Scientific American

NEW YORK, NOVEMBER 24, 1849.

The Poetry of Discovery.

"New inventions are, as it were, new creations and imitations of God's own works."—BACON.

Inventions are the poetry of physical science, and inventors are the poets. Between the bards of machinery and the bards of literature, there is a strong resemblance; in fact, the same spirit of inspiration dwells in both—they only strike different lyres. How often has the soul of the poet gushed out in burning strains, after listening to some plaintive melody, wild passing midnight wind, or the cadence of some distant water-fall; and from the falling of an apple, did not the soul of the great Newton grasp the realities of gravitation—that law which "binds the sweet influences of the Pleides, and forms the bands of Orion." Who can tell of the dreamings—the wakeful nightly dreamings of inventors, their abstractions and enthusiastic reveries, to create some ballad or produce some epic in machinery. Every schoolboy knows the story of Archimedes—how he ran in nudity through the streets of Syracuse, at the discovery which he made to detect adulterated metals by the displacement of a few drops of water. All great inventors possess the faculty of imagination in a very high degree. Sir Samuel Morland indited songs and sang them with grace and feeling. Sir Humphrey Davy wooed the Muses before he experimented in gases and invented the safety lamp. Telford, the inventor of iron suspension bridges, penned some exquisite verses, and had a soul strung with music and poetry. Many men whose names stand high in the roll of physical discovery and mechanical invention, have been disciples of Homer, and often visited the shades of Parnassus. In the days of old, it seems, the Greeks believed in the close relationship of music and invention, for they tell us that one of their harpers made the very rocks forget their gravity, and dance in good order into the walls of Thebes, where they long remained as monuments of musical power. There are not a few also, who have heard of the good hearted Father Tournemine, who attempted to construct a machine in Paris, which, by the turning of a crank would play various tunes and allay the cravings of hunger without the expense of provisions, either in the shape of roast beef or plumb pudding.

In all ages poetry has had a wonderful influence upon the people of all nations. The Greeks rushed to victory chaunting their wild songs, and the bards of Cambria awoke those strains which were the laws and precepts of that ancient people. Poetry opens up the fountains of the human heart, touches its well-spring of feeling. No wonder, then, that the Celtic chiefs proclaimed their wills through the voices of their harpers; and the prophets breathed their predictions in the loftiest poetic strains. Who can read Isaiah and Jeremiah and not feel the poetry of prophecy. As poetic prophecy has often foretold mighty revolutions among the nations of the earth, it might reasonably be expected that it would sometimes foretel revolutions in social life. This it truly does, but never to our knowledge have mankind looked to it for a prophetic description of those means whereby many such revolutions were to be brought about. The invention of printing, the steam engine, and other machines, have entirely revolutionized social life, but who has looked to poetic prophecy for its predictions about them? Among one of the most remarkable discoveries and inventions of the present day, is the Electric Telegraph. By it, friends can converse together, although separated by thousands of miles, and by it the motions of the heavenly bodies are noted, and intelligence of the same is communicated hundreds of miles by one astronomer to another, without the least perceptible down having fallen from the wings of Time. Surely this is a most wonderful invention, and we all know that it is but a few years old. But it may surprise our readers to know that the magnetic telegraph was distinctly described by poetry hundreds of years before it was invented. It is stated in Vail's history of Telegraphs, that the first electric telegraph mentioned was that of a Mr. Lomond, in France, in 1787, who, with wires and an electric machine, communicated with a person in a neighboring chamber. But let us turn to a more ancient telegraph than this: "Strada, the Critic, in one of his profusions, in the person of Lucretius, gives an account of a chimerical correspondence between two friends by the help of a certain loadstone, which had such a virtue in it that if it touched two several needles, when one of the needles so touched began to move, the other, though at ever so great a distance, moved at the same time and in the same manner.

He tells us that the two friends, being each of them possessed of one of those needles, made a kind of dial plate, inscribing it with the four, and twenty letters, in the same manner as the hours of the day are marked on the ordinary dial-plate. They then fixed one of the needles, on each of these plates, in such a manner that it could move round without impediment, so as to touch any of the four and twenty letters. Upon their separating from each other into distant countries, they agreed to withdraw themselves punctually into their closets at a certain hour of the day, and to converse with one another by means of this new invention.

