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Review of the Proposed Amendments in the Patent Law.—Important Movements in Congress.

In a recent number of this journal, after commenting upon the origin and the efforts which were being made to press upon Congress the hurried passage of a bill providing for a radical, and, as we believe, highly injudicious alteration of the Patent Laws, we gave it as our opinion that the present regulations were about as satisfactory as any that could be devised, and that no alteration, further than some simple provision to increase the revenue of the Patent Office, was at this time very pressingly required.

Unlike the other revenue systems, it appears that at present the more money the Patent Office receives, the further off it gets from paying its way. In other words, the larger the number of patents applied for, the greater becomes the proportionate expense of examining each case.

This reminds us of the enterprising boy who excused his want of punctuality at school, by saying that the ground was slippery, and that for every forward step he took he slid backwards two.

The object of the Hon. Mr. James' Bill, now before the Senate, is to remedy the above evils and some others, which the present patent system is supposed to contain. Let us examine into the composition of the proposed panacea, and see if it probably contains the healing elements.

It strikes us that the Bill might very properly be described as a series of ingenious projects for squeezing money out of inventors, and with equal ingenuity conveying it into the pockets of patent agents and lawyers. The idea of benefitting and encouraging the inventor seems to have been cast out altogether. Under its humane provisions an inventor, if he be so unfortunate as to get a patent, becomes a legal goose, subject to a most indiscriminate pluckage: it is a Bill which clamors for Money, Money, MONEY, without offering proper return.

The following are specimens of its blessings:—

If an inventor asks for a patent with a specification ending with one claim, he pays for the privilege of asking (not obtaining, mind) the sum of \$20. For additional claims, not exceeding three, \$5 extra for each. For additional claims, beyond three, \$10 extra on each. Therefore the government fees demanded for the mere asking for a patent, in which six claims are necessary (which is very often the case,) amount to \$55. If the application is rejected, and the applicant appeal to the Commissioner, he pays another fee of \$10, making \$65. If he then appeal from the Commissioner to the Judge, he pays another fee of \$25, amounting, in all, to \$90—the whole of which is lost if the application fails. [Under the present law the inventor loses \$10 only of the patent fee if his case is rejected.]

Should the last appeal be successful, and the patent, with its six claims, as described, be accordingly granted, the inventor is called upon before receiving the same, to pay a final fee of \$50, making a sum total of \$140 in official dues, and his patent then lasts only five years. By the payment of another fee of \$100, before this period expires, the patent can be extended for fifteen years longer. This makes the total official fees for the parchment and nominal grant of the patent, \$240, in place of \$30—being an increase of *eight hundred per cent.* over the present rate.

If his patent document, like a telegraph message, exceed a certain number of words in length, the inventor must pay more fees.

Should the applicant have been so unfortunate as to claim too much, he can, by paying another fee of \$10, have one of his claims (for the grant of which he had before paid a fee of \$10) stricken off.

After having run the gauntlet of all these official fees, the inventor is nonearer the actual possession of a patent than when he be-

gan. True, he has procured the parchment with the picture of the Patent Office engraved thereon, and nominally he is a patentee: but to make his patent worth anything, he must obtain what is termed a Confirmation of the same; the first step towards which is to pay a new fee of \$100. This secures to him the desirable privilege of having anybody who is so disposed, come forward and claim the patent as theirs by reason of previous invention. If they bring proof of their priority, our newly fledged patentee is summarily upset—his patent is invalid—and he goes to grass with a total loss of everything—time, money and patent. How much he has spent for the hire of lawyers and agents, to defend himself, in addition to the enormous bill of official fees, can better be imagined than named.

If the applicant succeeds in preventing others from destroying his patent, a certificate of "Confirmation" is given by the government, and subsequent patents to others for the same thing are denied.

In order to attack a confirmed patent, the plaintiff must first pay a fee of \$50 to the Patent Office.

Legal proceedings in various forms may now be had to annul the confirmed patent, and it may be kicked about among lawyers and courts, like a shuttle cock between the battle-doors, until the Supreme Court gets a chance at it. The decision of this tribunal is final. If adverse, the patent receives its quietus. If favorable, it is forever confirmed.

