pages, is no light one. Among the editor's forty contributors appear the names of a number of leading men in the architectural and engineering professions who have each taken a subject upon which progressive articles will appear in successive issues, and the editor points out that many ordinary text-books are incomplete and that certain administrative and commercial aspects of building work have been much neglected by writers in the past, which gaps it is proposed to fill.

The issues will deal with such diverse subjects as architectural design, builder's accounts, gas fitting and building law. Opinions may differ as to whether the presentation of so many subjects in articles of only two or three pages is the best method of education, inasmuch as these subjects are obviously not equally suitable for study at one particular age, but a selection of articles is suggested for the special perusal of the aspiring architect, surveyor, builder and engineer.

The work is well illustrated by photographs and cuts and well printed, but we think that the compilation which involves back references, such as an article on superintendence continued on page 31 from page 49, open to criticism. A full index is promised on the completion of the publication, which should reduce the labour of a student wishing to traverse the ground of a particular subject with the thirty parts before him.

The Evolution of the Horse. By Prof. F. B. Loomis. (The Amherst Books: Second Series.) Pp. xvi + 233 + 26 plates. (Boston, Mass.: Marshall Jones Co., 1926.) 3 dollars.

FOR the Mammalia the family of horses has long been the standard example of an evolutionary series. There is no doubt that of all such series it is the most completely known and that it throws much light on the manner, if not on the method, of evolutionary change in mammals. Properly to understand this change, and the theoretical arguments which arise therefrom, it is necessary that the available data should be presented in considerable detail. The majority of text-books fail in this respect from lack, no doubt, of sufficient space. A summary of what has happened in some millions of years (forty-five millions according to the present author), illustrated by perhaps a dozen examples of horses chosen from successive strata to form a gradated series, cannot give a true impression of the facts. There is, moreover, a danger of such series becoming stereotyped, and for the student in consequence to come to think that it represents the whole picture and so to remain ignorant not only of the wealth of material that has been collected together but also of the fact that the horses, so far from being a straight line of evolution, and no more, had, on the contrary, many lines adapted in different ways, some successful, others the reverse.

Prof. Loomis has contributed to our knowledge of the horses, not only by original work in the field, but also by the publication of a small book which will help in some measure to correct the mistaken views adverted to above. It should be useful in the hands of the student, and is not too technical for the layman who is interested in the subject. Within the limit of some two hundred pages the family is traced from its beginning in the Eocene period up to modern times. The twenty-six plates are good, but the text figures, while adequate, are perhaps not up to the usual standard of artistic excellence of American palæontological publications. Here and there the specialist may find a statement with which he is not in complete accord, but as a general account, Prof. Loomis's book can safely be recommended.

Tabulae Biologicae. Herausgegeben von C. Oppenheimer und L. Pincussen. Band 2: *Thermochemie, Physikalische Chemie der Fermente, Elektrizität und Elektrochemie, Strahlenlehre, Spezielle Biophysik, Sekrete.* Pp. viii + 567 + 25 Tafeln. (Berlin: W. Junk, 1925.) 55 gold marks.

THE "Tabulae Biologicae" gives in compact tabular form the data which have been accumulated by many authors in all branches of the biological sciences. In addition, information is given on certain aspects of related sciences, where knowledge of the latter is a necessary preliminary to the performance and evaluation of biological experiments: for example, in this, the second, volume, the electrical section includes data on the electrical properties of metals, dissociation constants, and the *p*H values of different solutions. Data are also given on X-rays, radioactivity, and the spectral energy of lights of different wave-lengths. The kinetics and conditions of activity of the different enzymes are very fully treated.

Among the other subjects dealt with, attention may be directed to the data on the special senses and the physiology of muscle and nerve: tables of the actions of drugs on the vegetative nervous system and plates of the physiological anatomy of the central nervous system are included. The composition of the following will also be found in this volume: blood, skin, the digestive secretions, lymph, cerebrospinal fluid and transudates, milk. We note a useful table of the structure of the salivary glands in different animals. Although possessing a strong Teutonic flavour, the volume may be thoroughly recommended as an extremely useful work of reference. A fairly full table of contents acts also as an index.

Die intraindividuelle fluktuierende Variabilität: eine Untersuchung über die Abänderung des Pflanzenindividuums und die Periodizität der Lebenserscheinungen. Von Prof. Dr. E. Dennert. (Botanische Abhandlungen, Heft 9.) Pp. 149. (Jena: Gustav Fischer, 1926.) 7 gold marks.

WHEREAS most of the statistical work on fluctuations (Darwin's individual variations) has related to their occurrence in a race or species, the author has focussed his attention upon fluctuations within the individual plant. His extensive data are derived from measurements of leaves and various floral parts, as well as by counting the numbers of ray-florets in two species of Aster. The conclusion is reached that extra-individual fluctuation is a summation of the fluctuations within the various individuals and that the two phenomena are identical. The graphs in all cases betray a definite rhythm, a rise to a maximum and a subsequent fall to a minimum, but the fluctuations show slight differences in character which can be reduced to three principal types. In the final section the author concludes that the ultimate causes of this fluctuation are inherent in the protoplasm, but that its manifestation, and to some extent also its special character, are dependent on external and internal factors.