ĺ	LACE.

LACE, an ornamental fabric of linen, cotton, or silk thread, made either by the hands, somewhat after the manner of embroidery, or with machinery. The manufacture of lace by hand is an operation of exceeding nicety, and requires both skill and patience of no ordinary kind, and the best productions of this fabric surpass all other applications of textile materials in costliness and beauty.

Whether the ancients really had any knowledge

Whether the ancients really had any knowledge of lace-making, excepting gold-lace, which will be mentioned at the end of this article, is not known, nor is it known with any certainty when this art came into practice in Europe; but there is good reason to suppose that point-lace, the oldest variety known, was the work of nuns during the latter half of the 14th and the beginning of the 15th centuries. This point-lace is very characteristic, and is truly an art production. The artistic character of the patterns, and the wonderful patience and labour shewn in carrying them out, places them, as female productions, on a parallel with the decorative works in stone, wood, and metal of the monks. They indicate no tiresome efforts to copy natural objects, but masterly conceptions of graceful forms and tasteful combinations. The exact figures of the pattern were cut out of linen, and over these foundation-pieces, as they may be called, the actual lace-work was wrought by the needle, with thread of marvellous fineness, and with such consummate art, that the material of the foundation is quite undiscoverable under the fairy-like web which has been woven over it. These portions of the fabric were then joined together by connecting threads, each of which, like the broader parts, consists of a foundation, and lace-work covering; the former being a mere thread, often of exceedingly fine yarn; the latter being a sort of loop-work like the modern

crochet (fig. 1.). The wonderful durability of pointlace is attested by the fact, that it is not uncommon in our most choice collections, although the art is

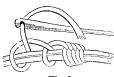


Fig. 1.

supposed to have been lost about the beginning of the 16th c., when a more easily made, and consequently cheaper style of point-lace, dis-placed the older and more artistic kind. The point-lace of the

second period, though always very beautiful, was deficient in solidity and in purity of design; moreover, it bears indications of having been copied from patterns, whilst the older kind was evidently the carrying out of artistic thoughts, as they were conceived, in the original material, the worker and the designer being the same person. It was during this period that the pillow was first used, and it is most probable that the use of patterns led to the application of the pillow. First, the lace would be worked on the pattern, to insure correctness, where the worker was merely a copyist; then it would soon become evident that if the pattern were so arranged as to avoid shifting, the facilities of working would be greatly increased; and it has been suggested that the pattern pinned to the pillow, and the threads twisted round the pins, to prevent ravelling when not in use, suggested the net-work which afterwards became a leading feature in the fabric.

The invention of pillow-lace has been claimed by Beckmann, in his quaint way, for one of his countrywomen. He says: 'I will venture to assert that the knitting of lace is a German invention, first known about the middle of the 16th c.; and I shall consider as true, until it be fully contradicted, the account given us that this art was found out before 1561, at St Annaberg, by Barbara, wife of Christopher Uttmann. This woman died in the 61st year of her age, after she had seen sixty-four children and grandchildren; and that she was the inventress of this art is unanimously affirmed by all the annalists of Saxony.' Whether she invented, or merely introduced the art, cannot now be proved, but certain it is, that it soon became settled in Saxony, and spread thence to the Netherlands and France. Even to the present day, we occasionally hear of 'Saxon bone-lace,' a name which was given to indicate the use of bone-pins, before the introduction of the common brass ones.

It will readily be supposed that an art depending so much on individual skill and taste, would be likely to vary exceedingly; nevertheless, all the varieties resolve themselves into few well-marked groups, under three distinct classes. The first class is the Guipure, which comprises all the true needleworked lace, whether ancient or modern; its varieties are -Rose-point, in which the figures are in high relief, having a rich embossed appearance; Venetianpoint, Portuguese-point, Maltese-point: in all of these
the pattern is flatter than in the Rose-point, Point
d'Alençon, and Brussels-point. The last two are still
made, the modern Point d'Alençon quite equalling in beauty and value that made in the middle of the 17th c., when its manufacture was introduced by the celebrated Colbert, chief minister of Louis XIV. The Point d'Alençon has very distinctive characteristics. When the pattern is once designed, each portion may be worked by a separate person, and the various figures are then connected by a groundwork of threads, which are so passed from one figure to another as to represent a web of wonderful delicacy and regularity: small spots or other figures are here and there skilfully worked

in where the threads cross each other; these are called modes, and not only add much to the strength of the fabric, but greatly increase its richness of

effect. In all these varieties, but two kinds of stitches are employed, and these differ chiefly in the greater or less closeness of the threads employed. First, a series of threads are laid down all in one direction, so as to cover the pattern, and then a certain number of these are taken up and covered by loops

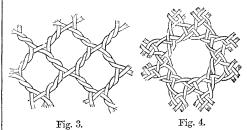


Fig. 2.

of the cross-stitches, as in fig. 1, or are more lightly held together, as in fig. 2.

