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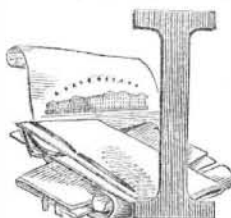
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## REFORM OF THE PATENT LAWS.



It will be observed in our editorial correspondence from Washington in another column, that this important subject is touched upon, and that new light and life are thrown into it. Our patent laws require but very few alterations, but these are of pressing necessity and vital consequence. We have directed public attention to this subject on several occasions, in former volumes; but as nothing has yet been done effectively in the matter we deem the present moment well fitted for bringing the subject before the members-elect of Congress, and other persons holding high offices in Washington; as great responsibility rests upon them in regard to effecting the necessary reforms during the next session of our Federal Parliament.

We are gratified to learn that the Hon. Commissioner of Patents, although but a brief period in office, has become deeply interested in this question. His position and duties have brought the present evils so prominently before him that he is prompted by duty and generous impulses to exert his influence in the work of reform. Having recently filled the position of a member in the House of Representatives, he has the peculiar advantage of knowing personally many of the present members, and will thus be enabled to exert a salutary influence in bringing about the desired result. If the Commissioner can succeed in getting the favorable action of Congress upon a reform bill, he will be entitled to, and will receive, the gratitude of the whole host of inventors and patentees.

The reforms required are very reasonable, and we believe that, if presented in the proper light, they will meet with the entire approbation of Congress. The bill reported by the late Senator Evans, in 1858, published on page 222, Vol. XIII, SCIENTIFIC AMERICAN, covers nearly the whole of the required amendments. We recollect attention to this bill, because it affords a good foundation for legislative action, and it will avoid the labor and trouble of commencing the work *de novo*. As we reviewed its principle sections on page 229 of the volume just referred to, we will not take up space with going over the same ground again, but will content ourselves with noticing, briefly, two or three prominent features requiring prompt attention.

1. *Interfering Cases.*—According to our law, the original or first inventor alone is entitled to a patent. The principle upon which this action is based is no doubt correct; but the manner in which it is sometimes applied is very wrong. Thus, for example, if A were to invent an improvement to-day, and secure a patent for it to-morrow; he may be dispossessed of it, after it has been held for several years without a single question being raised regarding its validity during all that period. To do this, another inventor, B, has only to prove that he discovered this same improvement first, and that he was prevented by untoward circumstances from applying for a patent at an earlier date. There are instances on record where patents have been set aside by such actions, after the first patentees have been at an enormous expense in introducing their inventions and building machinery to operate them. Very great injustice has been done, and great hardships suffered by innocent parties on account of this feature in our patent law. That such an evil should be removed from our patent system no one will deny; but the question is, how shall this be done and

yet carry out the just principle of granting patents to original inventors only? It is proposed, for this purpose, that the fee for filing a caveat shall be so reduced as to enable every inventor, however poor, to take advantage of it and record his improvement nearly as soon as it is conceived, and that the date of the caveat be the only evidence allowed of priority in invention. Such an amendment of the patent law will fully protect inventors in their just rights, and make patents (as they should be) inviolate, except in cases of fraud. We hope to see such an amendment, or one equally as effective, adopted at the next session of Congress.

2. *Fees of Foreigners.*—Our patent laws contain odious distinctions in the amount of fees required from foreigners. A citizen of Great Britain is charged \$500, and the citizens of all other foreign nations only \$300; this is neither just nor republican in principle. England charges our citizens higher patent fees than we do, but much less than we charge her citizens; and, to her honor be it spoken, she charges *all alike*—the American stands on the same platform with the Englishman, in securing a patent. It should be the same with us;—and we see no reason why the patent fee should not be reduced for all foreigners to the same standard as that for our own citizens. Such a reform could do no harm, but an enormous amount of good, as it would invite the best foreign mechanics to seek protection for their inventions in our country, and thus be the means of introducing every valuable improvement from abroad. Our attention has been particularly directed to this feature, at the present time, by a petition from the committee of the Manchester (England) Patent Law Reform Association, to Duncan Macauley, Esq., the American consul in that city. This petition is signed by no less a person than William Fairbairn, the great engineer, who points out the impolicy of the very high patent fee imposed upon British subjects by our law, and requests the consul to lay the matter before our government. The petition pays a high compliment to inventors, and points out what discoveries in science and art have done to increase commerce and advance civilization. We cannot forbear quoting two of its clauses because they are so full of the right spirit:—

“That, in order to develop, to the fullest extent, inventive talent, every encouragement and security should be given to inventors consistent with the public welfare.

