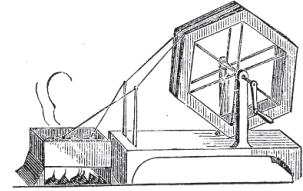


on much resembles that in use here. The moth deposits her eggs in the autumn of the year on white paper, to which they adhere. These eggs will hatch the next spring. The worms are very small at first, but grow rapidly, until at the end of six or eight weeks they are generally about two inches long, when they are ready to spin their cocoons. During their youth they shed their skins, sometimes four or five times. They feed entirely on the leaves of the mulberry. Some attempts have been made in Great Britain, at a time when the spring was persistently backward, to feed them on young lettuce and dandelion, but they have never been successful, the worm so fed not being healthy. When the creature has grown enough, it begins to make its cocoon, which it does by rolling itself into a ball and covering itself with this fine fibre. The filament from one cocoon measures more than fifteen hundred feet in length. After the worm has thus built his home, which he fondly hopes is to last, the ruthless reeler of silk throws the cocoons into boiling water, or puts them into a hot oven, to destroy the worm, otherwise it would soon become a moth and eat its way through.

The fibre is then reeled, by placing the ends of the silk upon a wheel, which, in turning, winds it off into what are called hanks.



SILK-REEL.

The next process to which the silk is submitted is scouring, to get rid of a glutinous substance with which the thread is coated. It is then dyed and becomes raw-silk, and can be twisted and woven like any other thread.

The emperors of China have always fostered the manufacture of silk in every possible way, issuing orders for the planting of mulberry-trees, the building of silk-houses, and other establishments. The emperors' wives, also, endeavored to encourage it by example, for they carried on the business of silk-breeding with the princesses and ladies in waiting. They also regularly visited and inspected the silk-houses and mulberry plantations throughout the empire. The Chinese jealously kept the secret of silk-breeding from other nations, in the same way as they did all branches of industry and science for thousands of years.

Silk-breeding extended into Central Asia, again through the agency of a woman. One of the princesses of China married the King of Kothan, and when she found that in Kothan there was no silk nor silk-breeding, she determined to lose neither her pleasant occupation of watching the worms, nor her fine silk robes; so she concealed mulberry leaves and silk-worm eggs in the folds of her head-dress, and thus managed to escape the vigilance of the frontier guards, and conveyed her precious burden safely to her new home. Gradually the use, though not the manufacture of silk textures spread over the whole of the then known world, from India to Persia. The Greeks made great efforts to discover the origin of the material, for as yet the Chinese were unwilling to part with their secret, and only sold the raw-silk, which was afterward woven in the looms of Babylon, Damascus, and Tyre, and to a limited extent in Greece itself. As thin and light garments were very suitable for the climate of those countries, silk robes woven like crape soon became popular and widely diffused. The extravagance of the Greek women was greatly fostered by the introduction of these garments. Besides, the morals of that age not being excessively strict, the gauzy textures pleased the general taste through their transparency. At first it was only women of bad character who wore them, and for a long time it was considered

Whence Came our Silks?

AT least one silk dress a year is among the absolute necessities of a woman's life. How few of those who daily wear this rich fabric know the antiquity and progress of the art of silk culture, and who grows and makes our silk dresses!

The discovery of silk as an article capable of being worn is supposed to have been made—by a woman, of course—Mrs. or Madame Si-lung-chi, wife of the Emperor Hoang-ti. Nothing is known of her beyond this fact, and that more than four thousand years ago she was enrolled in the Chinese mythology among the good genii who protect trade and commerce, by the title of Sien-tan, the "mother of silk." Owing to its fertile soil and even temperature, China is excellently adapted for silk-breeding. The method of carrying it

improper to be seen in them, especially as the satirists of that day, who answered to the newspapers of *this*, wrote against the fashion; but after a time the noble ladies of Greece and Rome bade defiance to the cofers and their ridicule. Then the silk was made thicker and heavier, adorned with gold, and magnificently *moirée*, as is now seen in *moiré antique*.

During the reign of Tiberius, *men* seem to have displayed great luxuriousness in the wearing of silk, for it was considered necessary to decree it a disgrace for a man to wear silk garments. But when his successor, Caligula, covered his throne with silken tapestry, appeared publicly in silken robes, and ordered a large quantity for himself and his courtiers, the fashion was followed by every body. This material had at that time an enormous value, being worth its weight in gold. Fortunately for the husbands and fathers of those days, gold was not worth as much as it is now. In the fifth century, the art of silk-weaving flourished greatly in Southern Europe and Western Asia. The later Roman emperors followed the illustrious example set them by their imperial brothers of the Celestial empire, and personally encouraged the art in every way. In A.D. 555, some monks brought silk-worms from Terindo, or perhaps from Kothan, and established silk-breeding in Greece, after it had been for hundreds of years the exclusive secret of the Chinese.

