of science have enabled us to travel as fast as a bird can fly, with nothing to do but to sit down cheerfully and easily, and glance at the trees and rivers, hills and dales, as we pass along. So wonderful are these discoveries, that instead of waiting a fortnight or a week for a letter sent from London to Edinburgh, a person may now send a message to or from these cities, and receive an answer in as many minutes as were formerly required days. Think of messages being sent hundreds of miles, and an answer returned, while a person waits no longer than a little boy might do who had taken a letter to a gentleman's house. and was told to wait for an answer. Yet this is really done-not by any magic, or mystery, but by the study of God's works, and by conformity to his laws. And this makes it all the more delightful, that whilst man studies and enquires, God is willingly disclosing these delightful means, and putting it into the heart and mind of man to apply them for good and useful purposes.

Sometimes a friend is invited from afar off-perhaps he has to travel sixty miles. Well, he may be told that dinner will be on the table at two o'clock. The cook begins to get the nice things ready. Still the expected friend has not started on his journey—perhaps he is sit-ting down reading the newspapers. The cook actually goes on preparing the dish of which he is to eat, and after she has been thus engaged for some time, he goes quietly and takes his seat in a carriage, rides the whole of the sixty miles, and knocks at the door just as the cook begins to think the dinner nicely done, and wishes the gentleman had arrived. This is wonderful. And I wish you not merely to understand that it is so-but how it is managed-who discovered it, who improved upon the first discovery-and how, and when, and where, it was first applied; so that you may have plenty to think and talk about, and that you may feel what a pleasant thing it is to live in a time free from trouble and dangers, and with so many blessings and privileges around you.

Some years ago, people used to employ for lights at night. great torches, with a flickering, smoking flame, and suffocating vapours ; next came candles and lanterns. with their dun and uncertain rays; then came gas, which was considered a wonderful discovery, and has enabled us to have our shops and streets lit up long after the sun has gone down. But now a new discovery-the electric light-is to be tried, and it is very likely that ere long our streets and houses may be almost as light by night as in the day. And instead of lamp-lighters running about our streets with noisy boys after them, first lighting one corner, and then another, it is likely that a whole town may be lit up at once, and as this will take place before sunset, if this plan succeeds, there will be scarcely any darkness in large towns. What is more astonishing, is, that this light will endure under water-so that if it were necessary to have lights under water, as it night be in mining. or in making breakwaters, or piers, or harbours, it would be quite possible to do so.

These, tl. n. dear Boys and Girls, are wonders which Grandfather Whitehead intends to lecture you about. 1 intend to speak in plain and pleasant words, so that you may not be puzzled by difficult terms; and when I think it will help you to understand the subject. I will present a pretty little picture to show you how a machine is constructed, or how an experiment may be performed

Besides, I wish you to study these things, that you may try in your turn to discover useful things to do good to your fellow-creatures. For as others have laboured and done good for you, you should delight to labour for the good of others. Watt, who discovered the steam-engine, good of others. Wait, who discovered the steam-engine, Harvey, who discovered the circulation of the blood; Newton, the great astronomer; Sir Humphrey Davy, should be so deep in the boxes, th the great chemist; Howard and Wilberforce, the kind- them while standing on the edge.

hearted, good men, were once playful boys like you, and knew but little; they turned then minds to good pursuits, and became wise and good men, and did much for the well-being of their fellow-creatures. Mrs. Hemans, Mrs. Barbauld, Mrs. Fry, and other good and clever ladies, were once girls with very little knowledge, but they strove for it, and gamed it, and became great and good. And so may you, my dear Boys and Girls, if you will but try. Grandiather Whitehead will endeavour to will but try. lead you on. I have spoken (I must tell you.) to your Aunt Mary, and she has consented to give you some mteresting lectures upon History-about the rude times and people I have hinted at-and many pretty anecdotes she will have to tell. Therefore, I hope you will give your Aunt Mary and me your attention, and we shall do our best to induce you to love knowledge and virtue.

[At the conclusion of Grandlather Whitehead's introductory lecture, the boys and girls all clapped their hands, saying, "God bless you, Grandlather Whitehead !"]

CURIOSITIES OF SCIENCE-GEOLOGICAL CHANGES OF OUR OWN TIME.-Lyell, Darwin and others, have lately collected and powerfully applied a curious class of facts, to show the slow and continuous upheaving or depression of large tracts of land, in different parts of the world, in effect of subterranean changes going on The phenomenon belongs to our own urderneath. time, as well as to anterior ages in the history of the globe. In Sweden, for instance, a line traverses the southern part of that kingdom from the Baltic to the Cattegat, to the north of which, even as far as the North Cape of Europe, there is evidence, scarcely disputable in kind, that the land is gradually rising at the average of nearly four fect in a century : while to the south of this axial line, there are similar proofs of a slow subsidence of surface in relation to the adjacent seas.-This, and various other examples of what may be termed secular changes of elevation, particularly in South America, amidst the great coral foundations of the Indian and Pacific Oceans, have led the eminent geologists just named to regard such slow progressive changes as the probable cause of many or most of those great aspects of the earth's surface, which by others have been attributed to paroxysmal actions of subterra-nean forces, sudden and violent in kind.

To BLACK GRATES AND STOVES .- Mix a gill of stale beer and two ounces of black lead together; add a piece of common soda, the size of a nut. Having removed all soot and ash dust from the grate, rub it over with the mixture. Take a hard brush and rub it well; a great brilliancy will soon be produced.

A CHEAP FILTER FOR WATER -A very simple means exists, by which any poor family may filter all the water required, viz., by using a large pan or tub as the tank, and filtering the water (by ascension) through a sponge stuffed into the hole in the bottom of flowerpots, using two pots, the lower one being half filled with charcoal, and loosely covered with thin flannel, the upper one placed in it so as to sink the flannel with it, and then secured by a string; nothing can be more simple, nor more easily cleansed.-The Builder.

HENS EATING THEIR EGGS .- Hens, it is well known, when kept shut up, are very apt to cat their eggs. The best preventive is to keep them well supplied with line and gravel, and with meat in some form. The nests should be so deep in the boxes, that they cannot reach