

system of book-keeping, writing paper, Dutch quills, ink-powder, red and black. Here we have about the limit of books available for school purposes in towns. In the country schools the books used were as a rule the school Bible, Dilworth's spelling book and Dilworth's arithmetic — Murray's grammar, Walking-ames' arithmetic and the English reader came in later.

The slates first in use were, in size, five by seven inches without frames, and at least double the thickness of a modern slate. Slate pencils were quite expensive, consequently the master used to search the brooks for soft stones to be used upon the slates by those of his pupils who were unable to provide pencils. Black-boards, maps, and other apparatus were for the most part unknown.

Scholars learning to write were required to bring paper and goose-quills; the latter were sometimes the imported Dutch quills, but were often gathered by the children from the goose pasture. The master usually manufactured the ink, ruled the paper with a plummet of lead, wrote the copies and made and mended the pens. School hours were commonly from 8 to 12 a. m., and from 1 to 5 p. m., but in winter school began an hour later. No recess was allowed during the session. The holidays were few, comprising the King's Birthday, Good Friday, a week at Christmas, and three weeks at midsummer. In towns, Saturday half holidays were allowed, and in the country the custom was to take the full day every alternate Saturday. The master had but little encouragement from the trustees who seldom or never visited the schools. In the winter season the fires were generally kindled by the boys living nearest the school-house, each one taking his turn. In the warm summer days, the majority of the children, both boys and girl, went to school bare foot, and the boys in most cases were not required to wear coats. Shirt, trousers, and a straw hat, was the summer school attire of many a school-boy, who afterward by his energy and ability made his mark in the community, entered the learned professions, and even represented his county in the legislature.

The games in vogue with school-boys in early days were such as "Tag," "I Spy," "Hunk and Ball," "Base-ball or Rounders."

Punishments were much as at present, save that the birch rod was much more freely used, ears were sometimes pinched or pulled, the dunce cap and stool not infrequently employed, and for minor offences snapping the head with thumb and finger practised — the sensation produced by the latter process when inflicted by a mistress wearing one of those heavy old fashioned thimbles on her finger was by no means agreeable.

FOR THE REVIEW.]

#### Natural History in the Common Schools.

One of the most abundant of minerals is common feldspar (orthoclase). Although hard (six degrees), it can be scratched by quartz. When scratching it, notice its streak. It has cleavage planes running in two directions. With care, specimens can be selected which will show the intersection of two of these glistening planes. They always make a right angle with one another. Try the effect of heat, acid, and water upon feldspar, and note the various colors of the specimens. Enumerate the observable differences between feldspar and quartz-feldspar and calcite.

Mica and crystallized transparent gypsum (selenite) may well be studied together. They are soft minerals. Selenite can be easily scratched with the finger nail. Its hardness is two degrees. Mica, black or white, is little, sometimes not any harder. Take the streak of each. Observe the visible effects, if any, of water and of hydrochloric acid upon them. Heat a few little bits of mica in a small test tube loosely closed with a cork. The tube may be held in a wooden holder, similar in form and size to a clothes-pin, and cut out a little, near the end of the split to receive the tube. After heating the mica, replace it by small pieces of selenite, and apply heat again. In one case the mineral will withstand the heat without apparent change; but in the other, it will be converted into a soft, white, lustreless powder, while drops of water from it will condense on the sides of the tube. Give the names of the minerals only after the pupils have discovered that they differ from one another, and from any mineral previously examined. The pupils may then be told that the white powdery substance in the bottom of the tube is calcined plaster of Paris.

Examine ordinary opaque and gypsum in the same manner as selenite. They will be found to agree so closely in their properties, that the pupils will accept with confidence your statement that they are only different forms of the same mineral, and that the white powder again left in the bottom of the tube is also plaster of Paris. Buy a pound or two of calcined plaster of Paris. The pupils will be able to tell how it was made and what it lost in the process. Direct each of them to mix a large spoonful of it with water sufficient to bring the mixture to the consistency of thick molasses, and then promptly pour it over a coin laid on the bottom of a flat dish. Examine the plaster in an hour or two, and carefully remove the coin from it. Let them try to explain the rapid disappearance of the water, and the distinct impression left by the coin. They will now be able to show