Accordingly, when some hundred miles asunder, each of them shut himself up in his closet at the time appointed, and immediately cast his eye upon the dial-plate. If he had a mind to write anything to his friend, he directed his needle to every letter that formed the words which he had occasion for making a little pause at the end of every word or sentence, to avoid confusion.

The friend, in the meanwhile, saw his own sympathetic needle moving itself to every letter which that of his correspondent pointed at. By this means they talked across whole continents, and conveyed their thoughts to one another in an instant, over cities or mountains, seas or deserts."

The above extract is taken from Addison's 119th paper, in the Guardian, which was published in July, 1713, and Strada died in 1649, exactly two hundred years ago. He was the author of Poetical Profusions, and teacher of Eloquence in Rome. Hitherto we have been talking about inventors being poets, but here is poetry becoming invention. Strada could not have described the signalling-magnetic telegraph more faithfully, if he had lived and examined that of Wheatstone in our own day. Was not this production of Strada the prophetic poetic invention of the Magnetic Telegraph? From this we learn that "coming events sometimes cast their shadows before," and as Strada's chimerical friends used no wires for their telegraph, may it not be possible that some inventors will yet discover the secret of dispensing with them altogether—this would be the greatest discovery of all.

The Law of Patents.

The Charleston, S. C., Mercury, of the 13th inst., says that we misunderstood the meaning of the two articles which were published in the Mercury, and part of which we copied into our columns, in relation to the conduct of the Federal Court in the case of Motte vs. Bennett, about the infringement of the Woodworth Patent. The MISTAKE was not *intentional*, as the Mercury gentlemanly premises. We agree with the Mercury on the point, that it is *not* the *practice* of the English Court of Chancery to grant perpetual injunctions when validity of the Patent, or infringement is denied. The Mercury states that it only referred to perpetual not interlocutory or provisional injunctions, which it states were always customary to be granted by the Court, until the question was tried at law. The following is the spirit of the article in the Mercury:

"The question before the Court, and the only one discussed by the defendant's counsel, and the only one reviewed by us, was as to a perpetual injunction—a final decree. It is this: Is it 'the course and practice of Courts of Equity' in England, in a patent case, where the defendant denies the validity of the patent or the fact of infringement, one or both, to grant a perpetual injunction, and make a final decree, without a trial at law and the verdict of a Jury? Judge Wayne asserts the affirmative—we the negative. Judge Wayne says: 'The English Chancery will show that for more than eighty years, injunctions, both provisional and interlocutory, and perpetual, have been granted in the first instance in cases of copyrights and patents: and that when they have been perpetual in the first instance, they have been made so without the intervention of a jury to try the question of title or infringement.' We deny this altogether. The English Chancery shows nothing of the kind."

A number of cases are cited from the ablest English authority to prove Judge Wayne wrong, and it recommends Congress to purchase a few copies of Hindmarsh on Patents for the uses of the Judges of the Supreme Court. Were it not that there is so much about patents in this number we would publish the whole article. Next week, however, we will publish from a work by one of the best living English Patent Attorneys, the Practice of the English Courts, which will be found to accord exactly with the views of the Mercury.

Interesting Patent Cases.

MACHINE FOR MAKING LEAD PIPE.

On the 12th inst., in the U. S. District Court, New York, before Judge Nelson, a very important case was decided by a verdict in favor of the defendants. The case was an action for an infringement of a patent granted to B. Tatham, Jr., on Oct. 11, 1841, for improvements in the manufacture of lead pipe machinery. The defendants were Thomas O. Le Roy and David Smith, who were using a machine under a patent granted to Samuel G. Cornell, Aug. 21, 1847. The plaintiffs alledged that Cornell's improvements for which the patent was granted to him, consist of transpositions of the parts of their machines and were not substantially different from those described in their patent. The defendants alledged that their machine was not only substantially different from that of the plaintiffs, but possessed very great advantages over all lead pipe machines heretofore known. It appeared in evidence that the defendants, by employing one half of the pressure necessary to work the other machines, could make three times the quantity of lead pipe that could be made by any other method.

The trial occupied the court five days, and Judge Nelson, in charging the Jury, gave a very lucid and learned history of machinery for making lead pipe. Both the patents of plaintiff and defendants were for improvements on a machine invented by Thos. Burr, in 1820 This case has been the subject of litigation for a long time, and there was a great excitement created among our plumbers and those connected with the business. Attorneys of fame were employed on both sides. For the plaintiff, Messrs. Cutting, Staples and Goddard; for defendants, Messrs. Stoughton, Noyes and Harrington.

