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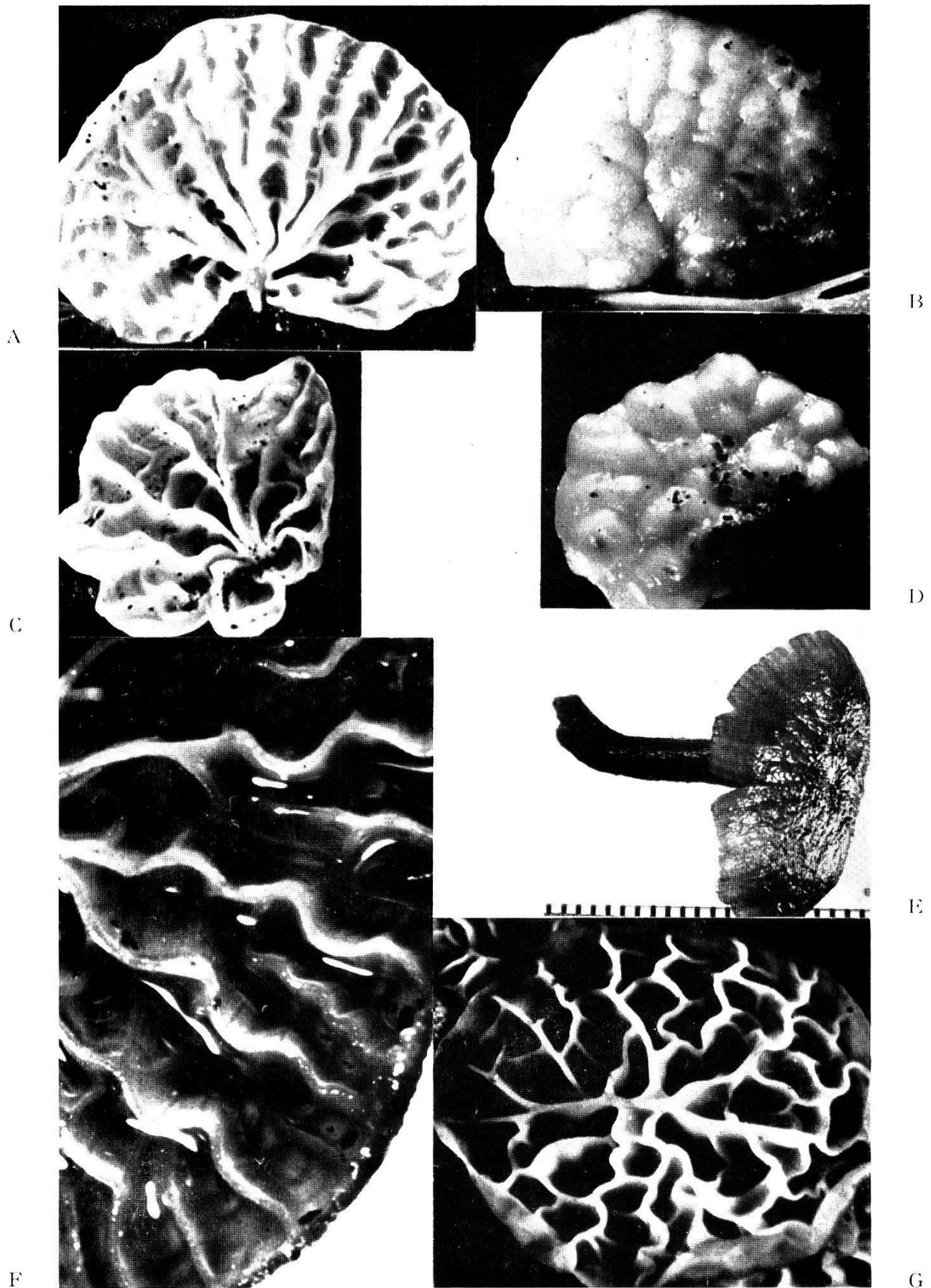


Plate 1. Carpophores of 'poroid agarics' showing: A and C: Hymenial surface of *C. cucullata*, B and D: Abhymenial surface of *C. cucullata*, E and F: *Dictyoploca duplicata*, G: *Campanella pendulosus*.

