

The Production of Raw Silk in China.

It is well known to all concerned in the Chinese silk trade that the production of raw silk in China is steadily declining in quality and quantity. Silk is among the principal articles of export from that country, but for several years now the shipments have each year shown a falling off, and the Chinese Government will, undoubtedly, soon feel compelled to take some steps to remedy this condition of affairs.

The principal cause of this decrease is the diseases of the silk-worms, which still prevail in China. This scourge could certainly be expurgated by proper means, and the present race of silkworms improved and regenerated, with the result of producing a much better grade of silk.

The example of Japan has been repeatedly pointed out to the Chinese. The former country has obtained from France the methods of diminishing and suppressing the diseases alluded to and the means of preserving the race of worms. Nothing of this sort has been done in China, producers there being apparently content to rely upon the hardness of the Chinese worms, and to let the plague have full swing, instead of combating it, and thereby both increasing the production and improving the quality of their raw silk.

If China neglects to soon take proper measures to this end, the silkworms will gradually decrease and eventually largely disappear, as they formerly did in Italy, France, Spain, and Portugal. In former years the Chinese competed with the Italian silks and regulated the price of the latter; at present the roles are changed and the Italians occupy the first rank, leaving the Chinese far behind.

The Chinese producers, however, do not allow any meddling in their affairs, and as regards sericulture they only follow their own notions. The Government is, moreover, powerless to enforce obedience to any regulations. Possibly, however, Chinese producers may soon come to understand that their best interests lie in the abandonment of their ancient ways and in taking advantage of the methods proposed by the newly-established bureau of silk culture at Ning-po. As it is, the situation in Chinese silk production is a most serious one, and requires quick and energetic means to avert the threatening disaster.—*The Hatter's Gazette*.

Next to wool, silk is the easiest thing to dye. The anilines dyes evolved by the German chemists from coal tar give many of the most delightful tints. For the rest there is madder and Brazil wood, turmeric and cochineal, saffron, indigo, logwood, fustic, Russian blue and a hundred more.

The first sewing thread made of cotton was produced in 1794 at Pawtucket, Rhode Island. Previous to this, flax was the material used in this manufacture. The idea of sewing cotton was said to have been suggested by Mrs. Samuel Slater, who, while spinning some Sea Island cotton, noticed the evenness and beauty of the yarn it made, and suggested its manufacture into thread to her husband, Samuel Slater, pioneer of the cotton industry in the United States.

A company, to be known as the British Columbia Paper Company, has been formed with a capital of \$40,000, to make paper from wood pulp. The company have already made arrangements for the necessary machinery, which will be shipped immediately to Alberni Rapids, the point at which the works will be located. Most of the stock has been subscribed we are told.

The annual meeting of the Canada Cotton Manufacturing Company, of Cornwall, was held on Wednesday, the 27th of last month. The president, Sir Donald Smith, took the chair and read the report for the current year. Owing to the dull trade of the first six months of the year, the net returns had fallen off, sales were with difficulty effected, even at low prices, and the mill shut down for a short period. The chairman explained that despite all this, there is a strong prospect of a good future. The mills are at present running on full time with the full complement of operatives.

Mary Wilson is suing T. Eaton & Co., dry good dealers, Toronto, claiming \$10,000 damages for assault and false arrest and malicious prosecution. The defendants had the plaintiff arrested and tried on the charge of shop-lifting, but at the trial she was honorably acquitted. Hence her action.

Joseph Horsfall and Arthur Horsfall have registered as partners for the purpose of carrying on business in Montreal as wholesale clothiers, under the name of Joseph Horsfall & Sons.

Messrs. John Martin & Co., the well-known military outfitters, have issued a neat catalogue, giving illustrations of the uniforms of various regiments, which can be had free on application

to the firm. Messrs. Martin & Co. have invested an immense amount of capital in a new department for co-tuning, and have engaged first-class military tailors and costumers from Europe for these departments of their establishment. Their object is, not to rent costumes, but to make to order on short notice, and they will sell uniforms or costumes at reasonable prices.

