ROBERT OWEN

SOCIAL REFORMER

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ROBERT OWEN, SOCIAL REFORMER.

I have never advocated the possibility of creating a physical and mental equality among the human race, knowing well that it is from our physical and mental varieties that the very essence of knowledge, wisdom, and happiness, or rational enjoyment is to arise. The equality which belongs to the new, true, and rational system of human existence is an equality of conditions or of surroundings which shall give to each, according to natural organization, an equal physical, intellectual, moral, spiritual, and practical treatment, training, education, position, employment according to age, and share in local and general government, when governing rationally shall be understood and applied to practice.—"Life of Robert Owen," by Himself, p. iii.

R OBERT OWEN is a figure of great significance in the social history of the nineteenth century. It is easy to show the limitations of his educational theories; it is child's play to explode his particular form of Socialism; and it is not difficult to demonstrate that his style was ponderous and he himself something of a bore. Yet, when all these admissions have been made, "whatever his mistakes, Owen was a pathfinder." *

He was born into a time of crisis and convulsion,

"Wandering between two worlds, one dead, The other powerless to be born."

The Industrial Revolution was ignored by some contemporary thinkers, and was a hopeless puzzle, a dark enigma, to others. It is Owen's glory that while still young, with little education, and all the cares of business and commercial responsibility on his shoulders, he saw his way to the solution of some of the most pressing social difficulties and anomalies, and put his ideas in practice in his own factory and schools with astonishing success. There are personalities, such as William Morris, or even Lord Shaftesbury, who in their different ways are more attractive, more affecting, more sympathetic, but the remarkable fact about Owen is that his ideas on social legislation were at once original and practical. Our factory legislation is still based upon his suggestions more than upon those of any other man; and if the unspeakable horrors of child labor under the early factory system have been mitigated, and the disgrace of England in this matter to a large extent removed, it should not be forgotten that Robert Owen showed the way.

Early Life.

Robert Owen was born in Newtown, Montgomeryshire, North Wales, on May 14th, 1771, and was baptized on June 12th following. His father, also a Robert Owen, was brought up to be a saddler,

^{*} Helene Simon.

and probably an ironmonger also, the two trades being, in small towns, then often combined. The mother's name was Williams, and she belonged to a respectable family of farmers living near Newtown, where the couple settled on marriage. The elder Owen, in addition to his two trades, filled the office of postmaster, and had much of the management of parish affairs in his hands. There were seven children, of whom the subject of this memoir was the sixth. Two died young. The most characteristic of Owen's reminiscences of childhood is the incident, as related by him, of accidentally swallowing some scalding "flummery" or porridge when quite a little boy, which so damaged his stomach that he was always incapable of digesting any but the simplest food, and that in very small quantities. "This," he remarks, with an optimism all his own, "made me attend to the effects of different qualities of food on my changed constitution, and gave me the habit of close observation and of continual reflection; and I have always thought that this

accident had a great influence in forming my character."

The boy attended the school of a Mr. Thicknesse, who appears to have had no very remarkable qualification for his office, but to have been on friendly terms with his pupil, whom (at the age of seven!) he associated with himself as assistant "usher." Owen was a voracious reader, and devoured all the books his father's friends in the town could lend him. Among these were "Robinson Crusoe," "Philip Quarle," "The Pilgrim's Progress," "Paradise Lost," Richardson's and other standard novels. He also read, he says, "religious works of all parties," being a religiously inclined child; but this multifarious reading gave him cause for surprise in the immense hatred and opposition he found between members of different faiths, and also between the different sects of the Christian faith. These studies were diversified by games and dancing lessons, in all which amusements he records complacently that he excelled his companions, adding, rather comically, that "the contest for partners among the girls was often amusing, but sometimes really distressing." He also remarks in this connection that "the minds and feelings of young children are seldom duly considered, and that if adults would patiently encourage them to express candidly what they thought and felt, much suffering would be saved to the children and much useful knowledge in human nature would be gained by the adults." There is, perhaps, here a touch of over sentimentality; but, considering how brutal the treatment of children at this period frequently was, it is interesting to find a man who was himself so signally successful in the discipline and management of children, urging thoughtfulness and consideration upon the adult mind of his time.

Apprenticeship.

The experiences of this baby usher lasted about two years. At ten years old, at his own earnest wish, he was sent to London, to be under the care of his elder brother, who, having worked with a saddler, had settled himself comfortably by marrying his master's

widow and taking over the business. A situation was found for little Robert with a Mr. McGuffog, who had begun life with half a crown, which he laid out in the purchase of "some things for sale," for hawking in a basket. The basket had been exchanged for a pedlar's pack, and subsequently the pack for an establishment at Stamford, "for the sale of the best and finest articles of female wear." Robert was domesticated with the McGuffog family for some years, treated like their own child, "carefully initiated into the routine of the business, and instructed in its detail." "Many of the customers . . . were amongst the highest nobility in the kingdom, and often six or seven carriages belonging to them were at the same time in attendance at the premises." He recalls of his master and mistress that the husband belonged to the Church of Scotland, the wife to that of England; but so placable and tolerant were the two, that they went every Sunday first to the one church, afterwards to the other, and he "never knew a religious difference between them." This observation early inclined him to view dog-

matic differences as unimportant.

After a few years he left these good friends, and took a place as assistant in an old-established house on Old London Bridge, Borough side. Being now arrived at the mature age of fifteen, he says, "My previous habits prepared me to take an efficient part in the retail division of the business of serving. I was lodged and boarded in the house and had a salary of twenty-five pounds a year, and I thought myself rich and independent. To the assistants in this busy establishment the duties were very onerous. They were up and had breakfasted and were dressed to receive customers in the shop at eight o'clock—and dressing then was no light matter. Boy as I was then, I had to wait my turn for the hairdresser to powder and pomatum and curl my hair, for I had two large curls on each side, and a stiff pigtail, and until all this was very nicely and systematically done, no one could think of appearing before a customer. Between eight and nine the shop began to fill with purchasers, and their number increased until it was crowded to excess, although a large apartment, and this continued until late in the evening, usually until ten or half past ten, during all the spring months. Dinner and tea were hastily taken—two or three, sometimes only one, escaping at a time to take what he or she could the most easily swallow, and returning to take the places of others who were serving. The only regular meals at this season were our breakfasts, except on Sundays, on which day a good dinner was always provided and was much enjoyed. But when the purchasers left at ten or half past ten a new part of the business began. The articles dealt in as haber dashery were innumerable, and these when exposed to the customers were tossed and tumbled and unfolded in the utmost confusion and disorder, and there was no time or space to put anything right and in order during the day. It was often two o'clock in the morning before the goods had been put in order. Frequently at two in the morning, after being actively engaged on foot all day from eight on the previous morning, I have scarcely been able with

the aid of the bannisters to go upstairs to bed. And then I had but five hours for sleep." This strain and overwork seemed to Owen more than his constitution could bear, and he obtained another situation, in Manchester. Here he found good living, kind treatment, and reasonable hours of work. He received £40 a year, with board and lodging, and considered himself to be "overflowing with wealth."

