would have unduly delayed the work. (3) A minimum number of those quantities, which, by a fairly general consensus of opinion, are to be considered of a basic character, might have been selected as basic; for each of these, such a value as seemed to accord with the more trustworthy opinions of appropriate specialists might have been selected; and from these, the values of other quantities might have been computed. This procedure gives a self-consistent set of values, and is the one which was followed. The computed values would have accorded with the experimental ones if the computational equations and the values chosen for the basic quantities had been correct; but in certain cases, such as the Rydberg constant, they did not. The failures arose mainly from the fact that the values assigned by the specialists, to the four quantities, c, e, h, e/m, were mutually inconsistent, although generally, each specialist concerned himself with all four. As it happened, the values "accepted" for these four quantities agreed with those advocated at that time by Professor Birge, except in the case of e/m; for that, an appreciably smaller value was accepted. It now appears that the principal error is in that quantity, and that a still smaller value should have been assigned to it. It was in view of the uncertainties in the values of the basic quantities and of the existence of discrepancies between certain of the derived constants and the best experimental determinations of the same constants, that provision was made for permitting a cooperating expert to use another value whenever such a course seemed justified.

In view of the purpose and the setting of this table it seemed unnecessary to append a note giving the most probable value of each of the several quantities, as such values should be sought elsewhere in International Critical Tables.

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THE NEED OF AN ENLARGED LIST OF BOTANICAL NOMINA CONSERVANDA

IN SCIENCE for April 16, Dr. Shear and Dr. Clements, under the title, "The Condition and Needs of Systematic Mycology," state that "two great deterrents to students, as well as to general botanists and other plant scientists, are the lack of uniformity and stability in the use of Latin names and the endless subdivision and duplication of genera and species"; they urge that the quickest and simplest method of bringing order out of the present chaos of names is to prepare a list of fungi following general usage.

Such a list seems to be as much needed for the higher plants as for the fungi, and especially for plants of economic and horticultural importance. The Vienna and Bruxelles Congresses adopted a list of genera. A list of genera and species, if it could be formed in some way so as to secure international acceptance, would be for practical purposes an extension of "nomina conservanda," names conserved until revised as a whole.

For the seed-bearing plants the one comprehensive list is the "Index Kewensis," prepared at the suggestion of Charles Darwin. In the original form it was intended to include all published names and to refer synonyms to accepted names. For the genera and families, Bentham and Hooker's "Genera Plantarum" was followed; the specific names were taken according to the "Kew rule," that is, the earliest under the accepted genus. In the successive supplements the plan of evaluating synonyms has been found increasingly impracticable; to list names from all parts of the world and reduce them to a unified system is not at present possible. Thus, the *Index Kewensis* has become more and more a list of names and not a list of plants, a transformation hastened, perhaps, by the adoption of the "Vienna rule" of using the earliest specific name regardless of genus.

In recent years "Standardized Plant Names," limited to horticultural and economic plants, follows in the main Bailey's "Standard Cyclopedia of Horticulture." The practical importance of the names included makes it of general interest; the principle of names "standard until revised" might perhaps serve botanists as well as horticulturists. For botanic gardens a greater uniformity in nomenclature would much simplify their work.

It would seem that certain changes in arrangement of "Standardized Plant Names" would be desirable for possible international support:

(1) An international botanical edition should be in Latin, omitting English names.

(2) Varieties should be omitted, at least at first, with a view to reaching agreement on main lines before trying to decide the innumerable questions as to varieties.

(3) Authorities should be added to the names.

(4) The genera should be arranged under families, with index of genera referring these to the families. Families are now used to some extent in "Standardized Plant Names," under Ferns, Cacti, Grasses, etc. This plan could easily be extended to all names, with the result of making the whole work more readily available to criticism, so as to gradually correlate with the best botanical opinion.

Such a book would be considerably smaller than the present edition.

In a recent article Dr. A. S. Hitchcock (*American Journal of Botany*, XIII, p. 291) comments on the

fact that "there is an insistent demand among botanists, especially among the non-taxonomists, that plant nomenclature should be unified and stabilized . . . the non-taxonomist wishes to have one name for one plant, constant, invariable, and everlasting throughout the world." We do not find that the "everlasting" part is an essential requirement. But if approximate *uniform names* do appear to be so universally desired, why not meet this requirement by the best means at hand? This would relegate to less importance the intricacies of application of the rules of nomenclature.

