

and inseparable has already been set aside throughout the United States and Canada; only on five meridians, the 60th, 75th, 90th, 105th and 120th, is it held to be 12 o'clock at the mean solar passage. In all other longitudes throughout North America the identity between solar noon and 12 o'clock has practically been swept away.

These modifications in time-reckoning must tend to remove the idea that there is some necessary connection between the numbers of the hours and the position of the sun in each local firmament. The force of habit has heretofore associated noon with 12 o'clock, but in due time it will become obvious to every one that the hour of the sun's passage at any one locality may with as much propriety be distinguished by any one of the twenty-four numbers as by the now generally received number 12. So soon as this new idea comes generally to be accepted, so soon as it is understood that the numbers of the hours are arbitrary and conventional, it will not be difficult to take the final step in time-reform and entirely supersede the present system by a notation which will give to mankind throughout the world simultaneous dates and hours and minutes.

The final step may appear to involve serious changes in much which concerns every individual, but it is not to be supposed that it will in any way interfere with the periods for labour, sleep, meals, or any ordinary usage. The one change will be in the numbers of the hours. In social affairs the regulating influence of daylight and darkness will always, as now, be paramount. The terms "noon" and "midnight" will continue to preserve their present meaning, although the numbers of the hours at which these periods occur will vary in each case according to longitude. Each separate meridian will have its own midnight hour distinguished from the midnight hours of other meridians by a distinctive number. So also with the noon hour, which as already stated will invariably agree with the longitude of the place. It is the midnight hour in each locality which will constitute the initial time-point to regulate the legal hours for opening and closing banks, registry and other public offices. The midnight hour may be arbitrarily chosen and be established by statute as circumstances may demand. It will be held to be the local zero to govern the hours of business, working hours, the hours for attendance at church, at school, and at places of amusement, and generally to regulate all the social affairs of life. While the seven week days will practically remain unchanged in every longitude, the simple expedient of numbering the hours so that everywhere they will correspond with Cosmic Time will result in securing the general uniformity to be desired. Thus it will be obvious that in all matters relating to time, whether local or non-local, the same hours, minutes and seconds will universally be observed at the same instant. In cases when business men separated by long distances make contracts by telegraph, the engagements will be free from all ambiguity as to time. Both parties will be bound absolutely by the same notation.

The Cosmic Day is a new measure of time, entirely non-local. It will be held to be the date of the world, and the change of date will occur at the same instant in all longitudes. On the prime meridian the change of date will be at midnight; to the east it will occur after midnight; and to the west of the prime meridian it will come before midnight. It will be one hour before or after midnight for every fifteen degrees of west or east longitude. Fortunately, in nearly all the important countries on the surface of the globe, the change of date will occur out of ordinary business hours.

It will thus be seen that while the contemplated reform will interfere as little as pos-