“That, for many of the most valuable discoveries and inventions, we are indebted to the expansive minds of operatives and individuals in humble life, who are prevented from securing to themselves the advantages of their inventions, on account of the present expensive process of obtaining patents.”

So far as it relates to foreign inventors, our patent law is grossly aristocratic. A poor English or French mechanic is totally unable to obtain an American patent, unless he finds some rich man, upon whom he must become a dependent, to advance the patent fee. This is not republicanism.

3. *Evidence before the Commissioner.*—We have but little space to devote to this head, and will therefore conclude with a very few remarks. The patent law requires the Commissioner to make just decisions upon testimony relating to all the cases presented before him for adjudication; and yet no provision is made to enable him, as in trials at common law, to compel the attendance of witnesses, so as to develop the whole truth in relation to the question at issue. Such a broad defect in the law is apparent to every person. The most important witnesses in such cases can snap their fingers and refuse to utter a word on the side of law, truth and justice.

THE SILKERY OF THE SKIES.—In a communication from E. Merriam in the *New York Times* of the 20th ult., he endeavors to prove that the aurora borealis is a material substance of “exquisite softness and silvery luster” which he has denominated “the silkery of the skies.” This he conceives is produced from volcanoes throwing matter up into the heavens during their eruption, and he is also of opinion that meteoric showers result from aurora borealis. Such a theory cannot be sustained by facts. As the aurora takes place almost every night, in the Arctic regions, of course it would require a volcanic eruption every night to produce it, in those localities; therefore, as it is well known that no such volcanic eruptions take place, we must attribute the phenomena to atmospheric influence connected with electricity, as the best explanation yet derived by men of science.

## EDITORIAL CORRESPONDENCE.

WASHINGTON, Nov. 1, 1859.

Washington is, according to geography, the federal capital of the United States. It will be found to contain, at almost any season of the year, a large number of living celebrities; in fact, it is asserted upon competent authority that it contains the well-known “White House,” where, in the retirement of his domicile, a venerable bachelor indulges in his reveries. These reveries are supposed to consist of varied gyrations and evolutions of huge government wheels forming a part of a monstrous machine invented and patented in part by “Uncle Samuel”—a man of wisdom, gravity, and profound conceit—a sort of “Sir Oracle” whose word is law. The latter personage, although little over eighty years of age, and although hale and hearty—taking his three meals a day with some extras, and regularly digesting the same—is nevertheless sometimes called an “old foggy;” and there are symptoms, about once every four years, of his being ousted; yet it is found, after the due process of electioneering and voting, that the old gentleman remains there still, quietly presiding over the affairs of the nation.

Strolling along the broad Pennsylvania-avenue, the other day, arm-in-arm with a friend, we met the impersonation of “Uncle Sam,” arranged in good old homely semi-winter garb. There was no want of elasticity in his step, and even the cane was slung carelessly under his arm as a useless appendage. Imitating the example of other well-bred folks, we tipped our beaver; and in return we received the Chief Magistrate’s very courteous acknowledgement. Leaving all the officers of the government, from the Head downward, to the full enjoyment of all the honors, emoluments, pabulum, and physic that belongs to them, we will come back to the federal city, and propose briefly to touch upon the the old and perhaps stale complaint against its incongruity of arrangement. Nothing more painfully impresses the stranger who visits Washington than the utter want of taste and good judgment displayed in locating the public buildings. Washington was planned under the direction of the “Father of his Country,” by Pierre C. l’Enfant; and the purpose was to have broad avenues of direct communication, so as to connect the separate and most distant objects with the capital, and to preserve throughout the whole a *reciprocity* of sight at the same time. After the public buildings were burned in 1814, and it was settled that the city should remain the seat of the general government, it is astonishing that some common sense did not obtain a hearing on this subject. If the government buildings had been erected on all sides of one grand square, with the usual botanical and horticultural accessories, we could now bid defiance to all competition in this respect, instead of presenting a system which, for uncouth jumbling, has hardly an equal; but what is the use of complaining now? for those who were guilty of this foray on good taste and sound judgment are most of them altogether beyond the reach of the soundest “basting” which could be applied to them.

