

stitutions, 17 middle schools, 26 elementary schools, and 14 winter schools. This shows what the government does for the benefit of its farmers. The higher instruction is three-fold: (1) Universal and economical, (2) special scientific teaching as to the most advantageous production of useful plants and animals, (3) building on the sum of experience, and combining the other two into an organic whole, the organization and direction of the farm. At all the schools, theory and practice are united.

The station at Moeckern, like others, is in charge of a regularly educated man, who has passed his examination, and he is called the director of the station. He is appointed by the government, and is expected to conduct experiments at his discretion, to employ necessary assistants, and to publish, from time to time, in pamphlet form, the results obtained, this publication being called *Die Versuchstation*, the experiment station.

I BELIEVE that the first instance in which the consumption of ice was shown to have been followed by an outbreak of disease is that recorded in the "Seventh Annual Report of the State Board of Health of Massachusetts." The occurrence took place in one of the large hotels at Rye Beach, New Hampshire. At the beginning of the season of 1875 about a thousand visitors were assembled at Rye Beach, and a considerable number were attacked with a series of symptoms which led to the suspicion that they had consumed some noxious article. The incidence of the disease was entirely confined to 300 persons occupying one of the large hotels. The sanitary state of this hotel is said to have been exceptionally good, and, although suspicion seemed at first to attach to the water supply, yet the disease was found to have affected many who, "having apprehended trouble from the use of the water," which was strongly impregnated with salts of lime and magnesia, "had carefully limited themselves since their arrival to other beverages." Indeed, as the result of a careful process of elimination, suspicion came at last to be directed to the ice furnished to the house. The water obtained by melting the ice was discolored and charged with suspended matter and gave off a decidedly disagreeable odor, the atmosphere of the ice-house was offensive, and some persons who had used the ice away from the hotel were found to have suffered in the same way from violent illness. The ice in question had been derived from a local pond, the water of which was found to have become foul by long continued stagnation; one portion of the pond, measuring about five hundred feet in length and one hundred and fifty feet in width, was occupied by "a homogeneous mass of putrescent matter." A piece of ice, care-

fully cleansed from all surface impurities, was then melted, and the water thus obtained was submitted to chemical analysis, the result being the detection in it of a quantity of "decaying organic matter." The use of the ice had also in the meantime been discontinued, and coincident with its disuse "there was observed an abrupt amelioration in the symptoms of nearly all who had hitherto been ill." So, also, no fresh attacks occurred during the remainder of the season. Even among the more educated classes there prevails an impression that even if water is contaminated it is purified by freezing. Many experiments, however, have shown the fallacy of this view. In some of those recently made by Mr. C. P. Pengra, the American chemist, various organic matters (urea, albumen, &c.) were mixed with water, and the specimens were gradually frozen. A certain amount of purification did take place—the ice contained thirty and even forty per cent less organic liquid. But a large amount of the added pollution remained, and the investigator, though expressing surprise that the purification had been as great as it was, says the experiments afforded abundant proof that we ought not to tolerate the indiscriminate collection of ice.—*Popular Science Monthly for November.*

A MR. WHITEHEAD has been startling the English farmers in a manner to arouse them to competition with Nova Scotians and all outside. The English crop of Fruit is estimated at 9 million bushels, the imports exceed 4 millions, for which an expenditure of 9 millions of dollars goes out of England annually. Mr. W. shows how the French fruit is collected by agents, and so carefully packed that certain brands are bought and paid for on "nose of advice," and passed from agent to salesman, and salesman to customer, without inspection. It is asked, cannot English folk use English capital, English intelligence, and English honesty to do as much for English fruit? Here is a lesson to more people than the English. It is not capital and skill and intelligence that are so much wanted in the industrial and commercial world as HONESTY. We do not mean the honesty that comes after repentance and restitution, but the sterling, straight forward, selfish, British honesty, that arises out of the well founded commercial belief, that honesty is the best policy. The question now is not one of Morals but of Marketing. A man buys apples that not only look well, and taste well, and sell well, but apples that are sound to the core. French "producers of fruit are most careful and diligent in their cultivation, and Pruning is attended to with great pains and skill by small proprietors in France, among whom exists a wide-spread intelligence and a

keen sense of what is profitable and useful for the land." Mr. Whitehead points out that Sugar is cheaper in England than any other European country, so that English Jams can be made to rival in any market of Europe the home-made preserves. Mr. Whitehead's elaborate suggestions which we have only briefly referred to, are addressed to English farmers. We hope this faint echo of them will suggest to some of our Nova Scotians landowners, the immense possibilities of our country in the way of Fruit Culture and Fruit Manufactures. The idea that fruit cannot be grown anywhere in Nova Scotia, except in the Annapolis valley, has been long ago exploded, but even in Kings and Annapolis, farmers are only beginning to realise what may be done. As for Cape Breton, it seems to be the most productive fruit country in the world.

A SUCCESSFUL farmer finds it for his interest that his neighbors should also be successful. A single instance of well ordered and productive fields does not make the reputation of an entire locality for profitable agricultural enterprise. It becomes noted for fertility, and acquires comparative importance as a centre of production, when the number of good farmers is in the majority; when its yields of grain or hay or other crops attract general notice; when buyers learn that such or such a county town will supply the largest quantity and finest quality of butter or cheese, or wool, or apples, or other specialty; when those who travel observe the general excellence of roads, the beauty of the shade that overhangs them, the neatness of the lawns by which they are bordered, the orchards and gardens that adjoin them, the evident prosperity of the community at large. To what extent the money value of one's land who lives in such a community, is enhanced thereby,—not to mention the pleasure and profit of associating with those having similar aims for improvement and gradually securing similar means for attaining it—would be difficult to determine.

The perception of the reality and importance of these facts, though not always expressed, is generally entertained, and, where felt most strongly, accomplishes unmistakable results. It leads to organizations for mutual intercourse and consultation, such as farmers' clubs, dairymen's, stock breeders', and fruit growers' associations; and, in short, it has developed into one of the great factors in setting on foot and pushing forward such progress as our agriculture manifests now as compared with fifty years ago—a change perhaps even more remarkable than the past half-century has witnessed in any other direction.—*Cultivator.*