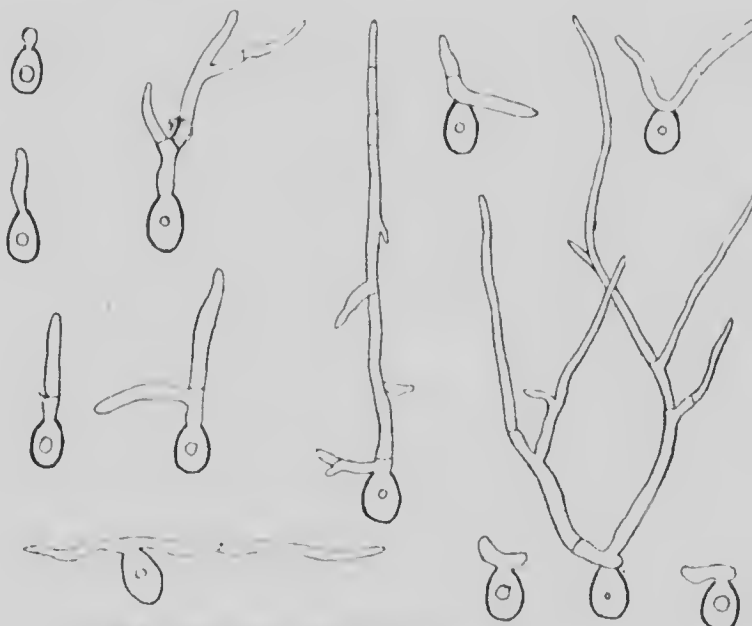


forth their germ tubes (Text Fig. 1). A definite polarity is exhibited, the tube always issuing from the "truncated" apical end of the spore; the wall appears to be lighter in color and apparently thinner, and it almost equals in diameter. In the earlier stages, in general, two habits observable. In the one the hypha grows out in the direction of the long axis of the spore for some distance; branching soon commences though it may be delayed till the leading hypha is some 15 times the length of the spore. In the other type, the hypha at once assumes a direction at right angles to the long axis of the spore; branching begins earlier and results on the average in a more symmetrical system. Gradually these types are not much mixed in the same culture, as a



Text Fig. 1. *Phaeotrichum varians*. Stage of growth. Object plant 72 hours.

appearing in separate cultures. Practically all the germination obtained in a given month is in evidence in 48 hours, though a few delayed ones are encountered; and since growth proceeds at a fairly uniform rate any particular hanging drop presents a rather definite picture at any given stage. The spore features and the germinating hyphal system are so characteristic that one readily notices any fore spore or its product.