It has become part of my education to regard the Patent Office as the most interesting department of the government. What is it to me if our venerable Secretary of State has a bit of a brush with Lord John Russell, about “boundary lines” and “54° 40’?” Supposing Mr. Holt has found out that some western postmaster is a little shaky “on the goose?” These things neither excite my mind, nor move a single muscle in my frame. If the Post-office Department does not work all right, I can scold; and if it *does*, this is no more than I have a right to expect; no thanks to Mr. Holt. In the Patent Office, however, we find a different state of things. Here, inventive genius is represented in modeled forms, after having been triturated, shaken up, and boiled down to a concentration, the study of which opens to the mind an almost boundless field of thought and contemplation. Could these models but tell the lives of their projectors, what a crowd of reminiscences would they reveal, of researches involving an amount of patience that might elicit the approbation of the patriarch Job himself; of toils, struggles, disappointments, sacrifices, hope deferred, and, in many instances, successful achievements; the whole forming an unwritten history more glorious than the chronicles of “grim-visaged War.”

Not far from where I am now sitting is a huge “lightning” press, throwing out its thousands of sheets every hour. If I wish to study this ponderous piece of mechan-

ism, which confuses and baffles the judgment while in operation, here, in the Patent Office, is its perfect miniature representation, which I may handle, turn upside down, and examine with the utmost facility. Just over the way, I can hear the constant tapping of a wondrous little instrument; and I peer wistfully around the curtained partition, hoping to see what is going on. I am confronted by the words, "No admittance," and my curiosity is heightened, for surely some mystery is being enacted here. Is this "the Devil and Dr. Faustus?" If not, what else can it be? At the Patent Office, this seeming enigma is made plain as day; the apparatus is simply a machine for taming down the electric fluid, and employing its swift wings for the transmission of that which concerns the business and bosoms of men. And thus, from the day when General Jackson, while journeying through the West, on his way to assume the office of Chief Magistrate, undertook to bring on the model of an old saddle-tree, and get out a patent for it, to accommodate an old soldier—from that day until the present hour, this noble edifice has been the depository of the ingenuity of our inventors, who, in spite of all the contumely which would-be-wise men have undertaken to heap upon them, have done more to advance the material interests of the country than any other class of our citizens. Upon the records of the Office we find the honored names of Eliphalet Nott, Whitney, Morse, Hamilton, Jennings, Mott, Hoe, Blanchard, Ericsson, Goodyear, Winans; and even that ubiquitous citizen, *Smith*, has taken out a great many patents, along with a host of others whose names would fill a dozen sheets like this.

On entering the Patent Office—one of the grandest architectural edifices to be found in the world—a sensation of mystery crowds upon the mind. We inquire for the official custodian of the innumerable mysteries which surround us; we find him to be the Hon. Wm. D. Bishop, late member of Congress from Connecticut—a State abounding in ingenious men. He is a proper arbiter of their claims before this interesting bureau; for, united to other qualifications which fit him for the honorable sphere in which he is now placed, he possesses a mechanical element in the constitution of his mind which enables him to see through every invention brought to his notice. It is not, however, the Commissioner's duty to examine all applications made for patents; associated with him in the discharge of his duty, there is a Chief Clerk, S. T. Shugert (a faithful officer), twelve Chief Examiners, twelve Assistant Examiners, and a bevy of clerks and messengers employed in various subordinate departments of the Office. Each Chief Examiner and his assistant have a room set apart for their own special use; they regularly examine a classified list of applications, and may be regarded as the executioners of the Patent Office. Many an honest inventor, with an enthusiasm peculiar to his species, has had his hopes suddenly "guillotined" by these inquisitorial officials, whose duty, when faithfully discharged, is a most delicate and responsible one, for it requires a discriminating and well-balanced judgment to guard against too much liberality on the one hand, or injustice on the other. The mind of the Examiner works towards its conclusion in two different channels or modes of thought; the result intended to be reached in each case being the same. One Examiner (this is the minority class) carefully examines the applicant's papers, and having obtained the requisite knowledge of the points claimed, starts on his excursion of inquiry, hoping he may discover unequivocal evidence of a want of novelty which will justify the rejection of the application. Another Examiner, pursuing towards the same end, hopes he may be able to discover something new in the applicant's model, whereby he may pass the case for issue—prompted by the feeling that, if there is any reasonable doubt on his mind, he will turn it rather in favor of the inventor than against him; for it is unquestionably better that a dozen patents should be granted for what is not new than that one inventor should be deprived of his just and equitable rights. A patent granted for what is old is worthless; but if one inventor is deprived of his just rights at the Patent Office he would scarcely expect to recover them from an outside tribunal.

