

arrangement makes of the book a combination text and note book for the instructor. A second advantage, which is of much less significance, lies in the fact that the loose-leaf type of book will open easily and lie flat on the instructor's desk, if a suitable binder is used.

As no commercial binder could be found having capacity for a sufficient number of pages, a home-made one was devised. Three half-round book rings (preferably with a hinge at either end of the flat section and the opening in the middle of the circular section) were soldered along the flat section to one side of a piece of brass (twenty-two gauge) at a distance apart to correspond with the holes in the sheets of the book. The piece of brass was slightly longer than the sheets and slightly wider than the length of the flat section of the rings. A two-piece folding back was made by cutting down ordinary folders of heavy press board designed for holding laboratory reports. In order to hold the folding backs in place a piece of sheet aluminum of the same size as the sheet brass was placed on top of them directly over the piece of brass, and the whole thing fastened together by means of round head, split paper fasteners put through holes made in both the pieces of metal and the press board cover.

Although such unbound copies of books are ordinarily unavailable, it seems probable that publishers would be willing to supply them if there was a demand, and also that suitable loose-leaf binders would be relatively easy to produce. The page proof, having every second page blank for notations, would be

even better than the regular sheets if it was printed on the same grade of paper as the book. Its only disadvantage is the increased thickness.

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### PEDOLOGY OR CHTHONOLOGY?

IN Dr. P. E. Brown's interesting discourse on "The New Soil Science," which appeared in the December 27, 1929, issue of *SCIENCE*, "pedology" is given as a synonym of soil science. Dr. Brown says: "Soil science or pedology, as it is now coming to be called, is not new."

Do Dr. Brown and other soil scientists who use the term "pedology" as a designation for their specialty know that this word has been employed for thirty-three years as the name of the science of the child, or child-study in its broadest sense? The term, which is also spelled paedology or paidology, was probably introduced by O. Chrisman in 1896.<sup>1</sup>

If soil specialists are in need of a name for their science and wish to conform to the criteria of etymologic excellence, why do not they choose the term *chthonology*? The word *chthonography*, a descriptive treatise upon soils, is now in limited use. If they should fear cacoepey in the use of the proposed neonym, they might give thought to adopting the term *humology*, which would no doubt be acceptable to lexicographers.

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## SCIENTIFIC BOOKS

*Icones Farlowianae, Illustrations of the Larger Fungi of Eastern North America.* By WILLIAM GIBSON FARLOW. Farlow Herbarium; 20 Divinity Avenue, Cambridge, Massachusetts. 1929. 103 colored pls. \$40.00.

THE mycologists of the old world have, during the last two centuries, supplied students of agarics, in rather numerous *Icones* and other publications, with an abundance of colored figures of these fascinating plants. With the exception of the *Icones* of Boudier, where the scientific training of the mycologist was to a remarkable degree linked with the talent of a real artist in the same man, no illustrations of mushrooms have appeared which remotely approach the beauty and scientific accuracy of the plates in the volume before us. It is, furthermore, the first extensive collection of colored plates of American agarics to be conceived, executed and published in this country.

As explained in the Introduction by Dr. E. A.

Burt, who edited the work and wrote the accompanying descriptions, all the 103 plates included in this volume were completed as well as printed by 1908. The author employed two successive artists. The larger number of paintings included in the published volume were made by Mr. Joseph Bridgman; later, from 1902 to 1911, the author employed the well-known mycological artist, Mr. L. C. C. Krieger. The eminently successful reproduction of the colored drawings by the Boston Helio-type Printing Company enhances the value of the finished plates in a large measure. For the writing of the text and the final touches in the editing of the work, mycologists have to thank Dr. E. A. Burt, whose loyalty to his departed friend and teacher made of the difficult task a labor of love.

Dr. Farlow, fortunately, wrote the preface himself, an *apologia*, characteristic of the man. "The aim of

<sup>1</sup> See *Am. J. Psychol.*, 12: 268.

the author," he writes, "has been to furnish to those who are not in the possession of large libraries and collections the means of identifying the more striking and characteristic of our larger fungi," and, on the other hand, he hopes that such accurate presentations of endemic American species and of species which also occur in Europe may keep the scientific man from making erroneous identifications of these fungi or confusing their nomenclature.

