

terms of natural phenomena rather than on the basis of any artificial system.

There are three natural divisions of time:

- 1) The division between day and night. In most parts of the year the length of the day constantly changes, oscillating within regular limits, but the total of day and night remains practically the same throughout the year.
- 2) The word "month" originally meant the time between the first appearance of the new moon in one cycle and its first appearance in the next (about 29 1/2 days later). In ancient Israel it was customary each month to look for witnesses to the appearance of the new moon during the previous night. If there were dependable witnesses they would proclaim the fact that a new month had begun. This practice was continued until the destruction of Jerusalem in A.D. 70.

Thus in most countries the length of the month oscillated between 29 and 30 days. The one important exception was Egypt, where an artificial month of 30 days was established at an early time, having twelve months in the year and adding five extra days at the end of each year so as to make it correspond with the regular round of seasons. This very ancient arrangement was continued in Egypt until the time of Julius Caesar, who established a similar practice at Rome, adding the five extra days to five different months instead of at the end of the year. Caesar introduced leap years to prevent the year from getting out of harmony with the changing seasons.

- 3) The word "year" has always meant a complete round of the seasons. The exact length of this round of the seasons varies from year to year but when the lengths of any considerable number of successive years are averaged the results are identical. Apart from astronomical observations or careful determination of the