

SCIENTIFIC MUSEUM.

Poisonous Chloroform.

In our last number we published some experiments made by Dr. Jackson, of Boston, upon animals, with chloroform and the oil of whiskey. Those experiments distinctly proved that the oil of whiskey is dangerously poisonous. This is a most reliable discovery, and at once accounts for a number of deaths which have taken place by people inhaling chloroform. For this discovery, a most valuable one, Dr. Jackson deserves the thanks of the whole world, and something more than the mere expression of public gratitude. In an article in the "Boston Medical Journal," he states that for a long time he had been suspicious that there was a certain poison derived from the common whiskey, of which inferior chloroform is made. He therefore, during the past month, succeeded in procuring some very fine fusel oil, and he undertook researches which have resulted in the conviction that it is this anyle compound which produces the poisonous matter of certain kinds of chloroform. He says: "When this oil is mixed with hyperchlorite of lime, (bleaching powder), and water, in the same way as we prepare alcohol for the production and distillation of chloroform, I found that the mixture in the retort, after agitation and standing some time, became warm, indicating that a re-action was taking place between the fusel oil and the hyperchlorite of lime.

After some hours the retort was placed in a water-bath and distillation was effected, the volatilized liquid being condensed by means of one of Liebig's condensers. A clear colorless liquid came over, which was at once recognized as having the peculiar odor of bad chloroform. It is perhaps a ter-chloride of amyle, but has not yet been submitted to analysis.

It is so powerful that merely smelling of it makes one dizzy, and working over it made me so sick that I was obliged to go out of doors for fresh air several times during my operations on it. In order to make sure that the fusel oil was all decomposed, I again mixed the distillation above mentioned with a new lot of bleaching powder and water; and after three hours, with frequent agitation, it was again distilled, and gave what I regard as the pure unmixed poison."

This substance he tested on the rat and turtle, as noticed last week, and the results lead him to the following conclusions:—

"1st, That a poisonous matter exists in the cheap chloroform of commerce, from the fusel oil which exists in whiskey, made from corn, rye, potatoes, &c., and which is now used to make cheap chloroform.

2nd, that all chloroform intended for inhalation as an anæsthetic agent should be prepared from pure rectified alcohol, to be diluted with water when used for distillation from hyperchlorite of lime.

3rd, when chloroform, and the alcoholic solution of it called chloric ether, is made from pure alcohol diluted with water, no fatal accidents take place from its judicious administration.

4th, that no druggist should sell for anæsthetic uses any chloroform which is not known to have been properly prepared as above suggested.

5th, that the mixture of chloroform and alcohol commercially known under the name of strong chloric ether, must be made with the same precautions as chloroform."

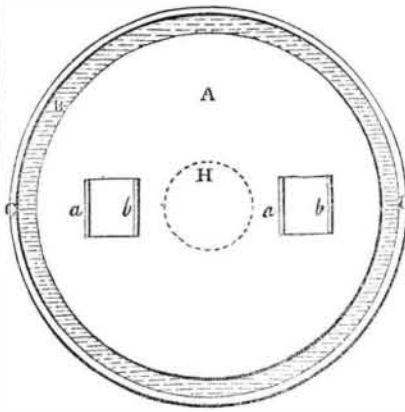
Australia.

The English papers continue to chronicle a tremendous rush of emigration from England to Australia. There must be much suffering among the pioneers, as was the case in the early emigration to California, but if the supplies are as large as represented, and the agricultural resources of the country great, Australia will prove an incalculable blessing to the English people. Her colonial acquisitions have hitherto increased the glory of the English government without adding aught to the happiness of her subjects. Australia promises to bring direct relief to her crowded population, by giving occupation and bread to tens and hundreds of thousands of emigrants, and also by affording a better chance for em-

ployment and the means of subsistence to those who remain.

Patent Mode of Preserving Butter.

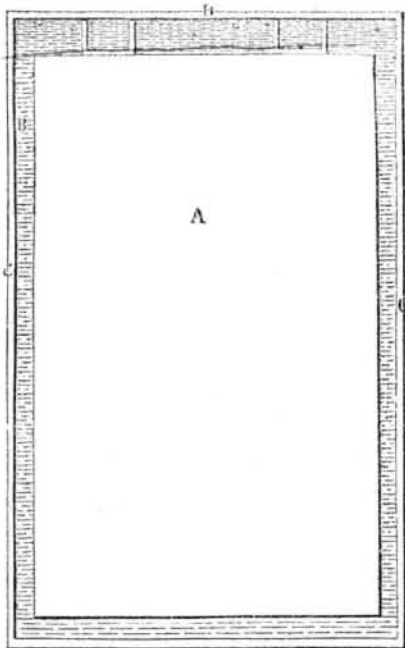
FIG. 1



The annexed engravings are views of a new mode of preserving butter for which a patent was granted on the third day of last month (Aug., 1853) to Louis de Corn, of the city of Cincinnati, Ohio.

