

C. W. ADAMS examined. (No. 10.)

*The Chairman:* Would you like to make a statement, Mr. Adams?

*Witness:* Yes, I should. I should like, very shortly, to give you the history of our present mean time. On the 12th October, 1868 (forty-one years ago), Sir James Hector read a paper at the Wellington Philosophical Institute on "New Zealand Mean Time," in which he proposed that New Zealand should adopt as one standard time for the whole colony eleven hours and a half in advance of, or east of, Greenwich. On his advice the New Zealand Government adopted this standard time, and it has remained in force till the present. But at a Conference held some years later (I think in London) by representatives from all parts of the world it was unanimously resolved that the standard time for each country, or section of a country, should be some whole number of hours east—or in advance of—or west—that is, later than—Greenwich time. Up to the present about fifty countries or divisions of the earth's surface have adopted standard times. Of the thirty-six countries east of Greenwich, only four have adopted the half-hour, and of twelve west of Greenwich they have all adopted whole hours, except the Sandwich Islands and Samoa. I am strongly in favour of using more daylight and less artificial light, and my proposal is to adopt as the standard time of New Zealand 12 hours in advance of Greenwich. The proposed Bill, I understand, puts the clock forward one hour during summer, and back again one hour during winter. But half an hour for twelve months will effect the same "saving of daylight" as a whole hour for six months, and with much less inconvenience to the public; while I think that putting back the clock would be a most dangerous experiment. It would also press very hardly on bakers and milkmen, who at present have to get up very early. But to my mind the greatest danger to be apprehended would be from railway accidents. Among the inconveniences is the putting back the clock at the beginning of winter. Putting a clock forward is easy enough, but putting it backward is very liable to derange the striking apparatus. If we had an appalling railway accident as a consequence of passing the present Bill, it would, no doubt, be repealed at once; and I myself have no doubt that if it is passed this session it will in any case be repealed next session. On the other hand, adopting 12 hours east as the New Zealand standard time would have everything to recommend it. It would be far better for health, and would save half an hour every day in the year in the cost of artificial light. I may state that it is the usual custom with a great many sawmills and other factories to begin work half an hour earlier in the winter, making the hours 7.30 to 4.30 instead of 8 till 5. It is important to have good light in a sawmill and in every factory in order to prevent accidents. In Loomis's Treatise on Astronomy it is stated that the duration of twilight in the latitude of 40°, which is nearly that of Wellington, New Zealand, in March and September would be an hour and a half, while at midwinter and midsummer it would be two hours. In a diagram that I have prepared I have allowed for only half of these quantities—viz., three-quarters of an hour in March and September, and one hour at midsummer and midwinter. The diagram thus shows the duration of daylight throughout the year supposing we adopted as New Zealand standard time 12 hours east. My proposal is not in antagonism to the present Bill, but accomplishes the same purpose in a slightly different manner. If my proposal does not give sufficient daylight for athletic sports, &c., in summer-time, it will be quite easy then to take another hour or half-hour on the lines of the present Bill. I produce the diagram, and a list of standard times all over the world. [Documents handed in.]

1. *Mr. Sidey.* I understand from a remark of yours that there is no objection to the proposal contained in this Bill from a scientific point of view?—I do not like the idea. The same object could be effected by making up our minds to do things half an hour earlier; but the general public perhaps would not do that.

2. You mean that they should alter their habits?—Yes.

3. Do you think it possible to get all the people to alter their habits at one time?—I think the best way would be to make an alteration in the standard time.

4. You went on further to say that, even supposing the alteration in the standard time were made, it would only give another half-hour in the evening, and that a further half-hour or hour might be added in accordance with the proposal in the Bill, so as to give additional time in the evening?—Yes, I said that if you made this half-hour alteration and found then that you wanted more, you could consider it.

5. You see no very strong objection, then, to the proposal?—Not a very strong objection, but I think it might end in a railway disaster.

6. What makes you think it might end in a railway disaster?—I mean, when the change takes place.

7. But there is no change in the time-tables?—You see you have got to alter all your clocks, and one stationmaster might forget to do so. If one man started half an hour too soon for the other there might be an accident, or if you put the clock right and the striking apparatus was not altered accordingly it might lead to accidents.

8. You know that the alteration takes place on Sunday?—I believe so, and I do not think we should get used to the alteration, because it would occur again in an opposite direction every six months.

9. The risk of mistake is minimised, is it not, by the fact that the alteration comes into effect on Sunday?—Certainly. That is the best time for it.

10. With regard to the alteration of half an hour that you suggest in our time, are you not aware that in the South—say, in Dunedin—we do not really have daylight in midwinter until after half past 7?—It is pretty late I know, but, on the other hand, darkness comes on proportionately sooner in the evening.

11. Do you know that we have to light the gas in our offices before 5 o'clock?—Oh, certainly!