hand the yellow-leaved plant was the female parent the F_1 was yellow. The F_2 was not yet obtained. Variegated plants were never produced by matings between green and yellow plants.

These observations showed that the characters green and yellow were transmitted from parent to offspring through the egg-cell only.

In connexion with his results the author discusses the observations made by Correns on *Mirabilis Jalapa albomaculata*. In the case of *Primula sinensis* all phenomena are explained by the hypothesis that the character of the yellow colour of the plastids is inherent in the plastid itself and that from the male cell the nucleus alone passes to egg-cell, this later only containing the plastids. Tine Tammes, Groningen.

Bateson, W. and Pellew, Caroline. On the genetics of „rogues" among culinary peas (Pisum sativum). Journ. of Genetics, Vol. V, 1915, p. 13, with 6 plates.

The authors describe in this paper some of the facts they have established by their investigation on the genetic relations of the rogues to the typical varieties of *Pisum sativum*, from which they come. The term „rogue" is applied to all plants found in a crop differing in any way from the standard type of the variety. The researches were made with the varieties Ne Plus Ultra, Early Giant and Duke of Albany. The rogues that were studied, differed in various points from the type; 1. in the foliar parts: the stipules, leaflets and petals being comparatively small and narrow; 2. in the shape of the pods, being curved upwards along the dorsal suture; 3. in some characters of the seeds. The experiences made during several years showed that the rogues are neither introduced by mixture nor by crossing, but that thoroughly typical plants do occasionally throw rogues. Crosses between types and rogues have, with rare exceptions, always given rogues and all the rogues, whether derived from typical plants or by crossing, had offspring exclusively rogues. Besides the rogues having all the characters enumerated above, the offspring of the typical plants, especially of the variety Early Giant, showed intermediate forms of several kinds. Generally these intermediates had the curved pods of the rogues combined with the stipules and leaflets not markedly different from those of the types. Their offspring were mixed families of various compositions.

The described facts being evidently unlike anything of ordinary Mendelian inheritance the authors discuss various hypotheses which might probably explain the phenomena. As the types can throw rogues, but the rogues cannot throw types, it seems clear that the types contain something which the rogues do not contain and the authors are inclined to think that type-elements must be lost in some somatic stage. This can also explain that rogues, which came as the immediate offspring of types were in their juvenile condition type-like, whereas rogues offspring of rogues never passed through such a stage. As the F_1 from type and rogue consisted only of rogues and these rogues were in their young stages almost type-like, the type-elements received by the F_1-plants from the type-parent are probably by some process of somatic segregation prevented from reaching the germ-cells of the cross-bred plants.

The investigations here mentioned are still in progress and the authors will give further details in a later communication.

Tine Tammes, Groningen.