the proposal, to which in the first instance I think the reform should be confined.

Astronomers are apt to ask, *Cui bono?* But though the advantages of such a simplification would to them be small, they would be enormous, innumerable, and universal to the lawyer, the statesman, the banker, broker, &c. indeed, to public business, commerce, and education in all civilised countries.

If without infringing any scientific principle or violating any religious symbolism benefits so general can be conferred so easily, I feel sure that scientific men will not stand in the way. Indeed, many of them are in the forefront of the movement.

What we want is a simply natural and naturally simple scheme. I am afraid that suggested by your correspondent -very ingenious as it is—is for that reason unsuited for general use. ALEX. PHILIP.

The Mary Acre, Brechin, N.B.

FROM Mr. Philip's letter it appears that he, at all events, is conscious of the grave difficulties in the way of interrupting the continuous succession of the days of the week. It would be idle, therefore, to argue this point further, or to insist in greater detail on the importance of what Laplace called "peut-être le monument le plus ancien et le plus incontestable des connaissances humaines" (la semaine).

The date of the Crucifixion depends on questions relating to the Jewish, not the Christian, calendar. Now it seems incredible that the Hebrew communities have failed to maintain the order of the Sabbath without a break. If this be granted, the only deduction to be drawn from Mr. Philip's argument is that the Crucifixion did *not* occur in the year 31; which, indeed, according to the most recent chronological view, is most highly probable.

Mr. Philip's argument in favour of equalising the months will be received with interest when it appears. When, however, it is realised that the suggested change will not give us a fixed calendar, it may be doubted whether this minor adjustment, free from objection as it may be, will be found to have the necessary driving force behind it to secure its adoption. H. C. P.

## A Zenith Rainbow.

An interesting rainbow was visible from the Bruges-Ostend canal here at 4.30 p.m. on April 17, in fair weather, almost due west.

The sight at once evoked the expression that the bow was inverted. It was clearly visible for several minutes, and subtended an arc of about 20°.

On shielding the eye from the direct light of the sun, this arc was seen to extend much farther, and formed part of a circle with the zenith as apparent centre, the radius of the circle being estimated from 10° to 15°.

part of a circle with the zenith as apparent centre, the radius of the circle being estimated from  $10^{\circ}$  to  $15^{\circ}$ . The inside of the bow was violet, the colour following the usual order to red; the intermediate colours were, however, not characterised by the sharpness often seen in the ordinary rainbow.

The state of the sky at the time was misty near the horizon, but otherwise brilliant with high fleecy clouds, with a light wind from N.N.W.

The bow was backed by a thin broken cloud, which presented a "curtain" formation as far as the angle of the sun.

No rain was observed to fall at the time or during the day. No primary or secondary bow was visible, which, among other things, excludes the idea of the bow observed being a tertiary one.

It would be interesting to know whether this type of bow is of frequent occurrence. K. C. KREYER.

7 rue des Lions, Bruges, Belgium, April 18.

It appears from Mr. Kreyer's description that the phenomenon observed was the upper arc of contact of the halo of 46° radius. The altitude of the sun was about 24° at the time, so that the height of the point of contact would be about 70°, and the centre of the arc, accepting your correspondent's estimate of 10° or 15° radius, would be at an altitude of 80° to 85°. The phenomenon is described by Pernter as the most beautiful of all halo phenomena, and it occurs often when no trace of the 46° halo is

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visible; the colours, with the exception of the violet, are definite and brilliant, with the red towards the sun. The violet seen by your correspondent is more rarely present. The cloud with "curtain" formation was probably cirrostratus, and would be formed by the ice crystals which give rise to halo-phenomena.

The bow observed is not of frequent occurrence (about seventy had been observed up to 1883), and it is interesting to have a record of it. E. GOLD.

Meteorological Office, South Kensington,

London, S.W., April 27.

## Daylight Saving!

THE following aspect of the Daylight Saving Bill does not appear yet to have been noticed.

A man who is accustomed to rise at 9 a.m., lunch at 1.30, dine at 7.30, and go to bed at 11.30 will naturally object to turning out of bed an hour earlier on a dull, grey, cold April morning. So, when the clocks are put forward, he will consider that the change is only nominal, and will continue to follow the old hours, rising at 10, lunching at 2.30, dining at 8.30, and going to bed at 12.30. When, however, the clocks are put back the weather is gefting bad, and the pleasantest part of the day is after the blinds have been drawn and the gas lit; he will be glad of the extra hour's sleep in the dark morning, and the increased fireside comfort in the evening, and will be so accustomed to regard 10 o'clock as the time for getting up, 2.30 as lunch time, 8.30 as dinner time, and 12.30 as the time for going to bed, that he will certainly not want to go back to the old clock reckoning. Thus "daylight saving" will mean a saving of an hour's daylight in the dark winter months and a gain of an hour's gaslight.

"THE VOICE OF THE SLUGGARD."

## DAYLIGHT AND DARKNESS.

WHATEVER may be thought of Mr. Willett's so-called daylight-saving scheme, it is impossible not to admire the persistence with which he pursues the idea, and secures support for it from city corporations, town councils, chambers of commerce, members of Parliament, and other people who are attracted by the advantages offered, and do not realise how unscientific the scheme is, or the gravity of the objections to the adoption of a variable standard of time-reckoning. We do not believe for an instant that the Government is likely to give facilities for legislation on the lines of the Summer Season Time Bill, however sanguine the promoters of the Bill may be As, however, a meeting at which the Lord Mayor presided, and the Home Secretary spoke, was held at the Guildhall on May 3, it is worth while to consider again some aspects of the proposals usually overlooked.

The promoters of the Bill have circulated a mass of literature, in which the advantages are emphasised and the objections disregarded. Among these communications is an article contributed to *Die Woche* by Dr. E. von Engel of Berlin, who supports warmly the proposition of accommodating the standard meridian of Greenwich to that of Berlin or Mid-Europe. We have no doubt he is perfectly sincere in his recommendation. At the same time, the advantages of making the hours of business in England coincide with those in Germany is entirely in favour of the latter country.

In consequence of this renewed earnestness and vigour of the daylight-saving movement, it is desirable to express, concisely and decisively, some fundamental objections to a scheme which can be made to present so much that is agreeable. This is the more necessary because there is a feeling that scientific men are inclined to display a selfish regard for their own convenience, and a contemptuous indifference to