Scientific American.

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The Bees and the Honey.

A few months since we announced the formation, in Boston, of an Inventor's Association, the object of which, according to the published circular of the projectors, was "to enable the inventors and actual producers of new and useful articles, or objects of art, to bring them to the notice of the public with the least expense and greatest benefit to themselves."

The first step in this enterprise was the holding of a grand exhibition at Gore Block, Boston, in October and November, 1855. An account of the exhibition was duly published in our columns at the time.

The President of the Association was Mr. Ithiel S Richardson, inventor of the Atmospheric Tubular Telegraph, and the Secretary was Mr. Elizur Wright, an inventor and literary man.

In their circular calling upon exhibitors to contribute to the exhibition, these gentlemen voluntarily made the following pledges and statements:—

"The management of the affair is entirely in the hands of practical mechanics, and the arrangements of the Exhibition Rooms will be superintended by Col. Wm. Beals. * *

The entire proceeds of the Exhibition after paying the unavoidable expenses, and reserving ten per cent. to form a fund for the ulterior purposes of the Association, *will be divided among the exhibitors* according to the merit and attractiveness of their contributions, by a committee chosen by themselves. These terms, it is believed, are more favorable to exhibitors than any hitherto enjoyed by them, and they cannot fail to meet the cordial approbation of all original inventors and actual producers, when it is stated that the association designs to devote all the funds it may acquire to promote the interests of inventors and mechanics—first by making adequate provisions for future exhibitions, and secondly by establishing a weekly or monthly journal, which shall serve as a fit organ for the inventive talent of New England. *It starts upon, and means to stick to the principle that the bees themselves* have the *first claims* on the *sweets* as well as *the honors* of their own *honey*. If the history of past exhibitions is any test of the interest which the intelligent people of New England take in the inventive genius and artistic skill of their fellow citizens, it will be entirely the fault of those among us distinguished for such talents, if they do not retire from this with something more substantial *in their pockets* than lithographic diplomas, and something more satisfactory than settled or unsettled bills of expense." . . . . . .

The exhibition, it appears, was a decided success. More than eleven hundred contributors were brought out, and one of the finest exhibitions ever known in New England took place. Between six thousand and ten thousand dollars were received, which amount, less unavoidable expenses, was, according to the prospectus, to be divided among the exhibitors. But in getting at a division of the *honey*, some trouble ensued, and resulted in the appointment, by the exhibitors, of an investigating committee to examine into the transactions of the officers. The following are the names of this body, all of them, we believe, gentlemen of respectability:—John Hartshorn, Anson Hardy, S. T. Bacon, Gilbert Nurse, N. Low Murphy, all of Boston. Copies of their report can be had on application to any of them.

This committee discovered a most veritable *mare's nest*. It was ascertained that the much vaunted "NEW ENGLAND INVENTORS' AND MECHANICS' ASSOCIATION" consisted solely of three individuals, viz.:—Richardson, Wright, and Beals, the latter the manager. Well, what of that? They are certainly entitled to great credit for having gotten up so splendid an exhibition, and for having carried it out with so much success.

The committee next received an assurance from the the officers before mentioned that all of the receipts were eaten up in expenses, among which were items like the following:—

Cash paid to Mr. Richardson for services as President, &c. - - - - - - -	$1000·00
To Elizur Wright, for services as Secretary,	224·36
To Wm. Beals, as Manager, &c. - - -	230·93
For services of Richardson's son, brother and nephew, and services of Mr. Beal's wife, and lady friend, also for carriage hire for family, odds and ends, incidentals, &c. -	397·38
For pulleys and shafting on hand - - -	350·00
	$2252·67

The commitee intimate that perhaps there are other sums spent for purposes analagous to the above. They claim that, allowing all the other expenditures to be bona fide, as represented, the items above named are not quite fair, that the amount was justly due to the exhibitors, and should have been divided among them, as promised, &c.

Now, we beg to dissent from the opinion formed by the committee. We fear they have been too much prejudiced in their own favor. It appears to us that the above payments are correct. The gentlemen named were the life and soul of the whole thing. Did they not plan, organize, and carry the affair through? They worked hard, very hard. Is it more than fair that they should be paid for their services? We notice that there were some *queen* bees engaged in the enterprise. Are not they entitled to any of the sweets?

But who shall say the published contract has not been carried out? They started with the publicly announced principle, which, they emphatically stated, they meant *to stick to*, that "the *bees themselves* have the *first claim* on the sweets as well as the honors of *their own honey*." Nothing can be plainer, even from the evidence of its accusers, than that the Association religiously adhered to this policy. The whole subject seems to hang upon the question "Who were the bees in this case?" Whoever they were, to them belonged *the honey*.

