

SILK, SERICUM, a very soft, fine, bright, delicate thread; the work of an insect, called *bombyx*, or the silk-worm.

The ancients were but little acquainted with the use and manufacture of silk; they took it for the work of a sort of spider, or beetle, who spun it out of its entrails, and wound it with its feet about the little branches of trees. This insect they called *ser*, from *Seres*, a people in Scythia, whom we now call the Chinese, who, as they thought, bred it; whence the silk itself they called *sericum*. But this *ser* of theirs has very little affinity with our silk-worm, *bombyx*: the former living five years; but the latter dying annually, enveloped in a yellowish bag or ball, which, wound out into little threads, makes what we call silk.

It was in the isle of Cos that the art of manufacturing it was first invented; and Pamphila, daughter of Platis, is honoured as the inventress. The discovery was not long unknown

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unknown to the Romans. Silk was brought them from Serica, where the worm was a native. But so far were they from profiting by the discovery, that they could not be induced to believe so fine a thread should be the work of a worm; and thereupon formed a thousand chimerical conjectures of their own.

Silk was a very scarce commodity among them for many ages: it was even sold weight for weight with gold; inasmuch that Vopiscus tells us, the emperor Aurelian, who died A.D. 275, refused the empress, his wife, a suit of silk, which she solicited of him with much earnestness, merely on account of its dearth.

Others, however, with greater probability, assert that it was known at Rome so early as the reign of Tiberius, about A.D. 17.

Galen, who lived about the year of our Lord 173, speaks of the rarity of silk, being no where but at Rome, and only among the rich.

Heliogabalus, the emperor, who died A.D. 220, is said by some to be the first person who wore a holosericum, *i. e.* a garment of all silk.

The Greeks of Alexander the Great's army are said to have been the first who brought wrought silk from Persia into Greece, about 323 years before Christ; but the manufacture of it was confined to Berytus and Tyre, in Phœnicia, whence it was dispersed over the West.

At length, two monks, coming from the Indies to Constantinople, in 555, under the encouragement of the emperor Justinian, brought with them great quantities of silk-worms, with instructions for the hatching of their eggs, rearing and feeding the worms, and drawing out the silk, and spinning and working it. Upon this, manufactures were set up at Athens, Thebes, and Corinth. The Venetians, soon after this time, commencing a commerce with the Greek empire, supplied all the western parts of Europe with silks for many centuries; though sundry kinds of modern silk manufactures were unknown in those times, such as damasks, velvets, sattins, &c.

About the year 1130, Roger II. king of Sicily, established a silk manufactory at Palermo, and another in Calabria; managed by workmen, who were a part of the plunder brought from Athens, Corinth, &c. of which that prince made a conquest in his expedition to the Holy Land. By degrees, Mezeray adds, the rest of Italy and Spain learned, from the Sicilians and Calabrians, the management of the silk-worms, and the working of silk; and at length the French got it by right of neighbourhood, a little before the reign of Francis I., and began to imitate them. Thuanus, indeed, in contradiction to most other writers, makes this manufacture of silk to be introduced into Sicily two hundred years later, by Robert the Wise, king of Sicily, and count of Provence.

It appears by 33 Hen. VI. cap. 5. that there was a company of silk-women in England so early as the year 1455; but these were probably employed in needle-works of silk and thread: and we find that various sorts of small haberdashery of silk were manufactured here in 1482; but Italy supplied England, and all other parts, with the broad manufacture, till the year 1489. In Spain, indeed, the culture and manufacture of silk seem to have been introduced in an early period by the Moors, particularly in Murcia, Cordova, and Granada. The silk manufactures of this last town were very flourishing, when it was taken by Ferdinand, &c. at the close of the fifteenth century.

