

## Miscellaneous.

## Re-Vaccination and Small Pox.

Messrs. Editors.—Medical men are very often asked if one vaccination is sufficient to protect the system, through life, from Small Pox—or how often it is necessary to have the operation performed. The late Dr. Fisher, of Boston, for a long time gave attention to this subject, and in January last published, with others, the following propositions, which are supported by numerous statistical facts, and are fully relied upon by the profession:—

"That one single and perfect vaccination does not, for all time in all cases, deprive the system of its susceptibility of variolous disease.

That one or more re-vaccination do; and that, consequently, a physician should recommend re-vaccination, when questioned as to its necessity.

The system is protected from variolous contagion when it is no longer susceptible of vaccine influence, as tested by re-vaccination."

That vaccination will not fully prevent people from taking the small pox, is a fact beyond all dispute, for I was vaccinated, and the pox, I am told, was good—excellent in every respect; yet, when twenty years of age, I was smitten with small pox, and covered from head to foot with the "boils of that loathsome disease." My case was peculiar—I had no knowledge of coming in contact with any person who was infected, and was not in any house where the disease had been. I will remember the evening when I felt the first symptoms; it was in 1834, on Christmas Eve, and I lost a fine social feast by it. In no case, however, does the small pox affect those who are vaccinated as severely as those who are not; I have not a mark on my face, nor was my sickness ever considered dangerous to myself, and I was up and at my business in four weeks from the time I took it. Some would lead us to believe that, after a certain time after vaccination, the whole of its effects disappear from the human system, and the individual who had undergone the process, is as liable to the dangers of smallpox, as those who have not been vaccinated. This is not true. Of five persons who were smitten with small pox, by contact with me in some way, one died who had not been vaccinated, and the other four (one as old as myself) were but slightly affected in comparison to what I was, for I was literally covered. The nature of vaccination is beyond the ken of doctors—it is altogether a matter of experience—and it was by practical observation, not reasoning, that Jenner discovered the virtues of the *kine* pox. This discovery has been a wonderful blessing to our race, I have heard my grandfather say that, in his young days, you could scarcely see a European who was not terribly disfigured with the small pox. It was the terror of the beautiful and gay. The wonder now is, to see people disfigured with this disease.

I have heard an opinion expressed that vaccination was of little benefit to a child before it was weaned. I do not believe this; the four persons of whom I have spoken, were all vaccinated before they were three months old. Many recommend re-vaccination as the only sure means to prevent varioloid, or the mild type of small pox. I believe that it should be practiced; but, while I believe this, I also think that if every person born was vaccinated in early life, the small pox would soon be unknown. R.

New York, 1850.

## Chart of Chemistry.

We have received from Messrs. Youmans & Burdall a fine large Chart, which shows at a glance the 16 simple bodies with their compounds, also the binary compounds, &c. The design of this Chart is excellent. We all know how indelibly objects presented strikingly to the eye, fix themselves on the memory. This Chart is an excellent one for schools, because, by it, a knowledge of elementary chemistry will be very easily obtained. For example, Manganese, Iron, Silicon, Aluminium, Magnesium, Calcium, Sodium, Potas-

sium, Oxygen, Hydrogen, Nitrogen, Chlorine, Fluorine, Carbon, Sulphur, and Phosphorus—all simple bodies, are represented in squares of different colors, to represent their quantities by weight, and then on the Chart arranged in proper columns, are different salts and compounds, composed of the substances named, represented by the separate squares of colors.

Thus, Hydrogen is a small lilac square, and Nitrogen a larger blue square; well, when we look to Ammonia, a binary compound, it has one blue square and three of lilac, which indicates its composition—N.H.<sup>3</sup>. This chart is highly commended by our most eminent chemists. Its price, with an explanatory pamphlet, is \$5.

## New York Milk.

In a trial which occurred in this city last week, the following affidavit was made:

Dr. A. K. Gardener sworn.—Is a physician; knows what is called Johnson's distillery stables, on the North River, at 16th st. (where plaintiffs cows were kept) the stables and distillery occupy two or more blocks; there are in the stables about 1,000 cows, owned by different individuals; they are kept together in rows, without any stalls, head and head, each side of a partition, and two rows in an apartment; they are fastened by the head, have no bed, but lay on the hard floor, which is always very wet, the stables excessively hot in summer and exposed in winter; the cows, after being put into the stable, never come out so long as they continue to give milk, or are not so sick as to require removal; they are fed almost entirely on the hot swill (the boiled grain, after being distilled, mixed with the water it is in) from the distillery, with an occasional whisp of hay, but the latter, after a while they cannot chew, by reason that the teeth of the cows, after being kept in these stables, and fed on the swill, drop out.

