

part of the subject ; but we shall present the conclusions which the investigation has established.

1. In descending from the surface of the earth, to depths continually augmenting, the *mean temperature of the year augments* gradually ; yet, immediately below the surface, and at depths of half a foot or a foot, the mean temperature is found to be a *minimum*.

2. The *rate* at which the annual variations of temperature are transmitted to the interior of the earth, may be estimated at 6 or 7 days for 1 foot thickness of earth.\*

3. Observation and theory agree in showing that the *extreme* temperatures of the year decrease in geometrical progression, while the depths below the surface are taken in arithmetical progression.

4. The *annual* variations of temperature may be considered as insensible at depths from 60 or 75 feet ; that is to say, at the depths where the maxima and minima will occur at the same epochs (after an interval of one year !) as at the surface.

5. On descending several feet below the surface, the *annual* variations of temperature are as the sines of the elapsed times, in a circle whose circumference corresponds to the period of one year.

6. When different latitudes are compared, it appears that the *annual* variations of temperature penetrate to the least depths in the higher latitudes.

7. The *rate* with which *diurnal* variations of temperature are transmitted to the interior of the earth, may be stated at somewhat less than 3 hours for 1 decimètre in thickness (3·9 inches English).

8. The *diurnal* variations become insensible at a depth of 1·3 mètre (51 inches), which is 19 times less than the depth reached by the annual variations, as theory also indicates.

The important conclusion of the entire disappearance

\* On this subject, Mr. Forbes's experiments *in different sorts of rock*, now in progress, will furnish new data. They have already confirmed all the important parts of M. Quetelet's results.