

CENTENNIAL OF THE COTTON MANUFACTURE IN AMERICA.

December 20, 1790, marks the date of the real birth of the cotton-spinning industry in this country, and in commemoration of that fact the town of Pawtucket, R. I., where the event occurred, held a centennial celebration, lasting through the week from September 29 to October 4, inclusive. The programme was an elaborate one, as for that of an occurrence whose importance it would be difficult to overestimate, and included parades by the militia and Grand Army men, firemen's and trades organizations, and an immense procession of Sunday school children, largely attended meetings at which suitable commemorative addresses were made, and a great industrial exhibition designed to illustrate the progress of the cotton manufacture during the last one hundred years. The military pageant on one day of the celebration is said to have been greater than had ever before been seen in Rhode Island, and it is estimated that more than one hundred thousand visitors were present.

The main features of the celebration, as of the event itself, have clustered around one name, that of Samuel Slater, who arrived in Pawtucket in 1789, and was the first to bring to this country a clear understanding of the system which had been perfected by Arkwright for the carding and spinning of cotton by machinery operated by power, with the practical knowledge necessary to construct and operate such machinery. Previous attempts had been made to build an operative spinning jenny, with the machines working the raw cotton therefor, both in Massachusetts and Rhode Island, in 1786-87-88, and like efforts in this and other branches of the manufacture were at the same time being made in New York and Pennsylvania, but the first to undertake the business were everywhere unsuccessful. At the same time the English cotton manufacture, mainly through the inventions of Hargreaves, Arkwright, and Samuel Crompton, of Bolton, with the contributions of many lesser inventors, had become established on the modern lines along which it has since shown such wonderful development, and all who were interested therein were reaping rich harvests. Every effort was made to keep the secrets of English machinery from the knowledge of the outside world, an act of Parliament prohibiting the exportation of such machinery, and great care was taken to prevent the departure of any one having knowledge of the manufacture. Admission to the factories and workshops where the new business was carried on was everywhere jealously guarded, and manufacturers were also extremely watchful of each other.

It was at this time that Samuel Slater landed in New York City, in the year 1789. He was twenty-one years old, and had only just completed an apprenticeship of six years with Jedediah Strutt, of Belper, England. Mr. Strutt was a partner of Sir Richard Arkwright, and by the terms of the indenture, which is a very quaint and peculiar document, the young apprentice was to be taught all the mysteries of the cotton manufacture, as it was then known, in what was probably one of the best factories in England at the time. On his arrival here he had no measurements, patterns, or designs of the great amount of new and complicated machinery he had been studying during his whole apprenticeship to familiarize himself with, for he deemed it would have been unsafe to have attempted to leave England with such property in his possession, and his departure was kept a secret from his friends and family, a letter to his mother after he had boarded the ship to bear him away being the first intimation he gave of his intended departure.

After working in New York for a short time for the New York Manufacturing Company, the young cotton spinner made the acquaintance of the captain of a vessel sailing to Providence, R. I.—sailing vessels then being the most convenient means of communication with Eastern cities—and through him learned of the efforts that had been made to establish the cotton manufacture in Rhode Island. Moses Brown, a Quaker, of Providence, the direct predecessor of the great cotton manufacturer whose name has since become famous as a member of the firm of Brown & Ives, had invested some money in machinery for making yarns for the web of mixed linen and cotton goods, but the attempt to carry on the manufacture had broken down. To Moses Brown, therefore, young Slater applied for the position of manager, saying it was a business in which he flattered himself he could "give the greatest satisfaction in making machinery, making good yarn, either for stockings or twist, as any that is made in England." A favorable response came immediately, and early in January, 1790, Slater arrived in

Providence, and was thence taken to Pawtucket, where the machinery had been set up. The contrivances he was here shown were at once declared useless, but the young mechanic added that he could "make machines that will do the work and make money at the same time."

An arrangement was finally agreed upon by which the young mechanic was to build a set of machines according to the Arkwright system, and receive therefor all the profits over the interest of the capital invested, Mr. Brown pointing out that to the young Englishman would belong "the fame as well as the advantage of perfecting the first water mill in America"—the terms "water mill" and "water frame" being then used to designate machinery run by water power. The reply was, "If I do not make as good yarn as they do in England, I will have nothing for my services, but will throw the whole of what I have attempted over the bridge." The agreement under which work was commenced was with the firm of Brown & Almy, who were to turn in their old machines at cost price, furnish materials for the construction of two new carding machines, a breaker and a finisher, a drawing and roving machine, and enlarge the spinning frame capacity to one hundred spindles, Mr. Slater to contribute his time and experience to building the machines, and, when built, to operating them, his compensation to be one-half of the profits.



Samuel Slater

FOUNDER OF THE COTTON INDUSTRY OF THE UNITED STATES.

