

THE SEVENTH CENTURY OF THE RELIQUIAE
FARLOWIANAE

DISTRIBUTED BY THE FARLOW HERBARIUM OF
HARVARD UNIVERSITY

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With plate 109

THE SEVENTH CENTURY of the Reliquiae Farlowianae is being issued as a memorial to the late Professor Roland Thaxter and as a token of appreciation for the many valuable services that he rendered the Farlow Herbarium during his career as a mycologist. Since, during the latter days of his life, Professor Thaxter explicitly stated that it was his wish that the specimens be utilized for the continuation of the Reliquiae Farlowianae, and also that he did not wish another set to be issued under his name, the seventh century becomes a memorial not only to Professor Thaxter but also a tribute to his devotion and loyalty to his former teacher, Professor W. G. Farlow.

Because of the nature of the seventh century, it is composed almost exclusively of specimens collected by Professor Thaxter himself, and therefore it includes types of many of the species which he found opportunity to publish in the earlier days of his career. Since such is the case, many mycologists who have been under the impression that Professor Thaxter's interests were solely confined to the Laboulbeniales, may be surprised to learn how broad his interests really were. To those who were more intimately acquainted with him, and who must often have been impressed by his accurate and detailed knowledge of widely separated groups of fungi, it is hoped that this century of the Reliquiae Farlowianae may recall pleasant associations.

Many of the specimens of this set have been determined by specialists but a large number were named by Professor Thaxter himself, and since the names assigned by him represented his ideas, they have been retained. Undoubtedly, had time permitted, he would have changed many of the names to conform with the nomenclature of more recent monographic treatments. Accordingly, in a few instances the preferable name, as accepted in the Bibliographic Index of the Farlow Herbarium, has been added below that assigned by Professor Thaxter. The same remarks also apply to a few of the Uredinales which were determined by Professor J. C. Arthur. The lichens have been treated in a similar manner and the names accepted by Zahlbruckner have

been added in order that the nomenclature conform to that in the Catalogus Lichenum Universalis.¹

As was true of the previous six centuries, this one will shortly be sent out to various botanical institutions in this country and abroad. Because of the fact that only thirty-six sets are available for distribution, preference will be given to those institutions which already possess the first six centuries, and especially to those which have sent specimens in exchange for the sets already issued. Should any institution that has already received the earlier centuries of the Reliquiae Farlowianae not receive this continuation within a reasonable length of time, the writer, upon notification, will be only too glad to rectify any oversight.

In connection with the issuing of this century, it is necessary to describe one new species, as represented by no. 629, namely *Phyllachora Buddleiae* Arnaud and an associated conidial phase. This specimen was sent to Professor Arnaud for determination and he returned it with the above name and a description, but stated that he did not intend to follow the matter further. Accordingly the description follows:

***Phyllachora Buddleiae* Arnaud, sp. nov.**

Plate 109

Fructificationes numerosae, minutae, atrae, orbiculatae et leniter rotundato-elevatae, 200-350 μ diam., maculis orbicularibus, discoloribus, 0.3-2 cm. diam. superne insidentes; clypeo atro amphigeno vel raro tantummodo epigeno, 72-285 μ diam., 10-72 μ crassitudine, clypeo supero ostiolato; loculis solitariis subglobosis vel applanatis, 243-360 \times 126-255 μ , parietibus tenuibus, hyalinis vel subhyalinis; ascis late clavatis, 72-100 \times 19.5-31 μ , octosporis; sporidiis irregulariter distichis, oblongis, utrinque obtusis, continuis levibus hyalinisque, 19.5-25.5 \times (12.5)-14.5-16.5 μ ; paraphysibus hyalinis, filiformibus, tenuibus, flexuosisque, simplicibus vel interdum parce ramosis, 72-90 \times 2.5-3.5 μ .