Fig. 1 is a plan, view of the box for preserving butter, and fig. 2 is a vertical section. The same letters refer to like parts. A represents the butter in the box; B B is the preserving liquid surrounding the butter; C C is the box. Let us suppose the box to be open; the butter to be preserved is first moulded to be of a size a little less in diameter, than the box, and of a cylindrical form like unto it, and then placed in the said box; there is then a space all around between the butter and the box. This space is then filled with a solution of water, in which has been dissolved about a quarter of a drachm of the iodide of potassium to each half pint of clean soft water. When this liquid is poured in to fill the box, the butter rises or floats, owing to its being of a less specific gravity. The cover is then placed on the box. This cover has two small pieces of tin, *a b*, to prevent (as much as possible), the butter from being in contact with the tin, in order that the butteric acid may not

FIG. 2.



attack the tin, and be injured in quality; the cylindrical block of butter, A, only touches the tin at two small stops, *a b*, *a b*. The box is then filled up with the iodide of potassium solution through the small hole, H; this opening is then covered with a piece of tin, and carefully soldered. By doing this, the specification states, that the butter is preserved fresh and good for any length of time. It is also asserted, that fresh butter as well as salt, are equally well preserved, and kept as good as it was the first day it was put in, for an indefinite period. To know if this process of preserving butter is truly performed, it is sufficient to place the boxes containing the butter in some apartment having a temperature or summer heat, which is the most favorable to a combination of the butter with oxygen, which is the cause of it becoming rancid. If, after seven days of exposure to the artificial summer, the butter is found fresh and good in the boxes, the process will be considered complete and perfect. Any place behind a stove, or in a barrel surrounded with

warm water at 85 or 90 degrees, will furnish the artificial summer to test the process. Iodine is the body which gives the antiseptic property to sea salt, and this property of preserving the butter as described, is claimed for the liquid that is employed by M. de Corn. The claim is for the aforesaid chemical compound or its equivalent, for the preservation of butter for any length of time, in the manner substantially as described.

This method of preserving butter is something which concerns all our farmers.

Collodion in the Treatment of Erysipelas.

In the "Eclectic Medical Journal," Cincinnati, we perceive that the use of Collodion in Erysipelas was ably and clearly set forth in an article by O. E. Newton, M. D., in the April number for 1851. It states that the first case treated by Collodion within the experience of the author, was reported in the "London Lancet" for April, 1850. Dr. Newton states that he has applied it in erysipelas with great advantage. The editor, as we understand it, cites quite a number of cases from the "New York Journal of Medicine," to show the success of Collodion in the treatment of many cases of Erysipelas.

The "Eclectic Medical Journal," of Cincinnati, is conducted by Prof. J. R. Buchanan, M. D., and R. S. Newton, M. D., of the Eclectic Medical Institute, of Cincinnati; it is a very able medical journal, and we like its tone and gentlemanly bearing. There are some of what are termed our "Old School Medical Periodicals," which, we regret to say, do not use such language when speaking of cotemporaries, as we would like to see them employ.

Hooping Cough.

In the "New Jersey Medical Reporter" it is stated that conium is good for hooping-cough, and that conia has been successfully employed in France for the same disease; it is given to children in doses of one-fortieth to one-tenth of a grain, according to their ages, of from three months to four years of age. It is a medicine which must be used only by a regular and cautious physician. It is also stated that the application of a blister to the *nucha* (the hinder part of the nape of the neck, also called the *cervix*) has been very successful in curing hooping cough. Dr. R. L. Madison, of Petersburg, Va., has recommended this mode of treatment, on the theory that the disease consists in specific irritation of the spinal chord from the origin of the eighth pair down to the origin of the phrenic nerve.

Bite of the Rattlesnake.

In the same medical journal there is an account, by Dr. S. W. Woodhouse, of the treatment of himself for the bite of rattlesnake. He was bit in the finger by a rattlesnake, at the Indian Pueblo of Zani, in New Mexico, the pain was intense, and he at once commenced to suck the wound, for he was about three-fourths of a mile from the town. As soon as possible, he applied aqua ammonia, and then tried the great western remedy,—getting drunk. He took one quart of brandy (fourth-proof), and one pint of whiskey; enough to kill any ordinary man; it produced intoxication, which lasted four hours. He suffered greatly for eight days, during which he took various medicines and at last recovered. It is a common opinion in the West, that if a person is bitten by a rattlesnake, and he can be made drunk with whiskey, he will recover.

Browning Gun Barrels.

Gun barrels of iron and steel are browned by the same means; the browning is a coating of oxide or rust; it is formed by rusting the barrels by a weak acid, or what is better, a mixture of the muriate of iron and the nitrate of copper. The barrel is rubbed over with the liquid, and laid past for a few days, then it is brushed with a wire brush, then coated again, and laid past for a few days longer, and then washed in warm water in which a little soda has been dissolved; it is then dried, brushed, and oiled, and again dried in a warm place. If the barrel could be boiled in oil, so much the better. Some use weak nitric acid to oxidize the barrel.

Pumpkin Seed Oil.

A very excellent oil may be prepared from

pumpkin seeds. The seeds are first peeled and then pressed between iron plates or wooden blocks with a screw press. The oil thus obtained is said to burn well, last longer, and give a better light than any of the common oils, and emits very little smoke.

Fishes in the Rivers of France.

M. Coste, in his late Report to the Minister of the interior, proposes to stock all the rivers of France with the best of fish for the small outlay of \$5,000. It is also proposed to stock the extensive salt lagoons on the coast of France upon the same principle with excellent shellfish.

LITERARY NOTICES.

THE NATIONAL PORTRAIT GALLERY.—Numbers 2 and 3 of this great American Work, contain portraits of Thomas Jefferson, John Hancock, Charles Carroll, Winfield Scott, Anthony Wayne, and Thos. Macdonough, with biographical sketches ably drawn up. This work is to be completed in forty numbers, of three plates each, and is eminently worthy the patronage of all delighting in a knowledge of the achievements of our Warriors and Statesmen. Price 25 cents each number. R. E. Peterson & Co., Philadelphia; Wm. Terry, 113 Nassau-street, New York.

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We shall strive to improve the present Volume both in the quantity and quality of the engravings, and in the matter—selected and original. Having every facility for obtaining information from all parts of Europe, through our correspondents, we shall lay before our readers, in advance of our cotemporaries, a full account of the most prominent novelties brought forward.

The opening of the Crystal Palace, in this city, next May, will form an interesting subject for attention. We shall study it faithfully for the benefit of our readers, and illustrate such inventions as may be deemed interesting and worthy.

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