By the time eight centuries of Christianity had passed over the world, silk-breeding and weaving became quite common. There was then no talk of the extravagance of the habit, for the bishops and other church dignitaries had their robes made of the precious material. In spite of all this, it required nearly six hundred years more for silk-breeding to attain any importance in Europe, and the secret would probably have remained in the possession of the Greeks, had not the King of Sicily, in 1148, after his conquest of Greece, transferred to Sicily the best Grecian workmen, and established a large house for the purpose at Palermo, as a royal monopoly. One of the first Italian cities in which the trade was carried on was Lucca, where it met with great success. It seems almost as if war and silk were carried along together, though they seem so wide apart! In the war in Italy, in 1340, Lucca was destroyed, and the silk breeders and weavers were again driven away. This time they took refuge in Germany, France, and England. Queen Elizabeth made great efforts to encourage the growth of silk in her kingdom, for one womanly quality she did have—a *penchant* for silk stockings, which were first imported from Spain for her use. She was so successful that during her reign the silk trade of England became of national importance.

Once more war came to aid this industry. When Antwerp was taken by the Spaniards, in 1585, more than a third of the silk weavers emigrated to England. In France during the persecution of the Huguenots and the reign of Henry IV., the culture of silk lan-

guished very much, and it was long before the country recovered. In 1622, James I. introduced it into the English colony of Virginia. He earnestly requested that this trade might be carried on in the place of tobacco, but nevertheless the people still adhered to the growing of tobacco. A century later the silk-worm was introduced into the Carolinas, and was quite successfully managed by the small farmers. The attempts made in Pennsylvania, New-York, Connecticut, and Massachusetts were soon given up. The only real result of these experiments was, that the United States were proved suitable for silk culture. There is a species of wild silk-worm in our American forests, as well as more than one variety of indigenous mulberry. We will take one more look at France, after the convulsed period of Henry the Great. The oppressive taxation imposed on the poor to cover the senseless extravagance of the rich was a great check on French manu-

In Russia, Peter the Great spared no expense to have silk in his own kingdom, and almost of his own kingdom. It can hardly be said of him that he was "master of none," but he was certainly a "Jack of all trades," and established silk-mills and breeding-houses. These are many of them very flourishing, and the people try to think that soon they will be able to dispense with Parisian and English silks. In the United States there are improvements every year in the manufacture of silken fabrics. In the matter of plain silks, we have not yet arrived at any distinct competition with the looms of Europe; but the silk poplins made in Connecticut can compete successfully with those of either Irish or French manufacture. Indeed to suit the taste of many people, who think that if a thing comes from France; it must necessarily be better than if made elsewhere, these poplins are often marked with French names and sold as French goods.

Thus our ladies often pay more than they would, if they could be contented to accept American manufactures as such.

In Roxbury, Massachusetts, there is a ribbon-factory where they can make ribbons equal in beauty and durability to any from France. They also make the beautiful bright-colored scarfs, known as Roman scarfs, in almost as fine quality as the real article. In many other parts of our country there are extensive silk-factories which, it is to be hoped, will in time enable us to do away with our present immense foreign importations. A curious proof of the gradual spread of silk over the globe will be found in the similarity of the name given to it among the different nations, which is subjoined: China, *se*; Mongolia, *sirkeh*; Corea, *sic*; Arabia, *serik*; Greece, *σπυκόν*; Roman-*sericum*; Mediæval Lat. in, *seta*; Italy, *seta*; France, *soie, satin*; Germany, *seide*; Denmark, *silcke*; Sweden, *silke*; Anglo-Saxon, *stolk*; England, *silk*.

factures. Commercial treaties with England were of benefit to some of the other trades, but they directly injured the silk manufactories, and it was many years before the trade recovered its vitality. At the present time, France is the greatest producer of woven silk in the world, though we believe that America produces more silk wearers than any other country. Italy is still a very large breeder of the worm and exporter of the raw material. During the late war of the rebellion, the difference in the amount of silk imported into this country—on account, perhaps, of the fact that many of our women pledged themselves to wear nothing of foreign manufacture, and, above all, any thing unnecessary—was severely felt in France, but the return of peace has again caused an importation almost equal to that before the war.

In Germany, as in most European countries, the wearing of silk preceded its production. Frederick the Great may be considered the real founder of this industry. He engaged foreign workmen and granted special privileges and immunities to the planters of mulberry-trees.