OUR GFOLOGY.

Interesting Geological Facts Relating to the Red River District.

LESSONS FROM A QUARRY.

The following interesting and instructive lecture on the above subject was delivered by Mr. Panton before the Young People's Association of Knox Church on Tuesday evening, 11th inst. The lecturer said:

Having consented to give a lecture in connection with the Young People's Association of Knox Church, I am about to undertake the duty which that promise incurred. The selection of a subject is one of the difficulties I met at the very ontset of this task. However, as scientific problems command much attention in the present age, I considered a few words about something in that department of knowledge would not be without interest to the me abers of the association and others present on this occasion. To some geology presents itself as a study made up of unpronounciable names only understood by those who have had special This is a training in scientific study. mistaken notion, and I hope that I shall he able to show you that geology at least presents many attractions to any one who is ready to exercise his observation upon the objects connected with it around him.

On this account 1 ask my hearers to bear with me while I examine the stones of a quarry a short distance from Winnipeg, and endeavor to gather some lessons from the revelations we shall glean from them. In order that my remarks upon the rocks at Selkirk may be more readily understood permit me at the outset to state some general truths recognized in geology.

These remembered will assist greatly the proper consideration of the rocks.

FIVE IMPORTANT FACTS IN OROLOGY.

1. Rocks may be divided into three principal divisions eruptive, metamorphic and aqueous.

The eruptive, sometimes spoken of as igneous referring to their origin. To ay do not occur in true strata but in the form of irregular masses, never showing marks of a sedimentary origin and never containing remains of animals or plants. They are often crystalline and show marks of their being of igneous origin. In this group we find the granites, traps, lavas, and serpentmes.

Metamorphic.--The rocks of this class are also more or less crystalline, but usually show a stratified structure. They seem to have been deposited in layers and afterwards to have undergone a great change, likely through the influence of heat, pressure, and moisture. In this group we find gneiss, (much the same in composition as granite, but the minerals in layers) mica, talc, slate, crystalline, limestone. Nearly all of the rock mineral east of us in the vicinity of Rat Portage, and extending hundreds of miles northwest and southeastare metamorphic, also many of the boulders scattered throughout the northwest belong to this class.

Aqueous, sometimes called sedimentary.—The rocks of this division make up by far the greater portion of the earth's surface. They have been formed by the agency of water, as we see deposits now forming beneath the sea from materials derived from the shore and hardened by agencies which time will not permit me to describe. These sedimentary or aqueous rocks are characterized by always occurring in beds or surfat, and often containing remains of animals or plants in the form of fossils.

Any rock or fragment comes under one of these classes.

2. The rocks of the earth's crust are usually in layers, which in many cases, as already mentioned in connection with the aqueous, have been formed at the bottom of a body of water, so that where we see rock now there likely was water, and where water is at the present time may have been dry land.

3. These layers, which compose the