The second class is *Pillow-lace*, sometimes called Cushion or Bobbin lace, from the pillow or cushion being used to work the pattern upon, and the various threads of which the figures are made up, each being wound upon a bobbin, usually of an ornamental character, to distinguish one from the other. The

pattern on parchment or paper, being attached to the pillow or cushion, pins are stuck in at regular intervals in the lines of the pattern, and the threads of the bobbins are twisted or plaited round them so



as to form the net-work arrangement which is characteristic of this class of lace (figs. 3 and 4), the patterns, or figured portions, being worked out by a crossing of threads, which, although actually plaiting, gives the effect of weaving, as in fig. 5. The varieties of this

lace are—Spanish, Grounded Spanish, Saxony Brussels, Flemish Brussels, Brussels, Flemish Brussels,
Valenciennes, Dutch, Lisle,
Silk and Cotton Blonde, Mechlin, Chantilly, Limerick, Buckinghamshire, and Honiton. The last has of late years become the most beautiful of all the varieties Fi made in Great Britain. The Irish or Limerick lace has also taken a high position.



Fig. 5.

The third class is machine-made lace, which, by its wonderful improvement and rapid development, has worked a complete revolution in the lace-trade, so that the prices formerly obtained for hand-made lace can no longer be commanded, whilst machine lace, of great beauty, has become so cheap and plentiful as to be worn by all classes. It has been mentioned before that the use of the pillow led to the introduction of net as the ground-work for lace figures, and it was to the manufacture of this so-called bobbin-net that the machinery was first so-called bobbin-net that the machinery was instapplied (see Bobbin-net). The figure in the article referred to indicates very satisfactorily the structure of net. The lace-machine, or frame, as it is technically called, is so complicated, that it would be hopeless to convey any really intelligible appreciation nopeless to convey any really intelligible appreciation of it without a voluminous description of all its parts. One or two points of chief importance may, however, remove any difficulty in understanding its general principles. First, then, as in the loom (see Loom), there is a series of warp-threads, placed, however, perpendicularly instead of horizontally, and not so close as in ordinary weaving, the space

between each being sufficiently wide to admit of a shilling passing edgeways between them. Behind these threads, and corresponding to the interspaces, is a row of ingeniously constructed flat bobbins or reels resting in an arrangement called a comb-bar or bolt-bar. These are so placed, that with the first movement of the machine, each bobbin, which carries its thread with it, passes through two of the parallel and perpendicular threads of the warp, and is lodged in another and similar bolt-bar in front of the warp. But this front bolt bar, besides an advancing and receding motion, has another movement, called shogging—from right to left. When it receives a bobbin by its forward motion, it draws back, bringing the bobbin and thread through two of the upright threads; it then shogs or moves to one side, and goes forward again, taking the thread through the next two warp-threads, and lodging the bobbin on the head bolt has come and interest the head bolt has come and interest. the back bolt-bar again, one distance beyond its last space; this it recovers by the next movement, and it again passes through the first space, to be again received by the front bolt-bar. By these movements, the bobbin-thread is twisted quite round one upright thread of the warp; another movement then shifts the bobbin, so that it will pass through the next pair of upright threads, and so carry on its work, the warp-threads moving at the same time, unwinding from the lower beam, and being rolled on the upper one. There being twice as many bobbins as there are threads in the warp, each bolt-bar having a set which it exchanges with the other, and all being regulated with great nicety, a width of lace is made in far less time than has been required to write this short description. The various additions to, and variations upon, these operations, which only apply to bobbin-net, for the production of patterns, are so numerous and complicated—each pattern requiring new complications—that it will be useless attempting to describe them; suffice it to say, they all depend upon the variations which can be given to the movements of the flat, disc-like bobbins.

The history of the lace-machine is not very clear; it is said to have been originally invented by a frame-work knitter of Nottingham, from studying the lace on his wife's cap; but it has been continually receiving improvements, amongst which those of Heathcote in 1809—the first to work successfully—Morley, in 1811 and 1824, and those of Leaver and Turton, and of Clark and Marl, all in 1811. The manufacture of lace by machinery is chiefly located in Nottingham, whence it is sent to all parts of the world; but we have no means of knowing to what extent, for, with that strange perversity which distinguishes our statistical administration, only thread-lace is mentioned in the lists of exports, whilst our vast production of cotton-lace is mixed up with the returns of calico and other fabrics of that material.

Gold-lace and Silver-lace, properly speaking, are laces woven, either by the hand or by machinery, from exceedingly fine threads of the metals, or from linen, silk, or cotton threads which are coated with still finer threads of gold or silver; but in this country it is too common to designate as gold or silver lace, not only that which is rightly so-called, but also fringe made of these materials, and also gold and silver embroidery, such as is seen on state robes and trappings, and upon some ecclesiastical dresses, &c. Gold-lace is made in London, but considerable quantities of that used for decorating uniforms and other dresses, &c., in this country, is obtained from Belgium, where it is an important branch of manufacture. France supplies much of the gold and silver thread used, and excels all other countries in its production, in some of the more artistic varieties of gold and silver lace and embroidery. Italy has lately shewn great taste and skill. The works

of Luigi Martini of Milan have in this respect attained great celebrity, and are said to produce about £16,000 worth per annum.