

The anatomy of a stalk of annual runaway *Populus nervirubens* Alb was studied. Specific features of anatomy of a core, ксилемы and флоэмы a poplar are established. It is revealed two types of cages in the centre of a core and variety of cages in a zone adjoining with xylem. Sieve elements phloem have a kernel. Presence of cytoplasm, kernels and a time of a cellular wall in phloem fibres and sklereid is noted. Fibres settle down groups with various number of separate fibres in groups. Between fibres presence intercellular space is revealed. A time of multilayered cellular walls of fibres is located under a different corner to their longitudinal axis. The type and the size of a time is inherent in separately taken fibre. Cellular walls sclereids differ strongly pronounced lamination. Near to phloem fibres and sclereids cages crystalline parenchyma, as a rule, are located. A variety of the sizes and forms differ also cages a cow паренхимы - from spherical to rectangular, from parenchymal to prozenhimny, with very considerable intercellular space between them. Phellem it is presented by 4–5 numbers of cages.