

now realize this fact, and are taking the greatest possible care to perfect their devices before attempting to place them in the market. This is surely commendable as well as the most practical and satisfactory course to pursue.

There are hundreds of patents existing upon principles which are thoroughly sound and good, but the inventor in working out the principle has done so in a manner so thoroughly impracticable, that it would be utterly impossible to manufacture and sell the article with any degree of success whatever. In some of these cases the inventor has spent a great deal of time and money in attempting to put his device on the market, and has not been able to do so, while if he had spent more time in attempting to make the application of his principle in a practical manner he would probably have met with marked success and made money out of his invention instead of losing everything which he put into it. It is not at all uncommon for an inventor when attempting to take out a patent on an invention of actual merit to find that his idea had been patented many years before, and while the same principle was involved it was worked out in so unmechanical and impracticable a manner as to be entirely without merit, this fact making it impossible for him to obtain patents having a wide range. In such cases all that can be done is to take out a patent covering some minor detail and thereby limit what might have been a marked success but for the former inventor, who has not only failed to gain the object for which he was working, but has prevented another from doing so.

Two morals may be drawn from this recital of facts—and which, if heeded, will contribute to the welfare of all concerned, to wit: First, a new device should not be placed on the market until it has been sufficiently tested to demonstrate its ability to well enough accomplish that for which it was designed to justify its use without necessitating any modifications in minor details, and, second, inventors must learn that their ideas worked into a design and capitalized are no longer their own property.—*The Railway Review*.

THE PUBLIC INTEREST IN PATENTS.

THE benefits of the patent system are in no sense restrictive, but distributive and world wide. The genius of invention is not so exclusive as is supposed, and its results are amplified and deployed in scope, to which a patent law can fix no geographical limits, nor superior intelligence retain the use. In this sense our patent laws, while protecting the inventor, are equally conducive to the public interest. The interests are reciprocal, with the ultimate outcome of the lion's share of the benefits going into the public basket. It needs no very brilliant or capacious intellect to trace this beneficiary influence, and see in the genius of invention one of the most vital and essential forces of modern progress. As pertinent examples we have Whitney's improvement in the cotton gin. With this missing in the accessories of industry, the cotton culture of the South, producing in 1859 the handsome total of 3,622,000,000 pounds of this staple, it would have required the labor of 3,000,000 of men for one year simply to clean it.

In patented improvements in agricultural machinery and methods of transportation has been secured the settlement and cultivation of the Western States. Under the old regime it would have required the labor of 74,000,000 men and boys to plant, till and harvest the American cereal crop of 1859, with the value of each bushel of grain consumed in transporting it 300 miles.

The statistics of the sewing machine industry are equally significant. This machine became a national factor between 1850 and 1870. In 1850 there were 52,000 tailors in a population of 23,000,000. In 1870 there were 106,000 tailors in a population of 38,000,000, population in these two decades increasing 65 per cent.; but the number of tailors increasing more than 100 per cent. To these figures must be added the employment of some 40,000 persons in the manufacture of the machines, with the almost immeasurable saving of labor in factories and families, and the cost of production.

The locomotive adds a coincident illustration, not only as contributory to public convenience, but to the building up of the industries it was supposed to supplant. In the decades included between 1850 and 1870, during which period the locomotive came into general use, the population increased 65 per cent., the makers of common carriages and wagons increased in number more than 200 per cent. In each of the examples cited, the practical benefits have been distributive and universal, and in whatever direction we may note the deployment, it is without an exception—so far as the invention was identified with public interest. In a report made by Commissioner Simonds of the Patent Office, under date of January 30, 1892, to which we are indebted for the statements and figures

quoted, we find that in 1790, the first year of the patent system in this country, the number of patents granted was but three; in 1791 it was increased to thirty-three, and the total for the decade ending in 1799 was but 250. Our subsequent progress in invention is graphically stated in the fact that in the single year of 1891 no less than 23,000 patents were granted. That invention has played a magnificent part in the development of our material prosperity goes with the telling, and that it has been equally contributory to public good, when not run into extremes, is a fact well known to every thoughtful student of our national life.

PATENT REFORM.

THERE is a great deal of talk about the necessary enlargement and extension of the Patent Office. If our system and laws were what they should be, there would not be need for enlargement of the building. What is needed is a patent system which will insure the inventor a patent when once he has secured his letters from the Government. As it is at present, the granting of letters patent is only the securing by the inventor of a ticket of admission to the courts, and it is for the court to decide whether he has a right to his invention or not. It would seem as though the Patent Office was the place where this question should be settled.

The inventor sends in his application, pays the Government fee for examination and his attorney's fees. The claim is examined and the letters patent are issued. Then in order to prove that he has a right to his patent he must go into the courts, and spend a fortune, only to have his rights set aside. Then he asks, What good is a patent?

It would certainly seem that the millions of money paid into the Patent Office by the inventors of this country, for the purpose of securing protection of their rights, is thrown away.

The testimony of many great inventors tend to substantiate such a belief, and it is a common saying among them that a patent is of no value until it has been through the courts. If this is true, why not do away with the Patent Office entirely, and let the inventor apply to the courts in the first place?

If the Patent Office, after examining a claim, after experts employed and well paid for passing upon the patentability of an article, cannot render a final decision, of what use is it? Why do men pay for having their claims examined and for securing letters patent if not that they expect to be protected in their rights.

As it is the poor inventor has no protection and no means of securing his rights. If he has not money enough to carry his case through the courts he must give up. All his time, labor and money paid for a patent are lost. The Government will not aid him. It does not stand back of his letters patent which it has granted. It simply calls on him for more money, and he must have it or throw up his claim.

Does anyone believe it impossible that a system can be formulated whereby a patentee can be protected in his rights, which will render letters patent granted by the Government to be of some value and have some significance? Is it not possible for the Government to decide before issuing a patent whether the inventor is entitled to a patent or not? Would it not be far better, for the country and for the people, if fewer patents were granted, and have them absolute?

Under present conditions there is very little encouragement for men to spend time, labor and money in devising "new and useful inventions," and yet this is the very thing which the patent system was devised and intended to encourage.

While the subject of reform is being discussed, why is not the whole system taken into consideration and put upon a basis which will make it of real and permanent value to the industrial progress of the nation? Why not have a system which means something, and in which there is some degree of protection?

If the fees are not large enough to warrant a sufficient examination to decide upon the claims of the inventor, let them be increased. No inventor would object to paying double or triple the present fee if he could be assured that, if his patent was granted, it would be sustained. Indeed, it would be better for all concerned, and save an endless amount of litigation and the expenditure of thousands of dollars, if such a system were adopted. Then there would be some encouragement for the development of inventive genius.—*Manufacturers' Gazette*.

As might be expected, the list of the Boston Public Library scarcely attempts to enter this field, the articles of the Philosophi-