Scientific American

NEW YORK, NOVEMBER 10, 1849.

### Scientific Associations.

Associations for the promotion of science, by the calm discussion of mooted points, and the reading of short but comprehensive papers on various subjects, are among the most useful institutions in the world. "Mechanics' Institutes" are certainly of great importance, but along with their libraries and winter courses of lectures, one grand element of personal and general elevation has been overlooked, we mean the personal interest and action of the members in the manner pointed out in our introductory sentence. It would be a great improvement in the manner of conducting Mechanics' Institutes, if the members were divided into Committees, to whom various questions might be referred for investigation. In Boston there is a Society of Civil Engineers which pursues this course, and they have issued some Reports which are of no little importance to the scientific world. An institution of the same nature, was instituted in this State last year, but for more than twelve months we have heard nothing about it. The American Scientific Association, the British Scientific Association, the Berlin and St. Petersburg Scientific Societies, together with the Paris Society of Arts, are all conducted in the manner we have described. A good library, a course of philosophical lectures, and a debating society, makes up the whole routine (along with a Fair, perhaps) of all Mechanics Institutes. These things are all very well, almost indispensable, but something more is wanting to enlist the energies and interest all the members. There are mechanics and artisans in every shop, who are capable of throwing a great deal of light upon many subjects, if drawn out to give an opinion, but who have not the faculty or face to engage in debate. Mere debating societies are generally ruled by the longest winded and loudest talkers, and result in no substantial benefits to their members. We therefore commend to the attention of all voluntary associations for mental improvement and the promotion of knowledge, the policy of dividing the association into various committees, such as one on Geology, another on Mechanics, Chemistry, &c. These committees might report, or hold their discussions once a month, and thus there would be a meeting of some one every week.

By the Hartford Courant we learn that a very spirited meeting has been held there for the purpose of organizing the mechanics, manufacturer and artisans into an Association for the advancement of science and art. This society intends to have a repository of models, machinery, and works of art. Without something of this kind, a mechanic's institute labors under the most manifest disadvantages. We have often heard the remark made, "mechanics never hold long together." We have seen the truthfulness of this remark verified in a great number of instances. They seem to embrace new projects relating to their own interests with zeal, but soon fall back into the arms of apathy, or what is worse, get into disputes, and divide into factions about things that are no *bigger* in importance than the shadows of dreams. Above all things we advise our mechanics and artisans, in respect to every institution which they may establish, to engraft upon their escutcheon "Knowledge is Power,"—"Don't give up the Ship." There is not a village of any importance in our widespread country, but should have an association of the nature set forth above. It should belong to no class, but embrace within its folds all who have a taste for, or take an interest in the progress of science and art, and the propagation of useful knowledge.

### The Blow-pipe and its Uses.

The Science of Chemistry, above all others, has recently made the most rapid strides, and has produced the most marked effects upon the arts and manufactures. Various causes have led to this rapid advance in chemical science, but to no one cause can we attribute so much influence, as to the improved apparatus for conducting experiments. In the days of old the alchemyst's study was a truly *tartarean* abode, "with furnaces and cauldrons, boiling, burning hot;" but all is changed now. No apparatus has produced greater results than the simple blow-pipe, and a treatise on its uses, by Prof. Plattner, translated and edited with emendations, by Dr. Sheridan Muspratt, Prof. of the Liverpool (Eng.) College of Chemistry, is one of the most instructive and useful works that ever has been published. By the simple blow-pipe, the beginner is instructed to discover the presence of cobalt, antimony, arsenic, lead, silver, bismuth, manganese, seleneum, sulphur, zinc, chromium, and a number of other simple substances. To the mineralogist this work is of inestimable value, and no geologist nor chemist should be without it. We like to call attention to these things, in order to direct our readers to sources of information which they may desire to possess, but know not where to turn to find them. The original work can be imported.

### Important Patent Cases.

TELEGRAPH CASE.

The trial of Morse against H. O'Reilly, for infringement of patent, by what is called the use of the Columbian Instrument—Zooks and Barnes, the inventors, was decided at Frankfort, Ky., on the 30th ult., in favor of the plaintiffs, and Mr. O'Reilly appealed. This decision does not affect the Chemical Telegraph—it was a very different instrument. We have heard no fault found with it.

PLANING MACHINES.

