Momordicae on *M. cordifolia* in Natal; (6) *Aecidium Momordicae* on *Momordica* in Brazil.

The *Puccinia* upon *Melothria pendula* is different in shape, color, and size of spores from *P. Cucumeris* and from *P. Momordicae*, and seems clearly to be an undescribed species. The germination of the teleuto-spores occurs freely in the older sori, placing the rust among the *Leptopuccinia*. The following description is proposed.

***Puccinia Melothriae*, n. sp. — III.** Teleutosori: hypophyllous, crowded in irregular concentric circles, pustular, soon naked, pulverulent, cinnamon-colored (no. 32 Sacc.), cinereous on germination, ruptured epidermis inconspicuous; spots pale, indefinite. Teleutospores: hyaline to straw-colored (no. 26 Sacc.), $40-52 \times 10-16 \mu$; slightly or not at all thickened at apex, often not constricted at septum, wall about 2μ thick, smooth. Terminal cell usually round, rarely oblong, $10-16 \times 12-20 \mu$. Basal cell wedge-shaped, $10-15 \times 20-30 \mu$. Pedicel $20-45 \mu$ long, hyaline. Germination immediate; that of the terminal cell by an apical promycelium, that of the basal cell by a lateral promycelium.

Puccinia Melothriae, n. sp.

On *Melothria pendula* L., West Raleigh, N. C., 9-15-06, F. L. Stevens and J. G. Hall, type no. 471.—F. L. STEVENS, West Raleigh, N. C.

AN INSTANCE OF MUTATION

Euphorbia marginata Pursh, commonly called in Colorado “snow-on-the-mountain,” is easily recognized by its white-margined upper leaves or bracts, and the five white appendages of the floral glands. In the splitting up of the old genus *Euphorbia*, it has been referred to a genus *Dichrophyllum* Kl. & Garcke, and distinguished from *Tithymalus* Adans by the characters just mentioned. In *Tithymalus* there are but four glands, with rudiments of the fifth. All authors seem to agree that *E. marginata* has five glands; “three” in BRITTON and BROWN, *Ill. Flora* 2:376, is a mere misprint, as the figure shows. Having recently had occasion to examine *E. marginata* at Boulder, Colorado, I have been astonished to find that *four* glands is normal in this locality, and a plant with *five* glands

has not been seen. One large plant deviated still more, showing mostly *three* glands, and the white margins of the leaves very narrow. I wrote to Professor AVEN NELSON about this, and he replies "all Colorado specimens do not show the reduction in number which you mention, and some of the specimens are quite devoid of white on the margins of many of the leaves." We seem to have a clear case in which a new race has been formed by mutation, or more precisely the *meristic variation* of BATESON. Incidentally it seems fairly evident that the genus *Dichrophyllum* cannot be maintained; so we have:

Tithymalus marginatus (*Euphorbia marginata* Pursh, 1814);

T. marginatus tetramerus, var. nov., the Boulder race with four glands.—
T. D. A. COCKERELL, *University of Colorado, Boulder*.