

Scientific American

NEW YORK, JANUARY 12, 1850.

Reading during the Winter Evenings.

It is well known that our youth, especially in our rural districts, have more leisure during the winter season, than any other. The question, "how shall it be spent most profitably?" we believe, is seldom asked. We are sorry to know that so many spend it in vain idleness. It is too common a practice to kill time by telling and hearing unprofitable stories in favorite places of resort, or idling it away in low pleasures. The ball room receives far more countenance from our youth than the lecture room; and the novel more attention, than a good work on some useful subject. Some say that it is owing to the dryness of the subject in both cases, or the manner in which they are treated, that the useful is neglected, and the attractive but vain, preferred. There is truth in this in some cases, but not always. Some treat religion as if it were a system of mental excoriation, and some authors who write on useful subjects, treat them in such a staid and dull manner, that we are often tempted to believe they wish for the fame of great learning by writing in a style which they neither understand themselves, nor any other person. Some such authors may well depart exclaiming like the German philosopher, "I am dying, and there is but one man who understands my writings, and he very indifferently." But all these things do not even furnish a grain's worth of sense to any excuse for not spending time to some useful purpose. We do not mean to say a word against rational amusement—we believe with Solomon, that there "is a time to laugh and a time to sing." What we find fault with, is the contemptible, foolish and unambitious way in which some young men spend some of their spare hours. In our cities they are worse than in the country, for the fact is, our best men (not all however) are imported from the rural districts. It is quite a common thing to find great numbers of our young men, perfectly ignorant of the first principles of natural philosophy, and barbarously in the dark about the history of their own dear native land. This should not be. "Then what is the remedy?" some will say. We can say this much, "We never saw a man possessed of much knowledge, who was not an attentive and studious reader, and took pleasure in reading. On the other hand, we never saw an ignorant man who was an attentive and studious reader. A person to be well informed, must read well: that is, read and study good works. A man or woman might read novels (with but few exceptions) till doomsday, and yet be very ignorant. When a passion for light reading is formed, it is very difficult to acquire a taste for solid reading. We can only advise the formation of a stern resolution, to break the one and acquire the other. Let a good book be always at hand, and when there is a moment to spare, oh young man, give it attention. Courage and perseverance will surmount a thousand difficulties.

We knew two young men who worked at the same bench, and both walked in the same sphere. The one was desirous of being something—a character—and resolved on sacrificing present vain pleasures to acquire knowledge. The one who had the ambition wished the other to attend the Winter Evening School with him, and the answer he received was, "I am going to a ball: I can get along without the education you speak of, as others have done." The retort of the other was, "So could I, but I wish to be what the others you speak of, are not, and which I never can be without a good education." These two young men are still living—the lover of ignorance is a tradesman with a very indifferent reputation and poor wages, the other is now an author of some celebrity.

Young men, whatever others have been, you can be, but not without effort—continuous, unwavering effort. Without this you may as well expect to be intelligent men, as to expect that the husbandmen could reap his fruitage without sowing, or the red hot bar assume form on the anvil, without repeated blows of

the brawny blacksmith's hammer. Some may ask, "What shall we read?" There is no use for us to tell you what to read, only read good books; and if you want to learn the principles of science, commence at the root of the matter, by studying elementary works. Always commence at the foundation; if you do not do so, you may expect to be as satisfied with your future progress, as if you were to commence a book at the end and read straight on in the wrong direction, to the beginning.

Spirit Drinking in Great Britain and Ireland.

The Washington Globe, copying our article on this subject, (which appeared two weeks ago in our columns) says that we did "injustice to the Scotch, not from design," but because we omitted to take into consideration the amount of beer drank in England. Our censure of the Scotch clergymen, the Globe thinks, "was not merited." As this is a subject connected with the physical welfare of our fellow men, we can justly say a few reasonable things about it. We did not use a single word in the article referred to, without weighing it well. We do not think that we were unjust in any of our remarks: we believe that we spoke the truth, but there may be an honest difference of opinion respecting the manner in which we expressed our opinions. The Globe refers to the huge breweries in England, which the Editor has seen, but also states that there is much whiskey drunkenness in Glasgow, &c., in Scotland, and thinks that some of Burns' songs have a pernicious effect upon the customs of the country. We have also seen these things, and lamented over them. It would be far better for the Scotch, if they must drink, to quit the whiskey and drink beer like the English. There would not be half as much drunkenness, and certainly far less injury to their brawny bodies.

