distich. var. *nudum* L. wurde bei einer Form geringe Empfänglichkeit gegen *Puccinia simplex* Eriks. beobachtet und es wurde dann auch ermittelt, daß die Form auch morphologisch durch schwächere Entwicklung der seitlichen Ährchen gekennzeichnet ist und zu *H. d.* var. *nudideficiens* Kcke. zu rechnen ist. In einer Fußnote wird erwähnt, daß Weizen und Gerste bei geschlossenen Spelzen abblühen, das stimmt bei Weizen nur bei seltenen Ausnahmen und bei Gerste, so allgemein hingestellt, nur für zweizeilige aufrechte und sechszeilige. C. Fruwirth.

Gard, Méd. Sur un hybride des *Fucus ceranoides* L. et *F. vesiculosus* L. Comptes rendus, T. 160, 1915, p. 323.

En 1910 l'auteur a décrit d'hybrides de *Fucus ceranoides* et de *F. platycarpus* observés à Mamizan et à Cap-Breton (Landes). Dans cette note est signalé l'existence d'hybrides de *F. ceranoides* et *F. vesiculosus*, dans cette dernière et dans d'autres stations encore. Les hybrides offraient des caractères intermédiaires et étaient évidemment unisexués, tandis que le *F. ceranoides* était unisexué dans quelques stations, hermaphrodite et unisexué dans une autre. Tine Tammes, Groningen.

Gregory, R. P. On variegation in *Primula sinensis*. Journ. of Genetics, Vol. IV, 1914/15, p. 305, with two plates.

In the F_2 from a cross between two normal green races of *Primula sinensis* appeared among 160 plants one of which showed variegated leaves. This plant selfed gave an offspring consisting of green, variegated and yellow plants. The yellow-leaved plants differed from the normal green type in having smaller chloroplasts, which were of a pale yellowish green colour. Notwithstanding the lack of normal chloroplasts it was possible to raise a few plants of this pale-coloured type to maturity. The coloured parts of the variegated plants consisted of a patchwork of cells of two kinds, containing respectively bright green and pale-coloured chloroplasts. Near the boundary between patches of normal and chlorotic tissue and in very young leaves however were found cells, which contained side by side the two kinds of chloroplasts. This observation is of importance for the knowledge of the functions of cytoplasm and nucleus, because it affords support for the view, that the abnormality in the chlorotic plastids is localized in the chloroplasts themselves and is not a function of the cytoplasm as a whole.

The normal green plants gave on offspring containing only normal green individuals, the progeny of the variegated plants consisted again of normal green, yellow and variegated plants, in various proportions however.

The green and the yellow plants may be explained as originating from egg-cells formed in the pure green or pure yellow patches of tissue, which occur in the variegated mother-plant.

The variegated offspring must be supposed to have their origin from egg-cells, which are endowed as their formation with a mixture of plastids of different kinds. As Baur has pointed out, there will occur by the cell-division a gradual sorting out of the different kinds of plastids into different daughter-cells and the adult tissues will be a mosaic of cells.

The extracted yellow-leaved plants were used, both as male and as female parents, in crosses with normal green plants. When the yellow-leaved plant was used as the male parent, both the F_1 and the succeeding generations consisted entirely of normal green plants. When on the other