In conclusion we would state that we have known of the formation of quite a number of Inventor's Associations, during the past few years, but believe that in every instance they have failed to give satisfaction. Instead of benefitting, they have generally assisted to impoverish those who fell into their clutches. Inventors who cannot help themselves will look in vain for aid from such sources. The *honey* will, in all cases, be taken care of by the *bees*.

Black Oak Bark in Tanning.

The black oak (*quercus nigra* of botanists) grows spontaneously in the northern American States, and is used in the art of dyeing for producing colors on cotton called "bark greens, bark yellows, bark browns, and olives." The name by which it is commonly known is "quercitron bark," and constitutes the inner bark of the tree. The color which it produces in a simple aqueous solution is yellow. Its coloring properties were discovered by Dr. Bancroft, of London, in 1784. He discovered it while on a visit to America in search of new dyewoods, and the British Parliament granted him a patent for its exclusive use for twenty years. It was the principle substance employed in Britain for coloring yellow on cotton from the date of the Doctor's patent until about the year 1820, when the bichromate of potash was introduced,—which has now almost superseded it.

The bark of this tree, when used for tanning, makes leather of as good quality as white oak bark, but because its color is a light yellow, it will not bring the same price in the market as hemlock and white oak tanned leather.—The prejudice against it on account of the color is wrong, and is founded on ignorance, but tanners cannot afford to wait until this public prejudice is cured. Many of them, therefore, knowing the quality of the yellow bark, have consulted us in reference to some method that would enable them to use it in their vats and change its color, and make the leather tanned by it resemble the reddish hemlock, or the buff of white oak.

We will give them some information relating to substances which act as re-agents on the color of the bark, and then they can make experiments for themselves, and no doubt they will discover a method of giving the leather the desired color, although, with us the yellow leather would meet with the most favor.

Decoctions of this bark should always be made very strong, as it then deposits a portion of its coloring matter on cooling. It contains a great quantity of tannin and *quercitrine*—the coloring matter. Much of this coloring matter disappears if the decoction is allowed to stand until it becomes *stale*, a hint which may be of use to tanners. Lime water gives a yellowish red precipitate with a decoction of this bark; the muriate of tin a yellow precipitate; alum a yellow precipitate; the sulphate of copper, a greenish yellow precipitate; the sulphate of iron (copperas) a dark olive green. In dyeing cotton a brown color with this bark, the goods are first dyed yellow with it, then redwood and logwood liquors are given on the top of the yellow. It has been observed by dyers that the yellow forming the base of the brown color will disappear, as it were, by long handling of the goods afterwards in a redwood or logwood liquor. Tanners may take advantage of this property of *quercitrine* and use its decoctions, in the earlier stages of tanning, and then finish off with hemlock bark liquors. They may also get the proper shades of leather desired, by using the bark with hemlock in the same vat, or with catechu.

We have no doubt but this bark will yet come into more extensive use, and that the leather tanned by it will come up to a useful value, which does not lie in the color of it.

Pearsall's Method of Preserving Flour and Meal.

It is well known that one of the great difficulties in the transportation and preservation of flour and meal is their liability to ferment and become sour, after a short time. Many a cargo has been rendered wholly worthless from this cause. When large quantities of flour or meal are packed together, as in flour barrels, the material heats and forments, beginning at the center of the mass, where no air can gain access.

In 1854, Mr. Thomas Pearsall, of Geneva, N. Y., patented a remedy for the evils above mentioned, his improvement consisting in the use of an open tube, running lengthwise through the center of the barrel. The air circulates through the tube, and keeps the latter always cool; consequently, the center of the mass of meal cannot heat. This plan, according to theory, ought to prevent fermentation. We are happy to say that the most thorough practical experiments have completely established the correctness of this theory, and demonstrated the great value of his discovery. Samples of flour that have several times crossed the Atlantic, and been sent on very long sea voyages, have invariably preserved their sweetness. Indeed, a singular fact has been ascertained, viz.: that flour and meal put up in the ventilated barrels of Mr. Pearsall become improved in quality by age. The testimony on this point is conclusive.—The invention is already becoming well known in Liverpool, and we notice by a recent British price current, that Indian meal, put up in "Tubular Barrels," is quoted as selling at an advance of 50 cents. per barrel more than the meal packed in the ordinary manner. It is believed that when the advantages of this discovery become somewhat more extended, the quotation prices will rise still higher, for the purchaser will always feel sure, not only of getting fresh and sweet meal or flour, but the quality will also be better. There is no musty smell or taste, no matter how long the article is kept. Mr. Pearsall's invention is patented in Europe. It will be found illustrated on page 240, last volume of our paper.

