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**The New Commissioner of Patents.**

Commissioner Holt has been so much engaged with pressing duties of various kinds since his recent acceptance of the office, that he has been unable to give every case of appeal a personal hearing. He has, however, adopted a new and most excellent rule in regard to appeals, viz: the submission of each case to a board of two Examiners, and in the event of their disagreement, then to hear the case himself. This method gives satisfaction to all applicants, for it affords them a better guarantee of justice than where the appeal is left to the decision of a single individual.

We present below a copy of Commissioner Holt's decision in the case of Joseph Davis' application, which was twice rejected and afterwards referred to a board of Chief Examiners, who could not agree. The decision is just and liberal, and shows that the Commissioner has correct views of his duties. At a single sweep he sets aside the venerable but narrow-minded practice of the Office in refusing patents because the improvement claimed may happen to be—in the Examiners' notion—a simple one. The declaration of the Commissioner, that "very slight changes often produce the greatest and most valuable results," is susceptible of the most complete proof, and we are gratified beyond measure to find this view so clearly set forth, as likely to be the future practice of the Office under its new administration. We have every reason to believe that inventors will find a true and consistent defender of their rights in the new Commissioner:—

**COMMISSIONER HOLT'S DECISION.**

U. S. PATENT OFFICE, Sept. 28, 1857.

In the matter of Joseph Davis' application for a patent for an alleged improvement in Carding Machines. This case having been twice rejected, and on appeal to the Commissioner by him referred to a board of Examiners, who have been unable to agree in opinion, I have given to the questions involved a personal examination, and have arrived at the following conclusions:—

The result attained by the improvement now sought to be patented—the saving of the fine fibres hitherto thrown off the carding cylinder and lost—is admitted to be new and important, indeed eminently so, being the supply of what has ever been a desideratum in carding machines; such being the fact, the general rule of law is that a sufficient amount of invention to support a patent will be presumed. It is objected, however, in substance, that this new and valuable result is but what is technically known in legal parlance as a "second use;" if so, it is of course not patentable. But it is of the essence of a "second use," as such, that it should be produced by machinery or a process already known, and by a mode of operation of such machinery already in use. Can it be successfully maintained that such is the case here? An inspection of the machine has failed to satisfy my mind of the appositeness of the reference given. The improvement patented by Daniels & Dewey, consisted in a combination of smooth rollers, with a wool-picking machine; the one under consideration consists in a similar combination with a wool carding machine. One of the elements of the combination—the smooth rollers—is the same in both; but the other being essentially different, the two improvements, which consist also in combinations, are as distinct and different as a wool-picking is from a wool-carding machine. The mode of operation is also entirely different. In Daniels & Dewey's machine, the rollers turn in opposite directions, and without this opposite rotary motion, the result aimed at—the throwing off the dirt and other impurities—would not have been accomplished. In Davis' machine the end sought to be attained is just the reverse of this, its functions being not to

throw off, but to catch, retain, and restore to the main cylinder those fibres which, under the operation of Daniels & Dewey's machine, are cast away and lost. The end being thus different, the mode of action is accordingly varied. The rotary rollers move, not in opposite, but in the same direction, and this is as necessary to the object to be effected as are the opposite movements to the object contemplated by Daniels & Dewey. It may be said that this is a slight change, and one which might readily suggest itself to any mechanic. But this does not furnish the true test of the patentability of an invention. *Very slight changes often produce the greatest and most valuable results*, and it is by those results, and by them only, that the value and importance of the changes are to be ascertained.

Believing then, that the machine under consideration presents a new combination, a new mode of operation, and produces a new and most useful result, I cannot hesitate to grant the application for a patent.

J. HOLT, Commissioner.

**Rapid Circulation Necessary for City Water.**

A very important discussion has been going on for some time at Albany, N. Y., resulting from the defective head of water which supplies that city, and the annual recurrence of its impure condition since the works were opened, on which points an able series of papers have been published by Alderman McElroy, Chairman of the Water Committee for three years.

The positions assumed by him, and defended at length with a great array of facts and authorities, are:—That water supplied by gravitation needs large storing reservoirs of limited depth, and being exposed to solar action in the hot months, without free circulation, involves serious objections. That the causes of the impure water at Albany are clearly traceable to its fermentation under solar action, for which the only preventive and remedy is its rapid circulation. That the daily supply of water to a city in warm weather should invariably be taken from the surface water of the reservoirs, which should also be arranged so as to waste from the bottom. That the use of three and four-inch pipe for distribution service is objectionable on account of producing an excess of friction.

These and other points are treated in the papers referred to, involving questions for hydraulic engineers which have attracted too little attention. The people of Albany were afflicted with impure water during the past as well as several previous summers, and our readers will remember that very serious trouble was experienced from the same causes in Boston in 1854. We have been informed that the utmost care is now exercised in promoting free circulation in Lake Cochituate, and with success, to prevent a recurrence of the evil. We have also been informed that in Liverpool (Eng.,) and other cities, much inconvenience has recently been experienced from impure water arising no doubt from want of rapid circulation. This city (New York) has never experienced any of those evils complained of by the people of Boston and Albany. The rapid consumption of the supply to our reservoirs fortunately keeps them always at a low head, and thus prevents stagnation and fermentation by solar action. This is a subject which deserves general and serious attention in all those cities and villages supplied by water from reservoirs, no question being of more importance as regards health than pure water.

**The New Front for the Patent Office.**

The western front of the United States Patent Office is now almost entirely completed, and preparations are now making for its occupancy. The second floor is thrown into one immense saloon, and is set apart for the reception of the rejected models. This new saloon is of the same size as the splendid hall of the eastern front of the edifice, now occupied by the patented models.