PLANING MACHINES.

On the 13th inst., before Judges Grier and Kane, U. S. Circuit Court, Philadelphia, the injunction granted against the machine of Barnum was dissolved upon the following conditions: 1st, That the injunction be dissolved, if defendant gives a bond in $10,000, within ten days, to account for all profits. 2d, That the injunction shall stand if defendant does not give such security within ten days, and plaintiff within ten days thereafter give additional security to indemnify defendant.

The case now stands as it should have stood when application for an injunction was made. We took the ground "that no injunction should have been granted." Our opinions were founded upon our views of the Patent Laws, and a knowledge of the case. We were honestly sincere in all the remarks that we have made, and we view such questions, keeping individuals out of sight entirely, and look upon the case entirely on its own merits. We seldom are far wrong in our predictions—they are generally fulfilled. See our views on Patent Laws on page 46, this Vol., Sci. Am.

ELECTRIC TELEGRAPH CASE.

On the 24th of last month an injunction was to be moved for by the owners of Morse's Patent, to restrain the use of Bain's Electro-Chemical Telegraph as an infringement of Morse's Patent. The parties were to be heard before Judge Munroe, at Frankfort, Ky., but the plaintiffs never argued the question, but abandoned the motion. We predicted that no injunction *could* be granted. We see that some papers have made a very serious charge against the Patent Office, in respect to Morse's Chemical Telegraph Patent, stating that as it was issued, it was very different from what it was when argued and decided upon by Judge Cranch.

We are very cautious about how we express ourselves in respect to patents. Our mind is perfectly unbiased, and we look only upon the just rights of every inventor. We therefore cannot endorse any of the insinuations against the Patent Office. We only call attention to the fact, in order to call out an explanation, if the charges are groundless, knowing that the public look to this paper as a vehicle for such information.

We have a few words of advice to give to patentees and the owners of patent rights. We believe that in a great number of cases the owners of certain patent rights have been *weakly wise* in prosecuting others, and many very selfishly tyranical, in endeavoring to restrain the use of any machine in the line of their patents, whether, in their eyes an infringement or not, in order to keep the trade in their own hands. Some act upon the high-handed principle of frightening poor men out of their wits from using what they know is no infringement of their patents. We have faith to believe that justice will triumph ultimately over such men. The rights of one inventor, be he rich or poor, are just as good as those of another, and we often think that it would be far wiser for some patentees to give their money and energies to the fair competition of their patents in business, than to be eternally jabbering at law. We only speak of those inventions that are palpably different. We go for pursuing patent plunderers to the utmost extent of the law, "to hunt them up with hound and horn." In giving our opinions upon the Electro Chemical Telegraph, and the controversy between Morse and Bain, we will say that we have examined the drawings of both Telegraphs, and it is our opinion that however serious the former parties may be, yet we would say, it was not wisdom—it is not wisdom, to carry on a systematic prosecution. The beautiful Electro Magnet Telegraph of Morse is good against the world, and it will stand its own—and it would be policy, we think, to stand by it alone, for the claim of Prof. Morse's Chemical Telegraph, as published, would not operate at all—it claims the production of marks upon a conducting medium interposed between the broken parts of a *galvanic* circuit. Now no marks can be produced when the galvanic circuit is broken, it and the metalic circuit are two different things. It was a mistake, no doubt, in the person who made the claim. But why should these companies quarrel, with the telegraph trade but in its infancy—they all will become wealthy—wealthy.

Depth of the Ocean.

We have received a number of communications on the depth of the ocean, its density, and the *impossibity* of leads sinking to the bottom, &c. They are all written in a friendly spirit, but we cannot publish them, because no new fact is brought forward, and we do not wish to publish assumptions for facts. One says that the great length of line would float the lead at a certain depth. This we do not doubt, but that is not a mathematical objection. Every body knows that a kite would not ascend if strung to a *hawser*. Another mentions the currents as a compressing force to prevent the lead from sinking. Well, we make no objections to that, only let us first know the depth, number, and velocity of these currents, and then we will be able to say more about them. The subject of currents is a branch of nautical science but in its infancy, thanks to Lieut. Murray for making it a science.

Communications.

We have not a few communications in our columns this week, of the right kind. Short clear and comprehensive. We believe that our correspondents in general understand the law of *multum in parvo*.

© 1849 SCIENTIFIC AMERICAN, INC