In Business at Eighteen.

When he was eighteen years old, he heard from a mechanic who supplied the firm with wire bonnet frames that some extraordinary inventions were "beginning to be introduced in Manchester for spinning cotton by new and curious machinery." The maker of bonnet frames after a time succeeded in getting a sight of these machines at work, and told Owen "he was sure he could make and work them," if only he had capital. He thought that with a hundred pounds he could make a beginning, and offered Owen half profits and partnership if he would lend him that sum. Robert immediately wrote to his brother William in London to ask if he could make the advance required, which request was granted. Robert gave notice to his employer and told him he was going into business for himself. So far as we can learn from his autobiography, no one seems to have been particularly astonished at this lad of eighteen starting on his own account. Meantime a large workshop had been obtained, and about forty men set to work making machines, the necessary materials, wood, iron, and brass, being obtained on credit. Of this light-hearted pair of partners, one, Owen, "had not the slightest knowledge of this new machinery-had never seen it at work." The other, Jones, the mechanic partner, knew little about "book-keeping, finance matters, or the superintendence of men," and was without any idea how to conduct business on the scale now projected. Owen's experience in drapery establishments had given him some idea of business management. As he sagely remarks, he knew wages must be paid, and that if the men were not well looked after, the business must soon come to an end. He kept the accounts, made all payments and received monies, and closely observed the work of the different departments, though at this time he did not really understand it. He managed to maintain order and regularity, and the concern did far better than he had expected. The firm made and sold mules for spinning cotton, and did a fair amount of trade, though as Robert confesses, the want of business capacity in his partner caused him some fear and trembling.* After some months of this, a man possessed of a moderate capital offered to join Jones and put some money into the business. They offered to buy out Robert Owen, and he separated very willingly from his partner. By agreement with them he was to receive six mule machines for himself, three of which only were actually handed over, with a reel and a making-up machine.

At this time Arkwright was starting his great cotton-spinning mill, but the manufacture of British muslins was still in its infancy.

Owen says that before 1780 or thereabouts no muslins were for sale but those made in the East Indies, but while he was apprenticed to McGuffog a man called Oldknow, of Stockport, in Cheshire, began to manufacture what he described as "British mull muslin." It was less than a yard wide, and was supplied to Mr. McGuffog for 9s. or 9s. 6d., and retailed by the latter to his customers at 10s. 6d. the yard. It was eagerly bought up by McGuffog's aristocratic customers at that price, and Oldknow could not make it rapidly enough. This incident no doubt helped Owen to realize that there were considerable possibilities in the new machines. Although employing only three hands he was able to make about £6 a week profit. A rich Manchester manufacturer called Drinkwater had also built a mill for finer spinning, and was filling it with machinery, but being entirely ignorant of cotton spinning, although a first-rate merchant, was somewhat at a loss to find an expert manager.

Manager of a Large Mill.

Owen, hearing of Drinkwater's dilemma, went to his counting house, and, inexperienced as he was, asked for the vacant situation. The great capitalist asked what salary the youth required, and was amazed at the cool reply, "Three hundred a year." His protest, however, being met by a demonstration that this surprising young man was already making that sum by his own business, Drinkwater agreed to take up Owen's references, and told him to call again. On the day appointed he agreed to the three hundred a year, and took

over Owen's machinery at cost price.

Robert Owen was now installed as manager in authority over five hundred men, women, and children, and his predecessor having already left, and his employer understanding nothing of the work, he entered upon his new duties and responsibilities without any instruction or explanation about anything. Much of the machinery was entirely new to him. He determined, however, to do the best he could, inspected everything very minutely, examined the drawings and calculations of the machinery left by Lee, was first in the mill in the morning, and locked up the premises at night. For six weeks he abstained from giving a single direct order, "saying merely yes or no to the questions of what was to be done or otherwise." At the end of that time he felt himself master of his position, was able to perceive the defects in the various processes, and the incorrectness of certain parts of the machinery, all then in a rude state, compared with later developments. Owen was able to greatly improve the quality of the manufacture, and appears to have been very successful in the management of the workpeople. Drinkwater, who cared nothing for personal supervision of his mill, was much pleased to find his responsibilities taken off his shoulders. He raised Owen's salary, and promised to take him into partnership in three years

Life at Manchester.

The next three or four years were a time of mental growth and stimulus for this strange lad. He made friends among the staff at Manchester College, and joined in evening meetings for the discussion of "religion, morals, and other similar subjects." He met Coleridge, who had wished to discuss with him, and became a member of the celebrated "Lit. and Phil.," or the Literary and Philosophical Society of Manchester, which gave him an introduction to the leading professional men of the town, especially those of the medical profession. He was shortly afterwards invited to become a member of what he describes as a "club or committee" of this society, which included the celebrated Dr. Thomas Percival as its president, Dr. Ferriar, and others. Dr. Percival invited Owen to speak at a meeting, a suggestion which embarrassed and confused the young man, who succeeded only in stammering a few incoherent sentences. On a later occasion, however, Owen read a paper on the subject of fine cotton spinning, which was well received by the society; and his name appears in 1796 as a member of the Manchester Board of Health, a body formed by Dr. Percival to devise remedies for the evil and unhealthy conditions incidental to factory employment.

His connection with Mr. Drinkwater came to a sudden end. Oldknow proposed to marry Drinkwater's daughter, and wished to be taken into partnership. As he had the reputation of being a wealthy, rising man, Drinkwater was eager to accept him both as a son-in-law and a partner, and asked Owen to abandon the agreement for partnership and remain on as manager at an increased salary. Owen's pride was aroused by this rather shabby attempt to break the previous contract, and he at once resigned, not only the prospect of partnership, but also his existing situation. He received more than one offer of partnership from capitalists who doubtless knew of his technical knowledge and business capacity, and after declining one rather haughtily because its conditions seemed to him not sufficiently favorable, he accepted another, which was, in fact, less advantageous. He became managing director of the Chorlton Twist Company, and had to superintend the building

of its new factory and the installation of the machinery.

