frequency (table 2) respectively in the same regenerating medium compared to the control which differentiated with 40–45% frequency. We cannot, however, tell from our results whether selected cells are the result of a true selection of variant cells within the normal population or the result of adaptation of cells to the PEG imposed water stress. The changes in growth rates on PEG containing medium observed between selected and non-selected cells indicate that physiological characteristics of the cells change once exposed to PEG, suggesting the occurrence of an adaption process. Nabors *et al*[3] found that tobacco cells selected for resistance to sodium chloride gradually increased their growth rate on medium containing sodium chloride. Regenerated plants which are adapted to sodium chloride and PEG have been transferred to the pots and their performance is being studied now.

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A NEW MEDIUM FOR MOUNTING MELIOLACEOUS FUNGI

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MELIOLACEOUS fungi are commonly known as 'Black Mildews' and are often erroneously called 'sooty moulds'[1]. These are epiphyllous fungi possessing superficial, deep brown to dark mycelia, globose perithecia and straight to flexuous mycelial or perithecial setae.

Hansford[2], in his monograph, used characters like the nature of the colony, arrangement of the hyphopodia, setae, etc to distinguish the genera and species of meliolales. To study such characters in their natural condition, various mounting media like necol[3] collodion-acetone drops[2] and quick-fix[4] have been suggested by different mycologists. The present authors found another equally good mountant for Meliolales, Microthyriales, Dematiaceous Hyphomycetes and other epiphyllous dematiaceous fungi, the details of which are discussed here.

Clean and bright-white thermocol (a material used for packing fragile or delicate articles) was cut into small slices (2–3 mm in diameter) and 2.5 g of these slices were added to 10 ml of isobutyl methyl ketone. The thermocol readily dissolved producing vigorous effervescence The solution was stirred and kept open for a while to eliminate air bubbles. The transparent solution was stored in an airtight bottle.

A thin layer of this solution was applied on selected fungus colonies and was allowed to dry up for about 20–30 min. A thin hyaline 'flip' was then formed with the colonies firmly embedded in it. These flips were removed with a razor. A drop of D.P.X. was put on a clean slide and the flip spread on it. A little of D P.X was again added on the flip and a clean cover-glass was placed over it. A gentle pressure on the cover-glass brought out the excess D P.X. which can be removed after drying.

This solution can be used for taking stomatal impressions of the leaves even without detaching the leaves from the plants.

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TORAL GLANDULAR HAIRS OF *CASSIA AURICULATA* L.

