

protecting, as it would, the former from the oppression of paying for any services not in fact rendered, and the latter from the injustice of performing any labor for which it is not remunerated.

It should be mentioned that during the year just closed, applications have been filed for letters patent for several inventions, alleged to be valuable, and to have been made by slaves of the Southern States. As these persons could not take the oath required by the statute, and were legally incompetent, alike to receive a patent and to transfer their interest to others, the applications were necessarily rejected. The matter is now presented to the consideration of Congress, that, in its wisdom, it may decide whether some modification of the existing law should not be made, in order to meet this emergency, which has arisen, I believe, for the first time in the history of inventions in our country.

The defects developed by the practical operation of the laws intended to secure the rights of inventors, suggest the propriety of their careful revision. At the expiration of his patent, the inventor is bound to surrender to the public his invention—the fruit, it may be, of many years of anxious toil—and from this undertaking there is no possibility of escape. As an equivalent for this surrender, the government stands pledged to insure to him the full and peaceful fruition of his monopoly during its continuance, and this pledge constitutes one of the most solemn obligations of law and of honor. The compact thus entered into, distinct in its import, and reciprocally binding in its stipulations, is based upon the highest considerations recognized by law, and ought to be executed by the government with that scrupulous fidelity which should ever distinguish the strong when dealing with the weak. While, however, this species of property yields to none other in its national importance, and surpasses all others in the amount which it pays for the legal safeguards thrown around it, it is notorious that it enjoys but a precarious and incomplete protection. The more prominent of the causes conducing to this result are, the helplessness of inventors as a class; the peculiarly exposed character of their interests to be defended; the universal impatience of legal restraints as manifested in that lawlessness which so sadly mars the body of the times in which we live; and, lastly, the unskillful adjustment of subsisting instrumentalities to the performance of those duties of guardianship which the government has assumed upon itself. If the law relaxes the vigilance of its watch over the homestead of the citizen, he can take his stand at his own threshold, and with his own right arm beat back those who would invade it; but the rights of the inventor are co-extensive with the limits of the republic, and may be assailed and despoiled at a thousand points in the same moment of time. The eyes of Argus would not suffice to discover, nor the arms of Briareus suffice to resist, the assaults of so omnipresent a foe as it is his lot to encounter. If, then, the faith which the government has plighted with him fails, he is utterly without shelter. This is no sketch of the imagination. Again and again have inventors, impoverished in fortune and broken in spirit, come to this office, seeking the extension of their patents, and demonstrating by testimony that the fourteen years which should have been devoted to reaping the harvest of their labors were worse than wasted in harassing and ruinously-expensive litigation in defence of their patented privileges. The insolence and unscrupulousness of capital, subsidizing and leading on its mercenary minions in the work of pirating some valuable invention held by powerless hands, can scarcely be conceived of by those not familiar with the records of such cases as I have referred to. Inventors, however gifted in other respects, are known to be confiding and thrifless, and being generally without wealth, and always without knowledge of the chicaneries of the law, they too often prove but children in those rude conflicts which they are called on to endure with the stalwart fraud and cunning of the world. It would certainly be practicable to affix a limit to this oppressive litigation—at least to that feature of it which calls in question the validity of the patent—while the sense of public justice would not be shocked by inflicting something more than a verdict of damages on wanton offenders of this class. It is admitted that the subject is embarrassed with difficulties, but it is believed they are not insuperable. It is a principle of criminal jurisprudence that the penalty shall be proportioned in its severity to the temptations and facilities which exist for the commission of the crime. The principle is a sound one, and would justify legislation of unusual rigor in behalf of the down-trodden interests of inventors.

The existing laws authorize the granting of patents only to original inventors, their representatives and assignees. While the wisdom of the general principle thus asserted is undeniable, still certain facts connected with the condition of the arts and

sciences in Europe would justify the inquiry whether, if compatible with the constitution, a solitary exception to the rule might not be advantageously allowed? It is well-known that for a long period of time manufacturing processes of great value have existed beyond the Atlantic, but which have neither been patented, nor described in any printed publication, nor introduced into public use. They have been, and are still employed within the walls of well-guarded manufactories, whose operatives, in entering the service, assume upon themselves obligations of secrecy. Thus, from generation to generation, a knowledge of these useful arts is clandestinely transmitted, and the world is oppressed by the burden of perpetual monopolies. The opinion is entertained that, if our laws could be so modified as to extend the shelter of a patent to these arts and inventions, by whomsoever revealed and introduced, many of them would find their way into the United States, and perhaps among the number the most important of all—the hitherto-concealed process for the manufacture of Russia sheet iron. That their introduction would be a national service, for which it would be competent to make a national remuneration, will hardly be controverted. Whether the constitutional scruples which exist can be so far overcome as to give to this remuneration the ordinary, and certainly the most effective form—that of Letters Patent—is a question which the magnitude of the interests involved renders worthy of the serious consideration of Congress.

