ceived from my brother at Riverside has met with so much appreciation at the Museum of History, Science and Art. The tortoise was a particular pet of mine, although a very stupid one. At Riverside during his residence of fourteen years he entertained a large number of visitors annually and was locally well known. I anticipated a very long life for the tortoise, at least a century, and his untimely death has been a great disappointment. The following data concerning the specimen will doubtless be of interest to you.

I found him in June, 1899, at Iguana Cove, Albemarle Island, Galapagos Islands. At the time of his capture he weighed 29 pounds, and was, I presume, not much over a year old. He was carried on the schooner, where he lived on the deck with several adult tortoises and fed on *Opuntia* cactus until we reached San Pedro Harbor. At Riverside he grew at a rapid pace during the first few years and doubled his weight annually—at the time of his death I should judge he was not over sixteen or seventeen years of age.

Mr. Ditmars, of the reptile department of the New York Zoological Park, states that several of his giant tortoises have died of inflammation of the kidneys, due to resting on damp soil, and this may doubtless explain the death of my specimen at Riverside.

You will find this tortoise referred to in a paper on "The Reptiles of the Galapagos Islands" by me published in the *Proceedings of the Washington Academy of Sciences*, February, 1903, Vol. 5, page 52.

There is no record of its size at time of capture, except as to weight, which was 29 pounds. At the time of its death it weighed 450 pounds and its carcass measured 41 inches long, 31 wide and 21 high. Mr. William Heller, who had personal care of the tortoise for many years, writes me that it thrived wonderfully on a diet of spineless cactus, milkweed, melons, oranges, etc.

FRANK S. DAGGETT
MUSEUM OF HISTORY, SCIENCE AND ART,
LOS ANGELES, CALIF.

TWO PARTIAL-ALBINO BIRDS

ON the first three days in October, in and near Webster Park, Orono, Me., there was observed a partial-albino robin (*Merula migratoria*). I examined it carefully with a field-glass. The white feathers are remiges, forming a white patch in each wing when the bird is standing. When the bird flies the fluttering white wing feathers give it a striking and beautiful appearance which must attract the attention even of the layman. In the left wing the white quills include all the longest primaries and extend far enough I think to number 12 or 13 all told. Among the lesser coverts of the left wing appear also two white spots, each apparently formed by the tip of a single feather. In the right wing the position of the white quills is different: the longest primaries (5 of them, I judge) appear perfectly normal; these are followed by about 7 white remiges. So far as I could see, the bird is in all other respects quite normal. The white terminal spots on the outer tail feathers are conspicuous, but not abnormally so. The white of the belly does not extend so far forward as I have seen it on some normal specimens. The white markings on the head, and the very narrow edgings of the breast feathers are as usual. The red of the breast is, I judge, both brighter and darker than the average. The bird is tame, frequents door-yards, and ought to be seen by other observers on its migration. To shoot such a bird and set up its skin in a museum is a wanton destruction of scientific material; if taken at all it should be taken alive and used for breeding.

On October 3, in Old Town, Me., I saw a partial-albino house sparrow (*Passer domesticus*), the white being in great masses on the wings, so that in flight this individual looks somewhat like a snowflake. In many years of bird observation I never saw another house sparrow with such an extensive albinism as this one.

WALLACE CRAIG
UNIVERSITY OF MAINE

ANOPHELES PSEUDOPUNCTIPENNIS

IN the article entitled "The Rôle of *Anopheles punctipennis* Say in the Transmission of Malaria," which appeared in the issue of SCIENCE for December 17, 1915, an unfortunate error occurs. In discussing the work of Dupree and Knab's comments thereon it was stated that the latter was inclined to believe that the experiments had been conducted with

A. punctipennis. This term should have been *A. pseudopunctipennis,* which in fact is a species quite distinct from the *punctipennis* with which Dr. Dupree worked. W. V. KING

SCIENTIFIC BOOKS

Scientific and Applied Pharmacognosy intended for the Use of Students in Pharmacy, as a Handbook for Pharmacists and as a Reference Book for Food and Drug Analysts and Pharmacologists. By HENRY KRAEMER, professor of botany and pharmocognosy in the Philadelphia College of Pharmacy. One vol., pp. viii, 857, with over 300 plates comprising about 1,000 figures. Published by the author, 145 North 10th St., Philadelphia.

The writer well remembers the "Manual of Materia Medica" which was used at the Philadelphia College of Pharmacy as text in the middle of the eighties. Its author had gone beyond the mere description of the gross characteristics of the crude drugs and, following German example, had added *Lupenbilder* to his text. For the rest, it was a compilation of names and synonyms of plants, of constituents and properties, with a purely technical description of the part used as drug. It contained the bare facts which the student was expected to commit to memory. For review purposes, the student fell back on a booklet composed of synoptical tables. In justice to Professor Maisch it should be said that his personality and even his lectures were much more interesting than his text. Indeed, to the student who attended college with a real desire to improve himself, Professor Maisch was one of the principal incentives to aspire to higher ideals.

With even more vividness, the writer remembers a meeting of the Scientific Section of the American Pharmaceutical Association at which the author of the treatise under review read a paper on the teaching of pharmacognosy. Always sincere in what he presents and full of enthusiasm of his mission, the speaker carried away his audience, which apparently felt that a new day had dawned in pharmaceutical pedagogy.

If Bastin had already gone a step farther than Maisch, his successor seemed to feel that pharmacognosy was to be made an exact science by the histological study of drugs. His ambition was to drill his students so that, even in their dreams, they might recognize the fragments of tissues found in a mixed powder of several drugs and thereby identify the components. This was a highly ambitious program, the attainment of which might be realized by a few experts who had spent their lives in work of this kind, but was scarcely to be hoped for on part of the undergraduates. Moreover, such a course, even without the possible hope of attainment, is just as highly technical as the text of Maisch's "Manual." Neither should be the goal of the teacher of pharmacognosy. Fortunately for the teaching of pharmacognosy in the United States, Professor Kraemer, not many years later, repudiated his own position and came out boldly for the mastering of a few fundamental principles as opposed to the grind of a lot of technical detail.

The statutory definition of pharmacy and pharmacology by the department of education of the state of New York is exceedingly unfortunate and reveals, as well as any single incident may, the arbitrariness of educational standardization. It was not to be expected that a representative of the P. C. P. would be unduly influenced by legislation at Albany, yet we are grateful for the use of the word pharmacognosy rather than pharmacology as the characteristic word in the title. Both words mean etymologically the same, both stand for what may be regarded the same science, yet, whereas pharmacology represents the medical viewpoint, pharmacognosy represents that of the pharmacist. Both pharmacologist and pharmacognocist deal practically with the same subject-matter, but the point of emphasis of each naturally differs according to his professional viewpoint. The student of pharmacology wants to know about the vegetable origin of his drugs, he must know something about their chemical constituents, but the point of emphasis is that of physiological action. Wherever possible, it is the animal experiment that engages his attention as pro-