Fructifications numerous, appearing as black rounded and somewhat elevated dots, 200-350 μ in diameter, formed on the upper surface of the leaf in the irregularly circular, discolored areas which are 0.3-2 cm. in diameter. The clypeus is black, amphigenous or occasionally only epigenous, irregularly developed and variable in size, 72-285 μ in diameter, 10-72 μ thick, the dorsal clypeus ostiolate. The locules, formed in the mesophyll of the leaf, are sub-

¹Zahlbruckner, A. Catalogus Lichenum Universalis. vol. 1-9: 1922-33. Borntraeger, Leipzig.

globose to depressed globose, rarely more than one in a stroma, 243-360 μ in diameter, 126-255 μ high, with slender hyaline or subhyaline walls. The asci are broadly clavate, 72-100 \times 19.5-31 μ , 8-spored. The ascospores are irregularly distichous, hyaline, smooth, broadly ellipsoid, both ends bluntly rounded, 19.5-25.5 \times (12.5)-14.5-16.5 μ . Paraphyses hyaline, 72-90 \times 2.5-3.5 μ , straight or flexuous, simple or occasionally branched below.

On *Buddleia Humboldtiana* Roem. & Schult., Valley of Mexico, Mexico, Oct. 3, 1895, *Pringle*.

Accompanying *Phyllachora Buddleiae* and within the same discolored area, the conidial stage is frequently found. To this the writer gives the name *Phleospora Buddleiae* in the belief that, wherever possible, the conidial stages should also be recorded in order that at some future date they may serve as definite characters for the natural arrangement of the ascigerous phase.

Phleospora Buddleiae Linder, sp. nov.

Acervulis (pycnidiis?) socio *Phyllachora Buddleiae* Arn., solitariis, paucis, epigenis, subepidermicis, 228-342 \times 110-135 μ , pariete superne tantum e contextu mutatis matricis formato; hypostromate tenui, hyalino vel subhyalino; conidiophoris paliformibus parallelis, 7-8 \times 1.8-3 μ simplicibus vel breve-ramosis, 1-3-septatis, cellula terminali in denticulum cylindricum rotundato-fastigata; conidiis 9-11 \times 0.5-1 μ , hyalinis, cylindricis vel leniter fastigatis, 1-septatis, cellulis duabus ad septum facile separantibus.

Acervuli or pseudo-pycnidia in the dead areas in association with *Phyllochora Buddleiae* Arn., few, solitary, epigenous, subepidermal but later erumpent; the upper part of the pseudo-pycnidium is composed of discolored host cells which form the clypeus; the thin hypostroma is hyaline or subhyaline. The conidiophores are closely arranged in a palisade-like layer and are simple or short-branched, 7-8 \times 1.8-3 μ , 1-3-septate, the terminal cell tapering to an elongate sporogenous tooth. The conidia are hyaline, cylindric or tapering, 9-11 \times 0.5-1 μ , 1-septate, the cells readily breaking apart at the septum.

The specimen of *Gymnosporangium Ellisii* (Berk.) Farlow I (no. 675) is of interest in that it demonstrates that Professor Thaxter, to the very end of his career, maintained his interest in the genus of rusts to which this species belongs. The specimens issued under no. 675 are the results of inoculation experiments made by Professor Thaxter

at his summer home at Kittery Point, Maine, with teleutospores obtained by him from Portsmouth, New Hampshire.

A word should also be said in explanation of the inclusion of the common *Lycoperdon piriforme* Schaeff. Although the specimen was determined by the late C. G. Lloyd, Dr. Thaxter made a notation to the effect that it seemed to be *L. coloratum*. Which determination is correct, or whether *L. coloratum* is a valid species, the writer does not feel qualified to state. It is hoped, however, that by calling attention to this point, some student of the group will be enticed to solve the problem.

