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Proposed Alterations in the Patent Laws.

Strenuous efforts are now being made at Washington to procure the immediate passage of a bill providing for an extensive alteration of the present Patent Laws. We trust that our Senators and Representatives will be careful how they vote on this subject; especially do we hope that they will not allow themselves to be forced into any hurried legislation respecting the same. The matter is one of vital importance, not only to inventors individually, but to the whole country at large, and it should, therefore, receive the most deliberate and studious examination, as well as the most thorough and extended legislative discussion. We are aware that less general knowledge prevails among our legislators respecting the wants of the people upon this matter than upon almost any other which comes before Congress. But it seems to us that from this very reason they should delay action in the premises until they have had time to inform themselves properly respecting the whole subject. Some amendment of the present laws no doubt are demanded in order to increase the revenues of the Patent Office, which, at present are not sufficient to meet its expenses. But the best plan to increase those revenues is a nice question. Better put up with present inconveniences rather than make matters worse by useless complication.

At the time the proposed amendments were first drafted, the Patent Office, for the want of a proper examining corps, was in a disgraceful condition respecting the examination of applications; many of them were allowed to accumulate under the dust of a dozen months before they were opened.—It seemed as if a radical change in the laws was most imperatively demanded. Indeed, for a period of some years previous we had ourselves been continually directing the attention of Congress and the authorities connected with the Patent Office, to the evils inflicted upon inventors by the great length of time they had to wait before decisions were made on their cases. All this is now changed; the pile of accumulated business has been exterminated; examinations are now made within a very short period after the date of application, and it has become evident that in the hands of a vigorous executive officer the present Patent Laws are about as effective and satisfactory as any that could be devised. The happy change which has been effected since Judge Mason became Commissioner, affords us sincere gratification, and has encouraged and gladdened the hearts of our inventors. The great increase in the number of applications for patents, during the past year, is partly owing to this, for inventors, before that period, were deterred from applying for patents by the delays and troubles they suffered from this Department. We hope the present facilities for doing the business of the Office promptly and well, will not be lessened, but increased, and to do this it is necessary that the revenues should be increased. On Jan. 20th, last year, a Bill was reported by the Committee on Patents of the Senate, for this purpose, at the same time making very great alterations in the whole patent code. Some portions of that Bill we considered were very wrong, and would be the means of doing a great deal of evil if they became a statute. We pointed out the defects of the Bill on page 341, Vol. 9, SCIENTIFIC AMERICAN (July 8th.), and on the 19th following, it was recommitted to the Committee on Patents—Senator James, Chairman—who reported it back on the 24th of the succeeding month, amended in a number of the important features that we had pointed out. We have been informed privately, that the unamended Bill, as it originally read, is intended to be called up by Senator James for action, but we think this cannot be correct, he having reported the amended Bill. From our long acquaintance with the inventors of

our country, and the working of our whole patent system, we ought at least to be able to form some correct opinions respecting what reforms are required, and what changes might be expected to work well or ill. We believe that a simple increase of the patent fee, from \$30 to \$40, would be the safest and best way to increase the revenues of the Office, and at present no further alteration of the laws is very pressingly demanded.

But there need be no increase of fees at all if our law-makers would insert a brief amendment, requiring that inventions, in order to be patentable, shall only be new in this country. This would greatly reduce the expense of examination—cut off the necessity of a foreign library, augment the number of patents granted, and bring about a corresponding increase of revenue.

The more simple our laws are, so much the better for all, excepting the lawyers.

American Library in Paris.

We have received a circular from Mr. James Swain, of Philadelphia—now in Paris as one of the Commissioners to the coming Exhibition in that city—appealing to American booksellers and any public-spirited individuals in our country, to make donations of American books for the "American Library and Museum" in the Hotel de Ville. The circular says:

