Scientific Workers, according to *Nature,* is a document containing a record of sustained and useful work. The outstanding event of the last half-year has been the formation in conjunction with the British Science Guild of the Parliamentary Science Committee. The association has also taken an active part with other scientific bodies in the endeavor to save the Research Association of British Rubber Manufacturers from disintegration. To that endeavor has been added an inquiry as to the best means of stabilizing the finances of the industrial research associations generally. In this connection, the association has joined with the British Science Guild in the appointment of a joint committee; and when the labors of that body are completed it is probable that it will report to the Parliamentary Science Committee with a view to taking action. During the period under review, the University Degrees Bill, promoted by the association, has received its second reading in the House of Lords without division; but it is not likely to reach the Statute Book before the session closes. A publication of which the association may well be proud, it is pointed out, is "Science in Parliament," a summary of all affairs relating to science dealt with in Parliament. Another achievement has been the establishment of a publicity bureau.

DISCUSSION

WIDE-SPREAD ERRORS RELATING TO LAPLACE

P. S. LAPLACE (1749–1827) is one of the most widely and most favorably known names in the literature of the exact sciences, especially in astronomy and mathematics. Hence one might have expected that it would be easy to find accurate biographical sketches of him in the histories of these subjects as well as in the general encyclopedias. On the contrary, these sketches usually contain much that is certainly incorrect as well as various statements that can now be neither verified nor disproved in view of the fact that many of the documents relating to him were destroyed by fire. Karl Pearson and G. A. Simon described these conditions in details in volume 21 (1929), *Biometrika,* where the former used the following striking sentence: "At least, our friends, the little historians, might have taken the trouble to inquire whether there was a 'military school' in Beaumont-en-Auge before the year 1771 when Laplace left home for Paris, they might have ascertained the position of Laplace's father, and taken the pains to find out whether Poisson's statement that Laplace was educated at the University of Caen was or was not correct."

It seems now well established that the common statement that P. S. Laplace was born in poverty is fictitious and hence there is no foundation for the assertion that our ignorance of his early life is due to a false shame on his part of springing from humble parentage. He seems to have enjoyed good educational advantages from early childhood and to have been related both on the side of his mother and on the side of his father to prominent members of the community in which they lived. It is, however, less important to dispel false statements relating to the supposed lack of his early cultural advantages than to dispel the unfounded derogatory statements relating to his character. He achieved not only great scientific distinction but also eminent political positions. In particular, Napoleon appointed him as Minister of the Interior, but replaced him six weeks later by his own brother, Lucien Buonaparte. In his *Mémoires de Sainte Hélène* Napoleon described this incident as follows: "Mathematician of the highest rank, Laplace was not long in showing himself an extremely poor administrator. From his first actions I realized that I had deceived myself. He sought everywhere for subtleties, had only problematic ideas, and carried the spirit of the 'infinitely small' into administration."

This quotation proves only that Laplace was not the kind of administrator that Napoleon wanted in that position at that time. The fact that his own government was overthrown later shows that he himself was not always the kind of administrator that the people of France wanted. Since politics is not an exact science the ideas relating thereto are necessarily problematic. The fact that France has continued to the present time to put eminent mathematicians into high administrative positions implies that she has not lost sight of the fact that high mathematical attainments do not necessarily imply a lack of administrative ability. The fact that Laplace was greatly honored by successive governments with different policies does not imply, as some historians assert, that he sought political favors at the expense of following his convictions as regards political questions. In a country where high scientific attainments are widely appreciated the governments naturally seek the support of those who have such attainments.