To commence the work of building the machinery necessary to make cotton yarn with the limited appliances then at hand, and with the necessary knowledge in the mind of only one individual, was a task which would have daunted any but the most courageous. It required nearly a year to complete the first frame of twenty-four spindles, because everything was to be made, even tools to work with, but Mr. Slater was a worker, and is reported to have said in after life that he had labored sixteen hours a day for twenty years successively. His greatest perplexity was in making the cards, concerning which an erroneous report has been widely published that he was extricated from his embarrassment by means of a dream. Such, however, was not the case. The truth of the matter is related as follows in White's "History of the Rise and Progress of the Cotton Manufacture," published in 1836, the author having personally obtained the particulars of Mr. Slater: "After his frames were ready for operation, he prepared the cotton and started the cards, but the cotton rolled up on the top cards instead of passing through the small cylinder. This was a great perplexity to him, and he was for several days in great agitation. The family in whose house he boarded have since described his trial to me. When leaning his head over the fireplace they heard him utter deep sighs, and frequently saw the tears roll from his eyes. The family had become interested in his favor. He said but little of his fears and apprehensions, but Mrs. Wilkinson perceived his distress, when she said to him, 'Art thou sick, Samuel?' When he explained to the family the nature of his trial, he showed the point on which he was most tender, saying, 'If I am frustrated in my carding machine, they will think me an impostor.' He was apprehensive that no suitable cards could

be obtained short of England, and from thence none were allowed to be exported. After advising with the maker of the cards, it was perceived that the teeth were not crooked enough; as they had no good card leather, and the holes were pricked by hand, the puncture was too large, which caused the teeth to fall back from their proper place. They bent the teeth with a piece of grindstone, which gave them a proper crook, and the machinery moved in order, to his great relief and to the joy of his friends."

When Mr. Slater came to Pawtucket, he was introduced to the family of Oziel Wilkinson, as a suitable home, and afterward married one of the daughters of Mr. Wilkinson. The latter had five sons, all of whom were brought up as blacksmiths, and had more or less to do in aiding Mr. Slater in building his machines. One of the sons, Smith Wilkinson, afterward became the principal owner of the Pomfret, Conn., factory, and David, another son, bore a prominent part in the early development of the manufacturing business of Cohoes, N. Y. The lately deceased Robert Johnson, for nearly half a century the superintendent of the Harmony Mills, at Cohoes, was also a worker with Mr. Slater.

From the successful organization and starting of the factory at Pawtucket, in 1790, dates the real commencement of our cotton-manufacturing industry upon a permanent foundation. It is believed that nearly all

the establishments put in operation, up to 1805, were started under the direction of men who had learned the business in that factory, or had some connection with it, and for many years Slater's mill was the point to which nearly all English mechanics seeking employment in this country first directed their footsteps, afterward finding their ways to the various other factories which began to spring up soon after. Up to 1817 the operations of the factories were confined to spinning yarn only, which was put out in webs and wove by hand loom weavers. Mules for spinning filling had not then been introduced. The cotton used to be put out to poor families in the country and whipped on cords, stretched on a small frame, the notes and specks being picked out by hand at four to six cents per pound. In 1810, however, there were nearly one hundred factories in operation, with over eighty thousand spindles, and England had a competitor in the business of cotton manufacture whose enterprise and resources she has not since ceased to feel.

It is claimed for Samuel Slater, also, that to him belongs the credit of having started the first Sunday school in America. It is certain that this was a work entered upon by him very soon after his arrival here, and in which he was always greatly interested. During the centennial week there was an immense Sunday school procession, and in his remarks on this occasion Governor Davis, of Rhode Island, said: "The welfare of his employes and the wants of the poor were ever before him, and for them

he established a Sabbath school and a secular and a ragged school, and as a great benediction upon Samuel Slater's Sabbath school, planted in this humble town, now nearly one hundred years gone, a son of his, John W. Slater, has given \$1,500,000 to endow schools, and to scatter scholars, teachers, and learning broadcast among the poor freedmen of the South—children of the very toilers who once produced the cotton which the father here taught the scholars to spin."

The exhibition was arranged as a display of the products of the genius and skill of American labor, in memory of Samuel Slater, "the father of American cotton manufacturers."

Many thousands of spindles were idle throughout the State to allow operatives to participate in the celebration, and in Pawtucket but little else was done for the entire week but make the most of the occasion.

Rothschild's Wish.

A story is related of one of the Rothschilds which may never have been said by him, but which nevertheless is true, as every successful business man will testify.

"I hope," said a friend to Rothschild, "that your children are not too fond of money and business. I am sure you would not wish that." "I am sure I should wish that," replied Rothschild. "I wish them to give mind, soul, heart, and body to business—that is the way to be happy. It requires a great deal of boldness and a great deal of caution to make a great fortune, and when you have got it, it requires ten times as much wit to keep it."

URANIUM was unknown a century ago, but a lode has been found in a mine in Cornwall, England. It sells for \$12,000 a ton.