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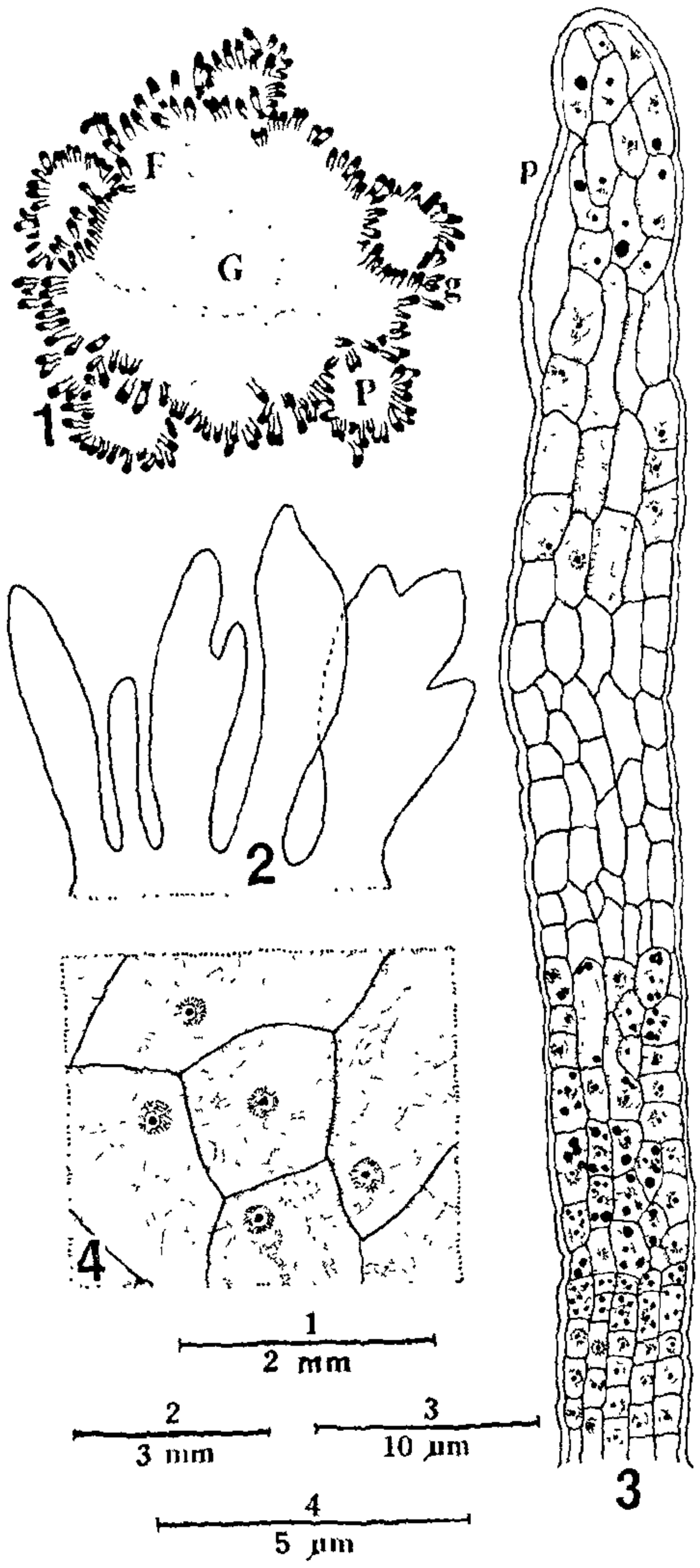
FLOWERS of *Cassia* are regarded as devoid of nectar secreting hairs. Floral biology and enantiostyly in several species of *Cassia* has been described[1]. In a survey of nine locally available *Cassia* species, *C. auriculata* L., *C. tora* L., *C. spectabilis* DC., and *C. fistula* L., showed conspicuous toral glandular hairs. The mature structure and chemical composition of the toral glandular hairs of *C. auriculata* have been studied.

The torus of *C. auriculata* is richly provided with orange, yellow or brown, linear or spathulate, simple or variously lobed (figure 2), fleshy glandular, multicellular hairs around the fleshy base of the petals and filaments (see figure 1). On an average the total number of glandular hairs is 98 per flower out of which 55 are small and brown, while the rest are long and yellow. The average size of the glandular hairs is 435.0 × 90.0 μm. In *C. tora*, *C. spectabilis*, and *C. fistula* these are few, small and whitish to translucent but in *C. auriculata* they are yellow, orange to dark brown with cellular contents. The upper half of most of the glandular hairs in *C. auriculata* is orange brown, while the lower half is yellowish. In some, the hairs can be divided into three distinct regions i.e. lower colourless region, with square to rectangular small cells arranged in parallel rows, the middle yellow region with rectangular to polygonal cells arranged irregularly and the upper orange to brown blunt tip region with irregularly arranged cells (figure 3).

Apart from the cellular contents, the cells in the lower half of the glands contain irregularly distributed oil bodies (see figure 3). The glandular hairs possess a conspicuous cuticular cap near the tip, which on maturity releases the contents by the rupture of the cuticle (see figure 3). The cells of some of the glandular hairs may be smooth surfaced or striated forming a net work all over (figure 4). The glandular hairs are devoid of vascular tissue.



Figures 1–4. 1. Camera lucida drawing showing the toral glandular hairs around the bases of the petals and filaments. 2. Part of the same enlarged. 3. Single glandular hair enlarged showing differentiation of cells and pellicle. 4. Cell surface showing striations. Key: F = Filament; G = Gynoecium; P = petal; g = glandular hair (toral); p = pellicle.