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Prize Essay!

ONE HUNDRED DOLLARS PREMIUM!!

The Publishers of the *Scientific American*, desirous of shedding all possible light upon any and every subject pertaining to the Arts and Sciences, with a view to the protection of the rights of Inventors, hereby offer a prize of **ONE HUNDRED DOLLARS**, payable at their office, 128 Fulton street, on the 1st of April next, for a Review of the present Patent Laws of the United States, with suggestions of alterations and additions for their improvement, and more thorough protection of the results of Inventive Genius from Piracy. Each Essay offered on the subject is not to exceed **thirty pages** of foolscap, to be written in a spirit of independence, regardless of all political chicanery of party or parties, and to comprehend the interests of all classes of Inventors.

Writers interested in improvements of the scientific world who may compete for this prize, must send in their productions before the 4th of March next, at which time the premium will be awarded by a committee of gentlemen selected from various sections of the country. All communications in relation to this Prize Essay sent *post paid* to **MUNN & Co.** will receive immediate attention.

Winter Evenings for Mechanics.

From our arm chair, we would dictate a few words of advice to our young friends respecting the employment of their winter evenings. We are not among the number of those who think that all kinds of amusement "should be discountenanced" as "trifling enjoyments." There is nothing which tends to elevate men and women more than rational and social amusement. The grand question is, the *rationality* of the matter. Let every one choose to their taste in this respect. We find no fault, if it be not impure and foolish. We would direct attention to the storing of the mind with useful knowledge. There are many young men who are compelled to toil unremittingly during the summer season from sun rise to sun set, and have no opportunity, and never had, of acquiring a suitable education before they were obliged to toil for their livelihood. To such young men, and there are too many of them, and young females too, we would say, let your winter evenings be well spent in acquiring all the education you possibly can. If you are near an Evening School, do not neglect to attend it and pay attention to your studies. If you are not near a school, be sure and have a good book, a writing copy and a slate in the house, and dig out of them all the gold contained therein. Mental study is more severe and less agreeable than physical toil, but set up your stake and march to it with unflinching perseverance. You may be baffled often and feel discouraged, but whenever this is the case lay down your studies for a moment and reflect upon the prize before you. The difference between an American and a savage, is in their education and just in proportion as we are an enlightened people so are we removed from barbarism. As it is with nations so it is with individuals, every man will find his level, except it may be the fortuitous circumstance of being born rich, and even that in our country is not of so much consequence. Young mechanic remember that you have a title to the highest office in the commonwealth.

"Let not thy mind recoil,

At transitory pain or manly toil;

Be thine the task, be thine the care,

Nobly to suffer and sublimely dare,

Wisdom waves on high a radiant prize,
And each hard step but leads thee to the skies.

We hope that the young men belonging to our various Mechanics Institutes are availing themselves of the winter lectures and the good books in the libraries. In the Mechanics Associations throughout this State, (of which there are now a great number, one al-

most in every village,) and other States, we hope that the older members are by practical lectures scattering the good seed in good soil. You have still a great task before you, but "knowledge is power," and "in union there is strength." We would not dictate to any man what course of study to pursue, we only say lay out the *track*, then on to it like a locomotive. We regret that there are so many vicious and foolish books read by our young men—rank trash they are to mind and body. They tend to make a man like nothing but an old shoe in this world and good for nothing in the next. Our young females, too, are perhaps the most criminal in this respect. We are afraid that the fine matronly character of our old American lady is fast disappearing from among us. We know that it is a hard task to study a work that is obscure and of a logical nature—but a continued effort for some time to master such a work, imbibes a taste for it, and every one knows the difference in point of benefit in being acquainted with the useful sciences, instead of the heroes and heroines of romance. To those who would desire to know the value of winter evenings in acquiring useful information, we say spend them well now, and tell us in ten years after this what has been the result. We predict that California with all her gold would be no equipoise for its value. If at this moment we were offered all the wealth of Mexico as an exchange for the information we possess, so as to leave the mind a savage blank, we would not look at the offer as a measure for the enjoyment we would lose. There is many a sermon contained in the old maxim,

"'Tis education forms the common mind,
Just as the twig is bent the tree's inclined."

