Card Clothing: Leather or other stiff material holding wire staples, the points of which project outwardly and form the carding teeth which operate upon the fibres. Cylinders, the various rollers, or the flats of a carding engine, as the case may be, are covered with it.

Carded Cotton: Cotton as delivered by the carding engine in the form of a sliver.

Carded Silk: Waste silk and such as is worked up from imperfect cocoons, which has been boiled-off and passed through a card. It is used in the manufacture of spun silk.

Carded Sliver: A material coming from the card usually in the form of a long narrow ribbon composed of thoroughly disentangled fibres.

Card-grinding: Shaping and sharpening the points of the wire teeth of the card clothing on cylinders, rollers and flats.

Cardigan: A knitted woolen jacket.

Carding: To comb out, dress or cleanse by the action of the clothing of the carding engine, cotton or wool fibres, or silk, flax, jute waste, etc., previously to drawing, combing or spinning the carded sliver.

Carding Engine: The machine which does the carding of cotton or wool; or wool, silk, flax, jute waste, etc. In connection with cotton spinning a single machine is used, known as the Revolving Flat Card. In connection with woolen spinning, three separate machines are used, *viz.*: First Breaker, Second Breaker and Finisher Card. With worsted yarn, only one card is used, a large double card with two main cylinders, known as a Worsted Card. In connection with wool, silk, flax and jute waste, special built carding engines are used, to suit the respective processes. The inventor of the carding engine is not positively known. Lewis Paul, to whom the same is generally attributed, patented in 1748, in England, two different machines for carding, in one of which the card teeth were arranged on a flat surface and in the other on a drum. Also called *Card*.

Carding Wool: Short-fibre wool, suitable for spinning yarn on the woolen system. It is possible to spin these wools to 60's cut count, but in practice they are seldom spun finer than 30's cut count.

Card Waste: As the name indicates, the final waste made during the carding process, and which is reworked into a lower grade of yarn.

Carmine: A beautiful red precipitate of the coloring matter of the cochineal. A rich red crimson color with a shade of purple.

Carminic Acid: The same is obtained from the cochineal insect *Coccus Cacti*, and the purified acid exists as a red, or brownish-red amorphous powder, readily soluble in water and alcohol, but difficultly soluble in ether. It has the properties of a weak, dibasic acid, forming easily soluble salts with the alkalis, but insoluble violet or purple compounds with the alkaline earths and metallic salts generally. Carminic acid is far more sensitive to bicarbonates of alkaline earths than litmus, and according to Draper it gives a reaction in alkaline solution of 1:400,000, while the reaction is only slightly influenced by carbonic acid gas. Its sensitivity is tested by adding 0.5 c.c. of a 1 per cent. solution to 100 c.c. of distilled water, and observing how much centi-normal ammonia, or centi-normal hydrochloric acid is required to give a change of color. When properly made, it should not require more than 0.6 c.c. of the acid, 0.8 c.c. of ammonia, or 2.8 c.c. of centi-normal NaOH. Alkalis turn carminic acid purplish-red; acids a yellowish-red.

Carnauba Wax: The same belongs to the vegetable waxes, which are produced as exudations from the leaves of trees. It is obtained from the leaves of the carnauba palm tree which flourishes in South America. It is a very hard, brittle substance with a slightly yellowish color, though it may be bleached quite white. It has a remarkably high melting point, ranging from 80 deg. to 84 deg. C. It does not melt readily with water, but in the presence of an alkaline carbonate an emulsion may be obtained which has very marked stiffening properties. It may be saponified by prolonged boiling with alkali, and the fatty acid obtained by precipitation in a fabric. The fatty acid (carnaubic) has a melting point of 72.5 deg. C. The zinc soap made by treating a solution of the sodium soap with zinc sulphate is a white substance, which, unlike other soaps, does not decompose on keeping, and is a very good filling or stiffening material; used in the finishing of cotton goods. Also called *Brazilian Wax*.

Carpet: A heavy, figured fabric of wool or other fibre, used for the covering of floors. Several varieties of carpet are named from their material, as Paper carpet, Rag carpet, etc.; others are Ingrain or Kidderminster carpet, Brussels carpet, Tapestry carpet, Wilton or Velvet carpet, Axminster carpet, Felted carpet, etc.

