



NEW YORK, JANUARY 8, 1848

The Past and the Future.

The man who never looks within, seldom looks wisely without. It is one of the most profitable studies of a man, to scrutinize his heart—to examine into the well-spring of those actions that emanate from the volition of our mind, and to ponder well upon their effects. If we perceive that a love to benefit our country or our fellow man, has not especially been at the root of all our actions, we ought seriously to pause, reflect, resolve upon and act differently for the future. This is the duty of every man, and there is no better time to do this than when we are standing at the vestibule of a New Year. Then before we enter seriously to explore the distant scene of future hope, or future fears—the *chiara oscura* of our future life—let us at least have the calm and soothing consolation to lay to our hearts, that whatever winds may fill the sails of our bark, those of prosperity or adversity, (for onwards we must float,) we at least shall be true to ourselves, by being faithful to our Creator, and honest to our fellow man. No class of men have more need to examine their hearts oftener than those who are at the helm of the public press, each in his own sphere. Junius hath said, that “the press is the palladium of our liberties,” and this beautiful comparison implies that the Press sits as a goddess of wisdom to watch over our destinies.—It is therefore the duty of every editor who is true to liberty, personal and national, to disseminate true knowledge, that is, to be guided by truth as the mariner is guided by that star which fails not to tell his course, though the magnet may lose its charm. It has always been our sincere desire to propagate useful knowledge, and we have always endeavored to collect and condense as much practical information for the benefit of our readers as possible.

The great triumph of modern over ancient civilization, is the invention of printing. The press collects the gold and silver of a thousand minds and daily and weekly spreads before its readers the treasures of those mines, more rich than Potosi's and more valuable than those of Peru. In looking back upon the past we think that we have “done the State some service” during the past year. We have brought into public notice some things which will yet be a great service to science and to our country. We have during the past year presented our readers with much real practical information—information plain and tangible, not merely theoretic and speculative. Our articles on the Gutta Serena, a substance which is now beginning to be generally used and known and which is yet designed to work a revolution in the arts, were all practical and derived from no less than six specifications of inventions taken out for its different uses. Our articles on Electrotype Manipulation, were all practical also, derived from no less than the specifications of five patents and much information otherwise obtained. In short, we have presented to our readers during the past year, a greater amount and variety of sound and condensed useful information through the columns of the Scientific American, than can be found in any other periodical whatever, and we are happy to say that we have met with much to cheer and encourage us to renewed efforts in the same cause for the future. It has been a great pleasure for us to correspond so extensively, as we have done with our numerous subscribers. In every single case a familiar friendship has been established. We believe that almost all the patentees in the United States are among the list of our subscribers, and they are now all fully aware of the great fact, that to publish a description of their inventions in the Scientific American is the best manner to bring said inventions into notice, and that the opinion of any committee or association upon the merits or demerits of

any invention, to influence public opinion, is now a thing obsolete. An engraving and description of an invention published in a popular scientific paper, presents said invention to the public arbitration and it is generally the most correct, certainly the most final.

We are indebted to many of our subscribers for much sound and practical information, many of them men of no mean fame, and from many plain and practical working men we have received a vast amount of practical every day useful knowledge. These friends will be, we are certain, as generous and zealous for the benefit of science for the future as they have been in the past, and as we journey onward down the stream of time, we trust to be growing both wiser and better.

Interesting Patent Case.—Suit for Infringement of a Patent.

An interesting case was lately tried in the U. S. District Court at Boston, for an alleged infringement of a patent for a machine for grinding Spiral Knives or Cutters. The plaintiff was William Hovey, the defendant Silas Stevens. Letters patent were obtained in September, 1845, and in May, 1846, a bill was filed for an injunction on the defendant to prevent him from using the patented machine.—At the hearing of the injunction, the defendant exhibited proof that the said machine for grinding knives had been long known in principle and used for shearing cloth, so an injunction was then refused until the patentee should establish the validity of his patent by suit at law. In November, 1846, a trial took place between the parties before Judge Sprague when the plaintiff was nonsuited on the ground of a defect in the specification. The plaintiff then surrendered his patent and obtained new letters patent in the month of June last, which disclaimed several parts of his machine which was claimed in his first patent. The present action commenced early in last July, and damages were claimed for using the machine from June 19th, 1847.

The defence set up was, that the plaintiff was not the original inventor of the machine patented, and that the defendant had made it and used it before said Hovey applied for a patent in 1845, and that by the Act of March 3, 1839, Sec. 7, he had a right to use the machine even admitting the validity of Hovey's patent. On the first ground of defence, the defendant having filed a specification in pursuance of the Act of July 4, 1846, the Court decided that defendant is only required to give the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and that the fact of prior knowledge may be proved by competent witnesses. The defendant introduced a machine used at Hoosick, N. Y. for thirty years past, which he contended was substantially the machine claimed in the plaintiff's specification. The plaintiff insisted that he claimed and patented a machine, in which the face of the knife when grinding should radiate from the axis of the stock on which it is ground, and the flange of the grinder to which the knife is attached must be a duplicate of the flange on the cylinder to which the knife is transferred for use; and that this was not the case with the Hoosick machine. The plaintiff uses his machine for grinding knives for a straw cutter of which he is patentee. In this straw cutter the plane of the knife radiates from the centre of the cylinder on which it is placed, or nearly so, and in his grinder the knife does the same. In his specification the plaintiff claims a machine that shall grind a knife so as to cut on his straw cutter. But the defendant contended that the plaintiff not only claimed a machine that would grind a knife so as to cut on his straw cutter, but one that would so grind a knife, that when transferred, it would generate a cylinder, and cut on a roller,—any roller,—not confining it to the plaintiff's straw cutter; and that the Hoosick machine would produce the latter result. That if the plaintiff was confined to a knife that would cut on his straw cutter, he had not sufficiently described his invention in his specification; for he was bound so to describe his machine, that the public could understand it without reference to his straw cutter, with which the law does not presume the public to be familiar.—The witnesses on both sides generally agreed

that a knife ground out of radius (quarter of a circle) if transferred and placed in the same relative position, would generate a cylinder and cut on a roller.

