fifteen out of the sixteen lots the failure is higher among the abnormal than among the normal plants.

The material is classified in only the alternative categories, normal and abnormal, or typical and atypical—of which the latter is highly complex, comprising many different morphological variations in their permutations. Possibly, some types among the atypical show a lower mortality than the typical seedlings. When materials are ample I hope to determine approximately the selective value of each of the chief types of variation, both alone and in various combinations. In the meantime, the data given here may serve to record another case of the quantitative demonstration of a selective death rate.

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THE DOMAIN OF COMPUTATIONAL ASTRONOMY

TO THE EDITOR OF SCIENCE: In the light of Professor Campbell's criticism (SCIENCE, October 25) it is to be regretted that I did not state explicitly that the domain of computational astronomy is much larger than that of the determination of orbits. This is so obviously true that it did not occur to me that my remarks could be misinterpreted. Let me amend, therefore, with the statement that Buchholz's Klinkerfues's "Theoretische Astronomie" belongs in the general field of computational astronomy.

My remark that the computational field might perhaps be called the bookkeeping, or auditing, department of astronomy may have been "unfortunate." Since it incurred the criticism of Professor Campbell I feel quite certain it was. But there is nothing in his communication which leads me to doubt its essential accuracy.

This classification of "theoretical astronomy," which was made only in the interest of exactness, clearly does not imply any disrespect for computation which is of great value not only in astronomy but in many other subjects.

W. D. MACMILLAN
UNIVERSITY OF CHICAGO,
October 25, 1912

SCIENTIFIC BOOKS

Gould and Pyle's Cyclopedia of Practical Medicine and Surgery, with particular reference to diagnosis and treatment. Second edition, revised and enlarged by R. J. E. SCOTT, M.D., with six hundred and fifty-three illustrations. Philadelphia, P. Blakiston's Son & Co. Royal 8vo. 1912.

In our times the medical sciences make such rapid advances that medical text-books and encyclopedic works are soon out of date. It was therefore a happy idea and a meritorious work of Dr. Scott to revise and republish Gould and Pyle's valuable "Cyclopedia," which first appeared in 1900. The new edition retains the excellent features of the first and new ones have been added. The list of contributors is a guaranty of the sterling value of the book.

The work is in size and arrangement of contents very much like those eminently practical encyclopedias of Forbes (1833), Todd (1835), Tweedie (1840), Quain (1882), which differed notably from the huge German and French works of a similar character, like those of Eulenburg (1886–89) and Dechambre (1864–89), in that they condensed a very large amount of knowledge in one or two volumes. What the general practitioner wants is not a cumbersome work of reference of twenty or thirty volumes, where he has to wade through a lengthy and exhaustive exposition of a subject, but a concise presentation of the salient facts, which he can take in in a few minutes. Such a book is the one before us. It is the only medical reference book of its kind in America and it may truly be said that it fills a much needed want.

On examining the book the reader is at once struck at the large amount of knowledge compressed in such a small space. It is, indeed, the comparatively small size of the book which gives it a great advantage over similar works. The writers have succeeded in giving the essential and important points of the various subjects in the most concise form. Titles like cerebrospinal meningitis, heart-disease, infant feeding, malarial fever,