Another section of this benevolent Bill authorizes the Commissioners to have 4000 copies of the drawings and specifications of each patent made, for purposes of sale and distribution, at an expense of \$400 for every patent. Last year over 2000 patents were granted, which, if engraved and printed under the above beautiful provision, would permit the Commissioner to expend therefor the sum of *eight hundred thousand dollars.*

Another clause appoints an Assistant Commissioner to attend to most of the duties now performed by the Commissioner—thus rendering the Chief's office almost a sinecure. The Commissioner's salary is also raised to \$4,500 a year. The number of employees in the department is also increased.

The foregoing is but a brief outline of the most prominent changes which the amendment, now before Congress, proposes to effect. It fills us with astonishment that any Senator or officer of the government should seriously put forward such an absurd and incongruous "mess of pottage," and call it an *improvement*—a remedy for present ills. Why, it makes our patent system more cumbersome and expensive than the old British plan. Instead of increasing, it decreases the value of patent property. Instead of simplifying, it adds intricacy to complication. Instead of encouraging inventors, it lays new and grievous burdens upon them. It robs them by wholesale of their property, and divides it between the coffers of an overflowing treasury and the pockets of hungry politicians, lawyers, and patent agents. That it must meet the entire disapprobation of the great body of inventors and patentees, is too apparent to require demonstration. If the question of its adoption were submitted to them for decision, we believe they would rise up *en masse* in opposition.

Senators seem *possessed* with the idea that our Patent Laws require some huge and hurried alteration. In their zeal to do *something*, they propose to strike in the dark—to act without properly understanding the subject. But we hope they will not forget that the country has a most vital interest in all that touches its Patent Laws—that whatever benefits and stimulates the inventor, promotes the general prosperity and fame of the nation. And, on the other hand, whatever trammels and discourages genius, produces just an opposite effect.

We are convinced that members are right enough at heart, on this matter. Our anxiety is, lest they should suffer their votes to be cast without proper deliberation and discussion. Powerful efforts, we presume, are being made by interested persons to have

the absurd Bill shoved through *without discussion or inquiry.* We entreat Senators to beware of such trickery. Let them postpone action until they can examine the subject for themselves, for we repeat, no *instantaneous* legislation is required. The present efficiently administered system gives very general satisfaction, and unless it can be improved, it should not be touched. The old adage, "Let well enough alone," applies in this case with great force.

The augmentation of the revenues of the Office is a very easy matter, when the proper time for it arrives. *Amend the law so as to restrict the official examinations of novelty to this country only, and the thing is done.* Add to this, if you please, a clause that models, after examination, shall be restored to applicants. Either or both of these simple provisions will bring in far more revenue than the Bill now before the Senate, and avoid all its disastrous consequences.

The reason why it costs more to grant a patent than the Office receives, is, first, because the examiners are required to search the whole world over to ascertain if an applicant's invention—a strawcutter or a churn perhaps—is new. To examine the pages of all the musty French, Dutch, Italian, and other foreign volumes which the shelves of the Patent Office Library contain,—and which are steadily increasing—is no easy matter, and is besides a great expense. Second, the plan of keeping together, in one vast storehouse, ready classified for reference and exhibition, the thousands of models which the country has in times past, and is now constantly producing, is exceedingly expensive. Lop off these two costly excrescences from the current system, and the revenue of the Patent Office will soon be greater than its actual wants, while the present moderate rate of fees may be retained, and better justice done to American inventors.

How far superior would some such simplifying method prove, than the clogging up of the entire system with an interminable list of official fees and tortuous legal proceedings.

Artificial Manure—Deterioration of the Soil.