The swill runs from the distillery under 10th Avenue, to the stables, where it is delivered in a large vat, thence runs into a trough at the head of the cows. They usually drink a barrel a day of it. The milk is much greater in quantity than grass, or grain and meal fed, but the quality of the milk has 30 to 50 per cent. less of nutritious quality than pure milk. I have obtained specimens and caused them to be analyzed. It takes much longer than country milk to mingle with other substances, consequently it becomes a foreign body on the stomach, and frequently produces particularly to children, vomiting and indigestion.

I have reason to believe, from my own observation, and what I have heard from other physicians, that its use produces cholera infantum, marasmus, a general wasting away, called consumption, and scrofula. The cows, besides losing their teeth from what I believe to be the hot swill, are subject to a disease of the hoof, so that they cannot bear their own weight, and have to lie down. Cows killed, when so affected, are found to have a concentration of matter extending from the hoof almost up through the leg, and their general health is affected. Cows fed on this swill bloat out, and appear oftentimes, as well as others, but on being killed they are found to have, inside, but little fat, the tallow, for instance, which, in healthy cows, weighs about 30 lbs., weighing but 7 or 8 lbs. Butchers say they can tell the meat blindfolded by the smell, wherever it is. It has a bad odor.

When sick, the cows are fed, sometimes with meal. I am told no water is ever given them, not being supposed to require it, drinking a barrel of swill per day. There is very little substance in it.

Testimony like the above was given in by Drs. Reid and Griscomb, and in view of it, we may ask, "Do we live in a civilized age and in a christian land?" In some things we are as bad, if not worse, than pagans and barbarians. If there can be remedial measures enforced to remove such evils, then we say, our civilization is a mockery, our religion of no effect.

The trial, in this case, was between Edward Langhman, plaintiff, and D. D. Howard, of the Irving House. The jury decided in favor of Mr. Howard, who deserves great credit for thus exposing the iniquity of the swill milk

system. We hope that measures will be now taken to punish those who sell such milk.

## The London Athenæum and the Patent Journal.

The Patent Journal, of Nov. 23rd, opened a brave broadside on the Athenæum, about a charge which it made against patent agents, making out vague titles to patents from unworthy motives, and which it rejoices will now be prevented by the late decision of the English Attorney General, requiring all applicants, (as we do in America,) to present full drawings and descriptions of their inventions. It seems that the charges of the Athenæum are untrue, and exhibit a great amount of ignorant prejudice. The London Patent Agents have always been the prime movers and advocates for judicious reforms in the Patent Laws. We believe the Patent Journal in every word that it utters; it is as much for the benefit of Patent Agents as it is for inventors to have good Patent Laws; there are some men so totally devoid of common sense as to imagine that Patent Agents are benefitted by bad Patent Laws. This sentiment has been expressed at home here, and by one who knows better. It is a fact, in America as well as in England, that some Patent Agents have been the most forward in the advocacy of inventors' rights; and is it not natural and just that they should be so? Yes. The better patents are protected, the more patents will be taken out, and the more valuable must they be, consequently it is better, both for inventors and their clients. We defend the rights of all inventors, upon the natural principles of honest and exact justice to all men; we did so before we were Patent Agents, and would do so still, if we were not. There may be dishonest Patent Agents, but the truth will come out against them in the end, "honesty is the best of all policy." A Patent Agent merely works for inventors, and it is right that he should be faithful, and it is natural, if he is a fair man, to feel interested in the welfare and prosperity of those for whom he does business.

## Complimentary.

The following commendatory notice of the "Scientific American," we copy from the "Watchman" published at Norristown, Pa. In returning our thanks to brother Fry, for expressing so favorable opinion, we would add that we fully endorse all that he has said. Read, read:—

"SCIENTIFIC AMERICAN.—This valuable paper is a regular visitor to our sanctum, and among our whole list of exchanges there is no paper that we open more eagerly. Its columns are always filled with the most interesting and valuable articles upon science, art and inventions. As a scientific journal, we think it has no equal in the United States. In addition to the amount of other interesting information it publishes, it also contains, weekly, an official list of Patent Claims, prepared expressly for its columns, at the Patent Office, which of itself is worth the subscription price. No mechanic should be without a copy."

