

sandstone, conglomerate, granite, pumice stone, basalt, or some other kind of igneous rock. Several varieties of each kind should be secured, if possible. White and colored varieties of quartz can be found anywhere. Bits of rock crystal are not uncommon. Mica can be got in small sheets at a hardware store. Common limestone can be found in many places. Chalk can be bought in the natural state at most hardware stores. Marble clippings can be got without price at marble works. Limestone rocks usually contain transparent crystallized varieties. Fine white gypsum (alabaster) is abundant at Hillsboro. The coarser varieties occur in several localities in the province. The transparent variety, selenite, can generally be found in the "plaster rock."

If all the aqueous rocks and granite do not exist *in situ* in the vicinity, they may be looked for in the glacial boulders scattered over the surface of the country. These boulders yield the best specimens of granite, as they show the difference between weathered and unweathered surfaces. Specimens should be selected which bring out this important point clearly.

Teachers can readily exchange minerals from their several localities, or supply others with those which abound in their neighborhood. The inspectors will often be able to aid teachers in effecting exchanges.

Although the iron ores are almost universally diffused in small particles, in the soil and rocks, good specimens for class work are not to be found in most localities. Feldspar, although pieces of suitable size may sometimes be got out of granitic rocks, will usually have to be obtained from a distance, notwithstanding its commonness. These, and any other of the before-mentioned minerals not readily obtainable, in good specimens, may be purchased quite cheaply from dealers.

Geo. L. English, 739 and 741 Broadway, New York, Dr. A. E. Foote, 4116 Elm Avenue, Philadelphia, and others, issue catalogues, which may be had on application, from which prices may be learned.

The earnest teacher will find little difficulty in securing a good stock of all the minerals and rocks I have mentioned. The outlay in money need not exceed three or four dollars. If the school possesses no suitable cabinet, the teacher and pupils should make, or cause to be made, a few wooden trays to hold the minerals. These trays may then be packed in a large trunk, which should be kept locked, if necessary.

No chemicals will be needed except some commercial hydrochloric (muriatic) acid, which may be obtained from a druggist at ten cents, or less, per pound. This should be kept in a bottle with a glass stopper. Next in order is a number of very small

bottles (homœopathic vials), enough to supply one for each desk. Put a little acid, diluted, if strong, into each. An ordinary cork will last in them for a considerable time. Get some small glass tubing, about one-quarter inch in diameter, and break it into pieces two or three inches long with the aid of a file. Place one of these pieces on each desk for extracting a drop of the acid when needed to apply to a mineral. Show the pupils the effect of the acid on the skin and on cloth, that they may exercise due care in its use.

The lessons which are about to follow are quite within the capacity of pupils in Grade VI, but will be useful to those of higher grades if they have not yet studied minerals in a practical way.

"First Lessons in Minerals," by Mrs. Richards, price 10 cents; and Crosby's "Common Minerals and Rocks," 25 cents, in paper cover, both published by D. C. Heath & Co., Boston, are recommended for the teacher's use.

J. BRITAIN.

For the REVIEW.

New Brunswick Schools of the Olden Time.

By W. O. RAYMOND, M. A.

The first annual report of the state of the Madras school in New Brunswick was printed in the *St. John City Gazette*, of July 19th and 26th, 1820. It is a very interesting document and will afford to anyone desirous of obtaining the information full particulars of the origin of Madras schools in this province.

Outside the City of St. John the first schools receiving aid from the Madras Board were established at Fredericton, Kingston, Gagetown, Sussex Vale, Norton, Sackville and Hampton. By the close of the year 1822 the new system was extending with unexampled rapidity in all parts of the country, and at the opening of the legislature in February following, Lieut. Governor Smyth had the satisfaction of being assured by the House of Assembly that his solicitude in extending the blessings of education to all classes of the community "demand the warmest thanks of the present and will be highly and justly appreciated by succeeding generations."

The rules and regulations adopted by the Madras Board, under which these schools have always been conducted, provided that the schools, with their local funds, should be under the immediate management of the minister and church wardens of each parish, who were required to make an annual report to the Central Board.

The remarkable development of the Madras system in New Brunswick will be evident from a comparison