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Highly Important Patent Decision.—Stamping the Date on Patented Articles.

The question has often been asked of us, 'does the stamping of the year on which a patent is granted upon the article patented fulfill the strict letter of the patent law dated August 29th, 1842?' and we have answered, "it does not," although, no doubt, it in part complied with it. It has been, and is a very common custom for patentees to stamp the year of our Lord on their patented articles, and the question of thus violating the Act of 1842 never until now has been brought to a test before a Court.

The first case embracing this mooted point of our patent law, was tried in the U. S. Circuit Court, this city—Judge Betts presiding—on Tuesday, the 6th inst. The parties were Samuel W. Hawley, informant prosecutor, agt. Albert G. Bagley, manufacturer of an improved extension metallic pen and pencil case, for which he obtained a patent on January 1st, 1850. The complainant was that the pen holders manufactured, sold, and offered for sale under the patent were merely stamped "Albert G. Bagley, patented 1850," and that the patentee was liable to the penalty of \$100 for every such article sold or offered for sale by his authority, according to the 6th Section of Act of 1842, which says the date of the patent must be stamped or engraved on the patented article. One pencil case was purchased at Mr. Bagley's store by one of the witnesses, and it was testified by several that they saw the same case sold and a number of others offered for sale for \$14 per dozen. The defence was, 1st, That the spirit of the law was complied with by the stamp of the year the patent was granted on the articles vended and offered for sale. 2d, That Bagley himself did not sell nor offer for sale the pencil cases against which complaint was made. 3d, That the evidence on the part of the plaintiff did not show that the pencil cases bought and offered for sale and against which complaint was made, were identical with that described in the patent granted to A. G. Bagley on Jan. 1st, 1850. 4th, That while the allegations of the plaintiff charged the defendant with selling "extension penholders," his patent was for an "improvement in pen and pencil cases," therefore the declaration was defective.

The case was decided by the Jury in favor of the defendant on the last point of defence. Judge Betts charged the Jury that, to hold a defendant in penal actions under sections 5 and 6 of the Act of 1842, it is not necessary to prove that he personally sold or authorized the sale of the articles, for the non-stamping of which he is sued, nor that they were sold to the person using, nor must his partner be joined with him; but it is sufficient to show that the articles in question were placed in the market by the patentee, and that, therefore, a variance between the pleadings and proof in the above particulars is unimportant. But that the plaintiff, in penal actions, is bound to make his material allegations correspond with his evidence, and that, therefore, if the Jury found that the "extension pen-holders" alleged to have been patented and sold were not identical with the "pen and pencil cases" for an improvement in which the patent was proved to have been issued, they would be bound to render a verdict for the defendant; which they did without leaving their seats. He also charged the Jury that the defendant was bound to stamp the day of the month as well as the year, on each article offered for sale.

The law says: "The article or articles shall be stamped or engraved with the date of the patent." The date does not mean the year, nor the month on which the patent was granted, but the day, for the patent goes into effect from the day it was issued, and ceases to be effective on the very day, not the year, it expires.

We are glad that the case went in the way it did for the defendant, because there was no intention on his part to do wrong, and his neglect to comply with the full letter of the

law did no person any injury. He was mistaken in supposing he fulfilled the whole law by merely fulfilling a part of it; and it would have caused us pain if he had been mulcted in a sum of over \$5,000—the number of pencil cases said to be offered for sale—when there was no intention on his part to deceive any one.

We believe that hundreds of thousands of patented articles have been sold deficiently stamped or engraved, like Mr. Bagley's pencil cases. We should be sorry if any one of the owners of them were put to the same trouble and expense as he. For the future, let all patentees be careful to put the exact date of their patents on their articles, and they will then be perfectly safe.

Boilers of Naval Steamships.

The boilers of the new steam frigate *Merrimac* are stated to have proven entire failures. Some person furnished private information on this subject to the *New York Tribune* and the *Times*, of the 8th inst., and both of these papers presented severe editorial remarks on the subject. Who the person was that furnished these papers with such information we do not know, but his charges are public, and amount to this:—The boilers of the *Merrimac* are leaky; the tubes are liable to burn out; there are no means of access to repair the tubes and remove incrustations.

