and Ashmole—the link with the founder of the Society should not be forgotten; the monogram of Charles II.—“C. II.”—is carved over the fine balcony window in the middle of the front of the building.

It is on account of these various associations with British science and the early days of the Royal Society that a petition has been laid before the Hebdomadal Council of Oxford, requesting that the vacant rooms in the old Museum may be once more used for the purposes of natural science for which they were built.

R. T. GUNTHER.

Magdalen College, Oxford.

Tesla Spectra of Complex Compounds.

IN NATURE of January 27, p. 115, a very interesting letter appeared by J. K. Marsh and A. W. Stewart on “Tesla Spectra and the Fraunhofer Effect in Complex Compounds.”

More than a year ago I began an investigation of the band spectra of benzene vapour under the action of high-frequency discharges. Both the absorption and emission spectra were examined. Other more complicated substances were also tried in a state of vapour.

Upon varying the capacity, and more especially the self-induction, as well as altering the vapour pressure between wide limits, emission bands can very clearly be seen. Each substance has a characteristic spacing of the emission bands; they appear in a perfectly definite order. Nitrogen is a very good example of this.

In the case of benzene, I photographed a whole series of emission bands which lie very close to its absorption and fluorescence bands. I referred briefly to this in my article on “Spectres d'absorption et de fluorescence du benzène” (*Journal de Physique et le Radium*, Juin, 1922, p. 210).

J. K. Marsh and A. W. Stewart express the wish to reserve for themselves the further examination of Tesla spectra. I should only like to say here that we have been working for a long time on similar ground, but one thing is certain, that we have been working from entirely different points of view. Our principal object is to work out the structure, size and shape of the molecules from their band spectra.

Our investigations, and those of Messrs. Marsh and Stewart, should therefore be of mutual advantage one to the other.

The subject is so vast that the more it is investigated, the sooner will the question of the band spectra be solved.

VICTOR HENRI.

Institute of Physical Chemistry,
University of Zürich,
February 2.

WHEN our letter to NATURE of January 27 was written, we were under the impression that we were the only workers in this field, as the researches of Wiedemann, Eberts, and de Hemptinne in 1897 and earlier years had led to no results in the particular region which we were investigating. Prof. Henri has courteously sent us a private communication as well as the above letter, and has forwarded also a copy of the paper which he mentions. In this paper occurs the following sentence: “Nous avons entrepris une série de recherches pour étudier la fluorescence et la luminescence de la vapeur de benzène sous différentes conditions, en particulier sous l'influence de décharges électriques diverses.” As was natural in the case of a long paper, this sentence was not reproduced in the abstract which appeared in the Chemical Society's Journal; and as we had no access to the *Journal de Physique et le Radium* itself, we were quite unaware that any one was working

in the field. Thus our work and the unpublished results of Prof. Henri are entirely independent of each other; and we are anxious that the mere accident of our having been first in actual publication of detailed results should not in any way deprive Prof. Henri of his full share in the credit of the discovery and investigation of these new spectra.

As Prof. Henri says in his letter, the subject is being approached along two separate lines, as we are mainly interested in the relation between the chemical constitution of substances and the spectra produced by them, whereas he is working back from the spectra as a basis to the machinery which produces the spectra within the molecules and is investigating also the variations produced by different electric wave-lengths—a subject which we have no intention of entering upon now, since it is in his hands. Our lines of research therefore supplement each other; and we cordially agree with Prof. Henri that there is more than enough room for both our laboratories to work in this interesting new field. We should like to express our appreciation of the courtesy which Prof. Henri has shown in this matter.

J. K. MARSH,

A. W. STEWART.

The Sir Donald Currie Laboratories,
The Queen's University of Belfast,
February 8.

Calendar Reform.

DURING the 16th century Pope Gregory XIII. effected a very necessary rectification of the Julian Calendar, which was not, however, legally adopted in England till 1752. The effect of the correction was to bring forward the dates of the solstices from about the tenth to the twenty-first of June and December; but the climatic significance of this astronomical dislocation in the calendar was not serious, and the calendar months retained the same distinctive seasonal characters as heretofore. As, therefore, the present calendar is the same in essentials as that instituted by Julius and Augustus Caesar some 2000 years ago, it must have come as a surprise, possibly a shock, to many readers of NATURE (December 2, p. 747) to learn that we may shortly be asked to suffer all the inconvenience and confusion of a catastrophic alteration in the calendar on grounds which seem altogether trivial. In the first place, the calendar months now in use have by long association become enshrined in literature as the very impersonation of definite stages in the seasonal progression and retrogression of natural phenomena, and it would be sheer vandalism to break this association, and renounce our literary heritage, without far graver practical cause than can possibly be shown.

In the second place, every calendar system must be framed with reference to the four natural landmarks of the year, namely, the solstices and equinoxes, and it is eminently desirable that the two solstices, and the two equinoxes, which stand opposite one another in the natural year, should not be assigned dates which are unsymmetrically disposed to one another. In the proposed system of 13 months, the solstices would stand $6\frac{1}{2}$ months or time-units apart, instead of a whole number as in the present system, and no month would be located diametrically opposite another as at present, viz. December to June, March to September, and so on, along the earth's orbit round the sun. This arrangement would offend the artistic sense of any one with a vivid appreciation of the fact that our fundamental division of time, the year, is not an arbitrary unit but one based on a grand cycle of Nature.