Marriage.

In the course of a business visit to Glasgow, where his firm had many customers, Owen made the acquaintance of Miss Dale, destined later on to become his wife. Her father was David Dale, owner of the New Lanark Mills, a man of great wealth, and at that time probably the leading merchant in Glasgow. Not only was his worldly position greatly superior to Owen's, but there was a further obstacle to be overcome in his religious opinions. Dale was an extremely pious and narrow-minded Nonconformist; Owen was already a Freethinker, taught by determinism that a man's religious beliefs were irrevocably fixed by his antecedents and circumstances, and therefore could be the subject neither of blame nor praise. Having discovered that the young lady was not unresponsive to his affection, but that her father was unlikely to receive him favorably, Owen determined nevertheless to obtain an introduction to Dale, and, with his usual curious mixture of simplicity and audacity, con-

ceived the idea of calling on him with a proposal to purchase the mills. Dale was somewhat astonished by such a proposal from so young a man, but advised him to journey to New Lanark and inspect them. The previous negotiations that had been going on between the young people subsequently came to Dale's ears, and at first displeased him. Owen was a stranger, an Englishman, and unknown to him. Owen, however, was backed up by his partners, John Barton and John Atkinson, who arrived at Glasgow to go into the matter in person. The upshot of the matter was that their offer was accepted by Dale, who eventually consented also to the marriage of Owen and his daughter. In 1798 or '99 (the dates are somewhat confused in the Autobiography) Owen found himself at twenty-eight manager and part proprietor of the New Lanark Mills and a married man.

At New Lanark.

This event forms the turning point in Owen's career. His extraordinarily rapid success in winning an assured position at an early age was no doubt due in part only to his own ability, since some part of it can be accounted for by the peculiar circumstances of the time, the introduction and development of steam power and machinery having made it possible to obtain profits on a startling scale. But Owen was a junior partner, and his own capital was but small. His first concern was to secure an ample dividend for the firm, this being the necessary condition of liberty to carry out the measures of reform in the works that he was already considering in his own mind. An isolated remark in the Autobiography (which is written in a rambling and unsystematic manner) gives the clue to his cogitations. Early in the time of his association with Drinkwater he "noticed the great attention given to the dead machinery, and the neglect and disregard of the living machinery," or, in plainer language, of the workers employed. Owen's peculiar power of detachment from the merely personal aspect of his affairs preserved him from the egotistic optimism characteristic of many manufacturers of that date, who, having greatly increased their own wealth through the Industrial Revolution, could not see its attendant evils. He had associated with Dr. Percival in Manchester, and had heard of the diseases and other terrible evils that were caused by the herding of pauper apprentices in insanitary dens in the neighborhood of the mills. In some of the mills, especially those in secluded valleys removed from any check of public opinion, little children were made to work night and day, in heated rooms, uncleansed and unventilated, with little or no provision for teaching, care, or education. In the worst cases there were cruel beatings and other brutal punishments, and in most, probably, little thought for means of safeguard against and prevention of terrible accidents from machinery. Owen's intention was "not to be a mere manager of cotton mills, as such mills were at this time generally managed, but to . . . change the conditions of the people, who were surrounded by circumstances having an injurious influence upon the character of the entire population of New Lanark."

The Mills.

A considerable amount of information as to the state of these mills before Owen took them in hand is accessible, but it is not all unanimous. Owen, in his Autobiography, paints a gloomy picture; while visitors, who made excursions to New Lanark, professed themselves impressed by Mr. Dale's liberality to the factory children and his zeal for their morals and education. The discrepancy of evidence is, however, more apparent than real. According to the standard of those days the New Lanark Mills were models. They were kept much cleaner and were far better ventilated than the ordinary cotton mill, and the pauper children, whom Mr. Dale was obliged to obtain from a distance, were, as Owen himself told Sir Robert Peel's Committee in 1816, well fed and cared for. But, in spite of these advantages, Owen, who made himself intimately acquainted with the condition of the operatives, found much that was objectionable. Five hundred children were employed, who had been taken from poorhouses, chiefly from Edinburgh, and these children were mostly between the ages of five and eight years old. The reason such young children were taken was that Mr. Dale could not get them older. If he did not take them at this early age, they were not to be had at all. The hours of work were thirteen a day (sometimes more), including meal times, for which intervals, amounting to an hour and a half in all, were allowed. Owen found that, in spite of the good food and relatively good care enjoyed by the children when out of the mills, the long hours of work had stunted their growth and, in some cases, deformed their limbs. Although a good teacher, according to the ideas of the time, had been engaged, the children made very slow progress, even in learning the alphabet. These facts convinced Owen that the children were injured by being taken into the mills at so early an age and by being made to work for so many hours, and as soon as he could make other arrangements, he put an end to the system, discontinued the employment of pauper children, refused to engage any child under ten years old, and reduced the hours of work to twelve daily, of which one and a quarter were given to rest and meals. He would have preferred to raise the age of full time employment to twelve years and to reduce the hours of work still further, but, being more or less in his partners' hands, he was compelled to initiate these reforms gradually. He soon, however, arrived at a conviction, based on the experience gained by watching his own factory at work, that no loss need be incurred, either in home or foreign trade, by reducing work to about ten hours employment The improvement in health and energy resulting from increased leisure was so remarkable as to convince him that more consideration for the operatives, more attention given to their conditions of work generally, especially shorter hours, so far from increasing expenses, would tend to promote efficiency, and as he also pointed out, would effect a great improvement in the health of operatives, both young and old, and also improve their education, and tend to diminish the poor rates of the country.*

* See Parliamentary Papers, 1816, Vol. III, Peel's Committee, Evidence of Robert Owen.

It is, indeed, hardly credible that the schooling which was supposed to be given to the children after their seven o'clock supper till nine, could have been of much use after so many hours at work in the mill. Owen's view was that "this kind of instruction, when the strength of the children was exhausted, only tormented them, without doing any real good; for I found that none of them understood anything they attempted to read, and many of them fell asleep during the school hours."

The Village.

Owen also did a great deal to improve the village houses and streets, and build new houses to receive new families to supply the place of the paupers, and to re-arrange the interior of the mills, and

replace the old machinery by new.

