

seem that the author has made out a case for the Board of Agriculture taking over his farm and converting it into a national object-lesson. It would be much cheaper, and quite as useful, to have his prescriptions tested on a practical scale in other parts of the country, and this the Board of Agriculture and the agricultural colleges might very well arrange to do.

*Friederich Wöhler, Ein Jugendbildniss in Briefen an Hermann von Meyer.* Edited by Georg W. A. Kahlbaum. Pp. 97. (Leipzig: J. A. Barth, 1900.) Price M. 2.40.

THESE letters were found amongst the Hermann von Meyer's bequest to the Munich Academy of Science, and Prof. Kahlbaum has done well by making them accessible to a larger circle in their present form.

Although A. W. v. Hofmann, in his charming work, "Zur Erinnerung an Vorangegangene Freunde" (Braunschweig: Vieweg und Sohn, 1888), has given a history of Wöhler's life, these letters to the intimate friend of his youth furnish a most interesting supplement to Hofmann's narrative, and will be particularly appreciated by the surviving pupils and friends who enjoyed the privilege of personal acquaintance with Wöhler, or the still larger number who now or in the future take an interest in the history of the early days of modern chemistry. This publication comprises letters covering but a short period, they are neither remarkable for style nor form, as they were obviously only intended for the person to whom they were addressed; but they are, perhaps, all the more valuable on this account, for they give a characteristic and life-like record. Prof. Kahlbaum, whilst scrupulously preserving the original text of the letters, has taken great pains in collecting additional information respecting the persons and places mentioned, and his copious footnotes afford a most useful framework to the letters, which in themselves give us so vivid a picture of the condition of things under which the ardent and youthful enthusiast pursued, with such eager devotion, his experiments and studies, and thus prepared himself for the high position he so soon attained amongst the leading chemists of his age. H. M.

*Die Flora der Deutschen Schutz-gebiete in der Südsee.* Von. Prof. Dr. Karl Schumann und Dr. Karl Lauterbach. Pp. xvi + 613, with 23 lithographic plates. Large octavo. (Leipzig: Gebr. Borntraeger, 1901.)

SINCE the acquisition of Kaiser Wilhelmsland and the neighbouring islands, German explorers and botanists have been busy working out the flora of their new possessions; and now, some seventeen years from the date of annexation, all available information is made accessible in the imposing volume under review. The immediate cause of the issue of this Flora is that the series of extensive collections that have recently come to hand necessitated a considerable volume for their adequate description. This, and the fact that the literature on the flora is much scattered, has prompted the authors to expand their undertaking so as to include the results of earlier explorations. The area dealt with includes, besides Kaiser Wilhelmsland (German New Guinea), the adjacent Bismarck Archipelago, the more westerly of the Solomon Islands, the Marshall, Caroline and Marianne Islands. In all over 2200 species are enumerated, and of these 400 are described for the first time, or have become known only from the recent collections which have led to the publication of this Flora. The species are distributed as follows:—Algæ, 222; Fungi and Lichens, 226; Bryophytes, 200; Pteridophytes, 155; Gymnosperms, 12; Monocotyledons, 392; Dicotyledons, 1000. The new forms are all fully described, whilst both for these and for all the plants enumerated, admirably full localities are given. Many of the new forms are of considerable interest, and fourteen new genera are created. There is a new species of *Cycas* occurring in

the Bismarck Gebirge up to a height of 3000 ft., in habit resembling an Australian *Xanthorrhœa*; Guppy's interesting *Sararanga* (Pandanaceæ) is recorded with an extended distribution; there is a small Palm, *Dammera*, allied to *Licuala*; whilst among Dicotyledons, *Ficus arbuscula*, a fig-tree 3 to 6 feet high, may be mentioned. The new *Hibiscus papuanus* is spoken of as possessing the most strikingly beautiful flowers in the whole region. The additions to Rubiaceæ are considerable, and include *Dolicholobium Gertrudis* with curious dimorphic flowers. A second species of *Bothryocline* (Compositæ) considerably extends the distribution of a genus previously restricted to Africa. In *Psychotria myrmecophila*, from the Bismarck Gebirge, we have a new type of ant-plant with curious excavated trifold stipules, which appear to harbour ants in their recesses; its biological relations will require to be worked out on the spot.

The work contains, in addition to a brief introduction by Prof. Schumann, an interesting history of the botanical exploration of the whole region by Dr. Lauterbach, the enlightened director of the New Guinea Company. Included in the volume are twenty-three large plates, which adequately portray the characters of the more important novelties. Certainly the authors are to be congratulated upon their achievement, which is a model of what such a work should be. It will prove a boon to the local officials, colonists and missionaries, and cannot help but stimulate further research.

*Fact and Fable in Psychology.* By Joseph Jastrow. Pp. xi + 375. (Boston and New York: Houghton, Mifflin and Co., 1900.)

OF the eleven essays here reprinted the first seven are devoted to a common subject, viz. the so-called "occult" side of mental life and its significance for psychology. Prof. Jastrow's attitude towards the whole problem is marked by a luminous common sense which is, unfortunately, rarer even among serious psychologists than it should be. For scientific psychology the real question, as he never tires of pointing out, is not how to explain the marvels of spiritualism and allied arts, but how to account for the existence and wide diffusion of the state of mind which can believe in them. It is for the expert in conjuring tricks to show how the feats of the medium and the miracle-worker are done; the task of the psychologist is to investigate the "Psychology of Deception." Incidentally, however, such papers as Prof. Jastrow's essays on "The Psychology of Spiritualism" and "Hypnotism and its Antecedents," besides throwing light on the mental condition of the deceived, are interesting as showing how more than one famous occultist has executed his deceptions. The latter of the two papers just named brings out clearly and well the enormous difference between the spirit and methods of science and of superstition in dealing with one and the same set of facts. In the essay on "The Problems of Psychical Research" Prof. Jastrow is perhaps on more debatable ground, though his attitude seems to the present reviewer at least the only scientific one. Briefly his position may be summed up thus: the psychologist, as such, has no interest in the facts of "telepathy" except in so far as they throw light, as any facts about abnormal mental states may, on the known laws of normal mental processes. The "psychical researcher," on the other hand, thinks his facts sufficient warrant for postulating types of mental process of which normal life reveals nothing. Hence, unlike the psychologist, he approaches the facts in a non-scientific spirit. In a subsequent "Study of Involuntary Movements," conclusive experimental proof is given of the dependence of "thought-reading" performances upon unconscious movements of the muscles of the "subject" towards the object on which attention is directed. Of the remaining papers the most suggestive is perhaps that on "The Dreams of the Blind."