These are serious charges against both the principle of construction and the workmanship of the boilers. It is pretty generally believed that the *Merrimac*, thus far, has proven to be a slow steamer. One of our correspondents has attributed her sluggishness in the water to her inferiority of model; but he did not lay his finger, as it were, on her defects. Her model may not, indeed, be the best, but even if it were the finest in the world, and if her engines were the most skillfully planned and constructed, she could not attain to a respectable speed if her boilers were as faulty as they have been represented to be.

Charges of old fashioned notions and want of practice have been brought against the Naval Board and Naval Architects, while the engineering corps of the navy have been highly complimented for efficiency and proper organization. In justice to the Naval Board, if the boilers of the *Merrimac* are defective, let the blame be laid at the door of the proper parties. We understand that the boilers of the *Merrimac* were built according to the patent of the Chief Engineer of the Navy, and that all of the six new frigates are to be furnished with similar ones. His patent was granted on Nov. 28th, 1854, and the claim embraces "an arrangement of a series of tubes placed vertically, or nearly so, between an upper and a lower, and connecting vertical water spaces, when said lower water space is made directly over the fire chamber, and the draft is returned over said lower space and among the vertical tubes." The Chief Engineer is a practical man, and is considered to be skillful and observing. He was at one time first engineer of the ill-fated *Arctic*, and was selected for his practical fitness to fill his present office. If his boilers have proven defective in any important particular the public should know the exact facts of the case.

No parts of a steamship should be more carefully planned and constructed than the boilers. They are the fountains of power; therefore, if they are defective, the vessel—as a steamer—cannot but prove a failure, even if all else about her be faultless. The article in the *Times* on the subject is written in such a confused manner as to afford evidence on the part of its author of unskillfulness in the arrangement of the information furnished him. It deprecates copper tubes as accumulators of scale, whereas, the reverse of this is the fact. The correspondent of the *Tribune* has asserted that the *Merrimac's* boilers were planned to evade a certain patent. This statement betrays a personal interest on his part in the matter, which renders his statements suspicious. But be they true or false, since they have been publicly made, they should (if they can) be as publicly refuted. That the brass tubes where they connect with the iron plates may leak from unequal expansion and contraction is likely; if this is so, let us have the whole truth of the matter.

Chemistry of Cast Iron.

In 1849 a chemical laboratory was established at the United States Arsenal at Pikesville, Md., for the purpose of analyzing the cast iron employed in the manufacture of guns, and the charge of the experiments was committed to Campbell Morfitt, Esq., an analytical chemist, with Prof. Booth, of Philadelphia, as consulting chemist. The experiments extended over a considerable period of time, the final report of them being made last year. A great number of them were instituted, the reports of which are very minute, and exhibit a profound knowledge of chemical analysis. They are valuable to iron manufacturers and engineers, in relation to two kinds of cast iron—that produced by the cold and that by the hot blast. The average specific gravity of the cold blast iron was 7.218, and the tensile strength was 29,219. The specific gravity of the hot blast iron was 7.065; the tensile strength 19,640. The extraneous substances combined with the iron were found to be allotropic carbon, combined carbon, silicium, slag, &c. It would appear that the iron having the greatest amount of combined carbon with the least slag, was the best, and was found to be made by the cold blast. The hot blast appears to drive off some of the combining carbon at the same time leaving a greater quantity of allotropic carbon, existing in a form analogous to graphite, or black lead, which is injurious.

The Report says, "The slag and allotropic carbon, being of a brittle nature, and not united with the iron, coat the crystalline plates of metal, and diminish their surface of contact, consequently it follows that the tensile strength of the metal must decrease in proportion to the increase of slag and allotropic (uncombined) carbon."

From the analysis the lesson is derived, that hot blast is inferior in strength to the cold blast iron, and the reason of this is owing to a greater amount of slag and uncombined carbon in the former. Great advances have yet to be made in the manufacture of cast iron to improve its quality and reduce its cost. It requires two tons of coal to make a ton of pig iron; we can easily conceive the benefit that would accrue to all if some inventor were to discover a process to manufacture it with half this quantity of coal. We hope such an improvement will yet be made.