"The houses contained at that time no more than one apartment, few exceeded a single storey in height, and a dunghill in front of each seems to have been considered by the then inmates as a necessary appendage to their humble dwelling." Owen rebuilt or improved the houses, and had the streets daily swept and cleansed and refuse removed by men employed for the purpose. The next difficulty was to induce habits of domestic cleanliness, which at first Owen tried to achieve by means of lectures and persuasive talks. Finding more urgent measures were necessary, he called a public meeting and advised the people to appoint a committee from amongst themselves to inspect the houses in the village and report as to cleanliness in a book kept for the purpose. This suggestion at first nearly produced a revolution among the women, but it is stated nevertheless that the measure was put in operation, by Owen's orders, in so conciliatory a manner that hostility soon subsided.* Stores were opened to supply the people with food, clothing, milk, fuel, etc., at cost price. Previously the credit system prevailed, and all the retail shops could sell spirits. The quality of the goods was most inferior, and the charges high to cover risk. The result of this change saved the people twenty-five per cent. in their expenses, besides giving them the best, instead of very inferior, articles.†

It is, however, in his plans for mental and moral improvement that Owen is seen at his most characteristic and singular aspect. The factory population of that date, it must be remembered, was usually imported away from its own place of abode. Prejudice against cotton mills was very strong among the laboring classes of Scotland, who disliked the close confinement and long hours of

^{*&}quot;Owen at New Lanark." By One formerly a Teacher at New Lanark. Manchester. 1839. Pp. 4, 5.

[†] There are risks in connection with shops run by employers for profit which are now well known, and have been the occasion of many Truck Acts; but in this case the profits of the stores were not taken by Owen, but were used for the benefit of the workpeople themselves and for the upkeep of the schools, the scheme resembling a consumers' co-operative store rather than a shop for private profit. Compare Report of Peel's Committee, Robert Owen's evidence, p. 22.

labor incidental to factory life. The people working at New Lanark had "been collected from anywhere and anyhow, for it was then most difficult to induce any sober welldoing family to leave their

home to go into cotton mills as then conducted."

It is evident that the factory population thus recruited might not be altogether easy people to deal with. Owen says that he had at first "every bad habit and practice of the people to overcome." Drinking, immorality, and theft were general; and Dale, who had given but little time to personal supervision of the mills, had been freely plundered. But Owen was not disheartened. In a curious passage he shows his views on the subject of human nature and his characteristic confidence that with his methods all would be well. "There were two ways before me by which to govern the population. First, by contending against the people, who had to contend against the evil conditions by which, through ignorance, they were surrounded; and in this case I should have had continually to find fault with all, and to keep them in a state of constant ill will and irritation, to have many of them tried for theft, to have some imprisoned and transported, and at that period to have others condemned to death; for in some cases I detected thefts to a large amount, there being no check upon any of their proceedings. This was the course which had ever been the practice of society. Or, secondly, I had to consider these unfortunately placed people as they really were, the creatures of ignorance and vicious circumstances, who were made to be what they were by the evil conditions which had been made to surround them, and for which alone society, if any party, should be made responsible. And instead of tormenting the individuals, imprisoning and transporting some, hanging others, and keeping the population in a state of constant irrational excitement, I had to change these evil conditions for good ones, and thus, in the due order of nature, according to its unchanging laws, to supersede the inferior and bad characters, created by inferior and bad conditions, by superior and good characters, to be created by superior and good conditions." Success in this great undertaking could only be obtained by the knowledge "that the character of each of our race is formed by God or nature and by society, and that it is impossible that any human being could or can form his own qualities or character."

Owen drew up a set of rules to be observed by the inhabitants of New Lanark for the maintenance of cleanliness, order and good behavior. Every house was to be cleaned at least once a week and whitewashed at least once a year by the tenant; the tenants were further required, in rotation, to provide for cleaning the public stairs, and sweeping the roadway in front of their dwellings, and were forbidden to throw ashes and dirty water into the streets, or to keep cattle, swine, poultry or dogs in the houses. There were provisions for the prevention of trespass and damage to the company's fences and other property. A rather extreme view of authority inspired a rule requiring all doors to be closed at 10.30, and no one to be abroad after that hour without permission. Temperance in the use

of liquors was enjoined. Toleration was urged upon the members of different religious sects and the whole village was advised "to the utmost of their power as far as is consistent with their duty to God and society, to endeavor both by word and deed to make everyone happy with whom they have any intercourse."

The "Silent Monitor."

A singular device was adopted by Owen as an aid to enforcing good behavior in the mills, punishment of any kind being contrary to his principles. A four-sided piece of wood, the sides colored black, blue, yellow, and white, was suspended near to each of the factory workers. The side turned to the front told the conduct of that person during the previous day, the four colours being taken as by degrees of comparison, black representing of course bad, blue indifferent, yellow good, and white excellent. There was also a system of registering marks for conduct. The superintendent of each department had to place these "silent monitors" every day, and the master placed those for the superintendent. Anyone who thought himself treated unjustly by the superintendent had the right of complaining to Owen, but such complaints very rarely occurred. With his usual simplicity, Owen attributes much of his success to this quaint little device, which probably, apart from his own character and influence, and the beneficial measures introduced, would have had but little effect. His humanity to the people is illustrated by the fact that at one time, when owing to trade conditions the mills were at a standstill for several months, he expended £7,000 in wages rather than turn the people adrift.

Financial Success.

As a matter of business, the mills were highly successful. From 1799 to 1809, over and above interest on capital at five per cent., a a dividend of £60,000 was cleared, which, however, includes the £7,000 spent on payment of wages as just indicated. Owen's partners, however, in spite of this financial success, took alarm at his schemes for social betterment. They came down from London and Manchester to inspect what had been done, expressed themselves highly pleased, listened to his plans, but eventually presented him with a silver salver bearing a laudatory inscription, and decided they could go no further with him. Owen offered to buy the mills of them for £84,000, and they gladly consented. A second partnership, formed to purchase the mills, resulted again in strain and tension. Owen then drew up a pamphlet describing his work at New Lanark, and the efforts he had made and hoped still to make for furthering the cause of education and improving the position of the people concerned, and making an appeal to benevolent and wealthy men to join him in partnership and purchase the business, not only for the sake of the immediate good of the employees, but in order to set up a model of what a manufacturing community might be. Among those who responded to the invitation were Jeremy Bentham, the philosopher, and William Allen, the Quaker and philanthropist. When Owen had completed his arrangements for taking over the business, and returned to New Lanark, the work-people were so overjoyed to see him that they took the horses out of the carriage and drew him in it home, in spite of his expostulations.

On balancing the accounts of the four years partnership now dissolved, it was found that after allowing five per cent. for the capital

employed, the concern showed a net profit of £ 160,000.

A New View of Society.