The rejected models are to be placed in

glass cases, and arranged in the same neat and careful manner as the patented models. Commissioner Holt is now engaged in determining the style of the cases, arrangement, etc., for the new hall. They are to be substantial and ornamental. It is probable that iron will be the material selected for the frames.

The northern front of the Patent Office is now in course of erection, and when finished, the building will cover an entire square. There are few palaces or public buildings in the world that will compare with the Patent Office in point of architectural beauty.

**Patent Office Management.—Liberality of Examiners.—Sale of Patent Rights.**

The new Commissioner of Patents is giving universal satisfaction, so far as we can learn; and when there is any dissatisfaction felt concerning the Patent Office management, we hear of it about as early as anybody else. Every department now seems to be governed by faithful and efficient officers.

We notice an increasing disposition among most of the Examiners to give inventors the benefit of any doubt existing in regard to the propriety of deciding favorably upon cases up for examination. This is as it should be. Many an honest inventor has been deprived of a patent, which, if obtained, would have been a means of yielding to him quite a handsome revenue, but which he could not get without going to an expense which he could not afford, and all because the Examiner *thought* a device described in some foreign publication contained features substantially the same as that upon which the poor American applicant was seeking to obtain a patent. A better day has dawned for inventors; and we are rejoiced that the hair-splitting, niggardly system which characterized the practice of some of the Examiners a short time ago, has been materially changed.

We believe there never was a more propitious time for inventors to bring their applications before the Patent Office than the present; and we never knew of so many sales of patent rights by which large sums had been realized, as we have heard of latterly. It really seems as if patent rights were the only property that sustained its *par* value under the present money pressure; but judging from the prices for which some very trifling inventions have been sold for, within a few weeks, we think the market for patents decidedly improving. Mechanics who are out of employment, cannot, in our opinion, do better than to employ their time and talents in trying to improve upon machinery with which they are familiar, or inventing something original. We were forcibly impressed with the correctness of these remarks upon inquiries made among the exhibitors at the Crystal Palace since the writing of the above lines. We find many rights have been sold by exhibitors since they have operated their inventions in the Exhibition, besides many have received large orders for the manufactured machines.

**Financial Matters in New York.**

At the time of penning the article in last week's number, on the financial panic which exists throughout the country, we were in hopes that in our next we could record a better state of things, and that uncurrent money and exchange could be bought and sold in this market for about the rates usually demanded. We regret to state that no improvement is visible in this metropolis, and many of our merchant princes have been obliged to succumb to the pressure, and suspend payment within the past week. Two mercantile houses whose assets, over and above their indebtedness, are said to amount to considerably more than one million of dollars each, have been unable to meet their payments, and consequently have suspended. Property to an enormous amount is held by each of them, but to realize the cash to meet their obligations was out of the question, and the consequence is that they have, according to common parlance, failed.

A few days ago we were informed, by a

member of our Stock Exchange, that a well known shipping merchant of this city had no doubt sacrificed over one million of dollars, to raise money to meet his daily obligations which have matured this autumn. These amounts are almost incredible, but the information is derived from a source which may be considered authentic, and we give it only as a specimen of the state of financial affairs in this city, and yet neighboring cities are in a still worse condition than New York. We believe, however, that this state of affairs cannot continue long, and that a better day for the merchant, mechanic, and manufacturer will soon dawn. Inventive talent, we are happy to say, does not seem to be latent with our people, and we see no reason why it should not improve under the fostering care of our well-managed Patent Office, and with an increasing demand for patent property by capitalists as an incentive.

**How to Make Remittances.**

In a paragraph under the head of "Financial Panic," in our last week's paper, we advised parties who resided in the country and wished to remit monies to this office, in any inconsiderable amount, to procure a certificate of deposit from some bank nearest their residence, and forward it to us instead of bills. We have since concluded not to trouble our correspondents to obtain certificates as above proposed, but to receive bills at *par* on any specie-paying bank whose issues pass current at the place whence sent. This will save our friends much trouble and will answer our purpose as well as bank certificates.

Of course we expect parties who reside where bills of exchange on New York can be obtained, to remit large sums in that manner, as usual, but where exchange cannot be procured, our correspondents may avail themselves of the liberal offer advanced in the preceding paragraph. But what would suit us still better, and relieve the sender of all risk, would be to remit in gold or silver by express. This may be done at our risk and expense, when the amount exceeds twenty dollars. Take a receipt from the express company, signifying the amount, and send it to us by mail.

**A Large Reward for a Slight Exertion.**

Owing to the scarcity of money throughout the country, and the temporary paralysis thereby existing in mechanical and manufacturing business in consequence, we find that there is not the usual number of competitors for our annual prizes this year, and those who have entered the field of competition do not furnish lists as large as heretofore by a great per centage.

Setting aside any personal interest we have in augmenting our subscription list, we are of the candid opinion that no person who earns less than five dollars per day, and who lives in a vicinity tolerably populous, can earn money easier, or more of it in a given time, than by getting up a club of subscribers for the SCIENTIFIC AMERICAN.

It will require but little exertion in the right direction to obtain our first prize of THREE HUNDRED DOLLARS; and should a competitor, in aiming at the first, fall a trifle short of obtaining it, the next prize is but fifty dollars less, and so they decrease in proper ratio down to twenty dollars.

We commend to the attention of our mechanics generally, and especially those out of employment, our prospectus and the prizes we offer, promising to promptly meet the payment of the FIFTEEN HUNDRED DOLLARS in gold, immediately after the first of January, 1858.

Prospectuses and specimen copies of the paper may be had gratuitously on application at the office of publication.

**SUSPENSION BRIDGES.**—There is no truth in the rumor that a tubular bridge is to be built in the place of the suspension one now spanning the Niagara river. The railroad company has a long lease of the present bridge, and have no idea of expending money on a new structure.