Our Prizes.

The following letter from one of the successful competitors for our late prizes, exhibits, in a few but eloquent words, the benefits of the prize system adopted by us. The writer, it will be noticed, has taken another prize before the present. Such acknowledgments encourage us to continue the plan of paying liberal rewards in cash to those who labor for the extension of the SCIENTIFIC AMERICAN:

MESSRS. EDITORS—I see that I have again been successful in gaining a prize for my list of subscribers to the SCIENTIFIC AMERICAN. It would give me much pleasure to be able to extend the circulation of so valuable a publication as yours without any compensation, but a prize of thirty dollars to a man in my circumstances makes it doubly so. Please send the amount I am entitled to by mail, or otherwise, as in your judgment is most safe and convenient, and receive my thanks for your liberality. JOHN GARST.

Dayton, Ohio, Jan. 29th, 1855.

Corrugated Iron.

Experiments have been made at Washington to ascertain the strength added to iron by corrugation. A plate three inches long and four broad, so thin that, supported at the ends, it would bend of its own weight, when corrugated sustained a weight of 600 pounds. Corrugated iron has been adopted for many camp utensils. A camp bedstead of this iron weighs 50 pounds, and is equally strong with the English camp bedstead, weighing 150 pounds. A corrugated iron water-tight wagon body, that floats from 2000 to 2500 pounds of freight, besides the running gear, and weighs less than a wooden carriage body to carry the same freight, has also been adopted into the service of the United States, besides other articles of the same material. The additional strength of the iron in this form is obviously upon the principle of the arch. A circular tube is, in proportion to its amount of material, the strongest of all forms.

Corrugated iron is stronger than plain iron because the metal is contracted in bulk as well as arched in form. The first application of corrugated plate iron for the purposes of springs and to withstand great sudden strains, so far as our knowledge extends, was made by H. T. Hyde, and was illustrated on page 60, Vol. 4, SCI. AM.

A Word to the Wise.

The next number of our paper completes the half year, and affords a most excellent opportunity for new subscribers to enter their names. Singular as it may seem, men require to be reminded, and even urged, to the performance of duties which involve their own good. The SCIENTIFIC AMERICAN is, by universal consent, declared to be a source of special benefit to every individual who chooses to read it. Yet we are obliged to lay down "line upon line and precept upon precept," in order to increase the number of our patrons. We wish they would save us this labor by volunteering, *en masse*, to fill up our subscription books.

One of the rules of our business is to discontinue the sending of the paper as soon as a subscription expires. Those who have only paid for a half year are therefore requested to remit, immediately, the money requisite to pay for the balance of the volume. If this is not done we shall be under the disagreeable necessity of crossing off their names, and they will be deprived of many cheerful interviews with the SCIENTIFIC AMERICAN.

Recent American Patents.

Marble Sawing Machine.—By W. and G. Bull, of Towanda, Pa.—This machine is designed for the sawing of blocks of marble on a taper, both sides being cut simultaneously. Such blocks are used for monumental purposes. The improvement consists in a novel arrangement of adjustable guides, so that the angles at which the saws cut can be conveniently changed.

Improved Seed Sower.—By Stephen Gorsuch, of Altona, Pa.—In most of the seed sowers now used, the grain falls from the seed-box down through close tubes into the earth. The tubes are shod in front with small plow points, that open the furrows, in which the grain drops; close behind the tubes are suitable shares, that cover the furrows. The grain is not exposed to the eye during the operation, and therefore, if any of the tubes become clogged up so that the seed cannot fall, the fact is not readily ascertained by the attendant, and uneven sowing is the result.

The object of the present improvement is to remedy the evil just mentioned, and for this purpose the inventor makes slits or openings in the seed tubes, both in front and behind; said openings extend nearly the whole length of the tube, and are covered with wire cloth. The openings permit the entrance of light, and enable the attendant to see the seed as it falls, and to detect at a glance any choking up of the tubes.

Improvement in Machinery for Rolling Iron.—By Corliss and Harris, of Providence, R. I.—The common method of rolling iron is to pass it, in a hot state, between heavy metallic rollers, the latter revolving in fixed bearings.

The object of the present invention is to roll iron into sheets that are of a tapering thickness; that is, thicker at one edge than at the other. The long wrought-iron hinges used upon heavy doors are cut from iron of this description.

The improvement consists in placing the iron to be rolled, properly heated, upon a flat bed, and causing a roller to traverse over the iron until it is suitably rolled out. The frame in which the roller is carried is subject to cer-