To meet the second ground of defence, the plaintiff offered evidence to show that the defendant copied the machine constructed by him, from the plaintiff's, and contended that if such was the case, it was against his rights, and the defendant was not protected by the act of 1839. The defendant contended that the Act contemplated just such a case; that it pre-supposed the patentee to be the first and original inventor of the thing patented; for if he were not, then his patent would be void, and the defendant would require no protection; that it pre-supposed the defendant to have his machine without the consent of the patentee, for if with his consent, that was sufficient protection; that it was intended to quicken the inventor to diligence in procuring his patent, so that he might not keep it from the public 16 instead of 14 years.

Judge Sprague charged the jury that the plaintiff in his specification claimed a combination that would produce certain results, viz. 1. The grinding of a knife to a chisel edge, so that it would cut by pressure on the roller of his straw cutter, on a radius or nearly so. 2. The grinding of a knife, that, when transferred to its cutting place, would generate a cylinder, and cut on a roller, any roller rather than the plaintiff's; that if the latter result had been produced by the Hoosick machine, and by the same mechanical means, though it might not produce the first result, then the plaintiff claimed too much and could not sustain his action; that the question was, whether a machine used long before the plaintiff's application for a patent, would by substantially the same mechanical means, produce the result described in his specification; not whether there existed a machine previously in which the knife was ground in a radius.

On the second point the Judge held that if the defendant copied his machine from the plaintiff, without his consent, and put it in use against his will, he was not protected by the statute, but reserved this point for consideration, in case a verdict should be returned for plaintiff.

On the ninth day from the commencement of trial the jury were discharged, not being able to agree upon a verdict.

For the Scientific American.

Lead Pumps and Pipes.

There is a great danger to be apprehended from the use of lead pipes for conducting water to be used in drinking or cooking. It is well known that lead is poisonous, and if taken inwardly is the cause of disease if taken in small quantities, and if taken in large quantities is the cause of death. Lead however, is an insidious poison. It may be taken in so small quantities that no effect either good or bad may be perceived or felt for a long time, but if taken regularly, let the quantity be ever so minute, disease will be sure to follow from its effects, and ultimately death. Thus if water is conveyed through lead pipes, and said water be in the least corrosive it is dangerous to use. If water be exposed so as leaves or any vegetable substance get into it, never use lead pipes to convey it for domestic use. In fact lead pipes are not safe for domestic purposes, unless for conveying filtered rain water. Those who have lead pumps or lead pipes in their pumps should never use the first four or five discharges made by the pump, especially, if none has been drawn from the well or cistern for any length of time, such as in the morning when the pump has not been touched all night. G. R.

Bread Making.

Dr. H. B. Lewis, of this city, has published a small tract upon Bread making, a copy of which is before us. We heartily recommend it to the attention of all families. Dr. Lewis says that in one barrel of flour, by the process of effervescence, in comparison with fermentation, that there is a saving of thirty three pounds. Of this we have no doubt, although we believe, from experiments which we have seen made, that the fermented bread is, what is technically called, lighter, more spongy. The gas developed by fermentation is carbonic, therefore it is recommended that

bi-carbonate of soda and muriatic acid be used to develop this gas in the making of bread, by the mixing of these substances together. The following are the recommended proportions: For 3 lbs. fine flour 9 drachms of bi-carbonate of soda mixed with the flour in cold water, the soda to be dissolved first in a little milk warm water, muriatic acid 11 1-2 drachms, and water in proper kneading quantity, about 1 3-4 lbs. There is no use in adding salt in making bread in this manner, as the combination of muriatic acid with soda forms common salt—the muriate of soda.—The little pamphlet of Dr. Lewis should be in the hands of every housewife, as it reveals much domestic chemical knowledge, and Sir Humphrey David once said “every good wife that boils a kettle or a pan, would be all the better of drinking at the fountain of chemical knowledge.”

An Important Suit.

The N. O. Delta says that the cities of Philadelphia and New Orleans as legates of the late Stephen Girard, are claiming from the United States a tract of upwards of 200,000 acres of land, lying within the limits of the celebrated Bastrop grant, in the Ouachito region of Louisiana, and held under the primitive title, conferred on the Baron de Bastrop, in 1796, by the Spanish Government. The United States rest their title and right of domain to the contested lands upon the treaty of Paris in 1803, by which Louisiana, with all lands and possessions not already granted to individuals, was transferred to the United States.

Sentence of an Engineer.

Henry Robert Haisman, the engineer of the steamboat Cricket, which blew up some time ago at London, has been found guilty of manslaughter. His sentence was a mild one, only two months imprisonment, without hard labor. He was very ignorant it seems, and his employers were the most culpable, for which reasons he was recommended to the merciful consideration of judge and jury.

Stone Docks.

The Secretary of the Navy in a report to the House of Representatives recommends the construction of stone docks in preference to kinds of floating docks, and suggests the propriety of building such at Pensacola, Portsmouth, and Philadelphia, upon the Act of last Congress, which directed the construction of new docks at those places.

Brooklyn Flour Mills.

The Union Mill at Brooklyn, makes about fifteen hundred barrels of the best flour per week, and the Brooklyn City Mills about 1200 barrels. These mills are propelled by steam power and are as profitable as any that are driven by water power.

Population of Liverpool.

The population of the city of Liverpool, England is 358,855 and a revenue of \$1,366,967. Twenty thousand eight hundred vessels entered and left that port last year.

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