

"As a secretary of the British Association Committee whose names are appended, I desire to publish in their forthcoming report a table showing the differences between Greenwich mean time as used in England and Scotland and that of the civil times used in various parts of the world.

"By civil time I mean the time used by railways, telegraphs, and for ordinary public affairs.

"If different times are used in various parts of your country, I trust that you will be able to give information relating to the same.

"Feeling assured of the value of the table it is intended to compile, I sincerely trust that you will favour me with a full and explicit statement of the time generally employed in your country. If it is mean time, state the meridian; the observatory, or the place to which this refers; and also, as a check against any misunderstanding, please state distinctly the equivalent of December 1, 9 a.m. G.M.T. in the local time, or times adopted in your own country.

"I have the honour to remain, Sir,

"Your obedient servant,

"JOHN MILNE."

Although the notes based on the replies to the above are marked O.D. (Official Document), it must not be imagined that in all cases the information they convey is absolutely correct, but simply the best, and this in many instances after great trouble, that could be obtained.

A certain number of notes marked L.T.S. are taken from a "List of Time Signals" compiled by Captain T. H. Tizard, R.N., for the use of seamen, as an aid for ascertaining the errors and rates of chronometers, and published by order of the Lords Commissioners of the Admiralty. These signals, in most instances, refer to the mean time at certain ports, and therefore do not necessarily indicate the time used in chronicle events in newspapers, by the railways and telegraphs, and by the public at such places.

Much information relating to the railway and other times used in the United States, Canada, and Mexico, was obtained through Sir Sanford Fleming, Mr. W. F. Allen, and by reference to the 'Traveller's Official Guide,' published at 24, Park Place, 19, Barclay Street, New York. For further information in connection with India, see the 'Indian Telegraph Guide,' published in Calcutta.

Notes marked I.T.B. are compiled from information furnished to the International Telegraph Bureau in response to an inquiry reproduced in the Berne notifications. For these notes I am indebted to W. H. Preece, C.B., F.R.S., who obtained the same from Mr. R. J. Mackay. Those notes which refer to differences of time used for telegraph purposes show many inconsistencies, and judgment must be exercised in their acceptance.

In the table of difference of telegraph time as used by various cable companies and that of Greenwich mean time inconsistencies again appear; but even if the various entries do not in all cases refer to the standard time of the countries to which they are annexed, so long as they have a practical application it seems desirable to record the same. A glance at this table indicates the necessity of greater uniformity, whilst a comparison of the same with the entries which precede it shows that closer approximations are desirable. For example, we find, in the list of times used by telegraph companies, Tokio and Nagasaki entered as being respectively 9h. 18m. and 8h. 40m. fast on Greenwich time. As a matter of fact, the time used throughout Japan since January, 1888, has been 9h. fast on Greenwich.

When a time difference is given to within a second or a fraction of a second, it