Carpet Wool: Coarse wools from southern Europe, China, Persia, Russia, Scotland, Turkey, etc.

Carrageen Moss: The same is sometimes erroneously called Iceland moss; it is a greyish-white, transparent, lichen, conglomerated like horn, and dissolves almost completely in boiling water. Strong decoctions gelatinize. This substance has been on the market since about 1830, and is obtained on the North Atlantic coasts.

chiefly on the west and north of Ireland, the south-west coast of Scotland and on the coast of Massachusetts. It is used in sizing yarns and dressing fabrics. Also called *Irish Moss*.

Carreau: Square. The french word for Check.

Carriage: The front part of the mule frame, which moves in and out, carrying the spindles, faller wires, and other appliances.

Carriackmacross Lace: Tiny Irish cambric drawn-work, appliqué on net.

Carrier Rollers: Rollers in a drawing or spinning frame which act (and carry the silver) between the back and front rollers.

Carrying Comb: The device of the nip comb, in the process of wool combing by this system, which carries the wool from the nip to the circle.

Carthamine: The coloring principles of the safflower. Its two principles are yellow, very soluble in water, and of little value; the other red, soluble only in alkalis from which it is precipitated by acids and exceeding in delicacy and beauty as it does in costliness any color which can be obtained, even from the costly cochineal. It is not very fast and can be used for dyeing silk and cotton.

Cartisane Lace: Guipure or passementerie made with thin silk or gilt-covered strips of parchment.

Caruto: A bluish-black dye obtained from the genip-fruit, a shrub of the West Indies and Guiana.

Casein: When milk is allowed to ferment under the influence of the lactic acid ferment, it ultimately curdles owing to the precipitation of casein. The same result may be obtained by treating the milk with rennet or a dilute acid. If the curd is filtered off and washed, fairly pure casein is obtained. The milk does not itself contain casein, but an albuminoid body termed caseinogen, which is readily transformed by acids, and ferments into soluble casein. This caseinogen may be obtained from milk by removing the fat by means of a separator and saturating the liquid with magnesium sulphate which causes its precipitation. The precipitate when dissolved in distilled water and acidified, yields casein. Casein is readily obtained from skim milk by treating it with 0.1 per cent. of acetic acid. The resulting precipitate is filtered and washed. It is then dissolved in dilute caustic soda and filtered till nearly clear, after which it is again acidified. The resulting precipitate of casein is collected, washed, and dried. If a fat-free powder is required it should be washed with ether, before drying. Casein may often be used with good results for stiffening cotton goods when finishing the latter. It may be first soaked with water till swollen and then added to the remainder of the dressing mixture. A better plan is to dissolve it in a little mild alkaline solution, such as borax or sodium carbonate. Goods may be treated with this solution and subsequently passed through an acid bath to coagulate the casein, after which they are washed and dried. If a waterproof dressing is required, formaldehyde casein may be employed. The solution of the proteid is mixed

with about 2 per cent. of formalin and the goods afterwards slowly dried, when insoluble formaldehyde casein is obtained, or the casein may be first applied and the goods subsequently treated with a formaldehyde solution and dried. In using commercial solutions of formaldehyde, any free acid must always first be neutralized. It is also used in calico printing for fixing colors, as a substitute for albumen; it is not coagulated by steaming, and can only be used for colors requiring a moderate degree of fastness.

Casement Cloth: Fabric used for casement window curtains; commonly white or cream, sometimes plain, sometimes stencilled with a design. Mohair, alpaca, lustre, and all-cotton fabrics, all go by this name on occasion.

Caseo-gum: This is a solution of casein in lime water, and is used as an adhesive, though more particularly for impregnating cotton and linen goods, which then, on exposure to the air, absorb carbon dioxide, so that the fibre is animalized by the deposition of casein and can be more easily dyed.

Cashmere: The pure under wool from the Cashmere goat, a native of the vale of Cashmere in the Himalaya Mountains. The fur of the cashmere goat is of two sorts; *viz.*, a soft woolly undercoat of grayish hair, and a covering of long silken hairs that defends the interior coat from the effects of winter. The woolly undercoat is the substance from which the cashmere shawls are woven.

