

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

task of passing Statutes to enable people to do what they had already the "legal right" of doing.

If this is Sir John Lubbock's view of a Statutory Commission, it was not the view taken by the late Royal Commission, to whose Report he indeed refers, but whose Report, we are compelled to believe, he has never read. For, in words too clear for misunderstanding, they have expressly recommended that the proposed change should be effected, "*not by Charter, but by legislative authority.*"<sup>1</sup> Is it possible to suppose that in the discussions which have taken place in the Senate on the subject of the Report, the distinction so clearly pointed out has never been noticed or commented on in that august assembly, though presided over by the highest legal authority in the realm? Or if (as we must needs assume) the distinction did not pass unnoticed, was Sir John slumbering in his chair; and when he concurred in voting the resolution, by which the Senate accepted generally the recommendations of the Commissioners, including this vital one, was he not aware of the meaning of his act? Every assumption we make seems incredible; yet it looks as if, notwithstanding, some or one of them must be true.

The authors of the protest addressed to Sir John Lubbock say truly that it would be "without precedent" to confer on Convocation the right to "supervise the Acts of a Commission entrusted with the reorganisation of the University of which Convocation itself is a part." But when we ask ourselves how this right is to be exercised, the matter becomes not only unprecedented, but almost inconceivable. Is the ratification or veto of Convocation to be exercised directly on the Acts of the Statutory Commission, so as to be interposed between such Acts and the "approval of Parliament in the usual way," and so as to exclude Parliament from the power of considering any proposals of its own Commissioners not so ratified? Or is it to stand in lieu of the ratification of Parliament, so as to transfer the power of Parliament to the individual graduates? Or is the ratification of Parliament to be given only subject to the power of the graduates to disallow the Act of the Legislature? Or is, perhaps, the ratification and veto to be exercised by the more compendious method of entrusting the Member for the University with a power to overrule the decision of Parliament and its Commissioners? We shall look with interest at the particular form given to the clause which Sir John Lubbock proposes to introduce into the Bill.

But yet, for one so careful of the "legal right," one or two strange things are to be observed as to his proposal. Convocation, as we all know, has already, like the Senate, accepted the recommendations of the Commission, and, like the Senate, claims to represent its views before the Statutory Commission, when appointed. Convocation has passed this resolution in the exercise of its "legal right," and in the legal mode, that is, in the mode prescribed by the Charter on which alone its rights depend.<sup>2</sup>

<sup>1</sup> "In view of the failure of previous attempts to settle this question, and of the difficulty and delay which must inevitably attend an alteration of the constitution of the University through the action of the University itself, we are of opinion that, in accordance with the precedents followed in other cases of University reform, the changes we recommend should be effected not by Charter but by legislative authority, and by the appointment of a Commission with statutory powers to settle, in the first instance, arrangements and regulations in general conformity with the recommendations which we are about to submit to your Majesty." (Report, p. xii.)

<sup>2</sup> The twenty-first clause of the Charter provides "That the Convocation of the University shall have the powers following (that is to say):—The power of nominating three persons for every Fellow to be appointed in the manner hereinbefore mentioned from a List nominated by the Convocation, as provided by this our Charter; with power to the Convocation, if it shall think fit, to enable absent members of the Convocation to vote on such nominations of Lists by Voting-papers, in such form or to such effect, and to be signed, transmitted, verified, and recorded in such manner, and subject to such regulations and provisions, as the Convocation may from time to time determine, *but not so to vote on any other matter*:—the power of discussing any matter whatsoever relating to the University, and of declaring the opinion of Convocation in any such matter:—the power of . . . accepting any new or supplemental Charter for the University, or consenting to the surrender of this our Charter or of any new Charter or supplemental Charter; provided, nevertheless, that the consent of the Senate shall be also requisite for the acceptance of any new or supplemental Charter, or the surrender of this our Charter or of any new Charter or supplemental Charter. . . ." (The italics are ours.)

Is it not a little strange, then, that this new power of ratification or veto, which is not an "existing legal right" at all, is to be exercised, not in the manner in which the acceptance of a new Charter is by the express language of the existing Charter to be exercised, but in a mode in which that very right, on the analogy of which the claim is based, cannot be exercised. But truly the argument is all of a piece; and the result is, that the individual graduate is to have a larger, and a more irresponsible, power in controlling the Acts of the Legislature, than he has in controlling the Acts of the Crown alone, acting on the instance of the Senate.

For, and this is the other strange thing, what in the view of this champion of "legal rights" is to become of the legal rights of the Senate? The Senate is the sole administrative governing body of the University. It is the Senate which must necessarily have the most intimate knowledge of the working of the system which it administers, and of the needs of the University for the conduct and reputation of which it is responsible. It is the Senate which would alone apply to the Crown for that new Charter which Convocation has the power of accepting or rejecting, and without whose application no such Charter would ever come under discussion. Surely it would be logical, or at least consistent in its illogicality, to require that the acts of the Statutory Commission should also be submitted to the approval of the Senate, and (let it be added) that the individual members of the Senate should record their opinion by means of voting papers. Or is it indeed only the "legal rights" of "constituents" that are to be, not indeed preserved, but extended by the creation of a new and exorbitant precedent?

#### POST-GRADUATE STUDY AND RESEARCH AT CAMBRIDGE.

THE Senate of the University of Cambridge have now approved new statutes for submission to Her Majesty in Council, conferring on the University the power of admitting to the degree of Bachelor of Arts, or Bachelor of Law, "advanced students" who have resided six terms, and have fulfilled certain requirements to be prescribed by ordinance from time to time.

The regulations which will become ordinances when the statutes are confirmed have been published, and run as follows. A few notes are added in square brackets by way of explanation.

#### REGULATIONS FOR COURSES OF ADVANCED STUDY AND RESEARCH.

##### (A) Admission as Advanced Students of Persons who are not already Members of the University.

(1) Applications for admission as advanced students shall be made to the Registry.

No person shall be admitted as an advanced student who has not attained the age of twenty-one years.

(2) Each application shall be accompanied by  
(i.) a diploma or other certificate of graduation at a University [British or foreign];

(ii.) a statement as to the course or courses of (a) advanced study or (b) research which the applicant desires to pursue, together with such evidence of qualification, attainments, and previous study as he may be able to submit;

(iii.) a certificate or declaration that the applicant has attained the age of twenty-one years.

(3) In exceptional cases persons who do not present a diploma or certificate of graduation [at another University] may be admitted as advanced students, provided they give such evidence of special qualification as may be approved by the Degree Committee of the Special Board of Studies with which the proposed course of advanced study or research is most nearly connected.

(4) Applications shall, in general, be submitted not later than the first day of October in the academic year in which the applicant proposes to begin his course. But the authorities