It is a positive fact that, while we send vessels to the Lobos Islands thousands of miles distant, and pay some millions annually for guano, in all our cities and villages we suffer the best of fertilizing materials to run into the sewers. Something must be done, and with alacrity, for economizing American agriculture. Forward of pursuing a proper system of agriculture, the products of various States have been falling off for the past ten years. In Massachusetts, the *New England Farmer* has stated that, from 1840 to 1850, the hay crop had depreciated 12 per cent., although 300,000 acres had been added to those previously under tillage. The corn crop during the same period fell short 6,000 bushels; there had been a falling off 160,000 sheep, and 70,000 swine. In the State of New York from 1845 to 1850, 671,692 acres were added to those previously under cultivation, and yet there had been a most alarming falling off in all kinds of agricultural products. The number of horses had decreased 50,141; milch cows 68,066; sheep no less than 2,990,624; hogs 566,092; potatoes 7,255,066 bushels; peas and beans 1,182,054 bushels; flax 1,956,485 pounds; wheat 270,724 bushels; buckwheat 450,724 bushels. There was an increase in corn, rye, oats, barley, hay, butter and cheese, but no greater than the increase of population in that period, viz., 494,323 persons. No wonder potatoes are so dear; such a falling away of this crop accounts for it all. In Kentucky and Tennessee there has been a great decrease in cattle in ten years; no less than 33,786 of neat cattle in the former, and 72,086 in the latter State. In Indiana and Wisconsin there has also been a falling off in the amount of crops raised, especially wheat, on the rich lands. If this rate of depreciation goes on for twenty years more, we will have to import grain from other countries, instead of exporting to them, as we hitherto have done. The remedy is a better system of agriculture, especially a more liberal supply of

fertilizing matters. It is very evident that unless soils have returned to them every year as much fertilizing matter as that which is taken away in crops, they must depreciate. There can be no mistake about this; it is plain to every man. There may be various ways of restoring this to the soil, but unless it is restored, the work of deterioration must go on. Those farmers who suppose they can, year after year, sell large crops of hay, wheat, oats, barley, potatoes, and butter, and supply but a scanty amount of manure to their farms, exhibit a great want of common sense and forethought. The grand idea, however, for the farmer, is to get a cheap supply of fertilizing matter, for it is very evident that if his fertilizers were to cost him as much as the returns which he receives for his surplus products, it would be no object for him to raise crops for sale. The cheaper the fertilizer, then, the more profitable must be the business of farming, the more abundant will be the crops, and the people will thereby be supplied with cheaper bread.

In England we perceive that great attention has lately been paid to obtaining the mud of sewers for manure, and were some company organized in this city to keep the sewers clear, perhaps a million of dollars might be saved annually to the farmers within an area of twenty miles from the City Hall. It would also be the means of making our city more healthy by removing the pestilential effluvia which arises in warm weather from sewers, and it would save a vast annual outlay in keeping our docks from being filled up with the great quantities of mud which are swept down into them, especially during heavy showers. A patent for making sewerage manure has been taken out recently in England by Thomas Wickstead, C. E. It consists in mixing sewerage water with charcoal dust and lime, then allowing the matters to settle in large vats, and running off the clear repeatedly until the lime and charcoal are perfectly saturated, after which it is dried, and put on land.

Alex. Manning, of London, has also obtained a patent for making manure from sewerage water, by employing lime and charcoal mixed with the sludge water obtained in making alum, which consists of sulphate of alumina. Charcoal and lime appear to be the best substances for deodorizing sewerage water, and absorbing the ammonia and phosphates contained in them. The simple question of converting sewerage into useful manure, for any company, is one of dollars and cents, and we cannot decide on this point. Our object is to direct attention to the obtaining of cheap fertilizers by any means, and that as soon as possible.

To Subscribers.

The next number will complete the first half of the tenth volume of the SCIENTIFIC AMERICAN. We would respectfully solicit those whose subscriptions expire next week to renew them at an early date. We are much obliged to you for past favors, and hope to have you continue with us as heretofore. Business, we know has been very dull this winter in many places, but one dollar for six months subscription of the only weekly paper in our country devoted to science, invention, and mechanics, is certainly not much. We believe there are very few mechanics in our country but can afford to pay for it; and we know that no one can be intelligent,—that is, posted up in the inventions and discoveries of the day,—unless he reads it. It is the repertory of American inventions, and contains notices of all the useful discoveries and improvements in the arts. This volume, when completed, will be the best ever published.

White Maple Sugar.

A Vermont farmer says the following is a sure method of clarifying sugar:—Filter all your sap before boiling, through a hopper or box of sand, which, he is satisfied, will take out, not only all the stains derived from leaves, tubs, crumbs of bark, but all other coloring matter that can prevent the sugar from being pure white.