Recently a kind of pig iron (the Thomas, of New Jersey,) has been brought into the market, which, for the most of purposes, will supersede the Scotch pig iron, and it sells for three dollars less per ton. It is very soft, and flows smoothly, and is therefore well adapted to mix with our general hard and strong American cast irons. Its soft quality is due to the ore, from which it is made, not from any new improvement, we understand, in its manufacture. The great variety of iron ores in our country, and the vast extent and easy working of our coal beds, demand from our iron manufacturers much better and cheaper cast iron, than has been produced. We ought to make—and yet shall make, we believe—the cheapest iron in the world. Who can describe the benefits that would be conferred on our people, if iron were sold for one half its present price. It would tend to reduce the cost of machinery, and give an impetus to every branch of business in our country—agriculture, architecture, commerce, &c. We hope and trust our iron manufacturers will heed these suggestions, both for their own sakes and that of the public.

These remarks conclude our observations on the Reports of the U. S. officers of Ordinance.

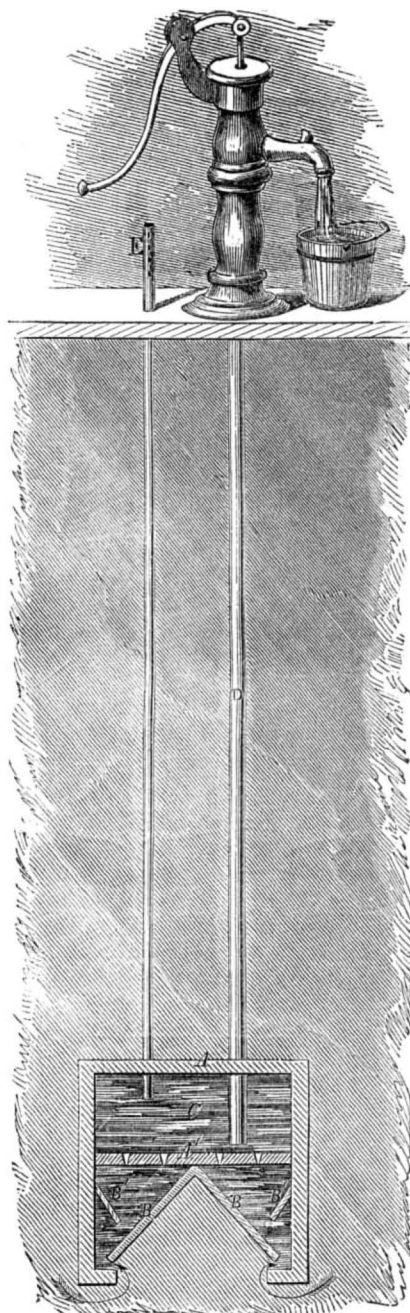
Changes at the Patent Office.

Mr. Wm. Chauncey Langdon, for several years past Examiner in the Patent Office, and for the last two years a Chief Examiner, has resigned his post. He purposes shortly to make a tour in Europe, after which he returns to establish himself in the patent business at Washington. We wish him the highest success. Mr. Langdon is a gentleman of sound practical judgment and extensive scientific learning. He has filled the office of Chief Examiner with credit to himself and satisfaction to those whose affairs it has been his duty to adjudicate. In his retirement the Patent Office loses one of its most efficient officers.

Mr. Thomas H. Dodge succeeds Mr. Langdon as Chief Examiner, and has already entered upon the duties of his office. He takes charge of the class which embraces Agricultural improvements, in which he has for some time been acting as Assistant Examiner. Mr. Dodge is from New Hampshire, and is a man of rare mechanical knowledge, acute discrimination, and scientific ability. We regard his appointment as a happy one. From what we know of his past history we feel confident that he will be an honor and an ornament to the department.

Recent American Patents.

Improved Reservoir Well.—By W. D. Bartlett of Amesbury, Mass.—This improvement is intended to dispense with the necessity of stoning up wells, and also to afford a supply of purer water than is obtained in the common manner. It consists in sinking a cistern under the ground to the proper distance, which shall serve as a reservoir to collect the water. The liquid is raised by means of a pump.



In our engraving, A is the cistern, which is open at the bottom and divided within by diaphragms, or partitions, A', B'. The water rises through perforated diaphragm, A', into reservoir C, whence it is made to ascend through pipe D, by means of the pump. E is an air pipe extending from the surface of the ground to the reservoir.

The water which supplies the reservoir comes from the lowest strata. In ordinary wells the water is apt to flow from the upper or surface strata, bringing ammoniacal and other impurities. An open well is also objectionable, owing to the free access it affords for insects and rubbish, which tend to make the contents impure.

By the present improvement the water is collected at some distance from the surface of the ground, and is never exposed to contamination; at all seasons it will be found cool and perfectly pure.

This method of obtaining water is simple,