With our excellent School Libraries, there is no excuse now for ignorance, let the winter evenings be well employed and there will be none needed.

The Electric Light Again.

By our late foreign exchanges we learn that there is competition in the Electric Light in famous London town. A Chevalier Le Molk and Mr. Staite have both been astonishing the Londoners, the former exhibiting his light from the top of the Duke of York's Column, and the latter on raised steps at the entrance of the Royal Academy. After all it may be asked—what is this Electric Light, how is it made, what are its economical advantages?—Well it turns out after all, like Warner's celebrated long range humbug, that the electric light of Staite is nothing more than the incandescence of charcoal by the currents of a battery—something that has been known since the days of Humphrey Davy. It therefore cannot in our opinion be so economical nor so easily made as coal gas. A brilliant light—a light superior to common gas, is well known in the Drummond Light, but a cheap and easily managed light—a light in which there is no danger of explosions and which can be made cleanly in every household, that is the thing wanted. We believe that electricity in the hands of some genius will yet do this.

The electric light of Mr. Staite is the subject of a patent, the specification of which is now in our possession.

Steam Engines For Sale.

We have now three steam engines for sale of a superior construction and very cheap.—They are 4 horse power each having cylinders of a 6 inch dia. and 1 foot stroke. They can work up to five horse power easily, but we say 4 horse. The castings are excellent, of the very best metal, and the cross heads and shafts are all wrought iron. The bushes and glands are all brass and they have metallic packing. They are of what is called the "horizontal" construction, but work vertical and take up but very little room. If we put them up, they will be warranted for one year, but they are so constructed that almost any person the least skilled in mechanism can fit them up. There are no boilers to them, but a boiler can be furnished for about \$160 within two weeks, if ordered. Some person may want an engine who has a boiler, and this is a good opportunity to purchase, as the price is only \$250. The workmanship is of the very best order, they being made by a first rate engineer, and are strong and well put together.—Any person wanting one should send in an order to this office as soon as possible.

Patent Laws.

The following is the act of Congress, amending the Patent Laws, passed on the 23th of May last. As many inquiries have been made respecting it, we publish it to answer a number of our correspondents.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That there shall be appointed, in the manner provided in the second section of the act entitled "An Act to promote the progress of useful arts, and to repeal all acts and parts of acts heretofore made for that purpose," approved July fourth, eighteen hundred and thirty-six, two principal examiners, and two assistant examiners, in addition to the number of examiners now employed in the Patent Office; and that hereafter each of the principal examiners employed in the Patent Office shall receive an annual salary of twenty-five hundred dollars, and each of the assistant examiners an annual salary of fifteen hundred dollars: Provided, That the power to extend patents, now vested in the board composed of the Secretary of State, Commissioner of Patents, and Solicitor of the Treasury, by the eighteenth section of the act approved July fourth, eighteen hundred and thirty-six, respecting the Patent Office, shall hereafter be vested solely in the Commissioner of Patents; and when an application is made to him for the extension of a patent according to said eighteenth section, and sixty days' notice given thereof, he shall refer the case to the principal examiner having charge of the class of inventions to which said case belongs, who shall make a full report to said Commissioner of the said case, and particularly whether the invention or improvement secured in the patent was new and patentable when patented; and thereupon the said Commissioner shall grant or refuse the extension of said patent, upon the same principle and rules that have governed said board; but no patent shall be extended for a longer term than seven years.

SEC. 2. And be it further enacted, That hereafter the Commissioner of Patents shall require a fee of one dollar for recording any assignment, grant or conveyance, of the whole or any part of the interest in letters patent, or power of attorney, or license to make or use the things patented, when such instrument shall not exceed three hundred words; the sum of two dollars when it shall exceed three hundred and shall not exceed one thousand words; and the sum of three dollars when it shall exceed one thousand words; which fees shall in all cases be paid in advance.