"We hope to make a creditable appearance in the Industrial Palace, but we fear that we shall not be represented there as extensively as we were at London. It has occurred to us, under the circumstances, that we might compensate for any other deficiency by an intellectual exhibition which will give some idea of our real civilization. The magnificent collection of American books, engravings, coins, &c., made by M. Vattemare, will be inaugurated at the Hotel de Ville (City Hall) about the same time with the opening of the Palace of Industry. With this nucleus of ten thousand volumes, contributed by American generosity to the city of Paris, we hope to found a library and museum which will be to all time a speaking monument of national greatness—an ever-increasing proof of what we have done and what we shall do in the intellectual provinces. The chief magistrate and municipal council of Paris are disposed to co-operate with us with the most flattering cordiality. Funds have been devoted for the necessary expenses of arrangement. An apartment has been expressly appropriated for the purpose in view. The American Library and Museum will be the only exhibition open to the public in the Hotel de Ville, so that there will be nothing else there to distract the attention of visitors. It is proposed to have an alcove for every State in the Union, surmounted with its arms, the date of its settlement, the principal dates of its colonial history, the date of its incorporation in to the Union, &c. At the entrance will be the arms of the United States and France. In appropriate places will be inscribed the great discoveries and inventions made by Americans, with the names of the discoverers or inventors. The land-marks of our history will thus be permanently before the eyes of Europe. A library composed exclusively of the productions of a single people is a novelty. The world contains none such, as yet."

Busts and medals of prominent Americans will be acceptable. We hope this appeal will not be in vain: the idea is an excellent one. As the exhibition opens on the 1st of May next, there is no time to lose.

Upon every book will be inscribed the name of the donor.

Those of our countrymen who are willing and able to contribute to this enterprise, should address their contributions as follows: "International Exchanges; A. Vattemare, Central Agency, Paris."

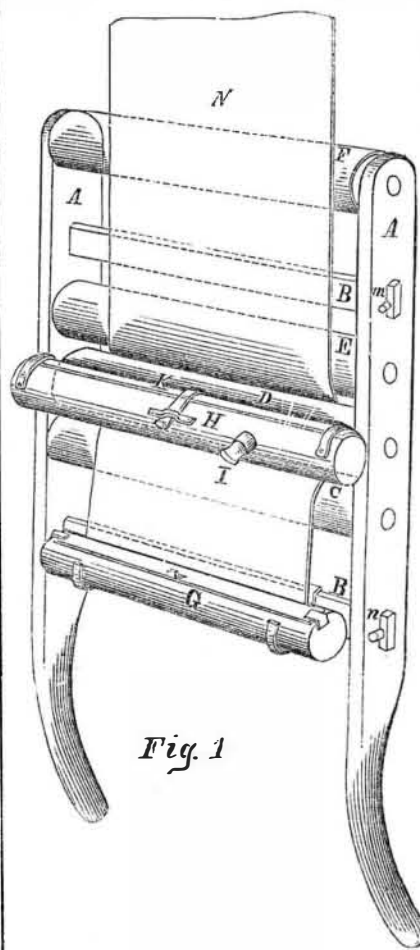
Colt's Patent in Congress.

On the 6th inst. there was quite an exciting time of it in the House of Representatives, when discussing the merits of the bill before it for the extension of Col. Colt's patent. It seems that implications or hints had been thrown out that members of Congress could be bought, and that this Bill would

pass; but members, on this occasion, showed themselves determined to remove such an impression. They expelled a reporter who was said to have an interest in the extension of the patent, this being against the rules of the house, and he had refused to stand an examination by the Committee on Patents. Some rather strange remarks were made about Col. Colt's examination by the Committee. It appears to us that the Bill will be rejected by an almost unanimous vote; we thus judge from what we have heard and what we have read on the subject, although many have asserted that any bill can be weathered through Congress by good management, and plenty of means to lobby.

The foregoing was penned on the 7th; two days afterwards—the 9th—the bill came up again, and, as we had supposed, the enacting clause was struck out by a vote of 99 to 23, and may be considered killed.

Machine for Papering Walls.



This figure, which is a perspective elevation, represents a machine for papering the walls of rooms for which a patent was granted to Henry F. Baker, of Centerville, Wayne, Co., Indiana, on the first of last November.

