of a parallax. We multiply our eight thousand by one hundred thousand, the greatest distance at which a parallax is to be had with our instruments, and we decide that Sirius is *not within* the distance of eight hundred million miles. But *how much farther off it is* we do not know.

"Our next attempt is by means of the diameter of the earth's orbit, an enormous base-line of one hundred and eighty-four million miles. We use the most perfect instruments possible, and conduct our observations with all possible nicety. Still we have no parallax. Sirius is not thrown one hair's breadth out of range with any other star, far or near. We therefore multiply our base-line of one hundred and eighty-four million miles by one hundred thousand, as before, and decide that, whatever may be its real distance *over* and *above* our figures, it is not so near as eighteen and a half millions of millions of miles. There we stop, perfectly aghast. We did uot know before that anything in the wide universe was so far off from us.

"After a while we take courage and try again, star after star, now a large one, now a small one. At last we find one which gives decided evidence of a parallax* It is the only one of the millions visible by the telescope that shows any decided alteration of range with the enormous base-line of one hundred and eighty-four million miles. But this is enough to satisfy us that our previous decision concrning Sirius was correct, and that the fixed stars generally are not within the distance of eighteen and a half trillion miles.

"This enormous distance is beyond all grasp of our minds, if we try to measure it by miles or even by the sun's distance. We must try some other unit of measure, and fortunately we have one at command. The light which comes to us from the sun does not come instantaneously. It requires about eight and a fourth minutes to make the passage, travelling at the rate of one hundred and ninety-two thousand miles a second. Its rapidity is such that, if it could travel in a circle, it would fly around the whole circumference of the earth eight times between the beats of a pendulum that measures seconds.

"Now if Sirius or any other fixed star is eighteen trillion four hundred billion miles distant from us, and if light travels one hundred and ninety-two thousand miles in a second, we have only to divide the larger of these numbers by the smaller to learn that the number of seconds required for the passage over this vast distance is ninety-five million eight hundred and thirty-three thousand three hundred and thirty-three; and if we reduce these seconds to minutes and hours and days and years, we discover that the passage of light from that star to us will occupy three years and five days. In other words, we learn that if we could look at that star to-day with telescopic power sufficient to discern what is done upon its surface, we should see not what is doing there to-day, but what *was done* there three years and five days ago, when the light left it.

*Alpha Centauri.

HOW TO TEACH GEOGRAPHY.

First Step.—Review the *Points of Compass*, in training the pupils, until they are able to name any direction, as the teacher points, and in any direction named.

In connection with and following the instruction relative to the points of compass, lead the pupils to learn the location and the direction from the school of other streets near the school; also of prominent buildings, as churches, post-office, hotel, railroad depot, etc.; or of villages, lakes, farms, groves, forests, streams, etc., within the range of the children's observation. The teacher should represent on the blackboard the situation of the school-house, and the location or direction from it of the places mentioned, and allow the pupils to copy the same on their slates.

Second Step.—While teaching the definitions relative to the *forms* of land and water, present first the picture, or a drawing upon the blackboard, of the object under consideration, as of an island, peninsula, cape, strait, lake, bay, river, etc.; then show how the same or a similar object is represented