

Silk and Silk Manufacture.

NO. III.

THE SILK INDUSTRY IN ENGLAND.

In the French exiles England found a valuable addition to her working population. Nearly all the males were skilled in some art hitherto unpracticed in England, among which was the art of silk-weaving. Appreciating the value of the immigrants and wishing to keep them in England, Parliament made a liberal appropriation for the relief of their immediate necessities, and a considerable amount of private capital was placed at their command to enable them to establish themselves in business. But their industry and skill soon placed them beyond the need of any assistance. In a few years the silk trade attained the proportions of an important branch of British textile manufacture. In 1713, it gave employment to more than three hundred thousand persons, who lived chiefly at Spitalfields, which is still the center of this industry.

JACQUARD AND HIS LOOM.

Fortunately for France, Louis XIV. left enough silk-weavers in the country to carry on the industry in a small way. The business slowly recovered, and large amounts of capital gradually found their way into it. French silks were in great demand, and their manufacture was profitable; but the looms were very complicated and difficult to operate, and from the sedentary nature of their occupation the weavers suffered great physical discomfort, many of them weaving health, and even life itself, into the shining fabrics they wrought in the solitude of their little working compartments. It was also necessary at that time to employ a great many children in the various branches of the manufacture, who were compelled to pass day after day in constrained attitudes, only to grow up—if the blessing of early death were not conferred upon them—enfeebled in body and mind. Human life was not held very precious at that time, it is true, or Napoleon would not have had such splendid armies, and so many of them to lead to useless and profitless conquest; but there were some who hoped for the deliverance of the children from the servitude of the loom, and among these was an humble artisan named Joseph Marie Jacquard. For years this unhappy man labored upon the working model of an improved loom, telling no one, and not himself knowing, that he had made a discovery that would revolutionize silk manufacture throughout the world. Finally, the loom was finished and set in motion. Jacquard had no capital and no influence, and knew nothing of the means by which so great an invention could be brought to the notice of the public; but he showed the model loom to his friends and neighbors, and made a piece of silk upon it, which, passing from hand to hand as a curiosity, finally reached Paris. Here it came under the notice of Napoleon, who, with all his love of military glory, was not unmindful of the advantages to result from encouraging the arts of peace. But Napoleon had a rather rough way of showing his appreciation of inventive talent. One day Jacquard was seized without warning and brought before Monsieur le Prefect of Lyons, who ordered him to exhibit his machine. Its special advantages over other looms were that it secured the threads in an ingenious manner, and while dispensing with the labor of more than one attendant, greatly simplified the labors of that one. Jacquard was not ignorant of its practical value, but he had been discouraged by the difficulties which then, as now, present themselves in the way of introducing even a valuable invention, and had allowed his loom to get out of order. When peremptorily ordered by the Prefect to exhibit its workings, he was, therefore, compelled to ask for three weeks in which to put it in order. This was granted, and at the appointed time he presented himself at the Prefecture and announced that he was ready to explain the nature and operation of his improved silk loom. The Prefect knew nothing about silk-making practically, beyond the fact that it was very laborious and difficult and required a great many hands to carry on the operation; and when he

found that, after the web was started by Jacquard, he could himself continue it, working the machine without assistance, and making as good silk cloth as that woven by skilled hands, he was graciously pleased to express his approval of the invention in very complimentary terms. At his direction the machine was forwarded to Paris, and in a few days came an order to forward Jacquard to the same destination. So the poor fellow was seized a second time, conducted under guard to Paris, and without knowing whether good or evil fortune was in store for him, was suddenly ushered into the presence of Napoleon and Carnot. "Ha!" said Carnot, as Jacquard was conducted into the apartment. "Is this the man who pretends to do what heaven has made impossible—tie a knot with a tight thread?"

Jacquard's only reply was to put his loom, which he found there, in motion, thus convincing Carnot and his imperial master that they did not know as much about heaven's ordinances as they had thought, since to tie a knot in a tight thread was the easiest thing in the world if you go about it in the right way. Having established this fact, he was presented a medal, informed that a pension had been granted him, and sent home rejoicing.

We now come to the most singular part of the story of Jacquard and his loom. The invention was adopted everywhere but at Lyons, the center of the silk industry. In that city no capitalist could be induced to believe that an ignorant artisan could invent anything worthy of receiving their favorable notice. The work people, however, knew better. Napoleon did not give medals and pensions for nothing, and fearing that should Jacquard's loom come into use, it would deprive a large proportion of them of their means of subsistence, they mobbed his house, tore his loom to pieces, and burned it. The shock killed Jacquard's wife, who had been his sympathizing companion and confidant during the long years of his patient and self-denying labor; and without a friend in the world or a hope for the future, Jacquard withdrew from the society of men, lived in isolation upon his pension, and died unmourned. But his work was immortal. In a few years the manufacturers of Lyons discovered what they ought to have seen before—that their rivals in other cities where the Jacquard loom was adopted were drawing away their business; so they too adopted it. Then his townsmen remembered that Jacquard had been treated somewhat ungenerously, to say the least, while alive, and as has often happened in similar cases, they said, "Poor fellow!" set up a bronze statue of him in the most conspicuous place in the city, and have ever since gloried in the recollection that it was a mechanic of Lyons who gave the world the Jacquard loom.

Since that time great progress has been made in both the reeling, spinning, and weaving of silk, also in sericulture, which is now carried on to a greater or less extent in nearly every country of southern Europe. China, where, as we have shown, the discovery was first made that, like the Jumping Frog of Calaveras County, the Bambyx "had pints" different from those of any other cocoon-making grub, is still the largest producer of raw silk, raising probably as much as one-third of the world's production. Japan is also a large producer of raw silk, and the export trade in silk fabrics from both kingdoms is attaining large proportions. Of European countries, Italy produces the most silk, France and India rank third and fourth, Persia and Spain contribute lesser quantities, and other countries, including our own, help to swell the total of the world's production. France, England, Spain, and Italy do most of the silk manufacturing carried on in Europe.