The case Wilson vs. Barnum, was left like Mohammed's coffin, on the 30th ult., before Judges Kane and Grier, Philadelphia. The trial was a very long one, and the Jury, after being out all night, came in and stated that they were unable to agree, and asked to be discharged. Their request was granted, the Judges stating that they could not agree themselves. We wish that this case had been decided. It is one patentee sueing another—an old patentee endeavoring to overthrow a young one. Mr. Stoughton, of this city, was counsel for the defendant, and the Philadelphia papers speak in glowing terms of his able, eloquent and manly effort in summing up the evidence.

On the 1st inst., the defendant's counsel moved to dissolve the injunction, and call another jury this term. The plaintiff's counsel opposed the hearing of the application until Ex-Governor Seward should be present. This will be on next Monday, we believe. We heard that the jury were nearly unanimous, only two for plaintiff; and ten for the defendant. As this is a very important patent case, and tho whole country on tip-toe about it, we will publish in parts, commencing next week, the charge of Judge Grier on the occasion, in which will be found a vast amount of legal knowledge (which every inventor should know) on patents and inventions.

PATENT TOOL CASE.

In the United States Circuit Court, at Boston, on the 30th ult., before Judge Woodbury, the case of Herrick Aiken vs. Calvin Foster was committed to a Jury—being an action for infringing the plaintiff's patent for a new and useful improvement in tool-sockets. A verdict was rendered for plaintiff of $1,224 damages. Hon. Daniel Webster, who was counsel for plaintiff, moved the Court to *treble* the damages in this case, as provided in the act of Congress which may be done by the Court in the exercise of its discretion.

In our list of patents this week, there is one to R. Smith and A. Bain, for improvements in Chemical Telegraphs. From evidence which has long been in our possession, we can confidently state that the claims of this patent, for a single circuit and the use of a style, will stand *first* against all others in the world. The *Electro-Chemical Telegraph*, Company has now laid on the coping of their structure, and it is our opinion that no other company can use an electro-chemical telegraph, so as to make chemical good marks, by a *single* marker.

Jackson, the American Deer, has been beaten in a foot race at Buffalo, by an Indian named Canada. He ran 10 miles in 55 minutes and 49 seconds.

### Piracy of Inventions.

A recent case of this kind has come under our observation of a very extraordinary character of which we will give the facts, preferring not to publish names. It appears that a very worthy yet poor mechanic in the State of Wisconsin, had for some time been engaged in the manufacture of an agricultural machine, and by repeated experiments made at such times as his circumstances would allow, succeeded in effecting very important improvements in the machine, which would render it a better operator, and at the same time reduce the price twenty-five per cent. less than they had ever been sold. Not suspecting that any person could be so contemptably mean as to wish to rob him of his just rights, he communicated his ideas to a person who was about to purchase one of the original machines.

The inventor was surprised not long since to observe in our list of patents, the name of the person to whom he communicated his ideas, for improvements in these machines. What was more surprising, he found upon examination that these improvements embraced the ideas he had previously communicated to the piratical patentee. We publish this statement, made to us by undoubted authority, for the purpose of impressing inventors with the importance of keeping their ideas secret from the world, until they are prepared to take counsel from a respectable source in regard to making an application for letters patent. Any person having a doubt in relation to this matter, can satisfy himself by calling at this office. And as friends to inventors we feel it our duty to give them such advice as will enable them to adopt the measures for securing their just rights.

### Paine's Hydro-Electric Light.

MESSRS. EDITORS:—I am an attentive reader of the Scientific American, and take a deep interest in the progress of science and art.—Your paper is a repertory of invention and discovery, and whatever is *new*, merely alledged, or real, is sure to find its way into your columns, there to receive a critical editorial review, or (a very commendable course,) the review of others. No subject has interested me more than the alleged discovery by Mr. Paine, respecting his Electric Light. I candidly admit that I am a perfect sceptic, so far as it relates to the production of an economical light produced by a galvanic battery, and more skeptical respecting the production of a *good* or *cheap* light from the decomposition of water by a current of electricity, generated by mechanical *laboring force*, such as the descent of a weight to drive revolving magnets. It is no satisfaction to me to be told that a brilliant light has been produced by electricity. Such things have been done before, and while any part of the process remains hid from the public view, I for one must look upon it in the same light in which Mr. Paine looks upon the public, namely, with suspicion. If the discovery is new and useful, our Patent Laws will fully protect it—there can be no question about this, in my mind.

