

Influence of Tobacco on the Brain.

It has been proved that the increase of lunacy in France has kept pace with the augmentation of the revenue from tobacco. From the years 1812 to 1832 that tax produced 28,000,000, and the lunatic asylums of the country contained 8,000 patients. The tobacco revenue has now reached the sum of 180,000,000, and there are no less than 44,000 paralytic and lunatic patients in the various hospitals devoted to their accommodation. This parallel has been drawn by M. Jolly and laid before the Academy of Science. The last words of his speech on that occasion are worth recording in this age of universal smoking: and young boys, to whom this pernicious practice has not yet become second nature, would do well to reflect, ere it be too late, on the frightful warning the above statistics contain, as well as on M. Jolly's words. He says:—"The immoderate use of tobacco, and more especially of the pipe, produces a weakness in the brain and in the spinal marrow which causes madness.

Titanium.

This most valuable metal has hitherto been found in only small quantities: it is of the greatest service in hardening iron, and rendering it steel-like, or rather of a harder character than steel, and at the same time more flexible. It is said to render the surface of rails almost everlasting, and that it is almost free from oxydization. We understand that a company is being established for mining it extensively, and that it is likely to lead to great results in the manufacture of the world in various shapes and forms of metallic structure for which iron and steel are not so appropriate as they are when mixed with new metal.—*Technologist*.

Milk and Zinc.

Vessels made of zinc should never be used for holding milk, as when milk is allowed to repose in contact with this metal a lactate of zinc is formed, as well as a compound of casein and oxide of zinc, both of which are extremely injurious if taken into the system. A solution of sugar, which stood a few hours in a zinc vessel, was found to contain a considerable quantity of salts of that metal.—*London Engineer*.

Visit to Henry Ward Beecher's Farm.

This farm is at Peekskill, Westchester county, New York, about two miles from the railroad station. It contains forty acres of excellent land, and is pleasantly situated with a southern aspect, commanding an extensive and most charming panoramic view of the Hudson river, the high and surrounding mountains, such as no one knows better how to appreciate and enjoy than the rural-loving owner himself.

When Mr. Beecher purchased the place, a few years ago, there was scarcely a fruit tree of any value upon it. Now there are two thousand five hundred choice fruit trees, most of them already beginning to bear. He has erected a large model barn, but as yet occupies the humble cottage he found upon the place, though he has made important additions and improvements.

Mr. Beecher is converting the place to a great extent, excepting an extensive lawn in front of the

house, into a fruit and vegetable farm. He has nearly an acre filled with Delaware and Iona grape vines. And as the trees are yet small, he has raised among them this year between seven and eight hundred barrels of onions.

Around his little cottage Flora reigns in all her glory. There is the greatest profusion of all the choicest flowers, and the whole atmosphere is redolent with their sweet and mingled perfumes.

The barn and out buildings are well stocked with fine horses, oxen, choice breed cows, swine, fowls, &c. This autumn, Mr. Beecher has been making many improvements in the draining of his lands and adding to the value and attractiveness of the place.

The influence of a farm conducted like this, though all farmers may not be able to adopt all the improvements that have been made, must be of the greatest benefit to the agricultural and horticultural interests of any community. And Mr. Beecher is really a benefactor to all the farming, as well as religious interest of the country.—*Cor. Boston Journal*.

A New Process of making Soda.

Mr. A. G. Hunter, of Rockliffe Hall, near Flint, has achieved a discovery which seems likely to lead to a most valuable modification in the process of making soda. It has long been known that caustic baryta will separate the sulphuric acid from a solution of sulphate of sodium, forming therewith an insoluble precipitate of sulphate of barium, and leaving caustic soda in solution. The decomposition of sulphate of sodium by caustic baryta is thus a far simpler and readier process than its decomposition by Leblanc's method; but caustic baryta has hitherto been, and is still, far too costly to permit of its use for the decomposition of sulphate of sodium on the great scale. Many attempts have been made to obtain it at a cheap rate from sulphate of barium, or "heavy spar," which is a sufficiently abundant natural product, but they have all been utter failures, and hence inventors have sought sedulously for some other and cheaper reagent, capable of acting, as regards sulphate of sodium, in the same way. Mr. Hunter has found a very cheap one indeed. He has discovered that lime, by far the cheapest of all alkaline bodies, will separate the sulphuric acid from sulphate of sodium in solution, provided that the solution, after the lime has been added to it, be subjected to a pressure considerably exceeding that of the atmosphere. He states that "either hydraulic, steam, or mechanical pressure" will answer equally well. Unless the application of the necessary pressure, on the large scale, should prove to be attended by greater difficulties than there seems any reason to anticipate, his discovery will revolutionize the soda manufacture; and by-and-by, all the carbonate of sodium produced will be obtained by the direct combination of caustic soda with carbonic acid, the caustic soda being obtained by a process embracing only two operations: (1) the decomposition of chloride of sodium, or common salt, by sulphuric acid, as in Leblanc's process; and (2) the decomposition of the resulting sulphate of sodium by lime.—*Mechanics' Magazine*.