

be entirely below the horizon. In the latitude of Athens, which is 38° , the equator is 52° above the horizon, and the rainbow can be visible only when the sun is 11° lower than it is at the equinoctial noon. These remarks, however, show a certain amount of careful observation; and so do those which Aristotle makes respecting the colors. "Two rainbows at most appear: and of these, each has three colors; but those in the outer bow are duller; and their order opposite to those in the inner. For in the inner bow the first and largest arch is red; but in the outer bow the smallest arch is red, the nearest to the inner; and the others in order. The colors are red, green, and purple, such as painters cannot imitate." It is curious to observe how often modern painters disregard even the order of the colors, which they could imitate, if they attended to it.

It may serve to show the loose speculation which we oppose to science, if we give Aristotle's attempt to explain the phenomenon of the Rainbow. It is produced, he says (c. iv.), by Reflexion (*ἀνάκλασις*) from a cloud opposite to the sun, when the cloud forms into drops. And as a reason for the red color, he says that a bright object seen through darkness appears red, as the flame through the smoke of a fire of green wood. This notion hardly deserves notice; and yet it was taken up again by Göthe in our own time, in his speculations concerning colors.