Owen came before the world as an educational reformer in 1813, when he published his "New View of Society: or, Essays on the Principle of the Formation of the Human Character." Education in England, as most people know, was grossly neglected at this time, especially in regard to the children of the working class. The grammar schools endowed by mediæval piety were appropriated to the instruction of middle-class children, and the charity schools founded in the eighteenth century were, though numerous, utterly inadequate for the needs of a growing industrial society, nor was the education offered in those schools planned on lines that could by any stretch of imagination be called liberal. William Allen, Owen's partner, estimated the number of children in London who were wholly without education at over 100,000. From the very beginning of the nineteenth century education was already a battlefield. The Liberal Nonconformists, led by Lancaster, and the Church party, inspired by Dr. Bell, were each responsible for plans for cheap popular education. Owen gave generous assistance to both, but in the schools he established at New Lanark he went beyond either. The schemes of Bell and Lancaster were little but plans for economising the teacher, that is to say, by setting the older children to teach the younger. Owen distrusted the system of teaching by rote, and laid great stress on the personality of the teacher and the individual attention given to children.

A building was erected at New Lanark, to be used exclusively for school classes, lectures, music and recreation. There were two schoolrooms, one hung round with pictures of animals, shells, minerals, etc., and with large maps. Dancing and singing lessons were given, and the younger classes were taught reading, natural history, and geography. Both boys and girls were drilled, formed in divisions led by young drummers and fifers, and became very expert and perfect in their exercises. The children all wore white garments, given them by Owen, tunics for the boys, frocks for the

girls, which were changed three times a week.

Before the shortening of the hours of work, the average attendance at the evening schools was less than 100 a night; but after the reduction on January 1, 1816, the attendance rose rapidly, and was

380 in January, 386 in February, and 396 in March.

The basic principle of Owen's educational system was that man is before all things a social or gregarious being, from which it follows that the happiness of the individual is most intimately bound up with that of the community of which he is a member. The practical

corollary of this principle was the exclusion of all artificial rewards or punishments. No child got a prize for industry and good conduct, none was punished for idleness and disobedience, Owen holding the belief that such incentives are bad for the character, introduce false ideals and erroneous notions, and generally leave the will weak and unfortified against temptation when the artificial stimulus is removed. The scholars were taught to feel that the best incentive to industry is the pleasure of learning, and the best reward for kindliness and good behavior the friendly feeling of companionship set up. Instead of being scolded or punished for being untruthful or disobliging, the children at New Lanark were taught that sincerity and good fellowship are the means to a happy life.* A child who did wrong was considered to deserve pity rather than blame. Owen's son, Dale, who was a convinced believer in his father's system, points out that though children educated on the old-fashioned method, "over-awed by the fear of punishment and stimulated by the hope of reward," might appear very diligent and submissive while the teacher's eye is on them, habits formed by mere mechanical inducements would not be rooted in the character, not to mention that obstinacy and wilfulness may even be fostered by feeling that there is something courageous and independent in thus rejecting baits offered to their lower nature and daring to choose the more perilous path. However that may be, there is a general testimony of those who visited the schools that the children were singularly gentle, happy looking, and well behaved; which, indeed, is markedly the case in a school of the present day, run on similar principles, and known to the writer.

Methods of Education.

As regards the teaching itself, every effort was made to make every subject attractive and interesting; to teach as much as possible by conversation and by maps, pictures, and natural objects; and not to weary the children's attention. A special feature of the system was the lecture on natural science, geography, or history, which would be illustrated, as the subject might permit, by maps, pictures, diagrams, etc., and, as occasion might serve, made to convey a moral lesson. Thus a geography lesson would be combined with descriptive detail and made to illustrate Robert Owen's favorite thesis that character is the product of circumstances. These lessons, the value of which obviously would depend mainly on the teacher's personality, seem to have given immense pleasure to the children, and to have greatly interested strangers, who were now visiting New Lanark in increasing numbers.

Instead of reading in a mechanical fashion or learning mere words by rote, the children were questioned on what they read, and encouraged to discuss, ask questions, or find illustrations of what they read. Thus the habit was formed of endeavoring to understand what is read or heard, instead of conning a mere jingle and patter of unmeaning words, which, it is to be feared, make up the

^{*} R. Dale Owen, "System of Education at New Lanark," 1824, p. 13.

idea of "lessons" to many hapless little scholars even up till now. On this point Dale Owen asks pertinently whether a chemist, being anxious that a child should be able to trace and understand some valuable and important deductions, which with great study and investigation he had derived from certain chemical facts, would act wisely in insisting that the child should at once commit to memory and implicitly believe these deductions? The answer is obvious; that any wise man would first store a child's mind with facts and elementary knowledge, and only gradually, as judgment and intelligence became matured, make him acquainted with theory and principle.*

In the training both of the character and of the intelligence, the aim of the school was to awaken the will and observation in the child to act and reflect for himself, rather than drive him by mere

mechanical compulsion.

Many were the distinguished strangers who at this time made a pilgrimage to New Lanark. Griscom, an American Professor of Chemistry and Natural Philosophy, visited Owen in the course of a tour, and was most favorably impressed with the school. He records that the children appeared perfectly happy and fearless, and would take Owen by the hand or the coat to attract his attention. The Duke of Kent (father of Queen Victoria) was deeply interested in Owen's experiments, and sent his physician to visit and report upon New Lanark. Many others—statesmen, philanthropists, reformers, and humanitarians, enthusiasts of all kinds—also found their way to the factory and school.

Condition of the People.

About 1815 Owen began to turn his attention to measures of a public character which should improve the condition of the operatives employed in the now rapidly increasing textile industry. He visited many mills in various parts of the country, and was much struck by the wonderful machines employed in these factories and the improvements that were constantly being made in them. But he was also painfully impressed, as he had been years before, by the deteriorating effects on young people of the conditions of employment. He saw that the workers were almost literally the slaves of the new mechanical powers, and later on he asserted that the white slavery of English manufactories under unrestricted competition was worse than the black slavery he had seen in the West Indies and the United States, where the slaves were better cared for in regard to food, clothing, and conditions as to health than were the oppressed and degraded children and workpeople in the factories of Great Britain. It is true that some of the worst evils were tending to disappear, e.g., with the introduction of steam power night work was considerably discontinued; and as employers were no longer obliged to place their factories in out of the way spots for water power, the need for employing parish apprentices had therefore largely ceased. The factories were placed in populous centres

* "System of Education at New Lanark," p. 55.