In 1521, the French, being supplied with workmen from Milan, commenced a silk manufacture; but it was long after this time before they could obtain raw silk from the

worms; and even in the year 1547, silk was scarce and dear in France; and Henry II. is said to have been the first who wore a pair of silk knit stockings; though the first invention originally came from Spain, whence silk stockings were brought over to Henry VIII. and Edward VI. After the civil wars in France, the plantations of mulberry-trees were greatly encouraged by Henry IV. and his successors; and the produce of silk is at this day very considerable.

The great advantage which the new manufacture afforded, made our king James I. very earnest for its being introduced into England: accordingly it was recommended several times from the throne, and in the most earnest terms, particularly in the year 1608, to plant mulberry-trees, &c. for the propagation of silk-worms; but unhappily without effect; though from the various experiments we meet with in the Philosophical Transactions, and other places, it appears that the silk-worm thrives and works as well, in all respects, in England, as in any other part of Europe.

However, towards the latter end of this king's reign, *i. e.* about the year 1620, the broad silk manufacture was introduced into this country, and prosecuted with great vigour and advantage. In 1629, the silk manufacture was become so considerable in London, that the silk-throwsters of the city, and parts adjacent, were incorporated under the name of master, wardens, &c. of the silk-throwsters; and in 1661, this company of silk-throwsters employed above forty thousand persons. The revocation of the edict of Nantes, in 1685, contributed in a great degree to promote the silk manufacture in this kingdom; as did also the invention of the silk throwing machine at Derby, in 1719; for an account of which, see SILK, *Manufacture of*.

So high in reputation was the English silk manufacture, that even in Italy, as Keyser (Travels, vol. i. p. 289.) informs us, in 1730, the English silks bore a higher price than the Italian.

The silk-worm is an insect not more remarkable for the precious matter it furnishes for divers stuffs, than for the many forms it assumes, before and after its being enveloped in the rich cod or ball which it weaves for itself. From a small egg, about the size of a pin's head, which is its first state, it becomes a pretty big worm, or caterpillar, of a whitish colour, inclining to yellow. In this state it feeds on mulberry-leaves, till, being come to maturity, it winds itself up in a silken bag, or case, about the size and shape of a pigeon's egg; and becomes metamorphosed into an aurelia: in this state it remains without any signs of life, or motion; till at length it awakes to become a butterfly, after making itself a passage out of its silken sepulchre; and, at last, dying indeed, it prepares itself, by an egg which it casts, for a new life; which the warmth of the summer weather assists it in resuming.

As soon as the silk-worm, or caterpillar, is arrived at the size and strength necessary for beginning his cod, he makes his web; for it is thus they call that slight tissue, which is the beginning and ground of this admirable work. This is his first day's employment. On the second, he forms his folliculus, or ball, and covers himself almost over with silk. The third day, he is quite hid; and the following days he employs himself in thickening and strengthening his ball; always working from one single end, which he never breaks by his own fault; and which is so fine, and so long, that those who have examined it attentively, think they speak within compass, when they affirm that each ball contains silk enough to reach the length of six English miles.

In ten days' time, the ball is in its perfection; and it is now to be taken down from the branches of the mulberry-trees, where the worms have hung it. But this business

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requires a great deal of attention ; for there are some worms more lazy than others ; and it is very dangerous waiting till they make themselves a passage, which usually happens about the fifteenth day.

The first, finest, and strongest balls are kept for the breed ; the rest are carefully wound. If there be no more than can be well wound at once, they lay them for some time in an oven, moderately hot, or else expose them, for several days successively, to the greatest heats of the sun, in order to kill the insect ; which, without this precaution, would not fail to open itself a way to go and use those new wings abroad, which it has acquired within. Ordinarily, they only wind the more perfect balls. Those that are double, or too weak, or too coarse, are laid aside ; not as altogether useless, but that, being improper for winding, they are reserved to be drawn out into skeins. The balls are of different colours ; the most common are yellow, orange-colour, isabella, or flesh-colour. There are some also of a sea-green, others of a sulphur-colour, and others white ; but there is no necessity for separating the colours and shades, to wind them apart, as all these colours are to be lost in the future scouring and preparing of the silk.