A circular from the E. B. Eddy Manufacturing Co. informs us that the Royal assent has this day been given to an act of Parliament of Canada, shortening the name of my Company to "The E. B. Eddy Company, Limited." In making the announcement, Mr Eddy says: "Permit me to take advantage of this opportunity for addressing my whole circle of correspondents to say I sincerely trust that the relations that have hitherto existed between us, in some cases for over 40 years, may continue and increase, to mutual advantage and that your business circle and ours, may extend and increase in volume."

We notice that our old friend, Mr. M. B. Shantz, button manufacturer, of Rochester, has got into trouble under the "alien labor law," which is in force in the "land of the free." Some of Mr. Shantz's old employees have gone over there and taken positions in his button factory, which, it seems, displeased the labor organizations, who are now giving him all the trouble they can. The law under which such trouble can be made is a disgrace to the "Great American Nation," but there is nothing too small for the "statesmen" at Washington to stoop to if by so doing they can do something to injure Canada or England. What the end of this persecution of Mr. Shantz will be we cannot say, but it ought to be a warning against any of our people going over to the States expecting to get work or improve their circumstances. Stay in Canada and you will be all right.—*Berlin, Ont., News*.

The insolvent estate of Cree, Scott & Co., shirt and collar manufacturers, of Montreal, has been sold. The stock, valued at \$12,000, was purchased at 7c. on the dollar by A. H. Sims & Co., of Montreal, and the machinery, valued at \$6500, went to the Montreal Steam Laundry at 40c. on the dollar.

J. D. Dean, gen. Shidden, has assigned; liabilities, \$1,200, assets \$500.

The bankrupt stock of Radford Bros. was sold to Macnaughton & Conson, at 67½c. on the \$. They are checking off the stock for the purpose of closing it out at an early date.

In consequence of the resignation of Mr. T. V. R. Brown, who has been connected with the Granby Rubber Co. since its inception, Messrs. Ames, Holden & Co. have been appointed selling agents, Mr. Brown has gone to New York to join his brother in business.

The Direct-Dyeing Method.

Several of the many preparations recommended for dyeing direct in one bath have been adopted in practice. Among these are the direct black for wool and, to a certain extent, for cotton, the so-called indigo substitute, and various other direct-dyeing yellow and red dye products. The benzidine colors are not considered here.

The well-known color chemist, Runge, may be considered as the originator of the direct-dyeing dye-stuffs, he being the first to publish his experiments on the employment of the principle to logwood dyeing, in combination with bichromate of potash and hydrochloric acid. This kind of combination—logwood, chrome and hydrochloric acid—was new at that time, the use of the chrome being then very limited.

In my opinion, writes V. H. Soxhlett, in the *Chemiker Zeitung*, Runge's method has never found a permanent, practical application. The English patents of Dale and Caro assisted greatly in the general adoption of the direct-dyeing method, especially for cotton. Two baths were used in this method—a dye-bath, with a succeeding oxidation ageing bath. Besides the dye-stuffs in the first bath, it contained thickeners, metallic salts, and an organic acid, in order to prevent the precipitation of the dye-stuffs. The second bath contained a basic or alkaline metallic salt, whereby the dye-stuffs, which until then clung in a soluble condition to the fibre, were at once fixed insolubly. The same principle is still used for the manufacture of direct-dyeing preparations for cotton. Dr. M. Reimann described these dyeing methods for red yellow, and black many years ago. With a few modifications they can still be used to advantage, in spite of the discovery of the great number of tar colors.

The first of the manufactured direct-dyeing products was introduced by P. Watinne-Delespierre, of Lille, France, under the name "Noir Direct for Wool." In the manufacture of the *Noir direct*, Watinne started from a very correct standpoint, by producing in a correspondingly diluted logwood solution a precipitate—hematein, which is equivalent to iron and protoxide of copper—by adding a solution of iron and sulphate of copper. The precipitate obtained readily dissolves in a warm acidulated solution, and can then be fixed easily upon the animal fibre. It was