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THE EMANCIPATION OF LABOR.

tury which is now drawing to a close is the degree of which unite his interests to those of the employer. The social comfort and political power which have been won positive identity of the interests of labor and capital is by the laboring man.

pretty theory to a recognized fact.

Despite the painful privations which result from occasional industrial depression; despite the wicked and oft-repeated lie of the social agitator, who would have us believe that "the rich are growing richer and the poor poorer"; and despite the assertion that paupers are multiplying in our midst—the fact remains that the dawn of the twentieth century will find the laboring classes possessed of a reasonable share of the good

man who tilled it were sold together. The serf behind pation. the plow received much the same treatment as the ox in front of it, and there was little to choose between the huts of the laborers and the stalls of the cattle. Even as late as the feudal times, with their supposed civilization, labor was enthralled to the robber barons, and the inhabitants of the cluster of homes that nestled for safety beneath the castle walls knew practically nothing of the sweets of liberty.

Coming down to as late a period as the eighteenth century, when manufacturing was yet done by hand, and most of it in the homes of the people, we find that the emancipation of labor was proceeding with slow and halting footsteps. The workman was dependent on the master to an extent that it is difficult to understand in the present day. His employer was frequently master and landlord in one, and labor took from capital what scanty wages it was pleased to pay. Travel was costly and difficult, and the artisan lacked the means if not the courage to go far afield in search of work. Whether or no labor was more contented under these simpler conditions is not now the question. If it did not crave for the domestic comforts, the educational opportunities, and the social and political powers which it has won for itself to-day, it was because for lack of opportunity it had never tasted their sweets and knew nothing of their value.

If we except the abolition of serfdom and the priceless blessing won by Magna Charta, it is safe to say that the nineteenth century has seen a greater uplifting of the laboring man than any, and perhaps all, that preceded it; and if one were to name the cause, he would have to point above everything else to the marvelous mechanical developments of the past one hundred years. History, it is true, tells us that labor was blind to the benefits which machinery was capable of working on its behalf, and vainly endeavored to shut the doors of mill and factory against each labor saving device. The lives of the early inventors show that no opposition was so bitter as that of the working classes, whose distrust is dying a lingering death, and shows itself on rare occasions even in the present day. As a matter offact, however, the steam engine, the telegraph, the rolling mill and the multitudinous industrial arts of the century have been among the most Scientific American Supplement powerful causes of the rise of the workingman to his present position of social comfort and political power.

Labor, particularly in America, is self-respecting, intelligent, independent, and possessed of social comforts which a century ago fell to the lot of the rich alone. It has risen to the dignity of proprietorship, and the artisan is in a position to own his own home. More often than not he adds a portion of his weekly wages to a modest but increasing bank account. He is no longer obliged to live within sound of the factory bell, and the car carries him each night to a suburban home and a breath of the country's sweet air. He is 3 no longer tied to the town of his birth, and if he thinks he can better his condition by moving to a distant city. he usually has the means to make the journey. A sound education—that priceless boon, so hungered after and seldom found by the workman of earlier days—is now to be had for the asking, or is actually forced upon his acceptance.

The enlarged opportunities which have come with the railway records which was exhibited by the Baltimore growth of machinery and manufacture have opened up; and Ohio Railroad. While the exhibition of locomothe avenues to wealth and power, and labor has not been slow to seize the opportunities, grasp the wealth, s and wield the power. The laborer of to-day is often the magnate of to-morrow. Many of the master minds that control the industrial and public affairs of way of equal merit. We are informed by Mr. C. E. this country were once enrolled in the "ranks of Stretton, the well-known writer of English locomotive labor," so called, and, indeed, they are laborers still, the sphere of their toil being merely enlarged.