SEC. 3. And be it further enacted, That there shall be appointed in manner aforesaid two clerks, to be employed in copying and recording, and in other services in the Patent Office, who shall be paid a salary of one thousand two hundred dollars per annum.

SEC. 4. And be it further enacted, That the Commissioner of Patents is hereby authorized to send by mail, free of postage, the annual reports of the Patent Office, in the same manner in which he is empowered to send letters and packages relating to the business of the Patent Office.

Approved May 27, 1848.

Potterville.

In Wisconsin there is a settlement of English Potters from Nottingham, England. At the present moment there are 134 individuals in it, who are doing well. This is the result of an emigration society, the shares of which were only about five dollars, paid by instalments, which when this amount was paid, if the shareholder drew a ballot he was entitled to a free passage to America and 20 acres of land in Wisconsin, 5 ready for cultivation with a good log house on it. Half of the estate of Potterville is now peopled and the emigration society in Nottingham have as much funds as will purchase 2000 acres more. This speaks well for a union of effort among the working men to better their condition. These men do not come here to beg—they come with a title to the land they have bought and with means to cultivate it—they make good citizens and when the West goes into the manufacture of pottery ware, she has ready made operatives to commence business with.

Cloth steeped in a solution of the phosphate of ammonia, is thereby rendered fire proof.

Southern Factories.

In South Carolina there are two Factory villages which promise to be very successful, viz. Graniteville and Vaucluse. The former is managed by a Mr. Gregg, who is sparing neither pains nor capital to make this labor as attractive as possible and to guaranty a respectable population. The operatives are to have the most commodious dwellings, and "all the comforts, conveniences, and enjoyment of life at their command."

Vaucluse is owned and managed by Gen. Jones, who appears to have introduced among his operatives and in all his operations, the New England system, and the result show the money value of this system. The fabric made is "Choctaw stripes" from nankeen cottons, the filling and half the warp being white cotton; the cost of material is less than 6 cents per pound and the cost of manufacturing the pound of material is less than 3 cents. "His goods are eight ounces to the yard, and it follows that his Choctaw stripes cost 4½ cents a yard and these are sold at 7½ to 8 cents, which shows a handsome margin for commission, profits, &c."

These villages are in a secluded valley, about 20 miles from Augusta, and 125 miles from Charleston.

In Georgia there is a capital of more than \$1,000,000 employed in the Cotton Manufacture with an average profit of 20 per cent.

The Ten Hour Bill.

Some thousands of the following petition are now in circulation in this State:—

To the Honorable, the Legislature of the State of New York: We your petitioners, citizens of Niagara County, desiring to protect the rights and interests of the *producing classes* of this State, ask that your Honorable body pass a law making ten hours a legal day's work. We further ask that measures be taken by your Honorable body, to prevent the convict labor of our Penitentiaries coming into competition with the labor and products of the mechanics of said State.

Permanent associations are formed to agitate these questions and bring about these reforms. It will be seen that the petitions are both mild in language and the measures are not ultra by any means.

Interesting Patent Case.

On the 5th inst. before Judge Kane, in the U. S. Circuit Court Philadelphia, injunctions were granted to restrain Eldridge, also Brown and Miller, from using machines for turning irregular forms, as being an infringement of Blanchard's patent. This is the case which we noticed before, on which the Jury could not agree and regarding which we have refused to publish some communications (not from parties interested in these cases) until it was settled. The settlement of the case will lead to the publishing of evidence at some future period on it—according to a promise from Mr. Carter.

A Lathe Machine in operation at Cleveland takes the green log and whittles out of it 120 pieces of lathe per minute. It supplies them at \$1 25 per thousand.

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A few more copies of complete sets of vol. 3 of the Scientific American may be had at the office, either bound or in sheets. Price neatly bound \$2 75, in sheets suitable for mailing \$2. The second volume minus 4 numbers from being complete we can furnish for \$2 bound, or in sheets and mailed at \$1 50. Send in your orders early if you desire them filled for we have but a few more copies left of either volume, and the number is growing less every day.

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