twisted into a great variety of shapes. Rocks so changed are known as *metamorphic*. To this class belong the surface rocks in Muskoka and Georgian Bay.



A Fossil.

Fossils. As the powdered and worn-down material which goes to form stratified rocks is being carried to the sea, the remains of plants and animals must often find their way there also, and must thus mingle with the sediment. Here they become changed into the same material as the rock, but retain for the most part their original shape. Such remains are known as *fossils*, and are of great value in estimating the relative age of the rock in which they are found.

The presence of fossils is one of the characteristics of stratified rocks; but, in the case of metamorphic rocks, the great changes undergone in their formation have destroyed practieally all evidence of organic life, if indeed any ever existed in them.



A telephoto picture of a steamer six miles from shore. Notice that the vessel is disappearing behind the curvature of the earth.

Shape of the Earth. The globular earth is so large that we can see very little of its surface at any one moment, and that little appears flat. If we climb a tree, or go up on a housetop, or ascend a mountain, we can see more of the earth's surface than we can from the ground. In all places, however, we see a line in the distance where the earth and sky seem to meet. That line is known as the *horizon*.

A ship on the sea, as it moves away from us, will disappear over the horizon. It passes over so large a part of the earth's surface that it gets out of sight on account of the earth's curvature. The last sign of a steamship leaving port is the smoke which has risen so high in the air that it is still visible when the vessel itself has disappeared.

The curvature of the earth is everywhere such that, if there are no obstructions, a boy whose eye is five feet above the earth loses



A telephoto picture of the same steamer about twelve miles from shore.

sight of an object five feet high at a distance of about six miles. This is true in whatever direction the object is looked at; hence the shape of the earth is round like a globe, or sphere. That this is the shape of the earth is also proved by the fact that its shadow cast upon the moon is always circular. As a sphere is the only body that always casts a circular shadow, the earth must be globular, or spherical.

Importance of the Shape of the Earth. Owing to the shape of the earth, the attraction of gravity at the surface is everywhere the same. Hence, a man can walk over the level surface with the same case everywhere. Birds can migrate from one part of the world to another without difficulty, because their