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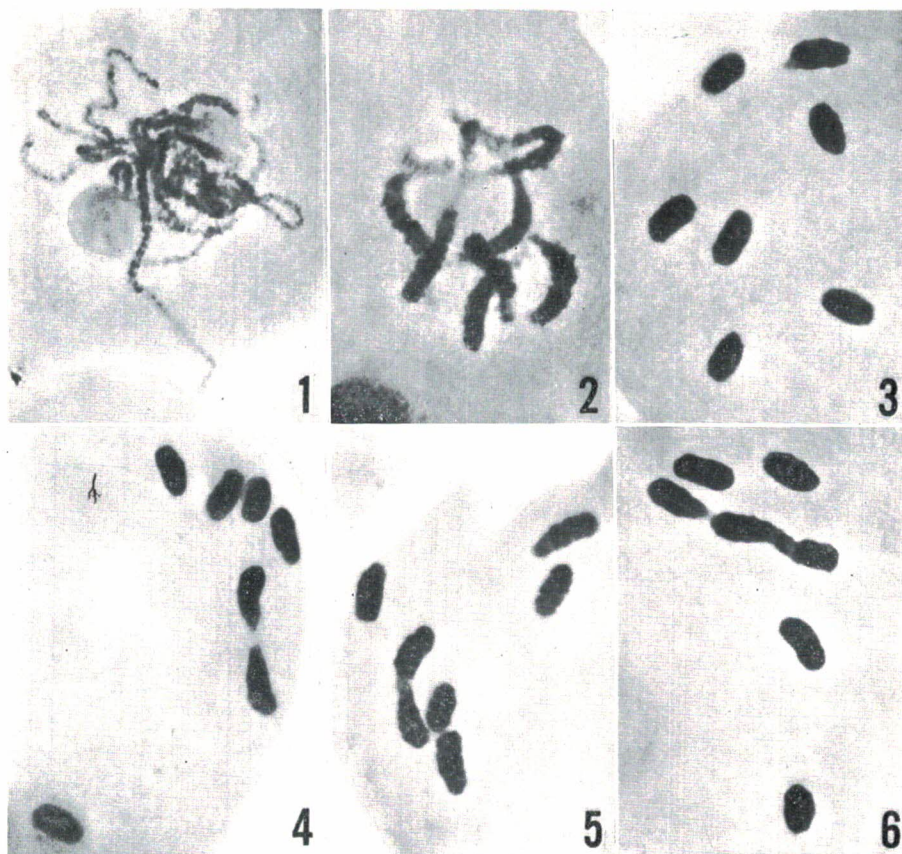
### Haploid plants in barley

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Only a few haploid plants have been reported in barley, *Hordeum*. Most of the haploid were obtained in twin or triplet plants (Tometorp 1939, Suzuki 1959; cf. Smith 1951). Two haploids to be reported here have been obtained in the progeny of simple trisomics in a wild two-rowed variety, *Hordeum spontaneum* C. Koch var. *transcaspicum* Vav. The one haploid was found in an  $F_1$  hybrid population of Purple trisomic for chromosome 6 and the other in the selfed progeny of Pseudonormal trisomic for chromosome 5. The former was completely sterile, but the latter showed to be fertile; fertility was 0.47%.

Double and occasionally triple as well as single structures of chromosomes have been observed at pachytene of meiosis (Fig. 1,  $\times 1200$ ) as in haploid plants of *Antirrhinum majus* (Ernst 1940, Rieger 1957) and rye (Levan 1942). At diplotene and diakinesis most of the



univalent chromosomes connected end-to-end with each other (Fig. 2,  $\times 1200$ ) as previously reported in haploid Einkorn wheats (Katayama 1935, Kihara and Katayama 1933). A preliminary observation of MI configurations showed the following results: Out of a total 374 sporocytes analyzed 322 (86.1%) showed 7 univalents (Fig. 3,  $\times 1200$ ); 49 (13.1%) showed  $1_{ii} + 5_i$  (Figs. 4 and 5,  $\times 1200$ ); each one sporocyte showed the configuration of  $2_{ii} + 3_.$ ,  $1_{iii} + 4_i$  (Fig. 6,  $\times 1200$ ) and  $1_{iii} + 1_{ii} + 2_.$ . Similar MI configurations have been reported in haploid plants of barley (Tometorp 1939), Einkorn wheat (Katayama *lc.*, Kihara and Katayama *lc.*, Smith *lc.*), rye (Levan *lc.*) and others. Various kinds of abnormalities were observed at all stages of meiosis.

*References.* Ernst, H. 1940. Zeits. Bot. 35: 161. Katayama, Y. 1935. Jap. Jour. Bot. 7: 349. Kihara, H. and Katayama, Y. 1933. Agr. Hort. 8: 2775. Levan, A. 1942. Hereditas 28: 177. Rieger, R. 1957. Chromosoma 9: 1. Smith, L. 1951. Bot. Rev. 17: 1, 133, 285. Suzuki, H. 1959. Bull. Brew. Sci. 5: 43. Tometorp, G. 1939. Hereditas 25: 241.

