

Charter, that is, by Convocation assembled in a regular way. The constituency may be, as Sir John states, an exceptionally educated and intelligent one; but a very large proportion of the graduates have never studied the question of reorganisation, and are ignorant of its complications and difficulties. We have already had painful experience of how the votes of these graduates may be influenced by inaccurate or misleading statements in circulars issued through the post on the eve of an election by the party who are hostile to the Gresham scheme. If made in debate in Convocation, these statements could at once be corrected.

But, secondly, we object to the *referendum* in itself. Convocation has already, twice, deliberately, knowing what it was about, waived the right of final veto by agreeing to the appointment of a *Statutory Commission*. It maintains its full right of presenting its views to this Commission, when appointed, and of protesting against any provision that may interfere with its rights and privileges; and, furthermore, of influencing Parliament against it through its Member, or through any graduate who may have a seat in the House of Commons, or through its Chancellor, who sits in the House of Lords, should any such provision still be retained when the Bill is presented to Parliament. Any further right than this Convocation does not claim.

For my own part, should the position assumed by Sir John Lubbock be maintained by Parliament, it seems to me that we must abandon all hope of bringing our University into a line with the requirements of the age. ALFRED W. BENNETT.

The Earliest Magnetic Meridians.

IN reply to Prof. L. A. Bauer's letter in *NATURE* of July 18, p. 269, I may remark that I possess two of Churchman's Magnetic Atlases. The first of these I now believe was published in 1790, and to be that described in his tract, "An Explanation of the Magnetic Atlas, Philadelphia, 1790." The lines on this chart are magnetic meridians only, as fully defined in Churchman's text, and largely based upon Cook's observations of the variation.

It is evident that Churchman depended largely on observation, as he discussed the question of the effects of a ship's iron in altering the value of the variation when observed on board ship.

The second atlas, which is dated July 1, 1800, has isogonic lines for each degree of variation with magnetic meridians superposed, similar to Yeates' Chart of 1819, which I also possess.

Lastly, I would observe, that Yeates mentions the charts of Halley, Bellin, and Mountaine, and Dodson in 1794, but makes no reference to Churchman, who presented a copy of his work to the Royal Society in January 1791. It is possible, therefore, that Yeates constructed his chart in ignorance of Churchman's work, but the latter certainly was the first of the two to construct magnetic meridians. ETRICK W. CREAK.

London, July 20.

Variation in Flowers and Fruits.

REFERRING to a letter by Mr. Newnham Browne, in *NATURE* of July 11, describing a parti-coloured rose, it may be of interest to state that a somewhat similar occurrence in the case of an apple is recorded by Mr. Darwin in his "Animals and Plants under Domestication" (vol. i. pp. 392-3). The reference is to a specimen which I brought from Canada, and of which I sent him a careful drawing. In this specimen it appeared as if a smooth-skinned bright green apple had been cut in half and joined to a rough brown *poime-gris*. The line of junction was perfectly sharp, but not quite symmetrical, the brown portion extending over the whole of the bud, while the green just included the stalk. I was told that similar instances sometimes were found on the tree from which it was gathered.

J. D. LA TOUCHE.

Stokesay Vicarage, Craven Arms, July 12.

Science Scholarships at Cambridge.

THOUGH the arrangements for the competitions for Science Scholarships at Cambridge, as described in *NATURE* of July 18, are in many respects eminently satisfactory, yet from the point of view of the candidates they leave something to be desired.

In the first place, they are unduly favourable to those whose nineteenth birthdays will fall early in 1896, and correspondingly unfavourable to those who are six or eight months younger.

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They will compel these younger candidates not only to compete at a marked disadvantage in the matter of age, but also after a shorter period of reading in science; unless, indeed, they have sacrificed an important part of their general education by commencing specialised study at an undesirably early age. Secondly, they are calculated to throw out altogether any candidates who may, through illness or other causes, be unable to compete during the very limited period covered by the examinations as at present arranged.

Similar difficulties are avoided in the case of the Army examinations by holding them twice yearly, at intervals of about six months. In the present case, sufficient equality could be secured by a fairly strong group of colleges holding their examinations a little later—for example, in April or May.

If it be feared that only the inferior candidates would be left to compete at this later examination, we would point out that, on the contrary, there would be less chance of this happening if our suggestion be adopted than under the present scheme. In April or May the older of the previously unsuccessful candidates would be excluded, and only the younger and, presumably, better candidates would remain. On the other hand, the later examination would have attractions for the ablest of those still younger candidates, who will not, under the present system, come into the field until the autumn of 1896.

W. A. SHENSTONE.

Clifton College, July 23.

D. RINTOUL.

SIR JOHN LUBBOCK AND THE TEACHING UNIVERSITY FOR LONDON.

THE feelings of "surprise and regret" which we said had been aroused by Sir John Lubbock's election address, will not be diminished by the perusal of the reply to which, at his request, we gave publicity in our last issue. Rather the surprise will turn to amazement, that he should deem that to be a reply which evades every material issue, and appears to be written in ignorance or forgetfulness of all that has taken place. And the regret will be enhanced when it is observed that his language now makes plain what could only be inferred from his address, namely, that he has never grasped the distinction between a Charter granted by the prerogative of the Crown, and a scheme framed under the authority of the Legislature.

Yet Sir John Lubbock has for many years taken an active, and even a prominent, part in public affairs; has for many years occupied a seat in Parliament; has in the course of his lifetime seen almost every university in the three kingdoms reformed by the machinery of Statutory Commissions; and has, if we are not mistaken, himself sat on a Commission entrusted by the Legislature with the duty of remodelling the constitution of the great public schools, which, next to the universities, are the most important educational institutions of the country. That he should be unaware of the distinction, or have forgotten it, seems incredible; but his language and his reasoning seem to leave no doubt on the point. "I am glad," he says, "to observe that the only point objected to is the reference of any new Charter to Convocation. In this, however, I am not asking that any privilege which they do not at present possess should be conferred on my constituents, but only supporting what is now their legal right."

What then, we are forced to ask, is Sir John's idea of a Statutory Commission? Does it need an Act of Parliament to authorise a body of persons to formulate proposals affecting a public corporation or institution, which, when framed, may be accepted or rejected at the pleasure of those whom they affect? Or does he suppose that it needs an Act of Parliament to enable the Crown to concur with bodies which the Charter of the Crown has called into existence, in effecting a modification of the franchise which they enjoy? An Act of Parliament, we had thought, was an Act of the Sovereign Legislature, which changed the "legal rights" as they previously existed; and we had never heard that Parliament added to its necessary labours the superfluous