inversion through to the chromocenter, one half of the split being the normal and the other, the inverted half. In such a figure the bands could be carefully followed along the length of the chromosome to the end of the inversion where the matching bands were found in corresponding positions. This figure was also checked by C. B. Bridges. Although the similarity in size and shape of 4D1 and 12A1 make it possible that this interpretation is incorrect, evidence seems to indicate that 4D1 and 12A1 are the outside limits of d1-49.

Karp, M. L. The distribution of mutant genes affecting the number of sternital bristles in chromosome 3 of D. melanogaster. In chromosome 3 of D. melanogaster the presence of at least six mutant genes affecting the number of sternital bristles, independently of the possible effect of the gene markers, has been shown. These genes possess a considerable power of action, approximately 5 to 15 per cent of the manifestation of the character. Being opposite in tendency and alternately located, they are more or less balanced, not only along the whole length of the chromosome, but within its small regions as well. In the chromosome, causing the reduction of 5-6 bristles on 2 sternites of the abdomen, were detected genes which determine conjointly the reduction of 18-21 bristles on the same 2 sternites, and on the other hand there were found genes which together intensify the character by 12-20 bristles. Hence the genic balance of the chromosome examined offers the possibility of a considerable change as to the extent of the manifestation of the character.

Kaufmann, B. P. Drosophila ananassae (D. caribbea) In the autumn of 1933, D. caribbea was collected in the vicinity of Tuscaloosa, Alabama, which is considerably north of the range of distribution of the species as indicated by Sturtevant. Male flies of this stock have a J-shaped Y-chromosome, whereas the stock used by Metz (1916) had a rod-shaped Y. Recently a Nipponese stock, secured through Dr. W. P. Spencer, has been examined. This also has a J-shaped Y. Additional material, especially from America, is desired for further study.

Kerkis, J. Sex-Linked vestigial like mutant in Drosophila simulans On May 28, 1935 a single male was found in a normal mass culture of D. simulans which was like a vestigial of D. melanogaster. This male was crossed with normal simulans v. The F_1 was normal. Flies from F_1 were inbred and in F_2 there were 269 normal ♀♀, 105 normal ♂♂, and 81 vestigial ♂♂. There were no vestigial ♀♀. Males from F_2 were crossed to their sisters and in F_3 homozygous flies were produced from which a stock has been propagated. One of the ♂♂ was mated to a yellow white attached ♀♀ of D. simulans and gave in F_2 308 vestigial