In this country, at least, it is no empty boast that the highest position the nation can offer is open to the laboring man, and one such at least, by virtue of the grand opportunities of modern social conditions, not less than by his personal character and gifts, was able to qualify himself for the high distinction.

will be best promoted by the closer union of labor and, safe to say that he is the best authority on railway

capital. Every blow that has struck off the chains of One of the most significant achievements of the centhe employed has clinched another rivet in the bonds a fundamental fact which is slowly but surely receiving The dignity of labor, so called, has passed from a recognition, and the day is not far distant when labor itself will boldly give the lie to the social agitators and irresponsible demagogues who would have it believe that labor and capital are in the nature of things unalterably opposed.

It should never be forgotten that enlarged opportunities impose serious responsibility. There is a danger lest labor, exulting in its ever growing strength, should be tempted to use it for unlawful and selfish ends. To this temptation it will never yield if it remembers that things of this life, and firmly established as one of the the interests of society at large and labor and capital most powerful factors in the social and political world. in particular can best be subserved by a conserva-It was not always thus. Time was when labor and tive and fair minded use of those social and political slavery were inseparable terms. The land and the powers which are the sign of its own complete emanci-

NEW POSSIBILITIES OF ELECTRICITY.

No one has the temerity in this day and age to say what may or may not be done through the agency of electricity. Some of the foremost physicists and electricians in this country have made great strides in unfolding the character and capabilities of this subtile force, and have dared to expect to do things not even dreamed of a few yearsago. They are now working in full expectation of accomplishing results of great importance. Nothing has been uttered by these men in the nature of a prophecy, but they seem to have had some evidences of the possibility of carrying investigations far beyond the expectations of the most vision-

The same feeling pervades Europe, and much of the best work in this direction has been done in that portion of the globe. For some time past Mr. W. H. Preece, chief of the electrical department of the British postal system, has been making experiments in telegraphing through the air without wires, and with considerable success; but recently Mr. Preece has vielded the palm to a young Italian inventor, Guglielmo Marconi, whose experiments have demonstrated the superiority of his system of telegraphy without wires. He has carried on these experiments with the sanction and support of the postal department and with the cooperation of Mr. Preece and other engineers. Mr. Marconi in making use of the Hertzian waves, discovered that impulses set up in his apparatus were able to affect a receiver placed on the further side of a hill. Morse signals could be sent with ease through the larger part of a mile of earth and rock. He found he had discovered a new form of energy that did not exist in the Hertzian waves. The new wave could penetrate everything and could not be refracted or bent aside from a straight path.

No description of Marconi's apparatus has been made public, but it is said to be very compact and capable of being used for military, marine and other purposes. It is believed that this system of telegraphy and signaling has capabilities within it that will astonish the world. Certainly, the limit of knowledge in this direction has not been reached. The question is, What may we expect? Will this form of energy assist in accomplishing the much discussed transference of thought, or telepathy? Will it enable a person at one point on the globe to communicate with another on the opposite side? Can this energy be utilized in communicating with other worlds?

Dr. Jagadis Chunder Bose, a professor of physics in the Presidency College, Calcutta, has done much experimental work of a similar character. He also is now in England. These two men are trying to reach the same goal, but, we judge, independently and by somewhat different paths. We have little else than rumors in regard to these investigations, and await with great interest the revelation of what is at present known and the developments of the future.

• • • • • ENGLISH RAILWAY HISTORY IN THE CHICAGO MUSEUM.

Visitors to the Chicago World's Fair will remember The dignity of labor is to-day universally conceded, the magnificent historical display of locomotives and tives was the most complete thing of its kind ever shown, the collection of historic records, which consisted very largely of the original drawings from which earlier locomotives had been constructed, was in its history, that the efforts which were made by the Baltimore and Ohio Railroad in gathering up historical matter in England were so successful that "if we in England want the true history of early Great Western engines, we have to go to Chicago for it." Mr. Stretton also informs us that "there is more English railway history in Chicago than there is in England.'

Mr. Stretton, it will be remembered, is the chief mover in the effort which is being made to estab-As regards the future, the advancement of the artisan ilish a national railway museum in England, and it is