

The western part of the desert of Sahara is said to contain nitre beds richer than those of Chili.

The nitrifying bacteria, so called, which are found at the roots of clovers and certain other plants, are known to all students of agriculture. They have the power of fixing the nitrogen of the air, and so making it available for plant food. A German scientist has found a way of inoculating the soil with the bacteria. The United States Department of Agriculture has taken up the plan, and will distribute these living fertilizers in parts of the country where they are not now abundant.

A new sugar producing plant has been discovered in South America, if sugar is the right name for a product which is twenty or thirty times as sweet as cane sugar. The plant is a species of eupatorium.

The yak, which is used as a beast of burden in the cold mountain regions of Central Asia, and will be engaged in the transport service of the British expedition to Thibet, will possibly be introduced in certain parts of Sweden and Norway, for which it is thought from recent experiments to be better fitted than the Lapland reindeer.

The latest explanation of a lightning flash and its accompanying thunder makes it an explosive combustion of hydrogen, set free by electric action and ignited by the electric spark—an explanation which certainly does not fully explain. Heat lightning, formerly looked upon as the reflection of distant lightning, is now regarded as the glow of a silent electric discharge.

The hydroscope is a newly invented instrument for examining the bed of the sea. By its use, objects lying on the bottom, fishes moving through the water, or the bottom of the ships on which it is carried, can be seen reflected on a screen on deck. Another invention, by the same man, an Italian engineer, is a machine for lifting heavy objects from the bottom of the sea. It is said to be strong enough to lift the heaviest ironclad from the greatest depths.

Manual Training.

Compliments of the season to all the readers of this department.

I regret that in the list of manual training teachers given in the last issue of the REVIEW, the name of Brother Remigius was inadvertently omitted. Brother Remigius is instructor in manual training at St. Patrick's Industrial School, Halifax. Those who saw the excellent exhibit of models from this school at the last provincial exhibition must have wondered at the omission which I take the earliest opportunity of correcting.

Some months ago information was promised regarding the manual training exhibits at the local exhibitions. From the various papers and other sources is gleaned the following information: The exhibits I have seen mentioned were made by the schools at New Glasgow, Lunenburg, Bridgewater,

Pictou, and Glace Bay. The models and drawings of the New Glasgow schools were entered in competition with those made at the Pictou Manual Training School. They attracted a great deal of attention at the Pictou County exhibition and were very favorably commented upon.

The schools of Bridgewater and Lunenburg, under the instruction of Mr. V. W. Messenger, competed against one another at the exhibition held at Bridgewater. The *Bridgewater Bulletin* says the manual training exhibit was the central attraction of the exhibition. The exhibit comprised models, drawings, and collections of native woods, showing transverse and cross-sections. For all of these, prizes were offered. The secretary of the Bridgewater School Board, Mr. J. A. Curll, was instrumental in having manual training given a prominent position in regard to prizes, etc. About \$18 found its way into the pockets of the bright boys who produced the excellent work exhibited.

The Glace Bay Manual Training School made an exhibit at the industrial fair held in that town. The *Halifax Herald* gave a very flattering account of the exhibit, which deserved all the praise given it. Mr. T. B. Kidner, Provincial Supervisor of Manual Training, who was at Glace Bay at the time, made an exhibit of cardboard work. Mr. Cook, who is in charge of the manual training department there, had charge of the exhibit.

It is probable that some other schools besides those of the places above mentioned and those of Halifax (already mentioned) exhibited, but I have not seen any others noticed. It is to be hoped that this year will find all the schools exhibiting and that the teachers will see that the prizes offered are commensurate with the importance of the exhibits. The move made by the Lunenburg and Bridgewater schools in exhibiting collections of native woods, is especially to be commended and should find favor with all.

The Sydney Academy *Record* has the following paragraph in the December issue: "The manual training room is now electrically lighted and presents a busy scene until a late hour every day. Some magnificent work has lately been turned out, showing that among the two hundred boys there was some latent talent that only needed opportunity to develop." The *Truro Sun* adds: "Mr. J. C. Dawson, of Folly Village, is in charge of this department, and his many friends in this neighborhood will be glad to know that his work is so appreciated. The Sydney School Board has recently increased the accommodation for manual training in woodwork, but the demand is still much greater than can be supplied without equipping another room and engaging a second teacher."

The success of the manual training movement in Sydney is helping on another very important matter, viz., the establishment of a system of evening school instruction in technology. A strong committee in Sydney has the matter in hand, and Premier Murray,