LACE, in the *Manufactures*, is formed of thread, cotton, or silk, woven into a net, the meshes of which are varied in their figure, according to the design of the pattern, as octagons, hexagons, &c. &c. The lace is also ornamented by a thread, much thicker than the thread forming the net, which is woven in among the meshes, in the figure of flowers, and other fantastic curves; upon the beauty and elegance of which, the value of the lace depends. This thick thread is called the *ging*.

Lace is made upon a pillow or cushion, upon which a piece of stiff parchment is stretched, having a number of holes pricked through it, to form a pattern of the intended lace. Through these holes, pins are stuck into the pillow; and the threads, wound upon small bobbins, are woven around the pins, and twisted round each other in various ways, to form the required pattern. This process is extremely tedious, particularly for the wide laces, with complicated patterns; and though it is extremely expensive to
the confuser, the people (chiefly in Bedford and Buckinghamshire) who manufacture it can only obtain sufficient to support a wretched existence, by the most ineflent exertion. Of late years, the manufacturers of Nottingham have directed their ingenuity to imitate this species of lace by machinery, in which they have succeeded most perfectly; but still it is only an imitation, the knot or loop of the meshes being essentially different. In the pillow lace, the net or meshes may be described, by pulling a number of ropes, each formed of two or more threads twisted round each other; these are extended parallel; but at every two or three spiral turns of these ropes, the strands or threads composing one rope are twisted around with those of its neighbour, and then return to be twisted with its own; and this reciprocally of the whole number forms a netting; the figure of the meshes depending upon the number of turns which are made, before the twist is changed from one rope to the next. To form a lace of this description, it is essential that the ends of each thread be detached, and capable of being twisted over the adjacent threads. This is easily done by the hand upon the pillow, by twisting the bobbins round each other; but has many difficulties which prevent its performance by machinery.

The Nottingham lace is only a modification of the slit or loop of which flockings are made; all the meshes being formed by a continuous of one strand, which is, by the machine, formed into loops a whole course (that is, length of the intended piece of lace) at once, by preffing it down alternately over and under between a number of parallel needles; a second course is then made of similar loops on the same needles, and the loops of the first are drawn through those of the second, in such a manner as to form meshes by retaining the first loops; the second are then retained by a third course, and this by a fourth, and so on. The machine is very nearly like a common flocking-frame, but provided with an additional apparatus, which can be readily applied. It consists of a frame, containing a number of needles, which we will call points; these are introduced between the fixed needles of the flocking-frame, and a certain number (one half, for instance) of the loops in the thread are taken off the fixed needles upon these points, which are moved edways, the space of two, three, or more fixed needles, and put down upon them again. Another set of loops is now taken upon the points, and moved in the opposite direction; by this means, crossing the loops over each other, and forming meshes, the figure of which will depend upon the number of needles it is thus carried over. But as this admits of no great variety of patterns, another machine has been invented, which is much more extended in its applications. Like the former, it has the parts of the flocking-frame, but differently made. The thread is, in this, rolled upon a cylinder, in the same manner as a weaver's beam; as many threads being wound round it as there are needles in the frame. These threads pass through eyes in the ends of small points, called guides, which are opposite the needles; and these guides are fixed on two bars, each of which has half the guides fastened in it, that is, one guide is fixed in one bar, and the next in the other, and so on alternately of the whole. Each of the guides presents a thread to its needle, and are all at once moved by the hand to twist the threads two or three times round the needles which are opposite them; the loop is now made in a manner similar to the other frame. The next time, the alternate guides are shifted edways, so as to apply themselves to other needles than those they were opposite before. This creates the thread, so as to make a net; but the quantity which is shifted edways is altered every time, by means of the ma-