

tiles and fishes; 3, by the total disappearance of Ammonites and Belemnites, so abundant in the Secondary Period.

The Quaternary Period is specially distinguished by the appearance of Man, the most remarkable of all terrestrial animals.

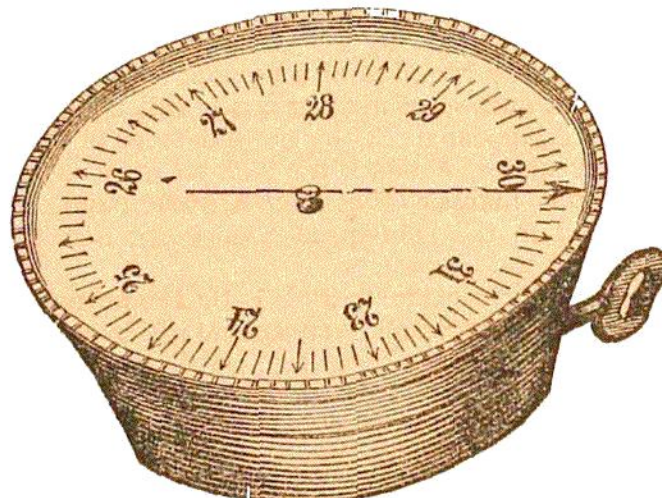
We might point out characters almost equally striking and peculiar in each of the nine epochs. Indeed, most of these might be again divided, and still the Faunas and Floras would be quite distinct and peculiar, showing that the earth has been the seat of not a few life periods since organic beings first appeared upon it.

It is sometimes customary to characterize a Period or an Epoch by the name of the predominant race that then lived. Thus the Secondary Period has been called the *Palæosaurian*, or the reign of ancient Saurian Reptiles; the Tertiary Period as *Mammiferous*, or the reign of Mammals, etc. We might carry this nomenclature through all the nine epochs above mentioned, as follows: To begin still lower, we might call the Azoic rocks, *Crystaliferous*, or crystal bearing; the Silurian rocks as *Brachiopodiferous*, *Cephalopodiferous*, and *Trilobiferous*, from the predominance of those three tribes of invertebrates; the Devonian, as *Thaumatichthiferous*, from the prevalence of strange fishes; the Carboniferous Epoch, as COAL-BEARING, or *Acrogeniferous*, from the abundance of flowerless trees; the Permian, as *Lacertiferous*, or lizard-bearing; the Triassic Epoch, as *Enaliosauriferous* and *Labyrinthodontiferous*; the Jurassic Epoch, as *Ichniferous*, (track-bearing), and *Palæosauriferous*; the Cretaceous, as *Echiniferous* (bearing Sea Stars,) and *Foraminiferous*; the Tertiary, as *Mammaliferous*; and the Modern Epoch, as *Homoniferous*, or Man-bearing. These designations, however, are more poetical and popular than scientific.

*Instruments Convenient for the Practical Geologist.*—For determining the position of strata, the Clinometer and Pocket Compass are needed. Still more indispensable are hammers. There should be two or three of these of different sizes, with rounded faces on one side, and wedge shaped or pointed at the other. The largest should be a somewhat heavy sledge, and the smallest of only a few ounces weight for trimming specimens.

In some departments of geological research, a knowledge of heights is requisite. As the heights of but comparatively few elevations in our country are known, a levelling apparatus or barometer is essential. A new kind of barometer, called the *Aneroid*, we have found by long experience to be ad-

Fig. 41.



*Aneroid Barometer.*