Object Lesson on Matches.

[The teacher provides a box of matches and a candle; also a piece of steel and a flint and some scraped wood or cotton (tinder) and some shavings.]

It is important to be able to have fire whenever we want it; hence, the invention of matches may be considered one of the most important ones of this century. We must not underrate matches because they are so common.

It is supposed that the first people lived on grains, berries, vegetables, fruits, and raw flesh. Then some day there was a great thunder storm and a tree was struck by lightning. What a surprise it must have been to them to see a piece of wood burn!

In some way they found that this fire would cook meat. Then they studied how to keep fire by burying it in ashes. They found it could be made by rubbing two pieces of wood together, also by striking a flint on a piece of steel. About fifty years ago matches were discovered.

First they cut up a plank or board into small splints by machinery; then they melt some sulphur and dip the splints in that; then into a mixture of glue, chlorate of potash and phosphorus.

You strike the match on something rough; this causes heat enough to set the phosphorus on fire. This causes the chlorate of potash and sulphur to burn and these ignite the stick and so we have a blaze. Now, here are some questions: Where does the sulphur come from? Where the chlorate of potash? Where the phosphorus?—*Teachers' Institute.*

Picture Study for Primary Grades.

Lessons from pictures not only lead the child to think, but subsequently to express his thought; it leads to the training of the powers of observation and imagination.

During one of the first lessons it might prove a good plan to have at first the naming of a picture. To aid in this plan a couple of pictures might be shown to the children with their names, thus showing how well the name suited the picture. Then have children give names to a new picture. Place these names on the board; then, after quite a number have been given, select, with the aid of the children, those most suited to the picture. Then reduce these names to two or three, showing why these are most appropriate. The child should be trained to see through the picture into the story it depicts. Aim, by well-connected questions, to have children build up the story. Have several stories told, having the children as far as possible give different narratives. As this is among the first stories written by the class, it might prove more successful for teacher and pupil to write it together, thus giving the children an idea of what will be required in all future stories.—*The Teacher.*

CURRENT EVENTS.

The insurgents in Uruguay now threaten the capital, Montevideo; and the government forces are said to be making their last stand in its defence. Nearly all the coast towns are reported to be in the control of the revolutionists.

It is expected that the advance of the British expedition to Thibet will be opposed. Reinforcements are therefore being sent forward, as it is important that the British should not seem to be driven back by threats.

A cloth that always keeps warm is a recent French invention. A fine tissue of metallic threads, woven in with the wool or silk of which the fabric is composed, forms a conducting system which may be kept at an even temperature by the passage of an electric current.

War between Russia and Japan, which has seemed probable for some months, is now apparently so near that it may be a terrible reality before this issue of the REVIEW reaches its readers. Both nations are making ready for the contest. The fate of China, as well as that of Korea, may be decided by the result.

An uprising of the Hottentots in German South-West Africa is becoming serious. It is said to have been caused by ill treatment of the natives.

The Dominican government troops have captured the town of Puerto Plata. This is a severe blow to one of the two or three insurrections that are going on in the little republic.

The electronic theory of matter—that is, the theory that an atom of matter is composed of positive and negative electricity, and nothing else—is thus stated by Sir Oliver Lodge: Electricity exists in small particles, which are called electrons. They compose the atoms of matter. Atoms are small; three hundred millions of them can lie in a row side by side in an inch, and there are a trillion of them in each granule of lycopodium dust. But electrons are very much smaller. One hundred thousand of them can lie in the diameter of an atom, for they are a thousand-million-million times smaller in bulk than atoms are. The negative electrons in an atom are in a state of violent movement, with occasional possibility of escape. Atoms, therefore, are not permanent, though in most substances they behave as if they were so; and the ancient doctrine that all things change is absolutely true, not only of all visible forms, but of the very atoms of which they are composed. Nothing material is permanent. The escape of electrons, from the explosion or spontaneous breaking up of atoms, constitutes the source of energy in radium and other radio-active substances, which has attracted such general attention. And the discovery of this atomic radiation was expected by the scientific world, as the new theory made its existence probable. It confirms the theory that atoms crumble and decay. The next thing to be looked for is the formation of new atoms.