## PART I

## GENERAL GEOGRAPHY

002020

## I. THE EARTH'S MOVEMENTS

Form and Size. — The earth is a sphere having a circumference of about twenty-five thousand miles and a diameter of nearly eight thousand miles. It is slightly flattened at the poles, however, so that the line extending through the centre, from pole to pole ealled the earth's *axis* — is a little shorter than that extending in the opposite direction at the equator.

The earth is known to be round, not only because people have travelled around it, but also because its shadow, as seen in an eclipse, is always round. Show how it is true that a sphere is the only body that will always cast a round shadow. Give another proof of the spherical form of the earth.

**Daily Motion.** — The earth is rapidly rotating, that is, turning on one of its diameters, called the *axis*. When we glance out of the window of a moving car, the objects we pass appear to be moving in the direction opposite to that in which we are travelling. It seems as though we were standing still. In a similar way the rotation of the earth makes the sun *appear* to rise and set, and for a long time people believed that it was the sun that moved, and not the earth.

In what direction must the earth rotate, since the sun appears to move from east to west? The period of time required for one rotation is called a *day*. Since the circumference of the earth at the equator is about twenty-five thousand miles, how far does a point on the equator move in an hour? In a minute?

By rotating a globe or an apple in the sunlight show how day and night are caused on the earth. Hold the sphere still; what ould be true on opposite sides of the earth if it did not rotate at all? What might be the effect upon life on the earth if the same side were always toward the sun?