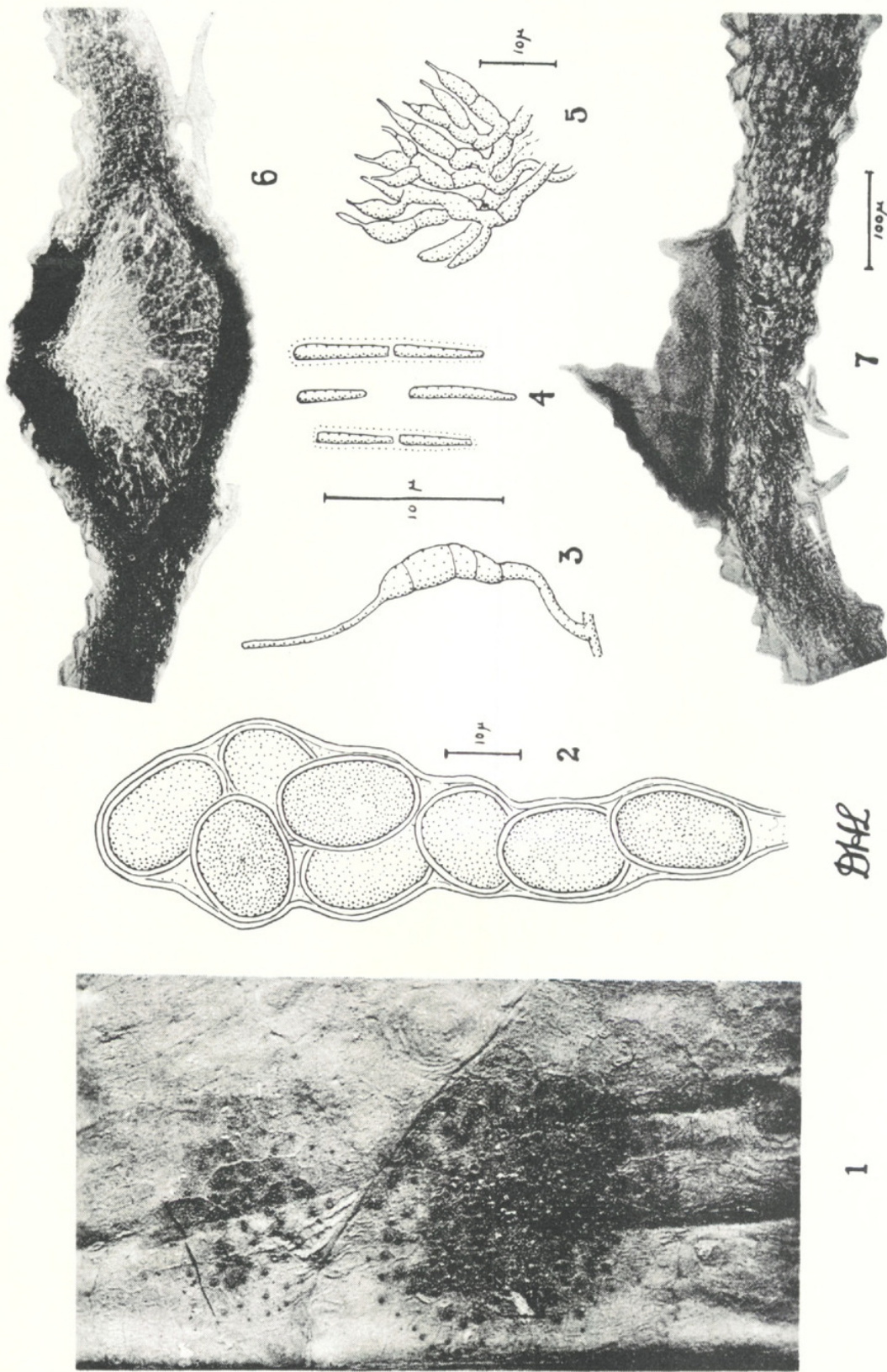
The task of sorting, preparing, and labeling the specimens of this century of the Reliquiae Farlowianae has been carried out by Mrs. L. W. Riddle, while the checking of names and authorities has been done by Dr. Grant D. Darker. To both of these members of the Farlow Herbarium staff, the Herbarium is greatly indebted.

PLATE 109

All drawings are made with the aid of the camera lucida at the approximate magnifications indicated below.

- Fig. 1. Photograph to show a typical diseased area with the numerous more or less concentrically arranged fruiting bodies.
- Fig. 2. Ascus to show partially distichous arrangement of the 8 broadly ellipsoid ascospores. $\times 1000$.
- Fig. 3. A single conidiophore with a slender elongation on which is borne a conidium. $\times 2230$.
- Fig. 4. Conidia showing the broad central septum at which the two cells break apart. Two of the conidia are unbroken. $\times 2230$.
- Fig. 5. A group of conidiophores from the closely packed palisade-like sporogenous layer. $\times 1000$.
- Fig. 6. Section through a fruiting body imbedded in leaf tissue, to show the upper and lower clypeus, the ostiole, the arrangement of the asci, and the numerous filiform paraphyses. $\times 130$.
- Fig. 7. Section through an "acervulus" to show the ruptured "clypeus" which consists for the most part of discolored epidermal tissue. $\times 130$.

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PHYLLACHORA BUDDLEIAE ARNAUD



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