

safety. Where it has been adopted in Canada there is no ambiguity; moreover, the change has been effected without difficulty and without danger. The hours having a lower number than twelve are known to belong absolutely to the first part of the day, and those having a higher number to the afternoon and evening.

22. The twenty-four-hour notation is strongly recommended by prominent men in Russia, Germany, Italy, Austria, Belgium, France, Spain, Great Britain; indeed, it may be said in every country in Europe. It is brought into daily use on the great lines of telegraph leading from England to Egypt, India, China, Australia, and South Africa. It is received with very great favour in America. It has been in use for nearly four years on 2,354 miles of the Canadian Pacific Railway, and for nearly three years on the Canadian Government railway, the Intercolonial, 986 miles in length. The managers of these railways and all the employes speak of the twenty-four-hour notation in the highest terms. It is the only system in use at this date, north of the 49th parallel and west of the 89th meridian. There is not a province in Canada where it is not already in use. It has been adopted on the railways in Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, Assiniboia, Alberta, British Columbia, and partly in Quebec and Ontario. So satisfactory are the results of the new notation that it has been determined to extend its application, and it is expected that before long it will be in general use for railway purposes throughout the Dominion.

23. In the United States a strong expression of opinion in favour of the twenty-four-hour notation has been obtained. The American Society of Civil Engineers, deeply concerned in the perfection of the railway system of the Republic, has since the year 1880 taken an active interest in time reform. This society led the way in preparing the minds of men for the general acceptance of the hour-zone system six years ago, and since then it has vigorously directed attention to the twenty-four-hour notation. It has a special committee, whose duty, under the authority of the society, is to correspond with railway managers on the subject, and in every proper way to promote the adoption of the new notation. The communications which have been sent out by the American Society of Civil Engineers to the leading railway men throughout the country have elicited a very large number of replies. They embrace the opinion of, it is believed, a considerable majority of the managers of all the railway companies in North America, and of all who have been heard from, about 97 per cent. are in favour of the adoption of the twenty-four hour notation in the railway service of the country at an early date. It is quite obvious that there is a wide-spread feeling in favour of the change, and it only remains for the General Time Convention, an organized body, representing all the railways in the United States, to take decisive action in the matter, so that the new notation may be brought into use simultaneously in every section of the country.

24. Canada, in adopting the hour-zone system, and in introducing the twenty-four-hour notation, has undoubtedly taken the lead in carrying into effect, in the most practical manner possible, the essential principles of universal time. The twenty-four-hour notation has likewise been introduced in the railway service of China, and it is not a little remarkable that one of the oldest Eastern civilisations, conjointly with the youngest western civilisation, should set an example in breaking through the trammels of custom to inaugurate a reform which every intelligent person believes to be desirable. Universal time will be substantially adopted in North America so soon as the twenty-four-hour notation is brought into use throughout the United States. There is but one step necessary to secure to Great Britain all the advantages of universal time—that is, the adoption of the twenty-four-hour notation. This one reform concerns the railway system, and railway travellers especially; and in a country where all travel more or less, I cannot but think that if English railway managers were informed as to the ease with which the change has been introduced in Canada, and the satisfactory results which have followed, they would very speedily take means to obtain similar advantages. I am confirmed in this view by an examination of the letters which have been received by the Science and Art Department, South Kensington, copies of which I have been favoured with. These letters go to show that the resolutions of the Washington Conference on this subject are cordially favoured by the following important bodies and departments, viz.: (1) Royal Astronomical Society, (2) the Royal Society, (3) the Board of Trade, (4) the General Post Office, (5) the Eastern Telegraph Company, (6) the Eastern Extension Telegraph Company, (7) the Eastern and South African Telegraph Company, (8) the Society of Telegraph Engineers, (9) the Trinity House, (10) the India Office, (11) the Colonial Office, (12) the Admiralty. To these may be added the Committee of Council on Education and the Board of Visitors of the Royal Observatory, Greenwich. Indeed, I cannot learn that a single objection has been received from any quarter.

25. As the fundamental objects of the Washington Conference were to remove all doubt and ambiguity in time-reckoning, to prevent discrepancies, to secure simplicity and introduce uniformity, it is manifestly important that the changes proposed, supported as they were at the Conference by the representatives of twenty-five nations, and subsequently looked upon in so many quarters as in themselves intrinsically desirable, should without unnecessary delay be accepted, and, as far as practicable, put in force generally. The first important step is the selection of hour meridians, and the adoption of the hour-zone system. With these objects in view a map has been prepared; it shows the position of the twenty-four-hour meridians, and indicates in a general way the country or section of country to which any particular hour meridian has greatest proximity. It would greatly advance the unification of time throughout the world, and greatly promote the common good of mankind if every nation with all convenient speed would take means to select the hour meridians on which its reckoning of time may be based. Appended hereto will be found a table indicating the hour meridians which in each case may be found eligible for selection, but in a matter of this kind each nation must judge for itself.

26. I have mentioned what has been done in America, more especially in Canada, in furtherance of this movement. If means be taken to extend the use of the hour-zone system to all the British possessions around the globe they will individually and collectively participate in the advantages of a common reckoning of time. I venture to submit, suggestively, the appended list of the principal British Colonies and dependencies, with the hour meridians, which appear the most suitable for standards in each case.

Ottawa, 20th November, 1889.

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