In reference to the condition of the Patent Office, I may with propriety state that on no former occasion have I ever visited it when a better system or more uniformity of action prevailed. There seems to be a disposition on

the part of every one connected with the Office to do his duty faithfully, and to recognize the ruling authority. The new Commissioner is well liked in the Office; and, so far, he finds his duties agreeable, and I may safely predict for him a successful official career. He feels a deep interest in the success of a patent bill which will knock off the rough corners of our present system. In the main he is believed to be friendly to the bill reported at the last session, and proposes to engraft upon it some important changes, whereby questions of interference may be more readily settled and thus give more stability to patents after their issue, or in other words, to put an *estoppel* upon the right of one inventor to contest the patent of another on a question of priority (except in cases of fraud), unless this claim is set up within a reasonable time after the patent has issued; leaving the question of the validity of the patent thus granted properly in charge of courts of competent jurisdiction. Such a provision is much needed, as I believe there is now a question of interference pending between an applicant and a patent of some eight years' standing.

A very important patent case was argued before the Commissioner of Patents on the 27th ult. Thaddeus Hyatt, the original patentee of his peculiar illuminated tile or load-sustaining grating (now becoming so extensively used in large cities for lighting vaults and basement extensions), has asked for a renewal of his patent for a period of seven years, as provided for by the section of the act of 1836. The applicant presents a formidable array of testimony to sustain his claim, and is confronted by remonstrants who scrupled not to bestow upon him some pretty choice compliments. The attention of the Hon. Commissioner was called by one of the counsel to the "stupendous audacity" of the applicant. The case, for the most part, was ably conducted; and its more spicy passages afforded considerable amusement to the spectators present. At the time of my writing, the case has not been decided; and it is impossible to foreshadow, with any degree of certainty, the result. There are some interesting points involved in this case which will invite examination. I forbear to touch upon them at present.

I observe that an extract in the SCIENTIFIC AMERICAN, page 288 (copied from the Baltimore Sun), mentions that the Commissioner of Patents would not put in an estimate, as usual, for printing the agricultural report. This is an error. An estimate will be put in, and the responsibility of adopting or rejecting it will rest solely with Congress.

#### MARE'S NESTS IN PORKOPOLIS.

A cotemporary attempts to "corner" us in the following style:—

DO HOGS HAVE HORNS?—The prussiate of potash is made in large quantities in Cincinnati, from hoofs, horns, and other refuse of slaughtered grunTERS.—*Scientific American*.

Begging your pardon, Mr. Scientific, allow us to remark that swine do not wear "horns" in this region. Please add that to your scientific information.—*Cincinnati Gazette*.

We had frequently heard of the "horned hoss," and it seems probable from the above quotation that, while undertaking to muckle a piece of Cincinnati hog, the idea floated through our imagination that they were chiefly made up of hoofs and horns. We are happy to know that they are like other people's hogs.

ARE COW HIDES MIXED WITH MORTAR?—Cow hides taken from the hides in tanneries is employed for making plastering mortar, to give it a sort of fibrous quality.—*Scientific American*.

Cow hides "is" also sometimes "employed" in facilitating the acquisition of the rudiments of grammar, among very dull scholars.—*Cincinnati Gazette*.

We are of the opinion that cow hides work better into boots and shoes than they do into mortar for plastering walls. Our cotemporary, however, never saw any such paragraph as the above in the SCIENTIFIC AMERICAN, and must have found it in some other journal. We don't feel willing to shoulder other people's blunders if we can help it. We find the type sufficiently treacherous in our own office without being held responsible for the pranks they play in other offices.