and to some extent at least under the check of public opinion; whilst the children were living at home with their parents, under more human and natural conditions than the unhappy apprentices who had been lodged at the mills. It also appears that the factories of the new type were larger and better kept than the old, and the operatives of a higher social grade. But, in spite of these influences, which made for good, the evidence before Peel's Committee shows that conditions were still very bad. Children were employed at a very early age, and for terribly long hours. Even the better class manufacturers usually kept the mill open for thirteen hours a day, and allowed an hour off for dinner, breakfast and tea being brought to the children in the mill and snatched at intervals, the machinery going all the time. Sometimes even a dinner interval was not given, and some mills were kept going for fifteen or even sixteen hours a day. Many of the children had to attend for several hours on Sunday to clean the machinery. It was asserted by the manufacturers that these long hours did not really mean the same duration of actual work; that the children were merely in attendance to watch the machines and piece the broken threads, no physical exertion being required. This description conveniently ignored the fact that the children had practically to stand the whole time, and the bad effects of such long standing and confinement were heightened by the close and heated atmosphere. The finer qualities of yarn, at all events, needed a warm atmosphere, and in many factories the temperature, summer and winter, was kept up to about eighty degrees. Sir Robert Peel told the House of Commons that he employed nearly a thousand children in his cotton mill, and was seldom able to visit it, owing to press of engagements; but whenever he could go and see the works, he was struck with "the uniform appearance of bad health and, in many cases, stunted growth of the children. The hours of labor were regulated by the interest of the overseer, whose remuneration depending on the quantity of work done, he was often induced to make the poor children work excessive hours and to stop their complaints by trifling bribes."

Factory Children.

In 1815 Owen called a meeting of Scottish manufacturers, to be held in the Tontine, Glasgow, to consider, first, the necessity and policy of asking the Government, then under Lord Liverpool's administration, to remit the heavy duty then paid on the importation of cotton; and, secondly, to consider measures to improve the condition of children and others employed in textile mills. The first proposal, to remit the import duty on raw material, was carried unanimously. He then proposed a string of resolutions for improving the condition of the workers. In the course of his remarks he pointed out that the cotton manufacture, vast as were its profits, was not an unmixed benefit to the nation, but, under existing conditions, was destructive of the "health, morals, and social comforts" of the mass of the people engaged in it. He urged those present not to forget the interests of those by whom their profits were

made, and suggested a Factory Act. Not one person in the meeting would second the motion. Subsequently Owen published a pamphlet,* dedicated significantly "to the British Legislature," in which he described the position of children under the manufacturing system, and suggested a remedy. "The children now find they must labor incessantly for their bare subsistence. They have not been used to innocent, healthy, and rational amusements. They are not permitted the requisite time, if they had been previously accustomed to enjoy them. . . . Such a system of training cannot be expected to produce any other than a population weak in bodily and mental faculties, and with habits generally destructive of their own comfort, of the wellbeing of those around them, and strongly calculated to subdue all the social affections. Man so circumstanced sees all around him hurrying forward, at a mail coach speed, to acquire individual wealth, regardless of him, his comforts, his wants, or even his sufferings, except by way of degrading parish charity, fitted only to steel the heart of man against his fellows or to form the tyrant and the slave. . . . The employer regards the employed as mere

instruments of gain."

The legislative measure he suggested was to limit the hours of labor in factories to twelve per day, including one and a half for meals; to prohibit employment of children under ten in factories; to require that employment of children from ten to twelve should be for half time only; and that no children should be admitted to work in factories at all until they could read and write, understand elementary arithmetic, and, in the case of girls, sew and make their clothes. The arguments used by Owen in support of this suggested measure are such as have been amply confirmed by the experience of those in touch with industry; but they were then new and startling, and, it is to be feared, even at the present day are unfamiliar to many of the dwellers in Suburbia. In regard to the objection then commonly raised that the quantity produced would be decreased by shorter hours, he explained that by making the proposed Factory Act uniform over the United Kingdom, any increase of cost, supposing such to ensue, would be borne by the consumers, not by the manufacturers; but he doubted much whether any manufactory, arranged so as to occupy the hands twelve hours a day, would not produce its fabric nearly, if not altogether, as cheap as those in which work was prolonged to fourteen or fifteen hours a day. Even should this view not prove to be entirely justified, the improved health and comfort of the operative population and the diminution of poor rates would amply compensate the country for a fractional addition to the prime cost of any commodity. "In a national view, the labor which is exerted twelve hours a day will be obtained more economically than if stretched to a longer period. . . . Since the general introduction of expensive machinery human nature has been forced far beyond its average strength, and much, very much, private misery and public injury are the consequence."

^{* &}quot;Observations on the Effect of the Manufacturing System." London. 1815.

The Human Machinery.

In an address to the superintendents of manufactories, written about the end of 1813, Owen thus voices his appeal for the operatives:—

"Experience has shown you the difference of the results between mechanism which is neat, clean, well arranged, and always in a high state of repair; and that which is allowed to be dirty, in disorder, without the means of preventing unnecessary friction, and which therefore becomes and works much out of repair. In the first case the whole economy and management are good; every operation proceeds with ease, order, and success. In the last the reverse must follow, and a scene be presented of counteraction, confusion, and dissatisfaction among all the agents and instruments interested or occupied in the general process, which cannot fail to create great loss.

"If, then, the care as to the state of your inanimate machines can produce such beneficial results, what may not be expected if you devote equal attention to your vital machines, which are far more wonderfully constructed? When you shall acquire a right knowledge of these, of their curious mechanism, of their self-adjusting powers; when the proper mainspring shall be applied to their varied movements—you will become conscious of their real value, and you will readily be induced to turn your thoughts more frequently from your inanimate to your living machines; you will discover that the latter may be easily trained and directed to procure a large increase of pecuniary gain, while you may also derive from them high and

substantial gratification.