While the fee paid for a patent by an American citizen is but thirty dollars, the sum of five hundred dollars is exacted from a British subject, and three hundred from the citizens and subjects of other foreign governments. This harsh and seemingly unwise discrimination has formed the subject of earnest remonstrance on the part of my predecessors; but, weighty as are the objections which have been urged against its continuance, they have failed to attract the favorable notice of Congress. If the existing law can be regarded as having been adopted in a spirit of retaliation, its framers totally misconceived the European policy to which it was intended to respond. Careful inquiry enables me to state that, with the exception of Prussia, ours is the only nation known to distinguish, in granting patents, between the native-born and foreign inventor. It is true that the English, French, and other transatlantic governments require the payment of the patent fees apparently enormous and oppressive as compared with those paid here by American citizens, but, exorbitant as these fees may seem, they are demanded alike of all—natives and foreigners. With those nations the patent laws are measures of revenue, and as the administration of their peculiar political institutions involves the outlay of vast treasures, their revenue systems must be upon a correspondingly gigantic scale. With such governments such measures may perhaps plead an absolute financial necessity in their justification, and they certainly carry with them not the slightest approach to that breach of national comity which our legislation appears so strangely intended to rebuke. But upon what principle can it be maintained that the government of the United States, boasting of the simplicity and cheapness of its administration, and of its entire disenthralment from the political burdens of the Old World, shall imitate this solitary feature of transatlantic taxation? It may occur to those who do not look beyond the surface of this provision that the exaction, being made upon the foreigner, is therefore a national gain; but this is manifestly a delusion. It is incontestably true, that though paid by the foreigner in the first instance, on the issuing of his patent, he is ultimately reimbursed from the purse of the native consumer. Besides, of all taxes, it is the most odious, being a tax on knowledge, and upon the highest forms and noblest aims of human philanthropy. If other governments are so insensible to the dictates of an enlarged public policy, and so wanting in sympathy with the governed, as to prefer, or so unfortunate as to feel constrained to resort to imposts, thus embarrassing the inventive genius of the age, shall we so far violate the convictions inseparable from our political faith and nature as to follow in their footsteps? The people of the United States have a deep interest in all useful inventions, wherever and by whomsoever made, and their passage from land to land should be as free as the winds and sunshine of Heaven.

Near half a century ago, the government of the United States inaugurated the principle of reciprocity in the commercial intercourse of nations. It invited the concurrence of all other governments, by offering to place their citizens and subjects on the same footing with the citizens of this country, provided like advantages were by them extended in return. With a single exception, this principle is now engrafted upon every treaty regulating our commerce with Europe, and in introducing a new and brilliant epoch in our history it has

laid the axe to the root of that jealousy of strangers so prevalent among the benighted Asiatics, and which, wherever found, is recognized as a lingering badge of barbarism. It is asked that this doctrine, so just in itself, and of which we are so justly proud, shall be embodied in our patent laws. Every European government, with the single exception stated, has placed American citizens on a footing of perfect equality with its own subjects, so far as its system of patent laws is concerned. In the presence of such a fact appealing to us, to uphold longer this obnoxious discrimination would be to insist that the strictly local and domestic legislation of other nations shall be adjusted to meet our peculiar views, or, what is yet more unreasonable, that the governments of those nations shall accord to our citizens privileges which they deny to their own. While recognizing it as our duty to be courteous and liberal even upon the arena of trade, where human selfishness is most prone to prey upon the stranger, can we, without the grossest inconsistency, refuse to be so on that broader and more elevated theater of action, whose themes affect the advancement and happiness of the race, and where at every moment we are forced to acknowledge that the gain of other nations is our gain, and their loss is necessarily ours also?

Regarded from the lowest point of view—its bearing upon the finances of this office—the feature of the act of 1836, under discussion, has proved a failure. Excluding, as it does, multitudes of inventions which would otherwise be introduced, no doubt is entertained but that it yields a smaller amount of revenue than would the more moderate schedule of fees proposed in its stead.

