a man's having an uproarious good time on Sunday; but I added that there should be no disturbance of the religious or other duties of the day by others. I did say that "I would," or that "I believe that I would" close up the churches temporarily, as an experiment. But I stated my reasons, with emphasis, because so many good, religious people have come to think of church going as a great part of the whole religious duty, and because, if there were no churches open for a time, these people would be constrained to turn to more important religious duties, of kindly service and the like. Just here I quoted the declaration of James as to the meaning of religion pure and undefiled.

The above will perhaps enable you to judge for yourself as to the degree of accuracy with which I was reported; but for a slight amplification of which I have just written, I am enclosing a copy of a letter which I sent in correction of the first report, and which was printed in the paper first reporting me, in its issue of last Saturday morning, January 25th.

Of course, not even all of what I am now placing at your disposal can make entirely clear my general attitude on Sunday observance; but it is probably quite enough to make you to see how and in what light I stood last Wednesday evening. And that, I am sure, is all of your present wants.

Very sincerely yours,
WILLARD C. FISHER

My Dear Prof. Fisher:—Your letter of this date is just received. Even after consideration of your explanation of your position, I find it difficult to believe that any one with a just appreciation of the work which the churches have done and are doing for the religious and moral life of the community, could seriously propose the closing of the churches, even as a temporary experiment. I am constrained to the conviction that your attitude in the matter is so far out of harmony with the spirit of the college, which, though in no wise sectarian, is and always has been profoundly in sympathy with Christian churches, that your continuance in your present official position is undesirable for the college or for yourself. I feel therefore compelled to request you to offer your resignation.

Most sincerely yours,
WILLIAM ARNOLD SHANKLIN

My Dear Dr. Shanklin:—Of course I shall respond at once to your request for my resignation. Here it is. It is given cheerfully, I trust, and in full appreciation of the situation. I do not expect, I do not even undertake, to frame for myself a judgment as to what I might think the correct course for the college to take in such a case. But my judgment is not needed and it might be biased. I am, however, free enough from prejudice to see very clearly that a college with the history and the constituency and support of Wesleyan, is not exactly the place for a man who holds such views as mine, and who can not suppress them. I leave the college, therefore, without a trace of ill will toward anybody connected with it. Indeed I go with the warmest wishes for the institution to which I have given the twenty best years of my life.

Very cordially yours,
WILLARD C. FISHER

My Dear Prof. Fisher:—I have your favor, resigning from the faculty of Wesleyan University. I hereby release you from your duties, pending the presentation of your resignation to the board of trustees. I shall recommend that your salary be paid in full for the present academic year.

Appreciating your spirit of good will to the college, I am,

Most sincerely yours,
WILLIAM ARNOLD SHANKLIN

SCIENTIFIC BOOKS

Manual of Conchology. Vol. XXI. Achatinellidæ (Amastrinæ). By ALPHEUS HYATT and HENRY A. PILSBRY. Leptachatina by C. MONTAGUE COOKE. Philadelphia. 1911.

The "Manual of Conchology," founded many years ago by George W. Tryon, was designed to include descriptions of all the known living Mollusca. In Tryon's day it was essentially a compilation, but even so quite invaluable to conchologists. When Tryon died, and Dr. H. A. Pilsbry took his place, the character of the work changed, and the new volumes came more and more to represent exhaustive original research. The treatment of the Helicidæ, for example, put the whole subject on a new footing, and stands to-day as one of the great classics of malacology. Naturally the later parts have contained descriptions of fewer species than the early ones, the more elaborate treatment requiring more space;

hence the progress through families and genera has been much slower. On the other hand, considering the character of the work and the numerous illustrations, we may well marvel at the size of the yearly volumes, representing an amount of labor which few of us could undertake, even if possessing the necessary skill.

Professor Alpheus Hyatt died in 1902, leaving a quantity of unpublished manuscript on the Achatinellidæ, those remarkably varied and interesting snails of the Hawaiian Islands. Some years later these materials were turned over to Professor Pilsbry to be incorporated in the Achatinellidæ of the "Manual." The finished work is accordingly issued under the names of Hyatt and Pilsbry, although the greater part is by the junior author. The large genus *Leptachatina* (92 pp.) is by Mr. C. M. Cooke, of the Bishop Museum, Honolulu. The Achatinellidæ consist of two subfamilies, the arboreal Achatinellinæ, with usually light or brightly colored shells, and the mainly terrestrial Amastrinæ. The whole family is confined to the Hawaiian Islands, excepting the genus *Fernandezia* from the island of Juan Fernandez, which is located in the group provisionally, in the absence of any knowledge of the soft anatomy. The volume under review contains only the Amastrinæ; before the Achatinellinæ are described Dr. Pilsbry will himself visit the islands, and gain a first-hand knowledge of the subject.