"Will you then continue to expend large sums of money to procure the best devised mechanism of wood, brass, or iron; to retain it in perfect repair; to provide the best substance for the prevention of unnecessary friction, and to save it from falling into premature decay? Will you also devote years of intense application to understand the connection of the various parts of these lifeless machines, to improve their effective powers, and to calculate with mathematical precision all their minute and combined movements? Will you not afford some of your attention to consider whether a portion of your time and capital would not be more advantageously applied to improve your living machines? . . . Far more attention has been given to perfect the raw materials of wood and metals than those of body and mind. Man, even as an instrument for the creation of wealth, may be greatly improved. You may not only partially improve these living instruments, but learn how to impart to them such excellence as shall make them infinitely surpass those of the present and all former times."*

In the course of this campaign for the remission of the cotton duties and for the regulation of child labor, Owen sent copies of his proposals to the members of both Houses of Parliament, and went up to interview members of the Government. In regard to the first

^{*} Appendix B, Autobiography, p. 259.

proposal he met with a favorable reception from Vansittart, the Chancellor of the Exchequer, but his efforts on behalf of the children were not so immediately fruitful, although they excited considerable interest and sympathy in the minds of some. Sir Robert Peel was asked to take charge of Owen's draft Bill. The choice was an appropriate one, the Act of 1802, for regulating the conditions of pauper apprentices in cotton and woollen mills, having been due to the same statesman's initiative. This Act, the only Factory Act then on the statute book, had become out of date owing to technical and economic changes which had caused the employment of pauper apprentices to be largely discontinued. The new Bill was more comprehensive, and applied to all children in mills and factories. Its main provisions were that no child should be employed in a mill or factory below the age of ten; that no person under eighteen should be employed for more than twelve and a half hours per day, of which only ten were to be given to work, half an hour to instruction, leaving two hours for rest and meal times. The justices were empowered to appoint duly qualified inspectors and to pay them for their services. It was explicitly provided that these inspectors were not to be interested or in any way connected with the mills and manufactories they were to inspect, and they were given full powers to enter the mills for purposes of inspection at any time of day they chose.

It is interesting in considering this Bill to recall that the institution of factory inspectors was not effected till 1833, the ten hours day did not become law till 1847, and the prohibition of work under ten years old did not come into force until the year 1874.

Peel's Committee.

Nothing more was done in 1815, the Bill having been introduced and published as a tentative measure to evoke discussion and criticism. In 1816, however, Sir Robert Peel returned to the subject, and moved for the appointment of a committee to take evidence and report upon the state of children employed in manufactories. Some of the evidence given before this committee by Owen has already been quoted above. Perhaps the most remarkable point is the hostility shown by some members of the committee to Owen's ideas and proposals, which, so far as the Factory Bill went, would nowadays be considered very mild. When he said he thought it unnecessary for children under ten to be employed in any regular work, and considered instruction and education at that age were enough exertion, he was asked by some moralist, whose name is unfortunately not handed down to fame, "Would there not be a danger of their acquiring by that time (ten years old) vicious habits for want of regular occupation?" and replied that his own experience led him, on the contrary, to find that habits were good in proportion to instruction. When he was pressed to explain his contention that a reduction of hours had resulted in a greater proportional output, he showed that a larger quantity might be produced by greater attention or by preventing breakage, and by not

losing any time in beginning or leaving work. This evidently surprised some of the committee, who appeared incredulous that he, "as an experienced cotton spinner, or a spinner of any kind," could think that machines could produce a greater quantity save by the quickening of their movement. Owen again repeated that greater attention by the workpeople in avoiding breakage or waste of time might increase output, and that in his experience the shorter hours work did result in closer attention."

The Factory Act, 1819.

The Factory Bill was delayed for some reason till 1818, when Sir Robert Peel introduced it again. The second reading was carried in the Commons by ninety-one to twenty-six, but the Bill was again delayed by the action of the House of Lords, who professed themselves not satisfied that the need for any such legislation had been demonstrated. They appointed a committee of their own, which took evidence during 1818 and 1819. A great deal of evidence was produced, which was intended to show that factories were ideally healthy and the death-rate much below that in ordinary places; that England's place in the markets of the world would be endangered; that wages must be reduced in a proportion equal to or greater than the proposed reduction of hours; that the morals of the "lower orders" must be deteriorated by so much free time. Doctors were found to testify, e.g., that it need not hurt a child to work at night, or to stand twelve hours a day at work, or to eat their meals while so standing! The evidence of 1816, however, had not been forgotten, and other evidence was produced before the Lords' Committee which amply proved the conditions to be highly injurious to the children's health. The Bill became law in the summer of 1819, but, in order to conciliate the millowners and the House of Lords, the original provisions were deprived of much that was valuable. Woollen, flax, and other mills were omitted, the Act applying to cotton only; the age limit for child labor was fixed at nine years instead of ten; the hours of labor were to be twelve instead of ten or ten and a half hours. Worst of all, the provision for inspection in Owen's draft was deleted and nothing was put in its place, the supervision of factories being left, as before, in the hands of the justices, although it was perfectly well known that they had not enforced the Act of 1802.

Owen's direct influence on the development of English factory legislation thus suffered a check. The fact nevertheless remains that the Act of 1819, mutilated and imperfect as it was, was the first real recognition of responsibility by the State for industrial conditions. The Act of 1802 had been merely an extension of the State's care for Poor Law children; the Act of 1819 recognized the

^{*} The present writer has been told the same by several manufacturers. One of these remarked that "in nine hours the girls had done all the work it was in them to do," and that the attention could not be satisfactorily maintained longer. Another remarked that overtime in the evening generally meant bad work next morning. See also instances described in "History of Factory Legislation," Hutchins and Harrison, Chapter VII.

employed child as such. It was not until 1833 that an effective measure was placed upon the statute book, and the guidance of this movement had long before this passed out of Owen's hands. But he it was who first compelled the State to recognize the changes made by the growth and concentration of capital; he it was who tried practical experiments in the way of shorter hours and improved conditions; and, much as he had done himself as a model employer, it was he who recognized the fact that, under the conditions of modern industry, State intervention was necessary, because the forces of competition are too much for the manufacturer, single and unaided, to resist, save in especially favorable circumstances.

International Agitation.

Owen was also fully conscious that in years to come the problem of social reform would have to be faced internationally. In 1818 he addressed a memorial, on behalf of the working classes, "to the Allied Powers assembled in Congress at Aix-la-Chapelle." This document is characterized by extraordinary optimism and a pathetic conviction that society was, in actual fact, moving rapidly to a state of harmony and co-operation. It also shows a curious ignorance of recent history in assuming that child labor was but a recent introduction, whereas we know now from other sources that child labor had been general, and in some cases excessive, in textile industry carried on under the domestic system. In spite of these misconceptions, the document makes some valuable and important points. shows that by the introduction of machinery and the factory system an enormous increase in productive power had been achieved. By the aid of science Great Britain could now produce many times as much wealth in a given time as she could previously. This surplus of wealth might be either wasted in war, dissipated in competition with the nations, or applied directly to improve her own population. Moreover, the existing productive power was but trifling compared with that which might be obtained in the future. Capital and industry were unemployed or misapplied which might be used to create more wealth. "Already," said Owen, "with a population under twenty millions, and a manual power not exceeding six millions,* with the aid of new power, undirected, except by a blind private interest, she supplied her own demand, and overstocks with her manufactures all the markets in the world to which her commerce is admitted. She is now using every exertion to open new markets, even in the most distant regions; and she could soon, by the help of science, supply the wants of another world equally populous with the earth. . . . The grand question now to be solved is, not how a sufficiency of wealth may be produced, but how the excess of riches which may be most easily created may be generally distributed throughout society advantageously for all, and without prematurely disturbing the existing institutions or arrangements in any country." Owen's estimates were based on manufacturing

^{*} This figure is arrived at by comparison with the era before machinery. The exact figure is unimportant. The increase of productive power is an undoubted fact.

industry, and he did not give sufficient weight to the consideration that mechanical science was not likely (so far as we can see) to effect so rapid and startling an increase in the production of food or other necessaries obtained from the soil itself.* The really important point made by Owen here and elsewhere is his insistence on the problem of distribution. It is still the case that much wealth which might be used to enrich life is squandered in the war of armaments and the war of competition. There is no way of avoiding that

destructive waste save by co-operation and mutual control.

