

illustrate, at a cost of about \$10,000 it has been demonstrated experimentally how belladonna can be grown commercially in California. There is no plausible reason why California should not supply all or nearly all of the belladonna required in the United States, which may be estimated at about 1,000,000 pounds annually valued at \$150,000. This is merely one example which will however serve to explain the practical purpose of a botanical garden as above outlined. The probabilities are that from five to twenty-five practical tests would be carried on at one time and perhaps two or three tests would be concluded each year. From what has been said it is evident that the gardens should devote the major effort to establishing new plant industries and developing them. No time and effort should be wasted on useless things, as botanical freaks, botanical curios, purely technical research without practical significance, theoretical research and experiments, etc. Neither should time and effort be wasted on simple experiments which can be done by any agriculturist in any field or garden. Also, such gardens must be in charge of competent directors, men who by technical training and practical experience are qualified to direct such experiments as will bring practical net results in the shortest time possible.

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CLASSIFICATION OF THE EDENTATES

DR. E. H. LANE, in "A Corrected Classification of the Edentates,"¹ has proposed the new ordinal name Lepidota for the Manidæ. That, like Squamata and Pholidota, was however long ago preoccupied (by Vogt in 1851), as was also Cataphracta, another designation proposed by J. E. Gray. Squamigera, having the same meaning, might be taken as a substitute, but such is scarcely necessary, as Nomarthra may be restricted to the suborder (or order) represented by Manids alone. I concur now with Weber, G. Elliot Smith, Gregory and Lane in thinking it inadvisable to combine the Manids and Orycteropodids in a group contrasted with the Xenarthra.

I can not consider the combination of

sloths and anteaters in a group distinct from the armadillos as an improvement in the taxonomy of the Xenarthra, and therefore the name Pilosa appears to me to be superfluous. Flower himself virtually confesses as much. The suborders Tardigrada and Vermilinguia, recognized by me in 1872, appear to be at least as distinct as are the "Loricata" from the Tardigrada.

If we are to apply the same rigorous rules to the nomenclature of the higher groups as to genera and species, "Loricata Flower" is another preoccupied name (unless accepted from Vicq d'Azyr) unusable for the armadillos and their relatives. Instead, Cingulata of Illiger (1811) might be revived as a subordinal term.

Vermilinguia of Illiger was long ago (1872) accepted as a subordinal designation for the anteaters.

Structural differences among the "Loricata" or Cingulata appear to be as great as (or greater than) those which have been used to distinguish families among the better-known carnivores, ungulates and rodents, and consequently have been recognized under the family names Tatusiidae, Dasypodidae and Chlamyphoridae. These have been indicated in the "Standard (or Riverside) Natural History."

Hoplophoridae (Huxley), 1864, appears to be retainable, Glyptodontidae not having been given till years after (1879). *Hoplophorus* (Lund, 1838) is not preoccupied, in the opinion of many, by *Hoplophora* (Perty, 1830).

There are other complications in the classification and nomenclature of the edentates which need not be considered at this time.

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SCIENTIFIC BOOKS

Fungous Diseases of Plants. With Chapters on Physiology, Culture Methods and Technique. By BENJAMIN MINGE DUGGAR. Boston, New York, Chicago and London, Ginn & Co. 1909. Price \$2.00.

The appearance of an American book on plant pathology is a matter of great interest to a considerable circle of readers. For the

¹ SCIENCE, June 10, 1910, 913-914.