The author has shown his usual acuteness in the matter of the forms selected. No one genus of agarics is given undue prominence; but that sense of proportion, so often lacking in teachers, by which we pass from the special to the general, from the known to the unknown, is beautifully exemplified in the selections made. Only three examples of the deadly *Amanita* group are included: *A. verna*, *A. solitaria* and *A. porphyria*. A plate of the typical "parasol mushroom" will impress that species on any beginner. Similarly, other plates depict strikingly such plants as *Cantherellus floccosus*, *Agaricus abruptibulbus*, *Cortinarius mucifluus*, *Cortinarius squamulosus*, *Cladopus nidulans* and other such common species.

Twenty-one species of *Boletus* are depicted: *B. sublatus*, *B. elegans*, *B. americanus*, *B. punctipes*, *B. granulatus*, *B. badius*, *B. dichorus*, *B. auriporus*, *B. piperatus*, *B. rubinellus*, *B. Ravenellii*, *B. subtomentosus*, *B. Russulii*, *B. speciosus*, *B. ornatipes*, *B. eximius*, *B. luridus erythropus*, *B. Frostii*, *B. chromapes*, *B. cyanescens* and *B. castaneus*. This list, with the exception of the rare *B. rubinellus* Pk., can be duplicated in the wooded northern portion of the United States and in Canada, as far west at least as the Rocky Mountains, and although the plants from which the illustrations were made were doubtless collected in northern New England, they represent a large proportion of the *Boletus* flora in the country mentioned and the favored possessor of the "Icones" can identify most of his findings with ease. Here, again, Dr. Farlow's experience in the field made him realize that in this group in which descriptions alone leave much to be desired, an illustration is above all essential. The individual species of this genus are very variable in appearance from the effects of weather conditions during their development, and the selection of such typical specimens as here represented is most happy. The autonomy of *B. punctipes* Pk. has been much questioned, but there is no doubt that it is a good species, and although it is oftener paler when fresh than here shown, the figures are quite convincing.

Among the agarics figured, thirty-nine are marked edible. With the exception of *B. luridus*, and possibly *B. rubinellus* and *B. Frostii*, the *Boleti* shown

have nothing against them, although Dr. Burt refrains from marking some of them as to edibility.

A very limited number of species belonging to genera where the plants are small or minute have been included. Thus, there are only five species of *Inocybe* shown, one plate with two species of *Leptonia*, while the genera *Mycena*, *Galera* and *Psathyra* are not represented. In view of the fact that no microscopic characters are shown on these plates, it would have been very unwise to include species of these genera. During the last fifteen years or more, the study of the microscopic details found present and known to be of taxonomic value for the species of these genera has brought about a temporary uncertainty in the taxonomic placement or identity of the older species. The few species that are depicted can be recognized fairly well by external characteristics.

In the genus *Naucoria* there are two old European species, *N. Christinae* and *N. hilaris*, both of which are rare, except in local areas, and both of which have somewhat the aspect of *Hygrophorus conicus*. The fine plate of *N. Christinae* in the "Icones" should help in determining its geographical distribution. In thirty years of collecting the present writer has failed to locate any of this species, but has collected its nearest relative in the Adirondack Mountains. The latter grows on rotten wood.

Five newly named and described species are illustrated: *Inocybe amarescens* Farlow and Burt, *Lepiota brunnea* Farlow and Burt, *Tricholoma oliveum* Farlow and Burt, *Stropharia rugoso-annulata* Farlow and Burt, *Stropharia subcaperata* Farlow and Burt. The last species is, unfortunately, well described in the American literature as *Stropharia depilata* Fr. No hint is given in the text of the "Icones" that this American plant does not correspond to that of Europe.

Among the species of agarics rather rarely seen throughout this country and which are perfectly figured in the "Icones" may be mentioned: *Armillaria robusta* Fr., *Armillaria ponderosa* Pk., *Tricholoma decorosum* Pk., *Crepidotus dorsalis* Pk., *Entoloma cuspidatum* Pk. and *Gomphideus viscidus* var. *testaceus* Fr. Finally, near the end of the volume, several examples of *Gasteromycetes*, *Polypori* and *Ascomycetes* are to be found.

The intrinsic value of the book is to be found in the fine judgment displayed in the selection of material, in the infinite care taken in planning the details and in the ability to employ, without taking count of the cost, men who could put on paper that which nature had wrought and retain its purity of beauty and at the same time its scientific meaning.

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