

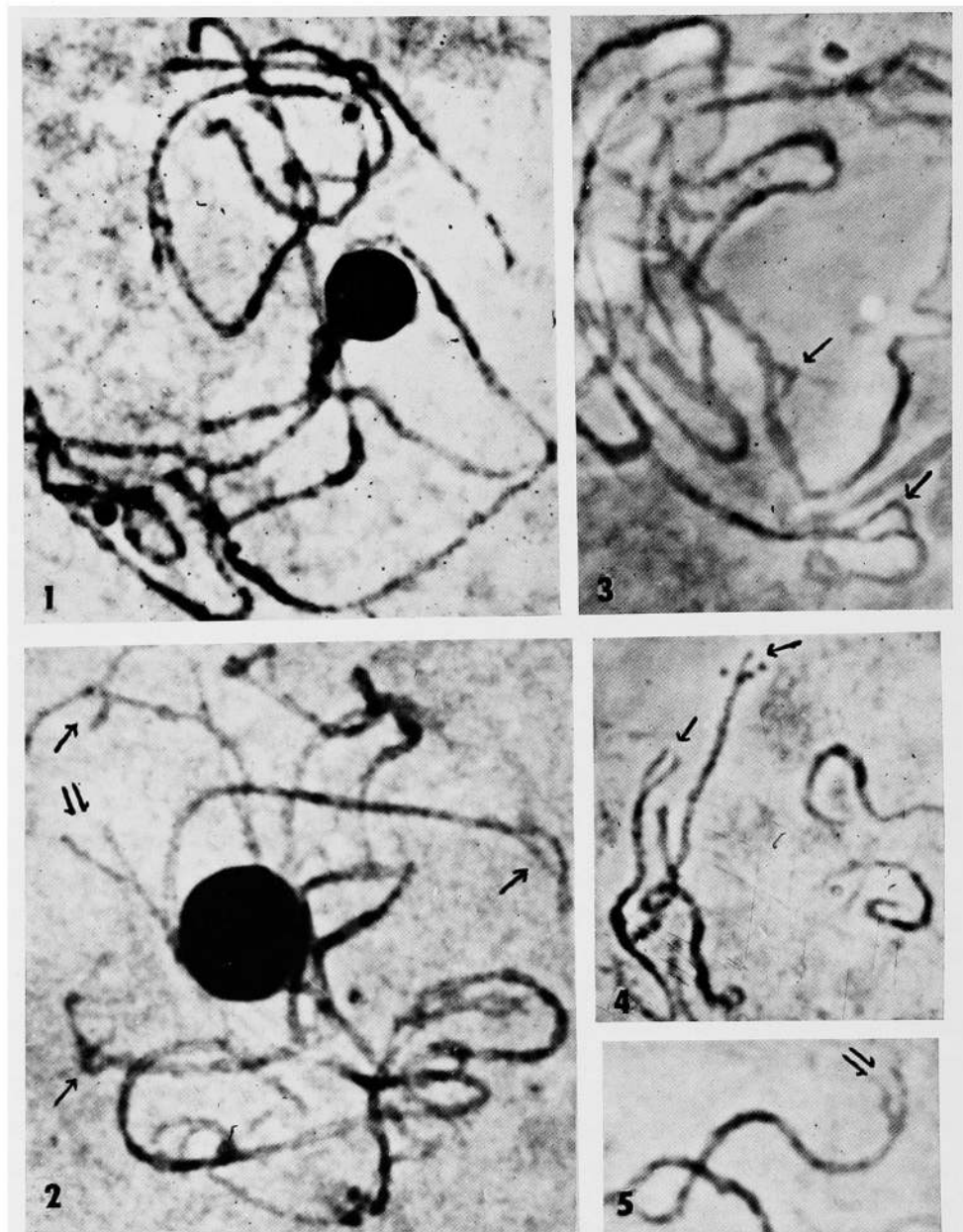






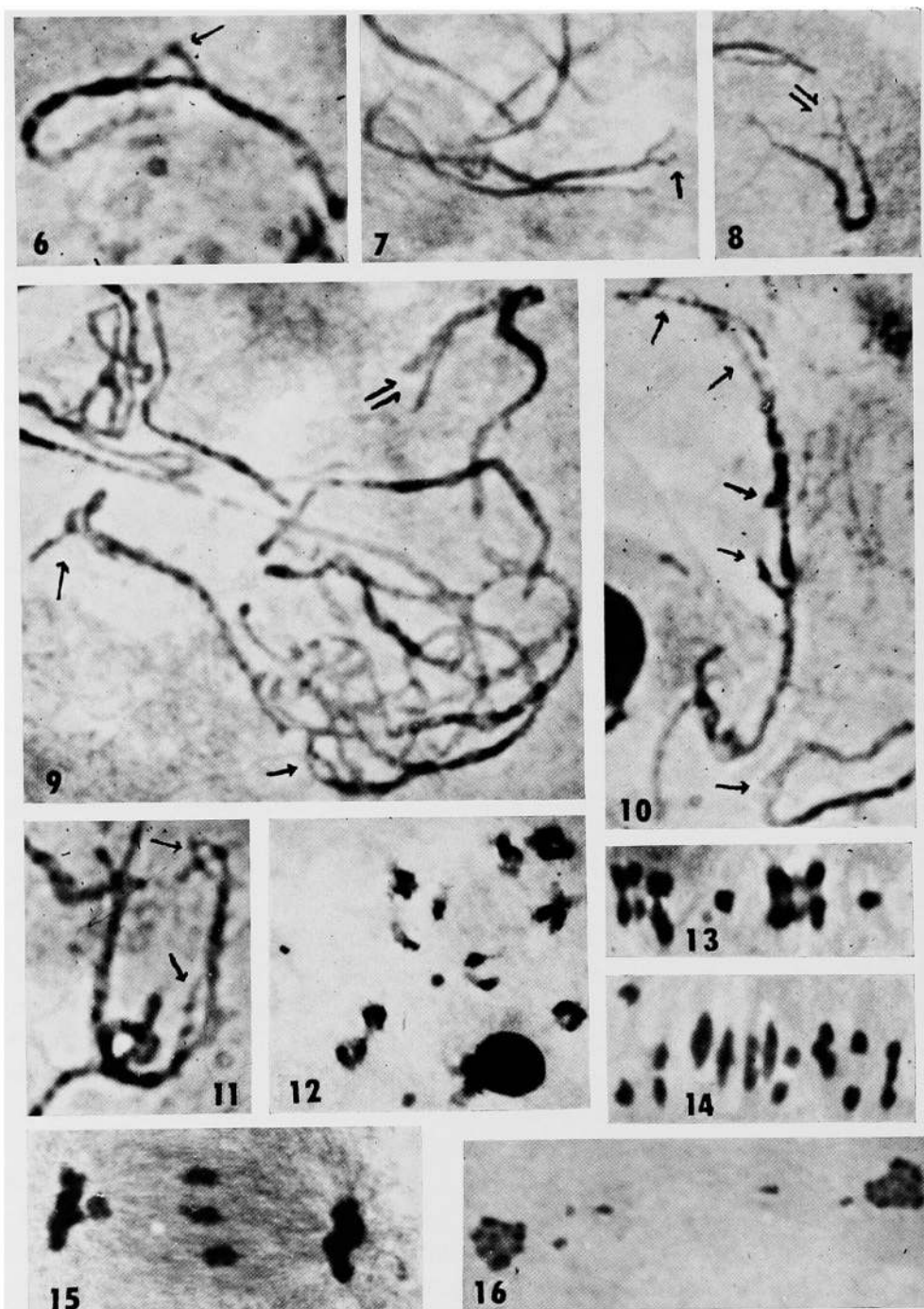


*S. subglabrescens* with the mean chiasma frequency of 15.25/cell at MI showed a significant reduction as compared only to the value observed in



Figs. 1-5. 1, *S. nervosum* × *S. ankolib*. Mid-pachytene stage showing normal synapsis of chromosomes. ×1,875. 2, *S. basutorum* × *S. arundinaceum*. Pachytene stage showing non-pairing (↑), loose pairing regions in several bivalents and terminal deletion in one bivalent (⇓). ×2,125. 3, *S. arundinaceum* × *S. caudatum*. Pachytene chromosomes showing non-pairing, loose pairing regions and a loop like structure in one bivalent. ×1875. 4, *S. verticilliflorum* × *S. vulgare*. Pachytene bivalents showing terminal non-pairing regions (↑). ×1,688. 5, *S. verticilliflorum* × *S. vulgare*. Pachytene bivalent showing terminal deletion (⇓). ×1,688.