When applied to hosiery or underwear, it means goods made of fine worsted yarn, spun from soft wools.

Cashmere Cloth: A fine, light texture; warp of cotton or wool, filling always of a fine botany yarn; weave the 3-harness filling effect twill. The warp is set fairly close, although a great number of picks per inch are inserted, producing what is known as the *cashmere twill* or *plain back*.

Cashmere Shawl: A fine costly shawl, figured or embroidered; made in Cashmere from yarn hand-spun from the soft wool fibre of the cashmere goat.

Cashmere Silk: A broad silk fabric, with a fine twill, finished to resemble cashmere.

Cashmerette: A soft, lustrous dress goods, resembling cashmere, but sometimes made entirely of cotton.

Cashmere Twill: The 3-harness filling effect twill.

Casing: Wool is "cased" when fleeces of similar quality are classed together—as by throwing into a case or bin. Cased fleeces are virtually selected fleeces, from which the inferior ones, originally found in the same bale, have been excluded.

Cassimere: A name applied to suitings or trouserings made from woolen yarn and woven with the 4-harness, even-sided twill; the fabric being more or less fulled during its finishing process. Name given to almost any woolen cloth that, for one reason or another, may be conveniently classed as cassimeres by the trade. Called *Fancy Cassimere* if the fabric in question has a claim to *fancy* either by coloring, design or mix.

Cassimere Twill: The most frequently used weave in the construction of textiles; considered all around, is

the most serviceable weave. This weave is technically known as the 4-harness, even-sided twill.

Cassock: A plain close-fitting garment, reaching to the feet, worn by the clergy.

Castile Soap: The same is made from olive oil and soda; also called *Olive Oil Soap*.

Castilian Sheep: Sheep bred in the province of Castile, Spain, and the product of the same domesticated in various countries. They are the original merino breed.

Castor: A heavy, fulled, face finished, all wool fabric, used for overcoats, etc. A heavy weight Kersey, not quite as heavy as a Beaver.

Castor Oil: The same is obtained from the seeds of *Ricinus communis*. It is a colorless or pale yellow oil, sharply distinguished from most other oils by its high specific gravity, viscosity, and solubility in alcohol. It is insoluble in petroleum. Its specific gravity varies from 0.960 to 0.964, and its viscosity is higher than that of all oils except rosin oil and blown oil. It is very readily saponified by alkalis and forms good emulsions. It is largely used in the manufacture of so-called soluble oils, and as a softening agent in the finishing of cotton goods.

Catalytic: The chemical action which one substance produces upon another without undergoing change itself.

Catch-bar: A bar in the knitting machine which depresses the jacks.

The horizontal bar in the Levers lace loom used to hold the bobbin carriages coming from the comb bar.

Catechu: The *Terra-japonica*, an extract of an astringent nature, obtained from two plants, *viz.*: *acacia catechu*, a tree of great abundance in many of the forests of India, and the *nauclea gambier*, a scandent shrub, extensively cultivated in the countries lying on both sides of the strait of Malacca. From the first named plant the catechu is obtained by boiling the chips of the interior of the trunk; from the latter it is obtained by boiling the leaves. Catechu is chiefly used in dyeing browns, fawns, drabs and olives. Also known as *Cutch* or *Gambier*.

Catgut: A linen canvas with wide interstices.

Cat's Tail or Reed Mace: This is a monocotyledonous plant which grows in bogs, ditches and by the sides of brooks. The leaves are long, nearly flat, and have a bluish tint, by which the plant is readily distinguished. The seeds are finely comose, and when ripe the down easily separates; it has been used for stuffing pillows.

Catty: A Chinese weight, fixed by treaty at 1½ lbs. Also known as *Chin*.

Caustic Potash: Chemically, potassium hydroxide; a white, brittle substance, very soluble in water and deliquescent in the air; a strong alkali, used in wool scouring, also in the manufacture of soft soap.

Ceara Cotton: A production of the *Gossypium Peruvianum* species, and which constitutes a considerable portion of the entire Brazilian cotton crop. It is fairly clean. Color of a dull white, and of medium strength. Mean length of fibre 1.03 inches. Suitable for spinning from 30's to 50's warp and filling.