The exhaustive and logical treatment, with the fine colored plates, enables us to gain a very good idea of the evolution and development of the Amastrinæ. The subfamily is to be divided into two very distinct tribes, which if given special names would be Leptachatinini and Amastrini. The first of these consists of oviparous forms, with shells closely resembling those of the circumpolar genus *Cochlicopa*. The second is to be divided into two series, both viviparous, but one elongate or Bulimoid, the other flattened or Helicoid. The flattened shells (three genera) were originally, when known, regarded as species of *Helix*, and the fact that they are indisputably Achatinellid shows how difficult it is to correctly place fossil land snails, known from the shells alone. One of the *Helix*-like genera was first (Ancey, 1889) named *Tropidoptera*, but was renamed *Pterodiscus* by Pilsbry on the ground that *Tropidoptera* was a homonym of the earlier Coleopterous *Tropidopterus*. In my opinion, *Tropidoptera* is a valid name,[1] the difference in the ending sufficing to prevent homonymy. I have long been familiar with the genera *Ancylus* (Mollusca) and *Ancyla* (Hymenoptera), and although using both names, have never found the slightest confusion to occur in my mind.

The number of new Amastrine species described is large, indicating that the previous work on the Hawaiian mollusca, although voluminous, did not nearly exhaust the subject. The parts of the work most interesting to the general zoologist are the introductory chapter by Dr. Pilsbry, and the appendix compiled from Hyatt's manuscripts. According to Professor Hyatt the animals migrated from island to island in ancient times, and in some cases he even indicates the probable landing places of the immigrants and their subsequent migrations. Dr. Pilsbry, while fully agreeing with many of Hyatt's views, especially those on taxonomy, holds that while the snails did indeed migrate in various ways, it was on dry land. That is to say, the Hawaiian Archipelago was once a single large island, which presently divided into two, later into four, and finally reached its present condition. Good arguments are given in support of this hypothesis, and one can not help feeling that they would have convinced Professor Hyatt, had he lived to consider them and to go over all the evidence available at the present time. It is impossible in a review to adequately discuss this matter, but it is very evident that the whole subject is of the greatest interest to students of evolution, and when worked out from every point of view, may give us a definite idea of the time required for the evolution of species of various groups in the Hawaiian Islands. It is supposed that the large island Hawaii had only its most north-

[1] It is well to note that it has been omitted from the "Index Zoologicus."

ern part above water until just before the present stage in the development of the archipelago. This idea seems to receive support from the fact that the Achatinellidæ are almost confined to that part of the island, but it appears doubtful in view of the very large number of endemic Hymenoptera in Hawaii.

T. D. A. COCKERELL

Géologie du Bassin de Paris. Par M. PAUL LEMOINE. Paris. 1911. Pp. ii + 408; 137 figures; 9 maps.

Beginning with the classic "Description géologique des environs de Paris," by Cuvier and Brongniart, which reached a third edition as early as 1835, there have been a number of excellent general works on the geology of the Paris basin, that by Stanilas Meunier, first published in 1875, being perhaps the most used. Whatever the French do, they do well, and the Paris basin is such classic ground for the mesozoic and cenozoic geologist and paleontologist that the present work is of very great interest. That the book is well planned, well written and well illustrated is indeed but faint praise. M. Lemoine, who is vice-president of the Geological Society, has been working in the area for a number of years for the Geological Survey and is well equipped for the task of digesting the eight hundred odd memoirs treating of the area and combining their results with his own researches.

After three preliminary chapters devoted to an introduction for amateurs, and a historical, physiographic and tectonic discussion of the area, he plunges into the detailed geologic history of the basin, which commences with the Triassic. The Jurassic and Cretaceous of the Paris basin may be said to have furnished the standard for the world, as they have also so largely furnished the nomenclature, and these periods are treated at length. The very modern and altogether admirable work of the French paleontologists, particularly on the faunal facies and their correlation with particular sediments, is fully discussed and diagrammatically illustrated. Tertiary geology may be said to have been born in the Paris basin, even if Sir Charles Lyell was one of the wise men present at the birth, and here again the treatment is full and accurate. The Eocene in particular, because of the alternation of marine faunas with littoral, lacustrine and continental deposits containing land plants and terrestrial mammals, deserves to be and is rapidly becoming the world standard. The time is not far distant when the French étages will be used in all countries where men interest themselves in Tertiary history. Osborn has applied them with considerable success in his discussion of American mammal horizons and they lend themselves with equal readiness to discussions of the paleobotanical history of North America.

The book contains nine double-page maps and 137 text figures, every one of which is excellent, and will prove a most useful traveling companion for visiting geologists. The author is to be warmly congratulated, and it is to be hoped that American students will not only read the book, but try to imitate its method in their own geological writing.

EDWARD W. BERRY

JOHNS HOPKINS UNIVERSITY

SCIENTIFIC JOURNALS AND ARTICLES

THE opening (January) number of Vol. 14 of the *Transactions of the American Mathematical Society* contains the following papers:

F. N. Cole: "The triad systems of thirteen letters."

H. S. White: "Triple systems as transformations, and their paths among triads."

G. D. Birkhoff: "Proof of Poincaré's geometric theorem."

S. Lefschetz: "On the existence of loci with given singularities."

B. H. Camp: "Singular multiple integrals, with applications to series."

Oswald Veblen: "Decomposition of an n-space by a polyhedron."

C. N. Moore: "On convergence factors in double series and the double Fourier series."

Virgil Snyder: "Algebraic surfaces invariant under an infinite discontinuous group of birational transformations. Second paper."

N. J. Lennes: "Note on Van Vleck's non-measurable sets."

T. H. Gronwall: "Some asymptotic expressions in the theory of numbers."