Referate.

- Morgan, T. H.** Factors and unit characters in Mendelian heredity. Amer. Nat. 47 1913. S. 5—16.
- Castle, W. E.** Simplification of Mendelian formulae. Amer. Nat. 47 1913. S. 170—182.
- Morgan, T. H.** Simplicity versus adequacy in Mendelian formulae. Amer. Nat. 47 1913. S. 372—374.
- Emerson, R. A.** Simplified Mendelian formulae. Amer. Nat. 47 1913. S. 307—311.

These papers contain suggestions and criticisms regarding changes in the present system of recording Mendelian formulae. Morgan points out that although genetists have repeatedly repudiated any intention of regarding a unit character as the product of a single unit factor, confusion between the two terms still persists. In Mendel's original work no such trouble existed because Mendel did not meet with a complex case of inheritance. He designated the gametic representatives of segregating characters by capitals and small letters, but his *a* was as much a reality as his *A*. When Bateson found that rose comb and pea comb were both dominant to single comb in fowls, however, the system broke down and caused the elaboration of the presence and absence hypothesis. The letter *p* henceforth meant simply the absence of a germinal unit *P*, and the letter *r* the absence of a germinal unit *R*. The fact that *P* and *R* together brought about the production of the walnut comb was not in the least disturbing.

Morgan finds, however, that even the system of Bateson is confusing when dealing with complexities such as he has found in the eye color of *Drosophila ampelophila*. For example, certain eye colors have been represented as follows:

P V 0	red
p V 0	vermilion
P v 0	pink
p v 0	orange

Now the presence and absence hypothesis, he says, implies that something is lost from the original germplasm **PV0** when the vermilion **pV0** arises. "The vermilion color is supposed to be the product of what is left when this something (called **P**) is lost. It is not supposed on this hypothesis that the vermilion factor alone is responsible for the vermilion color, for it is hypothetically only a part of what is left when something (**P**) is lost. Yet it is the identification of the vermilion factor with the vermilion eye-color that the opponents of Mendelism seem anxious to impute to the Mendelians."