

into direct conflict with our preconceived notions and habits of thought. The Hour Zone system is introduced as an easy means of transition from old to new ideas and it is found that by adopting Hour Meridians as local standards for reckoning, grave difficulties are in a large measure overcome without any violent departure from our inherited usages and prevailing customs. The hour zone system also furnishes the means of applying the correct principles of universal time in ordinary affairs.

13. In the hour zone system the circumference of the globe is divided into twenty-four sections or zones. The central line of each zone is an hour meridian, and the hour meridians are fifteen degrees of longitude apart. The accompanying chart of the world on Mercator's projection shows the geographical position of the twenty-four hour meridians. They are numbered in consecutive order towards the west from zero, the ante-prime meridian.

14. The hour zones theoretically extend seven and a half degrees of longitude on each side of the hour meridians, but in practice that is by no means an essential rule. The boundary line of contiguous zones may be governed by national, geographical, or commercial circumstances.

15. As the earth rotates on its axis in twenty-four hours, an hour elapses between the solar passage on each successive hour meridian; it is obvious therefore that if the reckoning in each zone be governed by its respective meridian, the reckonings everywhere will be directly related. There will be differences but the differences will in every case be known and they will invariably be multiples of an hour. Throughout the globe there will be complete identity in the minutes and seconds. For example, when the reckoning in the tenth zone is six hours twenty-five minutes, in the eleventh zone it will be five hours twenty-five minutes, in the twelfth zone four hours twenty-five minutes, and so on, each successive zone differing by an exact hour. Thus the only departure from complete uniformity of reckoning around the globe will be in the numbers of the hours, but the numbers of the hours being governed by the numbers of the hour meridians, the passage to universal time is simple and direct.

16. As the reckoning in the zone of the twelfth hour meridian corresponds with Universal time the reckonings in all zones to the East of that meridian will be one or more full hours in advance of Universal time, and in all zones to the West of the twelfth hour meridian the reckonings will be behind universal time. Universal time will be the mean of all possible reckonings under the hour zone system, and the Universal day the mean of all possible local days.

17. The hour zone system has been adopted for ordinary use in portions of the three Continents of Asia, Europe, and America. In 1887 an Imperial Ordinance was promulgated directing that on and after the first day of January in the year following, time throughout the Japanese Empire would be reckoned by the third hour meridian. The reckoning in England and Scotland is by the twelfth hour meridian, in Sweden the eleventh hour meridian is the standard and quite recently it has been resolved in Austria-Hungary to be governed by the same meridian. Efforts are now being made to follow the same course in Germany and in other European countries. In North America the hour zone system has been in general use for six years. The reckoning of time being governed as follows, namely:—

By the 16th hour meridian in Nova Scotia and Prince Edward Island.