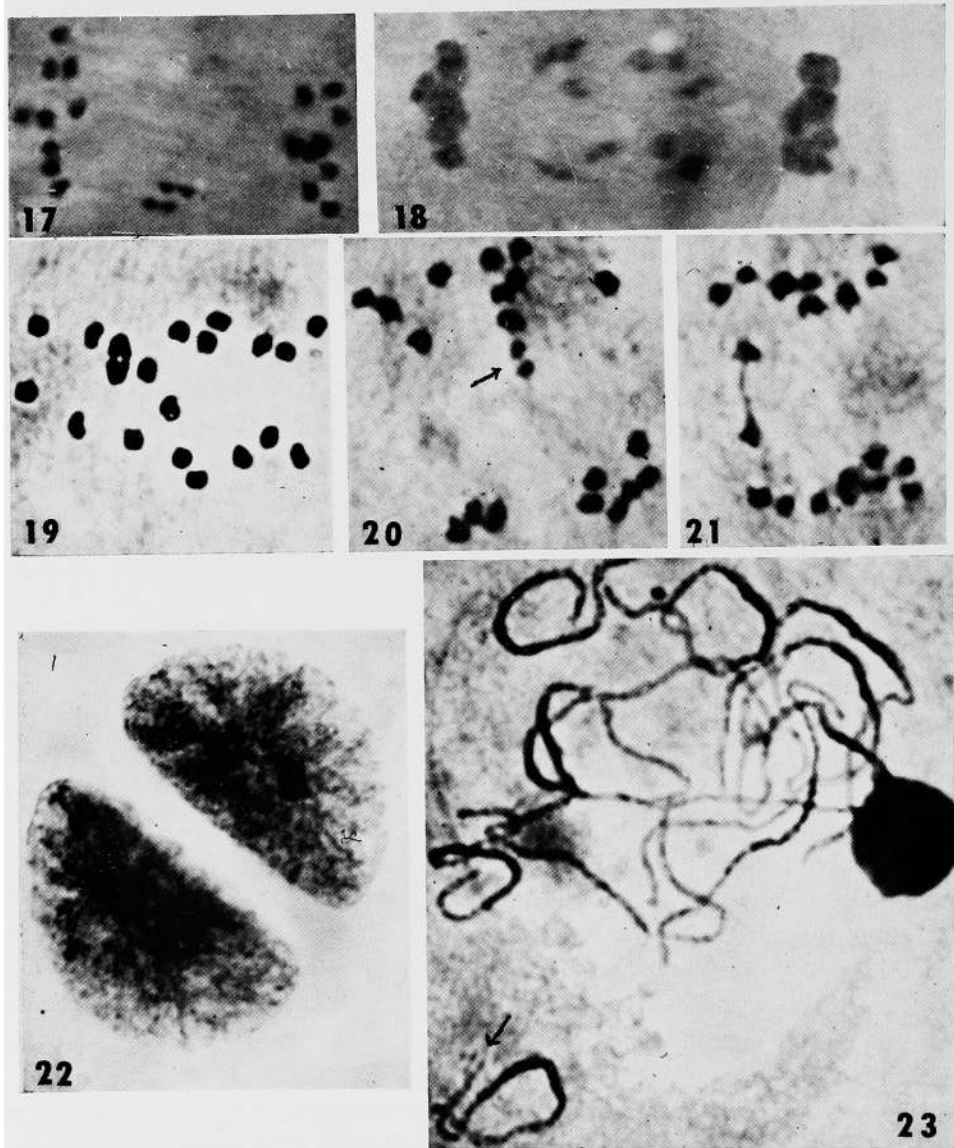


Figs. 6-16. 6, *S. verticilliflorum* × *S. vulgare*. Pachytene bivalent showing duplication loop (↑). ×3,125. 7, *S. saccharatum* × *S. nervosum*. Pachytene bivalent showing terminal non-pairing region (↑). ×2,375. 8, *S. saccharatum* × *S. nervosum*. Pachytene bivalent showing terminal deletion (↑↑). ×2,188. 9, *S. sudanense* × *S. vulgare*. Pachytene stage showing non-pairing regions (↑) and terminal deletion (↑↑). ×2,125. 10, M. S. Kafir × *S. nitens*. Pachytene bivalents showing non-pairing regions (see also loops in one bivalent). ×2,275.





*dinaceum* and its reciprocal and *S. saccharatum* × *S. nervosum*. In addition to normal tetrads, dyads were also occasionally observed in *S. basutorum* ×



Figs. 17-23. 17, *S. sudanense* × *S. vulgare*. Anaphase I with laggards. ×1,500. 18, *S. saccharatum* × *S. nervosum*. Anaphase I with lagging chromosomes. ×1,688. 19, *S. basutorum* × *S. arundinaceum*. Anaphase I showing non-disjunction of a bivalent. ×1,688. 20, M. S. Kafir × *S. nitens*. Anaphase I showing unequal distribution of chromosomes (11/9) and division of univalent chromosome (↑). ×1,813. 21, *S. verticilliflorum* × *S. vulgare*. Anaphase I showing chromatin bridge ×1,438. 22, *S. basutorum* × *S. arundinaceum*. Dyad formation. ×1,438. 23, *S. Roxburghii* × *S. saccharatum*. Pachytene stage showing terminal non-pairing region in one bivalent (↑). ×1,625.

*S. arundinaceum* and its reciprocal (Fig. 22). Micronuclei ranging from 2-3 were also present at this stage. About 20-40% of pollen sterility was













