

nor that some considered as settled beyond controversy may not have to be readjusted, not excepting the much exploited *Kalima* itself, but out of pure regard for the exigencies of the occasion.

No more dare I presume to enter the abysses of the deep sea and to pass in review its manifold and almost untouched problems of color significance, great as is the temptation and attractive as are its inducements. It must suffice to suggest that had half the ingenuity which has been exercised to bring these problems into alignment with the general sway and supposed supremacy of natural selection been employed in an analysis of the pigments and some efforts to discover the origin of coloration and its general significance as a physiological, rather than as a physical one, we should have been saved the sad rites attending the obsequies of still-born hypotheses and half-developed theories. The desperate attempt to save natural selection from drowning in its submarine adventures by lighting its abyssal path with the flickering and fitful shimmer of phosphorescence was worthy of a better cause. It is difficult to be serious with this phase of a subject the nature of which demands anything but ridicule or satire. But the attempts to illuminate the quiescent abysses with the dull glow which under all known conditions requires, if not violent, at least vigorous stimulus to excite it, and the assumption that its sources were sufficient to meet even a moiety of the necessities involved, makes a draft upon one's credulity which might arouse either indignation or the sense of the ludicrous, depending upon the point of view! But seriously, such a conception apparently loses sight of too many evident known conditions of phosphorescence with which we are familiar, not to mention the growing belief that the phenomenon is in itself of the nature of one of the wastes of metab-

olism to justify the herculean attempt to make it serve a cause so desperate.

As a concluding word allow me to say that in the present review I have not in the least sought to ignore or discredit the value of natural selection as a factor in organic evolution. Nor would I be understood as wholly discarding color as a factor in organic adaptation, particularly among the higher and more specialized forms, but rather to show its limits. At the same time I must submit to a growing conviction that its importance has been largely overestimated, and that other factors have been as largely lost sight of. If the present discussion may serve in even the smallest degree to direct attention to some of the latter it will have served its chief purpose.

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SCIENTIFIC BOOKS.

THE HONEYSUCKLES.*

THIS notable addition to the literature of the genus *Lonicera* is a most welcome contribution, presenting as it does the first complete systematic treatment of the honeysuckles since their description by De Candolle in the fourth volume of his 'Prodromus,' published in 1830. Mr. Rehder has consulted the specimens preserved in all the larger American herbaria, and in the most important of those of Europe, and has consulted the living collections in the larger botanical gardens, his investigations having extended through several years. The treatment of the genus in De Candolle's 'Prodromus' recognized 53 species, of which 42 are now held to be valid; the present monograph recognizes 154 species, together with 3 imperfectly known and not named, making 157 in all, thus adding 115 species to those known in 1830. In addition to these 157 species, a large number of varieties are given rank, as also are a considerable number of forms recognized under name;

* 'Synopsis of the Genus *Lonicera*,' by Alfred Rehder (*Ann. Rep. Mo. Bot. Gard.*, 14: 27-232, pl. 1-20, October 8, 1903).

some of these varieties and forms will probably come to be taken as species or subspecies, but most of them are clearly only deviations from ordinary states of the species in color or size of various organs, and the formal recognition of such things lumps up nomenclature without any useful result.

Mr. Rehder recognizes two subgenera, *Chamæcerasus*, with four sections, and *Periclymenum*, following the division accepted by Linnaeus, who united the four genera accepted by Turnefort in 1700, *Caprifolium*, *Periclymenum*, *Xylosteum* and *Chamæcerasus*, into the one genus *Lonicera*, of which it would appear that the *Lonicera Caprifolium* is to be taken as the type. Mr. Rehder remarks that the two subgenera form two very well-defined and natural groups if based on the character of the inflorescence, but he evidently does not agree to recent propositions to recognize them as genera. The genus *Distegia* of Rafinesque is only given rank as a subsection, while *Nintooa* of De Candolle is given rank as a section. Including the Mexican types, 21 North American species are recognized, no new ones being described by Mr. Rehder from within this territory in the present work; of recently described North American species, *L. sororia* of Professor Piper is reduced to *L. conjugialis* Kellogg and *L. ebractulata* of Dr. Rydberg is found to be inseparable from *L. Utahensis* S. Watson. The species which has long been called *L. ciliata* Muhl., is found to have an older name in *L. Canadensis* Marsh.; *L. villosa* Michx. is reduced to a variety of *L. coerulea* L., following Torrey and Gray; *L. flavescens* Dippel is made a variety of *L. involucrata* (Richards) Banks; *L. Japonica* Thunb., naturalized in recent years in eastern North America from New York southward, is not uncommonly cultivated in the West Indies; *L. sempervirens* receives a new variety in var. *hirsutula* Rehder from North Carolina, but an examination of two of the specimens cited leads me to believe that this has no serious claim to recognition under name; *L. subspicata* H. and A. and *L. interrupta* Benth., reduced to varieties of *L. hispidula* by Dr. Gray, are restored by Mr. Rehder to specific rank; *L. dumosa* Gray, which has

recently been regarded as synonymous with *L. albiflora* T. & G., is maintained as a variety of that species; Dr. Rydberg's recently proposed *L. glaucescens* is accorded specific rank. Only one American species known to the writer is not referred to by Mr. Rehder, being described by Dr. Small in his 'Flora of the Southeastern United States,' issued in July, 1903, viz., *Lonicera flavescens* from Tennessee and Kentucky; in naming this species, which is related to *L. Sullivantii* and to *L. flava*, Dr. Small inadvertently overlooked the older *L. flavescens* of Dippel, so that if the species holds good it will have to receive another name.