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NEW YORK CITY AN ASEISMIC AREA

DR. C. A. REEDS' article in SCIENCE of April 23, 1926, and other published statements of the same tenor prompt one to say that it is somewhat dangerous to call any district an aseismic area. Even if the evidence of aseismicity is based on records from a seismograph, caution is needed, as the majority of the world's seismographs are adjusted for recording distant earthquakes and make exceedingly poor records of small local earthquakes if they record them at all. Apparently the American Museum of Natural History seismographs failed to record the shake of June 8, 1916, that was felt in Eastchester, Mount Vernon and Scarsdale with estimated intensities varying from 3 to 5 on the Rossi-Forel scale. I have faint recollections of other shakes having been reported from the environs of New York City, but can not place my hands on the facts at present. Doubtless other tremors occur but are unnoticed on account of traffic. Earthquakes are not at all uncommon in the lower Mohawk valley.

R. H. FINCH
HAWAIIAN VOLCANO OBSERVATORY

SCIENTIFIC BOOKS

Aristotle. By W. D. Ross, M.A., fellow and tutor of Oriel College; deputy professor of moral philosophy in the University of Oxford, Charles Scribner's Sons, New York, 1923.

Aristoteles: Grundlegung einer Geschichte seiner Entwicklung. By WERNER JAEGER, Berlin, Weidmannsche Buchhandlung. 1923.

THOUGH what other cause lies back of it is still a matter of conjecture, it is doubtless due to the revival of classicism among all the cultured nations of the world that two works on Aristotle, the man, of such impressive merit should have appeared, one in Germany and one in England, almost simultaneously. One represents the consequential and ordered study of a German savant pursuing, only as a German professor can, the intricacies of the evidence of Aristotle's mental development. The other book is by an Oxford don, who has lately given the world probably the best text of Aristotle's "Metaphysics" which the world of science has ever seen. Ross's book is rather a discussion of Aristotle's different works from the standpoint of a critic, but it does not lack a tribute to his personality. It does not exhibit, however, so much how his mind, as every thinking man's mind in step with his age and in accordance with his environment does, underwent its evolution. This is the striking feature of Professor Jaeger's work.

Both Ross and Jaeger have gone far and done much to show us how sympathetic Aristotle was towards platonic philosophy and how loyal he was to his master during the years of his long nonage and long after it, but the modern testimony even as to this is not always so unqualified. It is Ross who says that in distinction from his scientific work in natural philosophy there is no page of his purely philosophical works which does not bear the impress of Plato. To this opinion Jaeger still more emphatically commits himself, and he supports it by an overwhelming array of citation in parallel columns which quite negative the assertion of Mabbott in a recent number of the *Classical Quarterly* that Aristotle was unsympathetic and superficial in his treatment of Plato. It is true, Ross admits, that even while in the Academy, in the first decades of his life, he carried his studies in natural philosophy far beyond what the school could teach him and he seems to have lectured there on rhetoric. Jaeger offers good evidence that pursuing this line and joining with Plato in opposition to and rivalry with Isocrates he subsequently developed the doctrines of his ethics.

After Plato's death his stay at the Academy, and indeed in Athens during the dominance of Demosthenes in politics, became impossible or at least uncomfortable. He took refuge at Assos, and it was along the coasts of Asia Minor that he pursued his study of biology and laid the foundation of that knowledge which still astounds modern scholars. He fished for specimens at Mitylene and in the lagoon of Pyrrha. His father had been a physician at the court of the Macedonian kings. He himself was about the age of Philip and became the tutor of Alexander at Pella when the latter was about thirteen. As the latter swept the enemies of himself and his father out of the mainland and the islands of Greece preparatory to his meteoric career in Asia, Aristotle returned to Athens in the rising Macedonian flood of empire and in 355–4 rented some buildings and established a school, the Lyceum, in a grove near the Ilissus where Socrates had wandered and talked not of science