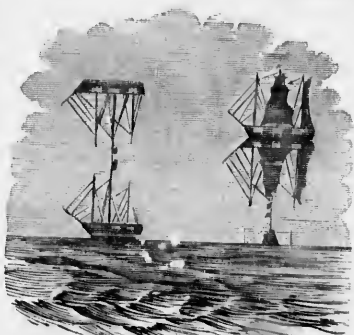


rain. *Why do stars twinkle?* Because there are a great many non-luminous bodies in space, and when they pass between us and a star they cut off its light just for an instant, thus causing the twinkling. *What are "shooting stars?"* They are not stars proper, but are non-luminous bodies coming in contact with the earth's atmosphere, and becoming ignited by their friction upon the air have the appearance of stars. *Why are meteorolites or shooting stars seen most frequently between the 12th and 14th of November of each year?* Because the earth at that time is passing through a portion of space where the greatest number

of these bodies is found. *What is the mirage, and what is its cause?* Mirage is the appearance in the air of an erect or inverted image of some distant object which is itself invisible. It is most frequently seen on water, where it is termed *looming*, but has also appeared to persons traveling through deserts with such vividness as to make them believe that they



Mirage.

saw trees and springs before them in the distance. Captain Scoresby, while cruising in a whaling ship, recognized his father's vessel when distant from him more than thirty miles (and consequently below the horizon) by its inverted image in the air, though he did not previously know it was in that part of the ocean. Mirage is caused by the rays of light from the object being bent differently by different layers of the atmosphere until they are curved so as to strike the eye. *What causes twilight?* The bending and reflecting of light by the atmosphere. *What causes the colored sky at sunset?* The sun's rays are partially decomposed by the vapor that is in the