The colonial government of Canada, treating, as is supposed the act of 4th July, 1836, as aggressive in its spirit, responded by absolutely excluding American citizens from the benefits of its patent laws. In consequence, that vast country, affording one of the richest harvests of the world for the inventive genius of our fellow-citizens, remains closed against them. The people of Canada are scions of the same stock from which sprang the founders of our republic. They speak the same language, worship before the same altars, have the same forms of social and domestic life, and draw the inspirations alike of their literature and of their laws from the same high sources with ourselves. Along the borders of eight of the States of our confederacy, with but narrow intervening lakes and rivers, their territory extends—a colony, it is true, in its political aspects, but an empire in the greatness of the future which is dawning upon it. When we examine yet more closely the character and condition of that country, and realize how gigantic are the public works which pervade it, as so many pulsating arteries of trade and of travel; how exhaustless are its agricultural and mineral resources and the elements of its manufacturing power; and how rapidly, with every wave of European immigration that breaks on our shores, its population is increasing, it is difficult to resist the conviction that we have everything to gain and nothing to lose by cultivating with these, our nearest neighbors, the most cordial and intimate relations. In 1853, the imports into Canada from the United States amounted to \$11,782,145, and the imports into the United States from Canada to \$8,926,360. Under the benign influences of the reciprocity treaty, which went into operation on the 11th September, 1854, the commerce between the two countries has rapidly increased, so that, in 1856, the imports into Canada from the United States swelled to \$22,704,508, and the imports into the United States from Canada to \$17,879,752. A more complete vindication of this act of enlightened statesmanship than such a result presents could not be desired by its most earnest advocates. The observance of a lofty and generous policy, in our intercourse with other nations, must ever bear such fruit as this. There is every reason to believe that no disposition is felt on the part of the people or of the political authorities of Canada to continue longer the unpleasant and embarrassing relations with the United States, to which their respective systems of patent laws have given rise. The bare introduction of a bill into the last Congress proposing a repeal of the provision of the act of 1836, under examination, was at once followed by a corresponding movement on the part of the Canadian government, having for its object a removal of the existing restrictions upon American inventors. If this movement failed of its consummation, I am well assured it was only because the bill referred to failed to become a law. The highest considerations of public interest seem to require that Congress, regardless of mere national punctilio, shall frankly use its utmost endeavors to open to American inventors this attractive and remunerative field, from which, by an unhappy course of legislation, they have been so long excluded. Whether the Canadian estimate of the act of 1836 be just or not, it is certain that from its foundation the government of the United States has been

unceasing in its efforts to liberalize and elevate the intercourse of nations, and that, in view of its antecedents, it can well afford to take the initiative, and offer an example of liberality to the world, as it is certainly beneath its dignity and mission to follow an example of an opposite character, by whatever government or people it may be set.

The Patent Office, silent and unobtrusive in its course, connecting itself with none of the agitations of the day, and demanding nothing from the public treasury, asks only the assent of the national legislature to such an arrangement of its instrumentalities as shall secure the highest possible efficiency to its action. Beyond its mission of beneficence to all, it has no ambition to gratify, no triumph to achieve. The well-springs of its life are fed by contributions from the benefactors of our race, and it is in their name that this appeal, so often made, and so long unheeded, is now respectfully, but most earnestly, renewed.

J. HOLT.

HON. JOHN C. BRECKINRIDGE,
Vice President of the United States.

The Rind of Fruit Indigestible.

This applies to all fruit, without exception, and includes also the pellicle or skin of kernels and nuts of all kinds. The edible part of fruit is particularly delicate, and liable to rapid decomposition if exposed to the atmosphere; it is, therefore, a provision of nature to place a strong and impervious coating over it, as a protection against accident, and to prevent insect enemies from destroying the seed within. The skin of all the plum tribe is wonderfully strong, compared with its substance, and resists the action of water and many solvents in a remarkable manner. If not thoroughly masticated before taken into the stomach, the rind of plums is rarely, if ever, dissolved by the gastric juice. In some cases, pieces of it adhere to the coats of the stomach, the same as wet paper clings to anything, causing sickness and other inconvenience. Dried raisins and currants are particularly included in these remarks, showing the best reasons for placing the fruit upon the chopping-board with the suet in making a pudding of them; for if a dried currant passes into the stomach whole, it is never digested at all. When horses eat oats or beans that have not been through a crushing-mill, much of this food is swallowed whole, and in this state, being perfectly indigestible, the husk or pellicle resisting the power of the stomach, there is so much loss to nutrition. Birds, being destitute of teeth, are provided with the apparatus for grinding their seed, namely, the gizzard, through which the seed passes, and is crushed prior to digestion. The peelings of apples and pears should always be cast away. Oranges we need not mention, as this is always done. Orleans, greengages, damsons, and all plums, should be carefully skinned if eaten raw, and if put into tarts, they should be crushed before cooking. Nuts are as indigestible as we could desire, if the brown skin be not removed or blanched, as almonds are generally treated. SEPTIMUS PIRESSE.

Salt from the Gulf Water.

The Academy of Science in New Orleans has received a paper purporting to demonstrate the fact that the waters of the Gulf, on the borders of south-western Louisiana, and thence to Texas, are the saltest that have been submitted to scientific tests, and that, by the process of evaporation in tanks, salt of a superior quality, equal to that of Turk's Island, may be obtained.

Turkish Progress.

The march of intellect is evidently directed towards the East. A small printing-office was sent from Paris to Constantinople a short time ago. This press is to be worked entirely by the ladies belonging to the harem of one of the great Pashas residing on the Bosphorus. The books intended to be printed are chiefly works of amusement, translated from the French and English.—*London Engineer.*

A chemical analysis of various liquors sold at a low rum shop on one of the wharves of San Francisco, showed that there was prussic acid and morphine in the brandy, sulphuric acid in the gin, and strychnine and kreosote in the whiskey.