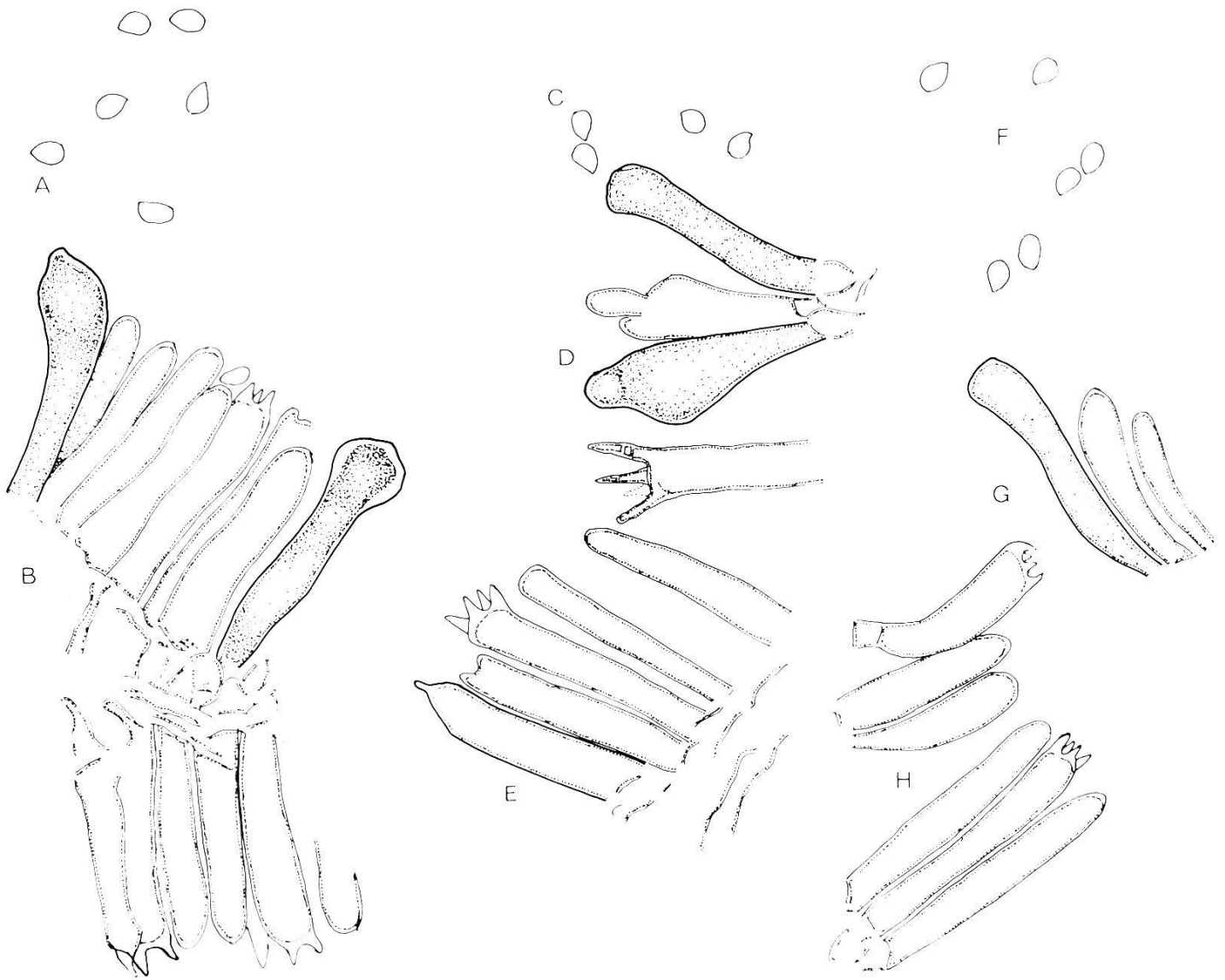


Plate 2. Microscopic structures of 'poroid agarics' showing: A and B: Basidiospores, basidia and cystidia of *Campanella cucullata*, C, D and E: Spores, cystidia and basidia of *Dictyoploca duplicata*. F, G and H: Spores, cystidia and basidia of *Campanella pendulosus*.

Poroid agarics (sensu HEIM: 1945) which are mainly tropical, represent special problems since too few samples have been collected to enable more scholars to study and get to know the group. OTIENO (1964, 1968) has endeavoured to put together as much information as possible about the genus *Favolaschia* in a world-wide context by bringing together all that was previously known about the genus and by reporting several new species from eastern Africa.

The genus *Campanella* poses special difficulties in that very few specimens have been collected to date; and works by LLOYD (1919), SINGER (1945, 1950) and HEIM (1945) are all the records we can go by with respect to this very interesting genus. It is therefore not yet possible to attempt to produce a comprehensive report on *Campanella* as we have done for *Favolaschia*.

One new species of *Campanella* is reported in this paper from East Africa including *Campanella cucullata* which is a new record for our area. The distribution of the genus in Samoa, Java, East Africa, West Africa, Cuba,

Guadeloupe and Argentina would confirm the view that it is pantropical and that, with further field work, present gaps in its distribution might be closed. Within eastern Africa, we postulate that its range would be wider than our present records show if painstaking and systematic collecting was carried out in localities with similar ecological conditions as the Aberdare range.

Hymenial configuration in *Campanella pendulosus* and *Campanella cucullata* represents a point of evolutionary and phylogenetic interest among the higher fungi. Hymenomyces were originally classified according to the nature of the hymenial configuration e.g. whether lamellate (Agaricaceae), toothed (Hydnaceae), poroid (Polyporaceae), smooth (Thelephoraceae), etc. In *Campanella cucullata*, we have a species which would be grouped together with *Agarics*, especially with some members of the *Tricholomataceae*, on the basis of hymenial configuration. In *Campanella pendulosus*, on the other hand, we have an intermediate stage of hymenial configuration which tends towards the *polyporoid* structure.

OTIENO (1968) has further shown that in another genus of poroid agarics — *Favolaschia* — there is a continuum in hymenial configuration from poroid, through pseudolamellate to lamellate condition ending with *Agarics* on the one hand; and from the poroid nature through gradual decrease in gelatinisation with corresponding hardening of the carpophore accompanied by delimitation of discrete tubes ending in *Polyporaceae* on the other. This raises the point that the original basis of the classification of Hymenomyces based on hymenial configuration has serious limitations not only among the Hymenomyces as a whole, but also among single genera of the Hymenomyces, and especially among the 'Poroid Agarics'.

It would appear, therefore, that 'Poroid Agarics' occupy a pivotal position in the evolution and phylogeny of the Hymenomyces. In this position, the two species of *Campanella* and the one species of *Dictyoploca* reported from East Africa would be placed.

If more of these interesting fungi could be found and further work done on them, we have reason to believe that phylogeny amongst the higher fungi and, subsequently, their classification, would become more clearly understood than at present.

Colour descriptions in this paper are based on Color Nomenclature and Standards, Ridway 1912.

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