We are glad to perceive by our late exchanges from Scotland, that some clergymen are taking measures to do something in arresting drunkenness. In Edinburg, the United P. Presbytery have adopted measures to proceed against any member who sells liquor on the Sabbath. So far so good, but what is this to the good they can do, for there is no class of clergymen that are socially so much one with the people, yet so generally respected and command a more intelligent influence. It was stated at a meeting of the Presbytery referred to, that 23 houses out of 27 open for the sale of drink on Sabbath, were kept by people in connection with the church. Our information upon other points is very minute. We would like to do good, if we can, and our voice may not be in vain to some one across the mighty waters. The Scottish clergy should try to abolish all the evil social customs that lead to inebriation. It is not enough that "they do as much as the clergy of England or Ireland," as the Globe says; we want them to do more than they have done, for "to him that knoweth to do good and doeth it not, to him it is sin."

To add strong testimony from headquarters, to prove the veracity of our former statements, the Glasgow Examiner of Dec. 8 (received by us on the 29th ult., after we wrote the article mentioned) says, "England and Ireland are bad enough, but Scotland seemingly hastens to be a nation of drunkards." This is an editorial extract. The Globe must give us her support to say a good word to arouse the land of Watt, Burns and Scott, from the fearful pit into which she is fast falling, and the way to do this is to arouse her clergymen to a sense of what they can do.

Question.

A correspondent wishes to enquire of T. B., whose communication appeared in No. 11, in regard to the Iron Manufacture, "Whether, in his experience, the blast entering a charcoal furnace should be limited, either in quantity or pressure—if so, what is the limit?"

The Properties of the Crank.

Owing to the crowd of more important matter, the second article on this subject is left over till next week.

We have several good communications which have been filed for insertion. They will appear as fast as we can make room for them.

To Color Sheep Skins for Door Mats.

Concluded from page 125.

**YELLOW.**—Having prepared the skin as described on page 125, the dye vessel is to be prepared with a strong solution of yellow oak bark (to be found at any druggist's.) This bark must be first scalded with boiling water and the clear liquor only put into the dye kettle. One pound of bark should dye one skin. Use half the scalded bark liquor at first, and along with it put in a quarter of a pint of the muriate of tin. This is muriatic acid or spirit of salt in which tin has been dissolved.—When the liquor boils enter the skin (mind the former directions) and let it get the boiling bark dye for about ten or fifteen minutes; then take it out and air it. After this put in the rest of the scalded bark liquor, which can be kept in a small vessel, or pail, and put in a little more of the muriate of tin, and then let the skin, or rather the wool on it, get another 15 minutes' boil. It will then be a good yellow and a fast color.

**ORANGE.**—By adding a little ground cochineal and a little cream of tartar to the dye kettle, along with the yellow oak bark, a beautiful orange will be made on the wool of the skin. These skins should be washed afterwards and treated exactly as we described in our last. A good looking yellow may be made by using turmeric and a little vinegar or vitriol, to make the liquor sour, instead of the yellow oak bark, but turmeric is bleached out by the sun in a very short time.

**RED.**—For one skin take one pound of red wood. It is known by different names, such as Nicaragua, hypernic and peach wood. Boil this dye wood for half an hour in a tin kettle, and then let the grounds settle; take the clear and put it into the broad dye kettle, which must not be of iron. Then put in a piece of alum about one half an ounce and let the liquor boil; then put in the skin and let the wool get the boiling dye for about half an hour or more. It will then be a deep red:—wash and dry.

**SCARLET.**—Boil one ounce for one skin of ground cochineal and a little yellow liquor in the flat dye kettle, for 10 minutes, and then put in one ounce of cream of tartar, and half a tea-cupful of the muriate of tin. Now enter the skin and let the wool get the boil of the dye for one hour. By adding cochineal it can be made as deep and rich in color as is desired. This is a most brilliant color, but the wool must be perfectly white before it is entered in the kettle. Wash and dry.

**CRIMSON.**—This can be made with cochineal, dyeing it like scarlet, only giving it no yellow liquor, and after it is dyed it should be kept for 15 minutes in a vessel of warm water, in which has been dissolved a very small quantity of saleratus or soda. Then it should be well washed. Peachwood makes a very good crimson, also, and is cheaply and easily dyed, but the cochineal makes the *ne plus ultra* of red colors on wool and silk.