A NEW ANTHRACITE FURNACE.—The Reading Times says that a large anthracite furnace, situated on the canal, one mile above Douglasville, will be completed in about a week. It is capable of making 100 tons of iron per week, but will not go into operation at present, or indeed until some radical change is made in the tariff.

#### PATENT CASES.

*Caustic Alkali*.—We have received the record of the case tried before Judge Grier, Oct. 27th, at Philadelphia, in which the Pennsylvania Salt Manufacturing Company were the complainants, and T. Conrow and Isaac Barber were the defendants. The plaintiffs alleged that George Thompson was the true, original and first inventor of an improvement in devices for putting up caustic alkalis, not known or used at the time of his application for a patent, which was issued on the 21st day of October, 1856, to Thompson, and on the 26th day of January, 1857, transferred to the complainants. On the 1st day of February, 1859, re-issued Letters Patent were made to Thompson for the improvement, and he again transferred his right to the complainants. They complained that the defendants have infringed upon their rights, as they are using the improvement in the eastern district of Pennsylvania, without authority from them. A motion was made in the case, asking for an injunction restraining the defendants from selling caustic alkalis, packed in tin cans, called "Condensed Lye." After argument, the Court granted the prayer of the bill, and an injunction was issued to restrain from selling said improvement.

*Gates*.—Before Judge Grier, the case of Robert Wood, complainant, C. White and several others, defendants, for infringing the patent for a gate, was decided on Oct. 31st. The complainant alleged that he was the assignee of the patent granted to H. E. Wesche, on Feb. 12, 1856, for an improvement on gates. Mr. Wood brought suit against the defendants, asking for a special injunction against them, restraining them from using said design for gates. After argument, the Court allowed the injunction to issue, upon the filing of an additional affidavit.

#### A BEETLE IN A TRAVELER'S EAR.

The whole interior of the tent became covered with a host of small black beetles, evidently attracted by the glimmer of the candle. They were so annoyingly determined in their choice of place for peregrinating, that it seemed hopeless my trying to brush them off the clothes or bedding, for as one was knocked aside, another came on, and then another, till at last, worn out, I extinguished the candle, and with difficulty—trying to overcome the tickling annoyance occasioned by these intruders crawling up my sleeves and into my hair, or down by back and legs—fell off to sleep. Repose that night was not destined to be my lot. One of these horrid little insects awoke me in his struggles to penetrate my ear, but just too late; for in my endeavor to extract him, I aided his immersion. He went his course, struggling up the narrow channel, until he got arrested by want of passage-room. This impediment evidently enraged him, for he began with exceeding vigor, like a rabbit at a hole, to dig violently away at my tympanum. The queer sensation this amusing measure excited in me surpassed description. I felt inclined to act as our donkey's once did, when beset by a swarm of bees, who buzzed about their ears and stung their heads and eyes until they were so irritated and confused that they galloped about in the most distracted order, trying to knock them off by treading on their heads, or by rushing under bushes, into houses, or through any jungles they could find. Indeed, I do not know which was the worst off. The bees killed some of them, and this beetle nearly did for me. What to do I knew not. Neither tobacco oil, nor salt, could be found; I therefore tried melted butter; that failing, I applied the point of a penknife to his back, which did more harm than good; for though a few thrusts kept him quiet, the point also wounded my ear so badly, that inflammation set in, and severe suppuration took place, and all the facial glands extending from that point down to the point of the shoulder become contorted and drawn aside, and a string of bobus decorated the whole length of that region. It was the most painful thing I ever remember to have endured; but, more annoying still, I could not open my mouth for several days, and had to feed on broth alone. For many months the tumor made me deaf, and ate a hole between that orifice and the nose. Six or seven months after this accident happened, bits of the beetle, a leg, a wing, or parts of its body, came away in the wax. It was not altogether an un-mixed evil, for the excitement occasioned by the beetle's operations acted towards my blindness as a counter-irritant by drawing the inflammation from my eyes. Indeed, it operated far better than any other artificial appliance.—*Journey of a Cruise on the Tanganyika Lake, Central Africa.*