over and they are ready to provide for the next generation, they issue into the light and form sporangia of many and often beautiful shapes in positions favorable for scattering their spores.

One of these interesting organisms is *Physarum cinereum* Persoon. McBride describes it as common in New England and west to the Black Hills and the Pacific Coast. I have not examined the literature in detail, but I feel sure its occurrence in the southern United States can not have been overlooked. I have seen it often in North Carolina. Twice have I found it in its marvelous habit of "fairy ring" formation—once some four years ago on my lawn in Wake Forest, N. C., and again there this morning. The man mowing the lawn early to-day reported a lot of "sut or something" on the grass; he "reckoned some dog with it on his back had been wallowing in the yard." From the porch I at once recognized the "fairy ring" of Physarum. There were three complete rings. One was eleven feet in diameter, the other two six feet. The one seen previously was fifteen feet in diameter. Beside these three, there were fragments of several others here and there. These observations not only extend McBride's range of this species, but also quite enormously the size of its rings. He makes it "a few inches."

The discoloration of the grass in a circular band about four inches wide is, of course, due to the plasmodium at maturity creeping up and covering the grass blades with their dark sporangia. These little masses of spores become ashy gray as they mature. The formation of the ring may be explained in this way. The small plasmodium forms and begins its growth at the center of the future ring. Approximately circular itself, it creeps outward in search of food in the soil and the disc becomes a band which extends as it grows. This continues until the organism is grown, the size of the ring being in proportion to the favorableness of the conditions. Then it extends no more, the naked protoplasm creeps out of the nourishing soil and ascends the grass blades for the making and dissemination of its spores.

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AGE OF THE URANINITE FROM THE RUGGLES MINE, GRAFTON CENTER, N. H.

DURING the summer and early autumn of 1936, I collected a large number of uraninite specimens from the Ruggles mine, which is located one and a half miles north 40° west from Grafton Center (Cardigan quadrangle), N. H. The larger crystals, up to three quarter inch, are usually much altered; however, in places small well-developed crystals, which appeared to be quite fresh, occurred in association with albite, the latter intergrown with apatite. The freshest crystals were broken down in stages and hand sorted under a binocular until all visible foreign material was removed. From this 82 milligrams, having a specific gravity of 7.02, were sent to Frederick Hecht, of Vienna, for a microchemical analysis. His determination revealed a very pure uraninite having 3.37 per cent. lead; 0.38 per cent. thorium; 76.38 per cent. uranium with 0.04 per cent. sulfur. If we assume the sulfur to be combined with ordinary lead and, therefore, deduct a corresponding amount from the lead determined, the analysis would give, by Kovarik's constants and the logarithmic formula, simplified as in the report of the Committee of the Estimation of Geologic Age of April 27, 1935, page 2, and the latest values furnished by A. Kovarik for the disintegration of uranium and thorium, an age of 302 millions of years, which seems to be Devonian.[1]

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THE DESIGNATION OF CLONAL GENERATIONS

THE use of the word clone, suggested by Webber (SCIENCE, 18: 501–503, 1903), has come to be generally used to designate horticultural varieties propagated asexually by budding or grafting. Varying bud strains become new clones and if valuable are given varietal names. Several have already been awarded United States patent numbers.

In the study of clonal varieties and strains in clonal selection, it is frequently desirable to use some method to designate the number of selections in lineal sequence made in certain bud progeny lines. For this purpose, the writer has in his notes made use of the symbols C_1, C_2, etc., to designate the clonal generations, as F_1, F_2, etc., are used in genetical studies to designate the filial generations. This use is illustrated in the genealogical records of individual citrus trees in the variety studies of the Citrus Experiment Station, of which the following is a sample:

P (*Corona Lemon Co., 1–27–11 on Sweet Orange roots, 1893*)
↓
C_1 (*Citrus Exp. Sta. ABC–22–15 on Sour Orange roots, 1918*)
↓
C_2 (*Citrus Exp. Sta. 3B–10–6 on Bessie Sweet Or. roots, 1927*)
↓
C_3 (*Citrus Exp. Sta. S1–B1–1 to 11 incl. on Rough Lemon roots, 1937*)

Some uniform method of designating clonal generations should be used, and the writer suggests the consideration of the method here described.

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[1] Private communication from Dr. A. C. Lane.