P. S. Laplace seldom, if ever, expressed in his writings any political opinions of his own, but in his widely read "History of Mathematics" W. R. Ball said that "the skill and rapidity with which he man-

aged to change his politics as occasion required would be amusing if they had not been so servile. As Napoleon's power increased Laplace abandoned his republican principles (which had themselves gone through numerous changes, since they had faithfully reflected the opinions of the party in power) and begged the First Consul to give him the post of minister of the interior." This quotation appears not only in various editions of this history but also in the French translation thereof and is probably responsible for many of the misleading remarks which appear in the brief biographical sketches. Possibly the articles cited in the first paragraph of this note will receive sufficient publicity not only to remove certain moral blemishes from the biographies of one of the most eminent scientists but also to create greater caution as regards the acceptance of derogatory remarks made by popular historical writers who fail to give references in support thereof.

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PROPAGATION OF HYBRID AMARYLLIS (HIPPEASTRUM) BY CUTTAGE

SOME experimental results concerning cuttage in relation to the physiology of reproduction in the Amarylleae Genuinae and Pancratiae are worthy of brief mention, since the subject has apparently received little attention.

The Nehrling-Mead strain of Hybrid Amaryllis (Hippeastrum) was used in the initial experiments. In the breeding of this strain, *H. reginae, H. equestre, H. aulicum, H. psittacinum, H. pardinum, H. solandriflorum, H. leopoldi* and possibly also *H. reticulatum* were apparently utilized.[1] Blooming size bulbs were cut (1) lengthwise into quarters as far as the middle of the root base, and (2) into quarters. A variation was introduced in each of the two types, consisting of cutting off a little less than half of the top of the bulb before making the lengthwise cuts.

The two "callusing-sprouting" media used were sand and loam. The partially quartered bulbs and the quarters were planted in these media contained in clay pots. Moderate water was applied until growth had definitely started. Any flower buds already formed in the fractions expanded and flowered, and leaf growth appeared above the surface in some cases in less than 30 days. In three months the original ten bulbs had given rise to 15 new bulbs, an increase of 50 per cent. In another month the number of new bulbs had increased to 43, an increase of 330 per cent.

On inspection it was noticed that new bulbs had been formed at the leaf axes. The roots, however, issued from the root base fraction of the mother bulb. Roots were more abundant and longer in case of partial quartering. Complete severing apparently retards root formation. The partially quartered bulbs had entirely or practically broken into quarters by the pressure of the developing new bulbs. Where still slight connections were present, these were broken at transplanting time. The sand "callusing-sprouting" medium gave disease-free plants, as contrasted with some red rust on plants propagated in loam.

The work is being extended to include a study of the maximum number of new bulbs obtainable from one bulb, the time required for new bulbs to reach blooming size, the best season to carry out the operation and also the application of this principle to the propagation of other types of Amarylleae such as *Crinum, Hymenocallis, Vallota, Lycoris,* etc. A more detailed report will appear in the 1934 Year-book of the American Amaryllis Society.

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SUGGESTED NOMENCLATURE FOR HEAVY HYDROGEN AND ITS COMPOUNDS

THERE seems to be some difficulty in securing a suitable term by which to designate heavy hydrogen and its compounds. The selection of "deuterium" seems only to complicate the matter, for it rather suggests a new element instead of an isotope. It seems to me that the situation could be met by *speaking* of heavy hydrogen as bar-hydrogen; writing the word, however, $\overline{\text{H}}$ydrogen. Compounds made of this substance could be *called* bar-benzol and written $\overline{\text{B}}$enzol bar-ammonia, written $\overline{\text{A}}$mmonia, and so on. In formulae for compounds the H atoms of heavy hydrogen could be designated by the dash.

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SPECIAL CORRESPONDENCE

HEALTH PROBLEMS IN THE AMAZON VALLEY

THE letter from Earl Hanson[1] interested me, since I am at present working in health problems in the Amazon Valley. In the Hospital of Cia. Ford Industrial do Brasil, located at Boa Vista, Rio Tapajoz, we are only 140 miles south of the equator and in the heart of Amazonian jungle. Here we have seen many thousand natives of the region. These are not

[1] H. Nehrling, "Die Amaryllis oder Rittersterne (Hippeastrum)." Paul Parey, Berlin, 1909.

[1] SCIENCE, 78: 2011; 36–38, July 14, 1933.