**PINKS.**—Can be dyed like the crimson, only not so strong dyes are used—this is all.

**PURPLE.**—Scald about one-fourth of a pound of ground log wood, or take the liquor of boiled chip logwood and put it into the flat dye kettle, then add one-quarter of an ounce of cream of tartar, a very little alum, and about 60 drops of the muriate of tin. Let the wool of the skin get the boil of the dye for about three-quarters of an hour. Then wash and dry.

We have now described all the colors used for lamb-skin door mats. Before dyeing they must be perfectly clean and white, except for the green—the wool need not be white for it. The colors can always be deepened by adding more dye-stuffs. If the colors look watery, they want more dye stuffs. Woolen cloth, wool, and yarn can be dyed with the same receipts, only they are not handled like the skins. The wool is put in bags, the yarn turned on pins, and the cloth dyed on a revolving reel. Any one can dye their own door mats if they follow the directions given.

English Piracy of Inventions.

A late number of the Scientific American contains an engraving and description taken from the London Patent Journal, of "Andrew Shank's invention for Moulding Iron Pipes without Cores." This is adding another to the

long list of American inventions pirated in England; and as you have contributed to expose a goodly number of them, I shall be happy to avail myself of your columns to give the facts of the present case, all within my own knowledge or derived from unquestionable evidence. I do this as a simple act of justice to a worthy man, having no interest whatever in the patent.

For this beautiful invention we are indebted to Mr. Thos. J. Lovegrove, of this city. The idea of casting pipes by centrifugal force was first suggested in the summer of 1847. In December the patterns were prepared and the first rude attempt made in February, 1848. Although defective in many particulars, yet enough was shown to prove the principle correct, and that perseverance alone was wanting to insure success.

Further experiments were made, one difficulty after another removed, until in August he applied for a patent, which was granted Dec. 26, 1848.

In September it was exhibited at the Fair of the Maryland Institute, and excited much attention. The following report of the Committee shows with what result."

Here follows the Report, which is too long for us to publish, but we will give the substance of it. It is a certificate of the Board of Managers of the Maryland Institute, given in Baltimore, Nov. 26, 1849. It states that Mr. Lovegrove exhibited his machine at their Annual Fair, Sept. 1848, and that it was for "giving form to metallic substances, while in a liquid or molten state, by centrifugal force of a revolving mould." This shows that as early as Sept., 1848, Mr. Lovegrove not only had invented but constructed his machine—identical to the one described by us, and to which our correspondent refers. The certificate is signed by Messrs. C. W. Bently, Jas. Murray, Robert Eareckson, and Isaac Brown.

The President of the Croton Aqueduct Board, New York, gives a certificate, dated April 28th, 1849, stating that he had tried pipes cast by Mr. Lovegrove's machine, with a pressure of 300 pounds to the square inch, and the result was satisfactory.—E.D.

"The East Boston Iron and Gas Co. are now erecting works for casting on this plan, and in two or three weeks will be in operation. Greenwood & Ceriton, of Cincinnati, will also soon be at work.

When it is known that a pipe 4 inches diam. 9 feet long, can be cast complete in three minutes, and at a cost less than it requires to clean one after the old method, you will admit that it must supersede it.

It is evident from the engraving that Mr. Shanks must have got his ideas from the earlier stages of Mr. Lovegrove's invention, of which it is a pretty exact resemblance. His flask is one piece, so was Mr. L.'s, but he soon found this to be impracticable, and now it is divided longitudinally, with a very ingenious method of joining and separating instantaneously. FRANCIS H. SMITH.

Baltimore, 2d Jan., 1850.

[We would state here that it not unfrequently happens, that two inventors living at a great distance apart, produce like inventions about the same time. This may have happened in this case, and it may not; but such things happen very often, and we have, in our capacity, frequent ocular demonstrations of the fact. But this is a case which evidently appears to be altogether in favor of Mr. Lovegrove as the original inventor. We would state here, that if an American Inventor wishes to secure a patent in England, he should mind what he is about, and apply for it before his model goes to Washington—and if he cannot pay for an English patent, and does not care about one; but, as is natural, likes not another to claim the honor, he should get an engraving of his invention published in the Scientific American. It is looked upon in Britain as the Repertory of American Inventions. We intend to advocate a reform in the British Patent Laws, for the better protection of foreign inventors, and the British journals are with us; heart and hand, and we have no doubt but in a few years our inventors will see a good reform made, both in our own and the British Laws, for the benefit of inventors.]

—E. D.