## Errata of Patent Claims.

For two weeks past there has been perpetrated the error of heading our List of Patent Claims Nov. 27. Last week the claims were for Dec. 10, the week previous for Dec. 4. We will take care that such errors will not be found in our columns again.

## Mixture to Color the Hair.

MR. EDITOR.—I have seen it stated in a number of papers, and once in the Scientific American, the mixture of sugar of lead 1 drachm, lac sulphur 2 drachms, rose water 4 oz. was employed by Gen. Twigg's for his hair, which converted his snowy locks to a beautiful brown. Now I wish to know if this lotion will restore white hair to its original color. New York, 1850. J. B.

[The best way to find out, is to try the experiment; this can easily be done. The only reason why this lotion may color hair, is based upon the well known fact, that sulphuretted hydrogen will turn lead black; and it is well known that we have in this lotion all the elements to produce such an effect. But in opposition to this supposition, we know one

case when this lotion was tried for three weeks, and although it was stronger than the composition made from the above component parts, yet it had only the effect of making the hair harsher and gave it an offensive odor, but never altered the color a single shade.

The nitrate of silver is the substance used to color hair black. We advise no one to use it; no one should be ashamed of grey hair, nor vain of a bushy red crop—happily we are not.

## Letter from Mr. Paine.

Messrs. Editors.—I notice in your last journal, that Mr. Faraday, at the last meeting of the Royal Institute, announced his discovery that oxygen was magnetic. In the month of June last, Charles D. Archibald, Esq., of London, and a pupil of Faraday's was at my house, and I, among other things connected with my discovery, stated to him that both gases, (hydrogen and oxygen) were magnetic, that oxygen was intensely so, and the discovery of these properties I made among my first experiments, nearly six years ago, as I can fully establish by several individuals. I have not the most remote intention of accusing Mr. Faraday of collusion with Mr. Archibald, both gentlemen I hope to ever rank among my best friends, and I know that both gentlemen will most cheerfully award me the priority of discovery, when the force of my evidence is felt. Yours, HENRY M. PAINE.

Worcester, Dec. 21, 1850.

[We have received an article on Mr. Paine's Light, from Mr. E. Wright, in the Boston Chronotype, which we will notice next week.

## New Photographic Process on Paper.

At a recent meeting of the Paris Academy of sciences M. F. Bousignes described a new process of preparing photographic paper of which the following is a description:—

Any kind of well-made slightly glazed paper is applicable for this purpose, provided it be free from creases and metallic spots. Take three leaves of paper which have been successively plunged into distilled water, and spread them on the glass plate of the camera, taking care to ensure their complete adherence to each other at every part by means of a fine linen cloth. Place on the others the one which appears to be the best adapted to receive the luminous impression; the others serve only for the purpose of moisture and adherence. When this humidity has disappeared, let fall three or four drops of a solution of neutral nitric of silver on the paper, and spread it quickly over the surface by means of a camel-hair pencil. The traces of this solution will entirely disappear in a few instants, leaving only the appearance of a slight vapor on the paper. The paper must now be treated in the same way as the metallic plate. The vapors of iodine and bromide of lime give to it a great sensitiveness, but it will be necessary to expose it for a longer period to the vapors of this latter substance. The time of the duration of each process is as follows:—First iodine process, fifteen seconds; bromine process, thirty-five seconds; second iodine process, ten seconds. The glass plate is then placed in the camera, and exposed to the light, which takes effect on the paper with almost the same rapidity as on the silver plate. The mercury causes the image to appear. If the operation be well done, and the exposure to light well regulated, a positive image is obtained, which will bear comparison to that obtained on the metallic plate, and certainly much superior, on account of the softness of its tints, to the ordinary gallic acid process.

## Air.

From closed jars, buried for seventeen centuries in the ruins of Pompeii, the air has been taken and analyzed by chemists, who found it to be identical, atom for atom, with the air we breathe.

A log of Cuba mahogany, in Messrs. Pell & Co.'s sale, in this city, last week, brought one dollar and ninety-two and a half cents per superficial foot. Another log, about ten feet long, sold for five hundred and sixty dollars.

62,137 hogs arrived in Cincinnati last week. What State can beat the Buckeye for raising pork?