Mr. Rehder's excellent paper is illustrated by four plates of details of inflorescence and morphology and by reproduced photographs of little-known or rare Asiatic species taken from sheets in the older herbaria of Europe, largely from the collections at St. Petersburg.

Mr. Rehder records 14 doubtful species at the end of his monograph which he has been unable to refer satisfactorily, and 24 hybrids, most of which have originated in various gardens, where the parent species have been growing in proximity; none of the hybrids is indicated as of origin in the wild condition; two fossil species of the genus are known, both of them from European terranes.

N. L. BRITTON.

International Catalogue of Scientific Literature. First annual issue. O, Human Anatomy. London, Harrison & Sons. 1903 (June). Pp. xiv + 212. Price, ten shillings and sixpence.

Although the plan of this catalogue is excellent and its contents are good as far as they go, it is improbable that any anatomist who has access to Schwalbe's 'Jahresberichte ueber Anatomie und Entwicklungsgeschichte' will find it very useful. For several generations past anatomists have been accustomed to excellent year-books and a new catalogue will naturally be compared to those already in existence. The last volume of Schwalbe (1901) is a large book containing over 1,300 pages, filled with numerous abstracts, giving the titles to over 3,300 papers taken from over

650 journals. To be sure, all the papers on anatomical subjects which appeared in 1901 are not given in this volume, and there are numerous papers appearing in 1900 catalogued, but the series of volumes gives practically a complete catalogue of such papers.

When we compare the new catalogue with Schwalbe's so many deficiencies are at once seen that only a few of them can be mentioned in this review. Less than half as many titles (about 1,600) are given as in Schwalbe. To be sure, it is stated in the preface of the new catalogue that it is to be a *complete* index, but it is noted that the literature of Austria has not been included and this omission of literature is not sufficient to account for the difference between the new catalogue and Schwalbe's. The omissions are best expressed by making some comparisons. In Schwalbe's 'Jahresbericht' the blood and lymph, the female organs of sex and the integument are represented by 301, 65 and 74 titles and in the new catalogue by 77, 43 and 36 titles respectively. Under 'Pedagogy and Biography' we miss, among others, Spalteholz, 'Zum 70 Geburtstag von Wilhelm His'; Gegenbaur, 'Erlebtes und Erstrebtes'; Barker, 'On the Study of Anatomy,' and Jackson, 'A Method of Teaching Relational Anatomy'; all of which are given in Schwalbe's 'Jahresbericht.' We also do not find any reference to the *Journal of Morphology*, *The Biological Bulletin*, *The Journal of Experimental Medicine*, *The American Journal of Physiology*, *The Johns Hopkins Hospital Reports*, *The Bulletin of the Johns Hopkins Hospital*, *The American Journal of Anatomy*, *The Journal of Comparative Neurology*, the *Proceedings of the Association of American Anatomists* and the *Journal of Medical Research*, each of which contains articles on anatomy—83 altogether. In the new catalogue we find but one reference to Minot and one to Bardeen; in Schwalbe there are eleven references to these two authors.

While there are many omissions there are also many duplications. Spalteholz's 'Atlas' with its translation is entered thirteen times; Szymonowicz, which came out in parts is given fifteen times, while Stöhr is given six times in the subject catalogue and not at all in the

authors' catalogue. There are also a number of contributions which should not have been included in this catalogue, e. g., Meisenheimer, 'Die Entwicklung von Herz, Perikard, Niere und Genitalzellen bei *Cyclas*,' etc., and also a few subjects catalogued under the wrong headings. Eisler on the 'Muscularis Sternalis' should be under 'Abnormalities' and Parskij, 'Die Anatomie und Histologie der Schilddrüse,' should not be under 'Pituitary Body.'

The above illustrations are only a few, but they are sufficient to show that the 'International Catalogue of Scientific Literature on Human Anatomy' is very incomplete; so much so, that anatomists will not find in it a substitute nor a supplement to the lists accompanying the *Anatomischer Anzeiger* nor to Schwalbe's 'Jahresbericht.' It is to be hoped that the volume for 1902 will include all the titles found in any of the lists, for they are at hand and can be copied and supplemented. A *complete* authors' catalogue with a subject catalogue will be welcomed by all anatomists.

M.

SCIENTIFIC JOURNALS AND ARTICLES.

WE have received the first number of the *Journal of Philosophy, Psychology and Scientific Methods*, edited by Professor Frederick J. E. Woodbridge, of Columbia University and published by The Science Press (Sub-station 84, New York City). The contents are as follows: 'The International Congress of Arts and Science,' Professor Hugo Münsterberg; 'The Religious Consciousness as Ontological,' Professor George Trumbull Ladd; 'Some Points in Minor Logic,' Christine Ladd Franklin; 'The Third Meeting of the American Philosophical Association'; 'Stratton's Experimental Psychology,' Professor H. Austin Aikens; 'Journals and New Books'; 'Notes.' The scope of the journal is explained in an editorial note which reads: "In so far as an explanation or even an excuse may be needed for the establishment of a new journal, it is hoped that this may be given by the contents and form of the first number of *The Journal of Philosophy, Psychology and Scientific Methods*. There are in