There is one point about the invention of Mr. Paine which I cannot understand, as it contradicts a well-known indisputable fact in chemical science, namely, the production of a brilliant light by the decomposition of water. Water is composed of oxygen and hydrogen gases,—and the hydrogen gas, that alone which burns, does not produce a white, but a blueish light. To produce a white light, the hydrogen has to be mixed with carbonic gas, forming carbureted hydrogen. This is so well known that until the contrary is established clearly, who can be blamed for their doubts on the subject. Nothing can satisfy me, as a matter-of-fact man, but a full knowledge of the subject, so that the truth of the alledged discovery, can, by scientific men, be fairly tested by philosophical experiment.

I have carefully read the letter of Mr. Paine, (on page 28, this vol. Sci. Am.,) in which he claims the discovery of *condensing the electric fluid, compressing it like the atmosphere*, in a receiver, *accumulating the force of it till it bursts the receiver*. This is a most wonderful discovery, and a no less wonderful statement. Time will prove its truth, as well as that of many other wonderful things. If the production of Mr. Paine's Electric Light is so cheap, and is such a wonderful thing, and as he says, "has been burning on a large scale for months, without a single attempt to dispute the originality in point of time or fact," surely he can have no objections to reveal the process, since the invention is *safe* in the eyes of the law, and in the hands of heavy capitalists who can protect it. Until this is done, one person at least, since he cannot get correct knowledge, must subscribe himself A GIOR.

New York, 1849.

### Woodbury's Patent Planing Machine.

Quite a number of patent board planing machines were exhibited at the Fair, one of which, that of Mr. Law, has already been illustrated and described in our last volume.

Owing to the difficulties experienced by many, in conducting their business, for want of a good planing machine, liable to no interference from the owners of the Woodworth Patent, various machines with stationary and reciprocating cutters, have been brought forward from time to time, to equal if not supersede, (what no one can deny) the good qualities of the Woodworth machine. On the 20th of September, 1848, a patent was granted to Joseph P. Woodbury, of Boston, Mass., for a planing machine, which was exhibited at the Fair, and was admired by many good machinists, whom we might name. The Roxbury Gazette, (Mass.), speaks upon good authority in pronouncing it a most perfect machine, and we have seen a certificate of Mr. W. Nye, of Fall River, Mass., who has been intimately acquainted for eighteen years with our best planing machines, and who has had charge of two rotary machines for the last year, and he says that he has seen Woodbury's machine operate on different kinds of timber, and has no hesitation in saying, that it will do three times the amount of work, with less repairs, in a given time, than a rotary planing machine. We have seen this machine operate, and have a very high opinion of its merits.

### New York Mechanic's Institute.

This Institution, in their new rooms, No. 105 Bowery, is exhibiting considerable spirit. The members are becoming more interested, and there has been a great increase within a short time. Every mechanic in our city should join it, but this we do not expect, while nonsense is preferred by so many, to knowledge. The men who join it exhibit a desire to get good and do good. We might have, in this city, one of the best Mechanics' Institutes in the world. On Monday evening next the introductory lecture will be delivered by the Rev. E. H. Chapin, at the Coliseum Rooms. An address will be delivered by the President, Hon. Zadoc Pratt, after which popular music will be performed by the pupils of the school connected with the Institute.

### Notice.

We have not yet been able to publish Junius Redivivus' article, nor the one on the Centre of Gyration. We have also some articles upon an alleged new discovery in the laws of mechanics, also a letter from Mr. Frost, of Brooklyn, in answer to the Report of Professor Horsford, of Harvard, published on page 24 of the Scientific American. We intended to publish Mr. Frost's letter this week, but were not able; it will appear in our next. We have a great number of communications on hand. They will be published in order.

ERRATUM.—There was a slight mistake in our article on the "Depth of the Ocean," published in No. 6. It says "suppose a cubic foot of lead is one hundred times heavier than a cubic foot of water, it will occupy one hundred times less space." It should have read, "it will occupy 100 times less space than water, according to its gravity."

The Fair of the Franklin Institute closed on Saturday last. We are pleased to observe that medals were awarded to the Charleston Steam Mills, and the Granitville Co., S. C., for excellent specimens of brown muslin. The exhibition was very fine throughout. Just as we expected.

The making of turpentine has commenced on some of the pine forests of Florida and has proved very profitable.