Owen died in 1858. It might seem that his life was a failure, his immediate efforts having been sorely disappointed over the Factory Act of 1819, and his wonderful forecasts of universal peace and prosperity having been sadly falsified by events. But the real results of Owen's work are to be seen in the long series of factory legislation, which, slowly and imperfectly, it is true, has yet built up a system of protection for the worker, and in the efforts which, in the twentieth century, have at last achieved some beginnings of success for international regulation of labor. In 1900 the "Union Internationale pour la Protection légale des Travailleurs" was formed. Through its initiative, influence, and suggestion, conventions have already been accepted by a large number of the leading Powers, under which the night work of women is forbidden and the use of white phosphorus, a deadly poison, formerly employed in matchmaking with great dangers to the workers, is prohibited. Other measures with regard to the night work of boys and the control of other industrial poisons are being considered. This is a work which is as yet in its infancy, but is likely to be fraught with great results in the future.

Conclusion.

It is difficult in a few words to sum up the singular career and personality of Robert Owen. The so-called "usher" of seven, the boy who, with powdered hair, waited on his master's customers in the old warehouse on London Bridge, has a curious old world air, which clings to him even when a dozen years later finds him face to face with the intricate problems of the modern industrial world. It will not have escaped readers of the extracts given above from Robert Owen's works that he wrote a painfully long winded style, and that his thought is often uncritical and obscure. In a candid passage his son, R. Dale Owen, reminds us that Owen was without any real educational or scientific training. As a child he managed to read a good many books, but had neither time nor opportunity to be a student. "In this way he worked out his problems for human improvement to great disadvantage, missing a thousand things that great minds had thought and said before his time, and often mistaking ideas that were truly his own for novelties that no human being had heretofore given to the world." +

* Podmore, I, p. 261.
† 'Threading My Way," p. 66 et seq.

Owen's personal temper and character appear to have been of unusual sweetness. His "ruling passion," his son records, "was the love of his kind, individually and collectively," An old friend said of Owen, jokingly, that "if he had seven thousand children instead of seven, he would love them all devotedly." He was, in fact, to his own children a most affectionate and careful parent, but had none of the selfish narrowness that sometimes goes with strong domestic instincts. The whole human race was to him the subject of warm, even indulgent, affection. He simply brushed aside the impression then general that the best way to manage children was to bully them, and the best way to get work out of factory operatives was to keep them incessantly at it. He did not believe in sin and wickedness, and saw in the sinner only the victim of untoward circumstances. He was sometimes misled by the illusion, characteristic of many eighteenth century thinkers, that the human race, if surrounded by a healthy and comfortable environment, and properly instructed in the advantages of social, as opposed to anti-social, conduct, must inevitably go right of itself, and he left out of account the whole array of inherited weaknesses of character and constitution, the strength of passions (which probably his own temperament left him almost unaware of), and the temptation to greed and tyranny offered by almost any known form of organized social life. It is easy to indicate the limitations of his thought. The fact remains that within those limits there is an immensely fruitful field for the application of his ideas, as he proved by the almost startling results of his training and influence on a set of operatives and their children who were by no means picked members of society to start

The importance of Owen's life and teaching does not lie in his social philosophy, which was crude and already somewhat out of date, but in the practical success of his experiments as a model employer, and in his flashes of social intuition, which made him see, as by inspiration, the needs of his time. Leslie Stephen said of him that he was "one of those intolerable bores who are of the salt of the earth," but it is evident that he must have possessed a large measure of the undefinable attribute known as "personal magnetism." Thus we find him achieving an entrance into good posts early in life with little aid from capital or influence, able to control and manage workpeople in the factory, to banish drunkenness and disorder, to win the affection of the children in the schools, to persuade the teachers to adopt his new and unfamiliar methods, and to excite the active sympathy and interest of men, like the Duke of Kent, greatly above him in social station. Owen could see and act far better than he could think, and his views have been justified by events. His Life, by Frank Podmore, is a great book, one of the most fascinating of English biographies, but perhaps even Mr. Podmore hardly does justice to the clearness of Owen's vision in the human side of economics. Owen found the politicians and economists obsessed by a mechanical conception of industry. An hour's work was an hour's work, and in the debates and pamphlets of the time there is an

almost entire omission of any reference to the personality of the worker, or to the possible effect of his health, strength, and efficiency on the output. Manual labor was then taken as a constant quantity, the only means of augmenting the output being by increasing the hours or by improving the machinery. Later economists have given more attention to the personality of the operative, and modern scientific investigation has shewn that Owen's conception of industry is a true one, solidly based on the facts of life. There is much evidence now accessible to show how eminently susceptible to influences the human worker is, and how shortsighted it is to regard him or her as a mere pair of hands. Better food, better air, more rest, teaching, and recreation, improve the human machine, even regarding him merely as a machine. From the point of view of the State or the community it is hardly necessary to say the case is tenfold stronger. The State can by no means afford to have its citizens, actual or potential, endangered by unhealhy, dangerous, or demoralizing conditions of work. This statement is becoming almost a truism now, though its full implications have not vet been adopted as part of practical politics. But the measure of recognition it has obtained, both at home and abroad, is a measure of the greatness of Robert Owen, the pathfinder of social legislation, who had a vision for the realities of modern industrial life when they were as yet dim, strange, and unknown to his contemporaries. No one has yet done so much as he did to show that man must be the master of the machine if he is not to be its slave.

Note.—Robert Owen, disappointed in his scheme for social reform through the State, turned his attention to the formation of communities in which, as he hoped, his theories might be carried out. This part of his life, which is very distinct from his services to social reform, will be treated in a separate paper.

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