A A are two side bars, and B B are two cross pieces framed in the said bars, and C D E, and F are four rollers, G, and H are two tin cylinders. Cylinder G, for holding the paper, and cylinder H for holding the paste or sizing. Roller D being covered with sponge or sheepskin, or its equivalent, and roller F being covered with gum elastic cloth or its equivalent, for the purpose of pressing the paper to the uneven surfaces of the wall, and by that means press all the air from between the paper and the wall, and cause the paper to be laid on smoothly, nicely, and evenly, without the trouble of hand labor. Cylinder G has a lid to it for the purpose of putting in the paper, and has also a small orifice in front to let the paper pass through. Cylinder H has a hole, I, in the top to put in the paste and also an orifice in the bottom, next to roller, H, with a slide, K, to let on and off the paste on to roller H. M M are two keys in the end of the cross pieces framed into the bars for the purpose of taking the machine apart, when necessary to clean. It is readily perceived that the paper, N, placed in cylinder, G, passes out of it over roller, C, under, D, and over roller E and F, against the wall to be papered; and that when the paper is pressed and rolled on the wall, it will cause all four of the rollers to revolve and draw out the paste from cylinder H, and cause it to be spread upon the paper.

The patentee informs us that, by this machine, as much wall papering can be done by one hand in a given time as four or five hands without it—sizing the paper at the same time.

More information may be obtained by letter addressed to Mr. Baker.

Condensation of Steam.

Contradictory opinions have been expressed by writers on the steam engine, respecting the value of the condenser in engines; Scott Russell contends that a vacuum may be too good, and a decided loss of power; and Bourne asserts that in a locomotive working at a pressure of from 120 to 105 lbs. on the square inch, the efficiency of a given quantity of water, raised into steam, may be considered about the same as in the condensing engine, because the resistance of the atmosphere (15 lbs. on the square inch) is about one-eighth of the whole pressure in the former engine; and the rare vapor in the condenser (2 lbs. on the square inch) of a low pressure engine, amounts to the same resistance in proportion to its pressure. This is asserted on page 35 of his catechism, while on page 32 he says, "In a high pressure, as contrasted with condensing engines, there is always the loss of the vacuum, which will generally amount to 12 or 13 lbs. on the square inch." This would seem to be a contradiction, and yet it is not, when the effect of steam, in moving the piston, is taken into account in high pressure engines, and the saving of fuel is taken into account in the condensing engine. There is, however, another deduction to be made, from the useful saving of condensing the steam, beside 2 lbs. generally allowed for the elastic air in it, viz., the power consumed in working the air pump. The practice of Watt was to allow 28.9 cubic inches of water, at 50°, for condensing one cubic inch of water raised into steam. The cold water pump of a land condensing engine is 1-48th the capacity of the steam cylinder and the air pump is 1-6th the capacity. If it did not require these two pumps to supply and free the condenser, the whole power of the vacuum gained might be added to that of the steam, when comparing a condensing with a non-condensing engine. In marine engines no cold water pump is required, only the air pump. The estimated value of the vacuum, in a condensing engine, after deducting the power required to work the air pump, is about ten pounds on the square inch. The small amount of 5½ cubic inches of water at 32°, will convert a cubic foot of steam into water, and the whole will then be at a temperature of 212°—the boiling point—at which no vacuum could be maintained, the temperature of the condenser therefore has to be kept at about 100°, and this is the reason why so much water is required for condensing the steam rapidly.

Commissioners to the World's Fair in France.

The people in Paris—those who know—we have been informed, are somewhat puzzled how to act in reference to the great number of Commissioners appointed to represent different American States at the Great Paris Exhibition of Industry which opens in May next. It seems that there are far more American Commissioners than articles. A number of gentlemen have got themselves appointed who have not made a single effort to send an article to the Exhibition, the preponderating majority of articles having been sent by the Commissioner from this city. Those Commissioners who have no articles to represent, expect to represent themselves, no doubt. This, we consider, will not look very flattering for our country on their part.

Cold on the Prairies.

The cold has been so severe, and the snow so deep on the western prairies, that some of the railroads were completely stopped for a number of days. On the Illinois Central Railroad a train with its passengers was caught in a snow storm and frozen up, and the wretched passengers suffered from the lack of both food and fuel. A number of them were severely frost bitten, and came near being frozen to death before they were relieved.